Stockton University

Safety Manual

Revised 3-26-15

1.0 Introduction

This Safety Manual applies to the Work performed on any Project as defined by the Contract Documents. All Contractors shall comply, and require all subcontractors to comply, with this Safety Manual. Non-compliance shall be construed as a breach of Contract, which could subject the Contractor to damages, default, termination of Contract, withholding of progress payments, or any other Contract remedy. If the Owner fails to take action for any non-compliance by a Contractor, it will not be considered a waiver of the Owner's right to act for any subsequent breach of Contract. Nothing shall be construed to limit the rights of the Owner to act at law or in equity.

This Safety Manual is intended to establish uniform policies and procedures for all Contractors and their subcontractors, with the goal of reducing accident frequency and severity. These policies and procedures include, but are not limited to, the following:

- It is the responsibility of the Contractor to maintain total control of safety to ensure that its employees, its subcontractors, owner occupants, and the general public will be provided an environment free of recognized hazards during construction and renovation activities.

- The safety requirements of this Safety Manual are a supplementary document to all government rules, codes, and regulations. It is understood that the ultimate responsibility for providing a safe place to work rests with the Contractor.

- The Contractor shall conform to the requirements addressed in the Occupational Safety and Health Act of 1970 ("OSHA") and all additions and revisions thereto, and this Safety Manual. **This Safety Manual shall be the governing document related to safety issues to which Contractors and all subcontractors shall conform, unless more detailed or stringent requirements are included in the Site-Specific Health and Safety Plan.**

- Prior to the start of the Work, the Contractor shall provide a Site-Specific Health and Safety Plan to the owner Project Representative and/or the CM in a timely manner so that the plan can be reviewed by the owner and/or CM no less than fourteen (14) calendar days prior to any work beginning on the job site. The Contractor shall obtain a copy of each subcontractor's job safety analysis and provide copies to the CM. The Contractor shall require that all subcontractors of any tier comply with the site-specific plans provided by the Contractor and subcontractor, and this Safety Manual.

- The Contractor shall assume all costs related to, but not limited to, personal protective equipment, all training requirements, and all requirements of this Safety Manual.

- Failure to include the cost of complying with these safety measures in a bid will not relieve the Contractor from the obligation to implement the requirements in this Safety Manual.

- Whenever the Contractor or any subcontractor has knowledge of, or is notified of, an unsafe act or unsafe condition, it shall immediately take steps to correct the unsafe act or unsafe condition.

- If the Contractor or any subcontractor refuses to correct an unsafe act or unsafe condition, the

Owner's Project Representative is authorized to stop that portion of the Work until the Work can continue in accordance with the requirements of this Safety Manual. The cost to bring the Work activity into compliance shall be the responsibility of the Contractor and at no time shall the costs be borne by the Owner. In addition, a tradesperson may be required to be retrained before returning to work

- Violations of OSHA, US EPA, and various New Jersey agencies can result in the issuance of fines by these organizations. The Contractor shall be responsible for any such fines.

- It is agreed and understood by the Contractor that this Safety Manual is an integral part of the Contract Documents and the Contractor shall incorporate its terms in all of its subcontracts and require its inclusion in subcontracts of all tiers.

- After reading this Safety Manual, the Contractor is required to send to the Owner's Project Representative and CM a copy of its Project Safety Program and prior to starting any work.

- The Construction Manager shall review the safety programs developed by each of the Contractors. The Construction Manager's responsibilities for safety programs shall not extend to direct control over or charge of the acts or omissions of the Contractors, Subcontractors, agents or employees of the Contractors or Subcontractors, or any other persons performing portions of the Work and not directly employed by the Construction Manager. The General Contractor shall have sole responsibility for the safe performance at the construction site and all workers associated with the construction of this project.

- Contractor's Safety Program: The Construction Manager shall review each safety program to determine that the programs of the various Contractor performing work at the site, as submitted, provide for coordination among the Contractors of their respective programs. The Construction Manager shall not be responsible for any Contractor's implementation of or compliance with its safety programs, or for initiating, maintaining, monitoring, or supervising the implementation of such program or the procedures and precautions associated therewith, or for the coordination of any of the above with the other Contractors performing the Work at the site. The Construction Manager shall not be responsible for the adequacy or completeness of any Contractor's safety programs, procedures or precautions.

- The Construction Manager shall inspect the site for safety conditions. The CM will notify Contractor(s) that they should implement appropriate measures, if unsafe conditions are observed. The CM shall report to the University, as part of each monthly report, any safety violations and actions taken to protect the safety of persons and property engaged in the work. The CM shall act on behalf of the University in a manner which preserves the Contractor(s) sole responsibility for the site and personnel safety.

1.1 Definitions

- **Client / Owner**

Means Stockton University, (SU) in which the Projects are located.

- **Contractor/General Contractor ("GC")**

Means a person or firm engaged by SU to undertake Construction Work.

- **Construction Work or Work**

Means the services performed by a Contractor or any Subcontractor on the Projects, whether completed or partially completed and includes all other labor, materials, equipment and services provided or to be provided to fulfill such obligations.

- **"near miss" incident**

Means an undesired event that, under slightly different circumstances, could result in personal harm or property damage. These "near miss" incidents shall be reported to the Client's Safety Department or Risk Management Unit (RMU) and CM within 24 hours.

- **Client/Owner Safety Coordinator**

A staff person assigned to oversee the safety and health issues on behalf of the SU.

- **OSHA**

Occupational Safety and Health Administration that administers the Occupational Safety and Health Act of 1970.

- **Construction Manager (CM)**

Means the firm engaged by the SU to provide overall construction management services, oversight, and reporting in connection with the Projects undertaken by SU.

- **SU - Project Representative(s)**

Means an SU staff person(s) assigned to oversee the Project on behalf of Stockton University.

- **Subcontractor**

Means the Contractor to whom a Contractor or other Subcontractor subcontracts part of the Construction Work for which such Contractor or other Subcontractor is responsible.

- **Subconsultant**

Means the Professional Services Consultant providing services directly, or indirectly, to the Owner, Architect, Engineers, or CM.

2.0 Safety Policy Statement

2.1 Objectives

- To minimize accidents and injuries to Contractor and all subcontractor personnel, client/owner occupants, and members of the public.

- To minimize any damage to the property of the client, the environment, or adjoining property owners and others during the construction process.

2.2 Policy Statement

The safety of persons and property is of paramount importance to SU. This Safety Manual is provided to assist in establishing effective safety programs as an integral part of the overall success of the Project(s).

The Contractor shall comply, and require all subcontractors to comply, with this Safety Manual, as well as OSHA requirements and all additions and revisions thereto, as well as other applicable federal, State, and local requirements.

The Contractor's on-site supervisory personnel are responsible for maintaining safe and healthy working conditions and for strictly enforcing all safety and health policies and regulations. All Contractor and subcontractor employees shall comply with these rules and regulations.

The Contractor hereby acknowledges that the Work on SU Project(s) property is granted by permission of SU, the Client. The Contractor acknowledges that the Work may be occurring in a learning environment and hereby agrees its on-site operations, and the on-site operations of its subcontractors, will not impact nor impede the learning environment. Further, the Contractor agrees, without condition or reservation, that **there shall be no fraternization between the Contractor's employees, or any subcontractor's employees, and any students**. Failure to comply with this provision by a Contractor's or subcontractor's employee(s) shall result in a request by SU that the employee(s) immediately be removed from the Project Site. There shall be ZERO TOLERANCE and the Contractor shall have no recourse in the event SU or its authorized representative enacts this provision.

3.0 Responsibilities

SU will hold the Contractor responsible for the implementation of the safety, health, and environmental requirements of this Safety Manual for the Work, whether done by its own employees or by subcontractors.

The Contractor and each subcontractor shall implement effective safety and risk control programs. The prevention of accidents and protection of property shall receive SU and management's top priority, support, and participation.

3.1 General Overview

The Contractor and all subcontractors shall:

- Agree to participate in and abide by the Owner's Safety Program and OSHA Safety Regulations. If there is ever a discrepancy between the two plans the more stringent requirement will be required.
- Use safety planning (Job Safety Analysis) as a tool to reduce injury to persons and property.
- Conduct daily inspections to locate and abate unsafe conditions and practices before they result in bodily injury or property loss.
- Provide site-specific plans/job safety analysis to the Contractor, which are to be maintained by the Contractor at the Project Site.
- Establish and/or maintain a site perimeter with a minimum eight (8) foot high chain link fence with appropriately placed, securable ingress and egress. Consideration for debris netting

shall be made. Green fabric shall be installed to cover the full eight (8) foot high chain link fence.

- Establish Green Zones (safe) and Red Zones (unsafe) for all non-construction traffic.
- Protect the occupants, public, and property adjacent to the Project Site, as well as the environment.
- Keep all sidewalks; entrances to buildings, lobbies, corridors, aisles, doors, or exits that remain in use by SU or the public clear of obstructions. The Fire Marshal or AHJ (Authority Holding Jurisdiction) shall approve all exits, temporary or permanent.
- Provide first-aid kits in accordance with OSHA standards (29 CFR 1926.50).
- Implement a site-wide 100% six (6) foot fall protection policy. This shall include all types of scaffolding and steel erection.
- Signs. The General Contractor and Subcontractors shall obey the directives of all project signs. General Contractor shall post signs and other warnings, as necessary for the safe performance and completion of Contractor's work.
- The Contractor shall be responsible, and shall require each subcontractor to be responsible, for the safety and health of their own employees, regardless of who created the hazard.

3.2 General Contractor Safety Coordinator

The General Contractor shall designate an employee as a Safety Coordinator who has, at a minimum, completed a 30-Hour OSHA Construction Industry Outreach Training Program to assume the roles and responsibilities as outlined in the Safety Manual. The client/owner reserves the right to require the General Contractor to provide a full-time Safety Coordinator at any time at the General Contractor's expense, if safety issues persist

.A General Contractor Safety Coordinator is an individual with duties related to the safety of the Contractor's employees as well as the safety of all subcontractors working under the Contractor. This individual shall have the authority to initiate corrective actions for needed safety improvements. Below are the requirements for the General Contractor Safety Coordinator:

- The General Contractor Safety Coordinator is required to have completed the 30-Hour OSHA Construction Industry Outreach Training Program. He/she is also required to have completed scaffold training and have knowledge of, and experience in, the construction industry. When the client/owner requires that the General Contractor's Safety Coordinator is full-time, the General Contractor Safety Coordinator is prohibited from performing other duties on the project site.

The Contractor shall provide a resume of the qualifications of the assigned General Contractor Safety

Coordinator to the client/owner Safety Coordinator and CM no later than fourteen (14) calendar days prior to work being initiated at the job site. The Client/Owner and/or CM has the authority to approve or disapprove of the Contractor's assigned General Contractor Safety Coordinator. The General Contractor Safety Coordinator must be in place prior to the Contractor beginning work on the Project Site and must remain on-site until the work is completed.

Changes to existing General Contractor Safety Coordinators, shall also be submitted to the Client/Owner and/or CM and be approved prior to the person assuming the position.

3.3 General Contractor Safety Coordinator Responsibilities

The General Contractor Safety Coordinator shall be responsible for:

- Promoting total job safety with all employees and visitors.
- Administration, implementation, and execution of this Safety Manual and
- OSHA Construction Regulations on the Project Site in cooperation with representatives from the CM, and the SU - Risk Management Unit (RMU).
- Continuously monitor and ensure contractors and subcontractors adherence to safety requirements.
- Performing accident investigations.
- Providing safety orientation and ensuring that all Contractor and subcontractor employees attend Safety Orientation and Trade Training (see Section 4.1 Safety Orientation Training and Section 4.7 Required Training by Trades).
- Ensure that stickers are displayed on hard hats, indicating attendance at safety orientation.
- Ensuring the proper use and care of personal protective equipment by all employees.
- Making daily safety inspection.
- Making, at a minimum, weekly documented safety inspections and initiating appropriate corrective actions to rectify safety deficiencies.
- Developing site specific Emergency Action Plan, review monthly for changes, and modifying the plan as conditions on the site changes. Issue to all subcontractors, CM, and SU and conduct additional training / orientation as needed.
- Maintaining the GC first-aid kit and monitoring subcontractors' first-aid kits.
- Ensuring site access control measures are implemented.
- Cooperate fully with SU Project Representative and CM Management team.

3.4 Subcontractor Competent Person

The Contractor shall require each subcontractor to have a Subcontractor Competent Person to plan for and oversee safety regardless of the number of trade employees on-site. This Subcontractor Competent Person is required to have completed an OSHA 10-Hour course for construction safety and shall meet the definition of a competent person as defined by this Safety Manual and OSHA standards (29 CFR 1926.32).

The Subcontractor Competent Person shall:

- Use pre-task planning, instructing workers on safe work practices and methods to prevent injury, damage to property, and loss of productive time.
- Ensure that stickers are displayed on hard hats, indicating attendance at safety orientation.
- Supply and enforce the use of personal protective equipment. A sign that states, "Hard hats, safety glasses, and proper work shoes are required beyond this point" is to be clearly posted at each construction site entrance.
- Orient workers with the safety requirements applicable to their work. This is in addition to the required safety orientation training (described in Section 4.1 Safety Orientation Training and Section 4.7 Required Training by Trades).
- Hold weekly "toolbox" safety meetings with his/her work crews. Documentation of these meetings is required and must include topics and content as well as a list of attendees. Documentation of these meetings must be sent to, and maintained by, the CM. These meetings are to be held Monday through Friday.
- Conduct daily safety inspections of his/her work area.
- Assist in accident investigations.
- Assure that proper first-aid equipment is available according to the Work being performed and ensure that treatment is administered to injured employees.

3.5 Communications Responsibility

Although many existing hazards may be corrected through informal communications, all corrective actions must be documented, with copies forwarded to the Contractor, if the condition is identified by a subcontractor, then to the CM and Owner/Client.

3.6 Safety Responsibility Matrix

Please see the following page for the Safety Responsibility Matrix.

SAFETY RESPONSIBILITY MATRIX

	SU	CM	GC	Subcontractors	A/E
Site-Specific Health & Safety Plan - Development & Approval	A	X	■M		
Develop Master Emergency Action Plan	X	X	■M	X	
Job Safety Analysis (i.e.; Critical Lift, Welding) - Development & Approval	X	X	A ■	■ X	
Safety Orientation	X	X	■M	■	
Tool Box Training	X	X	X ■	X	
Maintain all Safety Training Records	X	X	■M	X	
Site Safety Inspections	X	X	■M		
Daily Safety Inspections & Record Keeping	X	X	■M	X	
Periodic Inspections Reporting & Record Keeping	X	X	■M	X	
Remedy Safety Violations/Re-inspect	X	X	■M	■	
Accident Investigations	X	X	■M	X	
Maintain Material Safety Data Sheets (MSDS)	X	X	■M	■	
Shut Down Portions of Work	*	X	X	X	
Shut Down Entire Job	A*	X	X	X	
Provide Student/Faculty Safety Orientation	XM	■			
Project Safety Meetings	XM	X	■	X	

Legend	Lead ■	Review / Comment / or Assist X	Approve A	Monitor M	
	* - Shutting Down Portions of Work may be performed individually by the Client/Owner's Project Manager, CM Authorized Representative, Director of Facilities Planning and Construction, or Executive Director of Facilities Planning and Plant Manager.				
	A*- Shutting Down the Entire Job may be done by the Client/Owner (with approval of the Director of Facilities Planning and Construction or Executive Director of Facilities Planning and Plant Manager, or, in his absence, his designated Project Manager.				

4.0 Safety-Related Meetings and Training

The following meetings and training will be required on the Project(s). The General Contractor must maintain documentation of the meeting, content, and attendance.

4.1 Safety Orientation Training

- All new employees assigned to the Project shall be properly trained. This training shall include, (but not be limited to) hazard recognition, site-specific health and safety requirements, emergency procedures, Personal Protective Equipment (PPE), and first-aid/medical procedures.
- This safety orientation must occur before beginning the Work at the Project Site. The Contractor's Safety Coordinator will conduct the safety orientation training. The Contractor is responsible for ensuring that all site personnel attend these meetings. Individuals completing this safety orientation training will be provided with a hardhat sticker, which must be displayed.
- The Contractor shall provide safety training for all project personnel in regard to the specific safety requirements and rules related to his/her Work and Trade (see Section 4.7 Required Trade Training).

4.2 Toolbox Safety Meetings

The Contractor and each subcontractor shall conduct weekly toolbox safety meetings on Mondays through Fridays with all of their employees performing Work at the Project Site. The General Contractor Safety Coordinator and/or the Subcontractor Competent Person shall conduct this training.

The meetings shall cover any hazardous work conditions, unsafe work practices that have been identified, safe working practices, analysis of any accidents that have occurred on the Project Site, safety rules and regulations, and any related safety material.

- This training shall be documented on a Toolbox Training Form by the Contractor and shall include names of employees attending the training and an outline of all topics discussed.

4.3 Progress / Coordination Meetings

The intention of these meetings is to discuss the progress and coordination of the Work being performed by various trades so that they may work together to complete the Project in a timely and safe manner. The CM is responsible for scheduling, chairing, and reporting minutes from weekly progress meetings. Safety shall be a part of the agenda of the Progress Coordination Meetings, since verbal reports of the various safety representatives will become part of the meeting minutes. Minutes from the meeting shall reflect safety items discussed and any proposed resolution to safety-related issues.

4.4 Weekly Safety Meeting

The GC is responsible for scheduling, chairing, and reporting minutes. Attendance at this meeting shall be mandatory for the General Contractor Safety Coordinator(s) and all Subcontractor Competent Persons. The purpose of this meeting shall be to discuss any hazardous working conditions that have been observed, identify possible hazards in future work, and discuss all other

health and safety issues pertaining to the Project. The CM shall be invited to attend and provide any safety observations and recommendations for correction.

4.5 Pre-Shift Hazard Recognition Training

- Every Contractor/subcontractor shall be required to hold pre-shift hazard recognition training with each work crew working when the following conditions are planned for a shift:
  - Any walking/working surface that is at an elevation of six feet or greater will require 100% fall protection.
  - Scaffold erection and dismantling.
  - Crane and all material-hoisting operations.
  - Non-routine work operations, e.g., emergency procedures.
  - Any other potentially hazardous activities that pose an abnormal risk of injury to employees as identified by SU, its authorized representatives, and the CM.

4.6 Management Commitment Workshops

Commitment workshops will be held at the Project Site in order to orient management members of the General Contractor's workforce. The General Contractor and his Subcontractors will be required to have, at a minimum, owner or senior executive, project manager, lead superintendent, foreman, and safety representative in attendance.

4.7 Required Training by Trades

It shall be the General Contractor's responsibility to ensure that all personnel entering the project sites have adequate safety training applicable to their particular trade.

- **Operating Engineers**
  - Copies of the New Jersey Department of Labor Crane Operator License or Certification from the National Commission for the Certification of Crane Operations (NCCCO) will be shown to the CM and the General Contractor**.**
- **Toolbox Safety Meetings**
  - Tool Box Safety Meetings will be conducted Mondays through Fridays as per A.2.

5.0 Project Compliance Procedures

The Safety Manual is designed to ensure compliance with the requirements of OSHA and all additions and revisions thereto, as well as other applicable federal, State, and local requirements,

this Safety Manual, and site-specific manuals. Workers performing the Work in an unsafe manner that would endanger the employee, other workers, occupants, or the public will be subject to discipline or removal from the site at the request of the SU and/or CM.

The Client/Owner and/or CM, in conjunction with the General Contractor Safety Coordinator, shall determine the course of action best suited to the circumstances. The steps to be taken shall be progressive, except in the most egregious circumstances, and shall include the following:

5.1 Verbal Warning Citation

As the first step in correcting unacceptable behavior, the worker's competent person/ safety coordinator shall review the pertinent facts with the employee. He/she will consider the severity of the problem and the worker's past performance. A verbal warning shall be issued to the worker, which shall be documented and placed in the appropriate file on site, with a copy forwarded to the CM and the SU Project Representative.

5.2 Written Warning Citation

If the unacceptable performance continues, the next step will be a written warning. The written warning shall clearly state the safety policy that was violated and steps the worker must take if it is to be corrected. A written warning requires the General Contractor Safety Coordinator to assure that the worker has satisfactorily completed an appropriate training session related to the safety policy violated. This training must be completed within ten (10) working days from issuance of the written warning. Documentation, with copies forwarded to the Contractor, the CM, and the SU Project Representative, is to be maintained in the worker's personnel file. The General Contractor will monitor completion of the worker's retraining.

5.3 Removal from Site

The SU may request that a worker be removed from a Project Site for safety violations, whether or not verbal and/or written citations have been given.

5.4 Safety Violations

- When the GC is notified of a safety violation by the SU Project Representative or CM, the General Contractor shall stop the work and take immediate corrective action to assess the task being performed. The task will not be resumed until all affected employees have reviewed changes to the task JSA and signed-off the new document.

- In the event that the GC causes any unsafe conditions to occur which cause delay or damage to the project, the GC shall be fully responsible for all damages or related costs. The GC shall indemnify and hold harmless the Construction Manager, Owner, and A/E for such damages and related costs.

- In the event the GC fails to respond to and correct any safety violation immediately upon notification, the Construction Manager and SU reserves the right to take whatever corrective actions are deemed necessary, and the cost of such actions shall be charged to the GC.

- The CM and SU are authorized to issue violation notices including monetary penalties of:

    1. $200 for first violation

    2. $500 for second violation

    3. $1,000 for third violation

  Such amounts will be deducted from the General Contractor contract amount via change order and $ amounts will be placed in a "Safety Incentive Program". The money will be used toward the project as safety awards, acknowledgements, gifts, etc. to incentivize the labor force to conduct their jobs safely and to promote safety awareness on the project.

- GC employees that do not adhere to the site safety rules will either receive a verbal or written safety citation. The level of the citation will depend on the severity of the violation. Citations and violations may be issued with monetary penalties as described above.

- Verbal warnings are for any minor issue that, by itself, would not produce either immediate major injury or death. (Example: not wearing work gloves).

- The SU has the right to remove worker, foremen, and/or supervisors who consistently continue to ignore safety concerns and/or continue to violate safety rules and regulations. At the SU option, zero tolerance violations will result in immediate removal of the violating worker from the site.

- The SU has a zero tolerance policy for all of the following: Fall Protection, Confined Space, Lockout/Tagout, Hot Work Permits, Firearms, Drugs and Alcohol, Smoking, Cameras, Work Place Violence and Harassment.

- Zero violations will be considered for:

    1. Fall Protection, Confined Space, Lockout/Tagout and Hot Work Violations will result in an immediate stoppage of the work, reorientation and retraining before the employee/ employee's involved can return to work.

    2. Work Place Violence, Harassment, Firearms, Drugs, Alcohol and Camera violations may result in being banned from the project site, permanently.

6.0 Record-Keeping and Files

The CM shall maintain a master or central file for safety and health related documentation on the Project Site. Files shall be maintained in such a manner that distinguishes the Contractor and each subcontractor. Should a project be of such size that the CM is not onsite, the Contractor shall maintain the files and provide a copy to the CM and, upon request, the SU Project Representative.

The SU and its designated representatives shall have the right to review all documentation at any time upon request. If applicable, the Contractor shall give full cooperation, and require the full cooperation of all subcontractors, during these reviews.

The following documentation shall be in the CM's safety files, unless otherwise noted:

- Written site-specific safety and health plans for the Contractor and all subcontractors.
- Hazard communication program, including current Material Safety Data Sheets (MSDS). A Project site-specific MSDS file shall be maintained on-site by the CM for employee review. The Contractor must submit, and require each subcontractor to submit, a copy of the MSDSs for those compounds to be used on-site at the Project. This submission should include only those compounds to be used on-site, not a compendium of all MSDSs for the entire company. All MSDS sheets shall be on file prior to those compounds being allowed on-site.
- Contractor and subcontractor daily job site safety inspection reports, including documentation of corrective measures.
- Documentation of weekly "toolbox" safety meetings, including names of employees attending the training and an outline of all topics discussed.
- Accident investigation reports, including "near-miss" incidents.
- Competent person qualifications and identification.
- OSHA Forms 300, and 300a.
- Job Hazard Analysis (JHA) / Job Safety Analysis (JSA).
- Copies of weekly safety inspection reports.
- Progress/Coordination meeting minutes.
- All documentation required by other sections of this Safety Manual.

7.0 Job Site Inspections

7.1 Inspections

The Contractor shall require each Subcontractor Competent Person to conduct daily safety and health inspections for the Work in his/her respective area of the Project Site. Documentation of all identified deficiencies and corrective actions taken shall be maintained by the Contractor for review by the CM, SU Project Representative, and the SU Risk Management Unit (RMU). If requested by CM, the GC shall provide copies of daily safety reports to CM and SU.

An essential part of isolating the construction process from SU occupants will be the perimeter

protection or fence. It is imperative that perimeter fencing be inspected daily (including weekends and holidays) for defects, for damage, and for areas of the fence that could be compromised so persons could gain access. Repairs must be immediate. No exceptions. Additionally, Green Zones (safe) and Red Zones (unsafe) will be defined and clearly marked for all non-construction traffic. The Contractor has the responsibility to protect the SU occupants and the public from the hazards associated with construction, regardless of how difficult it may be.

7.2 Corrective Measures

Corrective measures to abate all deficiencies shall be completed immediately if life-threatening/serious conditions exist or no later than the end of the working shift for non-life threatening/serious conditions. All Work shall be stopped, or effective interim safeguarding implemented, until life-threatening conditions are corrected. All corrective measures shall be documented and available for review by the CM and the SU Project Representative.

If a deficiency cannot be abated immediately, a notice shall be provided to the CM, outlining the reasons and steps taken as an interim measure to control the potential hazard.

7.3 Non-Abatement

If the Contractor or any subcontractor fails to make corrections to identified deficiencies in a timely manner, the CM will:

- Notify the Contractor and appropriate subcontractor in writing to take prompt corrective action to eliminate construction safety and health hazards.
- Reinforce that any costs incurred to correct the hazard will be back-charged to the Contractor.
- Provide written notification that will describe specific Contract or code violations.
- Report in writing to the Contractor/subcontractor the names of individuals and their supervisors who are observed to violate construction safety requirements, with copies to the SU. If necessary, the SU may require the Contractor to remove these individuals and/or their supervisors from the job site.

7.4 Work Stoppage

The SU has authorized the following staff to order, at the Contractor's expense, a work stoppage until unsafe conditions are abated.

- Shutting Down Portions of Work may be performed individually by the SU Project Representative CM Authorized Representative, Director of Design and Construction. The SU Risk Management Unit (RMU) in consultation with SU Project Representative or the CM.
- Shutting Down the Entire Job may be done by the SU Project Representative (with approval of Director of Design & Construction).

8.0 Substance Abuse Program

8.1 Substance Abuse

It is the policy of the SU that all construction sites be drug and alcohol free. All employees of any contractor working at the job site shall refrain from the illegal use, possession, sale or distribution of drugs. All employees of any contractor working at the job site shall refrain from all use, possession, sale or distribution of alcoholic beverages at the job site, and shall also refrain from the use of alcoholic beverages outside the job site if such use in any way impairs their ability to work. The SU may require that the contractor remove from the job site any employee who violates this policy and the contractor shall remove any employee from the job site if requested by the SU or CM.

9.0 Accident / Injury Management

9.1 Accident Reporting

All accidents resulting in employee injury, property damage, or involving the public shall be reported by the injured/responsible worker's Subcontractor Competent Person (if a subcontractor employee) or by the General Contractor Safety Coordinator (if a Contractor employee) immediately to the SU Project Representative and the CM.

It is the Contractor's responsibility to ensure that related reports are electronically transmitted to the SU Project Representative, the SU Risk Management Unit (RMU), and the CM, describing the occurrence, how the injured was (were) treated on-site or at the designated medical facility, and any follow-up treatment necessary for the worker(s) involved.

- For a **minor incident**, when the worker(s) was treated on-site, the report must be filed within twenty-four (24) hours.

- For a **major incident**, when the worker(s) was taken to the designated medical facility, the SU Project Representative, the SU Risk Management Unit (RMU), and the CM must be contacted immediately by telephone.

9.2 Principal's Meeting for Lost-Time Accidents

If a Contractor or subcontractor employee experiences or causes a lost-time accident on the Project, the CM, SU Project Representative, and the SU Risk Management Unit (RMU), the GC and/or subcontractor (if any), or designee shall attend a meeting at the job site to discuss the incident. This meeting will be called by the CM and will be held within seventy-two (72) hours from the time of the incident.

9.3 Accident Investigation

- The General Contractor Safety Coordinator shall complete a Project-specific accident investigation report

The Contractor shall cooperate, and require the cooperation of all subcontractors, in the investigation, analysis, and defense of any claim, accident, occurrence, or insured loss. The

accident investigation report shall be completed by the end of the working day/shift of the accident. Identification and review of accident causes shall be established and completed, identifying corrective actions, persons responsible for corrective actions, and date of completion. Follow-up documentation verifying corrective actions shall be required.

Copies of all accident investigation documentation shall be submitted to the CM, SU Project Representative, and the SU Risk Management Unit (RMU). If required by law, injury notification to OSHA shall be made by the GC, which shall then also notify the CM, SU Project Representative, and the SU Risk Management Unit (RMU) or designee immediately.

9.4 Report of Accidents Involving Occupants

The Contractor shall make reporting of any incidents, accidents, or injuries involving students, staff, or the general public, immediately to the CM and the SU Project Representative, and the SU Risk Management Unit (RMU). A thorough written investigation of any incident or accident must be completed by the end of the working day/shift of the accident by the Contractor with a copy to the CM, SU Project Representative and the SU Risk Management Unit (RMU) or designee.

9.5 Report of Builder's Risk Claim and/or Incident

The Contractor to the CM, SU Project Representative and the SU Risk Management Unit (RMU) or designee shall report any potential Builder's Risk claim or incident immediately.

9.6 Accident Analysis

To identify root causes of accidents and at-risk behavior that directly contributed to an accident, or that have the potential to contribute to an accident, The General Contractor Safety Coordinator shall be required, at the discretion of the SU Project Representative, to meet and analyze accidents. Accident trends shall be identified and plans developed to prevent injury, to develop specific action plan to address root causes and at-risk behaviors, and to implement corrective actions.

10.0 Project Safety and Health Minimum Requirements

The minimum Safety and Health requirements are those contained in OSHA Construction Safety Standards (29 CFR 1926) as well as any other applicable federal, State, municipal, or collective bargaining agreement. The Project Safety Manual includes compliance with all applicable standards as well as those itemized below which exceed OSHA standards. **For any Contractor or subcontractor that has been granted exemptions or variances for specific OSHA regulations and/or standards, these exemptions or variances DO NOT APPLY to this Project, unless specifically approved by the *SU Project Representative*.**

Subpart A—General

The requirements of 29CFR 1926.1 applies to all SU Construction Projects.

Subpart B—General Interpretations

The requirements of 29CFR 1926.10 applies to all SU Construction Projects.

Subpart C—General Safety and Health Provisions

- **C-1—Competent Person Requirements**

  A Competent Person is defined by OSHA standards (29 CFR 1926.32(f)).

  The Contractor shall provide the CM and the SU Project Representative with a matrix outlining employee(s) designated as a competent person(s). This matrix will be:

  - Submitted to the CM prior to commencing the Work on-site.
  - Supported by documentation of the credentials of each individual identified in this matrix, including training certificates, resumes outlining years of experience, competent person cards, etc.
  - Certified to the SU that the competent person will be on-site during all times when the Work under his/her competency is in progress.

  The Contractor shall also obtain the matrix described above from each subcontractor and maintain these matrices at the Project Site.

- **C-2—Job Hazard Analysis**

  - Prior to the start of the Work activities, the Contractor shall require each subcontractor to submit, in writing, a detailed Job Hazard Analysis ("JHA") of every task to be performed for each construction activity and as may be requested by the CM.
  - This analysis shall be ongoing and submitted for new tasks prior to the start of the Work activity.
  - Prior to the start of Work, the Subcontractor Competent Person shall be required to discuss the JHAs with individual work crews and shall provide documentation of these discussions to the Contractor.

- **C-3—Confined Spaces**

  - The SU Projects require implementation of OSHA standard (29 CFR 1910.146)-Permit Required Confined Space standard. The CM has the right, but not an obligation, to monitor the implementation of this procedure by the Contractor and individual subcontractors. The CM will have the Contractor sign the permit, which will be kept on-site by the CM.
  - The Contractor shall require each subcontractor to perform atmospheric testing prior to entering a confined space. <u>At a minimum, a four (4)-gas monitor (carbon dioxide, oxygen, lower explosive limit, and hydrogen sulfide) shall be used</u>.

- The Contractor is responsible for the costs of any PPE and rescue equipment for confined space entry.

- The GC shall provide all pumping and ventilation equipment required to accomplish and work within manholes or other confined spaces. Air monitoring, and all safety provisions shall be performed in strict conformance with OSHA requirements. GC personnel are to be air packed trained through their own training programs and GC is responsible to provide their own air packs. GC is required to provide all necessary entry - rescue equipment, tripod, full body harness, lifelines or equivalent, for all entries. GC is responsible to provide air monitoring during the entire time of entry. GC is responsible to provide documentation of training for all employees involved in confined space operations prior to performing the work.

- **C-4—Illumination**

  - If there is a need for additional general or specific task lighting, this lighting must be wired with NM Cable or its equivalent as determined by the National Electrical Code (NFPA-70).

  - The minimum illumination on a job site shall be ten foot-candles.

- **C-5—Emergency Action Plans**

  - The Contractor is responsible for developing an emergency action plan. This plan must be coordinated with the master emergency action plan developed and implemented by the SU.

  - The Contractor shall require each subcontractor to cooperate with the master emergency action plan, including participating in emergency drills as dictated by the CM and SU.

  - An emergency evacuation plan shall be part of the Emergency Action Plan. Minimally the plan shall contain means of egress, which shall be updated as the building progresses, identification of a "muster point" and the procedures for accounting for all workers.

Subpart D—Occupational Health and Environmental Controls

- **D-1—Hazard Communication**

  - The Contractor must submit, and require each subcontractor to submit, a copy of its written hazard communication program to the CM prior to beginning the Work on the Project Site. (This is in addition to maintaining a copy of its own and all subcontractors' programs at its own site trailer/field office.)

  - The Contractor must submit, and require each subcontractor to submit, to the

CM a copy of the MSDSs for those compounds to be used at the Project Site. This submission should include only those compounds to be used on-site, not a compendium of all MSDSs for the entire company. Again, no compound is allowed on-site without an MSDS on file.

- It is the Contractor's and each subcontractor's responsibility to train their personnel in accordance with the OSHA standards (29 CFR 1926.59).

- **D-2—Potable Water**

  - The Contractor and all subcontractors must supply adequate potable water whenever they have personnel on-site and follow OSHA standards for distribution (29 CFR 1926.51).

- **D-3—Sanitary Facilities**

  - The General Contractor shall comply with OSHA regulations with regards to sanitary facilities.

Subpart E—Personal Protective Equipment (PPE)

All workers and visitors to the Project Site shall be required to wear a hard hat, safety glasses, and proper footwear.

- **E-1—Eye and Face Protection**

  - All personnel shall wear safety glasses **100% of the time as soon as they enter the construction site.**

  - Minimum eye protection shall include approved safety glasses **with side shields**, which meet the standards specified in ANSI Z-87.1-1989. This shall also include prescription eyewear.

  - During the following operations, eye and face protection, in addition to approved safety glasses, are required:
    - Welding, burning, or cutting with torches.
    - Using abrasive wheels, chop saws, portable grinders, or files.
    - Chipping concrete, stone, or metal.
    - Drilling or working under dusty conditions.
    - Using explosive actuated fastening or nailing tools.
    - Overhead work.
    - Work with hazardous liquids or gases.

- **E-2—Head Protection**

  - All personnel shall wear hardhats that meet ANSI Z-89.1-1997, **100% of the time** as soon as they enter the construction site.

- **Hard hats shall display the Contractor's or subcontractor's name and/or decal indicating whom the employee works for, as well as the safety orientation sticker.**

- Workers exposed to electrical voltage of 600 volts or greater shall wear hardhats that meet the requirements of ANSI Z-89.1-1997 Class E & G type hardhats.

- **E-3—Hearing Protection**

  - Any construction personnel exposed to a noise level of eighty-five (85) decibels or higher, regardless of the duration of the activity being performed, shall wear hearing protection, which shall be supplied by the employer. All hearing protection devices shall meet the requirements of ANSI S.319.

- **E-4—Shoes and Foot Protection**

  - Well-constructed boots/shoes are required for all SU Projects. Specific requirements include ankle protection and substantial, flexible soles. Exposure hazards dictate whether or not a protective toe guard will be required.

  - Sneakers, tennis shoes, athletic shoes of any type, sandals, high heels, or street shoes **shall not** be worn by construction personnel while on a Project Site.

  - Visitors to the site shall be monitored for appropriate footwear.

- **E-5—Clothing**

  - Suitable clothing for construction shall be worn on the Project Site.

  - No tank tops, shorts, cut-offs, or ripped or torn clothing are allowed on the Project Site.

  - Shirts with sleeves, at least four (4) inches in length, shall be worn at all times. All shirts shall be hemmed at the neck, sleeve, and tail. "Muscle/tank top" type shirts are prohibited.

  - Full-length pants are required. Shorts and sweat pants are prohibited.

  - Polyester or similar material is not allowed.

  - Dangling jewelry may not be worn.

  - Long hair, which can be caught in moving equipment parts, must be restrained.

  - Frayed pants or clothes with holes pose fire or other hazards and are not allowed on job sites.

- **E-6—Safety Belts, Harnesses, Lifelines, Lanyards**

- Only full-body harnesses meeting ANSI Z359.1 shall be used for personal fall protection. **Safety belts are not legal.**

- Refer to Subpart M of this Manual for the fall protection requirements.

➢ **E-7—Hand Protection**

- Appropriate types of gloves or other methods of hand protection shall be used where required by the nature of the hazard.

➢ **E-8 —Respiratory Protection**

- The requirements of 29 CFR 1910.134 applies to all SU construction projects.

Subpart F—Fire Protection and Prevention

➢ **F-1—Open Burning**

- No open burning is allowed on SU Projects.

➢ **F-2—Hot Work Permit**

- The Contractor shall require that any subcontractor involved in hot work (including, but not limited to, welding and cutting) activities perform work under a hot work permit system in coordination with the CM. A fire watch is required to be equipped with a proper fire extinguisher and wear a reflective vest.

- See Subpart J on Page 27 of this manual for welding and cutting requirements.

Subpart G—Signs, Signals, and Barricades

➢ **G-1— Working in Occupied Buildings**

In order to protect the safety and health of the students and staff of SU, the General Contractor must include in their site-specific safety manual a section on protecting the occupants. Also, the tradespersons and construction activities must be separate. In addition, the contractor should have available a wet/dry vacuum cleaner and high velocity fans available for emergencies. These emergencies can include smoke or water penetration.

The General Contractor shall include, but not be limited to, considering the following areas in situations where construction is to take place in or adjacent to a facility that is occupied by students and/or staff:

- The CM, the General Contractor, and SU Project Representative shall meet to discuss scheduling and means to minimize any interruption to the educational process.

- Pre-construction testing and planning such that areas disturbed by renovation and demolition must be tested for lead and asbestos. If either is disturbed, plans and procedures must be made to protect the occupants.

If possible, the construction of a demising wall may be established between the construction areas and the educational or administrative spaces such that a satisfactory seal exists.

- Exterior separation of spaces outside of the building perimeters including total site control to minimize risk of unauthorized entry to associated areas.

- As required in another section of this manual, an eight-foot high chain-link fence shall be erected and/or maintained around construction activities.

- Coordination with facility staff to minimize construction air infiltration into the existing facility by way of the mechanical/HVAC system.

- Establishing means of egress and access into the occupied facility for students, faculty, and construction workers. This shall be established to meet the requirements of NJ Building Code, the local Fire Official, and the SU administration, including necessary security, lighting, and signage. Include fire and life safety drills as needed by building occupants.

- In situations where work is taking place inside of pre-existing building, all gates/doors into construction areas shall be locked at all times except when a worker/guard is in attendance to prevent unauthorized entry. All construction management and tradespersons shall sign-in when entering the construction area through a gate/door designated by the General Contractor with input from the CM and SU Project Representative. This will insure that all personnel are accounted for should an evacuation be required.

- As required in another section of this manual, the General Contractor shall purchase and distribute to all tradespersons who have completed the site-specific safety orientation identification badges.

- Contractor should take all necessary steps to minimize any occurrences of indoor air quality (IAQ) concerns throughout the construction project.

- On an as needed basis, testing of air quality should be performed as required by state fire code, no smoking is allowed on SU project sites.

- **G-2—Separation of Construction Area**

  - Clear separation between construction areas (Red Zones) and areas occupied by occupants (Green Zones) shall be present at all times.

- The Contractor or any subcontractor shall not be permitted to work within confines of the operating spaces without prior written approval from the CM and/or SU Project Representative. All requests shall be submitted in writing at least ten (10) working days prior to the date being requested. Written requests shall detail every aspect of the Work to be completed.

- The CM may restrict access to occupied areas to periods including, but not limited to, non-operation hours, weekends, holidays, and nights on a site-specific basis.

- It is the policy of the SU that construction shall work around education; education will not work around construction.

Subpart H—Materials Handling, Storage, Use, and Disposal

- Deliveries. The GC and Subcontractor shall direct all shipments and deliveries related to the Work to the designated gate for site access. Deliveries shall be properly marked and identified with the name of the project, project number, and Subcontractor's name. The GC, his Subcontractors, and their authorized representative will be required to sign for their deliveries. All delivery personnel shall adhere to the project minimum safety standards. Each GC and his Subcontractors shall provide Flagmen, where necessary. Large deliveries of equipment or materials, which will require road blockages or otherwise restrict access to the project site, shall be coordinated with the Construction Manager at least one (1) week in advance. Unloading large deliveries, which involve cranes or hoists, shall be performed in accordance with OSHA and the Project's Safety Program Procedures.

- Material Storage. Materials and equipment shall be properly stored in designated locations determined by the General Contractor after commencing within accordance with safe practices for stacking height, tie-off, and protection. Materials shall not be stacked or stored in any area unless prior authorization is received. All materials stored in the building shall be maintained in a neat and orderly fashion. All materials shall be stored off the floor on pallets, racks, scaffolds, etc. Materials designated for interior use must be protected from moisture at all times.

- Flammable/ Combustible Material. Bulk storage of all flammable or combustible materials shall be a minimum of fifty (50) feet from any building. No more than one (1) day's working supply of flammable or combustible materials shall be permitted in the building. Only UL/ FM approved containers and dispensing facilities shall be used.

  - **H-1—Disposal**

    - The Contractor and every subcontractor are responsible for disposal of their own construction debris and the proper action to keep areas around dumpsters clean.

  - **H-2—Unattended Tools & Equipment**

    - Tools and equipment shall not be left unattended while in areas occupied or accessed by SU occupants. Offending parties shall be escorted from the job site

and not allowed to re-enter until properly retrained.

Subpart I—Tools - Hand and Power

- **I-1—Portable Power Tools**

  - All portable power tools must be inspected as per OSHA standards (29 CFR 1926.300). Additionally, the Contractor shall require all subcontractors to institute the Project's tool inspection Manual as below:

    - Extension Cords used with portable tools must be of heavy-duty three-wire type and an inspection procedure for extension cords shall be implemented.

    - Flat extension cords are prohibited.

    - Damaged electrical cords will not be allowed. (Refer to Subpart K, paragraph K-3, of this Manual for general electrical cord and grounding requirements.)

    - Tools with defective electrical cords will be immediately taken out of service by an effective method. Cutting off the cord or applying a locked cover for the plug would be considered effective methods. Anyone observed using defective tools or extension cords shall be required to attend retraining.

- **I-2—Ground Fault Circuit Interrupter ("GFCI")**

  - The Contractor or subcontractor will maintain GFCIs on all generators or power supplies for which they are responsible.

  - Refer to Subpart K of this Manual for general electrical requirements.

Subpart J—Welding and Cutting

- **J-1—Hot Work Permit**

  - A Hot Work Permit is required at all times for any welding, brazen, and/or torch cutting.

  - Permit applications will be reviewed and approved by the GC as soon as possible, but approval may take as much as four (4) hours.

- **J-2—Fire Watch**

  - As part of the hot work permit procedure, a fire watch is required during the actual work as well as a final inspection of the site two (2) hours after the

completion of the hot work. A proper fire watch reflective vest and a proper-sized (minimum ten (10) pound ABC) fire extinguisher are required.

- **J-3—Welding & Cutting Equipment**
  - All welding and cutting equipment must be labeled with the owning Contractor or subcontractor's name.
  - Welding leads and cutting hoses shall be kept clear of walkways and stairways.
- **J-4—Cylinders**
  - Oxygen and acetylene cylinders shall be identified with the name of the Contractor or subcontractor on each.
  - Cylinders shall not be stored inside buildings.
  - Oxygen and acetylene tanks shall not be stored within twenty (20) feet of each other, unless separated by a ½-hour fire rated barrier.
  - Operation and use of oxygen and acetylene tanks shall be in accordance with OSHA Standards.
- **J-5—Disposal**
  - Spent welding rods shall be picked up and disposed of daily.

Subpart K—Electrical

- **K-1—Temporary Electrical Work**
  - All temporary electrical work shall be in accordance with the pertinent provisions of the National Electrical Code (NFPA-70) and local standards.
- **K-2—Ground Fault Circuit Interrupter ("GFCI")**
  - All 110-120 volt, single phase, 15 and 20 amp temporary power circuits (with the exception of temporary lighting) shall have ground GFCIs installed.
  - All portable generators shall have properly functioning GFCI outlets.
  - All portable generators shall be properly vented.
  - GFCI receptacles and circuit breakers shall be tested weekly with a multi-range GFCI tester (the tests shall be documented) to ensure the GFCI is properly functioning and protecting the worker.

- Contractor or subcontractors using the permanent electrical supply to the building must use portable GFCIs.

- **K-3—Extension Cords**

  - Extension cords used with portable tools must be of heavy-duty three (3) -wire type.

  - Flat extension cords are prohibited.

  - Damaged electrical cords will not be allowed.

  - All extension cords will be suspended seven (7) feet above the floor or working surface. Extension cords will not be fastened with staples, hung from nails, or suspended by non-insulating wire.

  - The Contractor is responsible for all cords being used at the Project Site.

- **K-4—Lockout / Tag-Out**

  - Electrical equipment or machinery shall be de-energized and rendered inoperative prior to work beginning on the equipment.

  - The electrical contractor shall be required to develop a site-specific LockOut/TagOut program for all site contractors to follow. **Lockout/tag-out shall be performed in accordance with OSHA standard (29 CFR 1910.147).**

  - The failure to follow lockout/tag-out procedures will result in immediate removal from the Project Site.

  - Unauthorized removal or tampering with locks or tags which are utilized, as part of a lockout/tag-out will result in the SU requiring immediate removal from the Project Site.

- **K-5—Circuits**

  - Circuits with voltages greater than 110-120 volts must be identified with the actual voltage, and higher voltages shall have “danger” or “warning” signs posted.

- **K-6—Conductive Material**

  - Fish tapes or lines made of metal or any other conductive material are prohibited. Non-conductive tapes and lines will be used in their place.

Subpart L—Scaffolds

Under certain conditions, the CM may require certification from professional engineers ("PEs") for the erection of scaffolding.

Free-standing scaffold towers used externally must not be higher to the top platform level than three times the minimum base dimension, unless secured to a permanent structure. For internal use only, the height to platform may rise to 3.5 times the minimum base dimension. Wheels must be locked when towers are in use. No person is permitted to remain on a tower platform while a tower is being moved.

- **L-1—Scaffolding Competent Person**
    - Prior to beginning any scaffold erection, the Contractor shall submit, and require its subcontractors to submit, the name and credentials of its scaffolding competent person to the CM.
- **L-2—Scaffold Inspection**
    - The Contractor shall maintain an approved scaffold inspection with a tag system on the scaffold with daily inspections and signatures of an OSHA-defined competent person.
- **L-3—Common Scaffolding**
    - Common scaffolding shared by subcontractors must be PE-designed and the actual installation inspected and approved by a PE, at the discretion of the CM. The PE must also review the design and inspect the scaffolding prior to its next intended use by a different subcontractor.
- **L-4—Outriggers**
    - Scaffolding with any dimension of forty-five (45) inches or more shall be equipped with outriggers.
- **L-5—Carpenter Bracket Scaffolds**
    - Carpenter bracket scaffolds over four (4) feet in height shall be protected by standard guardrails.
- **L-6—Guardrails**
    - All scaffolds, Baker-type, over four (4) feet in height, having a minimum horizontal dimension in either direction of forty-five (45) inches or less, shall have standard guardrails.

- Standard guardrails shall be installed on any scaffolding work level that is six (6) feet above a lower level. If a standard guardrail is not feasible, a personal fall arrest system (including, but not limited to, harness, lanyard, and anchor) shall be used.

- **L-7—Scaffold Planking**

  - All scaffold planking shall be free of knots and cracks and shall completely cover the work platform. All planking used on a scaffold shall be stamped "SCAFFOLD PLANK" or SCF PLK," and shall meet requirements of Subpart L of the OSHA Standards.

  - Only planking that has been inspected prior to placement and that has had its ends color-coded "green" is permissible for scaffold planking.

  - Planking that is damaged or that has not been inspected shall be color-coded "red" and cannot be used for scaffold planking.

  - All scaffolds and planking shall be tagged, inspected daily, and signed off by an OSHA-defined competent person.

- **L-8—Elevated Work Levels**

  - Debris fencing, netting, or other methods to protect personnel and property below shall be provided at all elevated work levels of scaffolding.

- **L-9—Toe Boards**

  - Toe boards on scaffolding are required per OSHA standards (29 CFR 1926.451(h)) or as determined by the competent person.

Subpart M—Fall Protection

This project shall comply with the following Falls Mandate Requirements:

A. Vertical Access to Working Floors: Access to poured floors:
   1) Stairs poured with deck
   2) Pre-cast poured with deck steel structure
   3) Set stairs with deck

B. Access to Framing Erection Floor
   1) Scaffold stairs with handrails up to and including roof level and at multiple locations.

C. Frame Erection
   1) Structural Steel Erection to be completed with mechanical lifts (i.e., aerial lifts/buckets)

D. Perimeter protection

1) Five foot (60") high perimeter protection covered with netting at all floors including roof level
2) Provide (3) wire ropes at every floor and around all floor openings including roof level.

E. Lifting over or adjacent to or beyond the site boundary then adequate physical protection will be provided using:
1) Access separate for vehicles/personnel
2) Sidewalk canopies
3) Road/sidewalk closures
4) Flag personnel

F. Working Platforms
1) Working platforms fit for purpose via pre-task planning

G. Fixed access system
1) Scaffold system in or around existing structure, erection and dismantling to be completed using 100% tie off.

H. Mechanical access system
1) Working platforms fit for purpose via pre-task planning

I. Elevator shafts
1) Full height protection with lockable access door at all elevator shaft openings.

J. Service shafts and risers
1) Safety straps installed at all shaft and riser locations
2) Installation and dismantling of shaft and riser protection shall be 100% tie off
3) 2 layers of horizontal protection or full height perimeter protection

K. Excavations , Pits and Holes
1) Excavations – Install warning fence (i.e. snow/orange construction fence) around perimeter (10 foot back if possible) with designated separate access points for people and equipment.
2) Trenches – When not actively working the trench, install warning fence (i.e. snow/orange construction fence) around perimeter (10 foot back if possible) with designated access points for people and equipment.
3) Access to mass excavations/foundations (minimum 2 access points) via:
(a) ramp (all workers to have bright colored vests and be separated from equipment)
(b) scaffold stairs
(c) prefabricated stairs

L. Ladders – Ladders shall only be used for access and not as a place of work unless three points of contact can be maintained. The use of platform ladders should be used as an alternative to step ladders. The use of step ladders should be restricted to areas where no suitable alternative (e.g. scissor lifts and podium steps) can be utilized and only for light, short duration work (i.e. lasting less than 15 minutes).

- **M-1—Personal Fall Protection System**

  - Personnel working at a level exposed to a fall distance of six (6) feet or greater (or less if a fall would result in the likelihood of a serious injury or death) shall be protected by the means of a personal fall protection system.

- **M-2—Fall Prevention Controls**

  - Fall prevention controls shall be based on the principles established by engineering and design techniques for elimination and prevention of fall hazards and shall be utilized above the use of personal protective equipment.

  - When it is not feasible to provide fall prevention controls, workers exposed to falls shall be provided with and use a full body harness, retractable lanyards, lanyards with shock absorbers, and anchorage points as specified per OSHA standards (29 CFR 1926 Subpart M).

  - Holes, shafts, and edges, from or through which persons could fall a distance of more than six (6) feet, must be clearly marked with signage or other means and be adequately protected.

- **M-3—Body Belts**

  - Body belts are not permitted on the Project Site as a component of the personal fall protection system.

- **M-4—Task Specific Fall Protection Plan**

  - The Contractor shall require all subcontractors performing structural erection activities (such as pre-cast concrete and steel erection) to include in their site-specific safety plan a "Task-Specific Fall Protection Plan", which complies with the six (6) foot fall protection requirement.

- **M-5—Ladders**

  - Scaffolds and Platform Ladders. The Project's Fall Mandate Policy requires the use of scaffolds or mechanical lifts during all phases of construction. The use of other means of vertical access will be on a task specific basis only. Contractor is required to provide either the permanent project stairs or scaffold type ladders to the roof level during or immediately after steel erection to provide a safer vertical access. Use of standard "A" frame step ladders will not be permitted without a written JHA and pre-use review by the CM.

  - Ladders (straight, extension, and step) shall be used only for employee access and short-duration (15 mins or less) miscellaneous light work where three (3)

point contact with the ladder can be maintained.

- If ladders are to be used for performing long-duration (more than 15 mins) heavy work at heights six (6) feet and greater (or any height where the likelihood of a serious or fatal injury exists), the fall hazards shall be controlled through the use of a personal fall protection system, scissor lifts, and/or podium steps.

- Fiberglass or wood ladders only shall be used. Aluminum or other conductive portable ladders are not permitted on a Project Site.

- Aerial and Scissor Lifts. The General Contractor and his Subcontractors shall ensure all lifts arrive on the project site in proper working condition and with current third party certification that said unit is safe to use. Employees utilizing said lifts shall be trained by a qualified third party to operate the specific lift, according to the applicable ANSI and manufacturer's guidelines. Documentation of both certifications shall be provided to the Construction Manager prior to work commencing. All lifts on the project site must be equipped with audible and visual (strobe lights) motion warning systems. Additionally, all lifts must be equipped with manufacturer installed, engineered fall restraint anchorage points. All employees working in lifts must work within the confines of the guardrail system or bucket, with their feet on the deck and be anchored to the engineered anchorage point utilizing a full body harness and shock absorbing lanyard system. No body belts will be permitted.

Subpart N—Cranes, Derricks, Hoists, Elevators, and Conveyors

- **N-1—Inspections**

  - All operating engineers and other equipment operators shall present the CM with their license, which shall be kept on file with the CM.

  - A copy of the OSHA required annual inspection shall be submitted to the CM at least twenty-four (24) hours prior to the crane arriving on-site.

  - A competent person shall perform and document all manufacturer-required inspections prior to and during each use. Documentation of all manufacturer required inspections shall be maintained by the subcontractor for review by the CM and SU Project Representative.

- **N-2—Pile Driving**

  - The crane requirements apply to pile driving equipment and caisson equipment.

- **N-3—Other Mobile Equipment**

  - Lulls and other mobile equipment, not classified as cranes, shall be in compliance with other appropriate OSHA standards such as (29 CFR 1910.178) Powered Industrial Trucks.

  - Unless a vehicle does not come with seat belts, operators at all times, no exceptions, shall wear seat belts.

- **N-4—Load Chart**

  - Cranes must have a load chart and operations manual that is for the exact model of crane.

  - The Contractor shall require its subcontractor to certify that the operator has read the operator's manual and can interpret the load chart.

  - The Contractor shall require all subcontractors to certify that the operator has been advised that he/she shall not exceed the load chart.

- **N-5—Capacity**

  - For lifts of any load that are more than 60% of a crane's rate capacity the CM and SU Project Representative shall be notified prior to the lift.

- **N-6—Operator Qualifications:**

  - A valid New Jersey Crane Operator License is required. A copy of this license must be maintained on the job site in the Contractor's and subcontractor's central file for safety and health documentation.

  - All operators must be experienced in the type of crane being used.

  - An up-to-date resume detailing the operator's qualifications (including, but not limited to, years of experience and previous jobs worked on) shall be maintained in the Contractor's and subcontractor's files at the job site.

- **N-7—Anti-Two Blocking Device**

  - All cranes operating on the construction site shall be equipped with a functioning "anti-two blocking" device.

- **N-8—Communications**

  - There shall be two means of communications between crane operator and signal person. If the signal person is visible to the operator, then two-way radios shall

serve as back up. If the signal person is not visible to the crane operator, then a hard-wired phone system shall be the primary means of communication with two-way radios as back up.

- **N-9—Soil Capacity**

    - Under certain soil conditions, the CM and SU Project Representative may require that a Professional Engineer (PE) inspect and certify that the soil is capable of supporting the weight of the intended crane and the anticipated loads. The PE may require additional cribbing or other material to support the loads.

Subpart O—Motor Vehicles, Mechanized Equipment, Etc.

- Equipment. The General Contractor and his Subcontractors shall supply all equipment required for the performance of the Work of this Contract. Equipment shall be maintained in safe operating condition, and employees shall be properly trained in correct operating procedures and documentation of said training provided to the Construction Manager prior to performing work. (All cranes, aerial and scissor) material-handling equipment must have a valid certificate of inspection, as required by the manufacturer and safety checklists must be submitted on a daily basis).

- Where any Federal, State, or Local regulations require special training and/or licensing for operators of specific equipment, the General Contractor and his Subcontractors shall provide the Construction Manager copies of the required training documentation and required licenses for each employee required to operate the specific equipment.

    - **O-1—Riding Mobile Equipment**

        - No one shall ride in a vehicle or mobile equipment unless it is designed to accommodate additional personnel. Violators shall be removed from the Project Site.

    - **O-2—Pick-Up Trucks**

        - Riding in the back of pick-up trucks shall not be allowed.

    - **O-3—Non-Licensed Motorized Equipment**

        - ATVs, golf carts, or other non-licensed, motorized equipment used to transport people and or tools/equipment shall be inspected and operated in conformance with ANSI, DOT, OSHA, and any other appropriate governing body.

Subpart P—Excavations

- Excavations. The GC shall investigate all existing underground conditions, and obtain necessary approvals and permits and notify the state one call system (where applicable) prior to commencing any excavation work.

- The contractor on this project will be required to conduct his own investigation using the

necessary equipment/detectors/tools to locate existing utilities prior to excavation.

- All excavation work shall be performed in strict conformance with the OSHA regulations, and the GC shall provide a competent person (per OSHA) and all required shoring, bracing, and protective barricades and rails to accomplish the Work in a safe manner.

- Where there is a risk of injury from persons, plant and/or materials falling into excavations, pits and holes or from the collapse of the excavation sides, barriers or edge protection should be provided or the edges sloped to gradients, which prevent falls, and/or a suitably designed trench support system should be introduced. Where water is present, additional measures should be taken to prevent grounding.
- Any excavations shall be barricaded with fencing or equal and marked with suitable warning lights.

  - **P-1—Excavation Permit**

    - All excavation shall be in accordance with applicable OSHA Standards.

  - **P-2—Soil Classification**

    - All soils shall be classified as type "C" until the competent person can demonstrate the soil can be reclassified as another type, using acceptable soil analysis practices.

  - **P-3—Barricades**

    - All open excavations and trenches shall be barricaded or adequately guarded at all times with high-visible material. The type and adequacy of the barricades is subject to review by the CM.

  - **P-4—Contaminated Soil**

    - The SU may have areas with contaminated soil. Depending on the nature and extent of hazards related to this contamination, specific safeguarding methods shall be implemented.

Subpart Q—Concrete and Masonry Construction

All concrete and masonry construction shall be in accordance with applicable OSHA Standards.

Subpart R—Steel Erection (and Pre-cast Concrete Erection)

  - **R-1—Hoisting, Rigging, and Loads**

    - Under certain soil conditions, the SU Project Representative and/or CM may require that a Professional Engineer (PE) inspect and certify that the soil is capable of supporting the weight of the intended crane and anticipated loads.

The PE may require additional cribbing or material.

- A safe means of access to the level being worked on shall be maintained. Climbing and sliding on columns or diagonals are not allowed.

- Containers, buckets, bags, etc. shall be provided for storing or carrying bolts or rivets. When bolts, drift-pins, or rivet heads are being removed, a means shall be provided to prevent accidental displacement. Tools shall be secured in such a manner to prevent accidental falling.

- Lifeline attachments, dynamic fall restraints, and other fall protection provisions shall be considered during shop drawing preparation, shall be incorporated in fabricated pieces, and shall have safety lines or devices attached prior to erection wherever possible.

- A tag line of appropriate length shall be used to control all loads or portions thereof.

- For the protection of other trades on the Project, signs shall be posted in the erection area, "Danger: Men Working Overhead".

- When loads are being hoisted, all personnel are to be prevented from walking under the lift.

- No one shall be permitted to ride a load under any circumstances.

- Material shall not be hoisted to a structure unless it is ready to be put into place and secured.

- Bundles of sheets or small material shall be so secured as to prevent falling out from the rigging.

- **R-2—Fall Protection Requirements**

  - The use of personal fall arrest systems shall be rigorously enforced during steel and pre-cast concrete erection.

  - The contractor shall implement a site-wide 100% six (6) foot fall protection policy. This shall include all activities including steel erection and scaffolding operations, where a worker is exposed to a fall greater than six (6) feet, shall be protected by a fall protection system such as guardrails, safety nets, personal fall arrest system, hole covers, or fall restraint system. Steel erection shall be accomplished using either aerial platform/buckets or other acceptable means.

  - The exception contained within OSHA standards (29 CFR 1926.501.b.12) allowing for a written fall protection program in lieu of this requirement is not

acceptable for the Project and is prohibited.

- **R-3—Perimeter Protection**

  - Provide (3) three wire ropes at a total height of five feet (60"), at every floor and around all floor openings including roof level.

  - Provide orange netting to full 60" height of all perimeter protection.

  - Guardrails are to be provided at all working places including roof level and other locations where persons or materials could fall more than 6 feet. Where this can physically not be achieved, suitable and sufficient fall protection devices that do not rely on individuals should be provided and used to establish a safe place of work. Harnesses and personal protective equipment must be used as a last resort.

  - All wire rope cable connections shall have loop connections (butt-splicing is prohibited) and will require a minimum of two (2) wire Crosby rope clips as specified in OSHA standards (29 CFR 1926.251 Subpart H, Table H-20).

  - If the wire rope cable system has been designed for an anchorage point for a personal fall arrest system, at least three (3) wire rope clips must be used as specified in OSHA standards (29 CFR 1926.251 Subpart H, Table H-20).

  - Any systems used for an anchorage of personal fall arrest systems shall be inspected and approved by the competent person using the cable for this purpose.

  - Turnbuckles will be installed at suitable intervals to maintain the tightness of the wire rope but in no instance less than one (1) per perimeter side.

  - All anchorage for the wire rope cable will be capable of withstanding a minimum of 200 pounds of force if the wire rope is used as a guardrail system or a minimum of 5,000 pounds of force per person attached if the wire rope is used as an anchorage for a personal fall arrest system.

- **R-4—Erection Plan**

  - The erection subcontractor shall have a qualified person prepare a site-specific safety erection plan prior to the erection of structural members. This erection plan shall be reviewed with the CM and SU Project Representative.

  - An erection subcontractor qualified person shall approve all changes in the safety erection plan.

  - A copy of the erection plan shall be maintained at the job site, showing all

approved changes.

- The implementation of the erection plan shall be under the supervision of a competent person.

Subpart S—Tunnels and Shafts, Caissons, Cofferdams, Etc.

All tunnels and shafts, caissons, cofferdams, etc., shall be in accordance with applicable OSHA Standards.

Subpart T—Demolition

All demolition shall be in accordance with applicable OSHA Standards.

- Dust and Fumes. The GC shall not perform any Work, which generates excessive dust or fumes in or adjacent to any portions of the project where such dust or fumes will create a negative impact on adjacent parking lots, streets, buildings, etc. The GC shall provide suitable ventilation and dust control measures to maintain satisfactory conditions, or perform such work after the normal working hours of potentially impacted areas. GC agrees to provide all cleaning and cleanup reasonably required by the Construction Manager pertaining to the GC's work to the extent such requirements are in excess of those contained in this paragraph.

Subpart U—Blasting and Use of Explosives

- **U-1—State & Local Laws**

  - The authority having jurisdiction (i.e., local or state fire marshal) should be contacted by the GC in accordance with State and local laws.

Subpart V—Power Transmission and Distribution

All power transmission and distribution shall be in accordance with applicable OSHA Standards.

Subpart W—Rollover Protective Structures, Overhead Protection

All rollover protective structures and overhead protection shall be in accordance with applicable OSHA Standards.

Subpart X—Stairways and Ladders

- **X-1—Conductive Ladders**

  - Fiberglass or wood ladders only shall be used. Aluminum or other conductive portable ladders are not permitted on a Project Site.

- **X-2—Personal Fall Protection**

- When working on/from ladders at an elevation (measured from the feet of the worker) above six (6) feet, workers are required to be protected by personal fall arrest and restraint system. Workers may ascend and descend ladders above six (6) feet elevation without personal arrest systems.

➢ **X-3—Stairways**

- Stairways may only be used when the stairwell tread and guardrails are in place. Stairways, which do not have stairwell treads and railings, shall be barricaded to prevent use.

➢ **X-4—Tipping or Falling Exposure**

- All extension or other ladders, except stepladders, shall be tied off.

Subpart Y—Commercial Diving Operations

All commercial diving operations shall be in accordance with applicable OSHA Standards.

Subpart Z—Toxic and Hazardous Substances

All toxic and hazardous substances shall be in accordance with applicable OSHA Standards.

11.0 Waste Disposal

This section contains only requirements as applied to disposal of construction supplies and materials. Nothing in this section shall be interpreted to limit or replace any federal, State, or local EPA requirements or standards.

- A Contractor who creates, may be expected to create, or could accidentally create a material that could be classified to be hazardous waste shall provide to the CM a copy of their EPA disposal number and other pertinent information.
- All hazardous waste, or waste that could be considered hazardous waste, as determined by the methodology and definitions from environmental regulators, will be stored and collected in special areas and disposed of as directed by the SU Project Representative.
- No material is to be abandoned on a Project Site. If material found on a Project Site can be traced to a Contractor, that Contractor will be responsible for all expenses involved in collecting, moving, cleaning, and disposing of all material in the area where the material was abandoned.
- Should a potentially hazardous condition be discovered the GC shall immediately notify the CM, and SU Project Representative.

12.0 Site Security/Access Control

An effective means of controlling personnel entering and exiting the site is to be implemented. The objective is to check that the worker is authorized to perform the work and that they have received a suitable orientation. This will also ensure that the public are protected and that all visitors are treated in accordance with standard protocol.

Site Access/Security is to be provided as follows:

- A physical barrier is installed to prevent access to the workplace. Examples of such barriers include fencing, covered walkways, temporary walls or other physical barriers.
- The site logistics plan must include a separate access point for vehicular traffic to segregate persons from risk of injury.
- Signage is to be placed at each entrance/exit point to communicate the need to check in.
- The site access points are to be placed so that an effective means of control can be implemented to prevent the public from unauthorized entry.
- Consideration should be given to reducing the number of access points to reduce the possibility of unauthorized access.
- A minimum of two exit points are to be maintained to ensure the site can be evacuated in case of an emergency.
- Entry points are to be manned by a site access control person (SACP) while in use. Those not manned by SACP must be closed at all times unless, and until, they can be controlled by a SACP.
- A system is to be implemented to readily identify workers who have received an orientation. A colored sticker on a hard hat is an acceptable means of identification.
- Access points used for vehicular traffic are to be controlled by rolling gates in preference to swing gates where room allows.
- All workers must receive a full orientation before commencing work.
- All workers receiving an orientation are required to sign a document confirming they understood the content. This document will enable the site team to keep track of the workforce.
- All visitors are to check in with the General Contractor and/or CM and must be accompanied on the site. They are to sign a hold harmless release form.
- Delivery drivers (including UPS, FedEx, USPS, etc) are exempt from requiring a full orientation; however, they should not be allowed to walk the site freely.
- All workers working in occupied facilities will be required to wear an ID badge with the minimum required information (company name, name, picture ID, project name, ID badge number).
- The General Contractor will be responsible for issuing the ID badges to all workers in a format acceptable to the SU and/or CM.
- The SU and CM reserve the right to require all workers to wear ID badges at any time. Badges shall be worm in a visible location by the employee at all times while working on the project, and which shall be returned upon termination of employment.
- Inspection. All vehicles and personnel entering or leaving the project site are subject to security checks and searches at the discretion of the SU Representative or Construction Manager's team.
- Speed Limit. The speed limit within the project is 5 MPH if conditions or the character of the subject vehicle allow. General Contractor and his Subcontractors employees operating vehicles in excess of the speed limit, or in any otherwise unsafe manner, will be directed to leave the site and not be permitted to return.
- Pedestrians. Pedestrians have the uncontested right-of-way at all times.

- Cameras. Cameras are not permitted within the project site without prior consent of the Construction Manager and Owner. This includes all video recording devices, as well as mobile devices (mobile phones, PDA's, etc.) which contain cameras or video recording equipment.
- Site Parking. General Contractor and his Subcontractors employee parking within the project site is permitted. Vehicles permitted to park on the project site shall be insured by the General Contractor or Subcontractor's company. General Contractor and his Subcontractor's vehicles may park outside the parking project area in areas designated or assigned by the SU and/or Construction Manager.
- Trailers. The General Contractor and his Subcontractors shall locate approved field office or material storage trailers only in designated areas. Trailers shall be properly maintained, and the surrounding area kept clean and free of litter or debris. Trailer space will be designated by the Construction Manager and/or the Owner. Due to space limitations, trailer space will be limited. Refer to the generic site logistics plans as shown in the Contract Documents. Trailers must have an electrical certification (current) prior to coming on site. All trailers must have a lockable electrical disconnecting means.
- Temporary Services. The General Contractor shall not make any connections to services or utilities (i.e.: electric, water, steam, air, gas, tele/data, etc.) for temporary use unless approved by the Construction Manager and utility owner. Temporary services (both hook-up and maintenance/usage) to each of the General Contractor and his Subcontractors trailers are the responsibility of the General Contractor unless notified otherwise.
- Emergency Procedures. The General Contractor shall immediately report any damage to site utility or service piping or power systems to the SU Police Department and Construction Manager. All emergencies shall be reported as stated in the Emergency Action Plan.

End of Manual