



Suffolk Construction Company Inc.

Site Specific Health & Safety Plan

Lowell High School

SSSP Review Team:

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1. SITE SPECIFIC SAFETY AND HEALTH PLAN

The purpose of Suffolk Construction Company's (Suffolk's) Site Specific Health and Safety Plan (SSSP) is to provide environmental health and safety guidance in the construction of this project; and, to assist project management, supervision, and Trade-Partners in understanding Suffolk's Safer Together philosophy, as well as the environmental health and safety requirements for this project. The standards of safety within this document represents the expectation of EH&S performance at EVERY Suffolk project.

2. SAFER TOGETHER

Suffolk is committed to a Safer Together environment. It is the shared corporate and individual belief that safety is a value, not compromised by cost or schedule. Everyone has the right to go home safely at the end of the day. Safer Together holds three basic premises:

1. All incidents and injuries are preventable; no level of incident or injury is acceptable or tolerated.
2. Safe operations are possible in construction, as long as prevailing mindset and conviction exists to do the right thing and what is necessary to achieve that state.
3. Elevate safety awareness daily. A journey of continuous improvement to advance safety and achieve a heightened state of awareness where workers choose to be responsible and accountable for their own safety, and the safety of their co-workers.

A Safer Together environment includes a willingness to adapt to any new safety initiatives implemented during construction by the Suffolk Project Team, emphasizing the continual improvement process, protecting workers and their families.

3. RESPONSIBILITY AND ACCOUNTABILITY

Everyone associated with the project must understand his or her responsibilities concerning health and safety on this project. With the responsibilities defined, project management, supervision and Trade-Partners will be held accountable for their EH&S performance.

Project Management includes Project Executive, Project Manager, Project Superintendent, Project Engineer, and Safety Manager.

Front-line Supervision includes Superintendents, General Foremen and Foremen. The Organization Table below serves to associate tasks with position(s) responsible.

Table 1. Organization Table

Team Member	Title	Email Address	Phone
Sean Edwards	Vice President	sedwards@suffolk.com	617-293-6962
Chris Walenten	Project Executive	cwalenten@suffolk.com	617-285-9274
Rex Radloff	Sr. Project Manager	rradloff@suffolk.com	617-517-4246
John Dolan	Sr. Project Manager	jdolan@suffolk.com	617-517-4594
Martin Leik	Regional Safety Dir.	mleik@suffolk.com	617-429-1592
John Allen	Superintendent	jallen@suffolk.com	617-304-4259
Nick Cogliano	Sr. Safety Manager	ncogliano@suffolk.com	857-208-0435
TBD	Foreman, Site	-	-
TBD	Foreman, Steel	-	-
TBD	Foreman, Concrete	-	-
TBD	Foreman, MEP	-	-

4. SITE ORIENTATION, TRAINING AND MEETINGS

To promote and ensure successful implementation of Safer Together, health and safety training is a requirement for all subcontractor tradespersons assigned to this project.

Pre-Construction Meeting

All front-line supervision is required to attend a Pre-Construction Meeting prior to mobilization of their crew, so they can receive specific information regarding EH&S training requirements, review of the permits, forms, procedures, and safety initiatives required by this plan, as well as project specific information necessary to adequately coordinate their work and prepare their crews. Each Trade-Partner is required to submit their Site-Specific Safety Plan as well as associated Job Hazard Analysis (JHA’s) for their scope of work to be reviewed at this meeting.

OSHA 30-Hour Construction Outreach Training

The Subcontractor’s Lead On-Site Supervisor must provide proof of having completed OSHA 30 Hour Construction Outreach Training. All other workers are required to have received 10 Hour Construction Outreach Training.

Site Safety Orientation Training

Every Tradesperson shall attend Site EH&S orientation prior to starting any work on the project. The Suffolk safety orientation will provide general health and safety information and project specific work rules and procedures. Upon completion of training, each person will receive a sticker for his or her hardhat, for site authorization.

Specialized Environmental Health and Safety Training

In addition to site specific safety and health orientation, OSHA requires that workers receive specific task training. To comply with OSHA minimum worker training requirements and assist in achieving a Safer Together workplace, proof of competent person training for specified activities must be presented to Suffolk and recorded at site orientation.

Suffolk may evaluate training periodically to verify that it is being properly conducted and that the contents adequately cover the standards, policies, rules, and procedures contained in this

SSSP and OSHA standards. Project management or supervision will communicate the safety and health policies, rules, and procedures to all vendors and third-party individuals having business on the project.

All tradespersons on site will be required to provide proof of competency training based upon the activities and tasks they are completing.

Daily Huddles

All Tradespersons assigned to this project will participate in a daily pre-shift work coordination huddle and Pre-Task Plan (PTP) review conducted by the Foreman. Suffolk reserves the right to remove subcontractor management/supervision personnel who intentionally do not regularly attend and/or conduct weekly safety meetings on the project. Daily huddles and PTP reviews should communicate any incidents that occurred on the project, safety concerns, new work activities, new and continuing potential hazards, and the like. Stretch and Flex activities in this pre-shift huddle is encouraged.

Employee New Hire Orientation

Every worker shall attend an environmental, health and safety orientation prior to starting any work on this project. Safety orientation will provide general site environmental health and safety information and project specific work rules and procedures. Upon completion of training, each person will receive a sticker for his or her hardhat, for site authorization.

5. TPSZ (TRADESPERSONS PERSONAL SAFETY ZONE)

Implicit in Safer Together is the empowerment of every Tradesperson to stop work when the need is apparent. The 50-foot Tradesperson Personal Safety Zone (TPSZ) is the visible, 50-foot area surrounding an individual, 25 feet in all directions. It is the obligation and duty of that individual to watch for people, equipment, traffic, or other potential hazards that may be within their 50-foot TPSZ and encourage safe work practices from all workers in the 50-foot area. The 50-foot TPSZ is founded on the teamwork concept of “having each other’s back” and helping all workers be successful each day.

“Being our brother’s keeper” is a concept that is paramount in the success of the 50-foot TPSZ. All employees, including coworkers, subcontractor employees, vendors, owners, etc., are responsible to watch for and stop unsafe actions or situations within their 50-foot zone of responsibility, as well as watch for and proactively verbalize safe actions and situations. If a hazard is noticed in their 50-foot TPSZ, the worker should take immediate corrective action, which might also include a report of the concern and actions taken to correct the situation to their supervisor. Although an individual may not be able to see what activities are underway above or below deck floors in their 50-foot TPSZ, questions must be asked to learn of any changing conditions that may occur affecting the work environment.

Hazard Recognition

The key to the 50-foot TPSZ program is hazard recognition. Each worker needs to be aware of the activity and people in their line of sight area, and to draw upon their safety training and work experience to notice and take action when there is a potential hazard that could result in an injury

or property damage. Hazards recognized and acted upon by a worker are encouraged to be reported to Front Line Supervision. If a worker recognizes a hazard, they should be respectful when pointing out a deficiency. A worker should **remind** the person of the hazard, safety policy or standard; **request** their cooperation and compliance; and, if necessary, **report** the situation to their supervisor if unresolved.

Accountability

Suffolk has invested a great deal of time and resources to encourage employee safety, both at work and at home. *Now is the time to take that personal responsibility to be safe and to be held accountable for our actions or inactions.* Accountability for all workers on Suffolk projects includes the following safety expectations and consequences:

- a. Tradespersons are empowered and expected to correct hazards and safety violations in their 50-foot work environment.
- b. If an incident occurs within a worker's 50-foot area of responsibility the worker will be asked to participate in the incident review.
- c. There are no exceptions; employees at all levels are expected to participate in the 50-foot TPSZ.
- d. Workers who do not follow the SCCI safety policies, procedures and best practices will be disciplined, up to removal from the project.

Every individual is entitled to work in a safe environment. Each employer and employee is asked to adopt the 50-foot TPSZ and do everything in their power to protect themselves and others.

6. OSHA SAFETY REGULATIONS

Suffolk and its Trade-Partners shall comply with all applicable government regulations, specific client policies and regulations, and this SSSP. If any of these standards, requirements, rules or procedures conflict, the most stringent will prevail.

7. DAILY SAFETY INSPECTION PROCEDURES

Suffolk Safety App. All Suffolk Safety Managers will perform a daily safety inspection of the site regarding the work of Trade-Partners under their direction, all Project Managers and Superintendents will perform a weekly inspection, at a minimum. The checklist and reporting tool will serve as the acceptable method to record this daily site safety inspection. In addition to the daily inspection requirement, additional checks may be required of subcontractor(s) as determined by the Suffolk Project Team or Federal/State/Local regulations.

Definition of a Competent Person. Trade-Partners are required to identify a Competent Person. This person can identify existing and predictable hazards and who has the authority to take prompt corrective measures to eliminate the hazards and remove individuals that are in danger.

Subcontractor's Equipment requiring monthly inspection:

1. Personal fall protection and fall arrest equipment

2. Electrical cords and power tools
3. Ladders
4. Fire extinguishers
5. Rigging

General Guidelines. The name of the Competent Person will be documented and published to all employees; any employee who falsifies a monthly inspection result will be disciplined up to and including termination. Competent persons are required to perform all applicable inspections of equipment used by workers on-site to confirm it is up to standard.

Personal Fall Protection Equipment

All fall protection equipment shall be inspected before each use as per the OSHA standard 1926.502(d)(21).

Monthly Inspection of Personal Fall Protection: body harnesses, lanyards, and retractable lanyards shall be inspected for cuts, tears, abrasions, stitching coming apart, cracks, burns, parts moving freely, no alterations, and correct labeling from the manufacturer. All Personal Fall Protection equipment that is damaged shall be removed from service, destroyed, or sent to the manufacture for repair.

Electrical Cords and Power Tools

Any employee using electrical equipment and/or cords shall perform a pre-use visual inspection of each cord set, plug, receptacle, spider boxes, temporary power panels, and tool or equipment connected by cord and plug with periodic inspections documented monthly. Any hazardous condition, damage, or missing parts that pose a hazard will be reported and the equipment removed from service, repaired or destroyed.

If found defective, a tag will be placed on the item stating “Caution Do Not Use” per OSHA standard 1910.334(a)(2)(i). The Competent Person shall perform the following test on GFCIs (ground fault circuit interrupters) and equipment identified above. These tests will be performed monthly.

1. Continuity
2. Polarity
3. Ground continuity

GFCIs will be tested with an approved trip tester. Double insulated equipment will be inspected for damage.

Ladders

Ladder will only be approved for use on the project as a last resort for performing the work. Suffolk encourages the use of other means to access work at heights that provide a solid work platform (baker staging, scissor lifts, etc...). If a ladder is necessary, a platform ladder is the preferred type. The employee using the ladder shall perform a daily visual inspection. Any damaged ladder will be removed from service and tagged “Caution-Do Not Use.” A monthly

inspection by a Competent Person is required per OSHA standard 1926.1053(b)(15). Bends, dents, cracks, loose or missing rivets, disconnected braces and corrosion can weaken a ladder.

Carefully inspect the area around rivet points on fiberglass ladders for hairline stress cracks. Destroy any defective ladders immediately or remove them from the site.

Fire Extinguishers

Fire extinguishers shall be inspected monthly as per OSHA standard 1926.150(a)(4). This will ensure that fire extinguishers will be ready when needed. Check that the extinguisher is charged by looking at the green arrow on the pressure indicator to insure it is in the green section. Be sure the lock pin is firmly in place. Keep the extinguisher clean. Check for dents, scratches, corrosion or any other damage. Check the discharge nozzle; make sure it is clean and free of debris. Tip fire extinguisher upside down and lightly tap bottom with a rubber mallet. Fire extinguishers shall be placed within 100 feet of a Class A fire hazard and near stairways on the project.

Fire extinguishers that do not meet the criteria above will be taken out of service and repaired, recharged or removed from site. All extinguishers shall have an annual state inspection tag.

Rigging

All rigging shall be inspected prior to each use and or monthly, whichever comes first per OSHA standard 1926.251(a)(1). Damaged or defective rigging shall be removed from service and either repaired or destroyed.

Wire rope slings shall be inspected for any evidence of heat damage, broken wires (10 in one lay or 5 in one strand) of a lay, kinking, crushing, corrosion, bird caging, distorted rope structure, or damage to attachment points.

Synthetic fiber slings shall be inspected for abnormal wear, powder between strands, broken or cut fibers, variation in the size or roundness of strands, discoloration or rotting, or distortion of hardware in the sling.

Synthetic web slings shall be inspected for acid and caustic burns; melting or charring of any part of the sling surface; snags, punctures, tears or cuts; distortion of fittings or broken or worn stitching.

Hooks shall be inspected for distortion such as bending, twisting, or increased throat openings; wear, cracks, nicks, or gouges; damaged or malfunctioning latch engagement; or, damaged or malfunctioning hook attachment. Safety latch must be present on all hooks utilized for rigging purposes.

All rigging (chains, wire rope chokers, synthetic webbing, etc.) must have a manufacturer's identification tag stating the name or trademark of the manufacturer, the size and rated capacity, the type of material. The identification tag must be legible.

All documented inspections shall be completed the first week of every month.

8. NOTIFICATION OF UNSAFE OR HAZARDOUS CONDITIONS

General. Under Suffolk's Safer Together philosophy, each Tradesperson on the project has the right and responsibility to notify Project Management or supervision of any unsafe or hazardous condition that may be present without fear of retribution. Project Management or supervision will take immediate action to correct or remove any hazard brought to their attention.

9. DISCIPLINARY PROGRAM

General. At-risk behavior on the project that could contribute to an incident or injury will not be tolerated. Each worker has an individual responsibility to work safely, and each front-line supervisor is responsible to correct at-risk behavior of workers under their direction. With that being said, every person on this site has an obligation to stop a fellow worker from getting hurt. If you see something that does not look right, it probably isn't. Please stop and ask them or report it to your supervisor.

Minor Offenses. For minor offenses with minor consequences, the employee will be expected to agree to improve behavior and possible re-training may be required. Offenses may later be recorded as a written warning.

Major and Repeat Offenses. Suspension or discharge will result from major offenses, those with serious or costly consequences, or for repeated minor offenses for which an employee shows lack of responsible effort to correct deficiencies. Some examples of major offenses are those related to fall protection, confined space entry, ignoring exclusion zones, electrical or lock out/tag out violations, or disregard of specific instructions that result in a property or injury incident.

Disciplinary Actions. Discipline is intended to preserve good conditions for other employees and encourage each employee to be responsible and conscientious. Disciplinary action may include verbal warnings, written warnings, and days without pay and/or discharge.

10. DAILY PRE-TASK PLANNING

General. A Pre-Task Plan (PTP) will be completed daily by each crew performing work on the project. Pre-Task Planning shall be completed in the field, in the location that crews will be performing their task(s). Each front-line supervisor will analyze task(s) to be performed by their crew and identify the work sequences, hazards, training, controls and emergency action plans necessary to protect workers from the identified hazards. A copy of the PTP form will be provided if trade-partner does not utilize their own document that meets the requirement (per discretion of Suffolk).

The work will be broken down into individual steps (i.e. all the steps the work crew will have to take to complete that task); the known hazards associated with the work; and, the hazard controls (tools, safety equipment, safety rules, safe work practices, etc.). This is a time for Tradespersons to provide input into the PTP. Front-line supervisors will review the plan with their respective work crew so that each Tradesman is aware of work activities will occur during the shift, hazards

to be aware of and how to properly control or eliminate those hazards. All Tradespersons will sign the plan stating that they understand the work activities, hazards and controls. This is an acknowledgement that each Tradespersons agrees to work according to the PTP.

The completed PTP will be located near the work activity for review. PTPs must be turned in to the Project Superintendent at the end of each workday.

Accountability (Plan-Do-Check-Act). The intent of the PTP is to ensure Tradespersons are prepared to anticipate hazards and adopt safe means and methods to accomplish the task safely. Accountability for the pre-task planning process is inclusive of the four key components:

Plan: The Crew Lead or Foreman is accountable for leading his crew to identify hazards and develop mitigation methods,

Do: The Crew Lead and Tradespersons are accountable for following the plan,

Check: Supervision is responsible to spot check the process, both the quality of the plan and the rigor of compliance,

Act: All members are accountable to identify unforeseen conditions and act to improve the plan and mitigate the hazard.

11. HIGH HAZARD ANALYSIS (HHA)

General. A High Hazard Analysis (HHA) form must be completed for any tasks that involve the following hazards or equipment:

- a. Falls over 6 feet
- b. Confined Space Entry
- c. Excavations
- d. Crane use
- e. Hot Work
- f. Scaffolding
- g. Utility Shut Down
- h. Demolition
- i. Hoist Installs/Jumps/Maintenance
- j. Mast Climbers
- k. Swing Stage
- l. Aerial Work Platforms

This form identifies tasks, hazards and controls for operations which have historically been high hazard activities in construction. This form is not required daily but must be completed each time any of the above activities is planned and conducted. Suffolk's Project Team must review and approve each HHA before the activity commences.

12. CRISIS AND EMERGENCY PREPAREDNESS PLAN

It is expected that every Suffolk project have an established and rehearsed plan of response to an emergency or crisis condition. The intent of this section is to provide guidance as to what information is needed such that a consistent response can be expected.

Table 3. Suffolk Crisis and Emergency Organization Chart

Company	Name	Company/Trade	Phone Number
Suffolk	Alex Hall	VP EHS	
Suffolk	Marty Leik	Reg. Safety Dir.	
Suffolk	Sean Edwards	VP Education	
Suffolk	Doug Ware	VP Risk Mgmt.	
Suffolk	Christy McHenry	Dir. Risk Mgmt.	
Suffolk	Chris Walenten	Project Executive	
Suffolk	Nick Cogliano	Safety Manager	

General Response Procedure. Project Management shall establish and train site personnel regarding emergency response procedures. Project Management shall maintain, as necessary, emergency response supplies and equipment to meet emergency response needs. Suffolk supervisors will notify emergency response personnel of emergencies at the project site. The appropriate supervisor or responding personnel shall initiate the notification process, which includes alerting local response organizations (such as ambulance or fire personnel) and/or others as required.

Notify the following by phone and/or text immediately:

- Executive Vice President
- Vice President of EHS
- Regional Director of Safety
- Vice President of Education
- Vice President of Risk Management
- Director of Risk Management
- Senior Project Manager
- Project Superintendent
- Senior Safety Manager

After calling 911, Suffolk’s Senior Management must be called **FIRST**.

Emergency Information. If necessary, the Project Superintendent will coordinate with local emergency organizations and provide the following:

- Technical information about hazardous materials and products
- Quantity and/or size of hazardous materials or products
- Locations and methods of storage for hazardous materials or products
- Report known hazards of materials or products
- Provide a copy of the Safety Data Sheet(s)

Suffolk site management will make emergency equipment and supplies available until the emergency has been resolved.

First Hour Response: Site Superintendent Checklist

- Contact Emergency Services (911)
- Contact Executive Management and Project Management Team
- Initiate site control. Is site shutdown necessary?
- Account for all employees at Muster Point
- Do not (re)move potential evidence
- Direct all outside inquires to Corporate Spokesperson
- Post workers to restrict entry to site or direct emergency response teams
- Notify Owner/Developer (varies by project)

Site Actions - General Response Procedures

1. Ensure that the scene is safe before entering the area
2. Review site for hazards. Isolate hazardous area
3. Secure the site from further hazards, i.e., turn off utilities, remove hazardous substances not involved, stop flows of product or water, etc.
4. Attend to the injured, render first aid
5. Call 911 or facility emergency number. Give the following information:
 - a. Name of person reporting the emergency
 - b. Nature and severity of the injury or illness
 - c. Locations and phone extension from which they are calling
 - d. Number of people involved
 - e. Directions to the site of the emergency
6. Secure and isolate incident site. Do not move anything that does not have to be moved, only those to assist the injured or make the area safe. Make note of those items that must be moved. For major incidents, site emergency shutdown is required.
7. Take a roll call at the Muster Point. Trade-Partners must account for each site employee, vendor, owner's rep., and subcontractor employees. A copy of the sign in sheet will be submitted to the Superintendent.
8. Keep only those on site who are essential in the recovery process. Release those who are not needed and require them to leave the site.
9. Establish first aid and evacuation areas, if needed, where ambulance or air evacuation services have access.
10. Control site access. Radio communications are preferred over cell phones.
11. Start investigation and reporting procedures

First Hour Response: Executive Vice President, VP EHS, Regional Safety Director, VP Risk Management, Director of Risk Management:

- Contacted by Site Superintendent

- Determine what/where/when the event happened and who is involved
- Verify status of site operations or shutdown
- Notify Corporate Spokesperson
- Advise Project Coordinators and receptionist where to route calls
- Notify VP Human Resources if serious injury or property damage is a result

Emergency Preparedness Training. Employees and subcontractor management and employees shall be trained on the subjects below as appropriate:

- Emergency Notification and Reporting Procedures
- Site Emergency and Evacuation Procedures
- Points of Assembly
- A site map shall be posted on site showing all Muster Points.

Crisis Communication Plan (Media Requests). If contacted by the news media concerning an incident, communications must be coordinated through Corporate Communications. Under no circumstance is a Suffolk employee to speak to the media unless approved prior by the EVP.

1. Designate a single company spokesperson (Corporate Communications Director, unless assigned to someone on the job-site due to a remote location or other circumstances). Refer media calls immediately to the company spokesperson.

Designated Spokesperson:

Dan Antonellis, VP of Marketing and Communications – 617-930-5200

2. Determine a central gathering point for the media representatives to maintain scene safety and coordination (at a distance from the scene, jobsite management trailers and employee jobsite gates).

Gathering Location:

Suffolk Office Trailer

3. The company spokesperson and Suffolk Project Management team will develop an initial statement of known information that can be provided as soon as possible.
4. Provide regular updated information as it becomes available.
5. Create a log of persons from the media, including organization, phone numbers, and email addresses for effective continued communication.

Emergency Action Plan. Project Management will ensure that the Emergency Action Plan is communicated to all workers during orientation. Specific emergency procedures and emergency phone numbers will be posted in lunch areas, near all telephones and on project bulletin boards.

The plan shall be reviewed periodically by the Safety Manager to ensure continued accuracy and applicability. Daily PTPs shall also address emergency egress on a daily basis from each work area.

THIS PLAN SHALL BE REVIEWED BY ALL WORKERS AND POSTED WITH A SITE PLAN IN PROMINENT LOCATIONS ACCESSIBLE TO ALL WORKERS.

PROJECT NAME: Lowell High School

WORK LOCATION: 50 Father Morissette Blvd, Lowell, MA 01852

This is a project specific Emergency Action Plan communicating evacuation procedures, specific alarms and assembly points, should an emergency evacuation become necessary because of severe weather, fire, hazardous chemical release, explosion or other emergencies that could cause worker harm. It is each worker's responsibility to familiarize themselves with evacuation routes, alarms and assembly points in case an emergency evacuation of the work area is required.

Caution: Evacuation routes, alarms or assembly points may differ from one emergency to another. The implementation of a successful emergency response depends on thoughtful planning, training and then execution.

Evacuation

1. Exit signs shall be conspicuously posted along evacuation routes.
2. A signal or alarm shall be designated to initiate evacuation.
3. Personnel should de-energize tools and equipment and observe their work area for fellow workers in need of assistance.
4. Observe stairs for safe passage before accessing.
5. Report any hazardous conditions that are known to exist within the building to your supervisor.

A site plan drawing will be developed for this project's Evacuation Plan. This drawing will clearly identify the following:

- Building footprint
- Primary and secondary assembly areas
- Exits
- Fire alarm pull stations and/or air horn locations
- Site telephones
- Stairs
- Fire Extinguishers
- Suffolk Project Office Trailer
- First Aid Kit locations
- Emergency numbers

Medical Emergency. During orientation training, workers will be given information on how to summon medical assistance in case of a medical emergency. Workers should know the following information:

Emergency Phone Number: 911

Project Address: 50 Father Morissette Blvd, Lowell, MA 01852

When reporting a medical emergency, the worker will state their name, the nature of the emergency, the severity of the emergency and where assistance is needed. A worker may be required to meet medical personnel and guide them to where the emergency is located. Please remember: **DO NOT MOVE AN INJURED WORKER BEFORE MEDICAL ASSISTANCE ARRIVES UNLESS FURTHER INJURY IS POSSIBLE.**

Fire. In case of a fire, workers will evacuate their work area immediately and report to the pre-determined assembly area.

IN CASE OF FIRE OR MEDICAL EMERGENCY:

Emergency Phone Number: 911

Alarm or Notification: Site specific: Air Horns will be sounded 3x repeated

Evacuation Route:

Primary Muster Point A is located at: Suffolk Project Trailer

Secondary Muster Point B is located at: TBD

Utility Shutdown:

Natural Gas (if applicable) Responsible Person:

Electricity (if applicable) Responsible Person:

Severe Weather. Should weather conditions, such as severe thunderstorms or tornadoes, develop around or near the project, workers will follow the direction of their immediate supervisor and seek shelter in a subsurface shelter (basement). Work in areas where severe weather events are possible will have a contingency plan in place.

Chemical Release or Explosion. Workers will immediately evacuate their work area upon hearing the alarm or being notified of the emergency and ordered to evacuate. No worker is exempt from evacuation even if the evacuation is a drill.

Tradespersons are required to report immediately to their designated assembly point and be accounted for by their Foreman. Failure to report may cause another to risk danger in an effort to search for you. Do not leave the project without prior authorization from front-line supervision. A Suffolk employee will call an authorized Remediation Company to respond to chemical spills that require outside attention. For chemical releases and explosions, Boston Fire Department and the Massachusetts State Police will be called in as part of the investigation. Both of these parties will be identified in this SSSP.

13. SUBCONTRACTOR GENERAL & PROJECT SPECIFIC REQUIREMENTS

General. Trade-Partners must have demonstrated safety knowledge relevant to 29 CFR 1926 OSHA Construction Standards.

Competent Person Training Requirements. Each Trade-Partner will be required to provide current training certificates and documentation for their appointed Competent Person in the form of: National Certification as a CIH, CSP, CHST; 10 and 30-hour OSHA Construction Outreach Training; Safety Trained Supervisor (STS) through the Board of Certified Safety Professionals; 30-hour OSHA Safety Training Certificate through Union Affiliates; CHSP through OSHA Training Institute; Construction Site Safety Supervisor Certification through NCCER (National Center for Construction Education and Research), or the equivalent. This documentation is to be attached to the Competent Person Form required with submittals. The Competent Person Form can be found in Appendix 4.

Subcontractor's Site-Specific Safety Plan. Prior to mobilization, each subcontractor's Project Management and front-line supervision will develop and submit a written, detailed, project specific safety plan that will describe how they and their lower tier Trade-Partners intend to implement and conform to this SSSP. The subcontractor's safety plan will:

1. Identify each major component of the work that the subcontractor is responsible for completing.
2. Identify hazards associated with the work and the proper equipment and tools to perform the work.
3. Plan adequate and sufficient controls to protect their work crews.

The Suffolk Project Team will review the subcontractor's project specific safety plans, and finalize safety requirements at the Pre-Construction meeting. Additional work components that may come up later in the project will be analyzed once they are known. If the project specific safety plan needs revision due to scope of work changes, unanticipated or new hazards, other condition changes, etc., then all work pertaining to that work component will stop until a revised project specific safety plan is completed.

Each Subcontractor will designate a Competent Person prior to mobilization. This on-site safety representative will be a competent Tradesman who has completed at least 10 hours of OSHA Construction Outreach Training but may have other on-site duties.

Right of Suffolk to require Full-Time Safety Professional on Site. Suffolk's Project Management Team reserves the right to require a full time on-site safety professional any time, if the safety performance of trade-partner does not meet the requirements of this plan. Trade-Partners will submit the resume(s) and qualifications of their proposed safety professional or representative to be reviewed by Suffolk, who will determine if the proposed safety professional or representative has the training and experience required for the project. The person(s) will have the authority and responsibility to ensure the proper implementation of this SSSP.

Under Suffolk's Safer Together philosophy, all trade-partner safety professionals and representatives will have full authority to implement corrective actions and recommendations. Trade-partner safety professionals and representatives will have authority to stop any work they deem unsafe.

Trade-Partner full time on-site safety professionals shall have the following minimum qualifications:

1. Five year's construction experience, one year of which includes on-site construction safety responsibilities.
2. Specialized training relevant to the scope of work.
3. OSHA 30-hour Construction Outreach Training, or greater.
4. Working knowledge of construction safety regulations and hazard control methods.
5. Demonstrated ability to conduct safety training.

The minimum duties of designated safety professional and/or representative will be:

1. Investigate any incident or near miss and report the findings to Suffolk.
2. Attend safety meetings as required by Suffolk.
3. Conduct regular safety meetings with Tradespersons to instruct them on project safety practices and requirements.
4. Conduct written daily safety inspections of their work activities and make them available to Suffolk for review to ensure compliance with safe work practices and this SSSP.
5. Take direction from Suffolk related to timely abatement and control of hazards.

14. SUFFOLK SAFETY POLICIES & RIDER S

General. The purpose of Suffolk's safety policies is to assist project management, supervision and Trade-Partners in understanding Suffolk's Safer Together philosophy and the health and safety expectations and requirements for this project.

The safety policies within this document represent the expectation of performance for this and EVERY Suffolk project.

15. INJURY MANAGEMENT AND REPORTING POLICY

General. To control and manage any incident on this project, the following measures will be followed:

1. The injured Tradesman will be treated with First Aid, and/or if necessary, sent to the identified clinic or hospital Emergency Room for initial treatment. Suffolk reserves the right to appoint a supervisor from the Subcontractor to help keep track of the injured person until a full release to work can be obtained.
2. Each project will have both Suffolk and subcontractor personnel on-site who are trained in First Aid and Cardiovascular Pulmonary Resuscitation (CPR), including the use of a portable defibrillator.
3. All injuries will be reported to Suffolk and subcontractor management immediately. Written reports will be submitted to Suffolk Project Management during the same shift.
4. Suffolk will submit a copy of the Superintendents Incident/Injury Report form to the Owner and Suffolk Risk Management. Copies of this report will also be sent to the VP of Ed., Corporate Safety Director, Regional Safety Director and Sr. Safety Manager.
5. All injuries, including First Aid, will be reviewed by Suffolk supervision to determine how to prevent a repeat injury.

Light Duty Program. Whenever possible, the injured employee will be placed on Light Duty. Suffolk’s Safety Manager and the subcontractor supervisor shall establish a close working relationship with the injured person to ensure that all needs of the injured employee are met, as well as the needs of the injury management program.

All employees working on this project will follow a Return to Work Policy that requires any restricted or light duty to be accommodated when feasible. Each subcontractor shall be responsible for ensuring their employees comply with this manual.

Subcontractor’s Mandatory Requirement of Light Duty. Light duty is a mandatory requirement on this project to help in the quick recovery of the employee. All means necessary will be provided to the injured employee to ensure a rapid recovery and return to work processes. As a part of this plan, the injured employee will be provided the opportunity to return to work as soon as possible on light duty and transition to full duty upon medical full release from care.

Suffolk Project Management, along with the subcontractor supervision, will work closely with all medical doctors and specialists in order to ensure close co-operation from all parties in returning the injured employee back to full and normal duties as soon as possible.

Table 4. OCIP Injury/Property Damage/3rd Party Claim Reporting Requirements

Injury/Property Damage	Action Required	Contact
Injury to Tradespersons	Complete Superintendents Incident Report	email “Claims Reporter” on Suffolk website

	Email Owner’s Team Members Contact Suffolk Risk Management Department	
Property Damage	Complete Superintendents Incident Report Email Owner’s Team Members Contact Suffolk Risk Management Department	email “Claims Reporter” on Suffolk website
3 rd Party Injury or Property Damage	Complete Superintendents Incident Report Email Owner’s Team Members Contact Suffolk Risk Management Department	email “Claims Reporter” on Suffolk website

Clinic Location: Lowell General Hospital
295 Varnum Ave, Lowell, MA 01854

Incident/Injury Investigation. Once the incident is under control, and if necessary, all injured parties are treated and/ or transported to an approved local treatment facility, the Investigation Team will perform an accident/incident investigation. The Team will consist of the Suffolk Project Manager (as the team leader), Superintendent, Subcontractor Foremen, Safety Manager, and all others as deemed necessary.

Lessons Learned Report. Every incident and near miss will be reported immediately to Suffolk’s Project Team and documented using the appropriate Incident Report Forms. The Project Team will notify the Corporate Safety Department of any incident or near miss and will thoroughly investigate to determine the probable root cause(s). Preventive action will be required to eliminate future occurrences. A Lessons Learned report will be sent to the VP EHS so that this information may be shared with the Suffolk Family.

Incident and Near Miss. An “**incident**” is defined as any unplanned or undesired event that results in a work-related injury/illness property damage, or disruption of business. A “**near miss**” is any situation that has the potential under slightly different circumstances, to result in a work-related injury/illness, property damage, serious environmental impact, or disruption of business.

The appropriate reporting forms must be completed and submitted to Suffolk's Project Management within 24 hours of the occurrence.

Information for Incident Investigation. Identify the area(s) in which the accident occurred, including:

1. Project name and address
2. Date and time of the incident
3. Identify the injured person or persons involved in the incident. This should include name(s) and occupation titles(s) and type of equipment involved.
4. Include details, including the most complete description of the incident available, with specific reference to the part of the body injured or affected
5. Supervisor's Accident Report will be completed and phoned in to the Safety Manager within 24 hours of the incident.

If there is an incident, but no injury occurred, give a complete description as to what happened, where it happened, why, and corrective action taken to prevent it from happening again. Also, describe damage to tools, equipment trailers, vehicles, and anything else involved in the incident. Complete "Lessons Learned Report" for VP EHS for corporate dissemination.

Description of Accident. This section of the report should answer a series of questions designed to obtain the following information, including:

1. Location of the incident on the jobsite.
2. Activity of the injured at the time of the incident. This item should identify the specific activity being performed at the time of the accident and the materials, tools, or equipment that he/she was handling or using at the time.
3. Avoid general statements such as describing the activity in terms of his/her job title, or a broad activity designation.
4. What happened? Provide a comprehensive description of how the injury/incident occurred. It should include a specific statement as to how and why the person came into contact with the injury-producing object or substance, and a full account of any events, circumstances, or personal actions that led to or contributed to the occurrence. All details relating to the event, even though seemingly insignificant, should be included in the report.

Cause of Accident. Identification of the object or substance that directly inflicted or produced the injury.

1. What environmental factors contributed to the occurrence of the accident/ incident? Include identification of any conditions or circumstances associated with the premises where the accident occurred, or with the tools, equipment, or materials involved, which in any way contributed to the occurrence of the accident/incident.

2. What error of judgment or procedure, or what improper action by the injured or by another person, contributed to the occurrence of the accident?
3. What failures, on the part of supervision, the injured person or his/her co-workers contributed to the occurrence of the accident?

Other considerations:

1. When possible, discuss the accident with the injured employee.
2. Discuss the accident with other employees who may have seen the accident.
3. Carefully consider the following points:
 - a. What was the injured employee doing prior to the time of the accident? Was this in pursuit of his/her regular duties?
 - b. Was the employee properly instructed and trained how to perform his/her duties? Did he/she do the work in accordance with instruction?
 - c. Did any other employee or Contractor contribute to this accident?
 - d. Was the equipment or machinery, which the injured employee was using, in good condition?
 - e. Was it properly guarded? Was it suited for the purpose for which it was being used?
 - f. Was ample and sufficiently lighted workspace provided?
 - g. Were proper housekeeping conditions maintained?
 - h. How is the same type of work done by other employees?
 - i. Is there a safer way in which this work could be done?
 - j. Was the injured in good health when reporting for work on the day of the accident?

Root Cause Analysis. A Basic Root Cause Analysis (RCA) involves a closer look at four criteria that may have been a factor in the development of the conditions that led up to an incident. They include:

Management: do we have policy enforcement, hazard recognition, accountability, supervisor training, production priority, corrective action, proper resources, craft safety training, hiring practices, maintenance, adequate staffing.

Employee: was the employee following procedure, training, previous injury, mental ability, physical capacity, equipment use, short cuts, PPE worn, safety attitude.

Equipment: do we have proper tool selection, tool availability, maintenance, tool guarding, visual warnings.

Environment: what about site layout, chemicals, temperature, weather, noise, radiation, terrain, vibration, ergonomics, lighting, biological influences, and ventilation.

Evidence. It is in the best interest of all parties that all physical evidence not be disturbed or tampered with, regardless of the circumstances involved, unless doing so is necessary for safety reasons. All efforts must be made to secure the area of the accident as soon as possible after the occurrence to prevent any alteration of the scene prior to the investigation.

If any equipment, tools and/or materials are involved with the accident, they shall, after marking location, be removed from service and placed in safekeeping. If this proves to be impractical, the area in which the accident occurred shall be cordoned off and security personnel shall be posted to keep all unauthorized personnel out of the area. The secured area shall only be reopened upon approval from the Sr. Safety Manager.

Drawings, Photographs and Diagrams. Drawings, photographs and diagrams should be marked up and/or sketches prepared to indicate the location of the accident. All measurements of time, distance, size, weight, etc., must be accurate. In the event of unknowns (e.g., speed, distance, weight), every attempt must be made to closely approximate the same with tables, formulas or calculations which must be kept as part of the accident investigation.

Witnesses. All personnel associated with the operation and other eyewitnesses to the accident shall be interviewed and written statements taken. Use the Witness Incident Statement form in Appendix 3.

The information obtained during these interviews must be limited to direct knowledge of what was observed. Opinions and hearsay information do not represent factual findings. Each individual interviewed should be requested to sign a statement of his/her recorded sequence of events that led up to and included the accident.

The following information should be obtained from each individual interviewed:

1. Name of Contractor, employee name, address and occupation or trade.
2. Date, time and place of interview.
3. Where the person being interviewed was at the time of the accident.
4. A complete narrative of what the witness knows of the accident. What operational activity or other events were taking place prior to and at the time of the accident.
5. What materials (e.g., lumber, concrete, steel), equipment (e.g., tools, cranes, scaffolding) or conditions (e.g., weather, working environment, and labor disputes) were involved. This would also include all possible contributing factors, personal and physical, whether they are directly or indirectly related to the accident.
6. What facts may have caused the accident? Answers must be as objective as possible. Include all unsafe conditions and/or unsafe acts.
7. Was there a pre-existing known and/or reported unsafe condition or actions associated with the accident? If so, when was it reported, to whom and was there any action taken at that time.
8. Upon conclusion of the interview, review the statement with the witness and have the witness attempt to clear up potential inconsistencies. The statement should then be dated, signed and witnessed by a third party.

Accident Report Format

1. A preliminary report will be completed within 8 hours of the accident and reported to the appropriate Suffolk Management.

2. The final investigative report shall be completed as soon as possible, but no later than 72 hours post-accident.
3. An accurate, detailed narrative description of the operation being performed at the time of the incident is of extreme importance. It is important to remember that a minor miscalculation may have been the root cause that triggered the sequence of events, which resulted in the accident.
4. Investigative reports should reveal the following:
 - a. What happened?
 - b. When did it happen?
 - c. Where did it happen?
 - d. Why did it happen?
 - e. To whom did it happen?
 - f. What activities were occurring in the area at the time of the incident?
 - g. The time the incident occurred.
 - h. Include drawings, photographs, and diagrams.
 - i. Include witness statements.
 - j. What were the weather conditions at the time of the accident?
 - k. Was the weather a contributing factor and if so how?
 - l. Were all persons involved in the incident drug tested, and if not, why not?
 - m. Corrective action required: Identify those factors (relating to people, premises, or equipment) that should be considered for correction or additional attention, to prevent a recurrence of the accident.
 - n. Placement of responsibility for corrective action: Describe any immediate action taken after the accident to correct the circumstances leading up to, or to prevent a recurrence of the accident.
 - o. List any actions that need further attention.
 - p. State or recommend the person or organization to which responsibility for further corrective action should be assigned.
 - q. If practical, set a target date for completion of that corrective action.

Summary. At the conclusion of a major accident investigation, a meeting will be held at the work site of the incident to ensure the root causes have been determined and proper corrective action has been initiated:

1. A Root Cause Analysis process will be initiated for all injury and property damage incidents and will be included in the incident investigation packet.
2. The following personnel will attend this meeting:
 - a. The injured party, witnesses to the incident and the injured party company's management (including Subcontractor's Safety, Foreman and Project Manager); and Suffolk (Safety, Superintendent and Project Manager).

Post Incident Review Meeting. Upon completion of the incident investigation or observation of a major non-conformance, Suffolk will require a post incident review meeting. At this meeting, the Suffolk project team and its senior project management, supervision, and involved subcontractor(s) will discuss the non-conformance, root causes, and corrective action plans. A

Lessons Learned report will be submitted by the Safety Manager to the VP EHS for corporate dissemination.

16. ON-SITE CELL PHONE USE POLICY

General. Cell phone and phone camera use on this project will be limited to emergency, company or project related business. Serious accidents are on the rise due to individuals talking, texting, or using apps while walking. Only the employer's-approved mobile devices will be allowed.

Prohibited Uses On Site. The use of personal cell phones, phone cameras and audio devices during work hours is prohibited. This includes radios, I-pods, ear buds, etc. Personal devices are only allowed during company approved breaks. If emergency use is necessary, notify your supervisor of the expected need to receive that personal communication.

Absolutely no personal cell phone or mobile device will be used while operating equipment or vehicles while on the project.

Individuals using any mobile device for project or company business must position themselves out of any equipment path (harm's way), stop walking, complete a "surroundings" review, then proceed. Mobile devices are a great tool to help our teams construct successfully. They must be used wisely and with caution, as any other tool.

17. ON-SITE TOBACCO USE POLICY

Suffolk enforces a Smoke-Free Workplace. There will be **NO smoking or chewing tobacco except in designated areas on all Suffolk Projects. This includes electronic cigarettes (Vapes).**

18. MORNING HUDDLE

General. Prior to commencement of work, a morning huddle will be held where all craft are assembled. This time serves for general announcements, events unique to the day, and recognition of workers. Suffolk believes the most reoccurring and disabling injuries that plague the construction worker are soft tissue injuries. Warm up and stretching before work has proven to reduce the severity of soft tissue injuries. Warm up and stretching exercises can reduce the chance of heart attack and increase the life expectancy of our workers. Suffolk believes these benefits of reducing injuries and improving the life of every worker on the project is significant. Workers associated with the project will participate in warm up and stretching exercises at the beginning of each shift within their crew or subcontractor company.

19. SANITATION

Toilet Facilities. Adequate chemical toilets are available on the jobsite for the use of workers. Chemical toilets shall be serviced often enough to prevent overflowing, creation of an unsanitary

condition, a health hazard or nuisance, and shall be maintained in good repair to prevent leakage of the contents to the surrounding ground or onto the floor or other portions of the structure.

Wash Facilities. Wash facilities will be available at the jobsite for washing hands prior to eating or drinking.

Drinking Water. Trade-Partners will provide daily, fresh clean drinking water to their employees. Drinking water will be dispensed in containers with a tight sealing lid and labeled as Drinking Water. Drinking water containers are to be cleaned daily.

Adequate cups will be made available at each drinking water container. Cups will be stored in a durable clean dispenser. A trash can or other type receptacle will be provided to collect used cups. Contractors are responsible for cleaning up around the water container area. The dipping of cups into the container, storing soda cans and bottles, drinking directly from the spout, placing of hands or material into drinking water is prohibited.

20. HEAT ILLNESS PREVENTION

General. The elements reflected within this Heat Illness Prevention guide consist of the following:

1. Provision of Water
2. Access to Shade
3. Written Procedures
4. Training

This program is to insure the welfare and safety of all tradespersons on this project, and to the control of risk for heat-related injury or illnesses. Employees shall have access to potable drinking water. Where the supply of water is not plumbed or otherwise continuously supplied, water shall be provided in sufficient quantity for drinking for the entire shift. The frequent drinking of water shall be encouraged. To ensure access to sufficient quantities of potable drinking water, the following steps will be taken:

1. All Trade-Partners will have water supplied at the locations where their crews are working, with adequate amounts of water on hand at all times. If coolers are used, they will be cleaned and filled on a daily basis.

To encourage frequent drinking of potable water, the following steps will be taken:

1. All supervisors will remind their workers to drink water. The workers will be reminded daily and at the weekly tool box safety meetings.

Access to Shade. Access to rest and shade or other cooling measures are important preventive steps to minimize the risk of heat related illnesses. Employees suffering from heat illness or believing a preventative recovery period is needed shall be provided access to an area with shade

that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes. Such access to shade shall be permitted at all times.

Cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool.

To ensure access to shade at all times, the following steps will be taken:

1. Employees have access to office, construction trailer, or other buildings with air conditioning.
2. Whenever possible, employers will provide areas for employees to take their breaks, which are:
 - a. Readily accessible
 - b. In the shade and open to the air, and ventilated or cooled
 - c. Near sufficient supplies of drinking water.

To ensure that employees have access to a preventative recovery period, the following steps will be taken:

1. Toolbox safety meetings will be held to instruct employees in the requirement for breaks in areas of shade and near location of drinking water, and location of recovery shaded areas.

Written Procedures. Written procedures help reduce the risk of heat related illnesses, and ensure that emergency assistance is provided without delay. The following employer's procedures shall be in writing and shall be made available upon request. These include:

1. Procedures for complying with the requirements of this standard.
2. Procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
3. Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider.
4. Procedures for ensuring that, in the event of emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.

Steps to Prevent to Prevent Heat Related Illnesses. In order to reduce the risk of heat-related illness and respond to possible symptoms of heat illness, the following steps will be taken:

1. All employees of all contractors will be required to attend a site orientation **prior** to being permitted to start work on the project. This orientation will include training and requirements for the identification of heat illness and the requirements for preventing and treatment of heat injury and illness.

2. All contractors are required to supply cool, fresh, clean drinking water for every worker on site under their direct supervision and cups to drink from and a method for discarding used cups.
3. Toolbox safety meetings will be required by all Trade-Partners to address heat conditions and requirements for preventing and treating, as well as symptom recognition by all employees and supervisors to address any heat injury or illness as fast as possible.
4. All employees will be instructed as to the location and postings of all emergency locations and phone numbers to call for assistance.

Emergency Medical Services. To ensure that emergency medical services are provided without delay, the following steps will be taken:

Our procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary, are:

1. The person first recognizing the injury or illness will immediately call “911”
2. Spotters will be positioned to direct Emergency Responders on to the site and to the location of injured person. The injured person will be taken to a cool, shaded area and evaluated and proper treatment will be administered until Emergency Response arrives.

Training. Training is critical to help reduce the risk of heat-related illnesses and to assist with obtaining emergency assistance without delay.

1. Employee Training
 - a. Training in the following topics shall be provided to all supervisory and non-supervisory employees.
 - i. The environmental and personal risk factors for heat illness.
 - ii. The employer's procedures for complying with the requirements of this standard.
 - iii. The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
 - iv. The importance of acclimatization.
 - v. The different types of heat illness and the common signs and symptoms of heat illness.
 - vi. The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers.
 - vii. The employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.
 - viii. The employer's procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider.

Supervisor Training. Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided:

1. The information required to be provided.
2. The procedures the supervisor is to follow to implement the applicable provisions in this section.
3. The procedures the supervisor is to follow when an employee exhibits symptom's consistent with possible heat illness, including emergency response procedures.

General Employee Training Requirements. To ensure employees are trained, the following steps will be taken:

1. Every employee on site will be required to attend a new hire orientation where heat and illness training and requirements will be included.
2. All supervisors will hold toolbox meetings and insure that all their crew understands the requirements for water supply, heat illness and injury recognition, and emergency response.
3. All supervisors will attend periodic training, in addition to the required site safety orientation, that will include heat-related illness and injury prevention methods.

21. MAXIMUM LIFTING POLICY

General. Suffolk has implemented a 50 lb. max lifting requirement for all employees and workers on our projects. Proper training and lifting mechanics will help insure that 50 lbs. can be lifted without injury, but the 50 lbs. to 75 lbs. range should be avoided as much as possible. We understand that there will be special circumstances when individuals may have to manually move material weighing over 75 lbs.. Anytime material greater than 50 lbs. is to be moved manually, it is to be identified early and a manual lifting plan will be submitted as part of the PTP, discussed and approved by the Superintendent.

If a manual lift is not preplanned and a heavy manual lift is discovered, the crew is to STOP work and get their Foreman to develop a plan to be approved by the Superintendent. A manual lifting plan will only be approved when equipment cannot be used to move or relocate the material. To be successful, the preplanning of material placement will help prevent the need to stop work and complete a PTP on materials weighing greater than 50 lbs. Manually moving material greater than 50 lbs. should be performed using by carts, dollies, pallet jacks, forklifts, crane/hoists and when necessary, team lifts.

Consideration of material weights should be discussed in the Subcontractor's Weekly Coordination Meeting, including a subcontractor's 3-week look-ahead schedule review, and at pre-task planning by each crew. We must take steps to prevent the injuries occurring on our jobsites. Enforcing a max lifting weight will generate better preplanning of material handling on our projects.

22. PERSONAL PROTECTIVE EQUIPMENT (PPE)

General PPE Use. All Suffolk, Trade-Partners, vendors, and third-party individuals will at a minimum wear the following Personal Protective Equipment (PPE) without exception while on the project (except in office, lunch areas, and enclosed cabs).

Head Protection. Hard hats will be worn at all times on the project; in addition, the following rules apply:

1. Hard hats will be worn in accordance with manufacturer requirements.
2. Person's name must be displayed on hardhat so person speaking to them can see this information.
3. Meets ANSI Z89.1 requirements

Eye and Face Protection. Safety glasses that meet ANSI Z87 criteria will be worn at all times. Workers with prescription glasses must meet ANSI Z87 requirements or will be required to wear over the glasses (OTG) safety eyewear. Clear Safety Glasses are required as a minimum in all interior work situations and low light conditions.

In addition, a protective face shield, in addition to standard eye protection, must be worn whenever chipper hammers, chop saws, table saws, Hilti guns or other power tools that create flying debris are used.

Foot Protection. Sturdy, above the ankle work boots that are in good condition must be worn (heel and sole will not show excessive wear). Tennis shoes, sandals, or other street-type shoes are not allowed, even if they have steel toes. Some Owners may require steel-toed boots. Employees will be required to have these boots if working on such an Owner's project.

High Visibility Attire. Every Tradespersons, visitor, and vendor will wear high-visibility attire at all times. ANSI reflectivity requirements must be complied with when working in traffic and/or at night. High visibility attire will remain in effect until site superintendent and safety manager approve no use due to lower hazards.

Exceptions: Only welding and torch use activities are excluded from this requirement while performing welding and metal cutting operations.

Work Attire. Shirts will have a minimum sleeve length of three (3) inches. Tank tops and cut-off shirts are not permitted. Long trousers are required that fit properly around the waist and ankles. Trousers that are worn low on the hips or thigh are not allowed. The length of the trouser will be such as to not present a tripping hazard. Shorts are not permitted.

Respiratory Protection. A Competent Person will determine if a hazard exists which requires respiratory protection prior to start of work. Written documentation supporting this hazard assessment will be made available to Suffolk upon request.

Whenever respiratory protection is deemed required or requested by a worker on the project, the requirements outlined in OSHA 29 CFR 1926.103 will be followed, which include:

1. Have affected workers complete a Medical Questionnaire for Respirator Use.
2. Submit questionnaires to a Physician or Licensed Health Care Professional (PLHCP) for review and further testing.
3. Once medical approval to wear a respirator is received from the PLHCP, select the appropriate type of respirator to protect workers from the hazard(s).
 - a. For air purifying respirators, choose the appropriate filter/cartridge.
 - b. For supplied air respirators, ensure breathing air source provides “Grade D” breathing air.
 - c. Train affected workers about the specific type(s) of respirator(s) being used.
 - d. Fit-test the workers with the specific type(s) of respirator being used.
 - e. If a worker desires to voluntarily wear a filtering face piece (dust mask) and a respirator is not required, the front-line supervisor must inform the worker about the limitations of the selected respirator. Voluntary Use of a Disposable Respirator Form (Appendix 6) or equivalent shall be used.

Hand Protection. Suffolk requires all tradespersons to wear hand protection at all times. Hand and finger protection shall be specifically addressed in the development of project specific safety plans and daily PTPs. The appropriate protection, including cut resistance, shall be identified. Each employer’s Competent Person shall assist in recommending the correct glove for the task. Workers shall wear gloves at all times to prevent hand and finger injuries when handling tools or materials.

Hearing Protection. Approved hearing protection will be worn as specified in posted areas and while working with or around high-noise level (85 dBA or greater) producing machines, tools, or equipment. A good rule to follow is: when you must raise your voice to be heard, you need hearing protection. Exposure to impulse or impact noise will not exceed 140dB noise level.

Impulse or Impact Noise. The following tools are known to have Time Weighted Averages (TWAs) in excess of the OSHA Hearing Protection Standard. Use of hearing protection for these activities may be considered mandatory.

Sources of High Noise Exposure

<u>Equipment</u>	<u>Measured Exposure</u>
1. Pneumatic chip hammer	113 dBA
2. Jack hammer	111 dBA
3. Concrete joint cutter	102 dBA
4. Chop saw	102 dBA
5. Stud welder	101 dBA
6. Bulldozer	95 dBA
7. Crane	96 dBA
8. Impact Hammer	95 dBA
9. Backhoe	93 dBA

OSHA TWA

<u>Exposure Time</u>	<u>Average Exposure</u>
8 Hours	90 dBA
6 Hours	92 dBA
4 Hours	95 dBA
3 Hours	97 dBA
2 Hours	100 dBA
1.5 Hours	102 dBA
1 Hours	105 dBA
30 Minutes	110 dBA
15 minutes or Less	115 dBA

Additional Protections. Where engineering and administrative controls do not fully mitigate the hazard, Suffolk may require Tradespersons to wear additional personal protective equipment to reduce the likelihood of a work-related injury or illness.

23. SUBSTANCE ABUSE POLICY

Suffolk is committed to providing a safe, drug-free work place for all employees. This policy applies to all Suffolk, subcontractor at any tier, vendor, and other third-party employees, including management, working on or visiting the project.

To ensure safe and productive working conditions and consistent with business necessity, Suffolk prohibits the use, possession, or distribution on its premises, in its work places, or during working time, of any of the following: alcoholic beverages, intoxicants, narcotics, illegal or unauthorized drugs or drug paraphernalia. Employees shall not report for work under the influence of any illegal or unauthorized drug, alcoholic beverage, intoxicant, narcotic, or other controlled substance. This includes legally prescribed drugs and medicines, which may, in any way, adversely affect employee's working ability, alertness and/or coordination, or which may adversely affect the safety of others on the job.

Searches. Additionally, Suffolk reserves the right to a search conducted on any company property, facilities or equipment, employee vehicles, or other personal property if located on company property or work sites. Suffolk may act through the appropriate State or Federal agency to seize any controlled substances and report the same to law enforcement personnel. Refusal to submit to such a search may result in suspension and possible termination.

Prescription Drugs. Legally prescribed drugs may be permitted on company premises or work locations provided these drugs are contained in the original prescription container and are prescribed by an authorized medical doctor for the current use of the person possessing the drug. It is the responsibility of each employee who is taking prescribed medication to inform his physician of his job duties and to inform his supervisor of any such medication that would restrict him in performing his duties in a safe and efficient manner.

Disciplinary Action for Drug Policy Violations: Any tradesman who violates this policy is subject to disciplinary action, including immediate termination, immediate removal from a work site, and future prohibition from the premises.

24. ENVIRONMENTAL POLICY

Suffolk is committed to protecting the environment on all projects and the health of all the project's employees. The scope and intent of this policy is to identify and comply with local, state, federal, and client requirements.

Responsibility. It is the responsibility of Suffolk, its Trade-Partners, vendors, or other third party individuals to identify and analyze EHS regulations. The Safety Manager will coordinate all Environmental Health and Safety concerns. It will be the responsibility of all contractors involved with this project to comply with the regulations.

Procedure. Prior to commencement of construction activities, a comprehensive search that identifies relevant federal, state, and local regulations is accomplished. Any regulation that applies to the operation is identified, and a specific plan of compliance is developed.

Non-Hazardous Materials. All non-hazardous materials and trash will be put in Suffolk provided trash containers. Housekeeping will be done daily without exception.

Hazardous Materials. Trade-Partners utilizing heavy equipment or storing hazardous liquids will maintain a spill response kit to contain spills up to 10 gallons. There will be no on-site bulk liquid fuel storage. Equipment refueling shall utilize off-site fueling resources in lieu of storage of bulk fuels on site.

In the event of a spill of (10) gallons or more of petroleum type product and/or hazardous substance, the Superintendent will coordinate emergency containment with the applicable subcontractor to prevent spills from entering storm drains and create potential damage to local bodies of water. Once the spill is contained, the Superintendent will coordinate clean up and disposal with the owner.

All work will actively stop in the immediate area of the hazardous material spill and will not resume until the area has been cleaned and released by the Superintendent.

For flammable and/or combustible liquid spills, A 20-pound ABC Fire Extinguisher will be placed near the spill area, no closer than 25 feet and no further than 50 feet and shall remain until remedial activities are complete.

25. HAZARD COMMUNICATION

General. All workers on the project are entitled to know the physical and chemical properties, and potential safety and health hazards, of chemicals or substances that they may come in contact

with on the project. As part of their HASP, each subcontractor will develop a written project specific Hazard Communication Plan. This plan will be placed in a location where all tradespersons can easily access and review the plan.

Each subcontractor will submit a Master Chemical and Substance Inventory List and a copy of the Safety Data Sheet (SDS) of all known hazardous chemicals that are in their work area. Prime Trade-Partners will be responsible for obtaining all sub-tier Trade-Partners Master Chemical and Substance Inventory Lists/SDS and forwarding to Suffolk. A Master Chemical and Substance Inventory list will be maintained, even if they do not have or will not use any hazardous chemicals or substances. *This is an OSHA requirement.*

Trade-Partners will maintain a project specific SDS on location for each hazardous chemical or substance listed on the Master Chemical and Substance Inventory List. Prime Trade-Partners will be responsible to ensure all sub-tier Trade-Partners have their project specific SDS sheets at the project. It will be the responsibility of each tradesman's competent person or Project Manager to assure SDS are received prior to, or at the time of delivery of, a hazardous chemical.

Project management and front-line supervision will ensure all hazardous chemicals are properly labeled in accordance with the SDS. Containers that hazardous chemicals have been transferred into for use during a single work shift will be labeled as to contents.

Hazard Communication Training. Every worker on the project shall receive instruction from their employer on their Hazard Communication Program, the location of the Master Hazardous Chemical and Substance Inventory list, the location of SDS, labeling requirements and specific safety or health instructions about the hazardous chemical or substance.

Recommended minimum Hazard Communication Training will consist of:

1. The contents of the program. Prior to use of or the potential exposure to any hazardous chemical or substance, workers are to be instructed in:
2. Physical and health hazards
3. Personal Protective Equipment (PPE)
4. Procedures to protect against the hazards
5. Emergency procedures in case of exposure or accidental spill.
6. Engineering and administrative controls
7. Labeling Requirements.

Whenever a new chemical or substance is introduced into the workplace, tradespersons will be briefed regarding its hazards. The Owner, vendors and Trade-Partners that may have business in or near a work area will be notified that hazardous chemicals are being used and the hazards they may encounter. If a worker believes they have encountered a hazardous chemical or substance unfamiliar to them, they will immediately notify their supervisor. Project management or supervision will attempt to identify the hazardous chemical or substance and initiate all precautions to handle and dispose of this material, if required, and to properly protect workers.

26. SUFFOLK SITE-SPECIFIC REQUIREMENTS

General. The standards below have not been identified as risks currently for this project but need to be adhered to if/when situation is present. It is important to note that in the event a standard or policy is not included the relevant standards in CFR 1910 and CFR 1926 the OSHA standards remain in effect.

Asbestos Abatement Procedures and Processes. Asbestos containing material (ACM) and/or Presumed Asbestos Containing Material (PACM – certain materials pre-1980) are classified as hazardous material by OSHA and EPA. At Suffolk projects, any scope of work requiring demolition (no matter the quantity) or excavation of a site suspected or known of past landfill practices will require a complete asbestos inspection/survey to determine the presence, location and quantity of ACM and/or PACM at the project site. The asbestos inspection must contain sampling for all materials included in the contracted scope of work. Current regulations require the asbestos inspection be completed regardless of the age of the facility/structure.

In the event that ACM is discovered or disturbed in a previously unknown area of the work, Suffolk's Corporate Safety Department and In-House Council must be notified immediately. Corporate Safety will assist with and help set up protocol going forward. Suffolk's asbestos expert will be contacted to advise and insure proper notification, protection, best practices and protocol are followed, including the Owner abatement process. When ACM/PACM is found in areas that were not previously part of the RAM or environmentally sampling strategy, all work will stop and possible exposed crafts will be removed from the area. All State Notifications will be made; proper labeling and material control measures will be put in place until the hazardous material is abated. The immediate area at the ACM/PACM will be barricaded with no entry until authorized by Suffolk.

All Suffolk Safety Managers will complete annual asbestos awareness training to provide a general understanding of the hazards and responsibilities when ACM/PACM is introduced into the scope of work, including known ACM products, cancer and lung effects, and protective measures. All Trade-Partners will provide proof of employee asbestos awareness training for those employees working onsite that may come into contact with areas that contain ACM/PACM. This documentation will be kept in the site EHS binders.

ONLY A LICENSED CONTRACTOR WILL REPAIR AND/OR ABATE DISTURBED OR DAMAGED ACM/PACM MATERIAL.

Pre-Construction:

1. Identify and consult the certified asbestos inspector/expert that will help evaluate the site/facility asbestos inspection completeness relevant to Suffolk's scope of work and provide support if ACM is discovered after abatement.
2. The asbestos inspection report is to remain at the project, through completion, for review by employees or regulators, if requested.
3. Work will not start on any project requiring demolition/excavation until the asbestos inspection is provided by the facility owner (per OSHA regulations 1926.1101(k)(2)(i)).

4. The asbestos report, location and quantities of ACM/PACM will be communicated to the Trade-Partners that will be exposed to these sites prior to work beginning. This notification will be documented in a pre-construction orientation.
5. ACM material that will remain in the facility during the renovation will be posted /identified and all crafts with possible exposure will be notified of the ACM location and the requirement not to disturb.

Silica. In an effort to protect workers from respirable crystalline silica, Suffolk has outlined a plan in conjunction with OSHA CFR 1926.1153(k) for Trade-Partners involved in tasks such as: using masonry saws, grinders, drills, jackhammers and handheld powered chipping tools; operating vehicle-mounted drilling rigs; milling; operating crushing machines; and using heavy equipment for demolition or certain other tasks.

1. Silica-generating tasks will be identified on daily PTPs along with specific engineering controls and, if necessary, respirator requirements. Trade-Partners are responsible to ensure exposure limits are not exceeded.
2. Employers who DO NOT adequately protect their employees and exposure limits are in question WILL be required to measure workers' exposure to silica; and, independently decide which dust controls work best to limit exposures to the permissible exposure limits in their workplaces.

Regardless of which exposure control method is used, all Trade-Partners covered by the standard are required to:

1. Establish and implement a written exposure control plan that identifies tasks that involve and methods used to protect workers, including procedures to restrict access to work areas where high exposures may occur.
2. Designate a competent person to implement the written exposure control plan.
3. Restrict housekeeping practices that expose workers to silica where feasible alternatives are available.
4. Offer medical exams—including chest X-rays and lung function tests—every three years for workers who are required by the standard to wear a respirator for 30 or more days per year.
5. Train workers on work operations that result in silica exposure and ways to limit exposure. Keep records of workers' silica exposure and medical exams.

Confined Space Entry

This section describes restrictions and requirements for entry certification and confined space entry permits for compliance with 29 CFR 1910.146 and 29 CFR 1926 Subpart AA, Confined Spaces in Construction. There are 5 key differences in the construction rule, and several areas where OSHA has clarified existing requirements. The new standard addresses, more directly, the needs of the construction industry:

1. More detailed provisions requiring coordinated activities when there are multiple employers at the worksite (for more detail, see question below). This will ensure hazards

are not introduced into a confined space by workers performing tasks outside the space. An example would be a generator running near the entrance of a confined space causing a buildup of carbon monoxide within the space.

2. Requiring a Competent Person to evaluate the work site and identify confined spaces, including permit spaces.
3. Requiring continuous atmospheric monitoring whenever possible.
4. Requiring continuous monitoring of engulfment hazards. For example, when workers are performing work in a storm sewer, a storm upstream from the workers could cause flash flooding. An electric sensor or observer posted upstream from the work site could alert workers in the space at the first sign of the hazard, giving the workers time to evacuate the space safely.
5. Allowing for the suspension of a permit, instead of cancellation, in the event of changes from the entry conditions list on the permit or an unexpected event requiring evacuation of the space. The space must be returned to the entry conditions listed on the permit before re-entry.
6. This section provides procedures for ensuring safe work on Suffolk projects for all personnel who enter confined spaces. It describes the requirements for safe entry, work, and exit of personnel assigned to work in confined spaces. These requirements apply to all Suffolk staff and includes Trade-Partners and sub-tier-contractors.
7. Identify spaces (e.g. equipment, tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes) which have the following physical characteristics:
 - a. Large enough and so configured that personnel can bodily enter and perform assigned work (includes spaces where the head and trunk can enter even if the whole body could not fit)
 - b. Limited or restricted means for entry or exit (e.g., man-way door, hatch, cover)
 - c. Not designed for continuous personnel occupancy (e.g., a hazardous situation is typically present in the space).
8. If all three conditions above are present, the space is a confined space. Proceed to classify the confined space based on the potential hazard(s) in the space. Suffolk is classified as the Controlling Contractor per OSHA 29 CFR 1926 Subpart AA Construction Confined Space and will be the primary point of contact for information about permit spaces at the work site.
9. The Host Employer (Owner) must provide information it has about permit spaces at the work site to the Controlling Contractor, who then passes it on to the employers whose employees will enter the spaces (deemed "Entry Employers").
10. Before work begins at a construction site, each employer must ensure that a Competent Person identifies all confined spaces in which one or more of the employees it directs may work and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary.
11. All Trade-Partners conducting CSE work on a Suffolk site who decide that their employees will enter a permitted space, that subcontractor must have a written CSE program implemented at the construction site. Trade-Partners must give Suffolk information about their entry program and hazards they encounter in the space.

12. Prior to any worker entering a confined space, he/she will be trained and records submitted to Suffolk prior to commencement of the work, for the following items:
 - a. Contents of the Confined Space Entry Plan
 - b. Known hazards in the confined space
 - c. Emergency procedures in case of an emergency
 - d. Correct use of personal protective equipment (PPE) when required
 - e. Hot Work Permit, if required
 - f. Atmosphere testing requirements
 - g. Lockout/Tagout procedures
 - h. Fall protection if required

Crane Safety

Lift and Pre-Task Planning. Prior to any lifts, a High Hazard Analysis (HHA) and Lift Plan will be completed, reviewed, and signed off on by the Superintendent or Safety Manager. The final Lift Plan will fully incorporate the current site conditions, including utility locations and any possible intersections with public access areas. A Pre-Task Plan must be accomplished prior to any lift for that particular day to ensure that no deviations from the lift plan exist.

Lift and Pre-Task Planning. Prior to any lifts, a lift plan will be completed, reviewed, and signed off on by the Superintendent or Safety Manager. The final lift plan should fully incorporate the current site conditions, including utility locations and any possible intersections with public access areas. A Pre-Task Plan must be accomplished prior to any lift for that particular day to ensure that no deviations from the lift plan exist.

NOTE: A Lift Plan is also required for erection and dismantling of all cranes.

Pre-Erection Requirements

Geotechnical Requirements. Soil conditions must be fully assessed prior to any crane arriving at the site. Items to consider include travel, slope, and soil loading ability. Prior to the erection of any tower crane a geo-technical evaluation shall be accomplished and incorporated into the foundation design of the engineered system.

Foundation Considerations. For mobile cranes, outrigger size, location, and soil condition must be considered when planning. Soil bearing capacity is to be determined by a vendor and outrigger sizing established prior to the crane arriving on site. Tower crane foundations must be a designed system, certified by a professional engineer, taking all loads and soil conditions into consideration.

FAA and Other Agency Notifications. The Federal Aviation Administration (FAA) requires a permit on construction cranes any time they will exceed 200 feet in height, OR when they are placed within 20,000 feet (3.79 miles) of an airport regardless of height. The FAA requires FAA Form 7460-1 to be submitted at least 30 days before the following:

1. The date the proposed construction is to begin.

2. The date the application for a construction permit is to be filed.
3. The FAA requires that four copies of the FAA Form 7460-1 be sent to the local/regional FAA Director. In addition to the FAA, other local statutes may require additional notification.

Overhead and Underground Utility Considerations. Prior to the assembly/erection of any crane it must be determined if any part of the crane, load line, or load (including rigging and lifting accessories) could get in the direction or area of assembly within proximity of a power line. Minimum clearance distances are on the table below. In the event this clearance must be encroached the line will be de-energized prior to the planned encroachment. If the voltage is unknown, a 20 foot minimum clearance must be maintained. Crane baskets are not permitted without the prior approval of site management and Suffolk's Corporate Safety Director.

Pedestrian Access and Potential for Incidents to Occur. No load will be swung over any public street that is occupied by the general public unless authorized by local authorities. Accessible areas within the swing radius or the rotating superstructure must be barricaded to prevent serious injury or death to tradespersons and pedestrians. All incidents involving crane operations (*i.e., unsafe observation, near miss, etc.*) must be reported immediately to Suffolk Project Management, including the Safety Manager. Suffolk's Superintendent and Safety Manager will develop a corrective action in response to the cause of the incident prior to resuming crane operations.

Inspection and Oversight Requirements. Prior to any crane arriving on a Suffolk project, the previous monthly and annual inspection shall be reviewed by Suffolk site management. Verification that all noted defects have been corrected shall be included with the inspection form. In addition, erection of tower cranes shall be directed by a third-party inspector. Upon completion of erection a new annual inspection shall be accomplished by the third-party inspector and all defects corrected and documented prior to any lift.

Post Erection Procedures and Requirements

1. **Inspection Requirements (annual, monthly, daily).** On-going comprehensive inspections are a critical component that ensures the on-going safe operation of all cranes.
 - a. **Daily Inspections** will be accomplished for all cranes on Suffolk projects. It is mandatory that checklists are used to document that this requirement has been met. Daily inspections may be accomplished by a Qualified Operator.
 - b. **Monthly Inspections** will be accomplished for all cranes on Suffolk projects used on the project for greater than 21 days or 3 consecutive weeks, regardless of operating days during that period. The monthly inspection forms are required to be completed and maintained in the cab of the equipment. Monthly forms will be retained for a minimum of 3 months, and some local agencies may require them to be retained longer.
 - c. **Annual Inspections** will be accomplished for all cranes on Suffolk projects used on

that project for greater than 365 calendar days, regardless of operating days during that period. The annual inspection is required to be completed and the forms maintained in the cab of the equipment. Annual inspections must be accomplished by either a Vendor or Manufacturer, or a Third-Party Inspector.

2. **Operator, Rigger, and Signalman Qualifications.** The intent of this standard is to require all crane operators on Suffolk projects to be a Certified Crane Operator (CCO) and possess all of the requisite skills to safely operate the applicable equipment. However, until CCO's are available at all US locations, Suffolk will make every effort to use operators who are certified by the National Commission for the Certification of Crane Operators (NCCCO) for the cranes they are operating.
 - a. Prior to any lifts, the operator's competency shall be verified through their employer and made available to LCC Site Management. This certification however does not ensure that an operator is capable of safely operating a particular piece of equipment.
 - b. The following guidelines will be followed to ensure operators are fully qualified to safely operate the applicable equipment for the project:
 - i. Qualifications for riggers and signalmen will be compliant with OSHA standards, verification of certifications must be presented to Suffolk site leadership prior to crane operations.

Required Certifications. Suffolk will review and inspect NCCCO Certification Card for types of cranes the operator is certified to operate. Verify on the Application for Employment or by subcontractor certification that the applicant has operated cranes in the classification for which they are being hired. Suffolk reserves the right to remove an operator from the site if, in Suffolk's judgment, the operator is unfit to operate the applicable crane.

Upon determining that the potential operator is qualified, personal training will be given to the operator that may include "Critical and Major Lift Planning."

Critical Lift Determination. The decision to designate a lift as a critical lift is a management decision based on the weight and radius of the lift, incorporating both critical and major lifts. OSHA requires that a Critical Lift Plan be drafted for any lifts in excess of 75% of the rated capacity of the crane. Guidelines provided here are intended to aid in making that decision. The Project Manager who has the responsibility for the item being lifted has the authority to require that it be handled as a critical lift. In addition, the Project Manager at the facility where the lift will be performed also has the authority to require that it be handled as a critical lift. The Project Manager who designated the lift as a critical lift shall ensure that a Person-In-Charge (PIC) is assigned. (The PIC need not be from Suffolk Construction).

1. If load reaches 75% of the crane's maximum capacity.
2. Two or more cranes are needed to make pick.
3. Hoisting personnel in a man basket.

Critical Lift Procedures. The PIC shall ensure that a step-by-step procedure is prepared for critical lifts. Although individual procedures are prepared for the one-time critical lifts, general

procedures may be employed to accomplish routine recurrent crucial lifts. For example, a general procedure may be used to lift an item or series of similar items that are frequently lifted or repeatedly handled in the same manner.

Any non-routine or critical equipment lift (as determined by the Project Manager, Superintendent or Safety Manager). Critical equipment may include equipment that meets one of the following criteria:

1. The load item, if damaged or upset, is unique and would be irreplaceable or not repairable and is vital to a system, facility or project operation.
2. The cost to replace or repair the load item, or the delay in operations of having the load damaged, would have a negative impact on the facility, organization, or budget to the extent that it would affect program commitments.

A lift not meeting the above criteria shall also be designated critical if mishandling or dropping of the load would cause any of the above noted consequences to nearby installations or facilities. Further site-specific criteria may be developed to supplement those cited above and may include loads which require exceptional care in handling because of size, weight, close-tolerance installation or high susceptibility to damage as well as lifts using multiple pieces of lifting equipment.

Approval of Critical Lifts. The critical lift procedures should be reviewed at a pre-lift meeting by the responsible contractor, the crane operator(s), Suffolk Project Management, Safety Manager, and author of the Lift Plan, and Manager of the lift operation.

Revisions of Critical Lift Procedures. Any revisions to the procedure shall be reviewed and approved through the same cycle as the original procedure.

Pre-lift Meeting. Before the critical lift is performed, a pre-lift meeting with all participating personnel shall be held. During the meeting, the critical lift procedures shall be reviewed, and questions shall be resolved. The pre-lift meeting shall be documented.

NOTE: Practice lifts are recommended. (If used, requirements for the practice lift should be documented in the procedure).

Jumping Cranes. Jumping of cranes must follow similar protocols as a critical or a major lift and requires a comprehensive written plan to address the following:

1. Number of sections to be added/removed
2. Work sequence
3. Rigging to be used
4. Inspection of all rigging equipment including shackles, hooks, etc.
5. Review of all equipment such as collars, ties, and bolts, including capacities and a record of visual inspection by a competent person.
6. Relevant weather warnings and emergency procedures

7. Full compliance with manufacturer's recommendations
8. Completion of a High Hazard Analysis (HHA) form is required.

Crane Management Systems

Documentation Control. Every crane operating on a Suffolk project must have the following documentation in the cab of the crane available for review.

1. The last annual inspection
2. The last monthly inspection
3. Exception reports, if any
4. Manufacturer's operating manual
5. Manufacturer's lift charts

Rigging. Riggers must be properly trained and qualified to rig material or equipment lifted by a crane. Rigger's training documentation will be made available to Suffolk upon request. Hooks will be equipped with safety latches. Safety latches on hooks that are disabled and/or shakeout ("pelican") hooks will not be used unless in compliance with Subpart R 29CFR1926. All rigging equipment and spreader bars shall have a manufacturer's tag or otherwise professionally engineered, noting its safe working load. Rigging equipment and spreader bars not tagged or marked will be immediately removed from the project.

All rigging will be inspected daily before each shift by the qualified rigger and documented in writing. Inspection reports will be made available to Suffolk for inspection.

Fall Protection. During erection of or dismantling a crane on site, Personal Fall Protection will be worn whenever the tradespersons exceeds 6 feet or greater in height.

27. ELECTRICAL SAFETY

No work will be performed on any energized electrical circuit, bus bars, equipment, or panels unless an approved written work plan is developed in accordance with Chapter 1 of NFPA 70E and submitted to Suffolk's Corporate Safety Director for review prior to performance of work. As the Controlling Contractor, we are obligated to insure our electrical Trade-Partners follow the NFPA 70E standards regulating electrical safety. This standard must be followed when any "live work" is completed on a Suffolk project. All electrical Trade-Partners working on Suffolk projects must know and follow these standards.

1. Electrical equipment and tools used on the project shall be inspected by a competent person to prevent any worker from receiving an accidental electrical shock. This rule will apply to all cord sets, portable electrical equipment, tools and appliances not part of any permanent building or structural electrical systems.
2. All temporary cords will be three wire types S, ST, SO, or STO with a 16 or heavier wire gauge.

Ground Fault Circuit Interrupters (GFCI). All cord sets and cord-plug electrical equipment, tools or appliances that are 120 volts will be connected to a Ground Fault Circuit Interrupter (GFCI). No cord set, or cord-plug electrical equipment, tool or appliance will be plugged directly into any permanent building or structural electrical system not equipped with a GFCI.

Exemptions are office equipment and appliances in site offices. When the source of electricity is from a portable or vehicle mounted generator, a GFCI is required. Generator is to be grounded if required by manufacturer. Each worker, after plugging in his/her tool and /or extension cord, shall periodically inspect, test and reset the GFCI device being used to ensure it is working properly. If the GFCI device is not functioning properly he/she will repeat the process until a properly working GFCI device is found. He/She will report the defective GFCI device to his/her supervisor.

Double-Insulated Tools. Double-insulated tools are allowable if the case bears the Underwriter Laboratories “double-insulated” label. Tools where this label has been removed, painted over or otherwise not readable must be removed from service.

Inspection Program. An inspection program must be established to inspect all cord sets, portable electrical equipment, tools and appliances as described below and before first use, before returned to service following any repair, and after an incident that could have caused damage.

Daily Inspection. Each cord set, attachment cap, plug, and receptacle of cord sets, portable electrical equipment, tools or appliances connected by a cord and plug, will be visually inspected daily by user for external damage, such as deformed or missing ground pins, insulation damage, frayed wires or indications of possible internal damage. Exceptions include cord sets and receptacles that are fixed to the permanent electrical system and are not exposed or damaged. Any electrical equipment, tool, appliance or cord set that is damaged or defective will be immediately removed from service and tagged out as defective equipment for repair. A qualified electrician will repair tagged electrical items.

All cord sets, receptacles and cord-plug connected electrical equipment, tools or appliances not part of the building or structure's permanent wiring, will have the following performed each month:

1. Visually inspect for damage or missing ground pin
2. Inspect insulation for damage
3. Inspect for frayed or exposed wires
4. Inspect for signs of internal damage Tape for monthly inspection procedure

General Electrical Rules. All cord sets will be elevated above the work surface when practical. Wire, nails or other conductive material will not be used to hang or attach cord sets or welding leads. Cord sets that cross roadways will be protected from damage by vehicle and equipment traffic by devices such as hose bridges. Light stringers and halogen lamps will have the light bulbs protected from accidental contact or breakage and will be hung per manufacturer specifications and must be OSHA approved and UL listed.

UL approved covers are required on all panels, load centers, pull boxes, etc., prior to energizing. Necessary steps will be taken to prevent unauthorized or unqualified workers access to energized electrical parts or equipment.

28. LOCK OUT/TAG OUT

The Suffolk Project Team will establish a Lock out/Tag out procedure to ensure that workers are not exposed to the hazards from moving machinery or equipment and those hazards posed by an energized source (pneumatic, steam, hydraulic, chemical, etc.).

Safety locks and tags will be applied to all circuits, switches, valves, isolating devices, and any other energy sources to ensure equipment, machinery, or processes that have been considered functioning, charged or could otherwise be operable have been rendered non-operational or de-energized. No person will remove another worker's safety lock or attempt to energize any piece of equipment, machinery or process that has been locked out and tagged.

De-Energizing Equipment and Processes. A Suffolk Project Team representative will coordinate with the operating facility and trade partner when any energized equipment or process must be de-energized. Suffolk Project Team representative, operating facility and subcontractor will identify all circuits and sources of energy that require locking and tagging to make the equipment or process inoperable. Suffolk will notify all tradespersons who may be affected by the de-energizing. The front-line supervisor for each subcontractor overseeing the work will sign out sufficient safety locks to lockout the piece of equipment or process. The following procedures shall be followed:

1. The operating facility representative and/or construction start-up group and front-line supervisor(s) will make certain the operating controls to the equipment, machinery or process are in the "off" or "neutral" position.
2. Once the operating controls are in the "off" or "neutral" position, the operating facility representative will place a safety lock and tag on the energy isolating device(s) first.
3. The front-line supervisor(s) will apply their safety lock to each of the isolating devices that provides power or other energy to the machinery, equipment or process. The front-line supervisor(s) will also apply a visible warning tag. The tag will contain the name of the front-line supervisor(s), company, date and phone number.
4. Once the front-line supervisor(s) have placed their safety lock(s) and tag(s) on the energy-isolating device, all affected workers will then apply a safety lock and tag to the energy-isolating device.
5. Alternatively, the front-line supervisor may place the key(s) to their equipment safety lock(s) in a safety lock box, place their individual safety lock and tag on the safety lock box, and then have each affected worker place their safety lock and tag on the lock box.
6. Prior to any work being performed on the piece of equipment, machinery, or process, the operating facility representative/construction start-up group and front-line supervisor will verify that it is inoperable.

7. The operating facility representative/construction start-up group will attempt to operate the piece of equipment machinery, or process. After verifying it is inoperable, the switch will be returned to the “off” or “neutral” position.
8. Stored or residual energy will be dissipated by whatever means are necessary. Capacitors will be discharged, and high capacitance elements short-circuited and grounded by a qualified electrician.

Re-Energizing Equipment and Processes. When the required work is completed, and the machinery, equipment or process can be returned to service, the front-line supervisor will contact the operating facility representative to notify of completed work operations. The front-line supervisor will make a visual inspection of the equipment, machinery, or process to insure all workers have completed their work and equipment, tools and other material is removed from the area.

After confirming all workers, materials, tools and other equipment are out of the area, the operating controls are still in the “off” or “neutral” position, and each worker has removed their safety lock and tag, the front-line supervisor will remove their safety lock and tag from each of the isolating devices.

If a worker fails to remove his or her safety lock at the completion of the job or assigned duties, their immediate supervisor will immediately notify management and the Suffolk Project Team. **Every attempt should be made to contact the worker and require them to return to the project to remove their lock.** If the worker is unwilling or cannot return to the project, it must be verified that he/she is not physically at the project before the safety lock can be removed. All safety lock removal incidents will be investigated following the incident investigation process and disciplinary action will occur.

The management representative will notify the operating facility representative/construction start-up group that the equipment, machinery or process is clear to be energized.

De-Energizing Fluid Processes. Any vessel, pipe, hose or process that contains a hazardous liquid or gas will be purged with nitrogen or flushed before work begins as described in the pre-task plan for the activity. A management representative will coordinate with operating facility representative/construction start-up group when any fluid process requires de-energizing.

The management representative and operating facility representative/construction start-up group will identify all valves or gates and where blanks are required to be installed to isolate the work area. The operating facility representative/construction start-up group will notify their personnel that may be affected by the de-energizing.

The front-line supervisor overseeing the work will sign out sufficient safety locks and tags to completely isolate the system. The operating facility representative/construction start-up group and front-line supervisor will verify that each valve or gate is in the “off,” “neutral” or closed position. Once the valve or gate is in the “off,” “neutral” or closed position, the operating facility representative will place a safety lock on the valve or gate first. Then the front-line supervisor will apply a safety lock to each valve or gate. The front-line supervisor will also apply a visible

warning tag. The tag will contain the name of the front-line supervisor, company, date and phone number.

Once the front-line supervisor has placed their safety lock(s) and tag(s) on the energy-isolating device, all affected workers will then apply a safety lock and tag to the energy-isolating device. Alternatively, the front-line supervisor may place the key(s) to their equipment safety lock(s) in a safety lock box, place their individual safety lock and tag on the safety lock box and then have each affected worker place their safety lock and tag on the lock box. The required blanks will be placed at this time.

Prior to commencing work, the operating facility representative and front-line supervisor will verify the system and all piping, hoses, valves and processes are de-energized and that any stored energy is dissipated or restrained. Welded valve connections should have the valve handles removed and the stem tagged "DO NOT OPERATE." All other valves and isolating devices must be physically prohibited from being operated. Hydraulic and pneumatic equipment or machinery will be blocked to prevent movement.

Re-Energizing Fluid Processes. When the required work is completed, and the system can be returned to service, the front-line supervisor will contact the operating facility representative/construction start-up group to notify of completed work operations. The front-line supervisor will make a visual inspection of the area to ensure all workers; equipment, tools and materials are removed from the area. After confirming all workers, equipment, tools and materials are removed from the area, the valves and gates are in the "off," "neutral" or "closed" position, and each worker has removed their safety lock and tag, the front-line supervisor will remove their safety lock and tag from each of the isolating devices. The management representative will notify the operating facility representative/construction start-up group that the system is ready to be energized.

29. HEAVY EQUIPMENT AND VEHICLES

General. Heavy equipment (cranes, forklifts, dump trucks, excavators/back hoes, manlifts, etc.) used on the project will be inspected prior to use and comply with applicable OSHA and ANSI standards, which will be documented daily pre-shift. Equipment that is equipped with a windshield will be free of cracks or other visible damage.

All equipment will be equipped with rollover protective structures (ROPS), including forklifts. Seatbelts are required to be worn at all times when provided in moving equipment. Forklifts will have an approved fork attachment for rigging when used to suspend loads from forks. Free rigging from forks will not be allowed on Suffolk projects.

Only company and/or delivery vehicles used for the sole purpose of conducting work tasks on-site are permitted in construction areas. Equipment used on-site must have an audible backup alarm. The driver and all passengers of any vehicle will wear seat belts. No equipment or vehicle will be used to transport personnel unless it is specifically designed to do so. This includes beds of pickup trucks.

Equipment operators are responsible to check their equipment daily to verify it is working properly. As a minimum, each operator will check:

1. Brakes
2. Lights
3. Backup alarm and Horn
4. Hydraulic systems
5. Steering mechanism
6. Operating controls
7. Mirrors
8. Fire extinguisher
9. Limit switches
10. Leaks

Equipment operators will possess the required training, certification and licenses as required by law for the equipment that they are required to operate.

30. EXCAVATION AND TRENCHING

Prior to any disruption of ground, excavation or trenching on the project, the following will be performed:

1. Suffolk shall request locations for existing underground private utilities from the owner. Trade-Partners shall notify public utility locating authorities.
2. The trade partner will identify the competent person and submit qualifications for review and approval by Suffolk.
3. The competent person will analyze the soil of the work area to determine the condition and type of soil to ascertain proper sloping or shoring requirements.
4. During excavation or trenching operations on the project, the following requirements will be followed:
 - a. All trenches and excavations will be barricaded, and signage posted at the work area.
 - b. Fall protection shall be provided for excavations six feet or more in depth.
 - c. Trenches or excavations will be sloped or benched in accordance with local rules and regulations, and as determined by the competent person.
 - d. Supporting systems (e.g., shoring, piling, trench boxes, etc.) will be utilized for all trenches and excavations where sloping or benching could not be performed.
 - e. Spoil piles and all other material will be placed a minimum of two feet from the edges of all trenches or excavations.

When underground utilities are suspected, they will be located first by hand digging, or the use of nondestructive hydro excavation. Adequate access must be maintained at all times during trenching or excavating activities. Access points, either ramps or ladders, will be placed such that no worker travels more than 25 feet in any direction.

The competent person will inspect excavations and trenches at the beginning of each day before work begins and when conditions change. Excavations in Type C soil will not be benched.

Excavations and trenches at four feet or greater in depth will be evaluated for atmospheric hazards. A registered professional engineer must design all excavation over 20-feet in depth.

31. FALL PREVENTION/PROTECTION

This project is committed to the philosophy of 100% continuous fall protection whenever Tradespersons are exposed to fall hazards of six feet (6') or greater.

Suffolk, its Trade-Partners, vendors, or other third-party individuals will take all practical measures to eliminate, prevent, and control fall hazards. All work will be planned with the intent to eliminate identified fall hazards. When a fall hazard has been identified and cannot be eliminated, an effective means of fall protection will be implemented.

Acceptable fall protection systems include the following:

1. Guardrail systems
2. Safety Netting
3. Covers for Floor, Roof and Wall Openings
4. Positioning Device Systems
5. Protection from Falling Objects
6. Personal Fall Arrest Systems

Workers exposed to fall hazards that cannot be eliminated will be equipped, trained and given periodic refresher training in fall protection to minimize the adverse effects of accidental falls. Fall protection training records shall be available for review by Suffolk. On the project, **100% FALL PROTECTION MEANS PROTECTION FROM FALLS AT ALL TIMES WHEN WORKING AT OR ABOVE SIX FEET.** It is mandatory for all trades, including but not limited to:

1. Structural steel erection (bolt up and connectors)
2. Decking Operations
3. Re-bar assembly
4. Concrete forming
5. Pre-cast erection
6. Masonry
7. Carpentry
8. Scaffold erection/disassembly
9. Roofing

Personal Fall Arrest Systems will consist of a full-body harness meeting ANSI requirement's, double lanyard with shock absorbing device or retractable lifeline, locking snap hook and anchorage points meeting OSHA regulations.

Tradespersons will not tie off to a perimeter cable or wire rope handrail unless engineered for such use. When wire rope is used to construct guardrail systems, at least 1/4" diameter cable shall be used with cable clamps as required by wire rope manufacturers. Wire rope shall be

flagged with high visibility tape or ribbon every six feet. Trade-Partners will submit all engineered documentation on horizontal lifelines to Suffolk for review and approval. All horizontal lifelines will be installed under the direct supervision of a Qualified Person.

The use of personal fall arrest systems requires the submission of a Rescue Plan for each condition. Lanyards will not be tied back to themselves unless the lanyard is specifically manufactured to tie back to itself. If any component of a guardrail system must be removed, a Suffolk Guardrail Removal Permit must be issued. Any contractor that must remove a fall protection system in the course of their work will be responsible for immediately replacing the protective system.

Floor openings two inches (2 inches) or greater and all wall openings will be guarded or covered with an appropriate cover or guardrail. Floor covers will be cleated or secured to the floor to prevent easy removal. The floor or wall cover will be properly marked with a Danger sign stating, "COVER - DO NOT REMOVE." Elevated work will address protection from falling objects if work is permitted below.

32. FIRE PROTECTION/PREVENTION

Fire Protection. Temporary fire protection measures such as fire extinguishers, temporary hose lines, and temporary standpipes are required during construction. The Project Team shall develop a Fire Protection Plan in accordance with OSHA 29 CFR 1926 Subpart F. Fire extinguishers will be:

1. Conspicuously located
2. Inspected monthly
3. Protected from freezing
4. Placed within the immediate area of any welding/cutting operation or flammable liquid storage area
5. Placed within five feet whenever gasoline operated equipment is used

If a fire extinguisher is discharged for any purpose, it should be reported to Suffolk's Superintendent so that it can be replaced for recharge.

Each temporary building and trailer (shops, field offices, storage boxes, etc.) will have its own appropriately sized and located class ABC fire extinguisher. Access to fire hydrants and extinguishers will be maintained at all times. Clear access to buildings and other structures will be maintained at all times.

Fire Prevention. Temporary buildings located within another building or structure shall be constructed of non-combustible material or have a fire resistance rating of one (1) hour. Plastic tarps or covers (Visqueen) used for any purpose inside an occupied building or where welding, cutting, or open flame is present will be made of fire retardant material.

Combustible refuse from construction operations will not be burned or dumped anywhere on the construction site. Such refuse will be removed at end of shift. Storage of large quantities of construction debris will be placed in metal dumpsters. Storage of compressed gases will include:

1. Valves, regulators, and hoses removed with valve caps securely on.
2. Secured upright at all times, including when transported in vehicles.
3. Fuel and oxygen cylinders separated by a minimum of 20 feet.
4. Empty cylinders stored separate from full cylinders; no cylinders in use.

Only approved high flash point solvents are to be used for cleaning purposes. Oily rags and waste are to be stored separately in metal containers fitted with self-closing lids. Trash and refuse must be placed in trash containers provided for this purpose.

Fire and Flammable Liquid Storage and Dispensing. Use of low flash point solvents is discouraged. Methylene chloride is a known carcinogen and solvents containing it are prohibited. **Flammable and Combustible Liquids will be stored, dispensed and used in accordance with OSHA and NFPA Requirements.** When stored outside, flammable and combustible liquids cannot be within 20 feet of any structure or must be in a properly constructed storage locker whenever possible (no more than a total of 25 gallons flammable and combustible liquids can be stored outside of an approved locker).

Flammable and Combustible liquids must be stored as follows:

1. Stored in approved portable containers marked as to contents and ownership.
2. Posted with "NO SMOKING" signs.
3. Outside storage areas kept free of weeds and other combustible material.
4. Storage of flammables will be in an enclosure away from open flame, heat, direct sun or other sources of ignition.
5. All storage tanks/drums will be placed in a berm or other secondary containment. Berms will be lined with minimum 6-mil plastic sheeting that is fuel resistant. PVC linings are not allowed.
6. Suffolk will designate vehicle refueling locations.
7. Fuel and flammable liquid tanks, drums, or barrels will have the proper DOT placard and be labeled as to content.
8. All fuel storage tanks and compressed gas cylinders will be protected from vehicle traffic.

All fuel dispensing points shall be located away from storm drains and wetlands. The following is required:

1. Portable 20 lb. ABC fire extinguisher no closer than 25 feet or further than 75 feet from the fueling point
2. No Smoking signs posted.
3. Self-locking fuel nozzle prohibited
4. Spill kit stored nearby
5. Tanks will be grounded and when dispensing flammable liquids, the containers will be bonded.

33. HAND AND POWER TOOLS

All hand and power tools will be kept in good condition with regular maintenance. Hand and power tools are to be operated according to manufacturers' instructions and guidelines, and Personal Protective Equipment (PPE) appropriate for the hand or power tool will be worn.

Hand Tools. Impact tools such as chisels, wedges, etc. are not to have mushroomed heads. Wooden handles will not be splintered or cracked. Pocket knives will not be used for stripping wire.

Electric Tools. Never lift or carry a power tool by its cord. Guards and safety switches will not be removed or made inoperative. Electric tools must have a three-wire cord unless it is double insulated.

Portable Abrasive Wheel Tools. Guards will not be removed. Grinding disks and wheels will be checked to verify they are appropriate for the grinder and revolutions per minute (rpm)

Pneumatic Tools. Air hoses ½ inch in diameter or greater will have a safety excess valve installed at the source of air. Clips, whips or retainers are required at each air hose coupling and to prevent attachments from being ejected from the tool. Only the pneumatic nail guns requiring the muzzle to be pressed against the work surface to fire are allowed. Hose couplings will be secured to prevent displacement. Pneumatic nail guns shall be disconnected from the air supply when unattended.

Powder Actuated Tools. Workers will be trained to operate a powder actuated tool and required to carry their training card at all times. Fired cartridges shall be placed in a container or bucket and properly disposed. The powder-actuated tool must not be able to fire until it is placed against the surface with a force of 5 pounds or greater. Misfire cartridges are to be placed in water for 48 hours prior to disposal.

34. HOT WORK OPERATIONS

Hot work activities include burning, welding, cutting, grinding or other operations that produce a flame or sparks. Prior to performing "Hot Work" operations, workers will obtain a Hot Work Permit from Suffolk's office trailer. Hot Work Permits are valid only for the date and shift that is stated on the permit.

The following precautionary measures will be taken when a Hot Work Permit is required:

1. Grating, openings, etc. will be completely covered in such a way to prevent sparks and slag from falling to a level below.
2. Fire extinguisher in the immediate area of work.
3. No flammable or combustible material stored within 35 feet in any direction.
4. Combustible/flammable materials that cannot be moved must be covered with fire blankets or other suitable material.
5. Worker(s) designated for continuous fire watch will be identified, trained, equipped, and remain for a minimum of one hour after hot work has ended.
6. Follow Confined Space Entry procedures, if required.

Workers will be trained prior to performing any hot work in the following, as a minimum:

1. A review of the work to be performed
2. Precautions to be taken
3. Emergency procedure in case of fire
4. How to use the fire extinguisher correctly

General Requirements. A hot work permit shall be issued before any hot work is performed. The following activities are examples of hot work that could require hot work permits, however, there may be more that are applicable at specific locations:

1. Any open flame
2. Welding, flame cutting, brazing
3. Grinding or cutting/producing sparks
4. Portable heaters; electric, fuel, or gas.

A fire watch shall be maintained for at least one hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

General Procedures. Emergency notification information and procedures, as well as, a ready means of communication shall be provided to the fire watch prior to hot work operations. When practical, material involved in hot work should be moved to a safe location. If material can't be moved, combustible materials should be removed from the area or otherwise protected from all hot work. No flammable or combustible material should be stored within 35 feet in any direction. If materials cannot be moved, positive means, such as the use of non-combustible shields or fire blankets, shall be used to confine heat and sparks and prevent them from contacting combustible material.

No welding, cutting or heating shall be done where the application of flammable liquids or heavy dust concentrations may create a hazard. Fire Watch shall be assigned with an extinguisher rated at 20A 60B:C or greater and shall be immediately available in the work area (Within 25' of the hot work) and remain for 1 hour after the work is complete. When the above fire prevention measures are not sufficient, additional personnel shall be assigned as a Fire Watch and be provided with fire extinguishing equipment.

Hot Work Permits. Authorization and a hot work permit must be obtained from the Suffolk Superintendent or designated person overseeing the work, before beginning any hot work. Any person may authorize the stoppage of work if there is reason to believe an unsafe condition exists. The area must be surveyed for cracks and/or other openings in the floor that may allow sparks to drop to combustible materials below and covered as necessary to prevent sparks from falling below.

The permit must be reviewed and signed by the person performing the work and the supervisor. The person performing the work shall retain one copy of the completed Hot Work Permit. The person giving approval that the hot work may commence must ensure that the area is periodically

surveyed to ensure the conditions remain suitable for hot work. Expired Hot Work Permits shall be kept on file at the job site office for at least one month beyond their expiration date. Each permit will be dated and will carry an expiration time.

In the event the hot work will extend past the permit's expiration time, a new permit must be obtained, or the existing permit extended by an authorized person. Notify supervisor when hot work is complete.

Fire Watch. When a fire watch is necessary, s/he will have no other tasks during the performance of their duties and are to remain in the area of operations one hour past the last hot work performed. The supervisor in charge is responsible for assigning a fire watch when open flame, welding, flame cutting, brazing and/or other hot work is performed. The fire watch shall be trained in the proper use of a fire extinguisher. The supervisor shall review with the employee assigned the duties of a fire watch as follows:

1. Understanding the location and nature of the hot work.
2. Survey of the area to be sure the necessary fire protection equipment is in place and ready for use
3. Survey the area for accumulations of combustible or flammable materials, and if possible the remove the materials.
4. Remain in the area while work is being performed and remain in constant communication range with personnel doing the hot work.
5. Never leave the area for any reason without replacement, and to remain within the area one hour upon the completion of hot work.
6. When bulkheads or walls are involved in hot work, both sides require a fire watch. Caution must be used so that heat transfer does not create a hazard.
7. A fire watch shall be maintained for at least one hour after completion of hot work operations to detect and extinguish possible smoldering fires.
8. The fire watch must be in the ready position at all times when hot work is being performed. The ready position is considered being attentive and having the fire extinguisher immediately available prior to the start of work.
9. The fire watch is authorized and shall stop the work whenever he/she feels the conditions are unsafe. The fire watch is also authorized to stop the work if the work description on the permit is being exceeded, the supervisor must be notified.
10. The fire watch shall be equipped with all Personal Protective Equipment (PPE) needed to perform the work safely.

35. HOUSEKEEPING

Suffolk's policy on housekeeping is that all equipment, tools, or materials will be stored, stacked, located, placed, temporarily spotted or set up to prevent an incident or injury which could occur in the work area. The area will give the direct and obvious impression of a clean and orderly work place. Project management, supervision, workers, vendors and third-party persons will maintain all work locations in an orderly and clean manner at all times. Debris and loose material will not be placed in any area where winds could blow material into or off of

elevated platforms.

Mud and dirt tracked onto public streets or alleyways will be removed continuously during the workday. The following are the minimum housekeeping requirements for the project:

Access walkways, roadways, and fire lanes will not be blocked with material, tools, ladders, scaffolds, welding leads, air hoses or electrical cords. Electrical extension cords, light stringers, air hoses, and welding leads will be buried, controlled, elevated above walkways a minimum of seven feet or bridged with the area marked with signage.

Welding rods, nuts, bolts, and washers will be kept in proper containers. Shackles, slings, chokers, ladders, and safety equipment will be removed from the work area when not needed and properly stored. Trash containers will be placed at appropriate locations. All nails will be removed from scrap and lumber or bent over flat to the surface. Rubbish, trash, and debris will be removed from the work area daily. Once concrete is poured, work areas will be broom swept at the end of shift. At all locations where drinking water is dispensed, an adequate trash container will be located for disposal of used drinking cups.

36. LADDERS AND STAIRWAYS

Stairs/Ladders, General. Stairways having four or more risers or rising 30 inches or more shall have a stair rail system 36 inches high on each unprotected side. Metal pan stairs shall not be used until the pans are filled to prevent a tripping hazard. Ladders, stairs, or ramps will be provided where there is a change in elevation of 19 inches or greater. Workers will be trained on the safe use of ladders. Ladders will extend past the bearing point no less than 36 inches. Ladder landings shall remain clear of all obstacles and obstructions to allow easy access on and off the ladder.

Each contractor is required to inspect ladders daily prior to use. Ladders with broken or bent rungs, steps or side rails will be immediately destroyed and removed from the project. When ladders are used to access upper levels, they must be secured to prevent displacement. Aluminum ladders are not allowed. All ladders will be heavy-duty type with a minimum capacity rating of 250 lbs.

Stepladders. Stepladders will not be used as straight ladders. Stepladders will only be used with the spreaders fully extended and spreader bar locked in place. Workers will not stand on the top or top step of a stepladder. Workers will not straddle the top of a stepladder or stand on the back of a stepladder unless designed for this use.

Straight/Extension Ladders. Ladders will be set up so the horizontal distance at the bottom is not less than $\frac{1}{4}$ of the vertical distance to the bearing point. Workers will not stand on the top three rungs of a ladder. No worker will work when his/her knees are above the top of the ladder. All straight ladders will have non-skid feet at the base.

Job-Made Ladders. Job-made ladders shall be constructed for intended use. If a ladder is to provide the only means of access or exit from a working area for 25 or more employees, or

simultaneous two-way traffic is expected, a double cleat ladder shall be installed. Job-made ladders will be constructed in accordance with OSHA and ANSI standards.

37. LEVELING LASERS

General. Precautions will be taken to ensure all workers that will use a laser are trained in proper use and the hazards associated with lasers. Each worker is to be issued a qualification card, which must be carried by the worker and available upon request by Suffolk. No worker will install, adjust, or operate any laser equipment without a valid qualification card. Standard Laser warning signs will be placed around the perimeter of the area the laser is being used. No work will be allowed until all proper signage is in place. No laser equipment will be used that does not contain a label, indicating make, maximum output, and beam spread.

Whenever a laser is not in use, shutters or caps will be used and the laser turned off. When performing internal alignment, lasers will only be guided by mechanical or electronic means. No laser beam will be directed at any worker. When environmental conditions exist such as rain, fog, snow or extremely dusty conditions, use of lasers will not be permitted. Workers using lasers will use appropriate eye protection.

38. TRAFFIC CONTROL

There will be no temporary blocking or occupying of any street or alleyway without prior approval of local authorities. When it becomes necessary to temporarily close a public street or alley, a written Traffic Control Plan is required, showing how the closure will occur and submitted to Suffolk for review. Refer to the Manual of Uniform Traffic Control Devices (MUTCD) Part VI when developing a traffic control plan.

At a minimum, the written Traffic Control Plan will contain:

1. Time the street(s) will be required to be closed.
2. Detail drawing showing temporary signage, tapers, etc.
3. Detail plan illustrating detour routes for traffic impacted by the closed streets.

All workers and supervision will wear high visibility attire in accordance with the ANSI requirements. Workers assigned as flagmen will be trained as recommended in the Manual of Uniform Traffic Control Devices and state DOT. Work will be stopped if it fails to follow the traffic control plan or occupies a city street or sidewalk without authorization.

39. MASONRY CONSTRUCTION

General. A Limited Access Zone (LAZ) is required to be in place prior to the construction of any masonry wall. Masonry walls over eight feet in height shall be adequately braced to prevent collapse and remain in place until permanent support is in place. All masons erecting scaffolds will have scaffold erector's training; all masons using scaffolds must have scaffold user training. All scaffolds used in masonry tasks shall have adequate handrail protection in the material loading areas. If guardrails are removed to load materials, 100% fall protection must be worn

during loading. A Guardrail Removal Permit (see Appendix 10) must be submitted prior to any guardrail removal.

40. SCAFFOLDING

General. All scaffolding used on the project will meet the requirements established in OSHA 29 CFR 1926, Subpart L, Scaffolding. Each contractor using scaffolds must designate a scaffolding Competent Person to direct and supervise the erection and dismantling of all scaffolding on the project. The Competent Person will sign and attach one of the following color-coded scaffold tags to each scaffold:

1. Green Tag: Scaffolding complete and ready for use.
2. Red Tag: Scaffolding incomplete and not for use.
3. Yellow Tag: Scaffolding usable but personal fall protection required.

Competent Person Inspection. Scaffolding will be inspected daily by the Competent Person prior to use and the tag signed at the time of inspection. Each trade using the scaffold must designate a competent person. Each trade's Competent Person must inspect the scaffold daily prior to any person from that trade using the scaffold.

User Training. Workers required to work from scaffolding will receive training on the following:

1. Nature of any known hazards, including electrical, falls and falling objects.
2. Correct method of erecting, maintaining, and disassembling fall protection systems.
3. Falling object protection system.
4. Proper handling of equipment or material on the scaffold.
5. Maximum load-carrying capacity of the scaffold.
6. Any other pertinent requirements about the scaffold.

Records must be maintained of scaffolding training and be available for review by Suffolk. Prior to erection, all scaffolding components shall be inspected for defects and any damaged components will not be used. Scaffolding will be erected on a firm foundation/footing. Scaffold poles, legs, posts, frames, and uprights will bear on metal base plates and mud sills. Scaffold legs, poles, posts, frames, and uprights will be pinned or locked to prevent uplift.

No scaffold will be enclosed unless a qualified engineer designs and approves the attachment to the adjacent structure. Scaffold platforms will be constructed with no space between the platform components. The space between the platform components and the scaffold uprights will not exceed one inch. Because of special circumstances such as building a scaffold around a pipe, the space opening between the scaffold and the object/structure cannot exceed 9½ inches. Scaffold planks shall extend past the horizontal support a minimum of six inches, but not more than 12 inches unless cleated or restrained by hooks.

Scaffold plank will not be overlapped unless:

1. Overlap occurs at a horizontal support.
2. The minimum planking overlap is 12 inches.
3. Scaffold plank will be only scaffolding-grade planking.
4. Ladders or stairs must be used to access any scaffold platform that is more than two feet above or below the point of access.
5. End frames of tubular welded scaffold can be used as a ladder if the following criteria are used:
 - a. Specifically designed and constructed as ladder rungs.
 - b. Rung length of at least eight inches.
 - c. Spacing between rungs not to exceed 16 ¾ inches.
 - d. A walk-through frame or gate is provided for access at each landing.

No worker will climb up or down a scaffold using the cross bracing. Workers working below scaffolding will also be protected from falling objects. Scaffold will be equipped with toe plates, screening, debris netting, catch platforms, or a canopy structure.

Mobile Elevated Work Platforms (MEWPs). All operators will provide proof of training, completed within the prior 3 years, before being allowed to operate aerial lifts on site. The gates of aerial lifts will be properly engaged whenever the lift is in use. Aerial lifts shall not be used as material hoists unless the load is contained within the basket and meets the lift's rated capacity. The lift shall not be modified for hoisting material unless the manufacturer approves it in writing. Scissor lifts shall be used in accordance with 1926.452 (w).

Suspended Scaffolds. A Competent Person will evaluate suspended scaffolding, its anchorages and suspension lines before each use. Tradespersons working from suspended scaffolding will wear a full body harness attached to an independent vertical lifeline. When welding is required from swing stage scaffolding, the scaffold will be grounded, and suspension ropes protected.

Mobile Scaffolds (a.k.a. Baker Scaffold). Wheels on mobile scaffolding will be locked in place when workers are working from it (self-propelling is prohibited). **Handrails must be in place anytime the working platform is in excess of 4 feet above the ground.**

41. TEMPORARY BARRICADES

Temporary barricades will be erected and maintained to warn or protect workers whenever hazards or processes such as those listed below are encountered on the project. This list includes, but is not limited to the following:

1. Floor or wall openings
2. Working above other workers
3. Open excavations/trenches
4. Unguarded equipment
5. Overhead loads
6. Closed stairwells
7. Exposure to vehicular traffic
8. Startup operations and testing of equipment/systems

9. Process hazards such as discharges, open systems, etc.

When barricading is required, the following guidelines will be followed:

1. **Yellow “Caution” tape** is used to limit the passage of workers through the barricaded area. This barricading will only be used to protect workers from hazards that are not severe or when the potential for severe injury or death is unlikely.
2. **Red “Danger” tape** is used to prohibit the passage of unauthorized workers through the barricaded area. This barricading will be used to protect workers from hazards that have the potential to cause serious injury or death.

Red Danger tape is **NOT a substitute for a guard rail**. Danger tape is not to be used if the hazards cannot be eliminated or removed during a single work shift. Use of Danger tape is always approved by Suffolk’s Superintendent.

Rigid barricades are used when protection is required beyond a work shift or longer. It will be used to protect workers from unguarded moving machinery/equipment, vehicular or heavy equipment traffic and low light conditions. Rigid barricading will consist of standard guardrail, temporary chain link fencing, tube and coupler scaffold members with construction fencing attached or concrete barriers.

Radiation “Danger” Tape is used to identify x-raying operations and warn of a radiation hazard in the area.

When using “Caution” or “Danger” tape barricading:

1. Install at least 15 feet from excavations, trenches, holes, leading edges, and floor or wall openings.
2. Install a standard “Caution” or “Danger” tag that identifies the hazard at regular intervals around the barricaded area and the name and contact information of the Competent Person that erected the barricade.
3. Do not impede stairs, walkways, driveways or aisles without notifying Suffolk’s Superintendent and identifying alternative passageways.

When using rigid barricading:

1. Support and maintain construction fencing to prevent tipping or sagging.
2. Install pins in concrete barriers whenever there is a danger of vehicles or heavy equipment striking them.
3. Provide adequate access to the work area.

When work is complete, and the hazard is eliminated, remove the barricading immediately. Workers who enter a “Danger” or “Radiation” barricaded work area without authorization will be subject to disciplinary action up to and including termination.

42. WELDING AND CUTTING

Hot Work Permits. Hot Work Permits are required for all welding and cutting operations that produce heat or sparks. A copy of the Hot Work Permit can be obtained from Suffolk's Superintendent.

Arc Welding and Cutting. Welding current return circuits or grounds must carry their current without hot or sparking contacts and without passage of current through equipment or structures. Specifically, welding current must not be allowed to pass through any of the following materials:

1. Acetylene, fuel gas, oxygen or other compressed gas cylinders.
2. Tanks or containers used for gasoline, oil or other flammable or combustible material.
3. Pipes carrying compressed air, steam, gases or flammable or combustible liquids.
4. Conduits carrying electrical conductors.
5. Chains, wire ropes, metal hand railings or ladders, machines, shafts, bearings, or weighing scales.

Whenever practical, all arc welding and cutting operations shall be shielded by non-combustible or flameproof screens. Screens will be mandatory when arc welding or cutting creates exposure for other crafts or individuals.

The ground for the welding circuit shall be mechanically strong and electrically adequate for the service required and should be attached directly to the work piece. When possible, electrode and ground cables shall be supported to prevent obstructions interfering with the safe passage of workers. Cables with worn insulation may not be used.

Gas Welding, Cutting and Soldering. When burning or welding using compressed gases, flame arrestors will be installed on both the torch side and regulator side of the oxygen and gas hoses. A suitable cylinder cart, chain or other secure non-flammable fastening shall be used to keep cylinders from being knocked over while in use. Cylinders of oxygen shall not be stored next to cylinder of acetylene or other fuel gas. They shall be separated by 20 feet or by a non-combustible barrier, with a 1/2-hour fire rating.

Oxygen cylinders, cylinder valves, couplings, regulators, hose and apparatus shall be kept free of and away from oil and grease. Oil or grease in the presence of oxygen under pressure may ignite violently. Empty cylinders shall have their valves closed. Valve protection caps shall always be in place except when cylinders are in use or connected for use. When moving cylinders by a crane or derrick, a cradle, boat or suitable platform shall be used. Slings, hooks or electric magnets shall not be used. Valve protection caps shall always be in place.

Compressed gas cylinders, empty or full, shall be secured in an upright position at all times. Empty cylinders should be marked EMPTY or MT for identification. Regulators and hoses shall be frequently inspected for leaks, worn places and loose connections. Regulators shall also be checked for operable gauges. Approved flash arresters shall be provided in both oxygen and acetylene hoses at the regulator connection.

43. Marine Operations & Equipment

Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved life jacket or buoyant work vests. Prior to and after each use, the buoyant work vests or life preservers shall be inspected for defects which would alter their strength or buoyancy. Defective units shall not be used.

Fall protection shall be used in substitute of PFD's when the water table is greater than 6 feet away from the employee.

Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet.

At least one lifesaving skiff shall be immediately available at locations where employees are working over or adjacent to water.