

Employee & Contractor Safety Handbook

John Jr. Installations

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**SECTION I - GENERAL REQUIREMENTS**

**Purpose:**

The purpose of the JJI Contractor Safety Handbook is to standardize the protection and safety of all persons, and property, while contractors perform work at any JJI worksites. This Handbook applies to construction operations at all locations where work is to be performed. This handbook can be viewed online at the JJI website at <http://www.johnjrinstallations/safety/>.

**Scope:**

The following policies and procedures are intended to assist contractors in reducing the possibility of accidents and are to establish minimum standards to protect employees, contractors, subcontractors and clients during construction operations. Compliance with these safe work policies and procedures in no way guarantees the fulfillment of the contractor's obligations as may be required by any local, state or federal safety, health, and environmental rules and regulations. This handbook does not cover the full spectrum of published safety, health, and environmental standards which are mandated by law. All employees, contractors and subcontractors, shall not assume that they are responsible only for those which are referenced in this manual or that they are current and quoted, as published. In the event of a conflict between the abiding contract, provisions of this handbook and applicable state or federal safety, health, and environmental laws, regulations or statutes, the more stringent shall apply. All employees, contractors, and subcontractors must also comply with all Occupational Safety and Health Administration (OSHA) regulations regarding multi-employer workplaces. No liability is assumed by JJI by reason of this manual.

**Application:**

This program applies to any employee and/or subcontractor employed to perform contract work for JJI. The term “employees” includes all full-time, part-time and temporary employees. The term client includes all persons or businesses for whom JJI is performing any type of work for. The term “contractor” includes, but are not limited to, the following:

• General contractors

• Coordinating contractors

• Hazardous waste /disposal haulers

• Assessment contractors

• Remediation contractors

• Service and maintenance contractors

• Sub-contractors

• Special consultants including project architects and engineers

**Definitions and Acronyms:**

Competent Person – A competent person is defined as "one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions, which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. " By way of training and/or experience, a competent person is knowledgeable of applicable standards, is capable of identifying workplace hazards relating to the specific operation, and has the authority to correct them. Some standards add additional specific requirements, which must be met by the competent person.

Authorized Person – is a person approved or assigned by the employer to perform a specific type of duty, or duties, or to be at a specific location, or locations, at the jobsite.

HVAC – Heating, Ventilating, and Air Conditioning.

AED – Automatic External Defibrillator.

OSHA – Occupational Safety and Health Administration.

ANSI – American National Standards Institute.

NIOSH – National Institute of Occupational Safety and Health.

IDPH – Illinois Department of Public Health.

IEPA – Illinois Environmental Protection Agency.

NFPA – National Fire Protection Association.

NEC – National Electrical Code.

NESHAPs – National Emission Standards for Hazardous Air Pollutants.

NPDES – National Pollution Discharge Elimination System.

UST – Underground storage tank.

SWPPP – Storm Water Pollution Prevention Program.

DOT – Department of Transportation

**Contractor Responsibilities:**

All employees and/or contractors who perform any service at JJI, or a JJI worksite, are required to follow applicable federal, state and local regulations and laws as well as all policies of JJI, including this handbook. This JJI Contractor Safety Handbook has been developed for the protection and safety of all persons and property. This program shall be provided to employees and contractors to aid in the communication of hazard information involving JJI properties, and worksites, and to outline JJI’s environmental health and safety procedures. Employees and contractors are encouraged to implement the contents of this program through weekly safety talks with employees. The program does not relieve employees or contractors of any responsibility of providing and following their own separate policies, or procedures. The site superintendent, project foreman and/or contractor designee will serve as the competent person and must investigate and abate hazards reported by employees and/or contractors. Workers have the right to stop working and report the hazard immediately if there is imminent danger to life, safety or health. The OSHA standards prohibit retribution toward employees who report hazardous situations or equipment.

**JJI Project Manager Responsibilities:**

Designated JJI Project Managers are authorized persons that will help ensure employee and contractor cooperation by including this program into project specifications, and collaborating with the Contractor to identify, and resolve, problems as they occur.

**JJI Environmental Health & Safety (EH&S) Responsibilities:**

The JJI EH&S team serves in an advisory role by issuing copies of the JJI Contractor Safety Field Guide during pre-construction and safety meetings, assisting contractors in the development of their site safety plans, and collaborating with the site superintendent on a variety of safety and health matters, as they arise during the course of the project. The JJI EH&S team is also authorized to access and inspect job-sites as needed. These visits are for observation only and do not relieve employees or contractors of the responsibility of monitoring and enforcing their own safety programs.

**General Safety Protocol:**

JJI may require a project manager, supervisor or contractor to temporarily, or permanently, remove an employee or contractor(s) from the premises for any of the following reasons:

• Possession or use of alcoholic beverages, or regulated drugs, not prescribed by a physician.

• Possession of explosives, firearms, ammunition and/or other weapons.

• Deliberate violation of safety or security rules.

• Illegal dumping, handling, or disposal of hazardous materials.

• Destruction or removal, without written permission, of any property belonging to JJI, the property owner, employees or contractors.

• Intimidating, threatening, harassing, impeding or interfering with an inspector, employee, contractor or designated representative.

• Using emergency exits other than for emergencies or blocking emergency exits.

• Misuse of fire prevention and protection equipment.

• Unauthorized removal, or destruction, of a safety barricade, handrail, guardrail, warning sign, fall protection, or other warning devices intended to protect employees, contractors, clients or the general public.

• Violation of clients’ no smoking policies.

• Failure to follow any federal, state, and local regulations, and laws, as well as any policy of JJI.

Written approval to begin work is typically granted by receipt of a signed contract by both JJI and the client, or contractor. During any pre-construction meetings, the assigned JJI project manager will review the scope of work with employees and contractors to further clarify site access requirements, and procedures, including the following:

• All project management correspondence shall be directed to the JJI Project Manager, unless directed otherwise. The JJI Project Manager will serve as the liaison between personnel and clients, or contractors.

• Cyclone fencing should be erected around the perimeter of a work site to secure access for authorized personnel only, as necessary. Silt fencing may also be erected around the perimeter of the work site to prevent soil erosion into streams, lakes, creeks, and other waterways, as needed.

• Employees and contractors must comply with any parking and traffic requirements. Fire access routes must be maintained free and clear of obstructions at all times.

• All persons driving a vehicle on JJI, or client, property must have a valid driver's license.

• Contractors must comply with JJI, and client, parking and traffic requirements.

 • Access to JJI, and client, buildings outside of normal building hours may be subject to approval by the JJI Project Manager, JJI management or client.

Employees and contractors must notify (verbally or in writing) the JJI Project Manager or other designated JJI representative prior to performing the following activities in an existing JJI or project building, unless the project documents expressly authorize the activity without such notification requirement:

• Working on electrical, steam, chilled water systems, HVAC systems, or other energized systems.

• Working on security systems.

• Working on sprinkler systems or fire alarm systems.

• Moving emergency equipment (fire extinguishers, first aid kits, AEDs, etc.), provided by JJI or client.

• Working with hazardous materials.

• Engaging in hot work operations.

• Working in confined spaces such as, but not limited to: electrical vaults, steam tunnels, sewer systems, ejector pits, and HVAC fan units.

• Using powder actuated tools.

• Operating a power vehicle or self-propelled work platform.

• Excavation or trenching.

• Working with compressed air or gases.

• Working on a roof.

• Working on fire protection or detection systems.

• Installing a temporary, or permanent, electrical service.

• Using a gas, diesel, or LP (propane) powered engine indoors.

• Lifting or hoisting with cranes, derricks, or hoists.

• Performing blasting operations.

• Any additional or supplemental work not listed in the project documents which has a high risk of injury to the employee, contractor or other persons, or property.

• Working adjacent to a roadway so the Project Manager can make arrangements for road closures, detours, etc.

All Contractor personnel shall wear high-visibility safety apparel and designate a competent person to be responsible for the worker safety plan within the activity area of the job site. Contractors must obtain approval from the JJI EH&S team or Project Manager prior to performing the following activities:

• Disposing of hazardous wastes (including waste oil & lead-containing materials).

• Storing hazardous materials on JJI, or client, property or working in hazardous storage areas.

• Working on sprinkler systems or fire alarm systems.

• Working in confined spaces such as, but not limited to: electrical vaults, steam tunnels, sewer systems, ejector pits, and HVAC fan units.

• Using radioactive sources or conducting field radiography (x-ray).

• Working with or impacting suspect asbestos-containing materials.

• Working in a space that may contain biological, radiological, or chemical hazards.

• Engaging in hot work operations

**Special Rules for Operations Involving Utilities:**

Only designated personnel or their designee may shut-down or start-up operating utilities. The employee and/or contractor must contact the JJI Project Manager, who will coordinate with the appropriate personnel in advance of the need for such shut-downs or start-ups. Appropriate preplanning and significant advance notice are essential criteria when dealing with operating utilities.

**Special Rules for Lockout/Tagout of Machinery, Pipes, etc.:**

If the employee and/or contractor intends to service, or maintain, equipment that holds stored energy, or that could potentially injure a person if unexpectedly started, the employee and/or contractor must inform and coordinate with the JJI Project Manager or designated contact of the lockout/tagout procedures scheduled for implementation. Employees will not lend JJI owned equipment or property to contractors or clients. Contractors must provide all necessary tools and equipment to safely complete their work.

**JJI and Contractor Safety Training:**

Designated JJI personal and contractors are responsible for providing applicable safety training for their employees. Contractors shall, upon request, provide copies of all applicable safety training certificates for their employees to the JJI Project Manager. Documentation will show that employees have had the appropriate safety training to protect them and others from the hazards of the work assigned. Documentation shall include employees designated as competent persons for inspections of excavations, scaffolds, and other OSHA specific items.

**Housekeeping:**

Employees and contractors are responsible for ensuring and maintaining good housekeeping while at JJI and on JJI worksites. The Contractor must keep the work site neat, clean, orderly and free of excess trash or debris and never block walkways, stairs, exits, or create a tripping hazard. Projects involving offensive odors, excessive noise, or other irritating environmental agents may require work during “off-hours.” An employee’s or contractor’s failure to maintain good housekeeping in a work area increases the potential for safety hazards and incidents of accidents and chemical spills.

**Barricades and Opening Protection:**

Barricades and warning signs are required around the perimeter to all construction sites. In addition, adequate protection must be given to excavations, holes, or openings in floors or roofs, elevated platforms, crane radii, and around overhead work to protect people from falling objects.

**Additional Requirements Include:**

• Unless the general area is protected, barricades must be erected before any excavation, and extended as the excavation progresses.

• Barricaded areas which contain an opening or hole for access must be protected during working hours and must be secured at the end of each day.

• All holes or openings through floors or decking at all elevations must be immediately covered or barricaded.

• Material or equipment must never be stored in an excavation cover or inside an excavated area.

• Hole covers must be secured or cleated so they cannot slip, and they must extend adequately beyond the edge of the hole.

• Barricades shall not create a tripping hazard. Any potential tripping hazards should be clearly marked.

• The type of barricading system, whether it is fencing, caution tape, or some other means, must be discussed with the JJI Project Manager to provide protection for the campus community.

• Warning signs should be placed on barricades/fences for the duration of the construction project.

• Perimeter fencing that blocks sidewalks must include signs directing pedestrians to a safe walkway. Primary signs can be on the perimeter fence, but additional signs may be necessary to inform pedestrians of sidewalk closings that allow for safe crossing at a crosswalk.

**Impairment of Fire Protection Systems:**

Fire protection systems including, but not limited to: fire alarm systems, fire sprinkler systems, standpipes, and special hazard suppression systems must remain operational during construction operations. In the event that such system(s) must be impaired for more than four hours, the contractor must notify the JJI Project Manager. Approval to shut down a system will be given only with sufficient prior notice where there is a demonstrated need, and the occupants of the building are not exposed to undue risk. Upon verification that all hot work and related hazardous operations will be shut down during the impairment, the JJI EH&S team will issue an impairment tag and the JJI Project Manager will notify the client, so they can contact their property insurance representative.

**Observance of Fire Protection Acceptance Testing:**

Upon completion of a fire protection installation, the employee or contractor shall notify the JJI Project Manager to schedule an acceptance test of the system. The acceptance test shall verify the system’s proper installation and operation in accordance with any applicable NFPA codes. The employee or contractor shall submit appropriate documentation indicating that the acceptance test has successfully been completed.

**Construction in Occupied Buildings:**

When occupants are present in the building during a construction project, additional safeguards must be implemented to eliminate potential exposures and complaints. Dust and particulates from demolition, sanding and other construction activities must be controlled by adequate ventilation, or containment and negative air ventilation systems based upon the specific type of activity and particle. Similar controls must be utilized for similar odorous activities including, but not limited to, carpet adhesive, painting, welding, and coatings.

Control of construction-related particulate matter in both occupied and unoccupied buildings will also prevent the contamination of HVAC systems. The contractor shall ensure that the HVAC system is protected in order to prevent contamination. If an HVAC system is unprotected and contaminated by construction-related particulate matter, the contractor shall be held responsible for the cost of cleaning the system and all other related cleaning.

Negative air ventilation systems shall have appropriate filtration and be exhausted outside of the building. Occupant complaints pertaining to construction-related particulate matter and odors during construction may interrupt the project schedule. Projects may only continue once problems have been resolved. Any cost of delay shall be paid by the contractor.

**SECTION II - EMERGENCY INFORMATION**

Emergency Number- 911

Employees and contractors must abide by all alarms and evacuation procedures as established by JJI and clients. Any alarm triggered by an employee or contractor must be reported immediately and a representative must be available to address the incident. In the event of an emergency, the employee or contractor should report the incident to the local authorities by calling 911.

**Non-Emergency Telephone Numbers:**

JJI Office (Working Hours): (630) 509-2657

JJI Contact (John Smith) (Off Hours): (630) 624-4484

J.U.L.I.E Utility Locate: (800) 892-0123

Workers’ Compensation: (866) 352-3033

US Department of Labor: (312) 353-0900

OSHA: (312) 353-2220

Employee Discrimination: (312) 814-6200

**Emergency Response Procedures:**

JJI and/or coordinating contractors are responsible for developing site-specific emergency response procedures. Employees and contractors shall be trained and have a thorough understanding of such procedures. Such procedures, along with emergency contact information, shall be posted in paperwork available to all employees and contractors at the worksite. All fire-related incidents that occur shall be reported to the JJI Project Manager and the JJI EH&S team for further review, investigation and documentation in accordance with JJI procedures.

In the event of severe weather, all employees and contractors need to move to the nearest shelter area. It is the responsibility of the JJI Project Manager and/or on-site supervisor to identify applicable severe weather.

**Accident Reporting Procedures:**

 In the event of an accident in which a worker requires medical attention to treat an injury, the employee and/or contractor should call 9-1-1 immediately to notify authorized officials. If the injuries are life threatening the employee or contractor must be transported to the nearest Hospital facility. Non-life threatening injuries can be treated either on-site or, if needed, at the nearest Hospital facility. All work-related accidents should be immediately reported to the JJI Project Manager and the JJI EH&S team. Accidents which result in a fatality or the hospitalization of three (3) or more workers shall be verbally reported by JJI to the North Aurora OSHA office at (630) 896-8700. If the office is closed, then call 1-800-321-OSHA. Whether or not an incident is immediately reportable, if it results in the death of an employee, or the in-patient hospitalization of three (3) or more employees within 30 days of the incident, OSHA requires that the employer report the fatality/multiple hospitalizations within 8 hours after learning of it.

**SECTION III - CONSTRUCTION SAFETY PRACTICES**

**Site Safety Plan:**

Each employee and contractor is encouraged to review and understand the contents of this handbook before commencing construction operations. Implementation of this handbook does not preclude or supersede contractors from implementing their own respective safety and health policies. The prime and/or coordinating contractors are encouraged to implement and enforce safety and health policies on the job-site.

Prior to commencing work, the JJI Project Manager can, as needed, request that all supervisors and contractors develop a site safety plan that identifies and addresses hazards and unsafe conditions specific to the job site. Once the plans are complete, the site supervisor will provide an initial safety briefing so all employees and/or contractors on the job-site understand the contents therein. The JJI EH&S team serves in an advisory role by providing access to copies of this Field Guide during pre-construction and safety meetings, assisting contractors in the development of their site safety plans, and collaborating with the site superintendent on a variety of safety and health matters, as they arise during, the course of the project.

**Personal Protective Equipment (PPE):**

The on-site competent person(s) will ensure that all authorized personnel (Employees, Contractors, designated staff and project architects and engineers) are donning hard hats and/or safety glasses while on the work site, as required by each work site. Additional PPE including, but not limited to: hearing protection, hand protection, face protection, fall protection, proper clothing, slip protection and respiratory protection may be required if such hazards exist while on the work site. Each supervisor is responsible for providing PPE to its employees. The contractor’s competent person shall ensure that its employees wear appropriate PPE necessary to provide adequate protection from normal hazards associated with the job. All PPE used must meet ANSI, NIOSH or other applicable industry standards.

**Asbestos Management Plan:**

The JJI EH&S team administers the Asbestos Management Plan to effectively manage, survey, and monitor the status of asbestos-containing materials (ACMs) that are found in many different types of building materials in buildings. The JJI Project Manager coordinates with facility management staff to identify, quantify, and evaluate cost effective asbestos abatement options during the design and planning phase of a project. Abatement options include disturbance prevention, removal, encapsulation, enclosure, or patch and repair. Once the scope of work is clearly identified, the JJI Project Manager may retain the services of a qualified asbestos abatement contractor and environmental consultant to engage in asbestos abatement operations.

Typically, identified ACMs subject to impact during a renovation project are removed before the renovation project commences. However, in the event such ACMs cannot be removed, clients will make every effort to inform the JJI Project Manager and contractors of the presence of such ACMs as early as possible in the design and planning phase so all stakeholders can work together to prevent a disturbance. If a employee or contractor discovers suspected ACMs previously unidentified in the renovation phase, the employee or contractor must immediately stop work and contact the JJI Project Manager, who will contact the client to address further action. Under no circumstances are employees or contractors allowed to disturb ACMs, without prior approval from the NIU Project Manager and the client.

Asbestos abatement contractors shall perform abatement operations in accordance with engineered project specifications and applicable state and federal rules and regulations. An environmental consultant must be included to monitor the asbestos abatement contractor and to document airborne asbestos fiber concentrations during the course of the abatement project. Both the asbestos abatement contractor and environmental consultant are responsible for submitting project reports upon completion of the project. JJI is not responsible for any incurred costs from asbestos abatement or environmental inspection.

**Lead Management Plan:**

Contractors must notify the JJI Project Manager of any plans to perform maintenance or renovation activities in child-occupied facilities. In the event such work is required, the site supervisor or contractor shall contact the JJI Project Manager for further requirements in accordance with the US EPA Lead Repair and Renovation Rule. Employees and contractors shall comply with applicable safety and health regulations if disturbance of lead coated substrates is anticipated.

**Right-To-Know/Hazard Communication (HAZCOM):**

Upon request, the employee and/or contractor shall submit to the JJI Project Manager an inventory of all hazardous materials that are to be brought on-site with accompanying Safety Data Sheets (SDS). The employee and/or contractor shall also ensure that all containers brought on-site for the storage of hazardous chemicals (e.g., gas, paint, etc.) are labeled and inspected in accordance with all applicable regulations. The employee and/or contractor shall remove all hazardous materials brought on- site when work involving a specific hazardous material is complete. The employee and/or contractor may request and review SDS for any chemicals that are encountered on work site property during the performance of its work by contacting the JJI EH&S team.

**Compressed Gas Cylinders:**

Compressed gases pose a severe hazard to persons and property. Employees and contractors are expected to follow standard industry best practices that are outlined in Compressed Gas Cylinder Association Pamphlets. Those guidelines include, but are not limited to the following:

• Storing cylinders overnight in any building is strictly prohibited.

• If a leak develops in a cylinder that cannot be immediately corrected, the cylinder must be safely transported to a location outside the building. Use of an elevator is prohibited under such conditions.

• Compressed gas cylinders are to be stored in an area approved by the JJI Project Manager or client.

• Cylinders shall be clearly marked for the type of gas contained.

• Oxygen and acetylene cylinders are to be stored at least twenty feet apart or separated by a 5ft-1 hr minimum fire rated partition.

• All cylinders are to be stored and transported in a secured, upright position, with their caps secured. Wire ties shall not be used as a securing material. Never load or unload cylinders without caps. Flashback arrestors are required on oxygen and acetylene lines.

• Cylinders must be secured by acceptable means such as chain, strap, or rigid retaining bar.

• Keep cylinders away from welding operations, extreme temperatures, and electrical circuits.

**Biohazards/ Infectious Materials:**

Employees and contractors may need to access or contact biological materials that are potentially hazardous. Examples of these include: work on sewer lines, sumps, drain traps or areas containing infectious waste. Any employee and/or contractor working on equipment or building systems that are known or suspected of being contaminated with human blood or other biological materials, must complete an OSHA required Bloodborne Pathogens training program for the recognition and control of these hazards.

JJI and contractors who are not directly working with biological materials, but may encounter these materials, shall train employees to be aware of any potential biological hazard appropriate for the work being performed.

**Lock-out /Tag-out Procedures:**

Employees and contractors shall implement lockout/tagout procedures when working on equipment and machinery located at a work site in accordance with applicable OSHA standards. Employees and contractors must request permission from the client prior to performing a lockout/tagout procedure on client-owned and operated equipment. At no time, shall an employee, contractor or client override any locks or tags encountered during the performance of their work. Clients are responsible for all shut-down and startup of utility systems for all client properties unless employees and contractors have received approval otherwise from the client.

**Electrical Safety:**

Employees and contractors are required to comply with all applicable OSHA and NEC electrical safety rules and regulations while on a work site. Requirements specific to JJI include, but are not limited to:

• Electrical extension cords must be in good condition and must not create a tripping hazard in hallways or on pedestrian walkways. Only extension cords meeting ANSI standards may be used. Cords that stretch across walkways must be entirely covered, secured, elevated, or protected by other means when exposed to damage, water, or when a potential for a tripping hazard exists.

• Keep all electrical room doors closed and latched shut when unoccupied.

• Lockout/Tagout procedures must be observed when working with energized equipment. Please refer to the Lockout/Tagout section of this handbook.

• All cranes, backhoes, aerial lifts, and similar lifting or excavating equipment must be effectively grounded when a possibility exists of such equipment coming into contact with an electrical power line or power facility located overhead or underground.

• When using temporary power, Ground Fault Circuit Interrupters (GFCI's) are required.

• Areas containing flammable and combustible materials shall require intrinsically-safe equipment and equipment connections.

**Hot Work Permit Program:**

Hot Work is defined as a temporary operation involving open flames which produces heat and/or sparks. This includes, but is not limited to: brazing, cutting, grinding, soldering, thawing pipes, torch applied roofing, welding, arc cutting and the use of heat guns. Alternate methods to execute tasks shall be reviewed before making the decision to engage in hot work operations.

Prior to commencing hot work operations, the employee and/or contractor must notify the work site supervisor. Any required permits to perform hot work must be obtained by JJI Project Manager and/or contractors prior to use. Additional requirements include, but are not limited to:

• All permits must be prominently displayed at the entrance to the job site.

• The JJI Project Manager in conjunction with the client will evaluate building utilities and determine if it is necessary to temporarily shut down utility systems or disarm any portions of the building fire protection system. If impairment of a fire protection system in needed, the client will be notified in accordance with applicable sections of this manual.

**Tools - Hand and Power:**

All power-actuated tools are to be operated in accordance with OSHA Standard 29 CFR 1926.302(e). It is the work site supervisor and/or contractor's responsibility to see that each power-actuated tool operator is properly trained and understands and follows the appropriate safety instructions. Additional requirements include:

• Hand tools, such as shovels, rakes, picks, axes and sledge hammers shall be inspected before use. Broken or splintered handles must be repaired immediately or removed from the job site. Cold chisels and wedges shall also be inspected for mushroomed heads. Defective chisels and wedges need to be removed from the job site. Portable electric power tools shall be inspected before use.

• Defective or damaged tools shall not be used. Personnel shall not drop or throw tools, materials or equipment from one level to another. A hoisting line must be used.

• Power tools shall be maintained in a safe working condition. Designed safety features such as guards and interlocks shall not be removed or disabled. Tools shall be tied off when used overhead. Tools powered by gasoline shall not be used inside client buildings unless approved by the JJI Project Manager. Appropriate engineering controls and safeguards must be established to prevent exposure to building occupants.

**Ladder Safety:**

Employees and contractors shall comply with manufacturer’s guidelines for use of ladders. Specific requirements include, but are not limited to:

• All ladders shall be heavy-duty industrial strength, fiberglass construction, and in good working condition. Aluminum and wooden ladders are prohibited for use on job-sites.

• The user is responsible for visually inspecting a ladder before use.

• Three points of contact must be maintained on the ladder at all times.

• Only one person is permitted to climb a ladder at a time. A rope and bucket shall be used for raising and lowering tools and materials.

• Step ladders are to be fully opened when in use and are never to be used as straight ladders. The top rung and top step are not to be used.

• All straight and extension ladders are to extend three rungs above the supporting object when used as an access to elevated work areas and shall be secured at the top.

• All straight and extension ladders must be equipped with non-skid feet.

• Straight and extension ladders shall be placed at an angle so the base is one fourth of the working length.

• The area under and around the ladder shall be secured to ensure no falling objects may strike persons below.

• Ladders shall not be left unattended in occupied buildings.

**Fall Protection:**

Fall protection procedures shall be implemented if contractor employees are anticipated to be exposed to elevations greater than six (6) feet above the floor or grade level. In areas of fall exposure, guardrails shall be constructed according to OSHA standards. Handrails on temporary stairs and walkways shall also be constructed according to OSHA standards. Full body safety harnesses and shock absorbing lanyards are required for fall protection when it cannot be provided by other means (i.e., proper scaffold with guardrail system, aerial lifts, etc.) Every employee issued a safety harness shall be instructed by a competent person in the proper method of wearing, using, and securing it to an approved anchorage point.

JJI and contractors shall be responsible for providing their employees with fall protection gear that is in good condition and free of visible defects or deterioration. Employees and contractors shall visually inspect fall protection gear before each use and remove such equipment from service if exposed to a fall arrest or evidence of damage is observed. Employees or contractors involved in steel erection and roofing operations will be required to follow pertinent OSHA standards. Fall protection equipment must be worn and tied off to independent lifelines when working from elevated areas under the following conditions:

 • The roof pitch equals or exceeds 7 in 12.

• The job requires workers be closer than four (4) feet from the roof edge without parapets or other acceptable fall protection systems.

• Two-point suspension scaffolds or stages are used.

• Boatswain’s chairs are used.

• Scaffolds with incomplete handrails and decking are used.

• Ladders are placed near an opening.

• Elevated work is being performed with no protection available to prevent the worker from falling.

**Scaffolding:**

All scaffolding shall be erected and maintained in compliance with applicable standards and the Manufacturer’s requirements. Each scaffold must be erected and dismantled by trained and qualified scaffolding employees and contractors. Inspection of scaffolding must be made by a competent person assigned by the JJI Project Manager for the work to be performed. All scaffold platforms must be equipped with standard forty-two (42)-inch high handrails and mid-rail, rigidly secured and completely decked with safety plank or manufactured scaffold decking. Rigidly secured four (4)- inch high toe-boards must be used on all scaffolding. Scaffolds must be tied off to the building or structure at proper intervals.

Scaffolding shall be erected on a solid footing rigid and capable of carrying the maximum intended load without settling or displacement. No scaffold shall be erected except under the supervision of a qualified person (as defined by OSHA). No scaffold shall be moved, dismantled or altered except by the Contractor who designed and erected the scaffold. When allowable, all scaffolds shall have guardrails consisting of a forty-two (42) inch high top rail, a mid-rail and toe boards. All handrails, posts and assembly shall be able to withstand a two hundred (200) pound force in any direction with a minimum of deflection. All elevated platforms shall have a ladder access. All planking shall be scaffold grade as recognized by grading rules for the species of wood used. Scaffold planks shall extend over their end support not less than six (6) inches and no more than twelve (12) inches.

Contractors shall not permit employees to ride manually-propelled scaffolds unless the floor is level and free from holes or obstruction, the platform height does not exceed twice the minimum base dimension, the wheels are rubber or similar material, all tools and materials are secured or removed, and the scaffold users are aware that the scaffold will be moved.

**Aerial Lifts and Platforms:**

Employees and contractors shall not use client-owned or operated aerial lifts, unless otherwise approved by the JJI Project Manager. Articulating boom lifts shall only be operated by trained and qualified individuals. Such lifts shall be inspected in accordance with the manufacturer’s instructions and be free of defects. Personal fall arrest harnesses shall be worn during operations. "Deadman" safety switches shall not be altered. A competent person shall inspect the lifts before use. Hi-jacks shall not be used without outriggers fully extended. The safety chain must be in place across the entrance when in use. When using vertical lifts, such 20 as hi-jacks or scissors lifts, fall protection is recommended. Manufacturer safety recommendations shall be followed while operating lift equipment.

**Crane Operation:**

During crane operation, the following safe work practices shall be implemented:

• The safe design capacity of any crane must not be exceeded.

• All cranes, contractor-owned, leased or rented, must be in a safe, mechanical working condition. Proper guards must be provided for exposed gears, belts, couplings, fans, etc.

• All operators must be trained and qualified to operate the equipment they are assigned to operate.

• A crane must be visually inspected on a daily basis. A documented annual inspection must be kept with the crane at all times. Boom cable installation documentation shall also be available.

• Personnel are prohibited from being positioned under any load when being lifted.

• To avoid tipping, all outriggers must be fully extended and all outriggers must remain firmly on the ground. Cribbing is required when the ground cannot support the concentrated load of the outriggers. Boom angle indicators, load charts and a standard hand signal chart, shall be visibly posted on the crane.

• Cranes and other equipment shall be operated with a minimum clearance of ten (10) feet between power lines and any part of the machinery.

• Employees and/or contractors shall provide appropriate barriers around cranes and material hoists to protect pedestrian and vehicular traffic around the operating area.

• When cranes are operating, and moving, flag men shall be provided by the contractor and utilized to prevent pedestrian and vehicular traffic from crossing paths with the crane load.

**Heavy Equipment:**

Heavy equipment, such as backhoes, dump trucks, dozers and excavators, shall only be operated by individuals who are trained and qualified by JJI or contractors. Back-up signals are required on heavy equipment with a restricted rear view. Roll bars shall be installed when required by OSHA. All vehicles shall have a service brake system, an emergency brake system, and a parking brake system. All cracked or broken glass shall be replaced expeditiously. All heavy equipment shall be in safe operating condition. All contractor employees shall be donned in conspicuous safety warning vests in the presence of heavy moving equipment and other vehicular traffic.

**Excavation and Trenching:**

Before opening any excavation, efforts shall be made to determine if there are underground utilities in the area. Underground utilities include: sewer, telephone, data cables, fuel lines, electric, water, steam, chilled water and irrigation lines. Employees and/or contractors should request a utility locate assessment by contacting the JJI Project Manager. Representatives from J.U.L.I.E Locate will perform the utility locate and communicate their findings to the JJI Project Manager and affected contractors. If utilities are identified and subject to disturbance, they shall be protected or otherwise shut-down during the excavation operations. The employee and/or contractor must ensure compliance with all requirements of the OSHA Excavation Standard 29 CFR 1926, Subpart P. JJI and/or the contractor is responsible for providing a competent person at every excavation site. This individual must be capable of identifying existing and predictable hazards in the excavation area and determining the suitability of equipment, or materials, used for support systems, shield systems, and other protective systems. In addition, the following requirements must be completed prior to or during any excavation on property owned by JJI or the client:

• All excavations greater than five (5) feet in depth must be evaluated and constructed under the supervision of a competent person as identified in OSHA standards. Excavations greater than five (5) feet must be sloped or shored. All excavations must be identified by using barricades.

• While the excavation is open, underground installations shall be protected or supported as necessary to safeguard employees and contractors.

• When excavating around direct buried cables, rubber boots and gloves shall be worn.

• Do not use mechanical equipment within three (3) feet of the underground installation.

• Workers operating in trenches deeper than five (5) feet shall be protected by shoring or sloping of trench walls. The use of a trench box is also recommended to provide protection from cave-ins and worker injury. Working in an unprotected trench is not tolerated by JJI and is in violation of OSHA standards.

• Stairway, ladder, ramp, or other safe means are required for access into all excavations greater than five (5) feet in depth and must be within twenty-five (25) feet of the work area.

• The employee and/or contractor shall maintain a physical barrier around all excavations and machinery. Barriers such as properly supported snow fencing, orange safety fencing, barricades, or temporary chain link cyclone fencing must be installed. All excavation sites are to be secured during off-work hours to prevent unauthorized access.

• The work site supervisor and/or contractor is responsible for providing the proper signage necessary to direct both vehicular and pedestrian traffic safely around or through the work area.

• All open holes, trenches or other excavations that create a hazard to persons must be covered, filled, and/or guarded by a railing system before the employee and/or contractor leaves the excavation site.

• When working around trees on client property, the employee and/or contractor must take special precautions not to harm a tree in any way. The employee and/or contractor must coordinate this activity with the JJI Project Manager.

**Demolition Operations:**

The employee and contractor is responsible for addressing the following items in preparation for demolition activities:

• The employee and/or contractor shall request utility shut-downs through proper procedures to make certain that all lines, services and equipment have been properly cleared or purged for safe removal.

 • All lines, including water and steam, are to be considered "hot" until such utilities are shut-down and locked/tagged out.

• Underground or otherwise hidden lines, cables and sewers shall be physically located when available information is not completely accurate.

• Combustible materials shall be moved prior to hot work operations. Fully charged and appropriate fire extinguishers shall be provided by JJI and/or the contractor during demolition operations involving combustible materials.

• Special attention shall be given to the marking of hazards and the barricading of hazardous areas for the protection of all personnel, including those not directly involved in the demolition work.

• The work site supervisor and contractor have the responsibility of informing its employees of the potential existence of environmentally-hazardous materials at client construction sites.

• The employee and contractor have the responsibility of notifying JJI by contacting the JJI Project Manager of the discovery, or suspected discovery, of environmentally-hazardous materials at any JJI construction site whether the existence was known or not, prior to the commencement of construction.

• Acquiring all necessary permits and/or licenses required for the packaging, transportation and disposal of environmentally-hazardous materials.

• Completing all arrangements necessary for the packaging, transportation and disposal of environmentally-hazardous materials.

• The employee and contractor have the responsibility of providing the JJI Project Manager complete documentation of the proper disposal of environmentally-hazardous materials originating at work site.

• All costs incurred in the permitting, licensing, packaging, transportation and disposal of environmentally-hazardous materials, as reported by the JJI Project Manager.

• All costs associated with the application of state and federal environmental permits including, but not limited to: IEPA and NESHAP permits and Illinois Historical Preservation Society requirements, as reported by the JJI Project Manager.

Depending upon the scope of demolition work, JJI may need to have an environmental hazard assessment conducted, by authorized personnel, to evaluate and assess the presence of environmental hazards that may need to be properly mitigated before demolition can proceed. Common environmental hazards typical of demolition sites include, but are not limited to:

- Asbestos-containing materials;

- Battery back-up power supplies in emergency lighting systems;

- Lead-coated materials and plumbing fixtures;

- Lead-shielding on high voltage electrical cables;

- Mercury-containing materials found in fluorescent light bulbs, temperature and pressure control devices, and drain lines and plumbing traps which have collected mercury;

- Left over, off-spec waste latex and oil-based paints;

- Paint solvents, chemical-based paint strippers or removal agents;

- Water-based or solvent-based surface degreasers;

- Polychlorinated Biphenyl (PCB) – found in pre-1979 fluorescent lamp ballasts and electrical transformers and capacitors;

- Refrigerant-containing (Freon) appliances; 23

- Heavy metal or other chemical residual found in laboratory ductwork and associated exhaust systems;

- Fire extinguishers.

While JJI believes this to be a reasonably comprehensive listing, there may be other unanticipated environmental hazards encountered during the course of the project. Employees and contractors should inform the JJI Project Manager of these hazards upon discovery. Dumpsters, refuse containers, and sewer lines are to be kept free of these items.

**SECTION IV - ENVIRONMENTAL MANAGEMENT PRACTICES**

JJI has the responsibility of notifying employees and contractors of the existence of any known environmental hazards that may be encountered on the job site. However, the employee and contractor is responsible for handling and disposing of all hazardous, special, and normal waste generated as a result of their construction activities. JJI retains the right to review all transportation and disposal facilities that are proposed to be utilized for the disposal of environmentally-hazardous materials generated on the construction site by contractor. The contractor is required to provide JJI completed documentation of the proper disposal of environmentally-hazardous materials originating at a JJI work site.

**Environmental Permits, Registration, and Notification:**

The JJI Project Manager and/or contractor is responsible for obtaining all necessary permits from applicable environmental regulatory agencies (e.g., IDPH, IEPA, etc.) PRIOR to beginning any work that will require such a permit. Copies of contractor permits will be submitted to the JJI Project Manager for review before work commences.

**Construction and Demolition Debris:**

Disposal of construction and demolition debris in client dumpsters is prohibited. It is the employee’s and contractor’s responsibility to properly recycle/dispose of construction debris in accordance with applicable environmental regulations.

**Storm Water Management:**

Any construction activity, including grading, clearing, excavation, or other earth-moving process may require a National Pollutant Discharge Elimination System (NPDES) storm water permit for construction under the NPDES Storm Water Program. The employee and contractor is responsible for closely monitoring discharges to verify that only clean uncontaminated water is being discharged to storm sewers. No hazardous, toxic liquid, or solid material(s) shall be discharged to the storm and/or sanitary sewer system. Employees and/or contractors performing planned work that will create potential runoffs from water blasting, wet method surface removal, etc., must consult with the JJI Project Manager to ensure proper protection of the drainage system and adequate product collection procedures.

**Underground Storage Tanks (UST):**

In the event that a UST, or associated piping, is discovered during the a project, the employee and/or contractor shall stop work immediately in areas adjacent to the tank, or piping, and contact the JJI Project Manager for further evaluation. Under no circumstance is the tank and/or associated piping to be excavated or removed without the expressed approval of the client. Installation of above ground and underground storage tanks may also require application of a permit through the Office of the State Fire Marshal. Permit requirements are dependent upon the size and anticipated function of the tank.

**Spill Prevention:**

The employee and/or contractor is responsible for any petroleum-based or chemical spill within the construction limits of the work site and those outside of the construction limits that are caused by the employee’s and/or contractor’s defective equipment, containers or personnel. Employees and contractors shall have a spill kit(s) capable of cleaning up a 40-gallon spill on-site at all times. For larger spills the employee and/or contractor must provide to the JJI Project Manager the name, address, and phone number of the emergency response company to be contacted for cleanup. The full cost of any clean up shall be the sole responsibility of JJI or contractor, once the spill is investigated by the JJI EH&S team.

**Fugitive Dust Emission Abatement:**

All employees and contractors must reduce the amount of fugitive dust (particulate matter) emitted into the ambient air as a result of construction activities in accordance with applicable NESHAP requirements. Any operation or procedure involving the release of significant quantities of dust, vapors, fumes, or mist shall be approved by the JJI Project Manager prior to start of work. Examples include: large applications of floor, wall or roof coatings, spray applications, cement cutting, sandblasting, demolition activities, etc.

**Hazardous Waste Management:**

The employee and contractor shall comply with all federal, state and local regulations pertaining to the management of hazardous waste, as well as client requirements. Hazardous waste must be handled and accumulated on-site in a safe manner and by properly trained employee and/or contractor personnel:

• Mercury-containing fluorescent lamps shall be removed from fixtures with care and placed in special cartons and disposed of properly. Do not dispose of lamps in regular trash containers.

• Asbestos-containing materials removed under abatement contracts may be considered hazardous or special waste. It is the responsibility of the general and abatement contractors to dispose of them properly and coordinate through the JJI Project Manager.

• Lead-based paint removed from structures is considered hazardous waste and must be disposed of properly and coordinated through the JJI Project Manager.

• Contact the JJI Project Manager for guidance on disposal of other types of hazardous wastes otherwise not listed above.

Hazardous waste generated on-site shall not be transported off-site without proper manifests and signatures. Hazardous waste will be transported and disposed of in accordance with all applicable federal, state, and local regulations. All hazardous and non-hazardous waste generated from asbestos abatement projects must be properly manifested per EPA/DOT regulations. Contractors are required to submit waste manifest records to the JJI Project Manager as confirmation that hazardous waste generated from the job-site was properly disposed.