

# FBI CONSTRUCTION SITE SAFETY AND INCIDENT PREVENTION PROGRAM

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#### HEALTH AND SAFETY POLICY

Management, staff, hourly employees, and subcontractors of **FBi Construction** must have a common objective to be successful. Our objective is the healthy, safe, environmentally sound, and productive operation of all **FBi Construction** activities on this project site. We have an obligation to preserve the human, physical, and financial resources of our company. In satisfying this obligation, worker safety and health will always be our #1 priority. As such, this safety policy must be considered in every phase of our business including acquisition, job planning, job setup, and performance. Accordingly, our principal objectives are to:

- Provide a work environment that is free of unmitigated recognized hazards.
- Comply with all laws that regulate employee safety, health and our environment.
- Recognize the priority of safety and health factors over purely economic considerations.
- Hold each employee accountable for the safe execution of all jobs assigned and full compliance with all environmental, safety, and health related procedures and training.
- Train our employees in safe and proper job procedures and required compliance with established procedures, policies and practices.
- Provide comprehensive New Employee Safety Training to all new hires.
- Hire only those persons who demonstrate the capacity to comprehend and execute all jobs in a safe and healthful manner consistent with the policies and procedures of the company and the training and jobs instruction provided.
- Promote worker health and safety both on and off the job.
- Maintain leadership in safety and accident/incident prevention by continuously improving safety performance and work methods/procedures.

First-line supervision has the greatest impact and thus the greatest opportunity to influence and promote safe work practices among our work force in the field. The prevention of accidents/incidents requires everyone's concerted effort and daily attention. Everyone has equal authority and responsibility to take appropriate action to correct unsafe acts/or conditions. The project Superintendent has the overall responsibility for safety at this project location. Mike Tyler has the corporate responsibility and authority for safety and accident prevention.

As a condition of doing business with FBi Construction, all subcontractor employees and tiered subcontractors engaged on this project are required to adhere to our project safety rules, regulations and policies established by our Safety Program. In addition to our own safety requirements, our Safety Program incorporates regulations of the current editions of the State and Federal laws, including but not limited to, the latest amendments of the following: Williams-Steigler Occupational Safety and Health Act of 1970, Public Law91-956; Part 1910, Occupational Safety & Health Standards, Chapter 17 of Title 29, Code of Federal Regulations; Part 1926, Safety & Health regulations for Construction Chapter 17 of Title 29, Code or Federal Regulations. This site specific safety and incident prevention

program will assist project management, supervision, subcontractors, and tiered subcontractors and workers in understanding an incident free environment and the safety and health expectations and requirements of this project. This project has been designated an **Injury Free Construction Site**.

A properly planned and executed project will eliminate the potential for losses and return benefits that satisfy needs in each of these areas:

- Health, Safety, & Environment
- Cost
- Quality

- Morale
- Production
- Customer Satisfaction

All employees will contribute to the company environmental, health, and safety program by following all policies and procedures, bringing unsafe conditions/acts to the attention of management, and recommending actions to improve the effectiveness of the program. Supervisors shall insist that project personnel observe and obey the rules and regulations necessary for the safe conduct of work, and shall take such action necessary to obtain compliance.

Management will be responsible for promoting a healthy culture throughout the organization, set a high standard for safety and health practices, and lead by example. Management will meet bi-annually to evaluate policy and procedures and to ensure the needed financial, material and personnel resources are provided to achieve the goals and objectives of the safety and health program.

Kyle GunterKent GunterOwner/PresidentOwner/Executive VP

# SITE SAFETY & INCIDENT PREVENTION PROGRAM

This Site Safety and Incident Prevention Program was prepared to assist project management, supervision, contractors and workers in understanding the incident injury free philosophy and the health and safety expectations and requirements of FBi Construction on this project. **Compliance with this Site Safety and Incident Prevention Program is expected and a condition of employment on this project.** 

Contractors' project managers and superintendents have overall responsibility for the implementation and the execution of this Site Safety and Incident Prevention Program.

# SITE SPECIFIC SAFETY COMMITTEE

A site specific safety committee may be organized to assist project team in implementing this Site Safety and Incident Prevention Program. Superintendent will discuss the ground rules of the site safety committee based on the scope of work.

Participation in the safety committee is mandatory. Each contractor who is chosen to participate in the safety committee will provide one employee. The premise of the committee is to work as a team to identify and correct safety or health hazards, identify unsafe work practices and offer solutions to safety issues.

# CONTRACTOR SAFETY PERFORMANCE

FBi Construction expects all contractors to execute his or her work on this project with a visible, proactive, and commitment to safety at all levels. Each contractor should plan their work with focus on protecting their workers from incidents and injuries. The following are actions that each of us can take to improve safety performance on this project:

- Attend and actively participate in tool box meetings.
- Discuss safety in all meeting.
- When you talk about safety, talk about people, not numbers or statistics.
- Ask where the next injury is likely to happen and what can be done to prevent it.
- Recognize individuals and groups daily for working safely.
- Take positive actions when you see someone doing something you believe is unsafe. Talk to them about your concern for their safety, not about violating rules or procedures.
- Take responsibility for people's safety that work with you, for you and around you.
- Find ways to express care and concern for people and work to improve the dignity and respect people experience on the project.
- Make and keep promises around safety issues.

Immediate corrective action will be taken to eliminate any safety discrepancy, hazard, at-risk behavior, or violation observed.

# DESIGNATED CONTRACTOR COMPETENT PERSON

Each contractor will designate a competent person as defined by OSHA 29 CFR 1926.32(f) 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 as authorization to take prompt corrective measures to eliminate them" as their project safety representative. This person(s) name will be submitted to FBi Construction and this person must have the authority and responsibility to ensure the proper implementation and enforcement of this Site Safety and Incident Prevention Program.

The General Trades Competent Person/Foreman designated will be expected to have an adequate knowledge of OSHA construction and general industry standards. The designated representative will, as a minimum:

• Attend OSHA 10 hour construction safety training, although OSHA 30 hour construction safety training is highly recommended.

- Conduct regular safety meetings with workers to instruct them on project safe work practices and requirements.
- Submit safety information in a timely manner.
- Conduct pre-task safety plans and communicate daily to workers to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.

The Scaffold Competent Person designated to oversee erection and dismantling of scaffolds will be expected to have an above average knowledge of OSHA 29 CFR 1926.450 Subpart L -Scaffolds. The designated representative will, as a minimum:

- Attend OSHA 10 hour construction safety training, although OSHA 30 hour construction safety training is highly recommended.
- Submit a fall protection plan for erection and dismantling scaffolds. FBi Construction will only accept conventional fall protection measures.
- Conduct daily inspections of the scaffold and instruct workers in safe work practices.
- Submit safety information in a timely manner.
- Conduct pre-task safety plans and communicate daily to workers to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.

The Trenching and Excavation Competent Person designated to oversee digging trenches and excavations will be expected to have an above average knowledge of OSHA 29 CFR 1926.650 Subpart P – Excavations. The designated representative will as a minimum:

- Attend OSHA 10 hour construction safety training, although OSHA 30 hour construction safety training is highly recommended.
- Conduct daily inspections of trenches and excavations and instruct workers in safe work practices.
- Submit safety information in a timely manner.
- Conduct pre-task safety plans and communicate daily to workers to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.

The Fall Protection Competent Person designated to oversee his company's fall protection plan will be expected to have an above average knowledge of OSHA 29 CFR 1926.500 Subpart M – Fall Protection. The designated representative will as a minimum:

- Attend OSHA 10 Hour Construction safety training, although OSHA 30 hour construction safety training is highly recommended.
- Conduct daily inspections of fall protection equipment, instruct workers in proper personal fall protection methods, inspect guardrails systems and other fall protection systems used to protect workers within your scope of work.
- Submit safety information in a timely manner.
- Conduct pre-task safety plans and communicate daily to workers to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.

The Rigging Competent Person designated to oversee the rigging of structural steel, concrete panels, materials or other equipment hoisted above the ground will be expected to have an above average knowledge of OSHA 29 CFR 1926.251. Competent Person designated for rigging structural steel shall have an above average knowledge of OSHA 29 CFR 1926.753 hoisting and rigging. The designated representative will as a minimum:

- Attend OSHA 10 Hour Construction safety training.
- Certified by employer that he/she is a qualified rigger based on formal training and experience.
- Conduct daily inspections of rigging equipment.
- Submit safety information in a timely manner. Conduct pre-task safety plans and communicate daily to workers their work activities to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.

The Safety Competent Person designated to oversee the safety of their employees and subcontractors will be expected to have an above average knowledge of OSHA construction and general industry standards.

- Attend OSHA 10 Hour Construction safety training, although OSHA 30 hour construction safety training is highly recommended.
- Have as a minimum 5 years' experience in the commercial construction.
- Conduct daily inspections of the work areas, conduct regular safety meetings with workers to instruct them on project safe work practices and requirements.
- Submit safety information in a timely manner. Conduct accident and near miss investigations reports and lessons learned.
- Conduct pre-task safety plans and communicate daily to workers their work activities to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.

# SAFETY REGULATIONS

FBi Construction and contractors will incorporate, as a minimum, OSHA 29 CFR 1926 Construction Safety Standards, OSHA 29 CFR 1910 General Industry Standards (as applicable), specific state safety regulations, specific owner requirements, project safety rules, and this Site Safety and Incident Prevention Program when determining the safe work practices and protection of all workers. If any of these standards, requirements, or procedures conflict, the more stringent requirement shall prevail.

#### CONTRACTOR SAFETY SUBMITTALS

Prior to beginning work each contractor shall submit to FBi Construction Superintendent or his representative the following as may be required:

• Contractor's written site specific safety programs

- Contractor's written housekeeping plan
- Contractor's written hazardous communication program.
- Contractor's written substance abuse program.
- Material Safety Data Sheets (MSDS/SDS) for all chemicals and materials used or stored on site.
- Names of designated competent persons as required by their scope of work for trenching, scaffolding, rigging, electrical, etc.
- Names of trained and qualified equipment operators as required by their scope of work for cranes, forklifts, aerial lifts, etc.
- Names of employees trained in First Aid.
- Energized Work Permit if required to work on energized circuits.
- Detailed job hazard analysis/Pre-Task Safety Plan for the scope of work
- Personal Protective Equipment Hazard Assessment and Certification
- Annual crane inspections of any crane brought onto the site.
- Verification of OSHA and/or project required training as may be necessary. Examples of training may include:
  - OSHA 10 hour construction safety training
  - Fall Protection
  - o Ladders
  - o Scaffolds
  - Aerial Lifts
  - Forklifts
  - o Trenching
  - General construction hazards
  - Crane signal person
  - Confined spaces
  - Respiratory protection (dust masks)
  - o Lockout
  - o Rigging

Throughout the course of the project each contractor may be required to submit various on-going safety documents to FBi Construction's Superintendent as required by the scope of work. These submittals may include, but not limited to:

- Monthly Incident Summary Report.
- Accident and incident investigation report (within 48 hours).
- Daily Work Site Safety Inspections.
- Daily documented scaffold, trench, crane, aerial lift and forklift inspections.
- Weekly safety tool box meeting training records.
- Daily pre-task safety plan and/or JHA.
- Air sampling data for respirator use.
- Inspections of rigging equipment.
- Inspections of personal fall protection equipment.
- Initial inspections of all welding machines and generators.
- Daily inspections of heavy equipment (backhoes, dump trucks and etc.)

- Inspections of hand and power tools.
- Daily inspections of ladders.
- Daily inspections of material handling/hoisting equipment.

# Violation of Safety and Health Requirements

Violations of statutory health and safety regulations or the project safety rules and policies contained in the site safety plan will not be tolerated. All hazards identified are to be abated immediately. When a hazard cannot be immediately corrected, a written explanation is to be submitted to FBi Construction Superintendent. Failure to correct hazards may result in disciplinary actions or suspension of part or all work.

# **STOP WORK PROGRAM**

FBi Construction empowers employees and contractors to stop individual tasks or group operations when the control of health, safety, and environmental (HSE) risk is not clearly established or understood.

- All employees and contractors have the authority and obligation to stop any task or operation where concerns or questions regarding the control of HSE risk exist.
- No work will resume until all stop-work issues and concerns have been adequately addressed. Any form of retribution or intimidation directed at any individual or company for exercising their authority as outlined in this program will not be tolerated.
- All employees and supervisors will be notified when unsafe conditions are witnessed in the workplace.

#### **Training**

Training for the SWA program shall be conducted as part of all new employee and contractor site orientation. A review of the SWA shall be included as part of all field location safety briefings, and in regular safety meetings.

#### **Protocol Instruction - Steps**

- When a person identifies a perceived unsafe condition or act, error, omission, or lack of understanding that could result in an undesirable event, that person shall immediately initiate a Stop Work intervention with the person(s) potentially at risk.
- 2. If the supervisor is readily available and the affected person(s) is not in immediate risk, coordinate the Stop Work action through the supervisor. If the supervisor is not readily available or the affected person(s) is in immediate risk, initiate the Stop Work intervention directly with those at risk.

- 3. Initiate Stop Work interventions in a positive manner. Briefly introduce yourself and start the conversation with the phrase, "I am using my Stop Work Authority because...." Using this phrase will clarify the initiator's intent and set expectations.
- 4. Notify all affected personnel and supervision of the stop work issue. If necessary, stop associated work activities, remove person(s) from the area, stabilize the situation, and make the area as safe as possible.
- 5. All involved parties discuss the stop work issue and agree on how to proceed.
- 6. If it is determined and agreed the task or operation can proceed as-is (for example, the stop work initiator was unaware of certain facts or procedures), the affected persons should thank the initiator for their concern and proceed with the work.
- 7. If it is determined and agreed that the stop work issue is valid, then every attempt should be made to resolve the issue to the satisfaction of all affected persons before work is restarted.
- 8. If the stop work issue cannot be resolved immediately, suspend work until proper resolution is achieved. When opinions differ as to the validity of the stop work issue or adequacy of the resolution actions, site management makes the final determination.
- 9. Positive feedback should be given to all affected employees regarding resolution of the stop work issue. Under no circumstances should retribution be directed at anyone who exercises their SWA in good faith.

# ANY PERSON HAS THE AUTHORITY TO STOP WORK DUE TO POTENTIAL HEALTH AND SAFETY ISSUES.

# DISCIPLINARY PROGRAM

At-risk behavior on this project that contributes to an incident or injury will not be tolerated. Each worker has an individual responsibility to work safely and minimize unsafe actions. FBi Construction reserves the right to discipline/fine a contractor based on safety violations committed by their employees. The fines will not be based solely on an individual employee's safety violations but on the company's safety violations.

FBi Construction has established a progressive disciplinary program for those acts or practices not considered Immediately Dangerous to Life or Health.

Committing an unsafe act and or practice that is not Immediately Dangerous to Life or Health will result in the following:

- First occurrence: Verbal warning
- Second occurrence: Written warning, re-training, or sanctions to include but not limited to suspension from project, holding monthly invoice checks etc. and meeting with contractor's management personnel.
- Third occurrence: Written notification of sanctions, possible termination from project site. At the time of the third violation, FBi Construction will also impose our extended disciplinary program which entails a fine structure for any contractor whose employees commit repeated "other-thanserious" unsafe acts.

Other-than-serious safety violations may consist of, but not limited to:

- Failure to wear hard hat properly
- Failure to wear safety glasses/eye protection when required.
- Failure to use hearing protection when required.
- Failure to wear proper work boots/shoes and clothing.
- Failure to wear seatbelts on mechanized equipment.
- Failure to have first aid kit.
- Using frayed/cut drop cords.
- Using drop cords less than #14 AWG.
- Using unrated ladders.

Committing unsafe acts and or practices that are considered Immediately Dangerous to Life and Health (IDLH) may result in immediate termination from the project. FBi Construction also reserves the right to immediately sanction a contractor.

Sanctions include immediate abatement of the IDLH condition/hazard and issuance of fines to the contractor. Based on the severity of the hazard the Safety Director and project Superintendent/Project Manager will determine the amount of the fines. FBi Construction reserves the right to terminate a contractor for repeated IDLH safety violations.

IDLH safety violations may include, but are not limited to:

- Failure to follow fall protections requirements.
- Removing guard rails and not putting them back in place.
- Working in an unprotected trench greater than 5 feet deep.
- Failure to follow the Substance Abuse Policy will result in a fine and removal from the job.
- Failure to wear reflective vest (bright color) when required.
- Possession of firearms, explosives or dangerous weapons.
- Violation of project security rules and procedures.
- Fighting, horseplay, practical joking or gambling.
- Entering a confined space without following procedures.
- Failure to follow lock-out/tag-out procedures.

It is impossible to publish every safety rule to cover every circumstance. However, if workers fail to follow safe work practices not covered by this policy, disciplinary action and or fine will be assessed based on FBi Construction's on site Superintendent and Project Manager's assessment of the violation.

#### Safety Violations

Non-serious safety hazards can carry fines ranging from \$50.00 to \$500.00 per occurrence per person based on Superintendent and Project Manager's discretion.

Serious safety hazards can carry fines ranging from \$1000.00 and up per occurrence per person including permanent removal of employee (s) from the project based on Superintendent and Project Manager's discretion.

Harassment is defined as any behavior that disturbs or upsets another employee, and that is typically repetitive. Harassment will not be tolerated and should be reported immediately to supervisor and/or management.

# SUBSTANCE ABUSE POLICY

This project is committed to providing a safe, drug free work place for all employees. This policy applies to all FBi Construction contractors, venders, and other third party employees.

Drug and alcohol abuse on and off the job can contribute both to incidents and to greater risk for all individuals employed on this project, as well as the general public. Construction work is dangerous; therefore all work tasks on this project will be considered safety sensitive. The use, sale, offer to sell, purchase, and transfer, distribution, or possession of drug paraphernalia, any detectable amounts of alcohol or illegal drug, firearm, or other dangerous weapons by any employee on this project is prohibited. Each contractor will promote a Drug Free Workplace with their employees and communicate during the safety orientation what constitutes prohibited activities. Every worker involved in an incident shall have a post incident drug/alcohol test performed within six (6) hours after the incident. Any worker on the project site who is reasonably suspected of being under the influence of alcohol or a controlled substance shall be tested. Contractors will transport their workers involved in an incident to a collection facility selected by FBi Construction. Workers that refuse to test, stall to be tested, are uncooperative with collectors, or attempt to alter a urine specimen will be considered positive and immediately removed from the project.

# WORK-REALATED INJURIES, ILLNESSES AND INCIDENT INVESTIGATION

An incident is defined as any unplanned or undesired event that results in a work-related injury/illness, property damage, or disruption of business where the cause was from human errors or omission.

Every incident will be investigated to determine the probable root causes (s) and steps required to prevent a similar occurrence from happening in the future.

In the event of a work-related injury or illness, the worker is to notify his or her supervisor. All work related injuries/illnesses and incidents must be reported to FBi Construction immediately.

First line supervision will be responsible for conducting the investigation of the incident immediately. A safety representative may assist the first-line supervisor in the investigation but will not solely conduct the investigation. The incident notification and investigation report form will be submitted to FBi Construction within 48 hours of the occurrence.

An incident investigation form is required to be filled out by the first line supervisor. This form will describe the incident, address the corrective action plan, assign responsibilities to fulfill the corrective action plan, track the action plan and close the investigation once all areas are addressed.

# **MEDICAL RECORDS**

Medical records for each injury/illness will be obtained and filed by the Safety Director. These records will be kept in adherence to OSHA standards (duration of employment plus 30 years). Employees have the right to access their records within a reasonable timeframe (at no cost) in a timely manner at their initial assignment and annually thereafter in accordance with OSHA standards.

Personal identifiers will be removed for the protection of all employees. This includes exact age, height, weight, race, sex, date of initial employment, job title and the like.

# SAFETY PLANNING

<u>Job Hazard Analysis</u> (Completed by Contractor Superintendent and Project Manager) As may be required, prior to starting work on this project, each contractor will submit a written Job Hazard Analysis for their scope of work. The Job Hazard Analysis must identify and outline each work component or activity, list the potential safety and health hazards associated with each activity, and describe what safety controls, PPE, tools and equipment will be implemented and required to mitigate the recognized hazards in order to safely complete each activity.

**Pre-Task Safety Planning** (Completed by Contractor Foreman or First Line Supervisor) As may be required, each Foreman or designated supervisor will analyze each task to be performed for each scope of work and identify the work sequences, hazards, and controls necessary to protect workers from the identified hazards. The Pre-Task Safety Plan will be communicated daily to each crew performing work on this project.

# SAFETY INSPECTIONS

Each Contractor performing work will be responsible for conducting daily safety inspections of their work area, tools and equipment. The following inspections may be required as applicable to ongoing work activities.

#### **Daily Scaffold Inspections**

Contractors using scaffolds will designate a competent person to inspect all scaffolds each day prior to use. The inspector shall use a scaffold inspection tag or equivalent to document inspections.

#### **Daily Trench Inspections**

Each contractor working in trenches or excavations will designate a competent person to inspect all excavations each day prior to beginning work.

# **Daily Crane Inspections**

Each contractor using cranes on this site will designate a competent person to inspect each crane each day prior to use.

#### **Daily Forklift Inspections**

Each contractor using forklifts on this site will designate an operator to inspect forklifts each day prior to use.

# **Daily Aerial Lift Inspections**

Each contactor using scissor or boom lifts will designate the operator to inspect the lifts each day prior to use.

# **Material Handling/Hoisting Equipment**

Each contractor using material lifting devices such as duct jacks or similar hoisting equipment shall inspect equipment daily. The inspector shall use an equipment inspection tag or equivalent to document his inspection.

# Harness and Lanyard Inspections

Each contractor who requires their employees to wear personal fall arrest systems shall inspect harnesses and lanyards as required. Workers engaged in steel working activities shall inspect harnesses and lanyards daily.

# **Rigging Equipment Inspections**

All contractors using rigging equipment (slings, shackles, ring clutches and etc.) shall submit a rigging plan to include inspection criteria based on manufacturer's requirements. All rigging equipment shall be inspected and certified by contractor prior to use and as a minimum monthly.

# Voluntary Use of a Disposal Respirator (Dust Mask)

If a worker desires to voluntarily wear a filtering face piece (dust mask) and a respirator is not required, the first-line supervisor is required to inform the worker about the specific respirator and its limitations. All disposable dust masks must be NIOSH approved. Contractors shall read and have employee sign Appendix D to section 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard.

#### Ladder Inspections

All contractors using ladders shall inspect them prior to each use.

#### Hand and Power Tool Inspections

All contractors using hand and power tools shall inspect them daily prior to each use.

# SAFETY TRAINING

Safety and health training is a requirement and mandatory for all contractor workers assigned to this project to promote and ensure that an incident and injury free environment exists.

#### Safety Orientation:

All project management, supervisors, and workers shall attend site-specific safety orientation training as may be required. FBi Construction's Superintendent or his representative will conduct safety orientations. No workers will be allowed to start work until they have attended the safety orientation.

As a minimum, the safety orientation will include the Project Safety Rules, emergency action plans, fire extinguisher training, safety training requirements and procedures contained in this manual. The site-specific orientation will communicate each worker's responsibility to be in compliance with this project's Site Safety and Incident Prevention Program, Project Safety Rules, regulations, accountability, and the disciplinary policy.

#### Lone Worker

With the exception of the operation of motor vehicles, no worker employed less than 30 days (short service team member) will be allowed to work alone. If a team member has met the 30 day requirement, they may work alone but they must be aware of the dangers of doing so. These dangers and hazards differ from job site to job site and include but are not limited to accidents associated with fatigue, issues with personal disease or sickness, unexpected third party actions, extreme weather conditions, etc. If a qualified team member is working alone he is to check in at least once every four hours with his supervisor.

A short service team member (employed less than 30 days) must work under direct supervision. The project supervisor is the short service team member's mentor and will assist them with their development. Owner clients must be notified of short service team members who will be working at their project site. Any owner requirement to work in terms will be adhered to.

# Weekly Tool Box Safety Meetings

All workers assigned to this project will participate in weekly Tool Box Safety Meetings conducted by contractors. Documentation of completed tool box meetings will be submitted to FBi Construction's Superintendent. Failure to attend and/or conduct weekly meetings could result disciplinary actions.

#### **GENERAL SAFE WORK PRACTICES**

Clean and safe working conditions are absolutely essential for achieving an Incident and Injury Free Environment, as well as for the promotion of construction efficiency and progress. Each worker on this project is valued not only for what they do, but for who they are. Everyone must maintain a strong personal desire to think and act safely, in an effort to create an Incident and Injury Free Environment. The following general safe work rules are a partial list of the general rules that apply to each worker on this project. There will be no tolerance for any worker who carelessly disregards these rules or other applicable health and safety rules.

# **PROJECT SAFETY RULES**

- 1. Access to this site is restricted to employees and those authorized by FBi Construction.
- 2. Use and/ or possession of intoxicants, alcohol, or drugs are strictly prohibited.
- 3. All personnel on the project site will wear hard hats, safety glasses, reflective vests or high visibility clothing in the designated work zone as may be required.
- 4. Possession of firearms or other weapons is prohibited on project sites and in and on company owned property.
- 5. Workers will carry ear protection on their person as may be required.
- 6. Workers shall wear long pants and shirts with 4" minimum sleeves at all times.
- 7. Workers shall wear hard soled work boots. No athletic or canvas shoes.
- 8. Workers cutting masonry materials shall use a wetting method or mechanical ventilation
- 9. Workers mechanically sanding sheet rock shall use mechanical means to reduce respirable dust from workers breathing zone at or below OSHA permissible exposure limit of 5 mg/m3 of air.
- 10. Full body harness, shock absorbing lanyards or other fall protection devices will be utilized when working at unprotected heights greater than 6 feet above a lower level and in all aerial articulating boom lifts and forklift baskets.
- 11. No radios, tape decks or earphones allowed on site.
- 12. Workers on scaffolds 6 feet or greater above a lower level shall be protected by either guardrails or personal fall protection.
- 13. Only authorized and trained personnel are permitted to operate equipment.
- 14. No riders on mechanized equipment.
- 15. All mechanized equipment must have seat belts, operable horns and backup alarms.
- 16. No one shall enter a trench or excavation unless it is properly protected or sloped and employees trained on the hazards involved in trenching operations.
- 17. Only trained, qualified operators will use powder-actuated tools.
- 18. All ladders shall be heavy duty type 1, 1A or greater. They will be secured and extend three feet above landing. Green ladders are prohibited. Aluminum ladders are strongly discouraged.
- 19. Guardrails shall be maintained at all times at all openings, stairways and at the building perimeter.
- 20. Be alert for chemical safety hazards. Flammable liquids must be kept in approved metal safety containers.
- 21. All flexible cord sets shall be 3 wire type, designed for hard/extra hard use and be # 14 AWG or greater. Replacement plugs to be UL/FM approved for outdoor locations.
- 22. Work on exposed energized circuits greater than 50 volts is prohibited.
- 23. Contractors shall have a first aid kit and fire extinguisher located at their work area.
- 24. Report all accidents, unsafe conditions or practices to your supervisor and superintendent.
- 25. Contractors will provide fresh drinking water daily for their employees' use.
- 26. Tobacco use is prohibited in wood framed building under construction. Smoking area(s) will be

designated on the project site as applicable.

27. Adequate illumination shall be provided to insure safe work practices.

# **EMERGENCY ACTION PROCEDURES**

An emergency plan is a set of rules or procedures to be followed by all personnel in the event of a project emergency. If applicable, a site specific emergency action plan will be written and all subcontractor competent persons will be notified of the location of the site specific emergency action plan when they mobilize on site. The plan and procedures will be discussed during the project safety orientation meeting.

The emergency plan is maintained in the FBi Construction field office and is under the direction of the project superintendent. The emergency plan determines the proper access/egress of emergency equipment and/or personnel into or out of the site in case of emergency.

Project superintendent will activate emergency action plan by the use of a 5 second air horn blast and/or phone communication to subcontractor competent persons.

Supervisors will be directed to key locations on the site to assist in an emergency situation.

Each employee is expected to follow direction of supervisors and cooperate in any emergency action effort. Personnel should evacuate the site in an orderly fashion if instructed to do so by supervisors. If you become aware of an emergency situation or an injury, notify a supervisor immediately.

Personnel are strictly forbidden to discuss project conditions, incidents or emergencies with the media, press or any person not associated with the project.

A list of local hospitals, emergency rooms and doctor's offices will be posted at the jobsite. FBi Construction will ensure that an ambulance service is readily available and jobsite accessible if an emergency occurs. If an ambulance service is not available, FBi Construction ensures that an alternate transportation is made available to transport the injured person(s) that will protect the occupant(s) from the weather, will allow the occupant(s) to communicate with the health care facility to which the injured worker is being taken and can accommodate a stretcher and an accompanying person if necessary.

#### **PROJECT SITE SECURITY**

"No Trespassing" signs should be posted at the project site to prevent casual entry by the public. All construction traffic will enter through designated areas. On projects that are fenced in, all construction traffic will enter through designated control gate(s).

Subcontractors are responsible for directing their employees and vendors to use specified gates and parking areas as required. Subcontractors are responsible for securing and maintaining their own

equipment, office trailers and storage areas to include after hours, weekends and holidays. If the subcontractor elects to store tools or other valuable items onsite, all tools or other valuable items should be labeled with the owners name and locked in a secure metal job box or storage container. At a minimum, locks should be high tensile steel security lock sets. Mechanized equipment should be locked and/or secured in storage containers. All workers on site shall report suspicious behavior to their respective supervisors.

Subcontractor employees may be subject to FBi Construction disciplinary procedures for violation of project security measures and for certain offenses, may be subject to legal action:

- Possession of firearms and other weapons on project site.
- Fighting or horseplay.
- Being on project while under the influence of alcohol or controlled substances.
- Intentional violation of project traffic and parking rules.
- Theft.
- Possession, distribution, or offering for sale, alcohol or controlled substances on project site.
- Negligent damage of owner's property or the property of contractors or employees.

# FIRST AID POLICY

In the event an employee is injured on the job, First Aid kits are available for the employee to treat their own injuries. First aid kits will be located in the vicinity of the work area and contents of the kit inspected when brought on site. Subcontractor Foreman will notify project superintendent or his representative if employees use first aid items. In the absence of a person(s) trained in First Aid, a person who has a valid certificate in First Aid training shall be available at the worksite to render First Aid. In the event of a serious injury, 911 will be called.

No employee is required to treat another's' wounds. However, in the event "Good Samaritan" assistance is rendered the exposed employee and victim may be evaluated by a medical clinic or doctor for Blood Borne Pathogens exposure control within 48 hours. The exposed employee will receive general blood borne pathogen training pursuant to OSHA 1910.1030 requirements.

#### **Bloodborne Pathogens**

FBi Construction\_is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

The ECP is a key document to assist our firm in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

\* Determination of employee exposure

- \* Implementation of various methods of exposure control, including:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
  - Housekeeping
- \* Hepatitis B vaccination
- \* Post-exposure evaluation and follow-up
- \* Communication of hazards to employees and training
- \* Recordkeeping
- \* Procedures for evaluating circumstances surrounding an exposure incident

# Exposure Control Plan

Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees have an opportunity to review this plan at any time during their work shifts by contacting the Safety Director. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

The Safety Director is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

# **Engineering Controls and Work Practices**

Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below:

- \* Use of gloves, eyewear and other PPE to prevent/minimize exposure
- \* Safety guards on all power tools/equipment

This facility identifies the need for changes in engineering control and work practices through reviewing of OSHA records, employee interviews, and jobsite walkthroughs.

We evaluate new procedures or new products regularly by reviewing literature, supplier info, products considered.

The Safety Director will ensure effective implementation of these recommendations.

# Personal Protective Equipment (PPE)

PPE is provided to our employees at no cost to them. Training is provided by the Safety Director\_in the use of the appropriate PPE for the tasks or procedures employees will perform.

The types of PPE available to employees are as follows:

• Gloves, eye protection and hard hats.

PPE is located at the corporate office and may be obtained through the Safety Director.

All employees using PPE must observe the following precautions:

- \* Wash hands immediately or as soon as feasible after removal of gloves or other PPE.
- \* Remove PPE after it becomes contaminated, and before leaving the work area.
- \* Used PPE may be disposed of in designated trash disposals.

\* Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured, contaminated, or if their ability to function as barrier is compromised.

\* Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.

\* Never wash or decontaminate disposable gloves for reuse.

\* Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.

\* Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

#### **HEAT STRESS**

Work involving high air temperature, radiant heat sources, high humidity, direct physical contact with hot objects or strenuous physical activities have a high potential for inducing heat stress in workers engaged in construction activities.

Age, weight, degree of physical fitness, degree of acclimatization, metabolism, use of alcohol or drugs and a variety of medical conditions all affect a worker's sensitivity to heat. Even the type of clothing the worker wears must be considered. Prior heat injury predisposes a worker to additional injury. It is difficult to predict just who will be affected and when, because a workers susceptibility varies. Environmental factors include more than ambient air temperature. Radiant heat, air movement, conduction and relative humidity all affect a workers response to heat.

Workers should consume adequate liquids and take necessary rest breaks to help prevent heat disorders. It is recommended that water be consumed rather than carbonated beverages or sport like Gatorade. These beverages can dehydrate a worker because of the sugars and other ingredients contained in the beverage.

Should project conditions warrant, the project superintendent shall identify a competent person to manage the site specific heat stress program. The program may include, but not limited to, the following items to improve early detection and action.

- Establishment of a buddy system
- Utilization of a hydration monitor to both observe for symptoms of heat-related illness and insure adequate levels of hydration is being maintained
- Hazard identification
- Water, shade, rest message
- Acclimatization
- Modified work schedules
- Training
- Engineering controls
- Monitoring for signs and symptoms
- Emergency planning and response

# Heat Disorders and Health Effects

Heat stroke: Occurs when the body's system of temperature regulation fails and body temperature rises to critical levels,

# Heat stroke is a medical emergency. Do not send worker home or leave unattended.

#### **Primary Signs and Symptoms:**

Confusion Convulsions Irrational Behavior Lack of sweating Loss of conscious Hot dry skin

# Heat Exhaustion

Symptoms often are non-specific and may be sudden in onset; these symptoms often resemble a viral illness. It is caused from dehydration where a large loss of body fluid causes a slowing of the circulatory system.

REMOVE FROM HEAT, GIVE FLUIDS, AND ADEQUATE REST.

#### **Primary Signs and Symptoms**

Fainting/Weakness Thirst Giddiness Vertigo Headache Nausea

#### Heat Cramps:

Usually caused by performing hard physical labor in a hot environment. They are caused from an electrolyte imbalance caused from sweating. Cramps can be caused by too little or too much salt. *GIVE WATER OR A COMMERICAL CARBOHYDRATE-ELECTROLITE REPLACEMENT LIQUED (Gatorade) EVERY 15 TO 20 MINUTES.* 

#### HAZARDOUS COMMUNICATION/SDS

All contractors will submit their hazardous communication program and SDS to the FBi Construction project superintendent prior to the start of work. Unless designated otherwise, the Superintendent serves as the site hazardous communication coordinator. The following information will assist in understanding OSHA Hazardous Communication requirements:

# List of Hazardous Chemicals

The superintendent will maintain a list of all hazardous chemicals. This list will be located in the superintendent's trailer and available for all employees upon request.

# Safety Data Sheets (SDS's)

The project superintendent and or project manager will maintain a notebook containing contractors Hazardous Communication Program and SDS's. The notebooks will be located in the jobsite trailer and be readily available to all employees during their work shift.

Information on the SDS's must contain the following and be consistent with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

- Name of product
- Hazardous ingredients and primary entry into the body
- Physical data
- Fire and explosive data
- Health hazards
- Reactivity
- Spill or leak procedures
- Special protection information
- Special precautions

Each supervisor or lead man will monitor their employees under his direct supervision for proper training and proper precautions prior to the hazardous chemical's introduction to the jobsite.

All hazardous chemicals introduced into the work site will have an SDS. If supplier or manufacturer fails to supply an SDS, the subcontractor will contact the supplier.

#### Labels and Other Forms of Warning

The superintendent and/or project manager is designated to ensure that all hazardous chemicals on the construction site are properly labeled, tagged, or marked with the following information:

- Identity of the hazardous chemical(s)
- Appropriate hazard warnings
- Name and address of the manufacturer, importer, or other responsible party

Since chemical manufacturers are required to label their containers of hazardous chemicals, we will use these labels as our primary means of warning employees about the product. Labels are not to be removed from any container or defaced in any manner. If a label is missing or illegible, notify subcontractor supervisor or project superintendent immediately. The superintendent and/or project manager will refer to the corresponding SDS to verify label information. Small containers into which materials are transferred for use are required to be labeled with the identity of the hazardous chemical (s) and appropriate hazard warnings.

The superintendent and or project manager will ensure all containers upon receipt onsite and monthly thereafter, and that the labels are up to date.

# **Training**

Each employee who works with or is potentially exposed to hazardous chemicals will receive initial training on the Hazard Communication Program and the safe use of those hazardous chemicals. Additional training will be provided for employees whenever a new hazard is introduced into their work areas.

The training will emphasize these elements:

- A summary of the standard and this written program.
- Hazardous chemical properties including visual appearance and odor and methods that can be used to detect the presence or release of hazardous chemicals.
- Physical and health hazards associated with potential exposure to work place chemicals.
- Procedures to protect against hazards, e.g., personal protective equipment, work practices, and emergency procedures.
- Where SDS's are located, how to understand their content, and how employees may obtain and use appropriate hazard information.
- Employees shall be routinely tested to ensure they understand the hazard communication program. It will be FBi Construction's policy to provide training regularly at Tool Box meetings as the hazards change or when a new chemical hazard is introduced to the jobsite.

# **Contractor Employees**

Project superintendent will advise subcontractor's foreman of FBi Construction's hazardous chemical list during the safety orientation. In addition, the contractor's foreman will be notified of the location and availability of SDS s.

Each contractor bringing chemicals onsite must provide a copy of their written Hazardous Communication Program including all SDS' to FBi Construction's superintendent prior to mobilization on the jobsite. The superintendent will maintain company's Hazcom program until subcontractor finishes their work.

#### **Community Right to Know**

Each project location will cooperate with city and county officials to comply with requirements of the OSHA standards regarding hazardous materials onsite.

# LEAD, CADMIUM, METAL EXPOSURE

Be aware of activities that may produce or disturb hexavalent chromium, lead or metal. These activities may include hot work on or demolition of coated surfaces, welding, thermal cutting, painting, disturbing fly ash, ceramic bricks or treated wood. Exposure control methods may include, but not be limited to:

- Substitution of less hazardous materials
- Engineering controls (such as ventilation)
- General work practices
- Use of proper PPE to include protective clothing and equipment
- Use of a HEPA vacuum and filters to remove dust and contamination
- Do not eat, drink, smoke, chew gum or use tobacco in a regulated area
- Do not dry sweep, shovel or brush dust or contaminated products
- Work practices such as limiting work time, proper disposal of work clothing, hand/face washing etc.

# PROCESS SAFETY MANAGEMENT/ MANAGEMENT OF CHANGE CONTRACTOR REQUIREMENTS

Process Safety Management is put in place to eliminate hazardous consequences of catastrophic release of toxic, reactive, flammable or explosive chemicals in various industries such as refineries, etc. Should a specific project require PSM then each team member will be trained in work practices necessary to perform their job and all team members will be advised of any unique hazards created or encountered by work or work practices

Each team member must be trained in the known potential fire, explosion or toxic release hazards related to their job and the process and applicable provisions of the emergency action plan. All team members must respect confidentiality of trade secret information when process safety information is released to them.

Written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures, and change to facilities that affect a covered process are established and are to be implemented as follows. These written procedures ensure that the following considerations are addressed prior to any change:

- What is the technical basis for the proposed change?
- What is the impact of the change on employee safety and health?
- What are the modifications to operating procedures?
- What is the necessary time period for the change?
- What are the authorization requirements for the proposed change?

Employees and/or subcontractors who operate a process and maintenance whose tasks are affected by a change in the process must be informed of, and trained in, the change prior to startup of the process

or startup of the affected part of the process. If a change covered by these procedures results in a change in the required process safety information, such information also must be updated accordingly. If a change covered by these procedures changes the required operating procedures or practices, they also must be updated.

# FALL PROTECTION

FBi Construction, subcontractors, venders 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 and potential fall hazards. FBi Construction's fall protection policy and OSHA 29 CFR 1926.500 Subpart M govern the requirements to protect workers exposed to falls. Additionally, FBi Construction's fall protection policy is 100% fall protection 6 feet or greater above a lower level. The use of conventional fall protection systems are the only means to protect workers from falls to lower levels. Workers wearing personal fall arrest systems shall not free fall more than 6 feet or never contact a lower level.

A written fall protection and prevention plan may be required as deemed necessary by FBi Construction. Contractors engaged in the following shall submit their fall protection plan for approval prior to beginning work on site: Steel erection, concrete (cast in place), wood framing, dry laid masonry wall (segmented), pre-cast concrete walls, tilt-up concrete walls, and roofing work. Fall protection plan must be approved prior to beginning work. The designated competent person must oversee the company's fall protection plan to ensure it meets FBi Construction's fall protection policies.

FBi Construction is committed to the philosophy of 100% continuous fall protection, whenever the potential exists for a worker to be exposed to fall hazards of six feet (6') or greater above a lower level. Acceptable fall protection systems include the following conventional systems:

- Guardrail systems.
- Safety netting.
- Floor and wall hole covers.
- Positioning device systems.
- Fall restraint systems.
- Protection from falling objects.
- Personal fall arrest systems.
- Safety monitoring systems as part of a warning line fall protection system is prohibited.

Workers exposed to fall hazards shall be uniformly equipped, trained, and given periodic refresher training in fall protection at specific intervals to minimize the adverse effects of accidental falls. Fall protection training records will be maintained on the project and available for review by FBi Construction.

100% FALL PROTECTION MEANS PROTECTED FROM FALLS AT ALL TIMES WHEN WORKING AT OR ABOVE SIX FEET. The use of dual lanyards shall be used to ensure 100% protection. This means it is mandatory for all trades, including:

- Structural steel erection (including connectors).
- Re-bar assembly
- Concrete forming
- Pre-cast/tilt-up erection.
- Masonry
- Carpentry/framing
- Roofing
- Dry laid masonry walls

Personal Fall Arrest Systems shall consist of ANSI certified:

- Full-body harness with,
- shock absorbing lanyard and locking snap hook or,
- Retractable lanyard
- Vertical life line with rope grab
- Properly engineered anchorage points.

#### Flat Roof fall protection program: Warning line systems

There are times when a warning line is necessary. The roofers shall place the warning line as close as 10 feet from the edge.

The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches (.9 m) from the walking/working surface and its highest point is no more than 39 inches (1.0 m) from the walking/working surface;

After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds (71 N) applied horizontally against the stanchion, 30 inches (.8 m) above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;

The rope, wire, or chain shall have a minimum tensile strength of 500 pounds (2.22 kN), and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions; and

The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

If any employee or subcontractor is working on the outside of the warning line system then 100% fall protection is required.

Personal fall arrest systems will be required for workers on ladders when the following conditions are present:

- Work requires the employee to reach such that the center of the body travels outside the area between the side rails of the ladders.
- The ladder is positioned such that its distance to a leading edge or open-sided floor is less than the working height of the ladder.
- Employees are working in such a manner that 3 points of contact with the ladder are not maintained.
- Employees working on ladders when it's feasible and would not create an additional hazard to tie off to an approve anchor point when working greater than 6 feet above a lower level on the ladder. Note: Competent Person shall evaluate conditions that would support tying off on ladders.

FBi Construction will only accept the following conventional fall protective systems:

- Standard guard rail systems as defined by OSHA shall be used to protect all open sides and edges to
  include but not limited to perimeter of building floors, window openings, stairways and landings,
  elevator or stairway door openings, ladders access points around floor openings, across doorways
  to unprotected balconies, above parapet walls (less than 39" high) and any other areas necessary
  to protect against falls to lower levels. During the course of building erection and installing
  building components, workers exposed to unprotected falls shall be protected by the use of
  personal fall protection systems.
- Personal fall arrest systems as defined by OSHA and FBi Construction Fall Protection Policy are as follows:
  - a) Full body harness with shock absorbing lanyard attached to an approved anchor point with a metal to metal connection. The use of engineered anchor brackets (with all holes filled), wire rope chocker and or synthetic strap designed for fall protection are acceptable methods used to secure to an anchorage capable of supporting 5,000 lbs. At no time shall a worker be exposed to a free fall more than 6 feet.
  - b) Full body harness with retractable lanyard attached to an approved anchor point with a metal to metal connection. The use of engineered anchor brackets (with all holes filled), wire rope chocker and or synthetic strap designed for fall protection are acceptable methods used to secure to an anchorage capable of supporting 5,000 lbs. At no time shall a worker be exposed to a free fall more than 6 feet.
  - c) Full body harness with shock absorbing lanyard attached to a vertical life line with the use of a rope grab attached to an approved anchor point with a metal to metal connection. The use of engineered anchor brackets (with all holes filled), wire rope chocker and or synthetic strap designed for fall protection are acceptable methods used to secure to an anchorage capable of supporting 5,000 lbs. At no time shall a worker be exposed to a free fall more than 6 feet. Securing an approved anchor point above the workers head would be an acceptable means of protection.

# FBi Construction will accept controlled access zones on a limited basis.

- When used to control access to leading edge.
- When floor sheathing installation has stopped for the day a control line shall be erected at least 15 feet back from the leading edge. Control line shall extend the entire length of the leading edge. Control lines shall be made of ropes, wires or equivalent strength and be supported by stanchions and clearly marked with high visible material and a sign attached to the line indicating "Fall Protection Required Beyond This Point". The use of roof flagging material would be acceptable. FBi Construction will not accept warning lines and monitors as a fall protection system.
- To minimize swing fall ensure worker's anchors are perpendicular to any fall hazard.
- The use of a fall restraint system to prevent falls to a lower level must be approved by FBi Construction's Safety Director, Project Superintendent and Contractor's Competent Person.
- Ladders when used to access multiple floors shall have a landing coral or a walk through type ladder.

# Wood Framing Fall Protection Plan

The following requirements shall be incorporated into the plan:

- How will you protect your workers while erecting exterior walls?
- What procedure will you be using to install floor joist?
- How will you protect workers installing floor joists?
- How will you prevent workers from falling through floor joist openings?
- How will you protect workers installing floor sheathing from falling through opening between floor joists?
- How will you protect the perimeter of the building?
- What procedure will you be using to installing roof trusses?
- How will you protect workers installing trusses?
- How will you protect workers installing roof sheathing?
- Will you be using scaffolds to perform any of your work? If so, what type of scaffolds will you be using?
- What type of anchor points will you be using to connect to workers personal fall protection harness and lanyards?
- What procedures will you be using to protect window openings, balconies, stairway landings, and etc?
- Will you be using standard heavy duty fiberglass ladders or job made ladders for access to multiple floors?
- What means of protection will you be using to protect ladder access holes?
- Provide documentation that all workers wearing personal fall protection have been trained.
- Provide names of competent persons/Foreman and documented safety training (Note: as a minimum OSHA 10 hour safety training)
- Does your company have a safety manager? If so how often does he/she inspect the site and conduct training?
- Who is responsible for inspecting fall protection equipment?

- What procedures will you be using to install exterior wall sheathing? i.e. boom lifts, scissor lifts, forklifts?
- In addition to fall protection training. Provide safety training documentation for all workers engaged in framing activities. i.e. ladder training, nail gun use, flexible cords, saws, power tools, PPE, forklifts, aerial lifts, general safe work practices and etc.

# **General Fall Protection Requirements**

Workers will not tie off to a perimeter cable or wire rope guardrail unless the perimeter guardrail has been properly designed as a horizontal lifeline. Horizontal lifelines must be designed by a qualified person.

When wire rope is used to construct guardrail systems at least 3/8" diameter cable shall be used with three cable clamps per connection. Guardrail systems must be constructed such that the toprail is 39"-45" high and is capable of withstanding a 200 lb. force without deflecting below 39".

Lanyards will not be tied back to themselves unless approved by the manufacturer.

On properly constructed scaffolds, elevated decks, and elevated platforms that have perimeter guardrail systems consisting of a top rail and mid rail, workers are not required to tie off. Personal fall arrest systems will be required if the perimeter guardrail system must be removed.

Any contractor that creates a floor hole or penetration larger than 2 inches will be responsible for protecting that opening.

Any contractor that must remove a guardrail, hole cover or other fall protection system in the course of their work will be responsible for immediately replacing the protective system.

# SCAFFOLDS / AERIAL LIFTS / MEWPs

Contractor shall identify a competent person in charge of erecting and dismantling all scaffolds. The competent person shall ensure that the scaffold is erected and used according to OSHA regulations (29 CFR 1926 subpart L- Scaffolds) and Codes of Safe Practice (Scaffold Industry Association). Records will be maintained for scaffold training and be available for review by FBi Construction Superintendent. The Competent person shall submit to FBi Construction Superintendent or his representative a fall protection plan for erecting and dismantling scaffolds. FBi Construction will only accept conventional fall protection systems.

Employees working on scaffolds 6 feet above a lower level shall be protected from falling by either a standard guardrail system or personal fall arrest system. Any use of a personal fall arrest system used on a scaffold shall be approved by FBi Construction Superintendent. The subsequent specific scaffold requirements shall be followed:

- Fabricated frame scaffolds shall be erected under the supervision of a competent person and inspected daily. Scaffold tags or equivalent shall be used to document the inspection. Green Tags -Approved ready for use. Yellow Tags - Caution if restrictions are required. Red Tags – Scaffold unsafe do not use.
- Masonry tower scaffolds shall be inspected daily and tagged when erected.
- Fabricated frame stair towers shall be erected under the supervision of a competent person and inspected and turned over to the general contractor. In turn will assume control of stair tower and will assign a competent person to inspect the tower daily. Documentation of inspection can be a scaffold tag or equivalent.
- Scissor lift operators shall be designated by their employer and shall follow all manufactures
  operating instructions. Personal fall arrest systems are not required to worn as long as the worker is
  on the platform. Workers are not authorized to work outside the lift unless they are protected by
  the use of a personal fall arrest system with an approved anchor point. FBi Construction
  Superintendent must approve the use of personnel fall arrest systems for work outside the lift.
- Articulating aerial boom lift operators shall be designated by their employer and shall follow all manufactures operating instructions. All workers in the lift shall wear personal fall arrest systems and tie off to an approved anchorage point on the lift.

# **General Requirements for All Scaffolds**

- All scaffolding, prior to erection, will have its components inspected for defects and any damaged parts.
- Scaffolding shall be erected on a firm foundation/footing. Scaffold poles, legs, posts, frames and uprights will bear on base plates and mud sills where required.
- Platforms must be fully planked or decked. The maximum allowable space between scaffold planks shall not exceed one inch. Openings in scaffold platforms shall not exceed 9 1/2 inches to accommodate uprights that pass through a scaffold platform.
- Scaffold planks shall extend past the horizontal support a minimum of 6 inches and not more than 12 inches unless cleated or restrained by hooks.
- Scaffold planks are overlapped the overlap must occur at a horizontal support and the overlap must be at least 12 inches.
- Scaffold planks must be scaffold grade planking.
- Ladders or stairs must be used to access any scaffold platform that is more than 2 feet above the point of access. End frames of fabricated frame scaffolds can be used as a ladder if the following criteria are met:
  - Specifically designed and constructed as ladder rungs.
  - Rung length of at least 8 inches.
  - Spacing between rungs does not exceed 16 ¾ inches.
- No workers will climb up or down a scaffold using the cross bracing.
- Scaffold platforms regardless of height will be equipped with standard guardrail systems. If guardrails cannot be used on a scaffold, workers will wear a full body harness and be tied off to a fixed anchorage point approved by FBi Construction Superintendent.

- Workers working below scaffolding will also be protected from falling objects. Scaffolds will be equipped with toe boards, screening, debris netting, catch platforms, or a canopy structure.
- Scaffolds shall not be erected such that the height to base ratio exceeds 4 to 1 unless they are properly guyed, tied, or braced to prevent overturning.

# Aerial Lifts

- Specific Requirements
- Personal fall arrest system or work positioning device system shall be worn while working in articulating boom platforms, ladder trucks and tower trucks.
- Operators shall be trained in accordance with the manufacturers operating and maintenance manual.
- Operator shall check the area in which the aerial platform is to be used for possible hazards such as, holes, drop-offs, debris, electrical hazards or other possible conditions.

# **Training Requirements**

- Nature of electrical, fall, and falling object hazards
- Correct procedures for protection of above
- Proper use of the scaffold
- Load capacities of scaffolds
- Requirements of 29 CFR 1926 subpart L
- Retraining as necessary to restore proficiency

#### **MEWPs**

To ensure safe practices, the following general procedures are followed when a trained operator uses a Mobile Elevating

Work Platforms (MEWPs):

- Obtain any necessary authorization to use the lift.
- Perform a Pre-operation inspection on the lift.
- Perform a workplace inspection in the area that the lift will be used.
- Mark or barricade the work area to ensure no unauthorized persons enter the work area.
- Extend and adjust the outriggers, stabilizers, extendible axles, or other stability enhancing means.
- Ensure that the guardrails are installed and are in place.
- Ensure that the load being placed on the lift is within the rated capacity of the lift.
- Test the upper and lower controls of the lift.
- Ensure that all personnel on the lift are using all appropriate fall protection equipment and have been trained and authorized to operate or work on the platform.
- No contractor will be permitted to use UCI owned Mobile Elevating Work Platforms (MEWPs).
# Field Modifications

No Mobile Elevating Work Platforms (MEWPs) will be "field modified" for uses other than those intended by the manufacturer unless:

- The manufacturer certifies the modification in writing, or
- Any other equivalent entity, such as a nationally recognized testing lab, certifies the Mobile Elevating Work Platforms
- (MEWPs) modification conforms to all applicable provisions of ANSI A92.2-2009. The lift must be at least as safe as the
- equipment was before modification.
- All contractors will need to provide their own equipment for use.

# Working Around Overhead Lines

Mobile Elevating Work Platforms (MEWPs) are not normally insulated for use near electrically energized circuits such as power lines or exposed bus bars. In general, scissor lifts are not electrically insulated and will not provide protection from contact with or proximity to electrical current.

Any aerial lift intended for use around electrically energized circuits shall meet the electrical requirements of American National Safety Institute/Scaffold Industry Association (ANSI/SIA) A92.2-2001, "Vehicle-Mounted Elevating and Rotating Aerial Devices." Refer to the manufacturer operator's manual and identification plate affixed to the machine for the category of insulating aerial device, if applicable. Operators shall maintain safe distances from electrical power lines and apparatus in accordance with governmental regulations.

# Training Requirements

- Operators Can only operate MEWPs on which they have been trained, familiarized, and authorized to operate. Operators must be physically and mentally capable of operating the MEWP safely.
- Occupant MEWP operators must provide instructions and/or make sure all occupants have a
  basic level of knowledge to work safely on the MEWP. At least one occupant must be taught
  how to operate the MEWP controls in case of an emergency where the operator becomes
  incapacitated. This does not give the occupant the authority to operate the MEWP except in an
  emergency.
- Familiarization FBi Construction will ensure the trained operator is familiarized with the specific MEWP to be used before authorizing the operator to use it. Familiarization includes:
  - 1. Location of the manufacturer's operation manuals and confirmation they are present;
  - 2. Purpose and function of all controls, features and devices; and
  - 3. Limitations and operating characteristics.

## PERSONAL PROTECTIVE EQUIPMENT

All personal protective equipment (PPE) shall meet applicable standards of the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM) and properly used in accordance with the manufactures' recommendations. Each employer shall furnish their employee (s) approved PPE. All PPE will be inspected, used and maintained in a sanitary and reliable condition. All FBi Construction employees, subcontractors and vendor employees and third party individuals will, as a minimum, wear the following personal protective equipment at all time in the designated work area while on this project (except in office and lunch areas).

Before starting work on the jobsite, the superintendent will conduct a PPE Hazard Assessment. This will include a walkthrough of the work area and task/job to be performed, identifying hazards that the employee may be exposed to while performing work activities or while present in that work area, describing the hazards that are present and selecting appropriate PPE to ensure employee safety.

## **Head Protection**

An approved hard hat must be worn at all times.

- Hard hats must be properly maintained.
- Ball caps, or other head gear not specifically designed to wear with a hard hat will not be allowed. Headgear conforming to the crown of the head would be acceptable to wear under hard hats.
- Hard hats must be worn with the bill facing forward except when reversing the suspension is allowed by the manufacturer to accept a welding shield or other face shield.

## Eye and Face Protection

- Safety glasses with side shields must be worn as may be required.
- Workers that wear prescription safety glasses may do one of the following:
  - o Obtain prescription safety glasses (Z87.1) with rigid side shields.
  - o Wear over- the- glass safety glasses.

In addition, the following eye/face equipment must be worn when performing the following work activities:

Face shield\* Face shield\*

- Arc welding Welding hood with proper shading\*.
  - Burning goggles with proper shading
- Grinding or cutting metals

• Burning

- Drilling (rock)
- Chemical handling Face shield\*
- Molten materials
   Face shield\*
- Corrosive liquids
   Face Shield\*

Note: \* Safety glasses will be worn in conjunction with face shields and welding hoods.

## Foot Protection

• Hard soled work boots or shoes above the ankle that are in good condition must be worn at all times. Safety toed work boots if worn must conform to ASTM F2412-05 & ASTM F-2413-05. Athletic shoes, sandals, or other street-type shoes are not allowed, even if they have steel toes.

## Work attire

- Shirt sleeves will have a minimum length of 4 inches. No shorts, tank tops, or cut-off shirts are permitted.
- All personnel may be required to wear a reflective vests or high visibility clothing while in the designated work

Zone if required. During the hours of dusk to dawn ANSI class II reflective vests or clothing shall be worn if required.

- Long pants that fit properly around the waist. Shorts or pants that are being worn low on the hips or thigh are not allowed. The length of the pants will be such to not present a tripping hazard.
- Long hair must be contained under the hard hat.
- Loose Rings, chains, bracelets, dangling earrings, or other loose jewelry will not be worn when working near or on machinery, equipment, or moving parts.

## **Respiratory Protection**

Project superintendent and Safety Director will review with subcontractor Foreman to determine if hazards exist that require respiratory protection prior to start of work. Subcontractor Foreman/Competent Person shall submit written documentation supporting this hazard assessment to FBI Construction upon request. Respiratory protection would be required if OSHA permissible exposure limits are exceeded and no means of engineering controls could be used. Subcontractor would be responsible for determining the exposure level by sampling for airborne contaminates.

When respirators are required to be used, the employer must establish a comprehensive respiratory protection program, as outlined in OSHA's Small Entity Compliance Guide for Respiratory Protection and as required in the OSHA respiratory protection standard [29 CFR 1910.134 and 1926.103]. Important elements of this standard are:

- Periodic exposure monitoring,
- Regular training of personnel,
- Selection of proper NIOSH-approved respirators,
- An evaluation of the worker's ability to perform the work while wearing a respirator,
- Respirator fit testing, and
- Maintenance, inspection, cleaning, and storage of respiratory protection equipment. The respiratory protection program should be evaluated regularly by the employer.
- Provided air respirators shall include grade "D" air or better.

If a worker desires to voluntarily wear a filtering face piece (dust mask) and a respirator is not required, the first-line supervisor is required to inform the worker about the specific respirator and its limitations. All disposable dust masks must be NIOSH approved.

# Use of Respirators

Do not use respirators as the primary means of preventing or minimizing exposures to airborne contaminants. Instead, use effective source controls such as substitution, automation, enclosed systems, local exhaust ventilation, wet methods, and good work practices. Such measures should be the primary means of protecting workers. However, when source controls cannot keep exposures below OSHA permitted exposure limits (PEL), controls should be supplemented with the use of respirators.

## **Hearing Protection**

Approved hearing protection will be worn as specified in posted areas and as may be required while working with or around high-noise level 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 impulsive or impact noise must not exceed 140dB noise level. FBi Construction will make hearing protection available to all team members who are exposed to an 8-hour time weighted average of 85 decibel or greater at no cost to the team members. In addition, the team member will be provided a variety of hearing protection as applicable and train team members in the correct use and care of hearing protection as well as proper fitting.

Team members will be trained and must wear hearing protection if they are required to wear PPE for the job they are doing or if they are exposed to an 8 hour time weighted average of 85 decibels or greater and have not had a baseline audiogram or have experienced a threshold shift. The need for hearing protection will be evaluated for the specific work environment in order to attenuate team member exposure to at least an 8-hour time weighted average of 90 decibels or lower or for those team members who have experienced a threshold shift of 85 decibels or lower.

Duration per day, hours	Sound Level dBA Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

Impulsive or Impact Noise			
<b>Equipment or Tools</b>	Sound Level Created		
Pneumatic Chip Hammer	103-113		
Jack Hammer	102-111		
Concrete Joint Cutter	99-102		
Skill Saw	88-102		
Stud Welder	101		
Bulldozer	93-95		
Crane	90-96		
Hammer	87-95		
Backhoe	84-93		

# Hearing Conservation Program

Once a team member exposure is presumed to equal or exceed an 8-hour time weighted average of 85 decibels or greater, all team members must follow the Hearing Conservation Program. When this is presumed (the action level is reached), FBi Construction's safety director and/or designated project

safety representative will enforce the monitoring of noise levels using a sound level meter to identify the team members' to be included in the hearing conservation program. Monitoring will be repeated whenever a change in production, process, equipment or controls increases noise exposures to a level at or above the action level, the current PPE is rendered inadequate, or team members reach their exposure limit.

FBi Construction will provide, at no cost, an audiometric testing program to team members whose exposures equal or exceed an 8-hour time weighted average of 85 decibels. Within six months of the team members being exposed to the action level a baseline audiogram must be performed against which subsequent audiograms can be compared. Before the baseline audiogram can be established the team member should be exposed to 14 hours of no workplace noise. After establishing the baseline audiogram FBi Construction will obtain annual audiograms for designated team members.

After each annual audiogram, technicians will evaluate results and if there is a threshold shift, the following will happen:

- A retest will be set within 30 days
- The technician will review whether there is a need for further evaluation
- If a threshold shift results, the team member will be informed within 21 days of evaluation
- If the team member is not using hearing protection, he and/or she shall be fitted, trained and required to use hearing protection
- If the team member is using hearing protection, he and/or she shall be refitted and retrained in the use of the PPE and provided hearing protectors offering greater protection if necessary.
- If deemed necessary by the technician, the team member can be referred for a clinical ontological exam.

# Audiometric Test Requirements

Audiometric tests shall be pure tone, air, conduction and hearing threshold examinations, with test frequencies including at a minimum 500, 1000, 2000, 3000, 4000, and 6000 Hz. Tests are done for each ear at each frequency.

Tests shall be completed with audiometers that meet the specifications of the American National Standard Specification for Audiometers. Audiometer calibration shall be checked acoustically at least annually with exhaustive calibrations performed at least every 2 years.

# Hand Protection

Workers will wear cut resistant gloves whenever necessary to prevent hand and finger injuries. The project safety supervisor can assist in recommending the correct glove for the task. Note: Level of cut resistant gloves to be determined by contractor's Competent Person.

# Additional Protections

Specific activities may require that additional personal protective equipment be worn such as working on energized circuits. Contractors shall evaluate the need for additional protection based on their pre-task safety plan.

## **Certification**

This hazards assessment has been performed to determine the required and appropriate type of personal protective equipment for each affected worker on site.

Assessment Certified by (Safety Director) \_\_\_\_\_\_ Date: \_\_\_\_\_

## **Training**

- Employees must receive training prior to being assigned tasks that require PPE
- Prior to performing tasks that require PPE, employees must demonstrate an understanding of the training and the ability to use the PPE properly.

## Training Shall include the following:

- The hazards that have been identified during the hazard assessment
- When PPE is to be worn and the specific PPE to be worn including specific applicable elements. For example: type, material, size, style, length, color, and ratings
- How PPE is properly fitted, donned, doffed, adjusted, and worn
- The limitations of the PPE
- The proper care, maintenance, inspection, useful life, and disposal of the PPE.

## **Records Information and Retention**

- Training records for each employee must include the following.
  - Name of the trainer
  - Name of the employee receiving training
  - Date of training,
  - Specific types of PPE covered during the training
- Records can be maintained at the departmental level. Reporter courses are maintained in Reporter

## **Retraining Requirements**

- When there is a reason to believe that an employee using PPE does not have the understanding or skill required to use the PPE safely or properly, the employee must be retrained before being allowed to perform work requiring PPE.
- Retraining is also required when changes in the workplace render previous training obsolete, or when the type of PPE changes.

## 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 manufacturer's instructions and guidelines and the personal protective equipment 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 should not be used for stripping wire unless protective gloves are worn with a minimum cut level of 2.

## **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 double insulated.

## Portable Abrasive Wheel Tools

- Guards will not be removed.
- Grinding discs and wheels will be checked to verify they are the correct one for the grinder and rpm.

## **Pneumatic Tools**

- Air hoses ½" in diameter or greater will have a safety excess valve installed at the source of air.
- Clips or retainers are required to prevent attachments from being ejected from the tool.
- 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.
- Fired cartridges are not to be discarded on the floor but placed in a container or bucket and properly disposed of.

## HOUSEKEEPING AND ORDERLINESS

Project management, supervision, workers, vendors, and third party persons, shall maintain all work locations in an orderly and clean manner at all times. Daily cleanup of work areas is mandatory for all trades on site. Subcontractor competent person shall submit a housekeeping plan to project team prior to starting work.

## FBi Construction Cleanliness Standard

Dumpsters for general trash, construction debris (wood, metal, concrete and etc) and or specific recycling dumpsters pursuant to contract requirements will be provided. Subcontractors shall provide trash containers on site for general trash and debris. All miscellaneous trash generated by workers shall

be deposited in a container or in the back of pickup trucks daily. There will be no bottles, food wrappers, cups and etc thrown on the ground. When containers are ¾ full they will be either removed from the site or dumped in a large metal dumpster provided. Subcontractors, if included in their contract, will provide their own dumpsters for their specific excess materials. Subcontractors shall pursuant to contract obligations allocate adequate resources to ensure this housekeeping standard is maintained throughout their time on the project. Project team shall address this housekeeping standard with all subcontractors prior to beginning work.

Specific housekeeping /cleanliness requirements are defined in this document.

# Site Work:

Subcontractors shall ensure all general trash and debris is deposited in appropriate containers or in the backs of pick-up trucks. Equipment maintenance area shall be designated by FBi Construction. During general maintenance of equipment contractor shall make sure drip pans are use to contain any fuel/oil spills.

# Concrete Footing and Slabs:

Wood for form work shall be staged in neat piles. Cut pieces of wood (scrap) used for form work shall be deposited in a container daily. When stripping forms all nails shall be bent over or removed from wood and deposited in a container daily. Rebar caps used to protect dowel rods shall be brought to the site in boxes or metal containers. After rebar caps have been used they shall be put back in a box or container for later use. Caps will not be left on the ground after their use.

# Cast-in-Place Walls and Column Piers:

Rebar and formwork shall be staged in neat piles. Dunage that had been used to protect forms and rebar from the ground shall be stacked in piles and removed or deposited in appropriate container daily. Metal straps used to bundle rebar shall be deposited in containers daily upon removal from bundle. Metal straps shall not be left on the ground.

# Tilt-Up Walls:

Rebar and formwork shall be organized and staged in neat piles. Cut pieces of wood used to form walls shall be deposited in an appropriate container daily. When a wall is lifted and put in place all wood formwork shall be cleaned up and put into piles and deposited in an appropriate container as soon as possible throughout the day. Stub ends of welding rods shall be deposited in small containers and not thrown on the ground or concrete slab. Rigging equipment shall be organized and not scattered on the ground after lifting operations.

# Pre-Cast Walls:

Subcontractor will discuss with project team location of trucks and rout of entering the project and location of crane used to erect panels. Rigging equipment shall be organized and not scattered on the ground after lifting operations. Stub ends of welding rods shall be deposited in small containers and not

thrown on the ground or concrete slab. Dunage that has been used to protect panels shall be stacked in piles, removed or deposited in appropriate container daily.

## Masonry/Brick Walls:

Project team will designate a storage area for cubes of CMU and bricks and designate an area for cutting blocks and bricks. Subcontractor along with project team will designate a storage area for scaffolds and walkboards. Scaffold components shall be not be scattered around the project site. When dismantling scaffolds all components shall be returned to the designated storage area. Pieces of blocks and bricks shall be cleaned up under scaffolds and adjacent areas and deposited in appropriate containers throughout the day.

## Steel Columns, Beams, Joists and Decking:

Project team will designate a storage area for all structural steel components. Dunage that had been used to protect steel from the ground shall be stacked in piles and removed from the site daily. Metal straps used to bundle joists, decking and miscellaneous steel shall be deposited in appropriate container daily. Stub ends of welding rods shall be deposited in small containers and not thrown on the ground or concrete slab. Rigging equipment shall be organized and not scattered on the ground after lifting operations.

## **Building Materials:**

Project team will designate a storage area for all exterior building materials such as insulation boards, OSB, metal studs, bricks and masonry blocks, window frames, tyvek, hardy board, vinyl siding, plumbing supplies, mechanical equipment and etc. Subcontractors can use storage containers to store materials on site if approved by project team. All storage of materials shall be organized. Stacked lumber piles shall not exceed 20 feet in height, bricks and masonry blocks should not be stored more than 7 feet high unless they are tapered back sufficiently to not cause materials to tip over. Competent person who accepts materials that need to be stacked shall ensure they are secured to prevent tipping over.

## Wood Framing:

Project team will designate a storage area or lay down areas for all lumber, panelized walls, floor joists, and roof trusses delivered to the site. Lumber shall not be stacked more than 20 feet. All strapping material and wraps shall be deposited in appropriate containers throughout the day. Lumber cut areas shall be kept organized and saw dust and debris cleaned up throughout the day and deposited in appropriate containers. Lumber stored inside buildings under construction shall be organized in hallways and rooms in a way that workers can walk through without walking on the lumber piles. Miscellaneous lengths of lumber shall have all nails removed or bent over. Miscellaneous pieces of lumber shall be picked up and deposited in the appropriate container throughout the day. When framing on each floor is completed the area shall be broom cleaned with all excess material removed and ready for the next trade to occupy the area.

## **General Housekeeping Requirements:**

All materials, equipment and etc. brought on site shall be organized and stored in areas designated by project team. Trade partners are responsible for organizing material, equipment and tools so they do not create a tripping hazard or impede/block exits out of the area or rooms they are working in. Trade partners are responsible for daily clean up of excess material and debris. Excess material and debris shall be deposited in appropriate containers throughout the day. Areas and rooms where multiple trade partners are working each trade partner shall clean up their own excess material and debris. When work is completed in a room or area all excess material and debris shall be removed and broom cleaned. Housekeeping is an important part of our daily work. With the cooperation of everyone we can keep our areas clean and neat, and free from tripping hazards. Take the time to think safety. With your help, accidents can become a thing of the past.

## LADDER SAFETY

The following general requirements apply to all portable ladders. FBi Construction requires all portable ladders to be rated heavy duty type 1, 1A, or 1AA. Green Ladders are prohibited. Job made ladders if used shall comply with ANSI A14.4. The use of aluminum ladders is prohibited on certain projects. Competent Person shall evaluate the use of personal fall protection systems while on ladders greater than 6 feet up.

- The use of ladders with broken or missing rungs, broken or split side rails, or other faulty or defective construction is prohibited.
- Portable ladder feet shall be placed on a substantial base, and the area around the top and bottom of the ladder shall be kept clear.
- Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.
- Ladders shall be used only for the purpose for which they were designed.
- Ladders shall not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.
- The sides of ladders shall extend at least 36 inches above the upper landing surface. When this is not practical, grab rails, which provide a secure grip for an employee moving to or from the point of access, shall be installed.
- Portable ladders shall be tied, blocked, or otherwise secured to prevent movement.
- Portable metal ladders shall not be used for electrical work.
- Inspect all ladders daily before each use. If any ladder is found defective remove from site. NEVER use a defective ladder.
- Use shellac, varnish, or two coats of oil as a preservative on wood ladders. Never use paint, it conceals defects.
- Clean mud or greasy substances from your shoes before climbing up a ladder.
- Always face the ladder and hold on with one hand.
- Carry tools in suitable pockets, or have tools and other objects hoisted with a rope and bucket.
- Use personal fall arrest system if the type of work requires it.

- If it is dangerous to reach out too far from a ladder in any direction, change the position of the ladder as often as necessary.
- Never use a ladder as a horizontal member of a scaffold.

# Straight and Extension Ladders

- Place the ladder at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately ¼ of the working length of the ladder.
- Ladders must be equipped with a tie-off rope and nonskid safety feet or secured at the base, and must be adequately tied off.
- After the extension section has been raised to the desired height, check to see that safety dogs or latches are engaged and that the extension rope is secured to a rung on the base section of the ladder.
- Extension ladders must be overlapped a minimum of three rungs.

# Step ladders

- Stepladders shall always be opened and set level on all four feet, with spreaders locked in place; they should never be used like a straight ladder.
- Never stand on the top of a stepladder or place tools or materials on the steps.

## ELECTRICAL SAFETY

The following regulations apply to electrical installations used on this Project site, both temporary and permanent. Electricians working on exposed live (50 to 280 volts) parts shall wear the appropriate level of personal protective equipment required under NFPA 70e.

- Extension cords used with portable electrical tools and appliances shall be #14 AWG or greater and be three-wire type designed for hard or extra-hard usage. Grounds are never to be removed from the extension cords.
- All flexible cords plugged into a generator with an output of 5KW or greater and all flexible cords plugged into the permanent wiring of the building shall be protected by a ground fault circuit interrupter (GFCI).
- Any replacement plug ends installed on flexible cords shall be UL/FM approved for its intended use. Note: Open construction sites are considered wet locations. UL/FM approved water resistant replacement plug ends would be acceptable.
- Adequate illumination shall be provided as necessary for safe work practices. Temporary lights shall be equipped with guards to prevent accidental contact with the bulb.
- Temporary lighting circuits shall be permitted within cable assemblies, or within multi-conductor cord or cable of a type identified for hard usage or extra-hard usage.
- FBi Construction prohibits splicing or repairing flexible cords with electrical tape.
- Electrical and extension cords or cable are not to be laid on floors, in walkways, etc., unless it is impractical to do otherwise. They should be suspended, or protected in such a way as not to block or hang in walkways, doorways, or work areas.

- All energized panel boxes shall be equipment with a lockable cover, all holes sealed, and circuits labeled. Panel boxes shall have an approved cover on them at all times, except when being serviced.
- It is FBi Construction's policy that electrical panels shall be de-energized and locked out prior to being worked on. However, if any work on energized circuits is required with panels removed an Energized Work Permit and Safety Plan shall be submitted and reviewed by FBi Construction's Senior Superintendent. Compliance with NFPA 70E is mandatory. PPE requirements shall comply with NFPA 70E Hazard Risk Classification Table 130.7 (c)(9) and 130.7 (c)(10).
- FBi Construction requires all 125-volt, single phase, 15-, 20, and 30-ampere receptacles that are either temporary or permanent wiring of the building or structure and that are in use by personnel shall have ground- fault circuit interrupter (GFCI) protection for personnel. Additionally, receptacles other than 125-volt (240v), single phase, 15-, 20-, and 30-ampere receptacles that is either temporary or permanent wiring of the building or structure and that are in use by personnel shall have ground-fault circuit interrupter (GFCI) protection for personnel.

# **Electrical Power Cords**

- Perhaps the most abused tool on the construction job site is the electrical power cord. They are kinked, twisted, cut, pulled and crushed almost constantly.
- Unfortunately, these damaged cords also take their toll in injuries and even fatalities. In one incident, a worker was installing ventilation ducts and received a slight shock from the exposed conductor on a damaged electrical cord. The shock didn't kill him, but he fell backward four feet off a scaffold and struck his head. The fall paralyzed him permanently from the waist down.
- Don't take electrical cords for granted. They can be a big help to us, but they can also hurt. Keep these pointers in mind:
- Visually inspect the cord for damaged and exposed conductors. If the cord is in damaged condition, don't use it, take it out of service.
- Inspect to make sure the ground prong is in good condition and the cord provides a satisfactory ground for the electrical tools being used.
- Don't drag cords over rough surfaces and don't use them to lift or pull materials. Electrical cords were not designed to function as ropes.
- Don't disconnect cords by jerking them out. They should be disconnected at the receptacle.
- Don't string electrical cords through water or oil and grease. Also, don't hammer nails or staples into cords.
- When not in use, the electrical cord should be neatly coiled and stored.
- Only round cords that are rated for heavy duty use are allowed. Never use flat power cords.
- With just a little respect, electrical cords can provide us with long and safe services.

# TRENCHING & EXCAVATION SAFETY

• Prior to any excavation or trenching on this project, the following must be performed:

- Any contractor engaged in trenching operations deeper than 5 feet shall designate a competent person and inform FBi Construction Site Superintendent.
- Underground utilities must be located. Underground utility locating authorities must be given the required advance notice.
- Trenches or excavations greater than 5 feet in depth will be sloped, benched, or otherwise protected from cave-ins accordance with OSHA Subpart P and as determined by the Competent Person. Sloping, benching or other protective systems are recommended for any trenches and excavations over three feet in depth.
- Protective systems designed to be placed in trenches such as trench boxes must have tabulated data available for review as necessary.
- Spoil piles and other materials will be placed a minimum of 2 feet from the edges of all trenches and excavations.
- In trenches deeper than four feet, locate means of egress, such as ladders or steps or ramps (45 degree slope), so they are no more than 25 feet of travel from anyone in trench.
- A competent person must inspect the trench, adjacent areas, and any protective systems for possible cave-ins, failure of protective systems, and hazardous conditions. Inspections must be performed daily before work begins and after every rainstorm or other hazardous conditions.
- A registered professional engineer must design all excavations and protective systems over 20 feet in depth.

# UNDERGROUND UTILITY LOCATIONS

Any contractor who digs a trench or excavation to install project utilities public or private shall call NC 811 Dig Safety (1 800-632-4949) or www.nc811.org (for North Carolina Projects) OR SC 811 (1-888-290-2783) or www.sc811.com (for South Carolina Projects) 2 business days prior to digging.

Before digging, be sure that all utilities have responded to your locate request. The utility locate representative will advise you during your call of the member utility owners notified. It is the responsibility of the caller (subcontractor) to contact a utility locating company to have any private lines located. The underground facilities located by 811 or the Private Utility Locate Company will be identified by color coded paint, stakes or flags. Once the underground facilities have been located it is very important that the stakes, flags or paint not be disturbed. Notification will be good for 15 business days. However, the request should be updated on the 13th business day, if the work will not be completed by the end of the 15th business day.

# CONFINED SPACE ENTRY PROGRAM

# **Definitions**

**Acceptable Entry Conditions** – The conditions that must exist in a permit space to allow entry and to ensure team members can safely enter into and safely work within a permit required confined space.

**Confined Space** – A space that is large enough and so configured that a team member can bodily enter and perform assigned work, has limited or restricted means for entry or exit and is not designed for continuous team member occupancy.

**Entry** – The action by which a person passes through an opening into a permit required confined space. Entry is considered to occur as soon as any part of the entrant's body breaks the plane of an opening into the space. NOTE: For entry to occur there must be intent to bodily enter the confined space. You may reach into a space, and not bodily enter (say to adjust a valve), and do so without an entry permit being required.

**Entry Permit** – The written or printed document provided by this company to allow and control entry into a permit space.

**Entry Supervisor** – The person responsibly for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry.

**Hazardous Atmosphere** – An atmosphere that may expose team members to the risk of injury, death, incapacitation, impairment of ability to self-rescue, or acute illness from one or more of the following conditions:

- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
- Airborne combustible dust at a concentration that meets or exceeds its LFL. (This may be approximated as a condition in which the dust obscures vision at a distance of 5 feet or less);
- Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
- Atmospheric concentration over the permissible limit of any substance for which a dose of permissible limit is published (in Subpart G Occupation Health and Environmental Control; or Subpart Z Hazardous and Toxic Substances); or
- Any other atmospheric condition that is immediately dangerous to life or health.

**Non-Permit Confined Space** – A confined space that does not contain or have the potential to contain any atmospheric hazard capable of causing death or serious physical harm

**Permit Required Confined Space (or Permit Space or Permit Required Space)** – A confined space that contains or has a potential to contain a hazardous atmosphere, contains a material that has the potential for engulfing and entrant, has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section, or contains any other recognized serious safety or health hazard.

**Prohibited Condition** – Any condition in a permit space that is not allowed by the permit during the time when entry is authorized.

**Testing** – The process by which the hazards are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

Any employee, subcontractor, or third party who enters a confined space as required by the scope of work on this Project Site as defined by 29 CFR 1910.146 Permit Required Confined Space shall abide by all the requirements of the standard. Specific requirements as noted in the standard for work in a confined space shall be adhered to. Selective clients may have confined space program requirements in place and if so, these requirements and/or programs shall be adhered to.

FBi Construction supervisors must evaluate the jobsite and identify each confined space and determine whether a permit is required prior to beginning work. Supervisors are also responsible for informing all team members of the existence, location of, and danger posed by the confined space after identification and prior to work beginning. Permit required confined spaces require the posting of danger signs in addition. Supervisors must then determine if team members will or will not enter permit required space. If not, effective measures must be taken to prevent team members from entering the permit spaces.

The safety director is responsible for providing documented training prior to initial job assignment and on an annual basis for entrants, attendants and entry supervisors. No FBi Construction team member is authorized for in-house rescue.

Designate the appropriate supervisor(s) as entry supervisor(s).

The Operations Manager is responsible for providing all equipment required for entry in a confined space at no cost. Team members are responsible to maintain the equipment properly, and supervisors must ensure that team members use that equipment properly.

When acting as host employer for a contractor performing permit space entry work the Safety Director is responsible to:

- 1. Inform contractor of permit space entry program.
- 2. Notify the contractor of hazards of the particular permit space and the precautions and procedures implemented for protection of team members in or near permit spaces.
- 3. Coordinate entry operations with contractor when both will be working in or near permit spaces and debrief contractor after entries.
- 4. Obtain information from contractor of permit program to be followed and coordinate multiple entry operations.
- 5. Debrief contractors of the hazards encountered or created.

It may be necessary to reclassify a non-permit confined space as a permit space when there are changes in use or configuration.

No space that is immediately dangerous to life and health will be entered under any condition. Permit

required confined spaces must only be entered into after specific authorization from an entry supervisor. Prior to entry into permit required spaces, all required trainings must be conducted.

# Permit Required Confined Space Entry Program and Procedures

All permit required confined spaces will be identified by the Safety Director. The Safety Director is responsible for ensuring all spaces have posted warning signs and all team members exposed to the area are informed of such spaces and properly trained.

Only trained, qualified and authorized team members will be allowed to be permit space entrants, attendants or entry supervisors. Documented training must occur prior to initial job assignment, after a change in assigned duties, if a new hazard has been created or special deviations have occurred. Documentation should be available for review within 1 business day and include the date and time of training as well as the trainer's name, trainee's name and signature.

No team member shall enter a permit space without having a properly completed entry permit signed by the entry supervisor.

# Prior to entry:

a. Entrants are responsible for obtaining an entry permit from the Safety Director prior to entry of the space. The entrant is also responsible for hazard control/elimination actions including but not limited to, atmospheric testing, having all required equipment on hand, controlling external hazards such as pedestrian and vehicle traffic and providing for attendant and rescue services.

# Note: All gas and overall atmospheric monitoring and testing shall be performed by an outside certified agency for both continuous testing/monitoring or for one-time testing.

- b. Complete all items on the permit.
- c. The entry will be authorized and the permit will be signed only by an authorized entry supervisor. If any item on the permit is checked as "NO" (meaning not yet completed or available), the permit will not be signed.
- An attendant must be on duty outside the confined space at all times anyone is inside the space.
   At not time should a single attendant be monitoring more than one confined space at a time.
- e. Entry may proceed. A copy of the entry permit will be placed outside the confined space until the permit has been cancelled by appropriate personnel.

# **Testing and Monitoring**

a. Test the space as necessary to determine if acceptable entry conditions exist before beginning entry operations. Initial testing of the atmosphere must be done from outside the confined space prior to any entry. If isolation of the space is infeasible because the space is large or part of a continuous system (such as a sewer), entry conditions will be continuously monitored where entrants are working. Monitoring can be taken at any time – additional times can be requested.

- b. Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.
- c. When testing for atmospheric hazards, test fire for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors. Parameters for non-hazardous atmospheres are:
  - 1. Oxygen between 19.5 and 23.5 percent;
  - 2. Flammability less than ten percent of the lower flammability limit (LFL).
  - 3. Toxicity less than the permissible exposure limit (PEL).

An authorized attendant must be present and monitoring the entry at all times. The attendant will not be assigned any other duties that may interfere with his attendant duties. Attendant duties are outlined below.

Equipment required for permit required confined space entry includes that equipment required for testing and monitoring; ventilating; communications between the entrant and attendant, and for summoning rescue; personal protection; lighting; barriers/shields for openings; means of ingress and egress; and any other equipment necessary for safe entry and rescue.

# **Rescue and Emergency Services**

- a. Non-entry rescue is the preferred method for rescue of personnel from a permit required space.
   Team members will not enter a permit space for rescue unless they have been specifically trained and equipped for such rescue.
- b. To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase overall risk of injury or would not be of value to any rescue. Retrieval system requirements are:
  - 1. Each entrant shall use a chest or full body harness with a retrieval line attached at the center of the back near shoulder level, or other appropriate point.
  - 2. Other end of retrieval line shall be attached to a mechanical device or fixed point outside of permit space ready for immediate use. A mechanical device will be used to retrieve personnel from vertical type permit spaces more than five feet deep.
  - 3. If inured entrant is exposed to any substance with a required MSDS or similar document, that MSDS or document will be made available to the medical facility treating entrant.
- c. If rescue should become necessary, the attendant will:
  - 1. Notify and summon the rescue team/service;
  - 2. Attempt **<u>non-entry</u>** rescue procedures to the extent possible by the circumstances.
  - 3. Monitor the situation and be ready to give rescuers information on how many victims and their status, what hazards, chemical types, concentrations, etc. are present.
- d. Only designated personnel will enter permit spaces for rescue purposes. Each designated rescue team member will be trained on:

- 1. Use of personal protective and rescue equipment necessary for making the rescue from the permit space;
- 2. Performance of assigned rescue duties and also that training required of authorized entrants;
- 3. Basic first aid and cardiopulmonary resuscitation (CPR). At least one member of the rescue team will hold current certification in first aid and CPR.

Each rescue team member will practice making permit space rescues at least once every 12 months, by means of simulated rescue operations and in spaces representative of the types of permit spaces from which rescue is to be performed.

Permits will be cancelled by the entry supervisor upon completion of the work, or when any prohibited condition arises. Permits cannot just be left to expire. Cancelled permits must be kept for the annual review.

# Program Review

Cancelled entry permits will be retained on file for at least one year. The Permit Space Program will be reviewed within one year of each entry using these cancelled permits to revise the program as necessary to ensure team members are protected from permit space hazards. A single review covering all entries in the preceding year may be conducted.

# Duties of the Entrant, Attendant and Entry Supervisor

# Entrant

- a. Know the hazards that may be faced, including the mode, signs or symptoms, and consequences of the exposure;
- b. Properly use equipment as required. Respirators should be annually fit tested for each entrant to ensure proper brand and size. Harnesses need to be updated per the manufacturers recommendation as well as properly maintained. Tri-pod entry/rescue devices need to be used.
- c. Communication with the attendant as necessary to enable the attendant to monitor entrant status and to alert entrants of the need to evacuate the space.
- d. Alert the attendant whenever the entrant recognizes any warning sign or symptom of exposure to a dangerous situation or detects a prohibited condition.
- e. Exit from the permit space as quickly as possible whenever:
  - 1. An order to evacuate is given by the attendant or the entry supervisor or an evacuation alarm is activated.
  - 2. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation or detects a prohibited condition.

## <u>Attendant</u>

a. Know the hazards that may be faced during entry including the mode, signs or symptoms and consequences of the exposure.

- b. Be aware of possible behavioral affects of hazard exposure.
- c. Continuously maintain an accurate count and identity of authorized entrants.
- d. Remain outside the permit space during entry operations until relieved by another attendant.
- e. Communicate with entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate.
- f. Monitor activities inside and outside space to determine if safe for entrants to remain in space and order evacuation when necessary.
- g. Summon rescue and emergency services when assistance for emergency exit from permit space is necessary.
- h. Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:

1. Warn them to stay away or exit immediately if they have entered.

- 2. Inform the entrants and entry supervisor if unauthorized persons enter the permit space.
- i. Perform non-entry rescues as specified by company procedure.
- j. Perform no duties that might interfere with their primary duty to monitor and protect authorized entrants.

## Entry Supervisor

- a. Know the hazards that may be faced during entry including the mode, signs or symptoms and consequences of the exposure.
- b. Verify that acceptable conditions for entry exist before endorsing the permit and allowing entry to begin.
- c. Terminate the entry and cancel the permit when entry operations are complete, or a prohibited condition arises.
- d. Verify that rescue services are available and the means for summoning them are operable.
- e. Remove unauthorized individuals who enter or who attempt to enter the permit space.
- f. Determine, whenever responsible and at appropriate intervals, that acceptable entry conditions are maintained.

## **Training**

Only trained and qualified team members may be authorized as entrant, attendant, entry supervisor or in-house rescue team members. The training will establish proficiency in the duties required by this program so that the team member acquires the understanding, knowledge and skill necessary for the safe performance of his/her duties.

Training must be completed before team member is assigned duties under this program, before there is a change in assigned duties, and, whenever a supervisor has reason to believe either that there are deviations from permit space entry procedures or inadequacies in the team member's knowledge or use of this program.

Supervisors will certify that this training has been accomplished. The certification will contain the team

member's name, signature or initials of the trainers and the dates of the training. The certification will be kept on file.

# Alternate Entry Procedures

Alternate entry procedures may only be used when the <u>only</u> hazard is an actual or potential hazardous atmosphere. If alternate entry procedures are used, no permits are needed, no attendant or supervisor is required, and rescue provisions need not be used. Training and a written certification are required.

# Conditions To Be Met To Qualify For Alternate Procedures:

- a. The only hazard posed by permit space is an actual or potential hazardous atmosphere. (See not after the Permit Space Reclassification section.)
- b. Continuous forced air ventilation <u>alone</u> is sufficient to maintain safe permit space.
- c. Monitoring and inspection data that supports above demonstrations have been developed and documented.
- d. If initial entry is necessary to obtain above date, it shall be performed in accordance with this program.
- e. Documented determinations and supporting data will be made available to entrants.

# Entry must be in accordance with the following requirements:

- a. Any condition making it unsafe to remove an entrance cover shall be eliminated before removing the cover. When entrance covers are removed, the opening shall be promptly and effectively guarded.
- b. Before entry, the internal atmosphere shall be tested with a calibrated direct-reading instrument for the following conditions in the order given:
  - 1. Oxygen content: 19.5 23.5%
  - 2. Flammable gases and vapors: <=10% of LFL
  - 3. Potential toxic air contaminants: <PEL
- c. There may be no hazardous atmosphere within the space whenever any team member is inside the space.
- d. Continuous forced air ventilation shall be used as follows:
  - 1. Entry not permitted until hazardous atmosphere is eliminated.
    - 2. Ventilation shall be directed to immediate areas where team members are or will be present and will continue until all team members have left the space;
    - 3. Air supply shall be from a clean source and may not increase hazards in the space.
- e. The atmosphere within the space shall be periodically tested as necessary to ensure that ventilation is adequate. If hazardous atmosphere is detected during entry:
  - 1. Each team member shall leave space immediately;
  - 2. Space shall be evaluated to determine how hazardous atmosphere developed;
  - 3. Measures must be taken to protect team members from hazardous atmosphere before any subsequent entry.

f. The entry supervisor will verify that the space is safe for entry and that all of the above requirements have been met. Such verification will be in writing to include the date, location of the space and the signature of the person providing the certification and shall be made available to each team member before entry.

## Permit Space Reclassification

A permit space may be reclassified as a non-permit space:

- a. If there are no actual or potential atmospheric hazards and if all hazards within permit space are eliminated without entry, space may be reclassified for as long as the non-atmospheric hazards remain eliminated.
- b. Hazards may be eliminated by such actions as purging or inserting tank/vessels of contaminants, emptying material from hoppers/bins, use of company lockout/tag procedures for electrical/mechanical hazards. The control of atmospheric hazards through forced air ventilation does not constitute elimination of that hazard, it only controls the hazard. The preceding Alternate Entry Procedures must be used in such cases.
- c. If entry is required to eliminate hazards, it shall be according to regulations and the space may be reclassified for as long as the hazards remain eliminated.
- d. Entry supervisors will certify in writing that all hazards in permit space have been eliminated and make this document available to each entrant.
- e. If hazards arise in declassified permit space, team member(s) shall exit and the safety director shall determine whether to reclassify space.

NOTE: A combination of reclassification procedures and alternate entry procedures (e.g. using lockout/tagout to eliminate a physical hazard, then continuous forced air to control an atmospheric hazard) may not be used together. Such spaces must be entered under the permit program.

## Written Permit

- See FBi Construction's written permit for confined space entry requirements.
- Any other information which is necessary in order to ensure team member safety shall be included in permit.
- Attach to permit any additional permits, such as for hot work, that have been issued for work in the permit space.

# FIRE PROTECTION AND PREVENTION

## **Fire Protection**

Temporary fire protection measures, such as fire extinguishers, temporary hose lines, and temporary standpipes are required near hazardous locations and as required by OSHA regulations.

• Fire extinguishers will be: o Inspected monthly.

- o Conspicuously located.
- o Protected from freezing.
- Placed within the immediate area of any welding/cutting operation or flammable liquid storage.
- If a fire extinguisher is discharged for any purpose, it should be reported to FBi Construction Superintendent.
- All enclosed buildings under construction shall have appropriate number of fire extinguishers rated not less than 2A-20B:C placed inside the building as required by OSHA 29 CFR 1926 Subpart F.
- All temporary buildings (shops, field offices, locker rooms, etc.) will have a class ABC fire extinguisher rated not less than a 2A-10B:C.
- All spark producing operations shall require the use of fire extinguishing equipment rated not less than 2A-20B:C.

## Fire Prevention

Combustible refuse from construction operations will not be burned or dumped anywhere on the construction site. Such refuse will be removed at frequent intervals, as required. Storage of large quantities of construction debris will be placed in metal dumpsters.

- Compressed gasses will be:
  - o Stored with valve caps securely fastened when not attached to a regulator.
  - o Secured upright at all times, including when transported in vehicles.
- Fuel and oxygen cylinders will be separated by 20 feet for greater when not in use or separated by a not less than a 5 foot ½ hour fire rated wall. Empty cylinders shall be stored separate from full cylinders.
- 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.
- No open burning is permitted on this project.
- All fire safety rules and signs on this project will be observed.

# Flammable Liquid Storage and Dispensing

Flammable liquids will be:

- Stored outside not within 20 feet of any structure or inside a properly constructed storage container.
- Stored in approved metal safety cans and marked to indicate its contents.
- Not more than 25 gallons stored inside any trailer or building.
- Posted with "NO SMOKING" signs.
- Outside storage areas kept free of weeds and other combustible materials.
- Gasoline or diesel storage tanks will be double walled.
- Location of fuel storage tanks for dispensing liquids shall be approved by Project Site Safety Coordinator or Project Superintendent.
- At fuel dispensing points, the following is required:

- o Fire extinguisher rated not less than 20 B-C located within 75 feet of fueling point.
- o No Smoking signs posted.
- o Self-locking fuel nozzle prohibited.
- Spill kit stored nearby.

# Portable Fire Extinguisher Training

FBi Construction employees should not use fire extinguishers unless they have been formally trained in the proper operation of extinguisher use. If you would like to be trained, please contact the Safety Director and he will set up a time for training.

It is the sole responsibility of the Safety Director to ensure all employees under their direction obtain fire extinguisher training if employees want to use fire extinguishers. This training must be documented with the date and name of person(s) who received the training. These training records will be held onsite.

# **Fire Extinguisher Selection**

Fire extinguishers must be selected based upon the hazard(s) present in the area and the expected types of fires that could result from them. Both the type and capacity of the fire extinguisher must be determined by the potential hazard. All fire extinguishers provided in our facility must be UL approved.

Fire Hazards Class	Agent Selection	Fire Hazards Class	Agent Selection
Class A	<ol> <li>Water</li> <li>Foam</li> <li>Multipurpose dry chemical</li> <li>Halon</li> <li>Halon replacement</li> </ol>	Class C	<ol> <li>Ordinary dry/Purple K chemical</li> <li>Multipurpose dry chemical</li> <li>Halon</li> <li>Halon substitutes</li> <li>Carbon dioxide</li> </ol>
Class B	Class B 1. Ordinary dry/Purple K chemical 2. Multi-purpose dry chemical 3. Halon	Class D	Dry powder selected for the specific combustible metal
	4. Halon substitutes 5. Carbon dioxide	Class K	Wet chemical (potassium-based liquids)

## Selection Guide:

# Placement

Placement of fire extinguishers must conform with the following guidelines:

- 1. Travel Distance:
  - a. Class A 75 feet or less;
  - b. Class B 50 feet or less;

- c. Class C based on the appropriate pattern for existing class A or B hazards;
- d. Class D 75 feet or less; and
- e. Class K Close to the hazard;
- 2. Hazard—travel distance to a fire extinguisher for high hazard areas must be lower than the maximum allowed travel distance;
- 3. Ease of access—fire extinguishers in areas that are difficult to access must be placed closer so that response to a fire must not be delayed;
- 4. Permanent location—all fire extinguishers must have a permanent location consisting of a wall mount, a fire extinguisher cabinet or a vehicle bracket;
- 5. Damage—all fire extinguishers must be placed in locations that minimizes the possibility of damage or obstruction by traffic or work activities in the area; and
- 6. Marking—all fire extinguisher locations must be conspicuously marked with signs or other indicators.

## **Care and Maintenance**

- 1. Keep fire extinguishers unobstructed and in clear view at all times.
- 2. Trained facility personnel should inspect fire extinguishers periodically and maintain a written record of their inspection. The inspection must verify that each fire extinguisher:
  - Is in its proper location;
  - Is in adequate physical condition;
  - Has a pressure gage within operable range (if so equipped);
  - Has an unobstructed nozzle; and
  - Has an adequate amount of agent (lift the extinguisher to verify it is not too light, a
    possible indication the fire extinguisher may have lost some of its contents).
- 3. A certified fire extinguisher contractor must inspect each fire extinguisher every year. Keep record of these inspections and any repairs that derive from them.
- 4. Remove from service any fire extinguisher after it is used, until it is inspected and recharged by the contractor.
- 5. Remove from service any fire extinguisher if it is damaged, involved in an incident where damage could result or if the extinguisher shows signs of corrosion, until it is inspected and recharged by the contractor.
- 6. Label or make sure that each fire extinguisher is labeled with its operating instructions and the class of fire(s) that it is designed to fight.
- Make sure that all stored pressure dry chemical extinguishers that require a 12-year hydrostatic test are emptied and subjected to applicable maintenance procedures every 6 years.
- 8. All portable extinguishers shall be hydrostatically tested at the intervals listed in the

following table:

Type of Extinguisher	Test Interval (Years)
Soda acid (stainless steel shell)	5
Cartridge operated water and/or antifreeze	5
Stored pressure water and/or antifreeze	5
Foam (stainless steel shell)	5
Aqueous Film Forming foam (AFFF)	5
Loaded stream	5
Dry chemical with stainless steel	5
Carbon dioxide	5
Dry chemical, stored pressure, with mild steel, brazed brass or aluminum shells	12
Dry chemical, cartridge or cylinder operated, with mild steel shells	12
Halon 1211	12
Halon 1301	12
Dry powder, cartridge or cylinder operated with mild steel shells	12

**Exceptions:** hydrostatic testing may be required more frequently when:

- The cylinder or shell threads are damaged;
- There is corrosion that has caused pitting (including corrosion under removable name plate assemblies);
- The extinguisher has been burned in a fire; or
- A calcium chloride extinguishing agent has been used in a stainless steel shell.

## Fire Extinguisher Training

- 1. Only trained and authorized employees are allowed to use fire extinguishers in the facility.
- 2. Employees will receive training after they are authorized to use fire extinguishers and become familiar with the hazards involved with incipient stage firefighting. Training will also be repeated annually for all authorized personnel.
- 3. Employees who are not authorized to use fire extinguishers must be advised that their only duties in a fire are: notification and evacuation.
- 4. Training will consist of classroom training and can be supplemented with hands on training when necessary. In all cases, employee safety will be stressed over property conservation. Additional training will be provided for any personnel who are assigned to operate wheeled fire extinguishers.

# HOTWORK PERMIT REQUIREMENTS

A Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but not limited to: Brazing, Flame Cutting, Grinding, Soldering, Torch Applied Roofing and Welding. Employees engaging in Brazing, Flame Cutting, Grinding, Soldering, Torch Applied Roofing and Welding must hold applicable certificates/licenses. Hot work permits will be issued by FBi Construction Project Superintendent and will be filled out by contractor engaged in hot work operations in an enclosed building/structure.

- All provisions of the Hot Work Permits will be followed including fire watch personnel. Hot Work Permits can be issued for the duration of the hot work.
- The following precautionary measures will be taken when a Hot Work Permit is required:
  - o Work area will be cleared of combustible material within 35 feet.
  - o Gratings, openings, etc. will be completely covered in such a way to prevent sparks and slag from falling to a level below.
  - o Fire extinguishers will be available in the immediate area of work.
  - o No flammables or combustible material stored within 35 feet in any direction.
  - o Combustible/flammable materials that cannot be moved must be covered with fire blankets or other suitable material.
  - o A worker must be designated as a fire watch during Hot Work activities and for one-half hour after work has ended.
- Follow confined space entry procedures, if required.

Fire watchers shall have fire extinguishing equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least a half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires. Fire watchers must complete a fire watch training class and pass a test. Once you pass the test, a card will be provided stating they are a certified fire watch.

# EQUIPMENT AND VEHICLES

- Heavy equipment (cranes, forklifts, dump trucks, excavators/backhoes, man-lifts, etc.) used on this project will be inspected prior to use and comply with applicable OSHA and ANSI standards.
- Seat belts shall be worn on all equipment with roll-over protective structures.
- Equipment that is equipped with windshields will be free from cracks or other visible damage.
- Vehicles and equipment with an obstructed view to the rear must have an audible backup alarm or a flagman must be used.
- No equipment or vehicle will be used to transport personnel unless it is specifically designed to do so.

- Equipment operators are responsible to check their equipment daily to verify it is working properly. Minimum inspection items include:
  - o Brakes
  - o Lights
  - o Backup alarm
  - o Hydraulic systems
  - o Steering mechanism
  - o Operating controls
  - o Mirrors
  - o Fire extinguisher
- Equipment operators will possess the required training, certification, and licensees as required by law for the equipment that they are required to operate. All forklift operators shall have a valid operator's license.
- Only trained and authorized personnel who have received both formal and practical training can
  operate forklifts. Authorized individuals are those who have completed forklift safety for
  construction training and have been issued a certification card by the safety director and/or
  authorized party. Previously approved and trained individuals will be required to receive
  mandatory refresher training and re-certification at a minimum of every 3 years and/or sooner if
  deemed necessary by the safety director or supervisor.
- Forklifts will be inspected on a daily basis at the beginning of the work shift
- Avoid driving while distracted. Distracted driving may include texting, reading, e-mailing, or cell phone use.
- Operate all vehicles in a safe manner, using defensive driving techniques. Do not drive aggressively.
- Drivers shall observe all federal, state, and local laws and ordinances.

# ERGONOMICS

Workers should be aware of the work practices to avoid musculoskeletal disorders, strains, and sprains. These practices include, but are not limited to, the following areas.

- Avoidance of awkward postures, excessive repetition, and contact stress (hard edge/pressure)
- Alternate work patterns and tasks throughout the day
- Perform stretching exercises periodically
- Begin or continue a physical fitness program
- Adjust working height of chair, desk, or keyboard
- Adjustment of computer monitor
- Keep wrists and hands in line while using a keyboard and mouse
- Organize work areas to avoid stretching and twisting to reach items
- When lifting, holding, or pushing workers should avoid strains and sprains caused by incorrect posture, lock of proper assistance and/or lifting aids
- Test the weight of the load before lifting and let your arms and legs do the work, not your back

• Get help when needed

## WILDLIFE AWARENESS

When working outside there are many animals, plants, and insects that could potentially cause harm. Some of these may include, but not be limited to, snakes, insects, wasps, yellow jackets, ticks, poison oak/ivy, alligators etc. The following measures can be taken to avoid harm.

- Use insect repellant
- Dress appropriately
- Wash properly after potential exposure
- Avoid reaching into areas that you cannot see into
- Seek medical treatment if you exhibit symptoms of illness or allergic reaction to bites or stings

## MOBILE CRANE SAFETY AND RIGGING

All crane operators shall fill out FBi Construction's Pre-Erection Crane Analysis and provide required documentation such as annual inspection certification, operator's license and rigging and signalman training as may be required.

## **Mobile Cranes and Rigging**

- No crane will be brought onto the project without a current annual inspection and applicable load charts.
- Crane operators will perform daily crane safety inspections. Crane operators are to turn in the Daily Crane Safety Checklist to FBi Construction Superintendent Note: An equivalent form may be used.
- All cranes will be equipped with an anti-two block device. Hooks will be equipped with safety latches.
- Contractor's supervisor shall designate a qualified person to monitor all rigging. All rigging will be inspected daily and before each shift.
- The crane manufacturer's operating manual, instructions and load charts for a specific crane will be used to determine the safe operation of all cranes to confirm compliance with manufacturer standards and to insure conformity with the rigging safety inspection checklist.
- All crane operators must be certified by the National Commission on Certification of Crane Operators (NCCCO) or equivalent. This rule applies to Contractors as well as FBi Construction employees. Exception: cranes mounted on delivery trucks that unload outside, onto the ground.
- The supervisor shall ensure that crane operators meet legal and Owner requirements. After initial qualification, the supervisor shall closely monitor until the operator's capability is established.
- The ground where the crane will be set up must be solid and able to support the weight of the loaded crane. Determine if underground utilities exist near where the crane will be set up.

- Cranes will be set up level with outriggers fully extended or set per the manufacturer's recommendation for particular lift configuration. All tires should be clear of the ground.
- Cribbing or mats under outrigger pads should be of sufficient size and properly placed to ensure adequate soil bearing.
- Special attention needs to be taken when wind speeds exceed 20mph. Such lifts, will only be made at the discretion of the crane operator, project superintendent and safety director. Lower crane booms when appropriate due to high winds.
- Tag lines shall be used when needed to control the load. (Exception: When loading and unloading trucks)
- The load path shall be flagged to protect worker from overhead hazards.
- Loads shall be routed to minimize exposure to workers.
- Before a lift, determine the load weight and load capacity. A designated qualified person will determine the load weight. Refer to the shipping weight or have the equipment or machinery assembly weighed. Calculate all structural loads and determine the center of gravity.
- Position the crane so there is a minimum swing and load path clearance of two feet. Cranes and their loads shall not be operated within 15 feet of electrical lines rated less than 50 kilovolts. Increased clearance is required for higher voltage lines. When working near electrical sources (overhead lines or lightning), the crane should be grounded.
- Crane operators are to know the weight of the load they are lifting.
- A written lift and rigging plan is required for any lift where:
  - The load is greater than 75% of the crane capacity as configured for the lift.
  - Two cranes are used.
  - The Project Manager/Superintendent or Safety Director determines the lift to be non-routine.

# **Rigging Qualifications**

Employees who participate in using riggers during assembly/dis-assembly or who attach/detach lifting equipment to loads or lifting loads must adhere to the following:

- Possesses a recognized degree, certificate or professional standing, or
- Has extensive knowledge, training and experience, and
- Can successfully demonstrate the ability to solve problems related to rigging a load

# A/D Director

All assembly/disassembly operations must be directed by an individual who meets the criteria for both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons. The A/D director must understand the applicable assembly/ disassembly procedures. The A/D director must take the following precautions to protect against potential hazards associated with the operation, including:

• Site and ground conditions must be able to support the equipment during assembly/disassembly

- Blocking material must be the correct size, amount, and condition. The blocking must be stacked so as to sustain the loads and maintain stability
- When used to support lattice booms or components, blocking must be placed appropriately to protect the structural integrity of the equipment, and prevent dangerous movement and collapse
- When using an assist crane, the loads that will be imposed on the assist crane at each phase of assembly/disassembly must be verified as being within its rated capacity
- The point(s) of attachment of rigging to a boom (or boom sections, jib, or jib sections) must be suitable for preventing structural damage and facilitating safe handling of these components
- The center of gravity of the load must be identified if necessary for the method used for maintaining stability. Where there is insufficient information to accurately identify the center of gravity, measures designed to prevent unintended dangerous movement resulting from an inaccurate identification of the center of gravity must be used
- The boom sections, boom suspension systems (such as gantry A-frames and jib struts), and components must be rigged or supported to maintain stability upon the removal of the pins
- Suspension ropes and pendants must not be allowed to catch on the boom or jib connection pins or cotter pins (including keepers and locking pins)
- Steps must be taken to prevent unintended movement from counterweights that are inadequately supported or are being hoisted
- Each time reliance is to be placed on the boom hoist brake to prevent boom movement during assembly/disassembly, the brake must be tested prior to such reliance to determine if it is sufficient to prevent boom movement. If it is not sufficient, a boom hoist pawl, other locking device/back-up braking device, or another method of preventing dangerous movement of the boom (such as blocking or using an assist crane) from a boom hoist brake failure must be used
- Backward stability must be assured before swinging the upperworks, travel, and when attaching or removing equipment components
- The effect of wind speed and weather on the equipment must be taken into account

# Signalman Training and Qualifications

Employers of signalmen shall ensure that each signal person meets the qualification requirements contained in 29 CFR 1926.1419 Signals – General Requirements.

- Know and understand the type of signals used. If hand signals are used, the signal person shall know and understand the standard method for hand signals.
- Be competent in the application of the type of signals used.
- Have a basic understanding of equipment operations and limitations, including the crane dynamics involved in swinging and stopping loads and boom deflection from hoisting loads.
- The crane operator, signal person shall be able to effectively communicate the language used.
- The signals used (hand, voice, audible, or new) and means of transmitting the signals to the operator (such as line of sight, video, radio, etc.) shall be appropriate for the site conditions.
- Hand signal charts shall be either posted on the equipment or readily available at the site.

- A crane operator should always move loads according to the established code of signals, and use a signaler. Hand signals are preferred and commonly used.
- Only a qualified person should give signals to the crane operator.
- There should be only one designated person at a time giving crane signals.
- A crane operator should move loads only on crane signals from one person.
- A crane operator must obey STOP signals no matter who gives it.
- The person giving crane signals must be in clear view of the crane operator.
- The person giving crane signals must have a clear view of the load and the equipment,
- The person giving crane signals must keep persons outside the crane's operating area. Any request or questions should be addressed to the signaler.
- The person giving crane signals should never direct a load over a person.

## DEMOLITION

- Prior to start of any demolition work, an survey of the building or area to be demolished is required to determine the condition of the area. No work will commence until this survey has been completed.
- Debris and material shall not be dropped through walls, floor holes, windows, or other elevated work areas without the area below being barricaded and proper signs posted.
- Debris chutes shall have a substantial gate at all elevated openings.
- FBi Construction may require the demolition contractor to submit a site specific fall protection plan if the work requires the removal of exterior walls and or flooring.
- Demolition plans shall follow OSHA 29 CFR 1926 Subpart T.

## CONCRETE AND MASONRY

- Free standing masonry walls over 8 feet in height will be adequately braced to prevent collapse. Limited access zones will be established as required by OSHA to protect workers from the hazards associated with collapsing masonry walls.
- All rebar dowels, electrical conduits or similar items which are considered a "potential impalement hazard" shall be capped (protected) at all times. This includes vertical and horizontal impalement hazards.
- Workers cutting masonry materials shall not be exposed to airborne concentrations of respirable dust that exceeds OSHA permissible exposure limit (PEL) of 5 mg/m3 of air. Subcontractor is responsible for determining the exposure level of respirable dust in and around their employees breathing zone. Wet cutting masonry materials or mechanical ventilation (vacuum system attached to block saw) would be an acceptable practice to keep respirable dust from exceeding OSHA PEL limits.
- Workers who would be exposed to respirable dust that is greater than 5mg/m3 in and around workers breathing zone. Masonry contractors must submit a comprehensive respiratory protection program that complies with 29 CFR 1910.134 if they require their employees to wear respiratory protection when cutting masonry materials.

• Respirable dust that is less than 5mg/m3 in and around the workers breathing zone does not require respiratory protection. However, workers choosing to wear a disposable dust mask on a voluntary basis must complete Appendix D to Section 1910.134.

# Pre-Cast Concrete

- A competent person must be designated to be responsible for the inspection of all rigging and hardware and the supervision of the rigging of pre-cast concrete members.
- Pre-cast member are not to be moved over other workers.
- Workers involved in the setting or connection of pre-cast members will strictly adhere to the 100% fall protection policy with no exceptions.
- No workers will use their hands to reach under a pre-cast member to adjust a shim or bearing pad.

# STEEL ERECTION

FBi Construction is the controlling contractor on this project and will notify steel erection company that an adequate lay down area, set up area, and adequate access exists prior to the delivery of structural steel to the project site. Steel Erection Company will be notified that concrete has attained 75% of its design strength; all anchor bolts are properly designed and installed according to building plans and specifications prior to beginning steel erection.

- Steel Erection Company shall submit to FBi Construction superintendent a written steel erection plan. The plan must include all aspects of the process for unloading materials to installing permanent floors. Steel erection procedures shall follow OSHA 29 CFR 1926. 750 Subpart R – Steel Erection standard or any supplemental requirements required by FBi Construction. The following requirement shall be incorporated into the plan:
  - 100% continuous fall protection for heights six (6) feet or greater above a lower level.
     Workers engaged in steel erection activities to include connecting, bolt-up and decking are not exempt from the project's 100% fall protection requirements.
  - During skeletal steel erection, a tightly planked temporary floor shall be maintained within two (2) stories or 30 feet, whichever is less, below and directly under that portion of each tier of beams on which any work is being performed.
  - During structural steel assembly, a safety railing of wire rope (at least 3/8" dia.) or equivalent shall be installed. Top railing should be 45 inches and a mid-railing 22 inches above the deck along all open sides including stairway landings and elevator shafts. The railing must support 200 lbs of downward force and not deflect below 39 inches and shall not deflect outward beyond the edge of the floor.
  - o When placing structural steel members, the load shall not be released from the hoisting line until the member is secured by at least two bolts or the equivalent at each connection, drawn up wrench tight.
  - o The detailed site erection plan shall include the following items:

- Storage/staging of materials
- Equipment for hoisting materials
- Routes for lifting operations
- Critical lifts
- Rigging procedures
- Connection procedures
- Erection bridging procedures
- Stability requirements
- Fall protection requirements
- Decking procedures
- Proper training of workers

## MOLD CONTROL

Necessary steps will be taken to control the formation of mold from occurring in the work and storage areas. Mold will occur when there is water and a source of food (i.e. sheet rock, wood, and other building materials).

Work will be planned to:

- Prevent moisture accumulation
- Double check points where moisture may enter
  - o Doors & windows
  - o Flashing and caulking
  - o Waterproof membranes (proper lap at joints and corners)
  - o Roofing systems and penetrations
- Properly store materials
  - o Dry location
  - o Off the ground
  - o Loose tarps or sheets to allow air flow
- Have drying equipment readily available
  - o Fans
  - o Dehumidifiers
  - o Wet-dry vacuums

If mold is observed, work will not continue in the area until FBi Construction supervision has made an evaluation of the exposure and develop an abatement plan.

## SILICA

- Workers that perform any of the following work tasks will be protected from exposure to silica dust:
  - o Abrasive blasting using silica sand as a blasting medium.
  - o Mechanically sanding sheetrock joint compound.
  - o Abrasive blasting of concrete regardless of the type of medium.
  - o Sawing, hammering, drilling, grinding, sanding or chipping of concrete or masonry products.

- o Chipping, hammering, or mixing concrete grout.
- o Demolition of concrete or masonry structures.
- o Dry sweeping or compressed air blowing of concrete, masonry, rock, or sand dust.
- Workers exposed to silica dust will receive training on silica hazards and protection methods.
- Acceptable engineering controls will be used when exposure to silica is likely. Examples of acceptable engineering controls are:
  - o Substitute blasting medium for less hazardous material with less than 1% silica.
  - o Maintain an effective dust control program.
  - o Use dust collection systems with grinders or sanders.
  - o Use wet saw systems if feasible.
  - o Use wet drill systems.
- Do not use respirators as the primary means of preventing or minimizing exposures to airborne contaminants. Instead, use effective source controls such as substitution, automation, enclosed systems, local exhaust ventilation, wet methods, and good work practices. Such measures should be the primary means of protecting workers. However, when source controls cannot keep exposures below the OSHA PEL (5mg/m3) controls should be supplemented with the use of respirators.
- Do not eat, drink, or use tobacco products in areas where silica dust is present. Always wash hands and face before eating, drinking or using tobacco products.
- Front line supervisors/Foreman should consult their safety representatives for further assistance.

## INSTALLING AND SANDING SHEETROCK

This procedure outlines the safety requirements for installing and sanding sheet rock in apartment complexes and commercial building under construction.

- Contractor must ensure that each worker is trained and fully understands his or her duties. Workers must pick up loose pieces of sheetrock and organize them in piles and dispose of all debris daily.
- While wearing stilts, workers are prohibited from walking up and down stairs. When workers wearing stilts are within 10 feet of standard guardrails they must extend the top rail an additional 2 feet to ensure worker is properly protected.
- Workers hand sanding sheetrock joints can, on a voluntary basis, wear a disposable respirator (dust mask) rated N95. Workers must be trained and sign Appendix D to section 29 CFR 1910.134 "Voluntary Use of a Disposable Respirator".
- Workers engaged in mechanically sanding (powered orbital sander) sheetrock joint compound shall not be exposed to airborne concentrations of respirable dust above the OSHA permissible exposure level (PEL) of 5mg/m3 of air. Subcontractor is responsible for determining the exposure level of respirable dust in and around their employees breathing zone. The use of a vacuum attached to powered orbital sanders would be acceptable means to reduce respirable dust below the OSHA PEL from workers breathing zone.
- Workers who would be exposed to respirable dust that is greater than 5mg/m3 in and around workers breathing zone must submit a comprehensive respiratory protection program that

complies with 29 CFR 1910.134 if they require their employees to wear respiratory protection when sanding sheetrock.

 Respirable dust that is less than 5mg/m3 in and around the workers breathing zone does not require respiratory protection. However, workers choosing to wear a disposable dust mask on a voluntary basis must complete Appendix D to Section 1910.134 Information for Employees Using Respirators When Not Required under the Standard.

# DROPPED-OBJECT PREVENTION

- A Dropped Object is "any object that falls from an elevated position whether static or dynamic".
  - Static Dropped Object: An object that has fallen from a stationary position
  - Dynamic Dropped Object: An object that has fallen as a result of being struck by another object or involved in a collision
- The Dropped Object Prevention Program aims to raise awareness with regards to potential dropped object hazards within FBi Construction work zones. Once the hazard is identified the goal is to determine what measures are necessary to remove and/or mitigate the potential risk.
- Preventive measures shall be taken where there is a potential for dropped objects. When required, the following measures shall be taken as part of the prevention plan.
  - Proper training
  - Securing of all tools with manufactured tool tethers
  - Barricade and install information signage below elevated work areas
  - Utilization of tool bags for lifting and lowering of tools and equipment
  - Utilization of netting on the guardrails (toe board mid-rail) on elevated platforms (including aerial lifts) and scaffolds where potential for falling objects exist
  - Securing materials stored on elevated platforms
  - Securing materials during transport to insure positive control at all times

# LOCK OUT POLICY

- This procedure establishes the minimum requirements for the lockout of energy isolation devices whenever maintenance or servicing is done on machines or electrical equipment. It shall be used to ensure that the machine or electrical equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or electrical equipment or release of stored energy could cause injury.
- Lockout is the preferred method of isolating machines or electrical equipment from energy sources. To assist employers in developing a procedure which meets the requirements of the standard, the following simple procedure is provided for use in lockout programs. This procedure may be used when there are limited numbers or types of machines or electrical equipment or there is a single power source. For more complex systems, a more comprehensive procedure will need to be developed, documented, and utilized.

• All employees and contractor employees are required to comply with the restrictions and limitations imposed on them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. All employees and contractor employees, upon observing a machine or piece of electrical equipment which is locked out to perform servicing or maintenance, shall not attempt to start, energize, or use that machine or electrical equipment.

# **Responsibility**

- Appropriate employees (contractor) shall be instructed in the safety significance of the lockout procedure.
- A competent person will conduct a survey to locate and identify all isolating devices to be certain which switch(s), valve(s) or other energy isolating devices apply to the equipment to be locked out. More than one energy source (electrical, mechanical, or others) may be involved.

# Lockout system procedure

- Notify all affected employees that a lockout system is going to be utilized and the reason therefore. The authorized employee (contractor) shall know the type and magnitude of energy that the machine or electrical equipment utilizes and shall understand the hazards.
- If the machine or electrical equipment is operating, shut it down by the normal stopping procedure.
- Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
- Lockout the energy isolating devices with assigned individual lock(s) and tag(s).
- Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate. Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment. The machine is now locked out.

# **Restoring Equipment to Service**

When the servicing or maintenance is complete and the machine or electrical equipment is ready to return to normal operating condition, the following steps shall be taken.

- Check the machine or electrical equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or electrical equipment components are operationally intact.
- Check the work area to ensure that all employees have been safely positioned or removed from the area.
- Verify that the controls are in neutral.
- Remove the lockout devices and reenergize the machine or electrical equipment.
• Notify affected employees that the servicing or maintenance is complete and the machine or electrical equipment is ready for use.

#### ENVIRONMENTAL POLICY

FBi Construction, in its role as a construction company, acknowledges that the company and its activities have a significant impact on the environment. We have identified the key areas as energy, water, waste, transport, hazardous materials, business operations, biodiversity and health. We aim to protect and improve the environment by an in-depth analysis, identification and measurement of these environmental aspects and impacts and to set targets to reduce them.

We are committed to reducing our waste and are working hard to adopt and implement standards in good practice to prevent, reduce and recycle the materials used during our operations.

#### Our Commitment is to:

- Identify, meet or exceed the environmental legislation, standards and codes of practice that relate to the Company's activities.
- Continuously improve our environmental performance and integrate environmental best practice into our business operations.
- Reduce our consumption of resources and improve the efficient use of those resources.
- Manage waste generated from our business operations according to the principles of reduction, re-use and recycling.
- Continue to improve our environmental performance through effective communication, provision of staff training and adoption of best techniques available.
- Manage our business operations to prevent pollution.
- Ensure environmental, including climate change, criteria are taken into account in the procurement of goods and services.
- Be a respectful neighbor by minimizing the impact that our activities, sites and premises have on local communities.
- Protect and, where feasible, enhance biodiversity on sites and premises where we hold responsibility or can influence those who do.
- Seek to influence our clients to adopt, and our designers to provide, solutions that benefit the environment.

#### To meet our commitments we will:

- Use recycled waste and demolition products where possible and use waste management contractors who have similar environmental policies as ours.
- Use recycled aggregates where practical
- Regular service our portable machinery to control pollution.
- Reduce and replace the use of 'toxic chemicals' with 'green' replacements where possible.

- Use CFC free products.
- Regularly maintain and service our vehicles to ensure emissions are kept as low as possible.
- Maximize delivery of materials and reduce return trips made by unladen vehicles.
- Identify our waste streams and reduce material wastage by carefully planning recycling, reusing and selective ordering.
- Use peat alternatives in landscaping and ensure that mature trees are retained, wherever possible, on-site.
- Implement office recycling.
- Minimize the need to travel but, where travel is unavoidable, use modern and efficient modes of transport.

# SCHOOL SAFETY PLAN

FBi Construction plans to achieve school campus site safety and health for all students, staff and personnel present in the operational school environment on-site, through the following measures:

- All required OSHA, OSF and school specific safety guidelines, per plans and specifications, are to be adhered to at all times.
- The ongoing safety of students, staff and contractors is of utmost importance.
- There shall be absolutely NO communication of any kind between any contractor employee and students. Any necessary communication between contractors and school staff shall be directed through the general contractor and the applicable school district staff.
- Each trade contractor is to have a site "competent person" on-site at all times during the on-site performance of their work scope. The "competent person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, students or school staff and who has authorization to take prompt corrective measures to eliminate them.
- The following documentation shall be maintained at every project site in a safety folder and made available for on-site review:
  - Approved Site Safety Plan
  - o Hazcom Program
  - MSDS/SDS
  - Emergency Evacuation Plan
  - Fire Protection/Preventative Program
  - Emergency Numbers Posted
  - Weekly Safety and Toolbox Meeting Documentation
  - o OSHA 300 Log
  - Fall Protection Program
  - Excavation Safety Plan
  - All Required Permits
  - Additional Documentation as may be Required

- It is necessary to provide proper protection to the school population, workers and pedestrians. As required by the contract documents, this protection includes but is not limited to, proper fire protection, temporary fencing, means of egress, scaffolding, sidewalk sheds, temporary walkways and proper signage.
- Performing construction activities in or near an occupied school demands the highest level of loss prevention. Every effort must be made to evaluate, eliminate and reduce the hazards posed to the school occupants and the public on projects that are concurrent with school activities. Any work related condition deemed to be unsafe must be corrected *immediately*.

# CODE OF CONDUCT /WORKPLACE VIOLENCE

Nothing is more important to FBi Construction than the safety and security of its employees and contractors. Threats, threatening behavior, or acts of violence against employees, contractors, visitors, guests, or other individuals by anyone on company property or projects sites will not be tolerated. Violations of this policy will lead to disciplinary action, which may include termination of employment.

Any person who makes substantial threats, exhibits threatening behavior, or engages in violent acts on FBi Construction property or project sites will be removed from the premises as quickly as safety permits, and shall remain off FBi Construction property or project sites pending the outcome of an investigation. FBi Construction will initiate a decisive and appropriate response. This response may include, but not limited to, suspension and/or termination or any business relationship, reassignment of job duties, suspension or termination of employment, and or criminal prosecution of the person or persons involved.

In carrying out these FBi Construction policies, it is essential that all personnel understand that no existing FBi Construction policy, practice, or procedure should be interpreted to prohibit decisions designed to prevent a threat from being carried out, a violent act from occurring, or a life threatening situation from developing.

All FBi Construction employees are responsible for notifying their supervisor or the Safety Director of any threats, which they have witnessed, received, or has been told that another person has witnessed or received. Even without an actual threat, personnel should also report any behavior they have witnessed which they regard as threatening or violent, when that behavior is job related or might be carried out on a FBi Construction controlled project site, or is connected to FBi Construction employment. Employees are responsible for making this report, regardless of the relationship between the individual who initiated the threat or threatening behavior and the person or persons who were threatened or were the focus of the threatening behavior.

This policy also requires all individuals who apply for or obtain a protective restraining order, which lists company locations as being protected areas. Provide to the Safety Director a copy of the petition and declarations used to seek the order, a copy of any temporary protective or restraining order which is

granted, and copy of any protective or restraining order which is made permanent. FBi Construction understands the sensitivity of the information requested and confidentiality procedures will be used.

# MOTOR VEHICLE OPERATIONS

## **Distracted Driving**

- 1. Texting, reading texts and emailing are prohibited when driving company vehicles and when driving personal vehicles on company business.
- 2. Follow state and local regulations on use of cellphones when driving.
- 3. Focus on the primary task of driving. Keep the number of calls to a minimum amount and duration.
- 4. Use of pagers, laptops, PDA's camera's and other electronic devices while driving is prohibited.
- 5. Avoid other activities that may distract your driving. Pull over or park in safe locations to perform these activities.
- 6. While operating motor vehicles, do not use a cellphone when driving unless necessary. If you have to use a cellphone, it must be used with a hands-free device. Hand-held cellphones shall not be used to send or receive text messages or emails or access other applications (Internet, camera, etc.) while driving a motor vehicle.

#### **Operational Practices**

- 1. Operate all vehicles in a safe manner, using defensive driving techniques. Do not drive aggressively.
- 2. Drivers/operators shall have full responsibility for vehicles in their possession. This includes observing all federal, state and local laws and ordinances.
- 3. Drivers shall be properly licensed when operating company-owned, rented, leased vehicles or equipment, and personal vehicles when used on company business. Any license restrictions shall be adhered to at all times.
- 4. Before operating a vehicle, visually inspect it to determine whether the vehicle is safe to operate. Perform a "360 degree" inspection around the vehicle to be sure the area is clear. Do not operate unless equipment is in safe condition.
- 5. Seat belts, where provided, shall be worn by the driver and passengers at all times when the vehicle or equipment is in motion. This shall apply to all company-owned, rented, leased vehicles or equipment, and to personal vehicles when used on company business or on company property.
- 6. Passengers in motor vehicles shall be in approved riding positions and restrained where occupant restraints are provided.
- 7. Lock unattended vehicles and remove keys to reduce the risk of vehicle theft.
- 8. Respect speed limits and traffic signs. Follow all traffic signals.

# **Backing and Chocking**

- 1. If you can pull through into a parking place, do so, instead of backing the vehicle into the space.
- 2. When a second person is available, they should assist the driver with backing.
- 3. Where applicable, it is preferred to back into a designated parking space in lieu of pulling forward to park.

#### Work Carts

- 1. Workers riding in work carts shall use safety handholds and proper foot positioning as needed to maintain stability while en route.
- 2. Operators of work carts shall ensure that passengers are aware of changes in road/terrain conditions so they do not get thrown out of the cart.
- 3. Vehicles must travel at an acceptable speed.
- 4. Vehicles must yield to pedestrians.
- 5. If vehicle is equipped with seatbelts, they must be worn.
- 6. Vehicles may not carry more passengers than the car is designed to accommodate.

#### **Emergencies**

- 1. In case of any vehicle trouble, pull off to the right side of the road, if possible, and use emergency flashers and warning signals.
- 2. Refer to the Motor Vehicle Accident Investigation Tool Kit located in the company vehicles for actions to take if you have an accident in a company vehicle.

# Incident Reporting

- Drivers are required to document all details of the accident: traffic flow, speed limits, stop lights/signs, weather conditions, citations issued and all other relevant information. Pictures should be taken to document the extent of damage to all vehicles involved.
- 2. If an employee is in an accident involving a company-owned vehicle, leased (rental) or personal vehicle being used on company business, the employee must report the incident immediately to supervisor.
- 3. If an employee has an injury from any kind of vehicle accident while on company business, the incident must be reported immediately to supervisor.
- 4. Employees who receive a citation for any vehicle violations while operating any FBi-owned vehicle shall report the citation immediately to their supervisor.
- 5. All accidents and moving violations must be reported within 24 hours of occurrence.