avb

BUILD SOMETHING BETTER.

Health and Safety Program

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AVB Statement Of Policy

The policy of AVB CONSTRUCTION is to provide a safe and healthy workplace, free from recognizable hazards for all of our employees. The personal safety and health of each employee of this company is of primary importance. To the greatest degree possible, management will provide all mechanical and physical facilities required for personal safety and health in keeping with the highest standards.

IF A JOB CANNOT BE DONE SAFELY, IT WILL NOT BE DONE.

To be successful, such a program must embody the proper attitudes toward injury and illness prevention on the part of both supervisors and employees. It also requires cooperation on all safety and health matters, not only between supervisor and employee, but also between each employee and his fellow workers. Safety is accomplished through effective communication, sincere desire, common sense and support by everyone.

OUR FUTURES ARE ONLY BUILT THROUGH OUR PEOPLE; WE AIM TO PROTECT BOTH.

It is also the policy of AVB CONSTRUCTION to comply with federal, state and local regulations governing construction safety and health in the execution of our program.

In support of these policies, AVB CONSTRUCTION will use its resources to complete our projects with a primary concern for safety and health. We will focus our safety efforts on preventing recognizable hazards, including unsafe acts and unsafe conditions which are the primary causes of accidents, injuries, illnesses, fatalities and property damage.

We will pursue these commitments in the following ways:

- Employee safety and health training
- Regular and frequent safety inspections
- Safety enforcement
- Accident investigations

This manual describes each element of AVB CONSTRUCTION'S construction safety and health program, explaining the methods to be used when implementing the program. All supervisors and employees shall perform their duties in accordance with MIOSHA safety and health codes, standards, and this Safety and Health Manual.

Sincerely,

DocuSigned by:
Andrew Schipper

Andrew Schipper
President
AVB Construction, LLC

AVB Health and Safety Program

The purpose of AVB Construction's Health and Safety Program (HSP) is to assist project management, supervision, subcontractors and workers in understanding AVB's Safe Worksite Environment philosophy and the health and safety expectations and requirements for its projects.

The AVB Construction Project Team is responsible for the implementation and execution of this Health and Safety Program.

Safe Worksite Environment

AVB Construction is committed to a Safe Worksite Environment (SWE). SWE is the shared corporate and individual belief that safety is a value, not compromised by cost or schedule. Everyone has the right to go home safely at the end of the day.

Safe Worksite Environment holds three basic premises:

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

Specific Pandemic and Other Emergent Health Issues Safety Protocols for AVB Commercial Construction Sites

As a result of the Covid-19 virus, in the event of another pandemic concern, AVB Commercial put together site policies to enforce in compliance with State and MIOSHA Requirements, working diligently to reduce exposure and maintain a clean and safe working environment.

Responsibility and Accountability

Everyone associated with this project must understand their responsibilities with regards to health and safety on this project. With the responsibilities defined, project management, supervision, subcontractors and workers will be held accountable for their health and safety performance.

1. **AVB Project Management Team** includes Project Executive, Project Director, Project Manager, Project Engineer, and Safety Director**. First Line Supervision** includes General Superintendents, Superintendents, Field Engineers, General Foremen and Foremen.

Topic	AVB Project Management Team	First Line Supervision	Contractors	AVB Safety Officer Site Visits
AVB Health and Safety Plan	Ensure that all AVB Employees, Subcontractors, Consultants, and Potential Visitors are trained on the AVB Health and Safety Policy. It is the Management's responsibility that all AVB Field staff has the ability to train, implement and enforce the policies.	Make sure the AVB HSP, is fully understood, implemented and enforced throughout all personnel on the jobsite.	Understand the AVB HSP, follow the implemented rules, policies, and procedures.	Make periodic jobsite visits to assist the AVB Project & Field Team with the training and implementation on the jobsite. Ensure all training / safety logs are current.
Daily Work Practices	Ensure in post-bid interviews that safe work practices will be used on site daily, and that the contractors are bound to this contractually.	All contractor tasks are planned out at progress meetings, and to monitor work practices and enforce all AVB HSP regulations.	Follow all pre-planned tasks and follow all safe work practices.	Double check that the whole project is compliant with the AVB HSP as well as OSHA, MIOSHA, and local governing authorities.
AVB Site Specific Safety Policies	Assist in the Site-Specific Safety policies prior to the start of Construction. Make sure AVB field staff is educated, and has the ability to train contractors.	Train, Implement, enforce, and schedule within AVB HSP guidelines.	Understand, follow, and execute the work according to AVB HSP guidelines.	Monitor that safe work practices are being executed, and consult on any safety questions.

(Cont'd)

Topic	AVB Project Management Team	First Line Supervision	Contractors	AVB Safety Officer Site Visits
AVB & Contractor Job Orientation Training	Ensure the Safety Training resources are provided to Field Staff, and ensure the AVB Field Staff is trained and able to provide Orientation to the contractors.	Provide Contractors with Job Orientation as well as Site-Specific training. Communicate all scheduling, contractor moves & tasks to all in Progress Meetings.	Attend Job Orientation, Sign Orientation Acknowledgement Paperwork once material is given and understood.	Assist & Consult entire AVB Project team on the development and administration of the Orientation. Spot-check that all employees are current with training.
Safety Planning	Ensure safe practice history upon selection of contractors. Include AVB field staff in post-bid interviews to establish safe work expectations.	Communicate all potential hazards and jobsite changes throughout the entire site.	Understand the potential hazards of the job, and follow all procedures established in post-bid discussions.	Participate in safety planning.
Incidents / Violations	Review all incident / violation reports done by Field Staff. Review with all parties, and authorize any repercussions that may occur.	Conduct a thorough and formal investigation, document following AVB HSP guidelines. Provide all materials to AVB & Contractor Management. Enforce using AVB disciplinary process.	Fully cooperate and provide any and all information requested by the AVB investigation staff.	Participate in all investigations, assist in filling out all materials, and review with AVB and Contractor Management.

Safety Regulations

AVB Construction and subcontractors shall comply with all applicable government regulations, specific client rules and regulations, and this Safety and Health Program. If any of these standards, requirements, rules or procedures conflict, the most stringent will prevail.

Notification of Unsafe or Hazardous Conditions

Each worker on this project has the right and responsibility to notify project management or supervision of any unsafe or hazardous condition that may be present without fear of retribution.

Project management or supervision will take immediate action to correct or remove any hazard brought to their attention.

AVB Construction incorporates a Safety Deviation Ticket System (Appendix K), which institutes monetary penalties to subcontractors for those at-risk behaviors that are deemed unsafe. The decision to impose a monetary penalty fine rests solely on the AVB Construction representative who believes that the particular at-risk behavior observed deserves a fine attached to it. The amount of the deviation ticket depends on the severity or potential severity of the at-risk behavior not only to the subcontractor's own workers but also to all individuals that may be put at risk by the at-risk behavior due to the offending subcontractor's non-compliance. All monetary deviations that are not satisfactorily rectified as described in the remediation section of the deviation ticket will result in a back charge to the offending subcontractor and will come out of the following month's requisition.

Workplace Violence

All persons are expected to refrain from fighting, "horseplay" or other conduct that may be dangerous to others. Conduct that threatens, intimidates, or coerces another employee, customer, vendor, or business associate will not be tolerated. Actions against this policy will be thoroughly investigated and appropriate action will be taken, including expulsion from the work environment, and involving law enforcement authorities when warranted.

Disciplinary Program

At-risk behavior on a project that could contribute to an incident or injury will not be tolerated. Each worker has an individual responsibility to work safely, and each first-line supervisor is responsible to correct at-risk behavior of workers under their direction.

At-risk behaviors considered 'Immediately Dangerous to Life or Health' may result in immediate termination from the project, and include, but are not limited to:

1. Failure to follow the Fall Protection Policy
2. Failure to follow the Substance Abuse Policy
3. Illegal possession of firearms, explosives or dangerous weapons
4. Theft and other criminal activity
5. Failure to follow lockout/tagout procedures
6. Fighting, horseplay, or practical joking
7. Entering or allowing to enter, a confined space without following procedures
8. Entering or allowing to enter an unprotected trench or excavation without following procedures
9. Unsafe and/or reckless operation of motorized vehicles or equipment

For those acts or practices not considered 'Immediately Dangerous to Life or Health' the following will apply:

1. First occurrence: Verbal, written warning, and/or re-training
2. Second occurrence: Written warning, re-training, suspension, or termination from the project
3. Third occurrence: Termination from the project

Incident Reporting and Investigation

Every incident will be reported immediately to AVB Construction and documented using the **AVB Jobsite Incident Report** (Appendix C). The AVB Construction Project Team will contact their representative immediately and use the online reporting system to initiate the formal notification process before the end of the day. The AVB Construction Project Team will notify the AVB Construction Environmental Health and Safety Department of any incident and will thoroughly investigate to determine the probable root cause(s). Preventive action will be required to eliminate future occurrences.

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

AVB Construction first-line supervisor and/or Subcontractor will be involved in the investigation of incidents. The **Jobsite Incident Report** must be completed and submitted to the AVB Construction Project Safety Responsibility Team within 24 hours of the occurrence. Injured workers shall be accompanied to the medical facility by a supervisor.

Post Incident Review Meeting

Upon completion of the incident investigation or observation of a major nonconformance, AVB Construction may require a post incident review meeting. At this meeting, the AVB Construction project team and AVB Construction senior project management, supervision, and involved subcontractor(s) will discuss the nonconformance, root causes, and corrective action plans.

Daily Work Site Safety Inspection

AVB Construction and subcontractors will perform daily work site safety inspections of their work and the work of subcontractors under their direction. Inspections can be documented on the **Daily Jobsite Safety Inspection Report** (Appendix H) or an acceptable equivalent.

Substance Abuse Policy

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

Drug, alcohol and marijuana 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. All work tasks on AVB Construction projects will be considered safety-sensitive.

The following are prohibited on AVB Construction projects:

1. Being under the influence of any amount of alcohol, marijuana or illegal drugs
2. The use, sale, offer to sell, purchase, transfer, distribution or possession of illegal drugs, drug paraphernalia, marijuana or alcohol products.
3. Operating while using prescription drugs whose side-effects may include impairment.
4. Any transactions involving prescription drugs.

Each subcontractor will promote a Drug Free Workplace with their employees and will communicate what constitutes prohibited activities during the safety orientation.

Any worker who suffers or contributes to a work-related injury or illness which requires treatment by a physician or other medical facility or is involved in an incident where damage to property occurs may be tested for drugs and alcohol within three (3) hours of the incident.

Subcontractors will ensure all workers involved in an incident have a post incident drug/alcohol test and will report the results to AVB Construction. At a minimum, the drug test will follow current National Institute on Drug Abuse (NIDA) five panel guidelines and the alcohol test will follow Department of Transportation (DOT) guidelines.

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.

Safety Planning

Site Specific Project Health and Safety Plan

The project's Project Manager, Superintendent and Safety Director shall meet following project award to discuss the development of the AVB Construction Project Execution Plan (PEP) and shall ensure the following is included:

1. Development of Site Specific HSP
2. Safety Staffing
3. Administration of Safety Deviation Ticket program (Appendix K)
4. Management of man-hour and incident reporting system
5. Identification and management of Hazardous Materials
6. Emergency Action Plan (medical treatment provider, confined space rescue needs, etc)
7. HSP Training needs (OSHA 10/30, HAZWOPER, 1st Aid/CPR/AED, task specific or specialty training, etc)
8. Safety-Awareness program
9. Security/site access control
10. Sanitation provisions
11. Unique logistics that will impact safety

Subcontractor Project Specific Safety Plan

Prior to mobilization, each subcontractor's project management and first-line Supervisors will attend a site-specific meeting that will describe how they and their sub-tier subcontractors intend to implement and conform to the project HSP. The safety plan will:

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

The AVB Construction project team will review the subcontractor project specific safety plans.

If the project specific safety plan needs revision due to changes in scope of work, unanticipated or new hazards, other condition changes, etc., then all work pertaining to that work component will cease until a new project specific safety plan is completed.

Orientation, Training and Meetings

To promote and ensure a Safe Work Environment, health and safety training is a requirement for all AVB Construction and subcontractor workers assigned to this project.

1. Foreman Orientation: All foremen are recommended to mobilize to the site prior to their crew so they can receive specific training and review the permits, forms, and procedures required by the HSP as well as project specific information necessary to adequately coordinate their work and prepare their crews.
2. Employee New Hire Orientation: Every worker shall attend an environmental, health, and safety orientation conducted by AVB Construction, which will provide general health and safety information and project specific work rules and procedures.
3. Daily and Weekly Safety Meetings: All workers assigned to this project will participate in safety meetings conducted by AVB Construction or their employer. AVB Construction reserves the right to remove subcontractor management/supervision personnel who do not regularly attend and/or conduct weekly safety meetings on the project. Safety meetings should communicate any incidents that occur on the project, safety concerns, new work activities, and new and continuing potential hazards.
4. Health and Safety Training: In addition to the site-specific health and safety orientation, OSHA requires that workers receive specific task training. To help comply with OSHA minimum worker training requirements and assist in achieving a SWE, a training matrix has been included in this Health and Safety Program to assist in the identification of applicable training requirements. This is for reference only and shall not be considered all-inclusive.

AVB Construction may evaluate orientations and training periodically to verify they are being properly conducted and that the contents adequately cover the standards, policies, rules, and procedures contained in the Health and Safety Program or OSHA standards.

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

Specific Task Training Matrix

Topic	Who Needs Training	What Training is Needed
Project and/ or Site-Specific Safety Orientation	All project management, supervision, and workers entering the project	☐ Safety rules and procedures contained in the Health and Safety Program (HSP), site-specific emergency action plan, each worker’s responsibilities, and disciplinary program
Hazard Communication	All workers entering the project	☐ Hazard Communication Basic Training (Refer to Hazard Communication Program in this HSP)
Hazardous Chemical or Substance	Workers exposed to a hazardous chemical or substance	☐ Specific Hazard Communication Training (Refer to Hazard Communication Program in this HSP)
Respiratory Protection	Workers required to wear respiratory protection, including common dust masks	☐ OSHA 29 CFR 1910.134 & 139 or 1926.103
Fall Protection	Any worker who might be exposed to a fall hazard	☐ The nature of fall hazards ☐ Procedures for erecting, disassembling, maintaining and inspecting fall protection systems ☐ Use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, controlled access zones and other fall protection ☐ Procedures for handling equipment and erection of overhead protection ☐ Fall protection standards
PPE	Workers using PPE	☐ Refer to section on PPE or regulatory standards
Forklifts	Operators of powered industrial trucks	☐ Types of trucks operated ☐ Hazards of the workplace ☐ Hands-on performance evaluation
Confined Spaces	Any worker attending to, supervising, entering or working within a confined space	☐ Hazards of the space ☐ Duties of entrants, attendants, supervisors ☐ Air monitoring
Permit-Required Confined Spaces	Any worker attending to, supervising, entering or working within a permit-required confined space	☐ Hazards of the space ☐ Duties of entrants, attendants, supervisors ☐ Measures used to eliminate or control hazards ☐ Air monitoring requirements ☐ Emergency procedures/rescue equipment ☐ Communications ☐ Permitting procedure ☐ PPE
Excavations/ Trenches	Workers entering or working within an excavation/trench	☐ Hazards of the space (slides, cave-ins, water accumulation, etc.) ☐ Safe means of access/egress ☐ Proper support system procedures (erection, maintenance, disassembly and inspection)
Lockout/Tagout	Workers affected by hazardous energy sources	☐ Nature of known hazardous energy sources ☐ Project-specific Lockout/Tagout procedures

Gas Welding & Cutting	Workers conducting gas welding and/or cutting	☐ The safe use of fuel gas
Arc Welding & Cutting	Workers conducting arc welding and/ or cutting	☐ Operations around water ☐ Shielding arc welding
Hot Work	Workers conducting hot work activities	☐ Hazards of the area ☐ Permits ☐ Duties of Fire Watch ☐ How to use a fire extinguisher
Scaffolding	Workers working from scaffolding	☐ The nature of any known hazards ☐ Proper erection, maintenance and disassembly of fall protection systems ☐ Falling object protection ☐ Material/equipment handling from scaffold ☐ Maximum load-carrying capacity ☐ Scaffold tagging system ☐ Access and egress
Crane Baskets	Workers working from crane baskets	☐ Safe work rules ☐ 100% fall protection ☐ Lift plans contents ☐ Emergency procedures

Project Specific Safety Work Requirements

The project specific safe work requirements are the minimum requirements for this project. The purpose of these requirements is to ensure an Injury Free Environment and compliance with standards and regulations.

Asbestos Containing Material (ACM)

Before beginning any renovation or demolition work, an asbestos survey must be completed for the work area. The survey must be performed by an accredited building inspector and the report must be shared with all personnel on site, including subcontractors. A copy of the report must remain on site for reference.

All asbestos must be identified prior to the disturbance of any materials. Materials not sampled shall be assumed to be asbestos-containing until proven otherwise. If additional suspect materials are identified during the project, all work must stop immediately and the materials must be sampled for asbestos.

Only a licensed contractor will remove, repair, or clean up asbestos-containing materials.

Precautions must be taken to avoid the disturbance of asbestos-containing materials. However, if known or suspect ACM is disturbed during the performance of work, the following procedure will be followed:

1. Work in area shall immediately stop
2. Warn other workers nearby of the disturbed or damaged material
3. Contact your immediate supervisor
4. Barricade the immediate area around the disturbed or damaged material
5. Do not enter the barricaded area until proper bulk and/or air sampling has been completed and the area is deemed safe by AVB Construction or subcontractor

Asbestos awareness training may be required, depending on the level of potential exposure.

Caissons

When a worker(s) must enter a caisson, a qualified person will develop a detailed work plan. The plan will include but not be limited to:

1. Type of shield to be used
2. Means of access for the worker(s)
3. Method of atmosphere monitoring to be used
4. Training to be provided to worker(s)

When workers are required to enter a caisson four (4) feet in depth or greater, the workspace will be considered a “permit-required” confined space. All requirements of the confined space section of this HSP, MIOSHA Part 90 – Confined Space Entry, and OSHA 29 CFR 1910.146 will be strictly followed.

All workers required to enter a caisson will receive confined space entry training and understand the contents of the written work plan.

Guardrails must be erected around the caisson opening(s) when the sleeve does not extend 42-inches above ground level.

Concrete Construction

All vertical and horizontal rebar, form stakes, metal conduit are to be protected with approved caps or other industry accepted alternatives to protect against impalement and injury.

Workers that operate vibrators, pump nozzles and concrete buckets will wear appropriate eye and foot protection. It is highly recommended that long sleeve shirts be worn to protect against exposure of concrete to the bare skin and the possibility of concrete burn and contact dermatitis.

Workers engaged in vertical rebar assembly shall comply with the project six-foot fall protection rules. Positioning devices alone are not approved fall protection but can be used in conjunction with personal fall protection equipment.

Walkways along form walls will be constructed in accordance with MIOSHA Part 45 Fall Protection and Part 12 – Scaffolds and Scaffold Platforms.

Pre-fabricated forms and form making material will be stacked neatly at all times. When stripping concrete forms, all material will be immediately removed and stacked in an orderly manner. Forming material or debris will not block walkways and aisles. Subcontractor will remove rebar, tie-wire and other debris from the work area daily.

No employee is permitted to ride a concrete bucket.

Ensure that reinforcing steel and forms for walls, piers, columns, stairs and similar vertical structures are adequately supported to prevent overturning and collapse and are designed and installed under the supervision of a qualified person.

Ensure that coiled wire mesh is adequately secured to prevent uncoiling.

Equip buckets with a discharge device that an employee can operate without being exposed to the load. Equip buckets with safety devices to prevent premature or accidental dumping, and ensure that the release is self-closing.

Follow safe rigging practices when handling concrete buckets.

When using bull floats, inspect the area to ensure there is no energized equipment or power lines nearby that the handles could touch.

Concrete buggy handles must not extend beyond the wheels on either side of the buggy.

Rotating-type, powered concrete trowels shall be equipped with dead-man controls that automatically shut down the equipment when the operator's hands are removed from the controls.

Finishers shall wear kneepads and impervious gloves when hand-finishing concrete.

Confined Spaces

Before any work can begin in a confined space, a detailed Confined Space Entry Permit (Appendix E or equivalent) and written entry plan must be prepared and submitted to AVB Construction. This process will help determine whether the space is a “Non-Permit Required” confined space or a “Permit Required” confined space. All confined spaces shall be considered “Permit Required” unless the contractor can prove otherwise. Refer to MIOSHA Part 90 – Confined Space Entry, OSHA 29 CFR 1910.146 for further direction.

A confined space is any space large enough and so configured that a person can bodily enter and perform work; has limited openings for entry and exit; and was not designed for continuous human occupancy. This may also be referred to as a “Non-Permit Required” Confined Space.

A “Permit Required” space meets the above criteria *and* has a potentially uncontrollable hazard. “Permit Required” confined spaces may include, but are not limited to:

1. Storage tanks
2. Excavations and trenches
3. Ventilation and exhaust ducts
4. Sewers
5. Manholes
6. Underground vaults and utility tunnels
7. Pipelines
8. Pits and tubs
9. Open top spaces more than four feet in depth

If possible, all confined spaces should be identified and evaluated at the beginning of the project.

Before working in any confined space, a competent person will determine what hazards exist. Any operating system or equipment will be locked out and tagged to prevent accidental operation. Contact the operating facility representative prior to any confined space entry work.

Prior to workers entering a “Permit Required” confined space, the atmosphere must be tested and a permit completed and authorized. The atmosphere will be tested for oxygen deficiency, toxic gases or vapors, and combustible or flammable gases or vapors according to the hazard analysis and/or information provided by the client.

Prior to any worker entering a confined space, he/she will be trained in the following and records submitted to AVB Construction prior to commencement of the work:

1. Contents of the Confined Space Entry Plan
2. Known hazards in the confined space
3. Emergency procedures
4. Correct use of personal protective equipment when required
5. Hot Work Permit, if required
6. Atmosphere testing requirements
7. Lockout/ Tagout procedures
8. Fall protection, if required

Cranes and Cribbing

Below are several definitions of verbiage that may be used throughout this section.

Term	Definition
NCCCO	National Commission for the Certification of Crane Operations
Qualified Operator	An operator certified as qualified by a nationally recognized certification authority, or having verified and demonstrated knowledge gained through practical experience.
CCO	A crane operation having been certified by the NCCCO
Qualified Rigger	A rigger certified as qualified by a nationally recognized certification authority, or having verified and demonstrated knowledge gained though practical experience.
Qualified Signalman	A signalman certified as qualified by training and having verified and demonstrated knowledge.
Crane Inspector	A full-time AVB Construction employee having completed a recognized inspector certification, and demonstrated all the requisite knowledge to certify a crane is ready to operate.
Third Party Inspector	A crane inspector as certified by a nationally recognized certification authority and having a resume of demonstrated skills. This inspector cannot have any affiliation with the owner of the crane, sub- contractors, AVB Construction~~,~~ or other parties or organization working on the project.
Pre Installation Inspection	A documented inventory and visual integrity inspection of all crane parts prior to a site built crane being assembled.
Post Installation Inspection	A documented annual and/or monthly inspection of all installed crane parts after crane is assembled or delivered to the job site.
Rigging Plan	A documented plan detailing types of rigging to be used (slings, chains, links, hooks, spreader bars etc.) and their methods of use to wit; vertical, basket, or choker
PIC	Person in charge
Helper or Assist Crane	A crane used to erect another crane
Competent Person	A competent person as defined by OSHA [29CFR 1926.32 (f)] 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, and who has authorization to take prompt corrective measures to eliminated them.
Sequence of Lifts	A documented prescribed sequence of crane movements and lifts specific to the erection sequence of the project.
Crane Prepped Roadway	An adequate access road providing ingress and egress to the project site for the safe delivery and movements of derricks, cranes, trucks, and other necessary equipment to be erected. The ingress/egress must provide a means and method to provide safe

	vehicular and pedestrian access. The roadway must be stable, properly graded, and provide adequate drainage.
Critical Lift	A lift that (1) exceeds 85 percent of the rated capacity of the crane or derrick, or (2) requires the use of more than one crane or derrick.
Major Lift	Any lift that is unique and would significantly affect job schedule or budge is a major lift. (A lift may be both critical and major)
Crane Pad	A prepared level area for a crane, which can be concrete, stable soil, crushed rock or a combination thereof which will support the crane and it's intended load with a safety factor of 5 to 1 built in.

Pre-Erection Requirements

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

For mobile cranes, outrigger size and location and soil condition must be considered when planning. Soil bearing capacity is to be determined by a professional engineer and outrigger sizing established prior to the crane arriving on site.

Tower crane foundations must be a designed system, certified by a professional engineer, taking all loads and soil conditions into consideration.

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

1. The date the proposed construction is proposed to begin
2. The date the application for a construction permit is to be filed

The FAA requires that 4 copies of the FAA Form 7460-1 be sent to the local/regional FAA Director. In addition to the FAA, other local statutes may require additional notification.

Prior to the assembly/erection of any crane it must be determined if any part of the crane, load line, or load (including rigging and lifting accessories) could get in the direction or area of assembly within proximity of a power line. Minimum clearance distances are on the following table. In the event this clearance must be encroached, the line will be de-energized prior to the planned encroachment.

Minimum Clearance Distances

Voltage (nominal kV, alternating current)	Minimum clearance distance (feet)
Up to 50	10
Over 50 to 200	15
Over 200 to 350	20
Over 350 to 500	25
Over 500 to 750	35
Over 750 to 1000	45
Over 1000	(as established by the power line owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution)

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

Post-Erection Procedures and Requirements

On-going comprehensive inspections are a critical component that ensures the on-going safe operation of all cranes. Such inspections include:

4. Daily Inspections will be accomplished for all cranes on AVB Construction projects. At a minimum, any deficiencies identified during the daily inspection will be documented. Daily inspections may be accomplished by a Qualified Operator.
5. Monthly Inspections will be accomplished for all cranes on AVB Construction projects that reside on the project for greater than 30 calendar days, regardless of operating days during that period. The monthly inspection forms are required to be completed and maintained in the cab of the equipment. Monthly forms will be retained for a minimum of 3 months, as some local agencies may require them to be retained longer. Monthly inspections may be accomplished by a 1) Qualified Operator, 2) AVB Construction Crane Inspector, or 3) Third Party Inspector.
6. Annual Inspections will be accomplished for all cranes on AVB Construction projects that reside on that project for greater than 365 calendar days, regardless of operating days during that period. The annual inspection forms are required to be completed and maintained in the cab of the equipment. Annual inspections must be accomplished by either a AVB Construction Crane Inspector or a Third-Party Inspector.

Operator, Rigger, and Signalman Qualifications.

The intent of this standard is to require all crane operators on AVB Construction projects to be a certified crane operator (CCO), and possess all of the requisite skills to safely operate the applicable equipment. Prior to any lifts the operator’s competency shall be verified by AVB Construction site management.
This certification however does not ensure that an operator is capable of safely operating a particular piece of equipment. The following guidelines will be followed to ensure operators are fully qualified to safely operate the applicable equipment for the project:

1. Review and inspect Certification Card for types of cranes the operator is certified to operate.
2. AVB Construction site staff will verify that the operator is competent to operate the applicable crane.
3. Upon determining that the potential operator is qualified, personal training will be given to the operator that may include the following:
    a. Site specific requirements
    b. Review of specific sections of the Company Safety Manual such as safe material handling practices
    c. Equipment maintenance and periodic equipment check requirements

Riggers and signalman shall be certified and/or qualified as outlined in the “*Definitions/ Descriptions*” Section below.

These guidelines do not overrule any local, state or federal requirements. In the event of conflict the more stringent standard shall prevail.

Critical and Major Lift Determination and Procedures

The decision to **designate a lift as a critical lift** is a management decision, incorporating both critical and major lifts (see definition of critical and major lifts in Section 200). Guidelines provided here are intended to aid in making that decision. The manager who has the responsibility for the item being lifted has the authority to require that it be handled as a critical lift. In addition, the manager at the facility where the lift will be performed also has the authority to require that it be handled as a critical lift. The manager who designated the lift as a critical lift shall ensure that a person-in-charge (PIC) is assigned. (The PIC need not be in the AVB Construction organization).

The PIC shall ensure that a **step-by-step procedure is prepared for critical lifts**. Although individual procedures are prepared for the one-time critical lifts, general procedures may be employed to accomplish routine recurrent crucial lifts. For example, a general procedure may be used to lift an item or series of similar items that are frequently lifted or repeatedly handled in the same manner.

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

1. The load item, if damaged or upset, would result in a release into the environment of radioactive or hazardous material exceeding the established permissible environmental limits.
2. The load item is unique and, if damaged, would be irreplaceable or not repairable and is vital to a system, facility or project operation.
3. The cost to replace or repair the load item, or the delay in operations of having the load damaged, would have a negative impact on the facility, organization, or budget to the extent that it would affect program commitments.
4. A lift not meeting the above criteria shall also be designated critical if mishandling or dropping of the load would cause any of the above noted consequences to nearby installations or facilities.

Further site-specific criteria may be developed to supplement those cited above and may include loads which require exceptional care in handling because of size, weight, close-tolerance installation or high susceptibility to damage as well as lifts using multiple pieces of lifting equipment.

Before the critical lift is performed, **a pre-lift meeting** with all participating personnel (responsible contractor, the crane operator(s), the PIC, AVB Construction Site Management, author of the Lift Plan, Manager of the lift operation, and AVB Construction Project Safety & Responsibility Team) shall be held. During the meeting, the critical lift procedures shall be reviewed and questions shall be resolved. The pre-lift meeting shall be documented.

Any **revisions to the procedure** shall be reviewed and approved though the same cycle as the original procedure. Pre-Lift Meeting

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

Lift and Pre-Task Planning

Prior to any lifts a lift plan (*see Crane Definitions/ Descriptions Section below*) should be in place. The final lift plan should fully incorporate the current site conditions, including utility locations and any possible intersections with public access areas.

A daily pre-task plan must be accomplished prior to any lift for that particular day to ensure that no deviations from the lift plan exist.

Safety Plan and Job Hazard Analysis

All incidents involving crane operations (i.e., unsafe observation, near miss, etc.) must be reported immediately to AVB Construction site staff, including the site health and safety manager. AVB Construction will collaborate with other contractors if appropriate and develop a corrective action in response to the cause of the incident prior to resuming crane operations.

Accessible areas within the swing radius or the rotating superstructure must be barricaded to prevent serious injury or death to workers. Crane baskets are not permitted without the prior approval of site management and AVB Construction PSRT personnel.

In addition, the following guidelines for **mobile cranes** should be adhered to:

1. Ensure the crane is level 360-degrees and maintained during operation.
2. Extend outriggers fully or set per the manufacturer's recommendation for a particular lift configuration.
3. Weight must be off the tires.
4. Cribbing or mats under outrigger pads should be of sufficient size and properly placed to ensure adequate soil bearing as required by the manufacturer.
5. Before a lift, determine the load weight, radius, and load capacity. Crane capacity charts are the ideal gross capacity of the crane at certain boom lengths, boom angles, and load radius from the crane center pin.
    a. Deductions to the net capacity should be made per manufacturer's load chart or operating manual for attachments such as jibs (stowed or attached), headache balls, wind, less than ideal setups, etc. to determine the load that can be safely lifted.
    b. Additional deductions to the net capacity are the weight of the crane's load block, rigging and amount of load line required to make the lift. Some manufacturers include the load line in their load charts but others, do not.

6. A designated, qualified person will determine the load weight. Note: OEM drawings listing the equipment or machinery assemblies are not always accurate. Refer to the shipping weight or have the equipment or machinery assembly weighed. Calculate all structural loads and determine the center of gravity.
7. Determine the radius from the center pin of the crane to the load using a steel ruler.
8. Determine the boom length, counterweight, and crane configuration to determine the correct load chart required.
9. Position the hook over the "Center of Gravity" of the load before starting the lift.

The following guidelines for **__tower cranes__** should be adhered to:

1. No employee will work or travel on any part of the crane boom without proper fall arrest equipment. No worker will be allowed to climb the tower or get on the boom when the crane is in operation
2. Hoisting ropes must be shortened by the removal of ten feet at the dead end after every three months of use unless otherwise specified by the manufacturer.
3. No load will be swung over any public street that is occupied by the general public unless authorized by local authorities.
4. Prior to a load being swung over other workers, the first-line supervisor using the crane will provide a lookout that shall sound an alarm as the load is moved across the work area. The lookout shall wear a fluorescent orange vest or other similar high-visibility garment.
5. A written crane dismantling plan is required for dismantling of any crane.

As well as the above safety requirements, the requirements of MIOSHA Part 10 – Lifting and Digging Equipment or OSHA standards 29 CFR 1926.550 shall be complied with as well.

Management Systems

Every crane operating on an AVB Construction project must have the following documentation in the cab of the crane available for review.

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

Crane Definitions/Descriptions

This standard applies to power-operated equipment used on AVB Construction projects that can hoist, lower, and horizontally move a suspended load. The list below is intended to offer a framework of the variety of cranes seen on projects across the United States and to provide guidance of the applied scope of this standard.

1. **Telescopic Crane** – This crane has a boom that consists of number of different fitted tubes that reside inside each other. A hydraulic mechanism is what extends or retracts the tubes to increase or decrease the length of the main boom.
2. **Tower Crane** – This crane is fixed to the ground and gives a great combination of height and lifting capacity. It is commonly used in construction to build sky scrapers and other tall buildings. To save space and to provide stability the vertical part of the crane is typically braced directly onto the completed building which is normally the concrete lift shaft located in the center.
3. **Truck Mounted Crane** – A crane that is mounted on a rubber tire truck that drives around for maximum portability. When in operation Outriggers extend horizontally then vertically to both level and stabilize the crane for hoisting operations.
4. **Rough Terrain Crane** – A crane that is mounted on an undercarriage contains four rubber tires and is designed for pick-up and carry operations. Outriggers extend first horizontally and then vertically to both level and stabilize the crane for hoisting operations.
5. **Lattice Boom Crane** – A crane that can be mounted on an undercarriage with tires or tracks. The lattice boom section consists of the boom butt and boom tip. The length of which is increased by adding boom extensions. Boom sections are made of lightweight, thin wall, high strength alloy tubular or angle steel and are designed to take compression loads. Lattice boom manufacturers have set a zero tolerance on rust, bent lacing or cords, cracked welds, and other problems.
6. **Pile Driver Crane** – A crane used in combination with a machine for delivering repeated blows to the top of a pile for driving it into the ground; consists of a frame called "leads", which supports and guides a hammer weight, together with a mechanism for raising and dropping the hammer or for driving the hammer by air for steam.

7. **Barge Crane/ Floating Crane** – A specialized crane which can be permanently attached to a ship, or driven up and secured on a floating barge. It's used to lift heavy loads in marine type environments.
8. **Crawler Crane** – An undercarriage mounted crane that also has a set of tracks that provide extra stability and mobility.
9. **Loader Crane** – A loader crane is fitted to a trailer or flat body truck chassis and used to unload/load goods onto the trailer/truck or onto a jobsite. It contains many different jointed sections that can be folded into a smaller space when the crane is not being used.

Demolition

Prior to the start of any demolition work, the subcontractor must ensure a competent person has performed an engineering survey of the building or area to be demolished to determine the condition and location of utilities, whether hazardous materials (such as asbestos, lead, and mercury) exist, means and methods of performing the work, sequencing, etc. No work will commence until a written engineering survey has been completed and has been submitted to and reviewed by AVB Construction.

Debris and material shall not be dropped through walls, floor holes, windows or other elevated work areas without the area below being barricaded and properly signed. Under no circumstances shall materials be dropped more than 20 feet without using a chute.

Debris chutes shall have a substantial gate at all elevated openings.

See Appendix J or its equivalent for Pre-demolition guidelines.

Electrical

No work will be performed on any energized electrical circuit, bussbars, equipment, or *panels* unless an approved written work plan is developed in accordance with Chapter 1 of NFPA 70E and submitted to AVB Construction for review prior to performance of work.

Electrical equipment and tools used on this project shall be inspected by a competent person to prevent any worker from receiving an accidental electrical shock. This rule will apply to all cord sets, portable electrical equipment, tools and appliances not part of any permanent building or structural electrical systems.

All temporary cords will be three wire, 16 gauge or heavier, with a hard or extra hard duty rating.

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

Each worker, after plugging in his/her tool and /or extension cord, shall test and reset the GFCI device being used to ensure it is working properly with each use. If the GFCI device is not functioning properly he/she will repeat the process until a properly working GFCI device is found. He/She will report the defective GFCI device to his/her supervisor.

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

Each cord set, attachment cap, plug, and receptacle of cord sets, portable electrical equipment, tools or appliances connected by a cord and plug, **will be visually inspected daily** by workers for external damage, such as deformed or missing ground pins, insulation damage, frayed wires or indications of possible internal damage. Cord sets and receptacles that are fixed to the permanent electrical system and are not exposed or damaged are exempt from daily inspections.

Any electrical equipment, tool, appliance or cord set that is damaged or defective will be immediately removed from service and tagged out as defective equipment for repair. A qualified electrician will repair tagged electrical items.

Additional Rules:

1. All cord sets will be elevated above the work surface when practical.

2. Wire, nails, or other conductive material will not be used to hang or attach cord sets or welding leads.
3. Cord sets that cross roadways will be protected from damage by vehicle and equipment traffic by devices
4. Light stringers and halogen lamps will have the lamps protected from accidental contact or breakage and will be hung per manufacturer specifications.
5. UL approved covers are required on all panels, load centers, pull boxes, etc. prior to energizing. Necessary steps will be taken to prevent unauthorized or unqualified workers access to energized electrical parts or equipment.

Equipment and Vehicles

Heavy equipment (cranes, forklifts, dump trucks, excavators/back hoes, man-lifts, etc.) used on this project will be inspected prior to use and comply with applicable MIOSHA, OSHA and ANSI standards, which will be documented.

Forklifts will be equipped with rollover devices.

Equipment that is equipped with a windshield will be free of cracks or other visible damage.

Seatbelts are required to be worn at all times when provided in moving equipment.

Only company and/or delivery vehicles used for the sole purpose of conducting work tasks on-site are permitted in construction areas. Construction vehicles one-ton or greater and equipment used on-site must have an audible backup alarm. The driver and all passengers in any vehicle will wear seat belts.

No equipment or vehicle will be used to transport personnel unless it is specifically designed to do so, including beds of pick-up trucks.

Equipment operators are responsible to check their equipment daily to verify it is working properly.

As a minimum, each operator will check:

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

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

Excavation and Trenching

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

1. AVB Construction shall request locations for existing underground private utilities from the owner.
2. Subcontractors shall notify public utility locating authorities.
3. The subcontractor will identify the competent person and submit qualifications for review and approval by AVB Construction.
4. The competent person will analyze the soil of the work area to determine the condition and type of soil to ascertain proper sloping or shoring requirements.

During excavation or trenching operations on this project, the following requirements will be followed:

1. Fall protection shall be provided for excavations where there is a fall exposure of six feet or more in depth.
2. Caution tape or other warning systems shall be used when appropriate around excavations that present a safety hazard.

3. Trenches or excavations will be sloped or benched in accordance with local rules and regulations, and as determined by the competent person.
4. Supporting systems (i.e., shoring, piling, trench boxes, etc.) will be utilized for all trenches and excavations where sloping or benching could not be performed.
5. Spoil piles and all other material will be placed a minimum of two feet from the edges of all trenches or excavations, regardless of depth of trench or excavation.
6. When underground utilities are suspected, they will be located first by hand digging or use of a vacuum truck.
7. Adequate access must be maintained at all times during trenching or excavating activities. Access points will be placed such that no worker travels more than 25 feet in any direction.
8. The competent person will inspect excavations and trenches at the beginning of each day before work begins and when conditions change.
9. Excavations and trenches four feet or greater in depth will be evaluated for atmospheric hazards to determine whether permit required confined space requirements apply.
10. A registered professional engineer must design all excavation over 20-feet in depth.

Fall Prevention/Protection

This project is committed to the philosophy of 100% continuous fall protection whenever workers are exposed to fall hazards of six feet (6') or greater (except when working safely from approved ladders)**. <u>A monitor system is NOT an acceptable form of fall protection on any AVB Construction Project.</u> In the event any deviation from this fall protection procedure is required, the activity must be approved in writing by the AVB Superintendent.**

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

Acceptable fall protection systems include the following:

1. Guardrail systems
2. Safety netting
3. Covers for floor, roof and wall openings
4. Positioning device systems
5. Protection from falling objects
6. Personal fall arrest systems
7. With specialty contractors, where allowed, follow trade-specific systems in compliance with MIOSHA regulations

Workers exposed to fall hazards that cannot be eliminated will be equipped, trained and given periodic refresher training in fall protection to minimize the adverse effects of accidental falls. Fall protection training records shall be maintained on the project and available for review by AVB Construction.

On this project, 100% Fall Protection means PROTECTED FROM FALLS 100% OF THE TIME when working at or above six feet. This is MANDATORY FOR ALL TRADES.

Workers may work from ladders without personal fall protection when the following criteria are met with no exception:

1. Work can be performed without reaching (worker remains inside the area between the vertical side rails).
2. Work does not involve working within 15 feet or above an open side, leading edge, or shaft, even if the edge has a proper guardrail.

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

Workers will not tie off to a perimeter cable or wire rope handrail unless engineered for such use.

When wire rope is used to construct guardrail systems, at least 1/4” diameter cable shall be used with cable clamps as required by wire rope manufacturers.

Subcontractors will submit all engineered documentation on horizontal lifelines to AVB Construction for review and approval. All horizontal lifelines will be installed under the direct supervision of a qualified person.

The use of personal fall arrest systems requires a Rescue Plan for each condition.

Lanyards will not be tied back to themselves unless the lanyard is specifically manufactured to tie back to itself.

Any contractor that must remove a fall protection system in the course of their work will be responsible for immediately replacing and restoring the protective system.

Floor openings two inches or greater in the least dimension and all wall openings will be guarded or covered with an appropriate cover or guardrail. Floor covers will be secured to the floor to prevent easy removal. The floor or wall cover will be properly marked with a Danger sign stating, "**Cover-Do Not Remove**." Elevated work must have protection from falling objects if work is permitted below.

Fire Protection/Prevention

Fire Protection

Temporary fire protection measures such as fire extinguishers, temporary hose lines, and temporary standpipes are required during construction. The Project Team shall develop a Fire Protection Plan in accordance with MIOSHA Part 18 – Fire Protection and Prevention.

Fire extinguishers will be:

1. Conspicuously located
2. Certified annually and inspected monthly
3. Protected from freezing
4. Placed within the immediate area of any welding/cutting operation or flammable liquid storage area

If a fire extinguisher is discharged for any purpose, it should be reported to AVB Construction.

Each temporary building and trailer (shops, field offices, storage boxes, etc.) will have its own appropriately sized and located class ABC fire extinguisher.

Access to fire hydrants and extinguishers will be maintained at all times. Clear access to buildings and other structures will be maintained at all times.

Fire Prevention

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 needed. Storage of large quantities of construction debris will be placed in metal dumpsters.

Storage of compressed gases will include:

1. Valves, regulators and hoses removed with valve caps securely on.
2. Secured upright at all times, including when transported in vehicles.
3. Fuel and oxygen cylinders separated by a minimum of 20 feet.
4. Empty cylinders stored separate from full cylinders.

Only approved high flash point solvents are to be used for cleaning purposes.

Oily rags and waste are to be stored separately in metal containers fitted with self-closing lids. Trash and refuse must be placed in trash containers provided for this purpose.

Fire and Flammable Liquid Storage and Dispensing

Methylene chloride is a known carcinogen and solvents containing it are **prohibited**.

Flammable and combustible liquids will be stored, dispensed, and used in accordance with MIOSHA, OSHA and NFPA requirements, and the following:

1. When stored outside they cannot be within 20 feet of any structure or must be in a properly constructed storage locker whenever possible (no more than a total of 25 gallons flammable and combustible liquids can be stored outside of an approved locker).
2. Stored in approved portable containers marked as to contents and ownership.
3. Posted with "NO SMOKING" signs.
4. Outside storage areas kept free of weeds and other combustible material.

5. Storage of flammables will be in an enclosure away from open flame, heat, direct sun or other sources of ignition.

All storage tanks/drums will be placed in a berm or other secondary containment. Berms will be lined with minimum 6-mil plastic sheeting that is fuel resistant. PVC linings are not allowed.

AVB Construction will designate vehicle refueling locations and procedures.

Fuel and flammable liquid tanks, drums, or barrels will have the proper DOT placard and contents label. All fuel storage tanks and compressed gas cylinders will be protected from vehicle traffic.

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

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

Hot Work

Note: Prior to any hot work operations, notifications must be given to AVB.

Hot work is defined as the use of open flames, other heat sources, and/or spark producing devices in areas where combustible or flammable materials are present and/or where there is potential for explosion or fire. Hot work activities include burning, welding, cutting, grinding or other operations that produce a flame, heat, or sparks.

Prior to performing any hot work, workers will be trained in the following:

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

Housekeeping

The AVB Construction policy on housekeeping is that all equipment, tools, and materials will be stored, stacked, or set up to prevent an incident or injury. The area will be a clean and orderly workplace.

Project management, supervision, workers, vendors and third-party persons will maintain all work locations in an orderly and clean manner at all times.

Debris and loose material capable of causing damage to aircraft will not be placed or blown into any area where there are aircraft operations.

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

1. Access walkways, roadways, and fire lanes will not be blocked with material, tools, ladders, scaffolds, welding leads, air hoses or electrical cords.
2. Electrical extension cords, light stringers, air hoses, and welding leads will be elevated above walkways a minimum of seven feet or the area marked with signage stating: **"Trip Hazard".**
3. Welding rods, nuts, bolts, and washers will be kept in proper containers.
4. Shackles, slings, chokers, ladders, and safety equipment will be removed from the work area when not needed and properly stored.
5. Trash containers will be placed at appropriate locations.
6. All nails will be removed from scrap and form lumber and swept up daily.
7. Rubbish, trash, and debris will be removed from the work area continually.

Infection Control

It is important to control the risk of infection and disease when performing construction, demolition and/or renovation in a health care environment.

The client Infection Control procedure will be followed. The client is responsible for assigning the Risk Group for the designated work area and developing the work procedure and restrictions.

Work procedures and restrictions may include structure height, temporary partitions, debris and material routing, use of negative or positive air pressure, tack and walk-out mats, covered trash bins, etc.

AVB Construction is responsible to monitor all work in the designated work area to ensure work procedures are followed and maintain inspection and negative pressure logs.

The following matrix can be used as an example of how hospitals determine risk level of work:

Type of Construction Activity	
Type A	**Inspection and Non-Invasive Work** Includes but not limited to: ☐ Temporary removal of no more than six ceiling tiles for inspection or minor repair ☐ Painting (but not sanding) ☐ Wall covering, electrical, trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection
Type B	**Small-scale short duration activities (minimum dust)** Includes but not limited to: ☐ Installation of telephone and computer cabling ☐ Access to chase spaces ☐ Cutting of walls or ceiling where dust migration can be controlled
Type C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building component or assemblies** Includes but not limited to: ☐ Sanding walls for painting or wall covering ☐ Removal of floor coverings, ceiling tiles and casework ☐ New wall construction ☐ Minor duct work or electrical work above ceilings ☐ Major cabling activities ☐ Any activity that cannot be completed within a single work shift
Type D	**Major demolition and construction projects** Includes but not limited to: ☐ Activities which require consecutive work shifts ☐ Requires heavy demolition or removal of a complete cabling system ☐ New construction/renovation

Patient Risk Group			
Non Patient Care Areas	**Patient Care Areas**		
Offices Public hallways	Cardiopulmonary Echocardiography Outpatient Services Nuclear Medicine Rehabilitation Radiology/MRI IMC Emergency Department	Labor & Delivery Laboratories Newborn Nursery Pediatrics Pharmacy Orthopedics Neurosurgery CCU Burn unit Any area caring for immuno-compromised	ICU CVICU Surgery Cardiac Cath Lab Oncology Dialysis Negative Pressure Rooms PACU CVOR

Class of Precaution				
Patient Risk Group	**(Type Of Construction Activity)**			
	Type A	**Type B**	**Type C**	**Type D**
Non-Patient Area	Class I	Class II	Class III	Class III
Patient Care Area	Class II	Class III	Class IV	

Once the Class of Precaution has been determined, the following precautions shall be taken to ensure adequate infection control:

Precautions for Infection Control		
Type Class	**During Work**	**Upon Completion of Work**
Class I	☐ Minimize dust ☐ Immediately replace all ceiling tiles displaced for visual inspection	☐ Clean work area
Class II	☐ All Class I requirements ☐ Prevent airborne dust from dispersing into atmosphere ☐ Water mist working surface to control dust ☐ Seal unused doors with tape ☐ Block off and seal air vents ☐ Dust mat at entrance and exit of work area ☐ Remove or isolate HVAC system in area where work is being performed	☐ All Class I requirements ☐ Wipe work surface with disinfectant ☐ Contain construction waste and transport in tightly covered container ☐ Wet mop/vacuum with HEPA filter ☐ Remove isolation of HVAC
Class III	☐ All Class I and II requirements ☐ Complete critical barriers (sheetrock, plywood, plastic) to seal area from non-work area ☐ Maintain negative air pressure with work area using HEPA ☐ filtration ☐ Contain construction waste in tightly covered container	☐ All Class I and II requirements ☐ Remove barriers only upon completion of work ☐ Remove barrier carefully to minimize dust ☐ Wet mop area with disinfectant

Class IV	☐ All Class I, II, and III requirements ☐ Seal holes, pipes, conduits, and punctures appropriately ☐ Construct decontamination room and require all workers to be decontaminated with HEPA vacuum prior to departing the work area	☐ All Class I, II, and III requirements

Ladders and Stairways

Fall protection while working from a ladder is addressed in the Fall Prevention/Protection section.

Stairways having four or more risers or rising 30 inches or more shall have a stair rail system 36 inches high on each unprotected side.

Metal pan stairs shall not be used until the pans are filled to prevent a tripping hazard.

Ladders, stairs, or ramps will be provided where there is a change in elevation of 19 inches or greater. Workers will be trained on the safe use of ladders.

Ladders are required to ascend or descend truck beds and/or trailers. Ladders will extend past the bearing point no less than 36 inches.

Ladder landings shall remain clear of all obstacles and obstructions to allow safe access and egress. Each contractor is required to inspect ladders daily prior to use. Ladders with broken or bent rungs, steps or side rails will be immediately destroyed and removed from the project.

When ladders are used to access upper levels, they must be secured to prevent displacement and extend a minimum of 36 inches above the upper landing surface to which the ladder is used to gain access.

All ladders will be heavy-duty type with a minimum capacity rating of 250 lbs.

All ladders must be OSHA approved, in good working condition, not altered, and being used as manufacturer intends.

Stepladders

All stepladders shall only be used per manufacturer instructions.

Stepladders will only be used with the spreader bars fully extended and locked in place. Workers will not stand on the top or top step of a stepladder.

Workers will not straddle the top of a stepladder

Workers will not stand on the back of a stepladder unless designed for this use.

Straight/Extension Ladder

Ladders will be set up so the horizontal distance at the bottom is not less than ¼ of the vertical distance to the bearing point.

Workers will not stand on the top three rungs of a straight ladder. No worker will work when his/her knees are above the top of the ladder.

All straight ladders will have non-skid feet at the base.

Lasers

Precautions will be taken to ensure all workers that use lasers are trained in proper use and the hazards associated with lasers.

No worker will install, adjust, or operate any laser equipment without a valid qualification card, which the worker must have on their person.

Standard laser warning signs will be placed around the perimeter of the area where the laser is being used. No laser equipment will be used that does not contain a label indicating make, maximum output, and beam spread.

Whenever a laser is not in use, shutters or caps will be used and the laser turned off.

When performing internal alignment, lasers will only be guided by mechanical or electronic means. No laser beam will be directed at any worker.

When environmental conditions exist such as rain, fog, snow, or extremely dusty conditions, use of lasers will not be permitted.

Workers using lasers will use appropriate eye protection as required by MIOSHA Part 6 – Personal Protective Equipment, OSHA Standard 29 CFR 1926.102, or manufactures recommendations

Lead

When welding, cutting, burning, grinding, chipping, abrasive blasting, rivet busting, or otherwise disturbing painted or coated surfaces, a pre-assessment will be required to determine if the surfaces contain lead-based paint. If bulk sampling results for paint are positive for lead, MIOSHA Part 603 – Lead Exposure in Construction, OSHA Standard 29 CFR 1926.62 will be followed.

An initial hazard assessment is required and will be performed to determine worker exposure levels. The assessment will involve personal air sampling of a representative group of workers performing different tasks unless historical data is available. During the initial exposure assessment, workers will wear protective clothing and the proper respiratory protection until the results of the assessment are known.

Copies of sampling results will be made available to AVB Construction and all affected employees. Each worker is to be notified in writing of their blood and/or personal monitoring results within five working days after the results are known.

Area sampling results from a work area will not be used for determining worker exposure levels.

If sampling results indicate the exposure limits are above 30 µg/m^3 but below 50 µg/m^3, the following are required:

1. Written compliance plan
2. Medical surveillance (blood lead)
3. Personal air monitoring
4. Hazard communication training for lead

If sampling results are above 50 µg/m^3, the following are required:

1. Written compliance plan
2. Engineering controls
3. Respiratory protection
4. Protective clothing
6. Medical surveillance
7. Clean change rooms and showers
8. Clean lunchrooms
9. Warning signs
10. Training

Barricades, enclosures, wet methods, HEPA vacuums, track mats, ventilation, and good housekeeping protocols shall be provided to ensure the protection of all workers, members of the public, and building occupants, regardless of lead levels.

Lockout/Tagout

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

Safety locks and tags will be applied to all circuits, switches, valves, isolating devices, and any other energy sources to ensure equipment, machinery, or processes that have been considered functioning, charged, or could otherwise be operable have been rendered non-operational or de-energized.

No person will remove another worker’s safety lock or attempt to energize any piece of equipment, machinery or process that has been locked out and tagged.

Appendix I or its equivalent shall be completed prior to beginning any work activity involving lockout/tagout procedures.

De-Energizing Equipment and Processes

An AVB Construction representative will coordinate with the operating facility representative and/or construction start-up group when any energized equipment or process must be de-energized.

The AVB Construction representative and operating facility representative and/or construction start-up group will identify all circuits and sources of energy that require locking and tagging to make the equipment or process inoperable. The operating facility representative/construction start-up group will notify their personnel that may be affected by the de-energizing. The first-line supervisor overseeing the work will sign out sufficient safety locks to lockout the piece of equipment or process.

The following procedures shall be followed:

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

Stored or residual energy will be dissipated by whatever means are necessary. Capacitors will be discharged and high capacitance elements short-circuited and grounded by a qualified electrician.

Re-Energizing Equipment and Processes

When the required work is completed and the machinery, equipment or process can be returned to service, the first-line supervisor will contact the operating facility representative/construction start-up group to notify of completed work operations.

The first-line supervisor will make a visual inspection of the equipment, machinery, or process to insure all workers have completed their work and equipment, tools and other material is removed from the area.

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

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

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

De-Energizing Fluid Processes

Any vessel, pipe, hose or process that contains a hazardous liquid or gas will be purged with nitrogen or flushed before work begins as described in the pre-task plan for the activity.

A management representative will coordinate with operating facility representative/construction start-up group when any fluid process requires de-energizing.

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

The first-line supervisor overseeing the work will sign out sufficient safety locks and tags to completely isolate the system.

The operating facility representative/construction start-up group and first-line supervisor will verify that each valve or gate is in the “off”, “neutral,” or closed position.

Once the valve or gate is in the “off”, “neutral,” or closed position, the operating facility representative will place a safety lock on the valve or gate first. Then the first-line supervisor will apply a safety lock to each valve or gate. The first-line supervisor will also apply a visible warning tag with the name of the first-line supervisor, company, date and phone number.

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

Prior to commencing work, the operating facility representative and first-line supervisor will verify the system and all piping, hoses, valves and processes are de-energized and that any stored energy is dissipated or restrained.

Welded valve connections should have the valve handles removed and the stem tagged “**Do Not Operate**.” All other valves and isolating devices must be physically prohibited from being operated.

Hydraulic and pneumatic equipment or machinery will be blocked to prevent movement.

Re-Energizing Fluid Processes

When the required work is completed and the system can be returned to service, the first-line supervisor will contact the operating facility representative/construction start-up group to notify them of completed work operations.

The first-line supervisor will make a visual inspection of the area to ensure all workers; equipment, tools, and materials are removed from the area.

After confirming all workers, equipment, tools and materials are removed from the area, the valves and gates are in the “off”, “neutral,” or “closed” position, and each worker has removed their safety lock and tag, the first-line supervisor will remove their safety lock and tag from each of the isolating devices.

The management representative will notify the operating facility representative/construction start-up group that the system is ready to be energized.

Masonry Construction

A limited access zone is required to be in place prior to the construction of any masonry wall.

Masonry walls over eight feet in height shall be adequately braced to prevent collapse and bracing shall remain in place until permanent support is in place.

Mold Control

All work areas must be maintained to prevent the formation of mold, which grows when there is water and a nutrient source (i.e., wallboard, wood, and/or other building material).

When planning work, be sure to:

1. **Prevent moisture accumulation/ Double check points where moisture may enter:**
   a. Doors
   b. Windows
   c. Flashings and caulking
   d. Waterproof membranes (proper lapping at joints and corners)
   e. Roofing systems and penetrations
11. Properly store material
   a. Dry location
   b. Off the ground
   c. Loose tarps or sheets to allow air flow
12. Have drying equipment readily available
   a. Fans
   b. Dehumidifiers
   c. Wet-dry vacuum

If mold is observed, notify AVB Construction so that an evaluation of the exposure can be done and an abatement plan developed.

Personal Protective Equipment (PPE)

All AVB Construction subcontractors, vendors, and third-party individuals will at a minimum wear the following personal protective equipment while on this project (except in office and lunch areas).

Head Protection

Hard hats will be worn **<u>at all times</u>** on this project, in accordance with the following:

1. Hard hats will be worn according to manufacturer requirements.
2. Meets ANSI Z89.1 requirements

Eye and Face Protection

Eye and face protection **safety glasses** with side-shields that meet ANSI Z87 criteria are to be **worn at all times**. Prescription glasses must meet ANSI Z87 requirements or employees will be required to wear "over the glasses" (OTG) safety eyewear.

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

Welding	Welding Hood and safety glasses
Burning	Burning Goggles with Shield
Abrasive grinding or cutting	Face Shield and safety glasses
Drilling	Goggles or Face Shield and safety glasses
Reaming	Face Shield and safety glasses
Chemical Handling	Goggles and Face Shield
Molten Materials	Goggles and Face Shield
Corrosive Liquids	Goggles and Face Shield
Concrete Pouring	Safety glasses with side shields

Foot Protection

Sturdy work boots that are in good condition must be worn (heel and sole will not show excessive wear). Tennis shoes, sandals, or other street-type shoes are not allowed, even if they have steel toes.

High Visibility Attire

Every worker, visitor, and vendor will **wear high-visibility attire at all times**, which includes a high-visibility vest, t-shirt/long-sleeve t-shirt or jacket. ANSI reflectivity requirements must be met when working in traffic and/or at night.

Work Attire

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

Respiratory Protection

A first-line Supervisor will determine if a hazard exists that requires respiratory protection prior to start of work. Written documentation supporting this hazard assessment will be made available to AVB Construction upon request.

Whenever respiratory protection is deemed required or requested by a worker on this project, the requirements outlined in MIOSHA Part 451 – Respiratory Protection will be followed, which include:

1. Have workers complete a Medical Questionnaire for Respirator Use.
2. Submit questionnaires to a physician or Licensed Health Care Professional (PLHCP) for review and further testing.
3. Once medical approval to wear a respirator is received from the PLHCP, select the appropriate type of respirator to protect workers from the hazard(s).
4. For air purifying respirators, choose the appropriate filter/cartridge.
5. For supplied air respirators, ensure breathing air source provides “Grade D” breathing air.
6. Train workers about the specific type of respirator being used.
7. Fit-test the workers with the specific type of respirator being used.

If a worker decides to voluntarily wear a filtering face piece (dust mask) and a respirator is not required, the first-line supervisor must inform the worker about the limitations of the selected respirator. **Note: Disposable dust masks are prohibited for protection from silica exposure.**

Hearing Protection

Approved hearing protection will be worn as specified in posted areas and 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 will not exceed 140dB noise level.

The following permissible noise levels, per MIOSHA Part 680 – Noise Exposure for Construction, should not be exceeded:

Hours per day	Sound Level DBA Slow Response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

Impulsive Or Impact Noise	
Equipment or tools	Sound Level Created*
Pneumatic chip	103-113
Jack hammer	102-111
Concrete joint cutter	99-102
Chop saw	88-102
Stud welder	101
Bulldozer	93-95
Crane	90-96
Hammer	87-95
Backhoe	84-93

* based on an 8-hour exposure

Hand Protection

Hand and finger protection shall be specifically addressed in the development of project specific safety plans. The appropriate protection shall be identified. Each employer’s competent person shall assist in recommending the correct glove for the task. Workers are encouraged to wear gloves at all times to prevent hand and finger injuries.

Additional Protections

AVB Construction may require workers to wear additional personal protective equipment to reduce the likelihood of a work-related injury or illness.

The AVB Jobsite Superintendent is the only person with authority to authorize deviations in the AVB written Health and Safety Program procedures. These authorizations to deviate must be issued by the AVB Superintendent in writing in order to be considered valid, are issued with the understanding that the subcontractor is assuming all risk resulting from the deviation. Under no circumstances shall any authorization to deviate be considered valid if it violates OSHA rules.

Pile Driving

No pile driving work will occur until it is verified that no underground utilities exist where piles will be driven or existing underground utility locations have been verified by hand or vacuum excavation.

Fall protection will be required when personnel climb leads over six feet.

Hose connections will be secured by at least ¼ inch diameter chain or equivalent wire rope to prevent whipping. Stirrups will be provided on sheet piling to aid in guiding the pile in place.

For pile other than sheet piles, a driving head or bonnet is required to bell the head.

Stop blocks are required for the leads to prevent the hammer from striking the head block. A designated signalman will be assigned to give direction to the winch-men.

Equipment will meet the MIOSHA Construction standards on cranes and derricks.

Pits or excavations that piles are being driven into shall be properly braced, sheet-piled, or sloped and barricades shall be provided.

When pile tops are cut, operations will stop for a distance not less than the longest pile that is to be cut.

When driving jacked piles, the pits will be provided with ladders and curbs to prevent material from falling into the pit.

Precast Concrete

A competent person will be responsible for the inspection of all rigging and hardware and the supervision of the rigging of precast concrete members.

Unloading of Precast Concrete Members

Prior to precast concrete members being unloaded, the following will occur:

1. Inspect all rigging and hardware
2. Ensure load is stable before releasing binders
3. Ensure precast member is properly rigged

Placement of Precast Concrete Members

Precast members are not to be moved over other workers

Workers involved in the setting or connecting of precast members will strictly adhere to the 100% fall protection policy with no exception.

No worker will use their hands to reach under a precast member to adjust a shim or bearing pad.

Post-Tensioning Operations

No worker, except those essential to the post-tensioning operation, will be permitted behind the jack. Warning signs and barriers will be erected to limit access to the post-tensioning area during post-tensioning operations.

Rigging

Riggers must be properly trained and qualified to rig material or equipment lifted by a crane.

Hooks will be equipped with safety latches. Safety latches on hooks that are disabled and/or shakeout (“pelican”) hooks will not be used unless in compliance with MIOSHA Part 26 – Steel Erection.

All rigging equipment and spreader bars shall have a manufacturer’s tag or otherwise professionally engineered mark noting its safe working load. Rigging equipment and spreader bars not tagged or marked will be immediately removed from the project.

All rigging will be inspected daily before each shift by the qualified rigger and documented in writing. Inspection reports will be made available to AVB Construction upon request.

Scaffolding

All scaffolding used on this project will meet the requirements established in MIOSHA Part 12 – Scaffolds and Scaffold Platforms.

Each contractor using scaffolds must designate a competent person to direct and supervise the erection and dismantling of all scaffolding on this project. The competent person will sign and attach one of the following color-coded scaffold tags to each scaffold:

Green Tag: Scaffolding complete and ready for use.

Yellow Tag: Scaffolding usable but personal fall protection required

Red Tag: Scaffolding incomplete and not for use.

The competent person will inspect the scaffolding daily prior to use and sign the tag at the time of inspection. The Daily Scaffold Safety Inspection Report (Appendix G) will be used to document these inspections.

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

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

During erection and dismantling of scaffolding, if deviation from the fall protection procedure is required, the Safety Director will be required to approve. Records must be maintained of scaffolding training and be available for review by AVB Construction.

Prior to erection, all scaffolding components shall be inspected for defects and any damaged components will not be used.

Scaffolding will be erected on a firm foundation/footing. Scaffold poles, legs, posts, frames, and uprights will bear on metal base plates, and mud sills

Scaffold legs, poles, posts, frames and uprights will be pinned or locked to prevent uplift.

No scaffold will be enclosed unless a qualified engineer designs and approves the attachment to the adjacent structure.

Scaffold platforms will be constructed with no space between the platform components. The space between the platform components and the scaffold uprights will not exceed one inch.

Because of special circumstances such as building a scaffold around a pipe, the space opening between the scaffold and the object/structure cannot exceed 9½ inches.

Scaffold planks shall extend past the horizontal support a minimum of six inches and not more than 12 inches unless cleated or restrained by hooks.

Scaffold plank will not be overlapped unless:

1. Overlap occurs at a horizontal support
2. The minimum planking overlap is 12 inches

Only scaffolding-grade planking shall be used.

Ladders or stairs must be used to access any scaffold platform that is more than two feet above or below the point of access. End frames of tubular welded scaffold can be used as a ladder if the following criteria are used:

1. Rung length of at least eight inches
2. Spacing between rungs not to exceed 16 ¾ inches
3. A walk through frame or gate is provided for access at each landing

These are to be specifically designed and constructed as ladder rungs only.

No worker will climb up or down a scaffold using the cross bracing.

Workers working below scaffolding will also be protected from falling objects. Scaffold will be equipped with toe plates, screening, debris netting, catch platforms, or a canopy structure.

Aerial Lifts

The gates of aerial lifts will be properly engaged whenever the lift is in use. Travel in aerial lifts is prohibited while platform is elevated

Aerial lifts shall not be used as material hoists unless the load is contained within the basket and meets the lift's rated capacity. The lift shall not be modified for hoisting material unless the manufacturer approves it in writing.

Use proper fall prevention/protection in accordance with manufacturer's requirements in all boom supported elevating work platforms.

Suspended Scaffolds

A competent person will evaluate suspended scaffolding, anchorages, and suspension lines before each use. Workers working from suspended scaffolding will wear a full body harness attached to an independent vertical lifeline.

When welding is required from swing stage scaffolding, the scaffold will be grounded and suspension ropes protected.

Mobile Scaffolds

Interior or dry wall scaffolding (Perry or Baker type scaffolding) greater than one section high will be equipped with outriggers. All other built-up scaffolding will follow the four to one rule.

Wheels on mobile scaffolding will be locked in place when workers are working from it (self-propelling is prohibited).

Scissor lifts shall be used in accordance with MIOSHA Part 32 – Aerial Work Platforms.

Mast-Climbing Work Platforms (ANSI A92.9-1993)

An erection and dismantling plan shall be provided by the manufacturer and submitted to AVB Construction prior to mobilization.

Fall protection shall be provided when wall openings exist on the façade of the building in front of the work platform, the distance to the façade exceeds that permitted, the platform passes an in-set in the façade or it extends past the façade.

In accordance with ANSI requirements, unless the scaffold is equipped with an emergency decent device an evacuation plan from the platform must be developed.

Building access is prohibited underneath scaffold platforms.

System specific training must be provided to all workers who will be on the work platform.

Silica

Workers that perform any of the following work tasks must be protected from exposure to silica dust unless historical data or real time air monitoring indicates it isn't necessary:

1. Chipping, hammering, or mixing of refractory
2. Abrasive blasting using silica sand as a blasting medium
3. Abrasive blasting of concrete regardless of the type of medium
4. Sawing, hammering, drilling, grinding, or chipping of concrete or masonry products
5. Chipping, hammering, or mixing of concrete grout
6. Demolition of concrete or masonry structures
7. Dry sweeping or compressed air blowing of concrete, masonry, rock, or sand dust

Workers performing any of the above tasks who could be exposed to silica dust shall receive training regarding health hazards associated with silica.

Acceptable engineering controls, such as those listed below, will be used when exposure to silica is likely.

1. Substitute blasting medium for less hazardous material with less than 1% silica
2. Maintain an effective dust control program
3. Use internal blast-cleaning machines
4. Wet Saw
5. Use water through the drill stem

When acceptable engineering controls cannot be used, workers will wear respiratory protection, protective coveralls, and gloves. Respirators must have at least a N95, R95, or P95 filter, per NIOSH recommendations.

Note: *Disposable respirators or dust masks are not permitted for silica protection.*

Workers will also comply with these hygiene requirements when exposed to silica:

1. No eating, drinking, or using tobacco products in areas where silica dust is present.
2. Always wash hands and face before eating, drinking, or using tobacco products after working around silica dust.

Additional Silica information can be found in the Silica Exposure Control Plan Section of this document.

Steel Erection

No steel erection will begin without a written Notice to Commence Steel Erection (Appendix F) from AVB Construction.

Perimeter safety cable installed by steel erector will remain in place unless otherwise instructed by AVB Construction. Training records indicating workers have received required steel erection and fall protection training will be maintained at the project and available for review by AVB Construction.

All steel deliveries will be coordinated with the AVB Construction Project Team to ensure traffic around the project is controlled. No deliveries shall be unbound until inspected and deemed secure by a qualified person.

Design criteria for any multi-lift device must be available for review by AVB Construction.

Work will be planned that no load will be swung over the public, other workers, or occupied structures. Exceptions must be reviewed and approved by AVB Construction.

During bolt-up activities all steps will be taken to protect workers below from falling objects.

Temporary Barricades

Temporary barricades will be erected to warn or protect workers whenever hazards or processes, such as those listed below, are encountered on this project.

1. Floor or wall openings
2. Working above other workers
3. Exposure to vehicular traffic
4. Low light work areas
5. Open excavations/trenches
6. Unguarded equipment
7. Overhead loads
8. Closed stairwells
9. Startup operations and testing of equipment/systems
10. Process hazards such as discharges, open systems, etc.

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

1. **Yellow "Caution" Tape** is used to **limit** the passage of workers through the barricaded area. This barricading should only be used to warn workers against hazards that are not severe or the potential for severe injury or death is unlikely.
2. **Rigid Barricades** are used when protection is required beyond a single work shift, or with Red "Danger" Tape if protection could cause serious injury or death. They will be used to protect workers from unguarded moving machinery/equipment, vehicular or heavy equipment traffic, and low light conditions. Rigid barricading will consist of standard guardrail, temporary chain link fencing, tube and coupler scaffold members with blue construction fencing attached and concrete barriers. Rigid barricades should withstand 200 lbs in any direction and must comply with MIOSHA requirements.

When using "Caution" Tape barricading:

1. Install at least six feet from excavations, trenches.
2. Reinforced "Caution" tape or ¼ in high visibility rope at least six feet back from edge shall be used for holes, leading edges, and floor or wall openings. A hard barricade is preferred.
3. Install a standard "Caution" sign that identifies the hazard at regular intervals around the barricaded area and the name and contact information for the individual who erected the barricade
4. Do not impede stairs, walkways, driveways, or aisles without notifying AVB Construction and identifying alternative passageways

When using Rigid Barricading:

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

When work is complete and the hazard is eliminated, remove the barricading immediately.

Workers who enter a "Danger" or "Radiation" barricaded work area without authorization will be subject to disciplinary action up to and including termination.

Tools, Hand and Power

All hand and power tools will be kept in good condition with regular maintenance. Hand and power tools are to be operated according to manufacturers' instructions and guidelines and the personal protective equipment appropriate for the hand or power tool will be worn.

Hand Tools

1. Impact tools such as chisels, wedges, etc. are not to have mushroomed heads
2. Wooden handles will not be splintered or cracked
3. Pocketknives will not be used for stripping wire

Electric Tools

1. Never lift or carry a power tool by its cord
2. Guards and safety switches will not be removed or made inoperative
3. Electric tools must have a three-wire cord unless they are double insulated

Portable Abrasive Wheel Tools

1. Guards will not be removed
2. Grinding disks and wheels will be checked to verify they are the correct one for the grinder and speed.

Pneumatic Tools

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

Powder Actuated Tools

1. Workers will be trained to operate a powder actuated tool and required to carry their training card at all times.
2. Fired cartridges shall be placed in a container or bucket and properly disposed.
3. The powder-actuated tool must not be able to fire until it is placed against the surface with a force of five pounds or greater.

Traffic Maintenance and Protection

There will be no temporary blocking or occupying of any street or alleyway without prior approval of AVB Construction and local authorities.

When it becomes necessary to temporarily close a public street or alley, a written traffic control plan is required showing how the closure will occur. The plan must be submitted to AVB Construction for review.

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

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

All workers and supervision will wear high visibility attire in accordance with the ANSI requirements.

Workers assigned as flaggers will be trained as recommended in the Manual of Uniform Traffic Control Devices and state DOT. Trained flaggers are required to direct all construction traffic entering and leaving the project site.

Work that fails to follow the traffic control plan or occupies a city street or sidewalk without authorization will not be allowed.

Welding and Cutting

When burning or welding using compressed gases, flame arrestors will be installed on both the torch side and regulator side of the oxygen and gas hoses.

Arc Welding and Cutting

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

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

Whenever practical, all arc welding and cutting operations shall be shielded by non-combustible or flame-proof screens.

The ground for the welding circuit shall be mechanically strong and electrically adequate for the service required and should be attached directly to the work piece.

When possible, electrode and ground cables shall be supported to prevent obstructions interfering with the safe passage of workers.

Cables with worn insulation may not be used.

Gas Welding, Cutting, and Soldering

A suitable cylinder cart, chain or other secure non-flammable fastening shall be used to keep cylinders from being knocked over while in use.

Cylinders of oxygen shall not be stored next to cylinders of acetylene or other fuel gas. They shall be separated by 20 feet or by a non-combustible barrier with a one-hour fire rating. Oxygen cylinders shall be stored in compliance to MIOSHA Regulations.

Oxygen cylinders, cylinder valves, couplings, regulators, hose, and apparatus shall be kept free of and away from oil and grease. Oil or grease in the presence of oxygen under pressure may ignite violently.

Empty cylinders shall have their valves closed. Valve protection caps shall always be in place except when cylinders are in use or connected for use.

When moving cylinders by a crane or derrick, a cradle, boat or suitable platform shall be used. Slings, hooks or electric magnets shall not be used. Valve protection caps shall always be in place.

Compressed gas cylinders, empty or full, shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being moved. Empty cylinders should be marked **Empty or MT** for identification.

Regulators and hoses shall be frequently inspected for leaks, worn places, and loose connections. Regulators shall also be checked for operable gauges.

Approved flash arresters shall be provided in both oxygen and acetylene hoses at the regulator connection.

Basic Health and Well Being Protocol

Smoking Policy

In correlation with AVB Construction's continual encouragement of a Smoke-Free Workplace, individual projects may be deemed to be **tobacco-free**. In these instances, the site will be completely tobacco-free. No worker will smoke or use any tobacco product within any project building on any jobsite. Workers that violate this rule will be subject to immediate termination.

Sanitation

Toilet Facilities

Adequate chemical toilets are available on the jobsite for the use of workers.

Chemical toilets shall be serviced often enough to prevent overflowing and the creation of an unsanitary condition or nuisance. Toilets shall be maintained in good repair so as to prevent leakage of the contents to the surrounding ground, floor, or other portions of the structure.

Drinking Water

Every day AVB Construction will provide fresh clean drinking water to workers. Drinking water will be dispensed in containers with a tight sealing lid and labeled as "Drinking Water." Drinking water containers are to be cleaned daily.

Adequate cups will be made available at each drinking water container. Cups will be stored in a durable, clean dispenser. A trash can or other type receptacle will be provided to collect used cups. Contractors are responsible for cleaning up around the water container area.

The dipping of cups into the container, storing soda cans and bottles, drinking directly from the spout, or placing of hands or material into drinking water are prohibited.

Emergency Procedures

Following are several guidelines to assist in the event of an emergency whether it be of the medial-type, man-made, or Mother Nature variety.

Emergency Procedures

Each project team shall develop an Emergency Action Plan (EAP); each project team shall develop the following:

1. Owner requirements and procedures
2. AVB Construction Crisis Management and site logistics protocols
3. Coordination with local emergency response personnel

The Emergency Action Plan will be posted throughout the jobsite in a prominent location with a site plan. This EAP will be communicated to workers during the safety orientation and weekly safety meetings.

Building Evacuation

Exit signs shall be conspicuously posted along evacuation routes.

A signal or alarm shall be designated to initiate evacuation.

Personnel should de-energize tools and equipment and observe their work area for fellow workers in need of assistance.

Workers should observe stairs for safe passage before accessing.

Report any hazardous conditions that are known to exist within the building to your supervisor

Medical Emergency

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

Emergency Phone: 911
Fire..
Police..
Emergency AVB Field Contact:......
Project Address:................................

When reporting a medical emergency, the worker will state their name, the nature of the emergency, the severity of the emergency and where assistance is needed. A worker may be required to meet medical personnel and guide them to where the emergency is located.

***** Do not move an injured worker before medical assistance arrives unless further injury is possible. *****

Fire

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

After reporting the fire, workers will evacuate the work area and report to the pre-determined assembly area that was stated during the safety orientation.

Severe Weather

Should weather conditions, such as severe thunderstorms or tornadoes, develop around or near this project; workers will follow the direction of their immediate supervisor. Work in areas where severe weather events are possible will have a contingency plan in place.

Subcontractor Requirements

Subcontractor Safety Orientation

In addition to the AVB Construction project orientation, each subcontractor will conduct an additional safety orientation for their employees to ensure they understand the project safety requirements as well as their company's requirements.

Monthly Man-hour Report

At the end of each month subcontractors must submit total man-hours worked, including hours for tiered subcontractors using Appendix A or its equivalent.

Subcontractor Safety Submittals

Prior to beginning work, each subcontractor shall submit to AVB Construction the following:

1. Subcontractor written project specific safety plan.
2. Name(s) of designated safety representative(s).
3. Project specific Material Safety Data Sheets for all hazardous chemicals and materials to be used or stored on the project.

On-Going Submittals

Each subcontractor will be required to submit various on-going safety documents to AVB Construction as required by the scope of work. These submittals may include the following:

1. Subcontractor Monthly Incident Summary Report (Appendix A).

2. Jobsite Incident Report (Appendix C) (Within 24-hours of any incident).
3. Weekly “Tool Box” safety meeting minutes.

Safety Plans as Required

All Subcontractors shall have a task-specific Safety Plan(s) available for AVB Construction review/discussion prior to start of work as required. Work that requires these specific, individual plans for possible review include, but are not limited to, the following:

1. Confined Space Entry
2. Hot Work
3. Excavation and Trenching
4. Crane Lift
5. Fall Protection Plan
6. Lockout/Tagout Checklist
7. Other work plans as deemed necessary

Pandemic and Emergent Public Health, Prevention, Preparedness, and Response

AVB takes the health and safety of our employees very seriously.

AVB will work to protect the health and safety of those engaged in our projects with policies that comply with the State and MIOSHA guidance on prevention, preparedness and response. This policy will be in place and rescinded from practice in accordance with state and MIOSHA recommendations.

This Plan is based on currently available information from the CDC, OSHA and MIOSHA and is subject to change based on further information provided by the CDC, OSHA, MIOSHA and other public officials. While these agencies have been consulted on this document, they have not been asked to endorse it. **AVB** may also amend this Plan based on operational needs. This plan will reign when State and MIOSHA require practices to limit the spread and is written with COVID 19 as an example, but may be implemented for other public health needs.

Written Silica Exposure Control Plan

AVB Competent Person – Rex Trott (Safety Officer)
Cell: (269) 760-4042 E-Mail: RTrott@avbinc.com

Purpose:

1- To identify Airborne Respirable Crystalline Silica containing materials.
2- Identify activities that create the Airborne Respirable Crystalline Silica hazards

Goal:

1- To keep the contractor performing an activity and surrounding people exposure limit below the required **25 micrograms per cubic meter of air. (In an 8 hour time weighted average)**

Airborne Respirable Crystalline Silica:

Definition – Quartz, Cristobalite, and/or Tridymite contained in airborne particles that are determined to be respirable.

1- Silica is found in cementitious based materials. (i.e., concrete, brick, block, mortar, etc.)
2- When materials containing Silica are in their un-disturbed state (concrete sidewalk, brick / block wall) the silica does not create an airborne inhalation hazard.
3- Once the silica containing material is disturbed in a manner which can make the hazardous particles friable (airborne), this is when the hazard is created.

Specified Exposure Control Methods:

1- For each employee engaged in a task identified on the following Table 1, they must fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1.

Table 1 Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica			
Equipment/task	**Engineering and work practice control methods**	**Required respiratory protection and minimum assigned protection factor (APF)**	
		≤4 hours/shift	**>4 hours/shift**
(i) Stationary masonry saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions	None	None
(ii) Handheld power saws (any blade diameter)	Use saw equipped with integrated water delivery system that continuously feeds water to the blade Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions:		
	—When used outdoors	None	APF 10
	—When used indoors or in an enclosed area	APF 10	APF 10

Table 1 Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica			
Equipment/task	**Engineering and work practice control methods**	**Required respiratory protection and minimum assigned protection factor (APF)**	
		≤4 hours/shift	**>4 hours/shift**
(iii) Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less)	For tasks performed outdoors only: Use saw equipped with commercially available dust collection system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency	None	None
(iv) Walk-behind saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions: —When used outdoors —When used indoors or in an enclosed area	None APF 10	None APF 10
(v) Drivable saws	For tasks performed outdoors only: Use saw equipped with integrated water delivery system that continuously feeds water to the blade Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions	None	None
(vi) Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions	None	None

Table 1 Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica			
Equipment/task	Engineering and work practice control methods	Required respiratory protection and minimum assigned protection factor (APF)	
		≤4 hours/shift	>4 hours/shift
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism Use a HEPA-filtered vacuum when cleaning holes	None	None
(viii) Dowel drilling rigs for concrete	For tasks performed outdoors only: Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism Use a HEPA-filtered vacuum when cleaning holes	APF 10	APF 10
(ix) Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector	None	None
	OR		
	Operate from within an enclosed cab and use water for dust suppression on drill bit	None	None

Table 1 Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica			
Equipment/task	**Engineering and work practice control methods**	**Required respiratory protection and minimum assigned protection factor (APF)**	
		≤4 hours/shift	**>4 hours/shift**
(x) Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact:		
	—When used outdoors	None	APF 10
	—When used indoors or in an enclosed area	APF 10	APF 10
	OR		
	Use tool equipped with commercially available shroud and dust collection system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions		
	Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism:		
	—When used outdoors	None	APF 10
	—When used indoors or in an enclosed area	APF 10	APF 10
(xi) Handheld grinders for mortar removal (i.e., tuck-pointing)	Use grinder equipped with commercially available shroud and dust collection system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism	APF 10	APF 25

Table 1 Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica			
Equipment/task	Engineering and work practice control methods	Required respiratory protection and minimum assigned protection factor (APF)	
		≤4 hours/shift	>4 hours/shift
(xii) Handheld grinders for uses other than mortar removal	For tasks performed outdoors only:		
	Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface	None	None
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions		
	OR		
	Use grinder equipped with commercially available shroud and dust collection system		
	Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions		
	Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism:		
	—When used outdoors	None	None
	—When used indoors or in an enclosed area	None	APF 10

Table 1 Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica			
Equipment/task	**Engineering and work practice control methods**	**Required respiratory protection and minimum assigned protection factor (APF)**	
		≤4 hours/shift	**>4 hours/shift**
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab. When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions	None None	None None
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: Demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions OR When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab	None None	None None

Table 1 Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica			
Equipment/task	**Engineering and work practice control methods**	**Required respiratory protection and minimum assigned protection factor (APF)**	
		≤4 hours/shift	**>4 hours/shift**
(xv) Large drivable milling machines (half-lane and larger)	For cuts of any depth on asphalt only:		
	Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust	None	None
	Operate and maintain machine to minimize dust emissions		
	For cuts of four inches in depth or less on any substrate:		
	Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust	None	None
	Operate and maintain machine to minimize dust emissions		
	OR		
	Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant	None	None
	Operate and maintain machine to minimize dust emissions		
(xvi) Crushing machines	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points) Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station	None	None

If the task that needs to be performed is not on this table, you must contact the AVB's designated Competent Person to evaluate the situation and give proper control methods to perform the task.

The only way to <u>not</u> fully and properly implement the engineering controls, work practices, and respiratory protection is if:
AVB has issued written approval the task is safe to preform from past air monitoring and exposure control methods, from previous activities, with air monitoring results provided by a qualified monitoring contractor that deem the task is under the permissible limit.

Respiratory Protection:

Whenever respiratory protection is deemed required or requested by a worker on this project, the requirements outlined in MIOSHA Part 451 – Respiratory Protection will be followed, which include:

- You must be fit tested prior to wearing any respirator. Dust masks to not count as respirators.
- Contact AVB Human Resources, or Safety officer to schedule an appointment prior to use of any respirator.
- Once medical approval to wear a respirator is received from the healthcare professionals, select the appropriate type of respirator to protect workers from the hazard(s). (Table 1 above)
- For air purifying respirators, choose the appropriate filter/cartridge.
- For supplied air respirators, ensure breathing air source provides "Grade D" breathing air.
- Train workers about the specific type of respirator being used.
- Continuous health monitoring per MIOSHA Regulations.

<u>DUST MASKS ARE NOT SUFFICIENT RESPIRATORY PROTECTION FOR A SILICA HAZARD</u>

Distance Protection:

- Restricted access to the area surrounding the work must be established to protect other contractors / public's exposure.
- The distance and restriction methods surrounding the area must be determined by a competent person.
- Air monitoring history may need to be established to get an accurate safe distance for the specific task.

Housekeeping:

- If there is a need to cleanup materials which can potentially create a Respiratory Silica Hazard (i.e. Sweeping up concrete dust) all precautions muse be taken to eliminate the respiratory exposure
  - Wet the material and clean it up in a non-friable state
  - Use certified HEPA Vacuum
    - Make sure proper vacuum cleaning techniques are being used to not create another hazard during cleaning / emptying.

For Any other questions or concerns contact AVB's Safety officer for information and direction prior to starting any activities that may create a potential hazard.

Company Policy

AVB is committed to the prevention of exposures that result in injury and/or illness; and to comply with all applicable state health and safety rules. To make sure that all affected employees know about information concerning the dangers of all hazardous chemicals used by AVB and any contractor on site, the following hazard communication program has been established. This written program will be available in field supervision office, and at the main Centre St. office for review by any interested employee.

A. Container Labeling
AVB Field Supervisor & AVB Safety Officer are responsible for container labeling procedures, reviewing, and updating. The labeling system used at AVB is as follows:

- ***All containers must be labeled with the appropriate & current contents.***
- ***All containers, that apply, must have the manufactures original label on the container.***
- ***If a label is missing, the product must be removed from the site, or have the appropriate label that meets the new Global Harmonization Standards.***
- ***SDS information must be readily available for the product.***

B. Safety Data Sheets (SDS)
The AVB Safety Officer, along with the AVB Field Supervisor, are responsible for establishing and monitoring avb's SDS program. This person will make sure procedures are developed to obtain the necessary SDSs and will review incoming SDSs for new or significant health and safety information. This person will make certain that any new information is passed on to affected employees.

The procedures to obtain SDSs and review incoming SDSs for new or significant health and safety information are as follows:

- **Upon products entering the site, where the product is to be used, a copy of the SDS sheet must be given to the AVB Field Supervisor.**
- **It is the responsibility of the contractor bringing the product on site to notify the AVB Field Supervisor, and provide with the appropriate SDS documentation.**
- **All SDS sheets obtained in the field shall be sent to the AVB Field Supervisor and/or AVB Safety Officer for review, will be archived in the AVB database, and will be readily available on site.**
- **A site safety review will be held, with all site personnel, prior to the use of any hazardous material that may cause a hazard to any employee on site.**
- **All AVB Field Supervisors are provided with the means to access any SDS sheets needed digitally. (AVB employees are provided with smart phones, tablets, computers, etc.)**
- **Any hazardous materials shall not be used unless granted permission by the AVB Field Supervisor.**

Copies of SDSs for all hazardous chemicals in use will be kept in *Field Office & Central AVB Da*tabase. SDSs will be available to all employees during each work shift. If an SDS is not available or a new chemical in use does not have an SDS, immediately contact:

Rex Trott – Safety Officer (269) 760-4042

C. Employee Information and Training
AVB Safety Officer & AVB Human Resources are responsible for the employee training program.
The procedures for how employees will be informed and trained are as follows:

- ***AVB Employees will be provided with the AVB Written Hazard Communication Policy***
- **AVB Employees will be provided with the MIOSHA Haz-Com & Global Harmonization training program.**
- **AVB Field Supervision will have monthly safety meetings.**

D. Multi-employer workplaces
It is the responsibility of the Sub Contractor to notify AVB Field Supervision, and any workers on site, that there will be a potential hazardous material being used on site if there is an exposure risk.

- Copies of SDSs will be readily accessible at the site meeting / office location.
- Inform on site employees of any precautionary measures that need to be taken to protect workers during normal operating conditions.

<u>It is the responsibility of Sub-Contractor to obtain SDSs, inform, and train their own employees on the proper use, potential hazards, and appropriate PPE needed for their materials being used.</u>

Global Harmonization Standard Pictograms

Carcinogen
Mutageniciy
Reproductive Toxicity
Respiratory Sensitizer
Target Organ Toxicity
Aspiration Toxicity

Flammables
Pyrophorics
Self-Heating
Emits Flammable Gas
Self-Reactives
Organic Peroxides

Irritant (skin and eye)
Skin Sensitizer
Acute Toxicity
Narcotic Effects
Respiratory Tract Irritant
Hazardous to Ozone Layer

Skin Corrosion/Burns
Eye Damage
Corrosive to Metals

Explosives
Self-Reactives
Organic Peroxides

Gases Under Pressure

Oxidizers

Acute Toxicity (fatal or toxic)

Aquatic Toxicity

Global Harmonization Standard

Required information on Labels

Sample Label

Forms Appendix

Appendix A: Subcontractor Monthly Incident Summary Report

Project No.: _______________

Project Name: ______________

SubContractor Name: _____________

Sub-SubContractor to:_____________

BUILD SOMETHING BETTER.
4200 W. Centre Avenue
Portage, MI 49024
Ph. 269.323.2022
Fx. 269.323.2484

Starting Report Date: **Click here to Select Date** **Ending Report Date:** **Click here to Select Date**

This form must be submitted to AVB Construction no later than the 5th of each month. It is to be submitted even if no accidents occurred. ***Failure to submit this report on time may result in not receiving payment.***

Directions: Report all injuries, no matter how minor as indicated below! *When reporting number of OSHA recordable medical cases that had lost work days, enter number of calendar days away from work (do not count first day of injury, but the weekends must be counted). Carry over days from a previously reported lost time case where the worker is still off work in this reporting period. Report the number of OSHA recordable medical cases that had restricted or light duty work and the total number of calendar days or restricted or light duty (do not count the first day of injury, but the weekend must be counted). Carry over days from a previously reported restricted or light duty case where the worker is still on restricted or light duty. Report number of first aid only cases for period as well.*

	Man- Hours Worked	First Aid Injuries	Medical Treatment Only	Lost Time Injuries	Days Lost	Restricted Work Injuries	Days of Restricted Work
Month							
YTD							

Report Author: ____
PRINT NAME

Signature: ____ **Date:** **Click here to Select Date**

Phone Number: ____________________

Appendix B: General Safety Work Practices Poster

Clean and safe working conditions are absolutely essential for achieving a Safe Worksite 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 a Safe Worksite Environment.

avb
BUILD SOMETHING BETTER.

4200 W. Centre Avenue
Portage, MI 49024
Ph. 269.323.2022
Fx. 269.323.2484

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 or callously disregards these rules or other applicable health and safety rules.

1. It is the responsibility of each worker to perform his/her assigned duties so as to provide:
   a. Safety for themselves and their fellow worker
   b. Protection of the general public and all other workers
   c. Protection of equipment, materials and tools
2. Report all unsafe acts and conditions to supervision.
3. Report work related injuries or illnesses immediately to supervision.
4. Work only in conditions that appear to be safe.
5. Use proper fall protection when working six (6') feet or greater above the surface.
6. Wear the minimum personal protective equipment (hardhat, safety glasses, shirt, trousers, and work boots).
7. Use tools and equipment properly. Remove damaged or defective tools and equipment from service.
8. Lock out and tag equipment, machinery, and/or systems prior to working on them.
9. Maintain clean and orderly work areas.
10. Operate tools and equipment with proper guards and safety devices in place.
11. Request instruction from supervision when unsure as to the safe performance or procedures.
12. Obtain authorization and training prior to entering a confined space.
13. Operate equipment, machinery or any specialty tool (e.g., powder-actuated tools) only with proper training and authorization.
14. Wear eye and face protection when cutting, welding, grinding, chipping, or performing other tasks where the danger of flying debris exists.
15. Use safe lifting techniques when required to lift material or other loads.
16. Wear respiratory protection when the task or work area requires it.
17. Ride vehicles only in the cab with proper restraining devices.
18. No worker will be under the influence of drugs/alcohol or engage in any horseplay, fighting or gambling of any form.
19. Observe and comply with covered, barricaded, taped, or flagged areas. Do not remove, cross, or enter without proper authorization and protection.
20. No worker will intentionally discharge or remove fire-fighting equipment.
21. Radios and other audio distractions are not allowed in any work area.

Appendix C: Jobsite Incident Report

AVB Job Number: _____

Project Name: _____

AVB Superintendent:

BUILD SOMETHING BETTER.
4200 W. Centre Avenue
Portage, MI 49024
Ph. 269.323.2022
Fx. 269.323.2484

Report Details:

1. Company Involved in Incident: _____
2. Person involved in incident: _____
3. Date of Incident: _____
4. Location of Incident: _____
5. Type of Incident: _____
6. Description of Incident: _____
7. Witness(es) to Incident: _____
_____
_____

Report Author: ____
PRINT NAME

Signature: ____ **Date:** **Click here to Select Date**

Appendix D: Hot Work Permit

AVB Job Number: _____

Project Name: _____

AVB Superintendent: _____

BUILD SOMETHING BETTER.
4200 W. Centre Avenue
Portage, MI 49024
Ph. 269.323.2022
Fx. 269.323.2484

Hot Work Permit #: _____ **Date of Work: Click to Select Date**

Times work will take place**: Start Time: _____ AM PM End Time: _____ AM PM**

Company Name: _____

Location of Work (Building, Floor/Level, etc.): _____

Description of Work: _____

Are there any special measures/precautions that need to take place?

Names of Person(s) involved in activity:

______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________

Each employee to initialize by their name above after reading and understanding the following Requirements, Duties and Uses:

Hot Work Activities:

1. Hot work activities include any spark-producing activity that includes welding, burning, and grinding.

Requirements:

1. Each foreman will complete permit and have authorized prior to performing any hot work activities.
2. Foreman will instruct employees as to work being performed, precautions to be taken, how to use a fire extinguisher correctly, emergency procedures in case of fire, and the duties of a fire watch.
3. Work area must be clear of combustible and/or flammable material within a 35' radius. If these materials are immovable, then fire blankets or other fire-resistive material must protect them.
4. A twenty-pound, or larger, dry-chemical fire extinguisher must be in immediate vicinity of work area.
5. Sparks and slag shall be confined to the work area. When working in elevated areas, protect areas below from sparks and slag.

Fire Watch Duties:

1. Continually check work area and all adjacent areas (above, below, around) to ensure free of fire during work activities, during breaks and for ½ hour after completed activities.
2. Trained in the proper use of a fire extinguisher and how to summon fire department or brigade.

Fire Extinguisher Use - Follow the P.A.S.S. method:

1. **P**ull the pin on the extinguisher.
2. **A**im the extinguisher nozzle at the base of the fire.
3. **S**queeze the handle.
4. **S**weep the base of the fire.

Authorized Approval Signature:

Report Author: ____________, **Title:** __________
PRINT NAME

Signature: ______________________________ **Date: Click here to Select Date**
AVB Construction Project Manager, Superintendent, or Safety Director

AVB Job Number: ______

Project Name: ______

AVB Superintendent: ______

avb
BUILD SOMETHING BETTER.
4200 W. Centre Avenue
Portage, MI 49024
Ph. 269.323.2022
Fx. 269.323.2484

WORK DETAIL:

Confined Space Entry Permit #: ______ Company Name: ______, First-line Supervisor: ______

Date of Work: **Click to Select Date** Time(s) of work: **Start Time:** ______ **AM PM** **End Time:** ______ **AM PM**

Location of Work (Building, Floor/Level, etc.): __________

Type of Confined Space: ☐Tank ☐Pipe ☐Manhole ☐ Tunnel ☐ Vault ☐ Other: ______

Description & Purpose of Work: ______

Are there any special measures/precautions that need to take place? ______

REQUIRED VERIFICATION(S):	Date	Entry Supervisors' Initials
1. Lockout/ Tagout (electrical Mechanical, Hydraulic, etc.	____________	____________
2. Purged, Cleaned, Drained and Ventilated	____________	____________
3. Employee Training	____________	____________

EACH ITEM BELOW IS REQUIRED for Confined Space Entry. Check each item as it is verified:

- ☐ Safety Department Notified
- ☐ Adequate Access
- ☐ Adequate Lighting (low voltage)
- ☐ Harness / Lifelines
- ☐ Training
- ☐ Ventilation Adequacy
- ☐ Authorized Entry Log at Access
- ☐ Authorized Entry Log at Access
- ☐ Warning Signs Posted at Access
- ☐ Attendant
- ☐ Fire Extinguisher Available
- ☐ Continuous Air Monitoring
- ☐ Communications Equipment
- ☐ Respirators Required? If yes, list type. If no, list "Not Required".: ____________
- ☐ Protective Clothing Required? If yes, describe: If no, list "Not Required".: ____________
- ☐ Rescue Equipment/Service Available (i.e.Tri-pod/winch or emergency services)? List Type(s): ____________
- ☐ Hot Work Permit Required? If yes, list Permit #. If not, list "Not Required".: ____________

Attendant(s) Name(s):	**Entrant(s) Name(s):**
____________	____________
____________	____________
____________	____________

* Attach a separate log if more entrants are involved in permit required confined space activity than allowed for on this form.

Air Monitoring required for all entries							
Make:		Model:			ID:		
Field Calibration Date:			Calibrated by:				
Atmosphere Checked By:							
Contaminants	**Permissible Levels**	**1st**	**Time**	**2nd**	**Time**	**3rd**	**Time**
% Oxygen (O2)	19.5% to 23.5%						
LEL	Less than 10%						
Carbon Monoxide (CO)	Less than 35 ppm						
Hydrogen Sulfide (H2S)	Less than 10 ppm						
Other:							
*** 1ST CHECK TO BE COMPLETED PRIOR TO ENTRY**							

IN CASE OF EMERGENCY, CALL: ____________ ***OR*** ____________

Authorization

Entry Supervisor: ____________ ____________ **Date:** ____________

Print Name Signature

NOTE: Trenches over 4 feet deep will use a protective system.

Appendix F: Notice to Commence Steel Erection

AVB Job Number: _____

Project Name: _____

AVB Superintendent: _____

BUILD SOMETHING BETTER.
4200 W. Centre Avenue
Portage, MI 49024
Ph. 269.323.2022
Fx. 269.323.2484

(Steel) SubContractor Company: _________ Company Phone Number: _____
Company Address: _____ City: _____ State: _____ Zip: _____
Contact Name: _____ Contact Phone Number: _____

AVB Construction is hereby authorizing you to commence steel erection activities with the following notifications:

Repairs or modifications were made to anchor rods/bolts: ☐ Yes ☐ No Locations of repairs/modifications (attach if necessary):: _____	Approval by: (Structural Engineer of Record): Approval in writing? ☐ Yes ☐ No (attach) Date approved: _____ As built drawings available? ☐ Yes ☐ No

You are notified of your responsibility to: (initial each)

Indicate to AVB Construction what material laydown areas are needed, and intended routes of transferring materials. Only those designated laydown areas will be utilized, and AVB Construction responsibility to maintain laydown areas will be limited to those that are designated.	Initials:
Preplan all overhead hoisting operations to prevent traveling loads over other contractor personnel, and to coordinate hoisting activities with AVB Construction and other contractors to minimize impacts on other operations.	
Provide a written site-specific erection plan if any part of your operations will deviate from the published OSHA Standard 29 CFR 1926.752(e).	
Conduct daily inspections of all cranes, forklifts, and other hoisting equipment utilized in steel erection activities.	
Assure that all columns are properly anchored by a minimum of 4 anchor bolts.	
Properly install perimeter guardrail systems on all exterior and interior leading edges consisting of a top rail and mid rail meeting the requirements of 29 CFR1926.502 (b)(1-15)	
Maintain required fire protection/prevention equipment appropriate to the type of work operation and hazards involved.	
Meet all other requirements of the AVB Construction Incident Prevention Program, Published OSHA Standards, and the requirements of local regulations.	

AVB Construction Project Manager/Superintendent

Signature Date

Print Name and Title

Steel Erector Subcontractor

Signature Date

Print Name and Title

Appendix G: Daily Scaffold Safety Inspection Report

AVB Job Number: _____

Project Name: _____

AVB Superintendent: _____

BUILD SOMETHING BETTER.

4200 W. Centre Avenue
Portage, MI 49024
Ph. 269.323.2022
Fx. 269.323.2484

Inspection by: ______________________________ **Date:** ______________
(Must Be a Competent Person)

Company Name:

Time: ______________________________ **Time:** ______________

Scaffold Location: ______________________________

Inspection Criteria

Item:		Yes	No	N/A	Action Taken:
1	Are 2"x10" mud sills and base plates used?	☐	☐	☐	______
2	If CMU piers are used for footings are they poured solid?	☐	☐	☐	______
3	If CMU piers are used for footings are they poured solid?	☐	☐	☐	______
4	Are scaffold frames plumb and level?	☐	☐	☐	______
5	Are scaffold frames pinned together to prevent displacement?	☐	☐	☐	______
6	Are cross braces used at all locations?	☐	☐	☐	______
7	Are frames and braces compatible?	☐	☐	☐	______
8	Are all working levels fully planked (Max. 1" gap between planks)?	☐	☐	☐	______
9	Are all platforms at least 18" wide?	☐	☐	☐	______
10	Is the work platform not more than 14" from the wall?	☐	☐	☐	______
11	Do all planks overlap their end supports 6"-12"?	☐	☐	☐	______
12	Are scaffold planks free of damage, splits, etc.?	☐	☐	☐	______
13	Are scaffolds secured to the structure once the scaffold is 4 times as high as it is wide including guardrails?	☐	☐	☐	______
14	Are scaffold ties repeated every 26' vertically after the first set of ties?	☐	☐	☐	______
15	Where scaffold ties are required are they installed at both ends of the scaffold and at 30' max. intervals between ends?	☐	☐	☐	______
16	Is a safe means of access provided to all scaffold platforms more than 2' high? (Extension ladders, attachable ladders, stairs or integral ladder access frames must be used.)	☐	☐	☐	______
17	Does the ladder extend 3' above the platform?	☐	☐	☐	______
18	Are ladders secured to prevent displacement?	☐	☐	☐	______
19	Are ladders installed as scaffold is erected to provide access for erectors?	☐	☐	☐	______
20	Are scaffolds at safe distances from power lines?	☐	☐	☐	______
21	Are tag lines used when hoisting loads onto scaffolds with cranes?	☐	☐	☐	______
22	Are guardrails installed on all platforms over 6' high?	☐	☐	☐	______
23	Is the top rail between 38"–45" high and capable of supporting 200 lbs?	☐	☐	☐	______
24	Are midrails capable of supporting 150 lbs.?	☐	☐	☐	______
25	Where cross bracing is used as a midrail is the crossing point of the brace between 20" –30" above the work platform?	☐	☐	☐	______
26	Where cross bracing is used as a top rail is the crossing point of the brace between 38" –48" above the work platform? (cross bracing cannot serve as both top rail and midrail	☐	☐	☐	______
27	Are platforms kept clear of unnecessary material and debris?	☐	☐	☐	______
28	Are all material platforms equipped w/ toeboards?	☐	☐	☐	______

29	Are all areas below and around scaffolds barricaded to prevent workers from walking under scaffolds?	☐	☐	☐	
30	Are canopies erected when workers must pass under scaffolds?	☐	☐	☐	
31	Are all scaffolds that are incomplete tagged “Danger Do Not Use”?	☐	☐	☐	
32	Are all damaged components removed from service and tagged “Danger Do Not Use”?	☐	☐	☐	
33	Are there legible scaffold tags at each access point?	☐	☐	☐	
34	Is the tag proper for the scaffold condition? (red, yellow, or green)	☐	☐	☐	

Competent Person’s Signature: ______________________ Date: ____________

Superintendent’s Signature: ______________________ Date: ____________

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Date:

Fall Protection:

- ☐ All unprotected edges which create a fall hazard have been properly guarded.
- ☐ All existing handrails have been checked for damage / removal.
- ☐ All wire rope handrails are not sagging and have been marked with caution tape.
- ☐ All harnesses / lanyards have been checked for damage.
- ☐ All floor openings have been covered / fastened / labeled "HOLE."

Electrical Safety:

- ☐ Every receptacle used for construction activities has a working GFCI.
- ☐ All extension cords have been inspected for damage / missing ground.
- ☐ All panels have been labeled / covered.

General Safety:

- ☐ All employees are wearing a hardhat.
- ☐ All employees wearing work boots
- ☐ All employees wearing safety glasses
- ☐ All walkways are clear and free of debris / materials.
- ☐ First Aid kit on site and properly stocked.
- ☐ All roads in and out of the jobsite are maintained for emergency traffic.

Report Author: ____________, Title: __________
PRINT NAME

Company:___________

Signature: ____ Date: Click here to Select Date

AVB Job Number: _____

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Name of Contractor(s):

____
____
____
____

Scope of Work:
☐ Temporary Electrical Service
☐ Permanent Electrical Service
☐ Mechanical Work
☐ Other: ______________________________

Name of Contractor's On-Site Supervisor: ______________________________

Date of Coordination Meeting: ____________ Date(s) LO/TO Will Be In Affect: ______________________

Electrical hazards and many forms of stored energy are unique in that there are very few properties that warn of their presence**.** **The goal of this Checklist is to minimize the circumstances where electrical workers and others are exposed to the deadly hazards associated with stored energy.**

This Checklist shall be used to identify and/or review the following:
☐ Scope of work that requires LO/TO,
☐ Identify circumstances and/or locations where electrical hot work or other 'hot taps' cannot be avoided, and
☐ Identify the procedures and safety precautions that will be followed in the event hot work or a hot tap must proceed.

The contents of this Checklist shall be reviewed with all affected contractor employees and AVB Construction personnel.

Name of Meeting Attendees	Title, Company	Name of Meeting Attendees	Title, Company

1. Does the Owner or host employer have a LO/TO Permit or LO/TO requirements? ☐ Yes ☐ No
2. Has a project specific safety plan or Job Hazard Analysis (JHA) been developed by the contractor(s) doing the work? ☐ Yes ☐No
3. What type of energy sources or systems will be worked on and/or need to be isolated and locked out (check all that apply):

Type of System	LO/TO Required? (Check One)		
	Yes	**No**	**N/A**
☐ Electrical			
☐ High volt (≥ 480 v)			
☐ Low volt (< 480 v)			
☐ Mechanical			
☐ Hydraulic/Steam			
☐ Pneumatic			
☐ Chemical			
☐ Other			

4. Are other contractors or entities affected by this lockout? ☐ Yes ☐ No

   If yes, please identify: _____

5. Identify the companies and individuals who will responsible for leading the Lockout-Tagout program for their employer. These individuals must be on site for the duration of the lockout-tagout in most circumstances.

Company Name	**Name of Individual**

☐ Check here if AVB Construction will be participating in locking out the affected system(s).

Safety Equipment and Procedures Checklist **Yes** **No**

1. Will the work proceed in a flammable or Class I atmosphere? ☐ ☐
   If no, continue to item 2. If Yes, check all safety equipment that will be used.
   ☐ Non sparking tools
   ☐ Intrinsically safe lights, tools, radios, etc.
   ☐ Non static charging clothing or shoes
   ☐ LEL Monitor

2. Will other trades be working in the immediate vicinity of live circuits or otherwise be affected or exposed to the hazards of the activity? ☐ ☐
   If Yes, describe safety precautions that must be taken to protect affected workers:

3. Check the safety equipment or procedures that will be followed to protect the safety of the workers conducting live work (hot taps, working on energized circuits, etc):

☐ Safety glasses with side shields and/or face shield	☐ Electrical blankets	☐ Gloves (electrical, hot work, or chemical resistant?)
☐ Hard hat (regular or high volt?)	☐ Blankets for hot work	☐ Insulating mats
☐ Leathers or heat resistant clothing	☐ Chemical resistant clothing	☐ Barricades around the work area
☐ Insulating tools	☐ Air monitor	☐ Retrieval equipment
☐ Low volt lighting	☐ Harness and lanyard	☐ Locks and Tags

4. To be completed by the employer(s) completing the work: If work is to proceed on live, energized, charged, or otherwise operating systems, describe why work cannot proceed in a locked-out or de- energized state:

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Structure Type: ______________________________

Basement: ☐ Yes ☐ No Type: ☐ Block ☐ Concrete ☐ Other:

Building Height: ____________________ No: of Stories: ____________________

Shoring Required: ☐ Yes ☐ No

If yes, provide the following information:

Type of Shoring: ____________________

Location of Shoring: ____________________

Adjacent Properties: ☐ Yes ☐ No

If yes, provide the following information:

Protection Required: ☐ Yes ☐ No

Underground Tanks: ☐ Yes ☐ No

Location of Tanks: ____________________

Previous Use: ____________________

Tanks Drained: ____________________

Tanks Purged: ☐ Yes ☐ No Date purged: ____________________

Tested: ☐ Yes ☐ No By: ____________________

Public Prot. Required: ☐ Yes ☐ No **Describe:** ____________________

If yes, provide the following information:

Signage: ☐ Yes ☐ No **Describe:** ____________________

Barricades: ☐ Yes ☐ No **Describe:** ____________________

Fencing: ☐ Yes ☐ No **Describe:** ____________________

Describe Demolition Methods: ______________

Disconnects

Reference No: _____

Utility Disconnect:

Electric:	☐ Yes	☐ No	Phone:	☐ Yes	☐ No
Gas:	☐ Yes	☐ No	Security:	☐ Yes	☐ No
Water:	☐ Yes	☐ No	PC Network:	☐ Yes	☐ No
Sewer:	☐ Yes	☐ No			

Disconnect Date: _____

Utility Contact Name: _____ **Utility Contact Phone:** _____

Location of Energized Power / Communication Lines / Gas:

[ ] Original –Superintendent

[ ] Copy-General Superintendent

[ ] Copy-Main Office Safety File via Safety Director

Signature:

Print Name:

Date:

AVB Job Number: _____

Project Name: _____

AVB Superintendent: _____

avb
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Subcontractor: ______________________________ **Date Observed:** ____________________

Job Site:

Type of Deviation:

☐ Safety/Health ☐ Housekeeping ☐ Environmental

Location:

Description of Deviation:

Describe Remedial Work Required:

The subcontractor is hereby directed to perform the noted remedial work by no later than _____________. Until the remedial work is completed by the subcontractor and acknowledged by AVB Construction, $_____________ will be withheld from any payment due to the subcontractor prior to the specified date. This document will serve as written notice that AVB Construction, at its sole discretion and without any further notice, may elect to perform the remedial work and all associated costs will be deducted from the subcontractor's price.

AVB Construction Initiator: ____

Remedial Work Acknowledgement

Remedial Work Performed by: ______________________________ Back charge: $ ________________

Remedial Work Observed: __________________________ Date Observed: __________________________

Additional Copies: ____________________ Project Accounting Regional EHS Director: ________________