

GRUNLEY

CORPORATE SAFETY PLAN

REVISED: 11/15/2021



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SECTION I:

INTRODUCTION

- A. Company Safety Policy
- B. Distribution of Safety Program
- C. Employee Safety Statement
- D. New Field Employee Safety Checklist
- E. Project Safety Orientation

A. COMPANY SAFETY POLICY

Grunley Construction Company, Inc. is dedicated to the health and safety of all of its employees and those of its subcontractors. It is our desire that everyone involved in our projects recognizes the value of adhering to our safety program, and we provide on-the-job training as necessary to assure that all employees are aware of hazards on-site. We intend to provide full cooperation with all organizations and agencies regarding safety on the jobsite, in an effort to eliminate accidents and injuries.

It is the goal of Grunley Construction Company, Inc. to have 100% accident-free and injury-free projects. Toward that end, this Corporate Safety Plan will be supplemented by a Job Specific Safety Plan (JSSP) for each project. A Safety Manager, responsible for overall monitoring and enforcement of the Corporate Safety Plan and Job Specific Safety Plan, will be designated for each project. All employees are required to read and demonstrate understanding of the safety documents.



B.H. SCOTT, II (CHIP), PRESIDENT

B. DISTRIBUTION OF SAFETY PROGRAM

At the time of employment, all employees are issued **Personal Protective Equipment (PPE)** to include **non-vented hard hats (Class E for high voltage and Class G for low voltage conductors)**, **clear and dark safety glasses**, **cut resistant gloves**, **a Class 2 high visibility safety vest**, earplugs, respirators if qualified, and a copy of Grunley Construction Company's Corporate Safety Plan. The safety instructions are concise and are pertinent guides to be followed by all employees. It is the Project Superintendent's responsibility to make certain that assigned foremen are thoroughly familiar with these instructions, and it is the Foremen's responsibility to ensure compliance of the employees working under their direction. Violation of these instructions may be cause of **temporary or permanent removal from the project or termination from employment.**

It is the Project Superintendent's responsibility to secure a signed Employee Statement indicating that the employee has read and understands the Grunley Construction Corporate Safety Plan. Copies of this statement will be retained at the jobsite and **sent to the Human Resources Department at the Grunley Main Office.** The Project Superintendent or the Foreman must witness all signatures.

In some instances, the collective bargaining agreement of certain crafts will state that the employee can only be required to sign the W-4 card. If the employee is not allowed to sign the statement, the Project Superintendent will still execute the statement, indicating that the employee has received a copy of the Corporate Safety Plan as well as a general safety orientation and note "Employee Refused to Sign" on the form.

C. EMPLOYEE SAFETY STATEMENT

I, _____ {Insert name of employee here} _____, have received a copy of the Grunley Construction Company Corporate Safety Plan, and have received further safety orientation for the project where I will be working.

I agree to comply with the Grunley Construction Company Corporate Safety Plan as long as I continue to be an employee of Grunley Construction Company. I will report accidents or injuries of any nature to my supervisor immediately after the occurrence, no matter how minor or slight the incident or injury is. In cases of injury or involvement in an accident, I will comply with the Grunley Construction Company Corporate Safety Plan and take the required drug and/or alcohol test as requested and deemed necessary based on the circumstances. I will also follow all instructions given to me by medical providers and **the Grunley Director of Risk Management and Director of Safety with copies of medical records and notice of all follow-up doctor's appointments.** When warranted and made available, I will perform the given light duty work within the medical providers restrictions and guidelines.

I understand that if there are any questions, issues, or problems related to an on-the-job injury, medical treatment, medical bills, and/or provisions for light duty that I will need to call the **Grunley Director of Risk Management or Director of Safety.**

I also understand that I am supposed to coordinate and communicate directly to the Grunley Labor Manager and Project Superintendent I am assigned to when provided with light duty or restricted duty work. If there are any problems related to my appointments and inability to arrive to the work location and perform the provided work I am to **immediately contact the Grunley Director of Risk Management or Director of Safety,** Superintendent, and Labor Manager directly to make them aware of the circumstances.

Upon arrival to the light duty or restricted duty work location I am to provide the Superintendent with a doctor's note after each office visit stating my restrictions and capabilities, along with information related to the next scheduled appointment.

I am aware of Grunley Construction Company's management structure and know who I need to contact with questions, complaints, and suggestions of any nature. This includes the Director of Human Resources, Keri Hardnock, who is an alternate point of contact and can be reached at <KeriHardnock@grunley.com> or 240.435.1526.

PRINT NAME _____

SIGNATURE _____

DATE _____

WITNESS PRINT NAME _____

WITNESS SIGNATURE _____

TO BE FILED IN EMPLOYEE'S PERSONNEL FILE

D. NEW FIELD EMPLOYEE SAFETY CHECKLIST

When a new field employee begins work at a Grunley Construction Co., Inc. project site it is the responsibility of the Project Superintendent (or a designated supervisor) to provide the new employee with an introductory safety briefing and assure that the new employee is familiar with the Grunley safety procedures. Superintendents are to return this completed document to the Human Resources Office within two (2) business days after the employee has started work at the project. The following checklist is intended to assist the Superintendent in this process.

- HR to provide a copy of the Corporate Safety Plan during new hire orientation
- Superintendent to review site specific safety indoctrination information
- Employee told where a copy of the JSSP is located onsite
- Review Section VI – D. Safety Personnel and Responsibilities
- Review Section VI – E. Emergency Procedures
- Review Section VI – F. Emergency Action Plan
- Review Section VI – G. Emergency Telephone Numbers
- Review Section VI – H. Accident Investigation
- Review Section VI – I. Serious Incident Reporting Procedure
- Review Section VI – J. Accident Reporting
- Review Section VI – L. Safety Meetings
- Review Section VI – M. Hazardous Communication & GHS Program
- Review Section VI – N. Procedures for Governmental Safety Inspections
- Review Section VI – O. Employee Respiratory Protection Program
- Review Section VI – P. Safety Guidelines
- Review project specific criteria for Personal Protective Equipment (PPE) (e.g. required and accepted clothing, **non-vented hard hat (Class E for high voltage and Class G for low voltage conductors), safety toed work boots, cut resistant work gloves, high visibility Class 2 vests, ear plugs, safety glasses (clear and dark lenses), respiratory protection (if applicable)**, personal fall arrest systems, etc.)
- Issue all appropriate Personal Protective Equipment (PPE), personal fall arrest systems, and review proper set up, wearing, and maintenance procedures.
- Confirm or provide safety training prior to using PPE, tools, and equipment
- Review general site conditions and activities likely to be encountered on the site and specific safety procedures related thereto (e.g. PPE, signage, rigging, power-operated tools, powder-actuated tools, fall protection, cranes, and elevators). Discuss and note any areas where additional employee training would be beneficial.
- Employee to complete the respiratory medical evaluation questionnaire for submission to the Director of Safety as part of the Respiratory Protection Program.
- Review site specific housekeeping procedures
- Review no smoking, fire protection and fire prevention procedures, daily hot work permits, etc.
- Review in detail site specific procedures relevant to the employee's trade or likely activities.

SUPERINTENDENT: PRINT NAME _____
SIGN NAME _____ DATE: _____

EMPLOYEE: PRINT NAME _____
SIGN NAME _____ DATE: _____

E. PROJECT SAFETY ORIENTATION

FROM: Dan Snyder, Director of Safety

REFERENCE: {INSERT PROJECT NAME}

SUBJECT: Safety Orientation

The following contain safety and health information that shall be discussed with each worker **coming to the site** as part of their indoctrination before they begin work.

1. Emergency Situations – In the event of an emergency situation, please contact the Grunley Superintendent/Site Safety & Health Officer (SSHO), **{INSERT NAME, and phone number}**.
 - a. A list of those personnel that are qualified First Aid and CPR certified will be established and updated.
 - b. In the event of an emergency, you are asked to do the following:
 - Assure that work taking place is being monitored by **the approved Competent Person**
 - Have a two-way radio or cellular phone and the point of contact list
 - Call the Grunley Superintendent or SSHO and they will coordinate the dispatch of emergency services to the specific location
 - Have a **20# ABC** fire extinguisher and first aid **and bloodborne pathogen kit** handy
 - If the emergency is one that creates an unsafe work area, the Grunley Superintendent/SSHO will provide verbal orders to personnel to meet at the rally point located **{INSERT RALLY POINT}**. This means to:
 1. Vacate the work area,
 2. Collect all personnel the designated rally point location,
 3. Each Foreman to perform a head count,
 4. Complete a sign in sheet with legible printed name, signature, and cell phone number for each person to assure that all have been accounted for.
 - If the emergency is an injury situation and the area is safe to occupy, stay with the injured person and aid them. Call the Grunley Superintendent to notify them of the situation. Keep the person calm and comfortable until assistance or emergency services arrive. Each subcontractor is required to have a First Aid and CPR certified person. Determine if personnel in the work area are First Aid and CPR certified so they can assist.
 - **Accident reports with witness statements and the completed OSHA 301 form for recordable injuries are required to be provided to Grunley within 24 hours after the accident.**
 - c. Spill Response – If the emergency involves a spill of chemicals or materials, personnel must follow the provisions outlined in the SDS information. Each subcontractor performing work on this site shall have a **spill kit that is capable of collecting and absorbing all the released materials and** a binder that contains the SDS's information for the materials they will be working with or access to electronic SDS information.

The Grunley Superintendent will have a SDS binder located in their office or access to an electronic site that contains all of the SDS's provided to him for materials that will be used on the site.

2. Supervision – Each subcontractor must have a **qualified and pre-approved Competent Person** (and alternate if needed) onsite at all times while work is taking place. **The Competent Person must be experienced and** knowledgeable of the work, the associated safety hazards, necessary actions that are required, and is capable of adequately communicating with the Grunley Superintendent. **If the approved Competent Person is not onsite to oversee the work, then the work will not be allowed to take place.**

3. Personal Protective Equipment (PPE) – **To be worn 100% of the time includes non-vented hard hats (Class E for high voltage and Class G for low voltage conductors), safety glasses (clear indoors), cut resistant gloves, and safety toed work boots with full leather uppers.** No short pants or tennis shoes are to be worn on site. No baseball caps, knit hats, or hoodies shall be worn under hard hats. **Only approved hard hat liners that attach to the hard hat suspension system or tight-fitting doo rags, bandana's or welding beanie's are to be worn under hard hats if needed. When face shields or welding hoods are worn they must be the type that attach to the hard hat.**

4. Fall Protection – Each person working at heights greater than 6' must be provided with a complete guardrail system or a Personal Fall Arrest Systems (PFAS). Wall openings, **to include duct and mechanical shafts, window openings. Leading edges and parapets** that are higher than 6' and/or has a window stool height **or horizontal ledge that** is less than 39", must be protected with guardrail systems or adequate protection such as plywood **that is sufficiently installed with bilingual "Fall Hazard" signage posted.** Personal fall arrest systems shall be used as they are **designed by the manufacturer.** Connection points shall be placed high enough **above and/or behind the person using them** to assure **the system works as designed and so** the worker does not come in contact with structures or the ground if a fall should occur. Lanyards are not designed to be tied back **to themselves** or be connected to another lanyard. Attachment hooks must be the double action type and are to be secured to an **approved fall protection strap or manufacturer designed and engineered anchor point system. Knots in lanyards, straps, or on horizontal or vertical lifelines, or any personal fall protection or fall arrest system is strictly prohibited. The Safety Monitor System for fall protection is prohibited.**

5. Holes and Floor Openings – All holes, floor openings or floor depressions greater than 2" in size must have a cover installed over them that is secured in a manner to prevent displacement and marked with "HOLE" painted on them with high visibility paint. **The HOLE signage must be refreshed as needed to assure it is maintained visible. Floor opening covers at a minimum must be made of solid 3/4" CDX type and not OSB type plywood.** If rolling scaffolding, scissor lifts, forklifts, articulating boom lifts, bobcats, skid steer loaders, gang ladders, excavators, heavy carts, or any other heavy object may be placed on the floor hole covers then a **Registered Professional Engineer (RPE) will need to be involved at the subcontractor's expense to assure that the cover is designed to withstand the imposed loads and RPE documentation of the cover provided and installed.** Those that plan on using rolling of moving equipment near floor opening covers will need to install secured chock blocks around them to assure they cannot roll over the covers.

6. Cranes – All crane plans will be developed by the subcontractor **using the Grunley Crane Plan Checklist** and reviewed by the Grunley Safety Department for acceptance **before the crane arrives onsite and before the work takes place**. Loads shall not be suspended over personnel. **Whistles will be required by those using the crane to notify and warn others onsite that a load is elevated and being swung overhead so they can move out of the way**. Rigging must be inspected by a qualified and trained person before they are used. **Documentation of Rigger and Signaler training will be required by each subcontractor involved with the related work. Rigger & Signaler training cards must be updated at a minimum of every 5 years. Rigging is required to be inspected before each use. Rigging in poor condition or containing damages must be taken out of service and red tagged “DO NOT USE” and/or destroyed so it cannot be used.** Each crane shall have an annual inspection performed by a qualified 3rd party inspection company **and the related documentation shall be provided in the crane plan. Each Crane shall have a load test performed by a 3rd party testing and inspection company within 3 years and the related documentation provided in the crane plan.** All crane operators must be trained, qualified, **NCCCO Certified with a current and not expired card**, and experienced to operate the specific cranes and/or boom truck. **Evidence of the employer’s evaluation of their crane operator practical capabilities performance for each specific crane they will operate must be documented and provided in the crane plan.**
7. Access Steps, Ladders or Ramps – Must be provided for all points of access to a work area or platform that is greater than 30” in height and also at points of access where employees frequently travel that is greater than 19”. No leaning of stepladders is allowed. Stepladders must be fully open and on flat stable ground. Extension ladders shall be setup on a 4:1 angle and extend **a minimum of 3’** above upper access areas to act as a handhold. **“Ladder-up” type extension ladder side rail extensions can be used if needed.** Standing on the top two steps or top step of a stepladder is not allowed. Extension ladders need to be secured at the top and bottom to prevent displacement. Ladders must be inspected before each use to assure that they do not have broken or cracked side rails, rungs, scissor braces, repairs, holes in the top step or diagonal braces. Any ladder that contains these types of damages shall be taken out of service, destroyed, and disposed. **All manufacturer labels (stickers) must be visible on all ladders. If labels become damaged and are not visible, then the responsible subcontractor will need to promptly place a red “DO NOT USE” tag and take them out of service until the labels are replaced. If scaffolding, gang ladders, or any other heavy object is expected to be placed on access ramps or stairs then the responsible subcontractor shall have a Registered Professional Engineer (RPE) evaluate the area and the proposed loads and provide a stamped and signed RPE letter with details and calculations confirming that the area can handle the loads.**
8. Scaffolding – **A scaffold plan must be submitted to Grunley for review and acceptance prior to erection using the Grunley Scaffold Work Plan Checklist.** The Competent Person assigned to each shift must inspect the scaffolding before the work takes place. A green, **yellow** or red scaffold tag must be placed on the scaffolding by the Competent Person to identify the status of the scaffolding being erected or dismantled and/or to confirm it has been inspected. The setup must be complete with all the required items, such as the castors, base plates, joint pins, cross braces, full work platform, guardrails, toe boards, outriggers, tieback anchors, and any other items that the manufacture requires.

Inspection and tagging of the scaffold shall be performed by the Competent Person who is experienced in the erection of scaffold. A unique scaffold identification tag must be clearly identified. All scaffolds shall be inspected after the erection and prior to use daily as per the Occupational Health and Safety Act requirements. All scaffold identification tags will be of a solid green, yellow, or red color with black lettering. All scaffold identification tags will have the front information displayed and must be completed for each tag.

- Date Erected / Tagged
- Inspected By: Name (print & signature)
- Inspection Date
- Department or Group (Company) Responsible for Erection/Maintaining/Dismantling on the reverse. It is common practice to use the following color schemes:

Green "SAFE FOR USE" tags will be hung on scaffolds that have been inspected and are safe for use. A green tag(s) shall be attached to the scaffold at each access point after the initial inspection is complete. Scaffolding is required to be inspected daily by each subcontractor's Competent Person that has workers using the scaffolding and with Green tags updated daily and prior to work and dated accordingly. Each subcontractor using a scaffold needs to have their own Competent Person for scaffolding and hang their own Green Tag after their daily inspection has been performed.

Yellow "CAUTION" tag(s) will replace all Green "Safe Scaffold" tag(s) whenever the scaffold has been modified to meet work requirements and could present a hazard to the user. This tag indicates special requirements for safe use. The tag as a minimum requirement will have; the unusual or potential hazard marked on the reverse; the preventative measures that must be taken prior to use to mitigate the hazard marked on the reverse; the name of the company representative (printed) using the Yellow tagged scaffold. The yellow tag shall not be removed until the scaffold has been returned to a safe condition and by the inspection of a "Competent Person" and then Green Tagged accordingly. Based on the results of that inspection, if the scaffold is found to be unsafe to use by others then a Red Tag will be hung on the scaffold and the yellow tag removed. NOTE: Use of the "yellow tag" status is not intended to override the green tag system. All efforts should be made to return the scaffold to a "Green Tag" status as soon as possible. Each subcontractor using a scaffold needs to provide their own Competent Person for scaffolding inspect the scaffold daily prior to use and hang their own Yellow Tag at each access area if they have modified the scaffold and areas contain a hazard that others will need to be made aware of.

Red " DANGER – UNSAFE FOR USE" tag(s) will be used during the erection and/or dismantling of the scaffold is not complete and not ready for use. The Red tag(s) as a minimum will include (printed and legible) the project name, the inspection date and the name of the Competent Person who performed the inspection filled in on the front of the card. The designation - under erection, being dismantled, being repaired or required for overhead

protection only, will be printed legibly on the reverse. Scaffold re-inspections must be completed any time when conditions may have changed causing the integrity of the scaffold to be suspect or questionable. The subcontractor erecting or dismantling the scaffold needs to have their Competent Person for scaffolding hang and update their Red Tag daily after their inspection has been performed.

Scaffolding systems must have the engineering provided by either by the manufacturer or by a Registered Professional Engineer (RPE) no matter what height it will be erected. The relevant information, manufacturer cut sheets and/or the RPE stamped and signed drawings will need to be submitted for review and acceptance prior to mobilization and use. Personnel are not to perform work beneath personnel working above. Scaffolding shall contain full work platforms and access ladders or stair towers. Personnel shall not climb cross braces for access to or egress from work platforms. **Cross brace intersections are not to be used for fall protection in place of horizontal top and midrail's.** Horizontal guardrails at the appropriate heights of 42 (+/- 3") toprail, 21" midrail, 4" toeboard shall be installed and maintained.

All scaffolding that will be installed and used as overhead protection for construction workers, building occupants and/or for pedestrians and the general public shall be designed by a Registered Professional Engineer (RPE) to determine the constructed and how far out away from the building or associated hazards the overhead protection will extend to assure that the required protection is provided. The RPE designed overhead protection system cover shall be identified in the stamped and signed drawings and construction requirements and shall contain at a minimum, solid 2" thick lumber materials that includes tightly placed 2"x10" boards with solid ½" plywood complete cover fastened over top of them. The RPE shall also determine how far out from the building or activities the overhead protection shall extend to assure the proper amount of overhead protection is provided.

9. Electrical – Power will be provided with GFCI protection. Power cords shall be inspected by each worker before they are used to verify that the cords do not contain damages, have the ground pin, do not have a bad strain relief with exposed wire insulation on any part of the cord including at the plug end, and do not have damages that are repaired with tape. **Using a power cord that has damages with tape repairs is not allowed.**

Removing a power cord plug end and placing the wires directly into an outlet, device, breaker, or disconnect is not allowed. All electrical installation applications must be installed by a Qualified Electrician in accordance with the National Electric Code (NEC) requirements.

Outdoor power cords shall be used for outdoor use. Home or office type (non-construction or non-heavy/hard duty) multiple plug outlet power strips are prohibited unless they are rated for industrial use. Power cords must be kept elevated out of water and placed where equipment or traffic does not run over them. All electrical rooms shall have a lockable door installed to eliminate entrance by unauthorized personnel. The door requires a "DANGER – HIGH VOLTAGE" sign to be provided and posted **by the electrical subcontractor** to identify the hazards.

Connecting a series of power cords together (“daisy chaining”) is forbidden. All power cords being used on site shall be 12 gauge or heavier rating and rated for hard duty.

Master and Journeyman electricians will be required to provide Grunley with verification of their NFPA 70E training.

- 10. Welding and Hot Work – Welding leads shall not have any damages or repairs within 10’ of the electrode holder or stinger. A Grunley Daily Hot Work Permit (GDHWP) shall be completed by the subcontractors **Competent Person and issued/signed by a Grunley supervisor after inspection of the space and before the hot work takes place. GDHWP’s are required for all flame or spark producing hot work before it takes place each shift. The permit shall be posted in the vicinity of the work or taped onto the required 20-pound ABC fire extinguisher and within 25’ of the hot work activity.****

A 20-pound ABC fire extinguisher must be provided by the subcontractor performing the hot work and must be placed in the vicinity of where the hot work will be taking place. Subcontractors are required to provide their own 20-pound ABC fire extinguishers for their hot work. The Grunley supplied fire extinguishers that have been placed around the construction site must be kept where they are positioned in order to remain in compliance with the safety requirements.

Fire blankets shall be used to cover and protect items that cannot be moved. Trash, combustibles and flammables shall be removed from the areas affected by the hot work. Items that are not flammable or combustible and cannot be removed must be completely and adequately covered with fire blankets. **This will all be confirmed by the subcontractor’s Competent Person when they complete the Grunley Daily Hot Work Permit.**

A fire watch must be provided and clearly identified by wearing a red vest with “FIRE WATCH” printed on the back. The Fire Watch must remain in the vicinity of the hot work area for 1 hour after the work has been completed. If the hot work affects multiple levels, such as in a mechanical shaft or elevator shaft, then multiple fire watch personnel will need to be provided by the subcontractor. They too will also need to wear the required red FIRE WATCH vests. Fire watch personnel will not have other duties other than to watch for fires or smoldering items and fully extinguish them when observed, and to watch and protect the person performing the hot work.

- 11. Fire Prevention – 20-pound ABC fire extinguishers shall be provided by each subcontractor for their specific hot work and/or where required, such as on equipment and where compressed gas cylinders and fuel storage is located. Grunley shall provide 20-pound ABC fire extinguishers throughout the work areas in locations no greater than 75’ travel distance from work taking place. Each fire extinguisher shall have an annual inspection by an outside vendor qualified to perform this task. All fire extinguishers shall have an inspection tag, pull pin, and plastic tie seal for the pin. **Using wire, zip ties, tape, string or anything similar materials to replace the plastic pin seal that is required to hold the pin is prohibited.** If fire extinguishers are discharged the Grunley Superintendent and/or Site Safety & Health Officer (SSHO) must be notified immediately.**

All flammables and combustibles are not to be stored in the interior emergency egress pathways and they must be placed or stored no closer than 20' away for the exterior emergency egress pathways.

- 12. Equipment** – Each piece of equipment that is used on site shall be operated by an experienced, qualified **and trained** operator. Forklift operators must have a valid training verification card **that is current within 3 years** on their person in order to operate a forklift. All equipment must have a functioning backup alarm and seat belt. **A bi-directional motion alarm must be provided to indicate movement for all track hoes and excavators that contain a cab that can spin and travel in either direction.** A daily equipment inspection is required to be performed and a copy of the inspection document is required to be provided to the Grunley Superintendent. **Exhaust scrubbers will need to be installed if gas or diesel-powered equipment will be used indoors or near operations where the exhaust (Carbon Monoxide - CO) will/could create an unsafe atmospheric condition to those performing work in the area. Even with scrubbers installed, the responsible subcontractor will need to provide ventilation fans and test the air periodically throughout the shift with an CO atmospheric monitor to confirm the scrubbers are working properly.**

If operating equipment >25 horsepower inside the fenced in area of a construction project, on a sidewalk, or street anywhere within the vicinity of Washington, DC then a current DC Operator license issued by the DCRA must be provided and a copy kept on the operator.

- 13. Housekeeping** – Each worker and/or subcontractor shall perform clean-up and trash removal from their work areas as the work takes place **and as trash is being generated. Trash removal is required to be accomplished and completed throughout the shift and completed prior to the end of each work shift. If cleanup and trash removal is not taking place as materials are being generated, then the work will be stopped and all those involved with the work taking place will be required to clean-up and remove trash. If Grunley has to clean up and remove trash created by subcontractors, then the subcontractors will be charged accordingly for the associated costs.**

Based on the OSHA Silica requirements, there will be no dry sweeping. All sweeping will be accomplished by using adequate amounts of water or sweeping compound to assure there are no visible emissions of dust while performing the work.

- 14. Roofing Materials, roofing accessories, metal roof panels, metal decking or similar items that could be displaced by the wind shall be secured when wind speeds are greater than or are anticipated to exceed 10mph.**
- 15. Verification of Indoctrination** – Each worker arriving onsite shall be provided with this **safety orientation** information. They will be required to legibly print their name, sign their name, write the date that the orientation was given, and the subcontractor's name they are working for on the established sign-in sheet.
- 16. Accidents and Injuries** – Each subcontractor shall immediately notify the Grunley Superintendent or Site Safety & Health Officer (SSHO) of any and all accidents or injuries that

occur and provide a completed accident report and witness statements provided within 24 hours of the accident.

17. Questions – If you have any safety related questions or concern's they are to be directed to the Grunley Superintendent or SSHO immediately.

SECTION II:

IMPLEMENTATION/ORGANIZATION

- A. Purpose and Scope
- B. Program Objectives
- C. JSSP Effectiveness
- D. Organization Responsibilities and Performance Standards

A. PURPOSE AND SCOPE

The purpose and scope of Section II is to define the approach to the implementation and organization of the Grunley Safety Program. This is accomplished by establishing a practical, sound, and effective Job Specific Safety Plan (JSSP) for the prevention of and response to employee injuries and accidents, and to assign specific responsibilities to subcontractors for program compliance.

The JSSP is designed to ensure that all Grunley personnel, site subcontractors, and supervision perform their work safely and are aware of their responsibilities to recognize, evaluate, oversee and prevent and control the work so that unsafe activities or conditions within their respective areas do not exist. **Grunley supervisory personnel, site subcontractor Competent Person(s), Foremen, and their onsite project supervision are required to inspect the site safety daily and resolve any-and-all unsafe conditions when they are observed. Subcontractor Safety Department personnel are required to inspect each project where they are performing work on a regular and periodic basis to enforce the safety policies and resolve any-and-all unsafe conditions as they observe.**

Subcontractors are required to fully comply with the terms and conditions of the following and/or the most stringent safety and health standards and requirements as applicable.

- The Grunley subcontract agreement and flow-down requirements of the Owner/Client,
- Grunley Construction Company's Corporate Safety Plan and Job Specific Safety Plan,
- OSHA Standards 29 CFR Part 1926,
- OSHA Standards 29 CFR Part 1910,
- U.S. Army Corps of Engineers (USACE) Safety and Health EM 385 1-1 Standards, and
- **National Electric Code (NEC)**
- **National Fire Protection Association (NFPA)**
- Along with any-and-all applicable and more stringent industry or related standards of the federal, state, and local jurisdictions having authority, at-all-times.

B. PROGRAM OBJECTIVES

All project safety and loss prevention efforts shall be directed towards the objectives of eliminating personal injuries and damage to property and minimizing the adverse effects of accidents on both individuals and the project.

Beyond satisfying the obvious humanitarian and moral obligations, specific objectives of the JSSP are to:

- Inform and train workers,
- Protect workers,
- Establish policies and **safety** plans to assure compliance with the **safety** requirements,
- Increase efficiency and control costs,
- Maintain favorable labor and community relations,
- Maintain a positive working relationship with the Owner/Client and regulatory agencies,
- Avoid losses and penalties, and
- Protect the building occupants and the public during construction.

C. Job Specific Safety Plan (JSSP) EFFECTIVENESS

The extent to which the JSSP is effective will depend upon the active participation, **enforcement** and personal cooperation of all Grunley and subcontractor supervisors, employees, workers and the positive coordination of their efforts toward carrying out the following responsibilities:

- Ensure effective Activity Hazard Analysis (AHA) and preplanning in all phases of work to minimize risk of personal injury, property damage, and loss of production.
- Establish and maintain a system of early detection and correction of unsafe practices and conditions.
- Establish and implement project specific safety training and education programs designed to inform, stimulate, and maintain interest and active participation of all personnel involved in the project.

D. ORGANIZATION RESPONSIBILITIES AND PERFORMANCE STANDARDS

This JSSP establishes minimum standards of performance regarding safety during the course of the project. The Grunley Construction Company implements these standards of performance at each level of organizational responsibility.

1. Subcontractors

Grunley will periodically monitor individual subcontractor safety performance for full compliance with all applicable federal, state, and local safety regulations as well as the requirements of this JSSP, **most applicable and stringent safety requirements**, and terms of the subcontract agreement. Grunley will hold each subcontractor accountable for the **management, daily oversight**, and safe and healthful performance of work by each of its lower tier subcontractors, regardless of tier.

It is the responsibility of each subcontractor performing the work on Grunley projects to provide the required safety related training **and required updates** to its personnel at its own expense. If it is observed that subcontractor personnel are not performing work within compliance of the related safety and health standards, the contents of this Corporate Safety Plan, or the established work plans and/or Activity Hazard Analyses (AHAs) furnished by the subcontractor, then it will be the responsibility of the subcontractor to provide its personnel with retraining at its own expense. Documentation of training and/or retraining **shall be submitted to the Grunley Safety Department for review and acceptance** prior to the performance of work, as part of the work plans, and/or when requested.

Each subcontractor is solely responsible for its safety program, the development of activity specific work plans **for each Definable Feature of Work (DFOW) as stated on their portion of the project schedule**, the development and implementation of **work plans and AHAs, and to remain** in full compliance with the Grunley accident prevention plans and safety requirements contained in the JSSP and subcontract agreements. Specific details of the subcontractor's safety program will be discussed at **the required pre-construction or preparatory meeting, prior to the subcontractor's mobilization and start of work**. As a minimum the subcontractor's safety program shall be in writing, site and activity specific, and address the following **(as applicable)**:

- **Safety organization and their Point of Contact (POC) information,**
- **Competent Person (CP) and alternate CP with their POC information,**
- **Subcontractors CP and alternate CP designation letter signed by their senior management**
- **Documentation of current Competent Person (CP) training at a minimum, to include the following (as applicable) –**
 - **OSHA 30 Hour**
 - **First Aid, CPR & Bloodborne Pathogen**
 - **24-hour CP for Fall Protection**
 - **8-hour CP for Excavation**
 - **8-hour CP for Confined Space**
 - **8-hour CP for Scaffolding**

- CP training for Silica
- Global Harmonization System (GHS) training
- Any other applicable safety training as needed
- Documentation of employee safety training and orientation,
- Requirements for protective clothing and/or safety equipment,
- **Acceptable Activity Hazard Analyses (AHA) for each Definable Feature of Work (DFOW) based on the project schedule, using the USACE EM385-1-1 AHA format,**
- **Acceptable safety plans using the applicable Grunley Work Plan Checklists (GWPC's),**
- Confined space procedures and environmental equipment (if applicable),
- Procedures for working with electrical equipment and documentation of NFPA 70E training if applicable,
- **Fire prevention training and** procedures for welding, burning or cutting, and handling and storage of compressed gases if applicable,
- Company's General Safety Rules,
- Record keeping and reporting requirements **with copy of the employer accident and investigation report and the completed OSHA 301 form for recordable injuries shall be provided within 24 hours after the event.**
- Global Harmonization System (GHS) and Hazard Communication Program and procedures for **submitting SDS sheets to Grunley and** sharing them with other site subcontractors,
- Ladder Safety Training Program **and documentation of training,**
- Fall Protection Training Program **and documentation of training,**
- Scaffold Construction and Use Training Program **with documentation of training,**
- **Excavation Training Program and documentation of training,**
- **Confined Space Training Program and documentation of training,**
- **Written Silica Exposure Control Plan (WECP) and documentation of training,**
- **Site and activity specific respiratory protection program,**
- **Medical authorization to use a respirator and annually respiratory fit test documents,**
- **Pework blood lead testing,**
- **Rigger and Signaler training with documentation of training within 5 years,**
- Documented records of daily inspections of all applicable equipment,
- Training in the operation of specialized equipment (e.g., powder actuated tools, aerial lifts, etc.),
- **Fire watch and** Fire extinguisher training,
- Housekeeping,
- Disciplinary procedures for safety violations by employees and supervisors,
- **Any-and-all other related work plans, documentation and/or training as requested and applicable to the subcontractor's work.**

Subcontractors whose operations potentially create, or involve, hazardous atmospheric or other hazardous environmental conditions shall have on site, at-all-times, environmental testing equipment adequate to establish compliance with regulatory statutes. Such subcontractors shall notify Grunley immediately of any inspections to be conducted by federal, state, or local safety, health, or environmental agencies and insurance carriers.

The subcontractor's onsite Foreman/**Competent Person** shall, as a minimum:

- Be able to adequately communicate with the Grunley Superintendent or their designated alternate's.
- Be designated by the subcontractor's **Senior Management** as the Competent Person (CP) who is in charge and responsible for compliance and the safe performance of its work. As the subcontractor's CP this person shall have the authority to direct or stop work to take corrective action to promptly address and resolved safety issues and if needed, expend funds to do so.
- Be on the project site at all times when the subcontractor's personnel are performing work to provide continuous supervision of their personnel **and assure** the safe performance of their work.
- Plan and execute all work in accordance with the coordination meetings, schedule, stated objectives of the JSSP, their safety plan, **activity specific safety plans and AHA's**, and the subcontract agreement.
- **Assure that they attend the Grunley site-specific safety orientation when they initially arrive onsite and before they begin work.**
- Introduce newly hired employees to their assignments, pointing out specific hazards of their assignment, and safe means of performance to prevent them from being injured or injuring anyone else.
- Provide and require the use of appropriate Personal Protective Equipment (PPE) consistent with the hazards present and regulatory requirements.
- Let workers know that the minimum 100% jobsite safety requirements for clothing and PPE are **non-vented** hard hats, safety glasses (**clear lenses indoors**), **cut resistant gloves**, safety toed work boots with full leather uppers, high visibility Class 2 vests, **hearing protection when required**, shirts with a minimum of 4" sleeves, no short pants, no inappropriate or profane logos, screens or stickers, long pants, non-tattered or baggy clothing, and any other PPE essential and required based on the associated hazards of the work.
- Discuss with them:
 - The project characteristics,
 - The work areas, safety provisions, and requirements,
 - The location of emergency exits,
 - Who the First Aid and CPR trained personnel are, and
 - Where the designated rally point is in case of emergency
- Show workers the project work areas and discuss their assignments, pointing out specific hazards of assignment, and the required safe means of performance.
- Immediately notify the Grunley Superintendent or designated alternate of any and all accidents and injuries.
- Provide the required accident report, investigation, witness statements, and pictures within 24 hours
- Inform workers that they are responsible to keep their work areas clean as the work takes place and to use trash cans, trash bags, trash carts, wheel barrels, or something similar to place their trash in and remove trash to the dumpsters by the end of each day.
- Monitor and inspect the assigned work on a daily and continual basis to assure that work is being performed safely and that unsafe acts and conditions are identified and corrected promptly as the work takes place.

- Provide training and/or retraining when needed, along with instruction on the inspection, safe use, cleaning, and storage of PPE.
- Conduct employee training, at least through a weekly “Toolbox Talk”, provided by the subcontractors Foreman or Safety representative, or attendance at the Grunley weekly safety meeting **and provide Grunley with a copy of the meeting sign in sheets.**
- Discuss items of particular interest to the crew such as recent accidents, and the corrective measures being taken to prevent them, AHA’s, or unsafe practices observed by the Foreman within the crew and encourage input and questions from workers.
- Contact the subcontractor’s safety personnel when needed to assist in work related safety matters if and when necessary.
- Maintain a current First Aid & CPR certification along with any other related, applicable and/or required Competent Person and/or other safety training.
- Encourage safety suggestions from employees and implement those measures that are helpful to prevent incident and/or injury.
- Set a good example at all times to the personnel assigned to you in the performance of safe work practices and actions.
- Ensure that the subcontractor’s responsibilities, as set forth in their safety plan, the established JSSP, **their work plan and AHA**, and all regulatory statutes, are complied with fully at all times.
- Ensure cooperation with the Owner/Client, Owner/Client Construction Management Agent, Grunley’s staff and Grunley Safety Department Representatives, insurance company personnel, as well as those of any regulatory or compliance agency visiting and/or inspecting the project.
- Take immediate action to correct unsafe or unhealthful work practices or conditions **before and/or if directed.**
- Assure that the subcontractor’s personnel perform cleanup of their work areas and remove trash from the building to the dumpsters on a daily basis with all of its work areas cleaned by the end of each shift. Assure **that no dry sweeping is taking place and that** personnel are using sweeping compound as they clean **in accordance with the OSHA Silica Standard.**
- **Assure that materials are not kept or stored on stair landings. Maintain a minimum of 36” clear pathways through the building(s). Do not place or store any flammables or combustibles in emergency pathways inside the building. Assure that flammables and combustibles are not placed or stored anywhere near a minimum of 20’ away from exterior emergency egress pathways.**
- **Assure that no compressed gas cylinders are kept or stored inside the building after work and that they are removed to the approved exterior storage area before the end of each shift.**
- Attend Foreman, Safety Stand Down, or other safety related meetings conducted by Grunley.
- Participate in the investigation of accidents, provide witness statements, and supervise the necessary corrective actions taken to prevent similar incidents from reoccurring.

Subcontractor **Competent Person(s)** / Foremen are the key people upon which the success or failure of a safety program depends. Their initiative and daily efforts with the workforce aimed at accident prevention determine the degree to which safe work practices and conditions are adhered.

The subcontractor's **Safety Director or Safety Manager** shall as a minimum:

- **Fully support the safety and health efforts of the subcontractors Foreman/Competent Person.**
- Provide his/her Point of Contact (POC) information, to include name, title, cell phone number, and email address to the Grunley Safety Department. This information will be shared and loaded into the **Procore** safety auditing program **so they receive copies of the safety reports.**
- **Provide prompt responses to requests for safety work plans well in advance of the work taking place to assure the schedule is met.**
- Make periodic and frequent inspections of the work site in conjunction with his/her duties and take timely corrective action to eliminate unsafe practices or conditions noted.
- Assure that the subcontractor's personnel are performing daily housekeeping, trash removal, and dust control by **not dry sweeping and to use adequate wet misting or sweeping compound as they clean in accordance with the OSHA Silica Standard.**
- **Notify the Grunley Superintendent and/or the Grunley Safety Department when they plan to arrive onsite and walk the project with their Competent Person.**
- Assist in accident investigations, supervise necessary corrective action to eliminate the causes, and ensure that the required reports, witness statements, and claims forms are provided to Grunley within 24 hours and filed with the appropriate **insurance companies and/or agencies.**
- Establish and implement safety training **and updated retraining** programs for the subcontractor's supervisors and employees applicable to their specific job descriptions and to assure they remain knowledgeable **and current.**
- Attend safety meetings conducted by Grunley.
- Submit the monthly accident statistical report to Grunley that contains the subcontractor's monthly hours worked, number of recordable injuries, number of lost time injuries, **days away from work due to injury, date of return to work if injured,** number of first aid only injuries, along with any near misses.
- **Provide completed accident reports with witness statements and OSHA 301 log within 24 hours for recordable injuries.**
- Perform environmental testing **as applicable and as required** in situations where project employees are potentially exposed to toxic vapors or gases, excess noise, dust, and/or oxygen deficiency **and provide Grunley with the documentation of testing results.**
- Maintain certification in First Aid and CPR (encourage Managers and Foreman to have similar training). Provide the Project Superintendent **and/or Grunley Safety Department** with the verification of **current, recent, or updated** training cards so their first responder information can be added to the information board.

2. Grunley Project Team

The Grunley's Project Superintendent is responsible for the day-to-day oversight, administration, and compliance of the project's JSSP and will monitor the Grunley self-perform work and subcontractor compliance with safety requirements. The Grunley Project Team is responsible for the successful and safe completion of the project. The safety of all members of the workforce is paramount to this endeavor. Grunley managers and supervisors will ensure that the provisions of this JSSP are being adhered to, and will:

- Have the authority to halt the operations of a subcontractor at any tier whose operations are threatening the life and/or health of their workers, other workers, occupants, visitors, or the general public, and where safety violations are not corrected in a timely manner.
- Immediately notify the Grunley Safety Department of any and all accidents, damages to the building, incidents that warrant or may require the involvement and investigation by the Safety Department, or inclusion of insurance representatives, no matter the seriousness or nature of the event. An immediate verbal notice (within 2 hours) and a documented report with investigation and pictures are required within 24 hours.
- Immediately notify the Grunley Safety Department if and when a compliance representative from OSHA, VOSH, MOSH, DOL, EPA, DCRA or any other agency arrives to the site so that Safety can be involved with their visit. Most agencies will allow adequate time for Grunley Safety to arrive to the site and join in the inspection.

Direction to **Stop Work**, given verbally, shall be complied with immediately, followed by a written notice to the subcontractor outlining the reasons for the action. Work may not resume until the unsafe condition is corrected to the satisfaction of Grunley. In any case, the person taking the action to stop work will notify the **Grunley Director of Safety, Assistant Director of Safety or Director of Risk Management and they will in-turn notify the Project Executive, Project Manager and Project Superintendent.**

The Grunley Director of Safety, Safety Department, Project Team, and assigned project Safety Representative is collectively responsible for the overall administration of the JSSP and shall, as a team, see that the following processes and procedures are undertaken at a minimum:

- Review the safety programs of subcontractors and the qualifications of the designated Competent Person/Safety Representative.
- Grunley designated Safety Representative will review the requested subcontractor safety information, provide comments, and accept the plan information when it is complete.
- Maintain a file of safety inspections, accident reports, and safety-related correspondence with each subcontractor.
- Review all accident and injury reports and make recommendations related to accident prevention methods.
- Provide technical assistance to the subcontractors, and field personnel, including instruction in regulatory requirements, safe work practices, reports, and record keeping.
- Perform frequent and documented inspections of work areas notifying responsible subcontractors of unsafe conditions or activities observed and recommend corrective action.
- Conduct at least once per month, a Project Safety Meeting to review project status, provide discussions on upcoming activities to preplan for the work, review insurance and loss prevention issues, and provide instruction for any actions needed from the subcontractors' Safety Representatives.
- Investigate all accidents resulting in personal injury or property damage and serious near miss cases and produce independent written reports within 24 hours after the event.

- Help develop and maintain a current, and building owner/client accepted, emergency action plan during various phases of project construction and ensure employee awareness of changes.
- Perform periodic documented audits of subcontractor Safety Programs, checking site conditions and record keeping requirements.
- Maintain a file of current inspection certificates for all hoisting and construction equipment on site.
- **Maintain a current log showing the status of the requested and provided subcontractor safety related work plan information.**

SECTION III:

SECURITY PROGRAM

- A. Introduction
- B. Office/Trailer Complex
- C. Jobsite
- D. Protection of the Public

A. INTRODUCTION

Security of people, office, and property on all Grunley projects and offices must be considered and planned for prior to the start of construction. Prevention from harm, loss of equipment, supplies, or in-place construction through theft or vandalism is vital to the success of the project.

B. OFFICE/TRAILER COMPLEX

- Post phone numbers to contact responsible Grunley personnel in the event of an emergency and for use by Grunley personnel, or made available to security, police, and fire personnel.
- Exit signs need to be posted and maintained at each door.
- Fire resistant lockable file cabinets shall be provided for all essential and/or sensitive files.
- Smoke detectors shall be installed and maintained throughout the office complex, along with a 20# ABC fire extinguisher located at each end of the trailer or within 75' travel distance of each other.
- All portable communication radios (even though being recharged) shall be stored after hours in a secure location, not readily visible.
- All computers, office equipment, small tools, etc. shall be inventoried. This shall include a description and appropriate serial numbers and codes. Tools shall be engraved or tagged with the "tool watch" identification bar code.
- Outside lighting shall be provided to illuminate the office complex, parking areas, material storage areas, and if feasible, the area under construction.
- All tool, storage trailers, gang boxes, and sheds shall be locked after normal working hours and key control maintained.
- All master and extra keys are to be kept in a locked cabinet or container and under the control of the Project Manager, Project Superintendent, or their designee.
- The office complex or compound area shall be enclosed for security purposes with a minimum of lockable 6ft chain link fence system.
- All office trailers windows need to have expanded metal installed over them to prevent easy access into the trailer. The doors need to be equipped with horizontal door bars and key control needs to be maintained.

C. JOBSITE

- If applicable and deemed necessary for safety and/or security reasons, the jobsite shall be totally enclosed with a minimum of a 6ft fence and equipped with vehicle and personnel gates.
- Appropriate bilingual signs shall be prominently displayed on the fence stating:
 - No Trespassing – Do not enter
 - Access is limited to authorized construction personnel only
 - All visitors must report to the Grunley Construction Company office or field office
 - This is a construction project that requires 100% safety eyewear, **non-vented hard hats**, safety glasses (**clear lenses indoors**), **cut resistant gloves**, **high visibility Class 2 vests**, **ear plugs** and leather safety toed work boots that are to be worn at all times.
 - **All personnel accessing the areas beyond the fencing, or within the established construction limits and work areas shall always wear the required PPE. If personnel need to travel through these areas as they arrive onsite or when they leave the site, then they will need to wear the required PPE when they arrive and depart.**
- Parking will only be allowed in areas designated by the Project Superintendent and may change from time to time during the course of construction. It shall be separated from the area under construction by fence or other suitable barrier.
 - Grunley will not be responsible for any thefts or damages to any vehicle parked on, around, or in the vicinity of the construction project.
 - **Grunley Project or Safety personnel shall have first parking rights onsite before subcontractor personnel.**
 - If personal or subcontractor company vehicles are allowed in the construction area, they must have an insurance policy with a minimum of \$1 million liability, currently in effect with a certificate of insurance in the Grunley files.
 - Food service vehicles must have an insurance policy for a minimum of \$1 million liability, currently in effect; personnel must have a current Worker's Compensation policy in effect; certificates of insurance **with Grunley named as a Certificate Holder and Additional Insured** indemnifying Grunley Construction Company, must be provided and on file with Grunley. **They must also always wear the required PPE while onsite.**
- Adequate area lighting shall be provided to illuminate all parking, storage, office, and construction areas.
- All stored material shall be kept in a secure location – either inside the locked storage trailer, inside the building in a secure area, or in a well-lighted location. **Grunley will not be held responsible or liable for the loss of any subcontractor tools, equipment or stored materials. It is the responsibility of the subcontractor to assure their materials and tools are properly protected, secured and/or locked up.**

- Close contact and coordination with the Owner's Security Personnel will be assured.
- Grunley supervisory personnel will assure that there are temporary facilities provided to all site staff to include 1 facility for every 20 people onsite (1:20) with an additional facility dedicated to female staff only with a "Women Only" sign posted and that the temporary facilities are maintained as often as needed to assure cleanliness.

D. PROTECTION OF THE PUBLIC

All necessary precautions shall be taken to prevent injury to the public or damage to property of others. Precautions to be taken shall include, but not be limited to, the following:

- Work shall not be performed in any area occupied by the public or non-construction personnel unless specifically permitted by the contract or authorized in the writing by the client's **Construction Manager or Project Management and/or permitted by the local jurisdiction to occupy areas outside of the construction area and in the public space without a permit**. Such determination shall be made following review of the JSSP.
- When it is necessary to maintain public use of work areas involving sidewalks, entrances to buildings, lobbies, corridors, aisles, stairways, and vehicular roadways, the Project Superintendent shall assure that the public is protected with appropriate guardrails, solid physical barricades, temporary fences, overhead protection, temporary partitions, shields, ramps, netting and adequate visibility.
- **Access and exit points of the project where construction personnel, building occupants, and/or pedestrians shall travel will be protected by overhead protection that is enclosed on the construction sides with plywood where they may be exposed to materials, tools, noise, dust, or debris that may become displaced or fall from above. This protection shall be capable of withstanding the intended impact of items that could become displaced. The protection ceiling/roof shall be constructed at a minimum of continuous and solid 2" thick lumber material. This shall consist of a minimum of tightly placed and butted 2"x10" planks with ½" plywood fully installed and secured over them. The overhead protection system shall be provided with adequate lighting to assure the tunnel is not dark to those using them.**
- Sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, or exits shall be kept clear of materials, obstructions, and trash to permit safe entrance and exit of the public.
- Appropriate warnings and construction safety signs shall be conspicuously posted. At a minimum a trained and certified signalman having an 18" high visibility flag and wearing a high visibility Class 2 vest shall control the movement of motorized equipment and vehicles in areas where the general-public may be exposed and endangered. Additional subcontractor provided signalmen may be needed based on the space, amount of traffic and pedestrians, number of trucks and equipment, and the physical work taking place. These individuals must be knowledgeable of what they have been directed to do and be able to adequately communicate with the Grunley personnel, along with pedestrians and drivers **in a nice and professional manner**. When it is necessary to maintain public pedestrian traffic adjacent to the construction, demolition, or structural alterations to building exteriors, sidewalk sheds, canopies, catch platforms, and fences shall be provided as required.
- A temporary fence shall be installed around the perimeter of above ground operations adjacent to public areas. Perimeter fences shall be at a minimum 6ft high. They may be

- constructed of wood or metal frame and sheathing, chain link fence, or a combination of both. **All portable chain link fence panel joint clamps shall be maintained in place and secured tightly with the tightening nut on the construction side of the fence panel. Adequate and substantial diagonal braces or augured pins and rope ties will be installed on all fence panels to prevent them from falling over. Subcontractors are directed not to remove the fence panel clamps or braces for any reason unless it has been coordinated and approved by the Grunley Superintendent in advance. If this is approved, the fence panels and braces must be completely restored to the existing condition by the responsible subcontractor as soon as possible after they have been removed.**
- Guardrails shall be provided on both sides of vehicular and pedestrian bridges, ramps, runways, and platforms. Pedestrian walkways elevated above adjoining surfaces, or walkways within six (6) feet of where pedestrian traffic would be exposed to falls from excavated slopes or vertical banks shall be protected with guardrails. Guardrails shall be made of rigid materials capable of withstanding a force of at least two hundred (200) pounds applied to any direction at any point in their structure. **Toprails shall be smooth and free of damages that could cause splinters. When needed the toprail shall be wrapped with duct tape to prevent splinters and hand injuries.** The toprail height shall be forty-two (42) inches (+/- 3"). Top rails and posts may be two (2) inches by four (4) inches dressed wood or equal. Intermediate horizontal rails at mid-height and toe boards at platform level may be nominal 1" x 6" wood or equal. Posts shall not be over eight (8) feet apart.
 - Barricades meeting local requirements shall be provided where sidewalk shed, fences, or guardrails, as referenced above, are not required between work areas and pedestrian walkways, roadway, or occupied buildings. Barricades shall be secured against accidental displacement and shall be maintained in place except where temporary removal is necessary to perform the work. **If concrete jersey walls are placed adjacent to an elevation change, they will be secured in place by driven or augured pins to prevent their displacement into the lower elevation.** During the period in which a barricade is temporarily removed for the purpose of work, a competent watchman shall be placed at all openings. **The barriers shall be promptly and properly replaced once the work is done. When water filled plastic jersey barriers are used to protect pedestrians from construction areas and/or from vehicular traffic, the barriers must be completed filled with water or sand and secured together as required.**
 - Warning signs and lights, including lanterns, torches, flares, and electric lights, meeting local requirements, shall be maintained from dusk to sunrise along guardrails, barricades, temporary sidewalks, and at every obstruction to the public. **These will be installed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) Standards.** They shall be placed on both ends of such protection of obstructions and not over twenty (20) feet apart alongside of such protection or obstructions.

SECTION IV:

DISCIPLINARY PROCEDURES

- A. Objective
- B. Scope
- C. References
- D. Responsibilities

A. OBJECTIVE

To provide guidelines for enforcement of safety rules, policies, procedures, and directives from appropriate management personnel.

B. SCOPE

All employees.

C. REFERENCES

All applicable federal, state, and local codes, standards, and regulations of the Authority Having Jurisdiction and other terms and conditions of the contract that may be specific requirements of the Owner. Examples would include OSHA, ADA, EEOC, State Labor Codes, Corps of Engineers **EM385-1-1**, **NEC**, **NFPA**, ANSI, Manual of Uniform Traffic Control Devices (MUTCD), etc.

D. RESPONSIBILITIES

Employees will be subject to disciplinary action for violations of safety rules. Such actions will be dependent upon the severity of the violation.

Employees shall be afforded instructive counseling and/or training to assure a clear understanding of the infraction and the proper conduct under company guidelines. However, nothing in this policy or this Corporate Safety Plan will preclude management from terminating an employee for a safety violation. This is not a progressive discipline system, and any safety violation may lead to an employee's termination without prior instruction or warning. Management reserves the right to impose whatever disciplinary action it deems appropriate: **Note – “Life Threats” or observations of unsafe work that could be immediately dangerous to life or limb, or those that involve not using a required fall protection systems could lead to immediate removal, dismissal, or termination of the violator on the first offense.**

- Verbal warning with documentation in personnel file
- Written warning outlining nature of offense and necessary corrective action with documentation in personnel file
- Disciplinary suspension with documentation in personnel file
- Termination

Management, including superintendents, shall be subject to disciplinary action for the following reasons:

- Repeated safety rule violation by their department employees.
- Failure to provide adequate training prior to job assignment.
- Failure to report accidents or provide medical attention to employees injured at work.
- Failure to control unsafe conditions or work practices.
- Failure to maintain good housekeeping standards or cleanliness on their projects.

SECTION V:

SUBSTANCE ABUSE POLICY

- A. Policy
- B. Scope
- C. Definitions
- D. Responsibilities
- E. Procedures
- F. Confidentiality of Information Obtained

A. POLICY

Grunley is committed to ensuring the well-being of its employees. As a sign of this commitment, it is the policy of Grunley to establish a substance-abuse free work environment and to promote high standards of employee health, safety, and performance. Consistent with this policy, Grunley prohibits the use, possession, distribution or sale of illegal drugs on its premises, facilities, or workplace.

Furthermore, the company prohibits the unauthorized use of alcohol while at work.

Grunley relies on its employees to always perform to the best of their ability. An employee's work performance is impaired if he/she is under the influence of **prescription drugs**, illegal drugs, alcohol, or, in some cases, other substances. Employees should neither be exposed to the risks of an unsafe workplace, nor shall supervisors tolerate conduct that violates this policy. Any employee found to be in violation of this policy shall be subject to disciplinary action, **which could result in immediate discharge and termination from employment.**

The legal use of prescribed drugs is permitted on the job only if it does not impair an employee's ability to perform the essential functions of the job effectively and in a safe manner that does not endanger other individuals in the workplace. This does not include marijuana, medical marijuana, or any other drugs that could pose a hazard, or alter and/or adversely affect the capabilities and awareness of personnel.

This policy will be included in the Company's Personnel Policy manual. The Company will enact and carry out reasonable measures for providing a substance-free work environment. The Director of Human Resources is responsible for working with management to implement and monitor this policy to ensure its success.

Violations of this policy may lead to disciplinary action, up to and including immediate termination of employment, and/or required participation in a substance abuse rehabilitation or treatment program. Such violations may also have legal consequences.

Employees with questions on this policy or issues related to drug or alcohol use in the workplace should raise their concerns with their supervisor or the Director of Human Resources without fear of reprisal.

To help ensure a safe and healthful working environment, job applicants, employees to provide body substance samples (such as urine and/or blood) to determine the illicit or illegal use of drugs and alcohol. Such drug tests may be required on a random basis and/or as part of a mandatory post-accident investigation. Refusal to submit to drug testing may result in disciplinary action, up to and including termination of employment.

If it is determined that drug testing is required, copies of the drug testing policy will be provided to all employees. Employees will be asked to sign an acknowledgement form indicating that they have received a copy of the drug testing policy. Questions concerning this policy or its administration should be directed to the Director of Human Resources.

B. SCOPE

This policy applies to all employees of Grunley, its subsidiaries, and sponsored joint ventures (unless the policy violates the terms of any collective bargaining agreement to which the Company is signatory).

C. DEFINITIONS

The following terms are defined to provide their meaning as applicable to their use within this Corporate Safety Plan:

- “Alcohol” includes beverages and any other intoxicating liquid that contains alcohol.
- “Illegal drugs” includes any drug of which the sale, use, or possession is unlawful under Federal law.¹
- “Other substances” includes, but is not limited to, stimulants, sedatives, narcotics, and inhalants that may be legal substances but are improperly or abusively used. This term includes prescription drugs, legally obtained, but not being used for prescribed purposes.
- “At work”, for the purposes of this policy means an employee’s regular work hours and all other times an employee spends performing Company business, on and off Company premises, including, but not limited to, tasks specified in his/her job description, other assigned tasks, travel, entertainment, and break periods.
- “Reasonable suspicion” means that specific and articulable facts, taken together with rational inferences from those facts, are sufficient to lead a prudent person to suspect an occurrence is taking place or has taken place.
- “Under the influence” means that a drug, whether legal or illegal, alcohol, or other substance, or the combination of a drug and alcohol in any detectable manner affects the employee. The symptoms of influence are not necessarily confined to ones consistent with misbehavior or to obvious impairment of physical or mental ability, such as slurred speech or difficulty in maintaining balance.
- “Excess use of alcohol” shall mean a reading of 0.05 milligrams per milliliter as registered on a breath alcohol tester acceptable to the Company.
- “Presence of drugs” shall mean a determination by a lab in accordance with National Institute of Drug Abuse criteria that the amount of detectable drug present in the specimen, upon completion of a GC/MS confirmation test, exceeded the cut-off limits established by the Department of Health and Human Services in their guidelines for Federal Workplace Drug Testing Programs.

¹ Drugs and other substances that are considered controlled substances under the Controlled Substances Act (CSA) are divided into five schedules. An updated and complete list of the schedules is published annually in Title 21 Code of Federal Regulations (C.F.R.) §§ 1308.11 through 1308.15.

D. RESPONSIBILITIES

- It is the responsibility of each employee to read and understand this policy, and to abide by the procedures outlined in this policy. Two copies of the Substance Abuse Policy Statement with an acknowledgement signature line will be prepared and presented to each Company employee for signature upon hire or upon assignment to a project under which post-incident procedures will apply, showing that the employee has received and understands the policy.
- Supervisors are responsible for determining satisfactory job performance and acceptable standards for working safely. It is not their role to diagnose medical problems. It is their responsibility to contact the Human Resources Department and the Project Manager for guidance regarding substance abuse testing procedures.
- All management levels are responsible for ensuring that a consistent and fair application of the provisions of this policy is administered.
- The Director of Human Resources will be responsible for administration of this policy, including the establishment of substance-abuse testing procedures.

E. PROCEDURES

- Employees will be disciplined if, as a result of being under the influence of drugs (illegal or not), other substances, and/or alcohol, job performance suffers, safety violations occur, or laws governing alcohol and/or drug usage are violated.
- Employees will be disciplined if, as a result of being under the influence of drugs (illegal or not), other substances, and/or alcohol, job performance suffers, safety violations occur, or laws governing alcohol and/or drug usage are violated.
- An employee's improper or abusive use of other substances, which may have an adverse influence on the employee while he/she is on Company premises or at work, is prohibited. Such use or abuse shall subject the employee to disciplinary actions that may include termination of employment.

F. CONFIDENTIALITY OF INFORMATION OBTAINED

Information obtained from employees in accordance with this policy will be used by the Company solely in the administration of this policy and for no other purpose without the employee's consent, provided that the Company, if required by any Government authority, shall be free to deliver any evidence to the appropriate authorities. Furthermore, the Federal Drug-Free Workplace Act requires all employees to notify the Company of any criminal drug statute conviction for a criminal offense committed in the workplace, within five days of the conviction, assignment to, and the project.

SECTION VI:

JOB SPECIFIC SAFETY PROCEDURES

- A. General Project Description
- B. Safety Plan Overview
- C. Planning Checklist for Construction Safety
- D. Safety Personnel
- E. Emergency Procedures
- F. Emergency Action Plan
- G. Emergency Telephone Numbers
- H. Accident Investigation
- I. Serious Incident Reporting Procedure
- J. Accident Reporting
- K. Modified Duty Program
- L. Safety Meetings
- M. Hazard Communication Program (HAZCOM) and Global Harmonization System (GHS)
- N. Procedures for Governmental Safety Inspections
- O. Respiratory Protection Program
- P. Safety Guidelines
- Q. Activity Hazard Analysis

A. GENERAL PROJECT DESCRIPTION

Grunley Project #:

Project Name:

Project Manager:

Superintendent:

Project Address:

Owner:

Contracting Officer:

Telephone Number:

COTR:

Telephone Number:

**Owner's Rep: Firm:
Name:**

Telephone Number:

**Architect: Firm:
Name:**

Telephone Number:

Other Key Consultants:

Key Subcontractors:

Occupant(s):

Projected Completion Date:

Type Of Project:

New <input type="checkbox"/>	Renovation <input type="checkbox"/>	Addition <input type="checkbox"/>	Historic <input type="checkbox"/>	Non-historic <input type="checkbox"/>
Occupied <input type="checkbox"/>	Vacant <input type="checkbox"/>	Modernization MEP Systems <input type="checkbox"/>	Fire and Life Safety <input type="checkbox"/>	Security System <input type="checkbox"/>
Telecommunications System <input type="checkbox"/>	Elevators <input type="checkbox"/>	Stairs <input type="checkbox"/>	Window Replacement <input type="checkbox"/>	Window Repair <input type="checkbox"/>
Exterior Wall Repair <input type="checkbox"/>	Exterior Wall Reconstruction <input type="checkbox"/>	Roofing Repair <input type="checkbox"/>	Roof Replacement <input type="checkbox"/>	Tenant Fit-out <input type="checkbox"/>

Other:

Project Size: _____ GSF, _____ OSF, (_____ GSM) (_____ OSM)

Project Description: Brief narrative suitable for use in press release. Include unique features, special issues, or technical challenges.

B. SAFETY PLAN OVERVIEW

Grunley Construction Company, Inc. (Grunley) is committed to the safety and health of all its employees and subcontractors through strict enforcement of its Corporate Safety Plan and Job Specific Safety Plan. The following information provides a Job Specific Safety Plan for the **[Insert Project Name]** Contract No. **[Insert Contract Number]**, and it shall serve as an interface with Grunley’s overall safety program. A copy of Grunley’s Corporate Safety Plan may be reviewed in the company’s field office, or in its main office in Rockville, Maryland.

All work on this project shall be in compliance with the applicable requirements of OSHA Standard 29 CFR 1910, OSHA Standard 29 CFR 1926, U.S. Army Corps of Engineers (USACE) EM 385-1-1, **National Electric Code (NEC), National Fire Protection Administration (NFPA), Environmental Protection Agency (EPA), as applicable.** All personnel working on this project must comply with these requirements, as well as all other **more stringent and** applicable owner/client, federal, state, and local building and safety codes, policies, procedures, and regulations. Unless otherwise defined in the contract documents, in the event of conflicts between the requirements and regulations, the more stringent standard shall apply.

The following Grunley Construction personnel provide plan concurrence:

Dan Snyder, Director of Safety

INSERT NAME, Project Manager

INSERT NAME, Superintendent

C. PLANNING CHECKLIST FOR CONSTRUCTION SAFETY

Job Name:

Date:

Location:

Owner/Client:

The following checklist is intended for use by the Project Superintendent to work with the Director of Corporate Safety for developing the Job Specific Safety Plan (JSSP). It is intended to aid in assuring that all key safety issues and elements of safety planning are considered relative to the specific project. Each item can be answered directly in the checklist format and/or integrated into other portions of the JSSP. If an item is not applicable, please note it as such. If there are additional items or revisions to the checklist that should be considered, please provide suggestions to the Director of Corporate Safety.

1. How many workers (including subcontractors) are expected at the peak on the job?
2. What is the start and completion date of the project? **Start:** _____ **Completion:** _____
3. Insurance Company: **Insurance broker is Gallagher and insurance carrier is Hartford**
4. Emergency Services: **911**
5. Local Hospital:
6. Urgent Care Facility:
7. Safety Supervisor is:
8. First Aid Attendant is:
9. Who will be responsible for completing the Grunley accident investigation reports and **obtaining the witness statements and OSHA 301 log for recordable injuries?**
10. Who will be responsible for the required worker safety indoctrination?
11. Who will be responsible for obtaining the AHAs and Work Plans from subcontractors for review and approval prior to their mobilization and discussion at the Preparatory Meetings?
12. Identify in the Site Utilization Plan (SUP) and state here how many temporary toilet facilities (1:20) will be needed, where will they be placed **and provide one additional facility designated as "Women Only" with signage posted.**
13. Identify in the SUP what specific physical barriers, **overhead protection systems**, and signage will be needed to protect workers and the public and where they will be located?

Note: All overhead protection must be made of solid 2" thick lumber materials at a minimum.

14. State who will be providing drinking water.
15. When will weekly safety meetings and "Toolbox Talks" be held?
16. Where will subcontractors' materials and equipment be placed and/or stored?
 - a. Have all affected underground structures and utilities been identified by a qualified subcontractor or by an outside locator?

Provide a drawing to identify the underground structures and utilities on the SUP.

- b. Have structural capacities of structures, parking garages, utilities, tunnels, floors or similar areas been determined by the subcontractor before any loading?

If structural capacities have been determined state what the load ratings are for each area.
 - c. Has load capacity information been distributed to subcontractors, **and if so, how?**
 - d. **Will all** affected underground structures and utilities be protected and supported as required prior to loading **and if so, how?**
17. Identify in the SUP and state here where will the designated trash dumpsters will be placed?
18. Identify in the SUP and state here where will gas, oil, and other flammables and combustibles be stored and how? **Keep in mind that flammables and combustibles must not be stored in interior emergency egress pathways and storage of flammables and combustibles must be placed no closer than 20' from exterior emergency egress pathways.**
19. Will fuel spill containers/bins be provided under the fuel storage containers?
20. If so, where will the spill containers/bins be placed on the project?
21. State in the SUP where will the oxygen and acetylene bottles be stored and separated by 25' and secured?
22. Have Designated Smoking areas been identified? If so, where and show this on the SUP?
23. Who will be responsible for assuring crane plans are developed for all cranes using the "Grunley Crane Plan Checklist" and submitted to Grunley Safety for review and acceptance before cranes are brought onto or used on the project?

24. Are any crane critical lifts (**>75% of load chart capacity, using man baskets, using multiple cranes for one pick, picking and/or setting in the blind**) planned for this project?
25. State here and identify on the SUP where are workers going to park?
26. When will subcontractors' Competent Person resume and training documents related to excavation, confined space, fall protection and scaffolding be submitted to the Grunley Safety Department for review?"
27. If so, what trades are going to need scaffolding to perform their work?
28. Who will be responsible to erect and maintain the guardrails?
29. **What measures are going to be taken to assure that** materials, equipment or trash are not going to be placed within 10' of the edge of the buildings upper elevation?
30. **If it is planned for materials to be placed within 10' of the upper elevation building or roof edge, then** physical barriers to include plywood, netting, tight mesh chicken wire, debris cloth, or other means will need to be installed and secured at the guardrail, cable rail as edge protection by the subcontractor(s) at the height equal to or greater than the height of materials placed in this area. If so, what will be installed and which subcontractor or will Grunley be the entity installing and maintaining this protection and how?
31. Other option for item 29 and 30 above is to place the perimeter protection (guardrail or cable rail) 10' back from the edge so nothing is placed in the 10' buffer zone. Is this option going to be implemented on this project?
32. **Will roofing materials, roofing accessories, metal roof panels, metal decking or similar items that could be displaced by the wind be secured when wind speeds are greater than or are anticipated to exceed 10mph?**
33. Will a material hoist or man and material hoist be used? If so, which and where will this be placed?
34. Are there overhead electrical lines adjacent to the project? If so, is how will they be protected from the work?
35. Any special tools or equipment planned?
36. Daily housekeeping and trash removal is required by each trade on a daily basis as the work takes place and must be completed by the end of each day. What provisions will be made to maintain job housekeeping, and who is responsible to assure this is done?
37. Are provisions being made to inspect all equipment prior to use?
38. Are there any unusual safety hazards on this project? Explain:

- 39. Ground Fault Circuit Interrupters are mandatory. When will installation be complete?
- 40. Have provisions been made for fall protection at the perimeters, roof areas, or at atrium's?
- 41. Any other information or specific project rules, policies or requirements?
- 42. Have the following required posters, forms, and supplies been requisitioned?

Posters:

OSHA Job Safety Posters
EEO & Wage/Hour Poster
State Required Posters
Workers Comp. Poster
Anti - Sexual Harassment Policy

Signs:

Danger – 100% Hard Hat Area
No Trespassing
Fall Protection Required
Authorized Personnel Only
Do Not Remove Guardrails
100% Safety Glasses Required
100% Gloves Required
Silica “No Dry Sweeping”
SDS On Demand Poster

Equipment:

Fire Extinguishers
First Aid Kit
General Safety Supplies
Emergency Phone #'s
Notice Board

D. SAFETY PERSONNEL AND RESPONSIBILITIES

Safety and accident prevention are the responsibility of each person working on and supervising the project. The following personnel have been assigned the responsibility of enforcing the guidelines of this plan, as well as Grunley's Corporate Safety Plan:

Superintendent / Site Safety Manager:	[Name of Project Superintendent]
Director of Safety:	Dan Snyder
Director of Safety:	William McDonald
Senior Safety Manager	Donald Kiser
Senior Safety Manager:	Craig Pryor
Safety Manager:	Austin Lutz
Safety Manager:	Shawn Parkhurst
Safety Manager:	Heather Harper
Safety Manager:	John Henry
Safety Manager:	Kevin Davis
Safety Manager:	Paul Goodier
Safety Manager:	Madison Wilkins
Safety Manager:	Victor Lombardo
Safety Manager:	Lance Becker
Sr. Safety Engineer:	Josh Schoffstall
Sr. Safety Engineer:	Josh Woyt
Sr. Safety Engineer:	Gage Pine
Franz Morales:	Safety Engineer
Safety Engineer:	Derek Szymkowski
Safety Engineer:	Shane Marshall

The duties of the Superintendent / Site Safety & Health Officer (SSHO) / Safety Manager include:

- Conduct initial safety indoctrination for all employees that are new to the site.
- Assist in the planning of work to be performed in a safe manner.
- Train new employees and subcontractors as needed.
- Inspect jobsite to coordinate trades and identify unsafe conditions on a daily basis.
- Monitor safety performance of Grunley employees and subcontractors.
- Take immediate action to promptly correct unsafe or unhealthy working conditions.
- Conduct weekly safety meetings with supervisors and workers.
- Investigate accidents and prepare accident reports and investigations.

The duties of the Director of Safety include:

1. Maintain files of safety inspections, correspondence, and accident reports.
2. Track and handle all workers compensation and other insurance related claims.
3. Investigate accidents, review accident reports, and make accident prevention recommendations.
4. Ensure that safety meetings and random periodic and scheduled inspections take place.
5. Ensure that the overall corporate safety program is being implemented by all.

6. Plan for essential and periodic safety training.
7. Provide technical assistance as needed.

The duties of the Safety Inspector include:

- Perform random, periodic and scheduled site safety audits and develop and distribute the reports.
- Assist in the prompt resolution to the site safety concerns and issues as they are identified.
- Periodically and randomly attend site safety and Foreman’s meetings.
- Coordinate and hold safety stand down meetings when warranted.
- Provide technical support and safety equipment to the projects as needed.
- Review upcoming areas of work to determine potential safety hazards and/or to identify potential hazardous materials.
- Take immediate action to correct unsafe or unhealthy working conditions.
- Investigate accidents, report findings, and determine solutions to implement.

E. EMERGENCY PROCEDURES

The procedure governing actions to be taken in the event of serious injury, property damage, or catastrophic event will be prepared and updated as the work progresses. Emergency procedures will include:

- Necessary actions to be taken
- Who will take them
- Names of persons to be notified
- Location of emergency equipment and supplies

These procedures will be provided to all key personnel involved and will be posted in conspicuous locations throughout the project. Copies of these procedures will also be sent to the Director of Corporate Safety.

At the time of job start-up, copies of emergency procedures shall be given to all subcontractors and discussed as part of the safety indoctrination and periodically in the weekly Foreman’s meetings. The Project Superintendent will also review the program with each subcontractor during the Preparatory meetings to be certain that the subcontractor understands the requirements and responsibilities. Upon completion of this review, the Project Superintendent shall note in his/her meeting minutes, job daily report, and journal that procedures were reviewed and all pertinent information was given to the subcontractor.

General Procedures:

All emergencies are to be handled by the ranking person present, with those that are available to assist.

The ranking person shall delegate responsibility for making emergency phone calls and meeting emergency personnel at gates and entrance areas to guide them towards the scene.

Emergency phone numbers are to be placed at telephone locations and in conspicuous places throughout the jobsite.

Site safety personnel shall determine the need for an ambulance or other emergency equipment except when a serious or catastrophic event has occurred. In the event of a serious or catastrophic occurrence, emergency medical paramedics shall govern.

Any requests to discuss the events by the news media shall be cordially and professionally directed to the Grunley Executive Management for comments.

F. EMERGENCY ACTION PLAN

In the event of an employee injury, trained first aid personnel at the project site should begin first responder procedures. A supervisor or designee will then call and remain on the phone with dispatchers to provide all pertinent information. Another individual will need to meet emergency personnel at the compound gates or entrance doorways to provide escort and guidance to the accident location.

The project is located at **[insert project address]**

For incidences after work hours Superintendent, **[Insert name of Superintendent]**, should be contacted at **[insert telephone number]** or Project Manager, **[Insert name of Project Manager]**, at **[insert telephone number]**.

- Incident Reporting Brochure
- Report all injuries and accidents to jobsite Superintendent and/or trailer
- Call: 911 for emergency use only.
- Call: Dan Snyder, Director of Safety at 240-372-7714 or **Will McDonald, Director of Safety at 443-306-5517.**
- Project Superintendent: Supervise the emergency and designate a competent person to stay in trailer and man the phone.
- Grunley and/or Subcontractor Supervisor: Stay with injured party
- Grunley and/or Subcontractor Supervisor: Collect people at **[INSERT RALLY POINT LOCATION]** per attached map and Site Utilization Plan (SUP). Be sure to account for all workers, especially those working in confined spaces or at heights.

- For crisis situations (death, multiple serious injuries, or media attracting incidents)
 - Use Emergency Procedures
 - The Project Superintendent and/or Project Manager shall manage the emergency and provide direction until the Director of Field Operations and/or the Director of Corporate Safety arrives onsite.
 - Remove personnel other than the designated emergency supervisors from the area.
 - Secure the project site and preserve the accident scene.
 - Don't move anything unless needed to assist the injured.
 - Follow Serious Incident Reporting Procedures

G. EMERGENCY TELEPHONE NUMBERS

In the event of an emergency, the appropriate authorities should be contacted as follows:

Police/Fire/Ambulance: 911

Hospital:

Urgent Care Center:

Emergency telephone numbers for **Grunley Construction personnel** are as follows (personnel should be called in order of listing):

Name	Office	Home	Cell
Name <i>Project Superintendent</i>	000-000-0000	000-000-0000	000-000-0000
Dan Snyder <i>Director of Safety</i>	N/A	N/A	240-372-7714
Will McDonald <i>Director of Safety</i>	N/A	N/A	443-306-5517
Name <i>Safety Manager</i>	N/A	000-000-0000	000-000-0000
Name <i>Senior Project Manager</i>	000-000-0000	000-000-0000	000-000-0000
Name <i>Project Manager</i>	000-000-0000	000-000-0000	000-000-0000
Chris Hightower <i>Director of Field Operations</i>	301-674-4152	540-341-4664	301-674-4152

The **[Insert Owner's Name]** emergency points of contact are:

Name	Phone Number
<i>Title/Position</i>	

This information shall be posted at the jobsite in conspicuous locations.

H. ACCIDENT INVESTIGATION

1. Introduction

The purpose of an accident investigation is to establish all relevant facts as to how an incident occurred and to identify the primary cause of the incident and determine corrective measures to prevent reoccurrence.

2. What Should Be Investigated?

All incidents resulting in personal injury or property damage and near miss incidents that could have caused injury or damage shall be investigated. This is for all incidents onsite, whether Grunley is involved or not.

3. Who Should Investigate?

The senior Grunley person onsite should be in charge of the investigation. The immediate supervisor of the injured person should be active in this investigation. NOTE: The immediate supervisor should understand the **primary cause** and what steps are to be taken to prevent such accidents in the future.

4. Steps to Take to Complete an Investigation

- Go to the scene of incident immediately and assess the situation.
- Make sure that the injured are taken care of first.
- Secure operation and leave everything as is as long as there is no danger to personnel or property.
- Talk to witnesses – get written statements, if possible – just facts, not assumptions. This should also include full printed name, phone number, address, and signature.
- Take many pictures at various locations and angles and/or draw diagrams.
- Listen for idle talk (a witness might not give a statement but will tell others what he/she saw). Confront the person and obtain their statement.
- Check conditions of area and equipment involved, (e.g. guardrails, housekeeping, scaffolding, illumination, weather, time, cranes, vehicles).
- Don't move or throw away anything until after the investigation is complete.
- Describe in detail the injury or damage.
- Notify the building security or police if needed and obtain copies of all reports.
- Do not discuss serious incidents with outsiders as to how, what, or why it happened.
- Count and document how many emergency or utility personnel, vehicles, and equipment arrive to the scene for future verification.

I. SERIOUS INCIDENT REPORTING PROCEDURES

In the event of a serious incident, it is important that the Director of Corporate Safety and corporate management be informed as soon as possible.

Whether it is personal injury or property damage, the Director of Corporate Safety and Project Manager must be contacted immediately.

The Project Manager or, in his absence the most senior Grunley person on the jobsite, should contact the Project Executive, the Director of Corporate Safety, and the Director of Field Operations.

The Director of Corporate Safety will, in turn, immediately inform the President of Grunley, the Sr. Vice President/Director of Operations, and Director of Field Operations.

Because of legal and public ramifications, it is necessary that all inquiries and requests for statements regarding incidents be referred to our Director of Corporate Safety.

Director of Safety:	Dan Snyder
Director of Safety:	William McDonald
Project Manager: VP/Director of Field Operations:	Chris Hightower
Project Executive: Sr. Vice President/Director of Operations:	Ken Terry
President:	Chip Scott

J. ACCIDENT REPORTING

The Superintendent (Jobsite Safety Manager) will be responsible for ensuring that accident reports are completed for all injuries and accidents that occur on this project. This includes subcontractor injuries and any type of damages to building, equipment, utilities, vehicles, etc. **Subcontractors are required to provide the detailed and written accident reports with the OSHA 301 log for recordable injuries, along with obtaining any witness statements and forward them to Grunley's Safety Director within twenty-four (24) hours** of their occurrence. The Director of Safety, or his designee, will maintain the OSHA 300, 300A and 301 Log and Summary of Occupational Injuries and Illnesses and assure that the log is posted at each jobsite by February 1 as required by OSHA. If subcontractor injuries occur, the subcontractor shall provide Grunley with the Employee and Accident Information noted on the jurisdictional Workers Compensation Form as soon as possible and within 24 hours.

A copy of each accident report (**preliminary and/or final**) will be forwarded to the client's project management as soon as possible, but no later than 24 hours after the occurrence. All serious accidents (those resulting in treatment at a medical facility, response by emergency medical personnel, damage to property, etc.) shall be reported to the client by telephone within two (2) hours of the occurrence. The subcontractors will provide Grunley with detailed health status updates following all injuries. This will also include light duty and return to work status and provisions. **The subcontractor shall provide Grunley with copies of their completed accident report, witness statements and 301 log (if the injury is an OSHA recordable) for injuries that occur on the project within 24 hours.**

FIRST REPORT OF INCIDENT

EMPLOYEE DATA

Employee Name: _____ Subcontractor name: _____
Address: _____ Date of birth (DD/MM/YY): _____
Phone number(s): _____ Phone number(s): _____
Occupation/title: _____ Male or Female
Date of hire: _____ Years of experience: _____ Married or Single

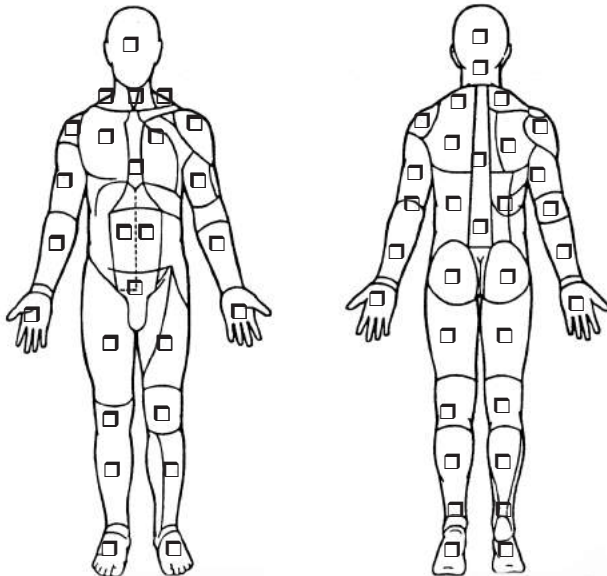
PROJECT DATA

Report completed by: _____ Project manager name: _____
Date of report: _____ Day of week: _____ Superintendent name: _____
Time of report: _____ am or pm Project/department: _____
Date of incident: _____ Day of week: _____ Was family contacted? Yes or No
Time of incident: _____ am or pm If yes, who and phone number: _____
Time employee started work: _____ am or pm Were there any witnesses: Yes or No
Type of incident: Equipment Builders risk Total number of witnesses: _____ [See page 4 for witness instructions](#)
 Workers compensation General liability Auto Property Near miss
Drug screen(s) administered: Yes or No
If yes, list employee: _____
Time and location of drug screen: _____

SAFETY DEPARTMENT - INCIDENT DESIGNATION

- On-site First Aid Only
- Non Recordable
- Recordable
- Restricted Work
- Recordable - Lost Time
- Claim Denied

CLICK THE SPECIFIC BODY PART(S) INJURED:



PERSONAL INJURY - WORKERS COMPENSATION

On-site firstaid given: Yes or No
If yes, by whom, what part of the body, and what type of first aid was provided?: _____
Off-site medical treatment: Yes or No
If yes, treating facility:
Name: _____
Address: _____
Phone: _____
Date of treatment: _____
Treating Physician's Name: _____
Activity: _____
Cause: _____
Detailed description of injury: _____
Return to work on: _____ Full duty or Light duty
List the observed PPE seen worn at the time of the incident:

GENERAL LIABILITY

Injured/property owner:

Name: _____

Address: _____

Phone number(s): _____

Estimated damages: _____

Detailed description of damages:
 (Draw a diagram on page three; provide pictures; and a list of losses and their values.)

AUTO AND/OR EQUIPMENT

Unit description: _____

Equipment #: _____ **Serial #:** _____

Rental: Yes or No **If yes, rental ID #:** _____
*Attach a copy of rental agreement with this report

Rental company name: _____

Address: _____

Phone #: _____

POC: _____

Did driver/operator obey all applicable safety rules or DOT motor vehicle laws: Yes or No

If yes, what rules did they follow and how: _____

If no, list non-compliant rules violated: _____

Did authorities respond: Yes or No (Fire, police, ambulance, etc.)

Responding authority: _____
*Attach a copy of the authorities report to this document.

Authority POC & phone #: _____

Location of Accident: _____
(Street, road, intersection, state)

OTHER VEHICLE INFORMATION

Was there other vehicle or property damage: Yes or No

Make: _____ **Model:** _____

Color: _____ **Year:** _____

VIN: _____

Vehicle license plate: _____ **State:** _____

Vehicle owner name and #: _____

Driver name and phone #: _____

Driver home address: _____

Driver license #: _____ **State:** _____

Insurance company name: _____

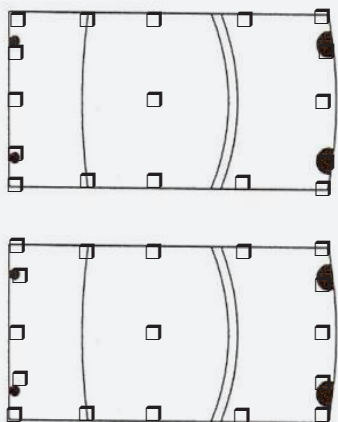
Policy #: _____

Address: _____

Phone #: _____

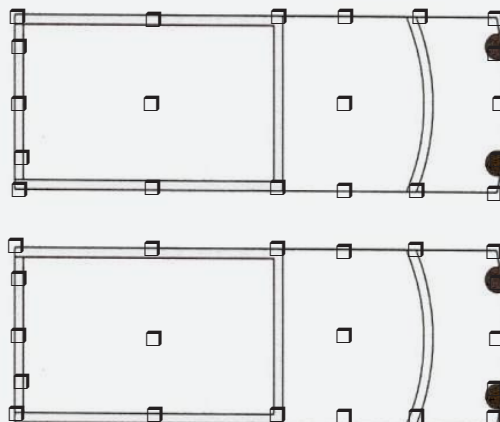
Name, cell phone #'s and addresses of passengers in the other vehicle:

For Auto Damage, click the specific areas damaged to each vehicle and label them as our vehicle and/or those of others:



Car 1

Car 2



Truck 1

Truck 2

WITNESS STATEMENT(S)

Witness name: _____

Witness name: _____

Witness name: _____

Witness name: _____

*Attach witness statements on Grunley Incident Witness Statement Form located on the next page

Was an Activity Hazard Analysis (AHA) developed by the contractor and discussed with the injured: Yes or No

Did the AHA discuss the potential for this incident and the safe work procedures to be followed to prevent it: Yes or No

*Attach a copy of the document to support your findings.

What was the detailed "Root Cause(s)" of the incident?

Contributing factor(s) to the Incident: (weather, lighting, traffic control plan, road conditions, communication of hazards, training, supervision, etc.)

Detailed corrective action(s) that were taken afterwards to prevent reoccurrence, who was involved, and by whom is this being administered (contractor name, supervisor name, title, phone number, add any documents or stand down meeting sign-in sheets with this report):

LESSONS LEARNED To be completed for all incidents

PARTICIPANTS OF INCIDENT REPORT & ANALYSIS

Printed Name / Title / Contractor	Date
Printed Name / Title / Contractor	Date
Printed Name / Title / Contractor	Date
Printed Name / Title / Contractor	Date
Injured Employee (printed name and signature)	Date
Injured Employee (printed name and signature)	Date

PARTICIPANTS MANAGEMENT REVIEW

VP/Director of Operations – Ken Terry (printed name and signature)	Date
Director of Field Operations – Chris Hightower (printed name and signature)	Date
Director of Safety – Dan Snyder (printed name and signature)	Date
Project Executive (printed name and signature)	Date
Project Manager (printed name and signature)	Date
Superintendent (printed name and signature)	Date

EMPLOYEE/WITNESS STATEMENT FORM

Witness name (print legibly): _____ Date of incident: _____ Day of week: _____
Witness address: _____ Time of incident: _____ am or pm
Witness phone number(s): _____ Supervisor notified date: _____ Time: _____ am or pm
Employer/company name: _____
Company phone number: _____ List other witnesses: _____
Supervisor name: _____
Company Safety Director name: _____

Incident details (include factual details and not assumptions of who, what, where, when, how and why the incident happened and what you saw):

Do you recall anything unusual or unexpected that happened? Yes or No *If Yes Explain:*

Are there work conditions that contributed to this injury? Yes or No *If Yes Explain:*

How would you recommend we prevent this incident from happening in the future?

SIGNATURES

Witness signature

Date

Grunley representative initiating witness report signature

Date

K. MODIFIED DUTY PROGRAM

Grunley will provide modified duty for our employees that are injured on the job when released from medical treatment and are able to work with physical restrictions. Procedures for implementing our program are listed as follows.

- Upon the initial treatment and release from medical care, the injured employee's restrictions will be evaluated by the Director of Safety.
- The evaluation will be communicated to the jobsite management where the employee was injured. Employees that suffer a "lost time" injury will be returned to work at the jobsite which best accommodates their restrictions and the needs of the company.
- At that time, it will be determined what "productive" tasks are available on the job that will be within the physical restrictions of the injured employee. It may be necessary to assign some injured employees to other job locations or other types of duty assignments within their physical restrictions. By performing these duties, they will be paid at their full pre-injury wage.
- The employee will assume the available duties, at his/her regular salary, and will be monitored by his/her immediate supervisor in the performance of these tasks. Hours for work performed under the modified duty program will be reported and charged as follows: **JOB NUMBER** and **LABOR CODE 01640**.
- As the medical treatment proceeds and the medical restrictions are decreased, the employee will be assigned applicable upgraded tasks within the treating physician's restrictions and recommendations. All changes in the level of restrictions will be communicated to the jobsite supervision by the Director of Safety.
- The jobsite management shall not impede an injured employee from attending a medical appointment. It is the responsibility of the employee and his/her immediate supervisor, along with the Safety Department, to coordinate medical appointments and to assure that they are kept. Appointments need to be made and attended in the morning or late afternoon so as not to totally disrupt the injured employee's day at work.
- Employee shall return to work from each visit with documentation verifying that they attended the appointment, with physical capabilities identified by the physician and next appointments. Copies of this paperwork shall be requested by the Superintendent and emailed to the Director of Safety as soon as they are received.

L. SAFETY MEETINGS

Weekly safety tool-box talks will be conducted by the supervisors for all Grunley workers. Different topics will be discussed at each meeting. All subcontractors will be invited to attend our meeting, otherwise they will need to conduct their own weekly safety meeting and provide the Project Superintendent with documentation of the meetings. Copies of the outlines and/or minutes from these meetings will be kept on-site and provided to the **Owner** upon request. The originals will be sent to the Director of Corporate Safety for record keeping purposes.

END OF THE MONTH SAFETY MEETING SIGN-IN SHEET



END OF THE MONTH SAFETY MEETING SIGN-IN SHEET

Project Name:				Grunley Job #:		Date:
<i>This form must be completed by all Grunley personnel on your project and emailed to the Safety Department after the last safety meeting of the month</i>						
	Employee Name PLEASE PRINT	Employee Job Title PLEASE PRINT	Employee Signature SIGNATURE PLEASE	Mens Shirt Size	Womens Shirt Size	Were you injured on the job needing medical attention during the past month? YES or NO
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2						
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M. HAZARD COMMUNICATION (HAZCOM) & GLOBAL HARMONIZATION SYSTEM (GHS)

Grunley's hazardous communication program is in compliance with *OSHA 29 CFR 1910.2100 and 29 CFR 1926.59 Corps of Engineers EM 385 1-1 Health and Safety Standards*. This program addresses specific requirements for container labeling, Safety Data Sheets (SDS), and employee training. A complete, current, written copy of this program will be on display at the jobsite at all times.

1. Container Labeling

The Project Superintendent will verify that all containers received for use are clearly labeled as to the contents, note the appropriate hazard warning, and list the name and address of the manufacturer. The Project Superintendent will ensure that all secondary containers are labeled with either an extra copy of the original manufacturer's label or with labels that have the identity and the appropriate hazard warning.

2. Safety Data Sheets (SDS's)

Grunley has subscribed to 3E's SDS on Demand program to provide quick and easy access to safety data sheets for all projects (see appendices for sample SDS). Instruction stickers should be placed on each telephone and all employees on the project should receive training in how to request SDS from 3E Company (**1-800-451-8346**). SDS's will be requested from subcontractors performing work on this project so that they can be compiled into a site specific SDS binder maintained in the Project Superintendent's office. Grunley will provide our own based on the work and materials we will be implementing.

Each subcontractor is required to provide the Grunley Project Team with a copy of their SDS's. Subcontractors shall keep their own binder with copies of SDS's onsite, in alphabetical order, updated and readily available upon request in their project office.

A binder of these SDS's are also required to be kept and readily available by each Grunley Superintendent in their project office.

3. Employee Training and Information

The Subcontractor's Safety Department, Project Manager/Superintendent, or Foreman for each trade is responsible for their company's employee-training program. He/she will need to ensure that all program elements specified below have been covered and are carried out.

When applicable and prior to starting work, each new Grunley employee will attend a health and safety orientation that includes the following information and training:

- An overview of the requirements contained in the Hazard Communication Standard and Global Harmonization System.
- Hazardous chemicals present at his or her work place.
- Physical and health risks of the hazardous chemicals.
- The symptoms of overexposure.
- How to determine the presence or release of hazardous chemicals in his or her work area.
- How to reduce or prevent exposure to hazardous chemicals through use or control procedures, work practices, and personal protective equipment (PPE).
- Steps the company has taken to reduce or prevent exposure to hazardous chemicals.
- Procedures to follow if employees are overexposed to hazardous chemicals.
- How to use 3E's SDS on Demand Program and location of the written hazard communication program.

Prior to introducing a new chemical containing hazard on any project, each employee on the project will be given information and training as outline above for the new chemical hazard.

4. Hazardous, Non-Routine Tasks

Periodically, employees are required to perform hazardous, non-routine tasks.

Some examples of non-routine tasks are confined space entry, tank cleaning, painting vessels or equipment.

Prior to starting work on such projects each affected employee will be given information by the Project Superintendent about the hazardous chemicals he/she may encounter during such activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and steps the company is using to remove or reduce the hazards, including ventilation, respirators, presence of another employee, spill recovery measures, and emergency procedures.

5. Informing Other Employees

It is the responsibility of the Project Superintendent to notify and provide other employers with information about hazardous chemicals their employees may be exposed to on a job site and suggested precautions for their employees. It is the responsibility of the Project Superintendent to obtain information about hazardous chemicals used by other employees to which employees of this company may be exposed. Other employers will be provided with Safety Data Sheets (SDS) for hazardous chemicals generated by his company's operations.

In addition to being given a copy of SDS, other employers will be informed of precautionary measures to be taken to protect their employees who are exposed to operations performed by this company, and will be informed of the labeling system used, so that their employees can identify the hazardous chemicals to which they may be exposed.

6. Chemicals in Unlabeled Containers or Pipes

Work activities are sometimes performed by employees in areas where chemicals are stored or transferred through unlabeled containers and pipes. Prior to starting work in these areas, the employee shall contact the Project Superintendent for information regarding the chemical in the containers, pipes, potential hazards, and safety precautions that should be taken. If materials, fluids, or chemicals are left in the construction areas by the building owner then the Project Superintendent will coordinate with the building owner to have them removed.

7. Distribution

A copy of this program will be made available upon request to employees and their representatives, and is included in the employee handbook.

8. Hazard Communication and Global Harmonization (GHS) Checklist (to be completed by the Superintendent after mobilization)

- Has a list been prepared for all chemicals in the workplace? **Yes or No**
- Is the company prepared to update the hazardous list? **Yes or No**
- Has the company obtained or developed a Safety Data Sheet (SDS) for chemicals we use? **Yes or No**
- Does the Superintendent have a binder of the SDS's intended for use on this project? **Yes or No**
- Has a system been developed to ensure that all incoming chemicals are checked for proper labels and data sheets? **Yes or No**
- Are procedures in place to ensure labeling or warning signs for containers that hold chemicals? **Yes or No**
- Are employees aware of the specific information and training requirement of the Hazard Communication Standard and Global Harmonization System (GHS)? **Yes or No**
- Are employees familiar with different types of chemicals and the hazards associated with them? **Yes or No**
- Have employees been informed of the hazards associated with performing non-routine tasks? **Yes or No**
- Do employees understand how to detect the presence of released chemicals in the workplace? **Yes or No**
- Are employees trained about proper work practices and personal protective equipment (PPE) in relation to the chemicals and their hazards in their work area? **Yes or No**

- Does the training program provide information on appropriate first aid, emergency procedures, and the likely symptoms of overexposure? **Yes or No**
- Does the training program include an explanation of labels, warnings, and pictograms that are used in each work area related to chemicals and their hazards? **Yes or No**
- Does the training describe where to obtain data sheets and how employees may use them? **Yes or No**
- Is a system in place to ensure that new employees are trained before beginning work and handling chemicals and materials? **Yes or No**
- Is a system in place to identify new chemicals before they are introduced into a work area? **Yes or No**
- Is a system in place to inform employees of new hazards associated with a chemical? **Yes or No**

9. Chemical Information List
(Please see attached)

The attached Chemical Information List contains many materials that could typically be used or encountered on a Grunley project and those that may or may not be brought onto the project. At this point it is specifically unknown what materials will be brought to the site or encountered since Subcontractors are in the process of providing submittal data which will include these materials and the associated SDS's.

CHEMICAL INFORMATION LIST

COMPANY NAME:	Grunley Construction Company	SITE ADDRESS:
ADDRESS:	15020 Shady Grove Road Rockville, MD 20850	
CONTACT PERSON:	Dan Snyder	
TITLE:	Director of Corporate Safety	PREPARATION / REVISION DATE: 1/27/2015
TELEPHONE:	240-372-7714	

COMMON NAME	CHEMICAL NAME	WORK AREA	TYPE OF HAZARD	PROTECTIVE MEASURES	EMERGENCY PROCEDURES & FIRST AID
ABRASIVE WHEEL	N/A	TOTAL JOB SITE	INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CONTACT PHYSICIAN
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	IRRIGATE EYES, WASH WITH SOAP AND WATER
			SKIN CONTACT	PROTECTIVE GLOVES/CLOTHING	WASH TO REMOVE DUST FROM SKIN
			INHALATION	ESTABLISH ADEQUATE VENTILATION, LOCAL EXHAUST	REMOVE TO FRESH AIR
ABS CEMENT	N/A	TOTAL JOB SITE	INHALATION	WELL VENTILATED AREA	MOVE TO FRESH AIR - CALL PHYSICIAN
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH EYES W/ WATER
			SKIN CONTACT	PROTECTIVE GLOVES/CLOTHING	WASH SKIN W/ SOAP & WATER
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CONTACT PHYSICIAN
ABSORBENT, GRANULAR OIL & SPILL	N/A	TOTAL JOB SITE	INHALATION	ESTABLISH ADEQUATE VENTILATION, LOCAL EXHAUST	INHALATION: REMOVE TO A WELL VENTILATED AREA
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CONTACT PHYSICIAN
ADHESIVES, 3M BRAND SUPER 77 SPRAY	N/A	TOTAL JOBSITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA
ANTI-BACTERIAL HAND SOAP	N/A (MICRELL) TM	TOTAL JOB SITE. FOR PERSONAL SANITARY APPLICATIONS	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	N/A	N/A

ANTI-SEPTIC SPRAY	TOPICAL ANESTHETIC	TOTAL JOB SITE. USED FOR PERSONAL FIRST AID APPLICATIONS.	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT:	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL	INGESTION: DO NOT INDUCE VOMITING.
			INHALATION	ESTABLISH ADEQUATE	INHALATION: REMOVE TO A WELL
ANTI-SEPTIC TOWELETTE	MIXTURE	TOTAL JOB SITE. USED FOR PERSONAL FIRST AID APPLICATIONS	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT:	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL	INGESTION: DO NOT INDUCE VOMITING.
			INHALATION	ESTABLISH ADEQUATE	INHALATION: REMOVE TO A WELL
BATTERIES	LEAD FREE ACID BATTERIES	TOTAL JOBSITE	INGESTION (ACID CONTAMINATION)	EXERCISE UNIVERSAL PRECAUTIONS	IF INGESTION OCCURS, CALL PHYSICIAN. IF PATIENT IS
			SKIN CONTACT (ACID)	WEAR PROTECTIVE CLOTHING/GLASSES/GLOVES	IF BREAKAGE OCCURS, CONTACT WITH SULFURIC ACID CAN CAUSE EXTREME CORROSIVENESS. FLUSH SKIN WITH WATER, SEE PHYSICIAN IF BLISTERS FORM.
			EYE CONTACT (ACID)	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			INHALATION (ACID)	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA.
BRICK AND CONCRETE BLOCK DUST	BUTYL ACETATE	TOTAL JOBSITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA.
BURN CREAM	CERTICAIN	USED FOR GENERAL FIRST AID APPLICATIONS	EYE CONTACT	NOT APPLICABLE (MEDICAL PRODUCT) TOPICAL APPLICATION	FOR ACCIDENTAL CONTACT WITH EYES, FLUSH WITH WATER.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INDUCE VOMITING. CONTACT PHYSICIAN IMMEDIATELY.
CARBIDE TIPPED MASONRY BITS	N/A	CLEANING STEEL TO BE WELDED	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA.

CARBON STEEL WIRE BRUSHES	N/A	TOTAL JOBSITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA.
DUCT TAPE	POLYMER BASED PRESSURE SENSITIVE ADHESIVE	TOTAL JOB SITE	INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	OBTAIN MEDICAL ATTENTION IMMED.
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYE CONTACT: FLUSH WITH LARGE AMOUNTS OF WATER FOR SEVERAL MIN
			SKIN CONTACT	NO REQUIREMENTS, BUT AVOID CONTACT WITH ADHESIVE.	WASH WITH SOAP AND WATER
			INHALATION	NO REQUIREMENTS	REMOVE TO FRESH AIR. CALL MD.
EYE WASH	NEUTRAL EYE SOLUTION/NEUTRAL-IZER	USED FOR GENERAL FIRST AID APPLICATIONS	EYE CONTACT	EXERCISE UNIVERSAL PRECAUTIONS	OBTAIN MEDICAL ATTENTION IMMED.
			SKIN CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYE CONTACT: FLUSH WITH LARGE AMOUNTS OF WATER FOR SEVERAL MIN
			INGESTION	NO REQUIREMENTS, BUT AVOID CONTACT WITH ADHESIVE.	WASH WITH SOAP AND WATER
			INHALATION	NO REQUIREMENTS	REMOVE TO FRESH AIR. CALL MD.
FANTASTIK	ALKALINE ALL PURPOSE CLEANER	TOTAL JOB SITE. USED FOR GENERAL ALL-PURPOSE CLEANING.	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: FLUSH IMMEDIATELY WITH WATER.
			SKIN CONTACT	WEAR PROTECTIVE GEAR: CLOTHING, GLOVES, GLASSES	SKIN: WASH THOROUGHLY WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING.
			INHALATION	ADEQUATE VENTILATION	REMOVE TO A WELL VENTILATED AREA.
FAST ORANGE PUMICE LOTION HAND CLEANER	INDUSTRIAL WATERLESS HAND CLEANER	TOTAL JOB SITE. USED FOR GENERAL PERSONAL CLEANLINESS	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH EYES AND SKIN WITH LARGE QUANTITIES OF WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CONTACT MEDICAL DOCTOR.
			SKIN CONTACT	WEAR PROTECTIVE GEAR: CLOTHING, GLOVES, GLASSES	SKIN: WASH THOROUGHLY WITH SOAP AND WATER.
"FAST WIPES" HEAVY-DUTY HAND CLEANING TOWELS	N/A	TOTAL JOB SITE. USED FOR GENERAL PERSONAL	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH EYES AND SKIN WITH WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CONTACT MEDICAL DOCTOR.
FIRST-AID CREAM	BENZOCAINE, BENZYL ALCOHOL, PHENOL, & ALLANTOIN	TOTAL JOB SITE. USED FOR GENERAL FIRST AID	EYE CONTACT	NOT APPLICABLE: MEDICAL PRODUCT	FLUSH EYES WITH WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	SEEK MEDICAL ADVISE FOR PRODUCT INGESTION.

FOAM-POLYURETHANE FOAM FILLER	N/A	CONCRETE FORMING AREA	INHALATION	WEAR RESPIRATOR IF POOR VENTILATION	MOVE TO FRESH AIR
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CALL PHYSICIAN
			SKIN CONTACT	PROTECTIVE GLOVES	FLUSH SKIN W/WATER
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH EYES W/WATER
FIRE EXTINGUISHER, ABC DRY CHEMICAL	DRY CHEMICAL, ABC	TOTAL JOB SITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH W/WATER - CALL PHYSICIAN
			SKIN CONTACT	PROTECTIVE GLOVES	WASH WITH SOAP & WATER.
			INHALATION	VENTILATION	MOVE TO FRESH AIR. GET MED. ATTENTION
GASOLINE REGULAR UNLEADED	HYDROCARBON	FUEL TANKS	INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	GIVE LARGE AMOUNTS OF WATER - CALL PHYSICIAN - DO NOT INDUCE VOMITING. GET MED ATTN.
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH W/WATER - CALL PHYSICIAN
			SKIN CONTACT	RUBBER GLOVES	FLUSH W/WATER
GLASS CLEANER	MAIN ACTIVE- ISOPROPYL ALCOHOL	TOTAL JOB SITE. USED FOR GENERAL GLASS CLEANING.	INHALATION	VENTILATION	MOVE TO FRESH AIR
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	GIVE LARGE AMOUNTS OF WATER - CALL PHYSICIAN - DO NOT INDUCE VOMITING
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH W/WATER - CALL PHYSICIAN
GLASS & SURFACE CLEANER, 409	ISOPROPRANOL, 2- PROPRANOL, DIMETHYL CARBINOL	TOTAL JOB SITE. USED FOR GENERAL CLEANING.	SKIN CONTACT	WEAR PROTECTIVE EQUIPMENT	SKIN: FLUSH WITH SOAP AND WATER
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DRINK PLENTY OF WATER, THEN CALL PHYSICIAN FOR FURTHER INSTRUCTIONS.
			INHALATION	PROPER VENTILATION REQUIRED	INHALATION: NO EFFECTS FROM EXPOSURE ANTICIPATED.
HAND SANITIZER	ETHYL ALCOHOL	OFFICE	EYE CONTACT	WEAR SAFETY GLASSES	FLUSH W/WATER
			SKIN CONTACT	PROTECTIVE GLOVES	WASH WITH WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DRINK WATER OR MILK TO DILUTE. GET MEDICAL ATTENTION.
INSTANT COLD PACK	"CERTICOOL"	USED FOR GENERAL FIRST AID APPLICATIONS	EYE CONTACT	N/A - MEDICAL PRODUCT	N/A - MEDICAL PRODUCT
			SKIN CONTACT	N/A - MEDICAL PRODUCT	N/A - MEDICAL PRODUCT
			INGESTION	N/A - MEDICAL PRODUCT	N/A - MEDICAL PRODUCT
			INHALATION	N/A - MEDICAL PRODUCT	N/A - MEDICAL PRODUCT

LIQUID NAILS, CONSTRUCTION ADHESIVE	3-BUTADIENE POLYMER	TOTAL JOB SITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH W/WATER IMMEDIATELY. CALL MD
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DRINK WATER OR MILK TO DILUTE. GET MEDICAL ATTENTION.
			SKIN CONTACT	PROTECTIVE GLOVES, IMPERVIOUS	WASH WITH SOAP & WATER.
			INHALATION	NIOSH RESPIRATOR WHERE APPL. LOCAL EXHAUST	REMOVE TO FRESH AIR. MEDICAL ATTENTION.
LOTION SKIN CLEANSER, GOJO	SODIUM LAURETH SULFATE	TOTAL JOB SITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH WITH WATER FOR 15 MIN.
			SKIN CONTACT	IMPERVIOUS GLOVES	FLUSH WITH COPIOUS AMOUNTS OF WATER. CALL MD
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CONTACT A PHYSICIAN OR POISON CONTROL.
			INHALATION	NOT REQUIRED IF USED AS DIRECTED.	REMOVE TO FRESH AIR.
LYSOL-DISINFECTANT SPRAY	N/A	INTERIOR SPACE OF JOB SITE. USED AS A GENERAL DISINFECTANT.	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH EYES W/WATER
			SKIN CONTACT	PROTECTIVE SAFETY EQUIPMENT: CLOTHING, GLOVES	FLUSH SKIN W/WATER
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	CALL PHYSICIAN CONCERNING INGESTION
			INHALATION	NATURAL OR MECHANICALLY INDUCED AIR MOVEMENT	MOVE TO FRESH AIR.
PAINT - KRYLON GUIDELINE SPRAY PAINT (AEROSOL)	N/A	TOTAL JOB SITE	INHALATION	MECHANICAL FILTER RESPIRATOR	MOVE TO FRESH UNCONTAMINATED AIR. KEEP WARM/QUIET - ARTIFICIAL BREATHING IF NEEDED - CALL PHYSICIAN
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH EYES W/WATER
			SKIN CONTACT	PROTECTIVE CLOTHING/GLOVES	FLUSH SKIN W/WATER
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CALL PHYSICIAN
PENETRATING OIL	N/A	TOTAL JOBSITE	INHALATION	WEAR DUST MASK	MOVE TO FRESH AIR
			SKIN & EYE CONTACT	WEAR SAFETY GLASSES OR GOGGLES. PROTECTIVE CLOTHING/GLOVES	SKIN & EYES: WASH THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CALL A PHYSICIAN.
PINE-SOL CLEANER	NON-HAZ INGRED, ISOPROPYL ALCOHOL	TOTAL JOBSITE	INHALATION	USE IN VENTILATED AREA. LOCAL EXHAUST AND MECHANICAL VENTILATION	REMOVE TO FRESH AIR. CONTACT MD
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH WITH WATER FOR 15 MIN.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CALL MD
			SKIN CONTACT	WEAR GLOVES	WASH THOROUGHLY WITH SOAP & WATER

POLYSEAMSEAL ACRYLIC CAULK	STODDARD SOLVENT	TOTAL JOBSITE	INHALATION	USE IN VENTILATED AREA. LOCAL EXHAUST	REMOVE TO FRESH AIR. CONTACT MD
			EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH WITH WATER FOR 15 MIN.
			SKIN CONTACT	PROTECTIVE CLOTHING/GLOVES	WASH THOROUGHLY WITH SOAP & WATER
SAKRETE MORTAR MIX	ALUMINA SILICA	TOTAL JOBSITE - CONCRETE PATCHING	EYE CONTACT	GOGGLES	FLUSH EYES W/WATER
			INHALATION	MASK ADVISABLE WHEN MATERIAL IS DRY/DUSTY	MOVE TO FRESH AIR.
			SKIN CONTACT	PROTECTIVE CLOTHING/GLOVES	FLUSH SKIN W/WATER
SANDPAPER	N/A	TOTAL JOB SITE.USED FOR GENERAL ALL- PURPOSE ABRASIVE APPLICATIONS ON WOOD & METAL	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	SKIN OR EYE CONTACT: WASH
			SKIN CONTACT	PROTECTIVE CLOTHING/GLOVES	SKIN OR EYE CONTACT: WASH THOROUGHLY WITH FRESH WATER TO SOOTHE.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION NOT RECOMMENDED.
			INHALATION	PROVIDE FOR ADEQUATE VENTILATION	DUST MAY AFFECT BREATHING CAPACITY.
SILICONE SEALANT		TOTAL JOB SITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER
			SKIN CONTACT	PROTECTIVE EQUIPMENT: GLOVES/GLASSES/CLOTHING	SKIN: WIPE OFF AND FLUSH WITH WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CALL A PHYSICIAN.
			INHALATION	PROVIDE FOR PROPER VENTILATION. RESPIRATOR,HARD HAT	INHALATION: REMOVE TO FRESH AIR.
SIMPLE GREEN, ALL- PURPOSE CLEANER	UNDILUTED 2- BUTOXYETHANOL	TOTAL JOB SITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH EYES W/WATER
			SKIN CONTACT	GLOVES NOT REQUIRED.	RINSE SKIN W/WATER
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	CONTACT POISON CONTROL
			INHALATION	NO VENTILATION REQUIRED	
SPRAY PAINT, KRYLON	MARKING PAINT	TOTAL JOB SITE. USED FOR GENERAL MARKING LINE APPLICATIONS.	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH SKIN AND EYES WITH PLENTY OF COLD WATER
			SKIN CONTACT	PROTECTIVE EQUIPMENT: GLOVES/GLASSES/CLOTHING	FLUSH SKIN AND EYES WITH PLENTY OF COLD WATER
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	DRINK LARGE AMOUNTS OF WATER, BUT DO NOT INDUCE VOMITING UNLESS THE PHYSICIAN SPECIFIZES OTHERWISE.
			INHALATION	PROVIDE FOR NATURAL OR MECHANICAL VENTILATION. HARD HAT AND RESPIRATOR	REMOVE VICTIM TO A WELL VENTILATED AREA. CALL FOR MEDICAL ASSISTANCE.

SPRAY PAINT, RUST-OLEUM	MARKING PAINT	TOTAL JOB SITE. USED FOR GENERAL MARKING LINE APPLICATIONS.	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH SKIN AND EYES WITH PLENTY OF COLD WATER
			SKIN CONTACT	PROTECTIVE EQUIPMENT: GLOVES/GLASSES/CLOTHING	FLUSH SKIN AND EYES WITH PLENTY OF COLD WATER
			INGESTION	EXERCISE UNVERSAL PRECAUTIONS	DRINK LARGE AMOUNTS OF WATER, BUT DO NOT INDUCE VOMITING UNLESS THE PHYSICIAN SPECIFIZES OTHERWISE.
			INHALATION	PROVIDE FOR NATURAL OR MECHANICAL VENTILATION. HARD HAT AND RESPIRATOR	REMOVE VICTIM TO A WELL VENTILATED AREA. CALL FOR MEDICAL ASSISTANCE.
SWEEPING COMPOUND-"COTTO-WAXO"	UNIFORM COAGULATED COMPOUND MIX	TOTAL JOB SITE. USED FOR GENERAL SWEEPING CONTAINMENT.	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	FLUSH SKIN AND EYES WITH WATER
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	FLUSH SKIN AND EYES WITH WATER
			INGESTION	EXERCISE UNVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CONTACT A PHYSICIAN.
			INHALATION	PROVIDE FOR ADEQUATE VENTILATION	REMOVE TO VENTILATED AREA.
TAP-FREE 2, LUBRICANT	PROPRIETARY	TOTAL JOB SITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER
			SKIN CONTACT	PROTECTIVE EQUIPMENT: GLOVES/GLASSES/CLOTHING, IMPERVIOUS GLOVES	SKIN: WIPE OFF AND FLUSH WITH WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
			INGESTION	EXERCISE UNVERSAL PRECAUTIONS	DO NOT INDUCE VOMITING. CALL A PHYSICIAN.
			INHALATION	PROVIDE FOR PROPER VENTILATION. RESPIRATOR, HARD HAT	INHALATION: REMOVE TO FRESH AIR.
TREATED LUMBER	CCA TREATED WOOD-CHROMATED COPPER ARSENATE	TOTAL JOB SITE. USED FOR SPECIFIC WOOD CONSTRUCTION	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: FLUSH WITH WATER
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			OTHER FORMS OF EXPOSURE NOT ANTICIPATED TO OCCUR		
WD-40 AEROSOL COMBUSTIBLE	ORGANIC MIXTURE	TOTAL JOB SITE. USED FOR VARIOUS APPLICATIONS WITH METALS.	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA.

WOOD DUST	N/A	TOTAL JOBSITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA.
WOOD FILLER PASTE, MINWAX	METHACRYLIC ACID	TOTAL JOBSITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION	INHALATION: REMOVE TO A WELL VENTILATED AREA.
WOOD GLUE, TITEBOND	VINYL ALCOHOL COPOLYMER	TOTAL JOBSITE	EYE CONTACT	WEAR SAFETY GLASSES/GOGGLES	EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES.
			SKIN CONTACT	PROTECTIVE EQUIPMENT: CLOTHING/GLOVES/GLASSES	SKIN: WASH WITH SOAP AND WATER.
			INGESTION	EXERCISE UNIVERSAL PRECAUTIONS	INGESTION: DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.
			INHALATION	ESTABLISH ADEQUATE VENTILATION, LOCAL EXHAUST	INHALATION: REMOVE TO A WELL VENTILATED AREA.

N. PROCEDURES FOR GOVERNMENTAL SAFETY INSPECTIONS

Periodically our jobs may be inspected by various governmental agencies. It is important that we participate in these inspections in a professional manner to ensure the best interests of Grunley. Following these guidelines will greatly aid in the end result.

- When an OSHA, VOSH, MOSH, DOL, USACE, NAVFAC, or other Government Compliance Officer (governmental safety inspector) arrives on the site he/she should be directed to the Project Manager or Project Superintendent immediately. The Project Manager or Project Superintendent must contact the Grunley Director of **Safety, Assistant Director of Safety, or Director of Risk Management** immediately to assist in this job site compliance inspection.
- Do not deny the Compliance Officer's request to inspect the project.
- When greeting the Compliance Officer, and throughout the entire inspection, be courteous and cooperative.
- In a professional manner, request the Compliance Officer to show proper identification as a governmental inspector. (If they do not show proper I.D. do not allow them access to the site).
- After they have shown proper identification inform them you wish to notify the Grunley Director of Corporate Safety and also request that you be allowed time for a representative of the Safety Department to arrive.
- Notify the client Contracting Officer (CO), Contracting Officer Technical Representative (COTR), or clients Safety Representative to let them know that a compliance officer has arrived to perform an inspection. They too will want to be involved with these discussions and the inspection.
- Subcontractors should immediately contact their Safety Department and ask that their safety representative be in attendance during the inspection. (Compliance organizations will normally allow a specific amount of time for safety personnel to arrive and assist in the site walk through).
- If a member of the Safety Department is available please inform the Compliance Officer of the approximate time of arrival and the representative's name.
- If a member of the Safety Department is not available immediately, provide the compliance officer with the Grunley Construction Company Safety Plan for review. Answer his questions, describe the project and current schedule of activities, and give them a list of the subcontractors working for Grunley on the project.

- If the allotted time has elapsed and the Safety Director or Safety Representative has not arrived, request that the Compliance Officer begin the Opening Conference. The Grunley Safety Director should be included in the Opening Conference via conference call. Note - The Opening Conference is the official beginning of the inspection, and the company representative should begin taking notes and continue throughout the inspection.
- During the Opening Conference the Compliance Officer will discuss the reasons for the inspection. The inspection may be warranted due to a periodic site inspection, complaint, an accident, fatality, or other applicable reasons.
- After the Compliance Officer's review of the Grunley Safety Plan, he/she may choose to perform a Focused Inspection to determine if the subcontractors have implemented effective safety and health programs to prevent serious accidents and injury. This inspection will focus on the leading hazards that cause injuries and deaths in construction, such as falls from elevations, struck by, caught in/between, and electrical shock.
- A project that is not determined to be eligible for a Focused Inspection will quite possibly receive a Comprehensive Inspection. Depending on the project size, this will require more time and resources by the Compliance Officer to identify and document violations.
- A Comprehensive Inspection is normally conducted when there is a problem with coordination between the general contractor and subcontractors to ensure and maintain a safe project for personnel.
- On jobsites where an un-programmed inspection (complaints, fatalities, etc.) is being conducted, the determination as to whether to conduct a Focused Inspection shall be made only after the complaint or fatal injury has first been addressed.
- If the Compliance Officer performs a Focused Inspection, he/she may observe issues and activities that may warrant a Comprehensive Safety Inspection. If this is the case, the Grunley representatives will proceed back to the origin of the Opening Conference and start the Opening Conference once again. The emphasis and discussion of the Compliance Officer will be based on field observations.
- The Project Manager or Project Superintendent shall accompany the Compliance Officer through the entire inspection. Grunley site management personnel shall take the same notes and same angle of pictures as the compliance officer. Multiple pictures and notes with respect to each item discussed must be taken.
- It is not in any contractor's best interest to create an argument with the Compliance Officer or to remove forces from the jobsite prior to or during the inspection.

- During the inspection Grunley may deny access to any area where there is a safety or security concern. In some case's the Compliance Officer may not have the proper Personal Protective Equipment or clearance to access these areas. Document this occurrence completely and accurately in the notes.
- At the conclusion of the actual inspection a Closing Conference is held as the official end of the inspection. In some cases, the Closing Conference may not be held immediately after the inspection. The Compliance Officer may wish to come back and have the Closing Conference at a later date. If this is the situation, you are requested to have them notify our Safety Department to coordinate scheduling arrangements.
- When the Compliance Officer has left the site, regardless of the Closing Conference situation, the Safety Department must be contacted if a representative has not attended the inspection.
- At the Closing Conference, the Compliance Officer will outline problems found during the inspection. These may become formal citations with a fine or they may not. The Compliance Officer is not the one that issues the citations and fines. This is done by their supervisor. Typically, notification of the final ruling, fines and/or citations will be sent to our main office within a few weeks after the Closing Conference.
- Upon receipt of formal citations, the Safety Department will contact the Project Executive, Project Manager and Project Superintendent to discuss the outcome and to post the issuance of citations and fines as required by the issuing agency. At that time, we will formulate a plan to defend Grunley from the issued violations. It may be necessary for the Project Manager, Project Superintendent, or other employees to attend various proceedings in this defense.
- A requirement to post the citation is applicable when we are in receipt of such information.
- After the final ruling on citations and fines has been determined, the Safety Department will submit a complete report to Grunley's President, Sr. Vice President/Director of Operations, Director of Field Operations, and Contract/Project Executive.

O. EMPLOYEE RESPIRATORY PROTECTION PROGRAM

1. Introduction

While most air is safe to breath, there are some processes that necessitate the use of respiratory protection. The Employee Respiratory Protection Program is designed to set forth accepted practices for respirator use, as well as to provide training in those practices. This is a non-mandatory program and it is the employee's option to wear the respirators unless required by the materials they are using or work they are performing. At that time, it will be mandatory.

It is Grunley's intent to be fully compliant with the OSHA 29 CFR 1926.103 and 19 CFR 1910.134 Respiratory Protection Standards. Grunley will determine if any jobsites or areas within the project will require respiratory protection. Grunley will control access to any such areas with physical barriers and proper signage. All employees required to perform work in these designated areas will be medically evaluated, respirator fit tested, participate in respirator training, and provided with appropriate respiratory equipment. In addition, as a benefit to all of its employees, Grunley will provide medical evaluations, respirator fit tests, respirator training, and respirators to all field employees and certain key personnel who may wish to wear a respirator on a voluntary basis in areas where respirators are not generally required.

When warranted, Grunley will issue a NIOSH approved half-face respirator to all field employees and other select individuals who are medically eligible, properly fit tested, and trained in the proper inspection and use of this Personal Protective Equipment (PPE). Each employee will be responsible for the ordinary and required cleaning and maintenance of this equipment. All respirators will be routinely stored at the employee's work site in a re-sealable plastic bag. Jobsite superintendents will periodically inspect all respirators and each employee is responsible for the inspection of this equipment prior to each use. Removal of the respirator by the employee for overnight cleaning is authorized. Replacement of lost, improperly maintained, or otherwise damaged respirators will be at the employee's expense. The company will provide replacement respirators, components, parts, and filters resulting from ordinary and anticipated use.

2. Employer and Employee Responsibilities

- **Employer Responsibility**
 - Proper respirators shall be provided to employees by the employer when necessary.
 - Employer shall provide training in the use of the assigned equipment.
 - Program documentation shall be the responsibility of the employer.

- **Employee Responsibility**
 - The employee shall use the equipment provided in accordance with training received.
 - The employee shall guard against damage to equipment and shall report any problems to his/her supervisor immediately.

3. Medical Limitations

Persons will not be assigned tasks requiring the use of respirators unless they are physically able to perform using the equipment.

4. Training

Training will include, but not be limited to, the following instructions:

- Explanation of the hazard
- Explanation of the selection process for the respirator
- Discussion of the respirator's capabilities and limitations
- Care and cleaning of the equipment
- Fit-testing and proper use
- Emergency or special instructions if needed

MEMORANDUM

To: ALL GRUNLEY CONSTRUCTION EMPLOYEES
From: DAN SNYDER, DIRECTOR OF SAFETY
Subject: INFORMATION REGARDING GRUNLEY’S RESPIRATORY PROTECTION PROGRAM

I understand that it is the intent of Grunley Construction Company, Inc. to be fully compliant with OSHA 29 CFR 1926.103 and 29 CFR 1910.134 Respirator Protection Standards. Grunley will determine if any jobsites or areas within jobsites require respiratory protection. Grunley will control access to any such work areas containing any known respiratory hazards with physical barriers and proper signage. All employees required to perform work in these designated areas will be medically evaluated, respirator fit tested, participate in respirator training, and provided with appropriate respiratory equipment. In addition, as a benefit to its employees and part of the non-mandatory respiratory program, Grunley will provide medical evaluations, respirator fit tests, respirator training, and respirators to all field employees and certain other key personnel who may wish to wear a respirator on a voluntary basis in areas where respirators are not generally required.

Grunley Construction has presented me with the opportunity to participate in its respirator program. I understand that without completing the approved medical evaluation process, I will not be eligible to be fit tested, receive, or wear an approved half face respirator. **I also understand I will not be eligible to receive or wear an N95 dust mask/respirator without participation in the medical authorization process prior to medical approval.**

_____ I do **NOT** wish to complete the medical evaluation process necessary to be approved for participation in the Grunley Respirator Protection Program. If you do not wish to participate, do **NOT** complete the paperwork inside this package.

_____ I **DO** wish to complete the medical evaluation process necessary to be approved for participation in the Grunley Respirator Protection Program.

PRINT NAME (LEGIBLY) _____

SIGNATURE _____

DATE _____

HIPAA FORM

NAME _____ (please print)

(Signature)

1. I authorize the use or disclosure of the above-named individual's health information as described below.

2. The following individual or organization is authorized to make the disclosure:
_____ Grunley Construction Company, Inc.

Address: _____ 15020 Shady Grove Road, Suite 500, Rockville, MD 20850

3. The type and amount of information to be used or disclosed is as follows:

- _____ Enrollment
- _____ Payment
- _____ Claims adjudication
- _____ Case or medical management records including:
 - _____ Problem(s)
 - _____ Medication(s)
 - _____ Most recent history and physical
 - _____ Most recent discharge summary
 - _____ Laboratory results
 - _____ X-ray and imaging reports
 - _____ Consultation reports from (doctors' names) _____
- _____ Entire record from (date) _____ to (date) _____
- Other _____

4. This information may be disclosed to and used by the following individual organization:

Address: _____
For the purpose of: _____

5. I understand that I have a right to revoke this authorization at any time. I understand that if I revoke this authorization, I must do so in writing and present my written revocation to Human Resources.

I understand that the revocation will not apply to information that has already been released in response to this authorization. I understand that the revocation will not apply to my insurance company when the law provides my insurer with the right to contest a claim under my policy. Unless otherwise revoked, this authorization will expire on the following date, event, or condition:

_____ (Enter date)

If no expiration date, event, or condition is specified, this authorization will expire in six months.

6. I understand that authorizing the disclosure of this health information is voluntary. I can refuse to sign this authorization. I understand that I may inspect or copy the information to be used or disclosed. I understand that any disclosure of information carries with it the potential for an unauthorized redisclosure and the information may not be protected by federal confidentiality rules. If I have questions about disclosure of my health information, I can contact the Human Resources Manager, Plan Privacy Contact.

PLEASE COMPLETE PAGE 2

Communication with family. Under the plan provisions, the company may disclose to an employee's family member, guardian, or any other person you identify, health information relevant to that person's involvement in obtaining healthcare benefits or payment related to your healthcare benefits.

Notification. The plan may use or disclose information to notify or assist in notifying a family member, personal representative, or other person responsible for your care, your location, general condition, plan benefits, or plan enrollment.

Business associates. There are some services provided to the plan through business associates. Examples include accountants, attorneys, actuaries, medical consultants, and financial consultants, as well as those who provide managed care, quality assurance, claims processing, claims auditing, claims monitoring, rehabilitation, and copy services. When these services are contracted, it may be necessary to disclose your health information to our business associates in order for them to perform the job we have asked them to do. To protect employees' health information, however, the company will require the business associate to appropriately safeguard this information.

Benefit coordination. The plan may disclose health information to the extent authorized by and to the extent necessary to comply with plan benefit coordination.

Workers' compensation. The plan may disclose health information to the extent authorized by and to the extent necessary to comply with laws relating to workers' compensation or other similar programs established by law.

Law enforcement. The plan may disclose health information for law enforcement purposes as required by law or in response to a valid subpoena.

Sale of business. If the plan sponsor's business is being sold, then medical information may be disclosed.

The plan reserves the right to change its practices and to make new provisions effective for all protected health information it maintains. Should the company's information practices change, it will mail a revised notice to the address supplied by each employee.

The plan will not use or disclose employees' health information without their authorization, except as described in this notice.

For More Information or to Report a Problem

If you have questions and would like additional information, you may contact Human Resources, Plan Privacy Contact at 240-399-2000.

If you believe your privacy rights have been violated, you can file a complaint with Human Resources, or with the Secretary of Health and Human Services. There will be no retaliation for filing a complaint.

The plan reserves the right to change the terms of this notice and to make new notice provisions effective for all protected health information that it maintains. Any new notice will be sent to you by first-class mail or electronically if you so agree.

The effective date of this notice is _____.

- l. Wheezing that interferes with your job:

	Yes	No
--	-----	----
 - n. Chest pain when you breathe deeply: Yes No
 - a. Any other symptoms that you think may be related to lung problems: Yes No
5. Have you ever had any of the following cardiovascular or heart problems?
- a. Heart attack: Yes No
 - b. Stroke: Yes No
 - c. Angina: Yes No
 - d. Heart failure: Yes No
 - e. Swelling in your legs or feet (not caused by walking): Yes No
 - f. Heart arrhythmia (heart beating irregularly): Yes No
 - g. High blood pressure: Yes No
 - h. Any other heart problem that you've been told about: Yes No
6. Have you ever had any of the following cardiovascular or heart symptoms?
- a. Frequent pain or tightness in your chest: Yes No
 - b. Pain or tightness in your chest during physical activity: Yes No
 - c. Pain or tightness in your chest that interferes with your job: Yes No
 - d. In the past two years, have you noticed your heart skipping or missing a beat: Yes No
 - e. Heartburn or indigestion that is not related to eating: Yes No
 - f. Any other symptoms that you think may be related to heart or circulation problems: Yes No
7. Do you currently take medication for any of the following problems?
- a. Breathing or lung problems: Yes No
 - b. Heart trouble: Yes No
 - c. Blood pressure: Yes No
 - d. Seizures (fits): Yes No
8. If you've used a respirator, have you ever had any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)
- a. Eye irritation: Yes No
 - b. Skin allergies or rashes: Yes No
 - c. Anxiety: Yes No
 - d. General weakness or fatigue: Yes No
 - e. Any other problem that interferes with your use of a respirator: Yes No
9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you ever lost vision in either eye (temporarily or permanently): Yes No
11. Do you currently have any of the following vision problems?
- a. Wear contact lenses: Yes No
 - b. Wear glasses: Yes No
 - c. Color blind: Yes No
 - d. Any other eye or vision problem: Yes No
12. Have you ever had an injury to your ears, including a broken ear drum: Yes No
13. Do you currently have any of the following hearing problems?
- a. Difficulty hearing: Yes No
 - b. Wear a hearing aid: Yes No
 - c. Any other hearing or ear problem: Yes No
14. Have you ever had a back injury: Yes No
15. Do you currently have any of the following musculoskeletal problems?
- a. Weakness in any of your arms, hands, legs, or feet: Yes No
 - b. Back pain: Yes No
 - c. Difficulty fully moving your arms and legs: Yes No
 - d. Pain or stiffness when you lean forward or backward at the waist: Yes No
 - e. Difficulty fully moving your head up or down: Yes No
 - f. Difficulty fully moving your head side to side: Yes No
 - g. Difficulty bending at your knees: Yes No
 - h. Difficulty squatting to the ground: Yes No
 - i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes No
 - j. Any other muscle or skeletal problem that interferes with using a respirator: Yes No

CUESTIONARIO DE EVALUACIÓN MÉDICA DE RESPIRADOR DE OSHA

El cuestionario en la forma siguiente es un mandato de OSHA (Occupational Safety and Health Administration). Desafortunadamente, debido al estándar respiratorio de OSHA de *un tamaño le queda a todo, algunas preguntas pueden parecer inapropiadas para el trabajo que usted hace. Por favor procure contestar todas las preguntas lo mejor que pueda y comuníquese con su Departamento de Seguridad si tiene alguna pregunta.

Nombre de compañía: _____

Al empleador: Respuestas a preguntas en la sección 1, y a la pregunta 9 en la sección 2 de la parte A, no requieren un examen médico.

Al empleado: ¿Puede leer? (Marque uno): Sí No

Su empleador debe permitirle responder este cuestionario durante las horas normales de trabajo, o en un momento y lugar que sea conveniente para usted. Para mantener su privacidad, su empleador o supervisor no debe mirar o revisar sus respuestas, y su empleador debe decirle cómo entregar o enviar este cuestionario al profesional de cuidado médico que lo revisará.

Parte A. Sección 1. (Obligatorio)

Cada empleado que ha sido seleccionado para utilizar cualquier tipo de respirador debe proporcionar la siguiente información. (Por favor escriba con letra de molde).

1. Fecha de hoy: _____

2. Nombre y Apellido: _____

3. Fecha de nacimiento: _____ Su Edad: _____

4. Sexo (circule uno): Masculino / Femenino

5. Su estatura: _____ Pies _____ Pulgadas 6. Su Peso: _____ Libras

7. Tipo de empleo: _____

8. Un número de teléfono donde el profesional de cuidado médico que revisará este cuestionario le pueda llamar (incluyendo el área): _____

9. La hora más apropiada para llamarle a este número: _____

10. ¿Su empleador le ha dicho como comunicarse con el profesional médico que revisará su cuestionario? (marque uno): Sí No

11. Marque el tipo de respirador que usted utiliza en el trabajo (puede circular más de uno):

a. _____ N, R, o P respirador desechable (máscara de filtro, tipo sin cartucho solamente).

b. _____ Otro tipo (por ejemplo, tipo de media cara o cara completa, purificador de aire motorizado, aire suministrado, equipo de respiración autónomo).

12. Ha usado un respirador (circule uno): Sí No

Si "Sí," qué clase(s): _____

Parte A. Sección 2. (Obligatorio)

Las preguntas del 1 al 9 deben ser contestadas por cada empleado que ha sido seleccionado para utilizar cualquier tipo de respirador. (Marque "Sí" o "No").

1. ¿Actualmente fuma tabaco o ha fumado tabaco durante el último mes? Sí No

2. ¿Alguna vez ha tenido alguna de las siguientes condiciones?

- a. Convulsiones Sí No
 b. Diabetes (enfermedad de azúcar): Sí No
 c. Reacciones alérgicas que interfieren con su respiración: Sí No
 d. Claustrofobia (temor a lugares cerrados): Sí No
 e. Dificultad distinguiendo olores: Sí No

3. ¿Alguna vez ha tenido alguno de los siguientes problemas pulmonares o problemas con los pulmones?

- a. Asbestosis: Sí No
 b. Asma: Sí No
 c. Bronquitis crónica: Sí No
 d. Enfisema: Sí No
 e. Pulmonía: Sí No
 f. Tuberculosis: Sí No
 g. Silicosis: Sí No
 h. Neumotórax (pulmón derrumbado): Sí No
 i. Cáncer de pulmón: Sí No
 j. Costillas quebradas: Sí No
 k. Alguna lesión o cirugía en el pecho: Sí No
 l. Algún otro problema pulmonar que usted sepa: Sí No

4. ¿Actualmente tiene alguno de los siguientes síntomas de enfermedades pulmonares o del pulmón?

- a. Dificultad al respirar: Sí No
 b. Dificultad para respirar al caminar de prisa en suelo plano o al subir o bajar una pequeña colina: Sí No
 c. Dificultad para respirar cuando camina con otra gente a paso normal en suelo nivelado: Sí No
 d. Tiene que parar para respirar cuando camina normalmente en suelo plano: Sí No
 e. Dificultad para respirar cuando se baña o cambia de ropa: Sí No
 f. Dificultad o falta de respiración que interfiere con su trabajo: Sí No
 g. Tos que produce flema (esputo grueso): Sí No
 h. Tos que lo despierta temprano por la mañana: Sí No
 i. Tos que ocurre al estar acostado: Sí No
 j. Tos con sangre en el último mes: Sí No
 k. Respiración con silbido: Sí No
 l. Respiración que suena o silba e

- interfiere con su trabajo: Sí No
 m. Dolor de pecho cuando respira profundo: Sí No
 n. Algún otro síntoma que usted crea sea relacionado con problemas pulmonares: Sí No

5. ¿Alguna vez a tenido alguno de los siguientes problemas cardiovasculares o problemas con el corazón?

- a. Ataque cardíaco: Sí No
 b. Derrame cerebral: Sí No
 c. Dolor de pecho: Sí No
 d. Fallas cardiovasculares: Sí No
 e. Hinchazón en las piernas o pies (no causado por caminar): Sí No
 f. Latido irregular del corazón: Sí No
 g. Presión alta: Sí No
 h. Algún otro problema del corazón que usted sepa: Sí No

6. ¿Ha tenido alguna vez alguno de los siguientes problemas cardiovasculares o síntomas del corazón?

- a. Dolor o presión en el pecho: Sí No
 b. Dolor o presión en el pecho durante actividad física: Sí No
 c. Dolor o presión en el pecho que interfiere con su trabajo: Sí No
 d. En los últimos dos años a notado su corazón saltar o perder el ritmo: Sí No
 e. Acidez o indigestión que no sea relacionado con la comida: Sí No
 f. Cualquier otro síntoma que cree que puede estar relacionado con problemas cardíacos o de circulación: Sí No

7. ¿Actualmente toma medicamento para alguno de los siguientes problemas?

- a. Problemas respiratorios o pulmonares: Sí No
 b. Problemas del corazón: Sí No
 c. Presión alta: Sí No
 d. Convulsiones: Sí No

8. Si usted ha usado un respirador, ¿ha tenido alguno de los siguientes problemas? (Si nunca ha usado un respirador, marque la caja siguiente y siga con la pregunta número 9):

Nunca he usado un respirador -----

- a. Irritación en los ojos: Sí No
 b. Alergias o salpullido en la piel: Sí No
 c. Ansiedad: Sí No
 d. Debilidad o fatiga: Sí No
 e. Algún otro problema que interfiera con el uso de su respirador: Sí No

9. ¿Le gustaría hablar con el profesional de cuidado médico que revisará este cuestionario acerca de sus respuestas? Sí No

Las preguntas del 10 al 15 deben ser contestadas por cada empleado seleccionado para utilizar un respirador de máscara completa o un aparato respiratorio autónomo (SCBA). Para los

empleados que han sido seleccionados para utilizar otros tipos de

11. ¿Con qué frecuencia debe utilizar el respirador? (marque "Sí" o "no" para todas las respuestas que se apliquen a usted):
- a. Escape solamente (no rescate): Sí No
 - b. Rescate de emergencia solamente: Sí No
 - c. Menos de 5 horas por semana: Sí No
 - d. Menos de 2 horas al día: Sí No
 - e. 2 a 4 horas al día: Sí No
 - f. Más de 4 horas por día: Sí No
14. ¿Trabaja bajo condiciones calientes? (temperatura que excede los 77 ° F): Sí No
15. ¿Trabaja bajo condiciones húmedas?: Sí No
16. Describa su trabajo cuando utiliza su respirador(es):

12. Durante el periodo que utiliza el respirador(s), su esfuerzo de trabajo es: A. ligero B. Moderado o C. Pesado (lea las siguientes descripciones que describen Ligero, Moderado, Pesado antes de contestar)
- a. Ligero (menos de 200 Kcal por hora): Sí No

Si contesto "Sí," ¿cuánto tiempo dura el periodo durante el trabajo? Horas _____ Minutos _____.

Los ejemplos de un esfuerzo ligero de trabajo son: estar sentado mientras escribe mecanografía, bosquejando o realizando trabajo de asamblea ligera; o estar parado mientras opera un taladro (1-3 lbs.) o controlando maquinas.

- b. Moderado (200 a 350 Kcal por hora): Sí No

Si contesto "Sí," ¿cuánto tiempo dura el periodo durante el trabajo? Horas _____ Minutos _____.

Ejemplo de esfuerzo moderado de trabajo: estar sentado mientras que clava o archiva, conducir un carro o un autobús en tráfico urbano; estar parado mientras que perfora, clava, realiza trabajo de ensamblaje o transfiriendo una carga moderada (alrededor de 35 libras.) al nivel de la cintura; caminar en una superficie de nivel plano a 2 mph o hacia abajo a una inclinación de 5 grados alrededor de 3 mph; o empujando una carretilla con una carga pesada (cerca de 100 libras.) en una superficie plana.

- c. Pesado (arriba de 350 Kcal por hora): Sí No

Si contesto "Sí," ¿cuánto tiempo dura el periodo durante el trabajo? Horas _____ Minutos _____.

Los ejemplos de trabajo pesado son: levantar una carga pesada (alrededor de 50 libras) del piso a su cintura u hombro; trabajo en un muelle de cargamento; traspaleo; estar parado mientras levanta ladrillos o albañería; caminar hacia arriba a un nivel de 8 grados alrededor de 2 mph; subir escaleras con una carga pesada(alrededor de 50 libras.).

13. ¿Usa ropa protectora y/o equipo (con excepción del respirador) cuando usa su respirador?: Sí No

Si contesto "Sí," describa la ropa protectora y/o equipo:

17. Describa cualquier condición especial o peligrosa en la cual pudiera encontrarse cuando usa su respirador (por ejemplo, espacios reducidos o gases mortales):

18. Proporcione la siguiente información, si la sabe, para cada sustancia tóxica a la cual está expuesto cuando usa su respirador(es):

Nombre de la primera sustancia tóxica: _____

Nivel de exposición máxima estimada por turno: _____

Duración de la exposición por turno: _____

Nombre de la segunda sustancia tóxica: _____

Nivel de exposición máxima estimada por turno: _____

Duración de la exposición por turno: _____

Nombre de la tercera sustancia tóxica: _____

Nivel de exposición máxima estimada por turno: _____

Duración de la exposición por turno: _____

19. Describa cualquier responsabilidad especial que usted tenga mientras usa su respirador(es) que puedan afectar la seguridad y el bienestar de otros (por ejemplo, rescate o seguridad):

MEMORANDUM

To: ALL GRUNLEY CONSTRUCTION EMPLOYEES
From: DAN SNYDER, DIRECTOR OF CORPORATE SAFETY
Subject: INSPECTION, STORAGE, AND HEALTH HAZARDS ASSOCIATED WITH THE N95 DUST MASK/RESPIRATOR

INSPECTION:

- Your N95 respirator must be inspected and the facial seal checked prior to every use. It is important to catch potential problems with your respirator as soon as possible.
- Take visual inventory of the N95 respirator: check for holes, snags, and rubber elastic bands for damages.
- Check for tightness of the connections, condition of the face piece, seal, and head band.
- If a problem is detected with the N95 respirator, dispose of immediately and replace.

STORAGE:

- Proper storage of your N95 respirator is important to keep it functioning as it was designed. Keep the N95 respirator away from direct sunlight, moisture, extreme temperatures, or hazardous contaminants.
- Store your N95 respirator in such a way that it does not become distorted or deformed which may eventually prevent a good fit and facial seal.

HEALTH HAZARDS:

- Medical authorization is required when using an N95 dust mask respirator because it puts additional stress on the heart and lungs.
- You should do the following
 - Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and all warnings regarding the N95 respirator limitations. These instructions are located inside each N95 respirator box.
 - Do not wear your N95 respirator into atmospheres containing contaminants for which your N95 respirator is not designed to protect against.
- The N95 dust mask respirator is primarily used for particulate dust created by grinding, sanding, sweeping, or any other work related procedure that would create nuisance dust. The N95 dust mask respirator will **NOT** provide the required protection for chemicals, organic vapors, asbestos, lead dust, or PCB's when these hazards are present.
- If breathing becomes restricted due to excessive amount of particulate dust, immediately leave the work area and remove the N95 dust mask and implement dust control measures.

I have read and understand the contents of this page and all the requirements associated with 1910.134 Appendix D OSHA standard.

PRINT NAME (LEGIBLY) _____

SIGNATURE _____

DATE _____

RESPIRATOR FIT TEST RECORD FORM

A. Employee: _____ Date: _____
Employee Job Title/Description: _____

B. Employer: _____ Grunley Construction Co., Inc.
Location/Address: _____ 15020 Shady Grove Road, Suite 500
_____ Rockville, MD 20850

C. Respirator Selected: _____
Manufacturer: _____

D. Conditions which could affect respirator fit:

Clean Shaven _____	Facial Scar _____
1-2 Days Beard Growth _____	Dentures absent _____
2+ Days Beard Growth _____	Glasses _____
Moustache _____	

Comments: _____

E. Fit Checks:
Negative Pressure Pass _____ Fail _____ Not Done _____
Positive Pressure Pass _____ Fail _____ Not Done _____

F. Fit Testing:
Quantitative Fit Factor _____

Qualitative	Isoamyl Acetate:	Saccharins:	Bi-rer:	Smoke:
	Pass _____	Pass _____	Pass _____	Pass _____
	Fail _____	Fail _____	Fail _____	Fail _____

- G. I HAVE BEEN PROVIDED WITH INSTRUCTION ON HOW TO PROPERLY CLEAN AND SANITIZE THE RESPIRATOR WITH ANTISEPTIC WIPES.
- I HAVE BEEN PROVIDED INSTRUCTION ON PROPER INSPECTION, CARE, AND STORAGE OF THE RESPIRATOR.
 - I HAVE BEEN PROVIDED INFORMATION ON HOW TO INSPECT THE CARTRIDGES AND DETERMINE WHEN IT IS TIME TO CHANGE THEM.
 - I HAVE BEEN PROVIDED INFORMATION ON THE CARE, USE, INSPECTION, AND ASSOCIATED HEALTH HAZARDS DURING USE OF THE N95 DUST MASK/RESPIRATOR.
 - INSTRUCTOR HAS ANSWERED ANY QUESTIONS I HAD ABOUT HAVING AND USING A RESPIRATOR AND/OR A N95 DUST MASK RESPIRATOR.

Employee's Initials: _____

H. Employee acknowledgment of test results and instructions:

Employee Signature: _____ Date: _____

Test Conducted By: _____ Date: _____

Disclaimer

The above respirator fit test and instructions were performed on and by the persons listed. The results indicate the performance of the listed respiratory protective device as fitted on the employee named on this record under controlled conditions. Fit testing as performed measures the ability of the respiratory protective device to provide protection to the individual tested. The Test Conductor expresses or implies no guarantee that this or an identical respiratory protective device will provide adequate protection under conditions other than those present when this test was performed. Improper use, maintenance, or application of this or any other respiratory protective device will reduce or eliminate protection.

RESPIRATORY PROTECTION EMPLOYEE HANDBOOK**Introduction**

The Occupational Safety and Health Administration (OSHA) respiratory protection standard (1910.134) has been guiding employers and employees in the safe use of respiratory equipment for personal protection against atmospheres contaminated with harmful dusts, mists, vapors, and fumes.

Because of advances in respirator technology, updated fit testing methods and more effective methods to use respirators, OSHA has issued periodic updates to the standard. The respiratory protection requirements will assist employers in managing their respirator program and help employees use, maintain, and store equipment properly for maximum protection.

The process of the company's respirator program depends on the awareness of workplace hazards, the provisions of the new respiratory protection rule and the conscientious use of this vital piece of personal protective equipment (PPE) by all respiratory-wearing employees. The safety, health, and even your life depend on it.

When Do You Need a Respirator?

A key element of the respiratory protection standards is the protection of employees from respiratory hazards. Use of a respirator should be the last line of defense against airborne contaminants such as dusts, fumes, mists, gases, and vapors. The first line of defense will be the removal of the associated hazards, such as implementing engineering controls to include ventilation, isolation of airborne contaminants, or replace toxic materials with safe substitutes, such as cleaners, disinfectants, or solvents that do not produce harmful fumes, to minimize or eliminate respiratory hazards that cannot be avoided.

When all methods of prevention have been exhausted, or while they are being implemented, respirators must be worn by employees in all work environments where the concentration of contaminants is expected to exceed the Permissible Exposure Level (PEL).

Employees must be provided with respirators that are applicable and suitable to protect them from the hazards they will be exposed to. Employers must evaluate respiratory hazards to determine the air quality and identify the kind and concentration of airborne contaminants that may affect respiratory performance. Other factors to evaluate are work processes, ventilation, chemical agents, and the nature of the products being handled in the area.

Respiratory protection will protect a person from inhaling harmful airborne substances. Respiratory protection is also required in oxygen-deficient atmospheres. Personnel may also need to use respiratory equipment in the event of an emergency.

It is the company's responsibility to know when respirator use is required, to identify the specific airborne contaminants, their chemical state and physical form, and issue appropriate respiratory protection according to the guidelines set forth in the final rule.

Why is Respiratory Protection Important?

There are three ways toxins can enter your body; through skin contact, ingestion into the gastrointestinal tract (by mouth) and through the respiratory system during normal breathing. Of these, the respiratory system is the quickest and most direct. Complicating matters is the fact that most air borne contaminants are not easy to detect.

The circulatory system relies on the respiratory system in order to constantly deliver oxygen to your vital organs. Plain and simple, your life depends on this process. Depriving your body of oxygen or introducing toxins into the bloodstream can lead to cancer, lung impairments, and cardiovascular disease and may eventually result in death.

Contaminants that may be present in the work environment:

Airborne contaminants fall into several categories:

- **Fumes** are created when solids are vaporized by high temperatures. As the vapor cools, it condenses into very small particles.
- **Dusts** are created from larger materials by grinding, sanding, drilling, or machining.
- **Mists** are formed when liquids are atomized or condensed by boiling, mixing, spraying, or plating.
- **Gases and Vapors** are characterized by their chemical content. Contaminant gases, such as nitrogen, sulfur dioxide, and carbon dioxide, have properties similar to air. They can move freely. Vapors result from the evaporation of a liquid or a solid. Fuels and solvents are examples of liquids that produce vapors.

Some gases are hazardous because of their ability to displace oxygen (creating an oxygen-deficient environment for which air-supplying respirators are necessary). Others produce acids or alkalis when they react with water.

Employer/Employee Responsibilities under the Respiratory Protection Standard

The new standard specifically helps employers institute a written policy and administer a respirator program effectively, and it ensures that employees are adequately protected through updated guidelines for selecting a fit testing respirator.

Although your employer must tell you when respirator use is required by OSHA and provide appropriate respiratory protection, *it is up to you to properly use and maintain the equipment.* Proper use and maintenance are very important to your respiratory health and safety because airborne contaminants can be hazardous even in limited exposures. You should know how to wear the equipment and how to use the right filters or chemical cartridges (if applicable), and understand the importance of equipment maintenance. OSHA requires the company to provide a means to protect employees from respiratory hazards, but you ultimately protect yourself as the user of the respirator.

It may help to divide the respirator program into employer responsibilities and employee responsibilities.

The employer's responsibilities:

- Provide a written and site-specific respiratory protection program that outlines the company's commitment to respiratory safety and health and addresses employer/employee responsibilities and consequences for non-compliance.
- Train and provide annual refresher training for all respiratory-wearing employees.
- Assign a program administrator to oversee all activities and conduct required evaluations of the program's effectiveness.
- Identify, evaluate, and control exposure to respiratory hazards.
- Provide respirators in atmospheres that are either oxygen deficient or contaminated above the PEL.
- Conduct fit testing of all respirators before use and as conditions warrant.
- Implement medical evaluations to ensure that employees can safely use respiratory equipment.
- Conduct routine inspections and repair of respiratory equipment.
- Monitor effectiveness of the respiratory program.

The employee's responsibilities:

- Participate in respiratory protection training.
- Participate in fit testing of respiratory equipment.
- Complete the medical evaluation questionnaire.
- Use respirators as instructed during training and according to specific manufacturer's recommendations.
- Clean and disinfect respirator to keep it in good working condition and to prevent contamination (or cross-contamination with multiple users).
- Store respirator as instructed to prolong the life of the equipment and maximize its effectiveness.
- Bring any concerns about the respiratory program to the attention of your supervisor.

Selecting a Respirator

It will be up to your employer to provide a good selection of respirators for employee use. The respirator assigned to you will be appropriate for the hazards in the area and selected based on a number of factors:

- Specific airborne contaminant(s)
- Exposure level
- Size of particulates
- Oxygen deficiency
- Kind of work being performed
- Other personal protective equipment used
- Duration of exposure
- Employee's physical condition

The size of particulates is not a health factor using the new NIOSH filter efficiency guidelines because the various approved filter classifications have been tested against particulates with the smallest degree of penetration. The size of particulates will only affect the lifespan of the newly-rated filters in that they will clog faster at higher efficiencies. If known particulates are large, you may select a lower efficiency rating, depending on the amount of filter leakage that is acceptable.

Assigned Respirator

Each respirator that is permanently assigned to a worker should be visibly marked in a way that will not interfere with the performance of the respirator. Users must follow the seal check, inspection, cleaning, and disinfecting guidelines to ensure maximum protection and prevent cross-contamination.

Kinds of Respirators

Respirators come in several combinations of fit types and classes. It is important that you understand the benefits and limitations of each device.

Fit Types:

- **Tight-fitting**
 - Quarter-mask – covers the mouth and nose
 - Half-mask – fits over the nose and under the chin
 - Full-mask (full-face) – covers the face from the hairline to below the chin
- **Loose-fitting**
 - Hoods, helmets, blouses, or full suits – cover the head completely

Classes:

- **Air-purifying respirators** – filter, chemical cartridge, chemical canister, or powered air-purifying respirators (PAPR) which remove contaminants from the air
- **Supplied-air respirators (SAR)** – provide clean breathing air from an uncontaminated source
- **Full-masks and hoods** offer more protection by covering the eyes and protecting the face and head from contaminated dusts, mists, and splatter. Head harnesses secure to the body at more points of contact. However, they can be cumbersome and may limit vision. Eyeglasses are usually the biggest problem for workers who wear full-masks. The temple piece of the eyeglasses often interferes with a good facial seal. OSHA now approves of prescription contact lenses, which would eliminate the problem altogether. Spectacle kits are also available to fit snugly into the full mask.
- **Half-masks** are usually lighter and easier to wear, covering only the chin, mouth, and nose. However, the half mask has the greatest potential for leakage because it comes in contact with complex facial surfaces, such as the bridge of the nose, cheeks, and chin.
- **Quarter-masks** are comfortable and small profile, allowing for eyeglasses or goggles. Potential for leakage is the same as for half-masks.

Everyone's face is different and each person needs a good facial seal in order to be fully protected. All respirators must pass rigorous fit testing when issued to you. You are also required to do a careful seal check of your respirator before entering a contaminated environment *every time you wear it*.

Air-Purifying Respirators

Air-purifying respirators, also known as negative-pressure respirators, are used when there is enough oxygen present in the atmosphere, but the concentration of contaminants exceeds the

Permissible Exposure Level (PEL). Air-purifying respirators filter contaminants from the air through a filter or a chemical cartridge/canister. They can be either powered or non-powered.

Powered air-purifying respirators (PAPR) use a blower to force air through an air-purifying element. The user's breathing action operates the non-powered respirator. There are two kinds of non-powered air-purifying respirators to choose from – *particulate filters and chemical cartridges/canisters* – depending on the kinds of airborne contaminants you encounter. If you work in an atmosphere containing both particulates and gases/vapors, you may use a combination of the two.

Particulate Filters protect you from dusts, mists, and fumes created by welding, cutting, sanding, grinding, spraying, or cleaning. The filters that have been NIOSH certified in the past can no longer be used. Filters are now selected based on the level of efficiency needed and the presence or absence of oils. You should know which filters your company uses and how to determine when they need changing.

NIOSH Respirator Classifications (42 CFR Part 84)

N – *not resistant to oil* (can be used with wood or cotton dust or any aerosol that does not contain oil, and can be used more than one work shift if properly evaluated)

R – *resistant to contaminants containing oil* (use for 8-hour, single shift)

P – *oil proof* (will remove contaminants containing oil for extended periods)*

*See manufacturer's recommended service time. Filter should be changed when soiled or damaged or it is noticeably difficult to breathe.

NIOSH Filter Efficiency Classifications

Nine classes of air-purifying particulate filters are certified by NIOSH. Efficiency ratings are 95%, 99%, and 99.7%. You do not need to know the size of the particulate under the new rating system because all filters have been tested at the "worst case" maximum filter penetration. Keep in mind that larger particles encountered frequently will clog higher efficiency filters at a faster rate. If the particulate is known to be large, use a lower efficiency-rated filter.

Chemical cartridges or canisters remove gases and vapors through a filter, catalyst, or sorbent. There is no one cartridge* that is effective on all gases and vapors, so you must know which contaminant you are dealing with before selecting one. Although the new OSHA respiratory protection rule places more emphasis on the correct NIOSH approved label on your cartridges and canisters, a system of color-coding will help you identify the correct cartridge for the job.

"Super cartridges" are available to protect against a combination of common gases and vapors. They are usually olive green in color. Consult the manufacturer for more information about the contaminants for which super cartridges can be used.

CONTAMINANT COLOR CODE TABLE	
ATMOSPHERIC CONTAMINANTS TO BE PROTECTED AGAINST	COLORS ASSIGNED
ACID GASES	WHITE
HYDROCYANIC ACID GASES	WHITE WITH ½ INCH GREEN STRIPE NEAR BOTTOM OF CANISTER
CHLORINE GAS	WHITE WITH ½ INCH YELLOW STRIPE NEAR BOTTOM OF CANISTER
ORGANIC VAPORS	BLACK
AMMONIA GAS	GREEN
ACID GASES AND AMMONIA GAS	GREEN WITH ½ INCH WHITE STRIPE NEAR BOTTOM OF CANISTER
CARBON MONOXIDE	BLUE
ACID GASES AND ORGANIC VAPORS	YELLOW
HYDROCYANIC ACID GAS AND CHLOROPICRIN VAPOR	YELLOW WITH ½ INCH BLUE STRIPE NEAR BOTTOM OF CANISTER
ACID GASES, ORGANIC VAPORS, AND AMMONIA GASES	BROWN
RADIOACTIVE MATERIALS, EXCEPT TRITIUM AND NOBLE GASES	PURPLE (MAGENTA)
PARTICULATES IN COMBINATION WITH ANY OF THE ABOVE GASES OR VAPORS	CANISTER COLOR FOR CONTAMINANT AS DESIGNATED ABOVE WITH ½ INCH GRAY STRIPE NEAR TOP OF CANISTER
ALL OF THE ABOVE CONTAMINANTS	RED WITH ½ INCH GRAY STRIPE NEAR TOP OF CANISTER

Gray shall not be assigned as the main color for a canister designed to remove acids or vapors.

NOTE: Orange shall be used as a complete body or stripe color to represent gases not included in this table. The user will need to refer to the canister label to determine the degree of protection the canister will afford.

Service Life of Filters and Cartridges

Because most toxins are undetectable if they break through, it is crucial that you know the service life of the respirator you are using.

Some cartridges may have an End of Service Life Indicator (ESLI). Some manufacturers recommend a maximum field time – such as eight hours. As stated earlier, you are not allowed to wait for signs of a breakthrough, such as a bad odor, taste, or irritation, in order to determine the end of service life.

In any case, the cartridge, canister, or filter must be replaced before the end of service life for maximum protection. Your company should alert you to the change schedule policy if your air-purifying respirator doesn't have an ESLI.

Use these types of respirators:

- In oxygen-deficient environments (at or below 19.5% oxygen saturation)
- During work in confined spaces
- In atmospheres with contaminants above the Permissible Exposure Level (PEL) that exceed the capacity of an air purifying respirator when no cartridge, canister, or filter is effective against the contaminant.
- When the contaminant is unknown
- When the airborne contaminant is Immediately Dangerous to Life and Health (IDLH)

*Oxygen-deficiency can be created in the presence of some inert gases, such as nitrogen, argon, neon, or helium, which displace air.

Airline respirators provide clean air through a hose attached to a remote cylinder or compressor. It is important to keep hoses untangled and be careful not to trip over them during the course of work.

Self-Contained Breathing Apparatus (SCBA) is carried in portable tanks on the user's back (think of firefighters and scuba divers). SCBA contain a 30 or 60 minute air supply, so the user must carefully monitor the amount of air used and exit contaminated environments before the supply runs out.

NEVER ASSUME THE LEVEL OF AIRBORNE HAZARDS! If an unknown substance is present, always err on the side of overprotection by wearing a full-face air-supplying respirator.

Medical Evaluations

Once a suitable respirator has been selected for your specific application, a medical evaluation is necessary to confirm that respirator use will not interfere with your health and well-being. Under the original standard, medical evaluations consisted of an annual physical exam. The updated standard relaxes the medical evaluation.

A questionnaire will be provided to you during normal work hours. Answer the questions honestly and as completely as possible. Your employer will forward the completed questionnaire to an appointed physician or other licensed health care professional (PLHCP) who will determine your ability to use the selected respirator safely based on your answers.

The PLHCP will either approve the use of the respirator or advise a physical exam due to physiological concerns.

Fit Testing

Fit testing is required by OSHA to ensure that you can wear the respirator safely during the course of your work and that the selected respirator will protect you from airborne contaminants. A good seal between your face and the face-piece of the respirator is critical.

Your company will conduct qualitative or quantitative fit testing when a new respirator is first issued to you, when a different face-piece is used, and at least yearly. Fit testing may also be necessary when there are changes in your physical condition. For example, dental changes, facial scarring, cosmetic changes, or change in body weight that would affect the facial seal. Qualitative and quantitative fit tests involve wearing your respirator (or a respirator of the same make, mode, style, and size) in normal air, and then in test conditions, to guarantee a tight-fitting seal against airborne contaminants.

It's a good idea to get used to wearing the respirator assigned for your use. Practice working in a normal environment before entering a contaminated work area for the first time with a new respirator.

Proper Face to Face-Piece Seal and Fit

Regardless of the style of mask, a proper face to face-piece seal is tantamount to respiratory protection. Even a small leak can be hazardous. The fit test should reveal any problems with the seal, and subsequent user seal checks should alert you to any change in the effectiveness of your face-piece. A good seal allows no leakage. The face-piece should be tight-fitting, but the nose should not be pinched and the fit should not be uncomfortable or painful.

Good Fit

- ✓ Provides proper protection
- ✓ Worker should be able to move head
- ✓ Worker should be able to talk
- ✓ Mask should fit securely, but not too tight
- ✓ Nose should not be pinched

Poor Fit

- ✗ Contaminants can leak into mask
- ✗ Mask could fall off
- ✗ Mask interferes with ability to breathe.

NOTE: Facial hair, including beards, sideburns, and mustaches will interfere with a good, tight-fitting seal and is not allowed by OSHA on any sealing surfaces. It must be removed prior to using any respirator with a tight-fitting face piece for maximum protection. Your company policy must forbid the use of an air-supplying respirator if facial hair is not removed. Skull caps, temple pieces of eyeglasses, and missing dentures may also prevent a good face to face-piece seal. OSHA does not allow any condition that interferes with the face to face-piece seal or valve function.

User Inspections and Seal Checks

Your respirator must be inspected, and the seal must be checked prior to every time the respirator is worn. It is important to catch potential problems with your respirator as soon as possible, preferably before you enter a contaminated environment.

Inspection:

First take visual inventory of the respirator to detect any signs of excessive wear, deterioration, or damage. Check for holes, snags, or cracks and inspect rubber parts carefully. Check the tightness of connections, the condition of the face-piece, seal, and headband. Make sure the valves are in good working order and check the connecting tube. Make sure cartridges or canisters on air-purifying respirators are not dented or damaged in any way.

If you detect a problem with your respirator, report it immediately so it can be repaired by a qualified technician, and do not enter a contaminated atmosphere until it is fixed, or a new respirator is issued to you and fit tested.

Your company is responsible for frequent random inspections of all respiratory equipment by an individual qualified to do so, to comply with the final rule, and to guarantee your safety. Respirators for emergency use must be inspected, cleaned, and sanitized monthly or after each use by a qualified individual. A record of this inspection must be written on a tag or label and kept with the respirator or is included in the inspection reports stored as paper or electronic files.

Seal Check:

You must seal check your respirator using the OSHA recommended positive and negative pressure tests or the manufacturer's recommended user seal check, each time you use the respirator to confirm that the respirator will not leak while you are exposed to the contaminated atmosphere. The following is the OSHA recommended seal check (Appendix B-1 of the regulation):

- Positive pressure seal check
 - Make sure the respirator is secured and a good facial seal is achieved.
 - Cover the exhalation valve with the palm of your hand (you may have to unscrew the valve cover).
 - Exhale gently into the face-piece to create positive pressure.

There should be no signs of leakage out of the facial seal, inhalation valve, or cartridge seats.

- Negative pressure seal check
 - Make sure the respirator is secured and a good facial seal is achieved.
 - Cover the cartridge or canister inlet opening with the palm of your hand or by replacing the filter seals (due to the design of some respirators, you may need to use a latex or nitrile glove to completely close off the inlet).
 - Gently inhale to create a vacuum and hold your breath for ten seconds.

The face-piece should slightly collapse inward, without any inward leakage of air through the facial seal.

The tightness of the respirator is considered effective if it passes these two user checks or a similar check as recommended by the manufacturer.

Be sure to alert your supervisor of any change in the fit of your respirator as it can affect your immediate health. Even a small gap in the facial seal could leak deadly contaminants. If something doesn't seem right, stop, and have the respirator thoroughly inspected before entering a contaminated atmosphere!

Inspection Checklist

Inspect the condition of the following items:

- Face-piece (if applicable and using a full face, PAPR, airline or SCBA respirator)
- Fastening straps and closures
- Inhalation and exhalation valves
- Filter
- Cartridge/Canister
- Air hose
- Breathing tubes
- Regulator
- Connections and clamps for hoses and tubes
- Lens

While You Are Wearing Your Respirator...

If you detect any leakage or experience any problem with your respirator in a contaminated environment, exit the area immediately to an area with a plentiful supply of safe, breathable air. Report the problem immediately, take the respirator out of service and, if necessary, consult a physician or other licensed health care professional for treatment.

Do not remove your respirator in a contaminated environment, even if only for a short time and even if the respirator is uncomfortable. Do not remove your respirator too soon – wait until you are no longer in the presence of airborne contaminants. The concentration or toxicity of the contaminant is the hazard, and not the length of exposure, in many cases.

You must leave the contaminated area when the service life of the filter, cartridge, or canister is nearing the end, or the battery life in your Powered Air Purifying Respirator (PAPR) or air supply in a SCBA unit is running low. Be aware of the status of your protection prior to entering the contaminated environment and leave yourself enough time to safely exit the area to replenish the respirator with the necessary protection.

You may need to leave the area in which you are using the respirator to wash your face or face-piece if your eyes or face become irritated. Thoroughly inspect the respirator after cleaning to determine if the irritation is due to a breakthrough in which case repair is in order.

IDLH Atmospheres

Any atmosphere that is immediately dangerous to life and health must be treated with care. This includes areas where the SDS information is known, or the contaminant is unknown, or there are oxygen-deficient atmospheres. In IDLH atmospheres, the most protective and reliable supplied air respirators with full masks must be used.

At least one employee must remain outside the IDLH atmosphere and be equipped and trained in emergency rescue. This means that this support person must also have positive pressure (supplied air) respiratory equipment in case of entry. Visual, voice, or signal line communication must be maintained between the employee(s) inside the IDLH atmosphere and the employee(s) outside the IDLH atmosphere.

This is similar to the OSHA requirements for firefighting, whereby at least two individuals must enter the IDLH atmosphere, and two individuals must stand by outside the IDLH atmosphere (“two in/two out”).

Cleaning and Disinfecting

It is necessary to regularly clean and disinfect your respirator to prolong its life, maintain its effectiveness, and prevent contamination. Regular cleaning will also prevent dermatitis, a skin irritation. It's not recommended, but if you share respiratory equipment with another user, such as the use of a sand blasting hood, it must be thoroughly cleaned with warm soap and water and disinfected prior to passing it along.

Your company will instruct you in the proper steps to cleaning and disinfecting your respirator, either according to the final rule or the manufacturer's instructions.

Storage

Proper storage of your respirator is important to keep it functioning as it was designed. Keep the respirator away from direct sunlight, moisture, temperature extremes, dust, chemicals, solvents, and other contaminants. Pack or store the respirator in a sealed container and in such a way that it does not become distorted or deformed. If respirators are stored poorly and distortion or deformation occurs, it may eventually prevent a good fit and facial seal.

Conclusion

This training is intended to help you look out for your own respiratory health.

**§1910.134 Appendix D
(Mandatory) Information for Employees Using Respirators When Not Required Under the
Standard**

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If you are provided with a respirator for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.
- Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute of Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
- Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
- Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Respiratory Protection Standard – Major Requirements

- **Written Plan** with worksite-specific procedures required to tailor program to each worksite
 - Elements of the written program are clarified
 - Definitions are provided to reduce employer and employee confusion
- **Hazard Evaluation** required to characterize respiratory hazards and conditions of work to assist employer in selecting appropriate respirator.
 - Specific respirator selection criteria are given in paragraph (d).
- **Medical Evaluation** required to determine ability of worker to wear the respirator selected.
 - Hands-on physical examination no longer required. Employers may use a questionnaire.
 - Annual review of medical status required at the physician’s discretion based on the answers to questionnaire.
- **Fit Testing** of tight-fitting respirators required to reduce face seal leakage and ensure that the respirators deliver adequate protection.
 - Annual fit testing required.
 - Protocols for both quantitative and qualitative fit-testing, incorporating the latest fit-testing technologies, are provided in Appendix A to the standard.
- **Training** required to assure that the employee uses the respirator safely.
 - Annual respiratory protection and respirator instruction and training required.
 - Content of training clarified
- **Periodic Program Evaluation** required to ensure that respirator use continues to be effective.
 - Program administrator required to be in charge of respirator program
- **Use of Highly Protective Respirators** in Immediately Dangerous to Life or Health (IDLH) Atmospheres, including Fire Fighting requires use of “Two-in/Two-out” practice for interior structural procedures in dealing with the characteristics of the space.

P. SAFETY GUIDELINES

The following contains the Grunley Safety Department activity specific information, guidelines and requirements. Some of this information may be above and beyond the OSHA or EM385-1-1 requirements and will identify applicable hazards that are likely to be encountered on a typical Grunley project and measures to prevent injury. This information is not meant to be all-inclusive and contains elements that may not be necessarily applicable or appropriate for each Grunley project. Each Job Specific Safety Plan (JSSP) will include a job specific list of hazards and measures to help prevent injury. A more detailed review of these hazards will be conducted at each Preparatory Phase meeting in which an Activity Hazard Analysis (AHA) will be developed by the subcontractor for each Definable Feature of Work (DFOW).

Asbestos

- Site and activity specific work plans from the asbestos abatement subcontractor shall be submitted to the Grunley Project Team **using the Grunley Asbestos Work Plan Checklist** before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- **The Competent Person must hold at a minimum an OSHA 30 within a 5-year compliance date, current Asbestos Supervisor certification within compliance in which the state they are working, and current First Aid & CPR training. A letter of designation for the Competent Person must be provided and signed by a Senior Manager, or Owner/President of the Company deeming the person Competent in the related activity.**
- **Current Worker Asbestos training documentation must be provided for all workers who will be involved with Asbestos removal.**
- In accordance with the 29 CFR 1101(k) asbestos hazard communication standards, the building owner shall furnish Grunley with a documented asbestos survey of the contract areas that identifies the presence, location, and quantities of all known and/or presumed asbestos containing materials before the contract work begins. It is also required that Grunley provide copies of this information to the subcontractors working for us on the project.
- If a survey is not provided by the building owner, Grunley shall request that this be provided and/or a survey implemented to determine the presence, location, and quantity of any known or presumed Asbestos Containing Materials (ACM).
- If the contract requires such, Grunley shall obtain a reputable, licensed, and insured environmental subcontractor and Industrial Hygienist firm to properly abate/remove the materials and dispose of them in accordance with the applicable standards.
- Prior to the commencement of hazardous material removal, the subcontractor shall furnish for submission a complete environmental compliance program in accordance with the contract specification documents.
- Before demolition activities take place, the environmental subcontractor responsible to remove asbestos containing materials shall identify the materials with either blue spray paint if the materials are intact, or with asbestos stickers. If materials are in poor condition, the environmental subcontractor will need to make the area safe before allowing other trades to enter the affected areas.
- Before demolition of walls, ceilings, or shaft areas take place, Grunley supervision will evaluate the areas with the abatement subcontractor to determine if there are poor conditions in the affected areas that would warrant the ceiling, walls, and shaft areas to be demolished under negative air containment. Since settled asbestos fibers can be easily aggravated or impacted by demolition activities, it is important that the affected areas be evaluated to determine if the areas can be cleaned through the implementation of

acceptable methods and air clearance reports provided before demolition work takes place. If this cannot be achieved, then the areas will need to be removed as hazardous materials and dealt with accordingly.

- If the contract does not require Grunley to perform the necessary environmental work, the building owner shall contract with their own abatement contractors to perform this work and provide Grunley and its subcontractors with documentation pertaining to the final air clearances prior to Grunley and/or its subcontractors, or the owner's abatement contractor, continuing with contract work within the regulated areas.
- The Project Certified Industrial Hygienist (CIH) and/or Industrial Hygienist (IH) will be on-site at all times while any asbestos abatement work is being performed.
- All of the asbestos containment plastic that was erected shall be removed soon after the documented (not verbal) final clearance report is furnished. All the plastic shall be removed **by trained asbestos workers** and placed into asbestos labeled 6 mil bags then double bagged, twisted and goose neck taped and removed with the other hazardous waste materials.
- No other surfaces or structures other than piping shall have glove bag asbestos abatement performed on them. If locations or structures, such as ductwork need to be abated it will need to take place inside of a negative air enclosure or containment.
- When locations will have the "wrap and cut" method implemented, only asbestos trained personnel will demolish the piping, remove it from the area and handle it to the predetermined and regulated onsite storage area or storage trailer. These pipes will be handled solely by asbestos trained workers and no others. Wrap and cut piping shall have encapsulant applied to ends that are also wrapped with duct tape and the entire pipe run to be removed shall be wrapped in two layers of 6 mil plastic and labeled before it is removed from its original location. Wrap and cut items will not be left in the work area. They will be immediately taken to the established storage room or storage trailer. **Storage rooms or storage trailers shall have the appropriate asbestos signage posted and locked.**
- An **alternate** asbestos decontamination and/or abatement crew **of the abatement subcontractor** will be on-call throughout the performance of the contract in the event that a work area has an inadvertent asbestos release **to address and resolve the emergency.**
- Reference will be made to the Asbestos Abatement Work Plan submittal for specific information pertaining to work procedures in areas where asbestos containing materials are present.
- The Grunley Director of Safety and the **Building Owner Representative** shall be immediately notified if any material is suspected of being hazardous is encountered during execution of the work.
- If suspect, the materials and areas shall be handled and managed as if the materials are hazardous. If Presumed Asbestos Containing Material (PACM) is found and/or a

contamination situation is present, then work in the area will immediately cease and personnel will be removed from the affected area(s). Work will continue when direction is provided by the Grunley Director of Safety, Certified Industrial Hygienist and/or Industrial Hygienist and/or the **Building Owner Representative**.

- Asbestos labeled bags will not be turned inside out and used for anything other than the disposal of asbestos containing materials.
- **Only a trained Asbestos worker holding a current Asbestos Worker certification within compliance shall transport bags of Asbestos waste. Note - A Field Laborer who is not trained cannot move or transport Asbestos waste.**
- No personnel other than a person carrying a current Asbestos Inspector License for the particular jurisdiction can collect Presumed Asbestos Containing Material (PACM) Samples.
- Asbestos storage trailers must be enclosed in a manner where others cannot gain access, such as a tractor trailer, cube van, sea container, or similar.
- The inside of the **asbestos material** storage trailer must have two layers of 6 mil plastic placed on the floor and turned up the walls a minimum of 12" and attached with two-sided tape, spray glue, duct tape, or equivalent to assure that it does not fall down or move. In addition to the floor covering poly, the walls must also have two layers of 6 mil plastic erected that is covering the walls and lays over the flooring plastic a minimum of 12". The wall plastic has to be placed as high as the asbestos bags will be stacked. **The doors will also need to have two layers of 6 mil plastic placed over them with the asbestos signage posted on the door with a hasp and lock to warn others of the hazard and keep the storage area secured.**
- The asbestos storage trailer will need to be able to be locked and will need to have the required ASBESTOS DANGER signs **and asbestos placards** placed on the outside.
- A copy of the established and completed contractor/transporter and dumpsite hazardous waste manifest will need to be provided to the **Project Superintendent and** the Grunley Safety Department for our project files.
- Notice related to the handling and disposal of non-friable asbestos containing materials as non-hazardous non-regulated materials will need to be conveyed to Grunley in writing **by the Environmental Firm** so that the notice can be forwarded to the building owner, construction management group and/or their environmental consultant for authorization and approval before it is removed and/or disposed of as general or recyclable construction debris. If this is not provided, and not approved by the governing firm **or the contract language** then the materials are to be bagged, wrapped, labeled, and disposed of as hazardous containing materials.
- Asbestos containing fire doors shall be taken off of the frame by removing the hinge pins only. The door hardware, such as hinges, push pull devices, panic hardware, or other types

of hardware will be left on the door unless it is removed inside of containment by qualified asbestos workers. This is necessary to prevent any type of fiber releases.

- Asbestos containing fire doors will be promptly wrapped with two layers of 6 mil plastic that is sealed and asbestos labels will be placed on the coverings and the doors will be moved to the regulated storage room or storage trailer.
- Asbestos containing materials (ie. transite piping, siding, **chemical resistant laboratory countertops made of soap stone**, boards, etc.) will be **adequately wet misted and** promptly wrapped with two layers of 6 mil plastic that is sealed, and asbestos labels placed on the coverings, **and then placed on carts afterwards** before moving the materials to the regulated storage room or storage trailer. **Care will be taken not to damage the materials before they are wrapped with plastic and moved from the area.**
- Both the intake and discharge ends of negative air machines need to be covered and wrapped with **two** layers of 6 mil plastic and duct tape before they are taken out of the containment to prevent the potential of asbestos fiber release.
- No personnel shall enter an area under containment until the paper copy of the final air clearance results have been obtained and verified that the area is safe to reoccupy and after the asbestos signs are taken off the entrance to the containment by the environmental subcontractor.
- The Building Owner Representative shall notify building occupants in advance of asbestos abatement in accordance with the jurisdictional requirements. In Washington, DC this is a 30-day notification, and in Virginia and Maryland it is a 20-day notification.
- The Owner will need to provide the Grunley Environmental Subcontractor with a copy of this building occupant notification so they can attach it to the permit request form that is sent to the jurisdictional location prior to performing any abatement work.

Grunley Asbestos Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the Asbestos Work Plan is developed by the contractor or reviewed by Grunley.

Information Needed	Yes Included	No Not Included	Not Applicable with Reason
1 Table of Contents			
2 Title page to include the Grunley project name, Grunley project number, Grunley project address, Subcontractor name, Subcontractor address, and Subcontractor phone number and anticipated start date.			
3 Formal notification to building occupants needs to be provided and stated in the work plan.			
4 Asbestos work permit and company business license			
5 Contractor's current Certificate of Insurance (COI) with information required by subcontractor agreement and noting the project specific information in the description of operations. Grunley must be listed as the certificate holder and the additional insured.			
6 Provide sequence of work by area and a plan signed by the Project Designer, to include the Asbestos Project Designer's certificate of training.			
7 Abatement work area layout and drawing showing all related critical barriers, 3 stage decon, negative air machine discharge locations, and manometer.			
8 Provide name of DOT licensed transportation company. Provide name and address of hazardous material waste disposal site.			
9 Specify and include the Personal Protective Equipment (PPE) to be used.			
10 Provide a copy of posted notices and warning signs.			
11 Provide Safety Data Sheets (SDS) for all materials to be used.			
12 Provide Contractor Industrial Hygiene monitoring program. Provide a current Collecting and Analyzing of Asbestos Air Samples training certificate and laboratory accreditation certificate.			
13 Provide Contractor's Competent Person (CP) name, phone number, and title. Provide the Competent Person's training documentation to include a current Asbestos Supervisor license and credentials.			
14 Provide workers Asbestos training documentation and current licenses.			
15 Contractor to provide Site Specific Respiratory Protection Program to include annual worker respirator medical authorization documentation and fit testing documents.			

CORPORATE SAFETY PLAN

Information Needed	Yes Included	No Not Included	Not Applicable With Reason
16 Contractor’s project and area specific emergency preparedness program and plans, to include after-hours area and containment inspection and checks, emergency point of contact information, and emergency power plans.			
17 Specify type of final air clearance that will be provided (TEM or PCM) and state this in the plan.			
18 Provide details describing the plan for transporting Asbestos bags and materials through the building while supervised by the Competent Person.			
19 Site Utilization Plan (SUP) showing where the temporary Asbestos bags will be stored inside or outside the building, how the area/room and/or bag storage trailer will be setup and locked with Asbestos signs posted.			
20 Activity Hazard Analysis (AHA) using Corps of Engineers (COE) current acceptable format.			
21 Sign-in document verifying the AHA meeting with all involved with the work to include presenter (preferably the company safety representative), company name, printed name of each attendee, and date of AHA meeting prior to work taking place.			
22 Name, title, phone number and email address of the Contractor safety professional that will periodically and frequently visit the site to oversee that the Asbestos plan safety measures are implemented, are in compliance, and verifies enforcement.			
23 Provide Contractor Competent Person credentials and training certifications that would deem this person to be Competent in Asbestos activities. Provide a designation letter that is signed by an Executive Manager or Owner of the company.			

Blood Borne Pathogens

The majority of businesses and industries do not have an employee(s) whose job duties require him/her to be a designated first aid responder. First aid assistance rendered by an employee who is not required to do so by his/her employer, is covered under the "Good Samaritan" Act. The following information is for those individuals that perform a "Good Samaritan" Act when administering first aid and/or CPR.

- All body fluids (blood, saliva, etc.) should be considered potentially infectious.
- Job first aid boxes, **bloodborne pathogen kits** will have, and employees are to use, protective equipment (latex gloves, mouth tubes, etc.) to eliminate body fluid contact.
- **Contractors are to provide bloodborne pathogen kits and first aid kits in their office and job boxes and personnel shall be properly trained how to clean up bodily fluids after an injury.**
- If body fluid contact is made, hand washing with soap and tepid running water must be performed as soon as feasible, particularly in cases of gross contamination.
- Equipment and washrooms that have been contaminated with fluids are to be cleaned and decontaminated. All cleaning and disinfecting shall be done while wearing protective gloves, face coverings and/or clothes to avoid contact with the fluids.
- Rags, towels, and materials used to assist the injured person and to clean the affected area, shall be considered contaminated and disposed of in a proper bio-medical manner.
- An employee coming in contact with another person's body fluids, because of an accident or mishap in the workplace, **is to be seen by a medical provider and counseled and if recommended given a Hepatitis B vaccination within 24 hours of exposure.**
- Each site will have at least two (2) employees who are trained in the proper procedures of administering First Aid and CPR. This training will include the procedures related to the hazards related to blood borne pathogens.
- Cleanup of blood or other bodily fluids will be performed by personnel that have had the First Aid and Blood Borne Pathogen training. Cleanup will be performed by spraying the affected area with a minimum of 10-part water to 1-part bleach solution to kill any pathogens. Personnel will don disposable rubber gloves and goggles or face shield and use disposable towels to clean up the fluids. The towels, fluids, and rubber gloves will be taken to the dumpster for disposal.

Clearing and Grading

- Site and activity specific work plans from the clearing and grading subcontractor shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department for approval and discussed at the subcontractor's pre-work preparatory meeting.
- Prior to mobilization, the subcontractor shall submit Competent Person resume and training documents related to excavation to the Grunley Safety Department for review. **The Competent Person must hold at a minimum an OSHA 30 within a 5-year compliance date, documentation of completing an 8-hour excavation class with the past 5 years, Erosion & Sediment Control certification within compliance in which the state they are working, and First Aid/CPR training. A letter of designation for the Competent Person must be provided and signed by an Executive Manager or Company Owner deeming the person Competent in the related activity.**
- **Evidence of worker training for Excavation within a 5-year compliance date, Heavy Equipment training within a 5-year compliance date, and DC Operator license if operating equipment within the city limits of Washington DC shall be provided.**
- The documented Sediment and Erosion Control Plan (SECP) that corresponds with the local and State Department of the Environment office shall be established, submitted, approved and measures in place prior to the disturbance of any ground areas.
- **Inspection of the sediment and erosion control systems shall be inspected by the responsible subcontractor after each rain event and the findings shall be documented with any repairs made promptly.**
- All the affected underground structures and utilities shall be identified, protected and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the involvement of a Registered Professional Structural Engineer at the subcontractor's expense.
- Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.
- If equipment and/or excavated spoils are to be removed, moved, placed or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the subcontractor's expense and submitted to Grunley for review, comments and approval prior to the work and/or loading taking place.

- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented anticipated weights, along with the known capacities of the structures beneath before approval for placement and loading takes place.
- The identified utilities will be found on the contract or as-built drawings and any differences or new installations will be noted on the as-built or red line drawings.
- Confirmation of the identified underground utilities will be documented by the Grunley Superintendent using a copy of the contract drawings during location of utilities.
- Utility offset markings will be established on pre-approved surfaces, structures or in locations that are not historic, and will not be removed or disturbed during the construction activities.
- Locator services will be contacted as scheduled to refresh the markings that had been previously established. At no time will they be told that it is not necessary to refresh.
- Overhead power lines hazards shall be addressed, and power disconnected if able, or otherwise protected and high visibility flagging placed on them when in close proximity to the work areas **after being de-energized**. This will be performed by a qualified and trained electrician.
- A site-specific sediment and erosion control plan shall be developed and **submitted using Grunley's Clearing and Grading/ Erosion Control checklist for approval**.
- Sediment and erosion control systems shall be installed as required and maintained.
- Dewatering and pumping filtration system plans will need to be provided for review, approval and submission to the client and required agencies that meet the federal, state, local or jurisdictional requirements. **Discharged water shall be properly and adequately filtered through a pre-approved system before entering storm water inlets.**
- Employees will be instructed in safe tree falling operations by an instructor, the identified competent person and/or the supervisor.
- Adequate bridges that can support the anticipated loads shall be placed over ravines or creeks to allow for appropriate equipment access.
- Audible reverse alarms and/or bi-directional alarms shall be provided on all earth moving equipment and dump trucks.
- **Heavy equipment training must be provided for each operator that will be operating each specific piece of equipment.**

- **Those that will be operating equipment >25 horsepower anywhere within the vicinity of Washington, DC shall provide Grunley with a DC Operator licenses within the compliance date for each operator.**
- Onsite storage of equipment fuel tanks shall be placed in dikes to prevent fuel spills.
- **Contractors shall supply environmental spill kits and sweeping compound to adequately clean up potential hazardous spills from equipment.**
- Temporary access roads will be constructed wide enough to permit two vehicles to pass. A concerted effort will be made to limit or reduce the steepness of these roads.
- Bridges will be constructed over ditches or ravines in order to allow adequate travel over them. They will have handrails or other means of protection at the edges in order to prevent employees from falling off.
- Health hazards involved in working in and around underbrush, poison ivy, insect bites, etc., will be explained through training.
- If allowed, an open burning permit will be requested and obtained from the local Fire Marshall or Fire Chief prior to any open burning of brush. Local or jurisdictional requirements in relation to open burning shall be strictly enforced.
- Water sources and related fire prevention supplies will be maintained to control fires during opening burning operations. Firefighting pumps may be needed to draft water from nearby lakes, ponds, or rivers. An adequate supply of water will be available for the control of any necessary fires during the operation.
- A continuous fire watch will be provided by the applicable subcontractor if an open burning permit is authorized and issued by the local authority.
- Employees working with chain saws in clearing operations will use all the applicable Personal Protective Equipment while performing this work (i.e. hard hats, face shields, ear protection, cut resistant leather gloves, protective leggings (chaps), and upper torso protective clothing).
- Important numbers to call 48 hours before digging so that underground utilities can be identified is performed are Miss Utility 1-800-257-7777 or for Pepco at 1-877-737-2662 or 202-833-7500.
- Grunley and subcontractors will need to identify the perimeter of proposed excavation locations with white spray paint so that the utility locator can identify the utilities within that grid or perimeter. Color codes for underground utilities are as follows:
 - White – Proposed Excavation Area
 - Pink – Temporary Service Markings

- Red – Electrical Power Lines, Cables, Conduits, and Lighting Cables
- Yellow – Gas, Oil, Steam, Petroleum, or Gaseous Materials
- Orange – Communication, Alarms, Signal Lines, Cables, Conduits
- Blue – Potable Water
- Purple – Reclaimed Water, Irrigation, Slurry Lines
- Green – Sewers and Drain Lines

Clearing & Grading Checklist

Write yes, no or n/a. If “Not Applicable with reason” please use the space provided at the end of this form for explanation.

Information Needed	Yes included	No not included	Not Applicable with reason
1 Overview to include a detailed summary of the work, company, contractor, project name, and project address where work will occur.			
2 Provide current Certificate of Insurance (COI) with the project name noted in the description box, Grunley Named as Certificate Holder and Named as Additional Insured.			
3 Site and activity specific work plans from the clearing and grading subcontractor shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department for approval and discussed at the subcontractor’s pre-work preparatory meeting.			
4 Limits of disturbance (LOD), tree protection and sediment/erosion control aspects have been identified.			
5 Details and drawings showing the plans & methods of tree protection and sediment/erosion control.			
6 The Competent Person needs to be identified in a designation letter developed, provided, and signed by a senior manager of the subcontractor.			
7 Provide resume and/or related information to verify competency of the Competent Person through documented Competent Person training, experience, knowledge, and verification that they are capable of recognizing and resolving safety issues.			
8 Plan with details to identify structures, surface and subsurface encumbrances / utilities requiring support & methods of support to be employed signed by a registered structural engineer.			
9 Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading.			
10 Confirm that Miss Utility or PEPCO has been called 48 hours prior to digging.			
11 Utilities have been marked by a qualified subcontractor, Grunley or a third-party locator and verification that the markings will remain visible and be refreshed by the subcontractor.			
12 Identification of overhead utilities and plans for them to be made safe through de-energizing if available, protected or flagged for visibility, spotter, signs, establishment of ground controls as appropriate distance, and/or state the safe distance that will be maintained away from them.			
13 State the specific hazard controls and devices that will be implemented regarding Lock Out/Tag Out.			
14 Storm Water Pollution Prevention Plan has been submitted reviewed and approved when soil disturbance exceeds one acre.			
15 Provide dewatering, pumping & filtration plans with details of systems to be used (when required).			

<p>16 A survey of trees to be removed by the subcontractor’s competent person, identifying weak limbs, proximity to electrical lines or other utility or structural concerns is to be conducted prior to felling work. If applicable, use the Grunley checklist to develop plans for Tree Felling activities.</p>			
<p>17 If allowed, open burning permit requested and obtained. The Subcontractor is to provide water sources for burning control and full-time continuous fire watch, should the local authorities grant an open burning permit.</p>			
<p>18 A complete, detailed and area specific Activity Hazard Analysis (AHA) will need to be developed and provided in the plan using the USACE EM385-1-1 format.</p>			
<p>19 Include a sign-in sheet to verify that the AHA meeting was held to review the plan and AHA with all involved before the work takes place. The sign-in sheet needs to include presenter (Competent Person, Safety Director or Safety Manager) with the legible company name, printed name of each attendee, signature of each attendee, and date.</p>			
<p>20 Provide Safety Data Sheet (SDS) documents.</p>			
<p>21 State that a spill kit will be provided and note where it will be located on a drawing of the area. State how spills will be handled and how the saturated absorbents and affected soil will be collected and disposed. State if the spill is substantial (>5 gallons) that an environmental soils company will be immediately called to provide clean up, soils disposal and soils testing direction.</p>			
<p>22 State in the plan that daily equipment inspections to be performed by subcontractor and provide copies of the blank inspection form.</p>			
<p>23 Fueling and fuel storage planning includes high well-drained site, away from buildings, water tributaries, emergency egress or combustible materials. Ensure and maintain the storage area is free of weeds and foliage.</p>			
<p>24 If a large operation, the amount of fuel IE Diesel and or Gasoline being stored on site. How the equipment is going to be refueled IE day cans of fuel Diesel or Gasoline, If fuel truck provide procedures for refueling equipment (grounding/bonding).</p>			
<p>25 Provide the name, title and cell phone number of the subcontractor Safety Director or Safety Manager that will be onsite to oversee the clearing & grading safety measures in accordance with the established and approved plans.</p>			
<p>26 Provide contractor safety person credentials and training certifications that would deem this person to be the subcontractors designated Competent Person by the company Executives or Principals.</p>			

Excavation and Trenching Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the excavation and trenching plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1 Overview to include a detailed summary of the work, company, contractor, project name, and project address where work will occur.			
2 The Excavation/Trenching Competent Person needs to be identified in a designation letter developed, provided, and signed by a senior manager of the subcontractor.			
3 The Fall Protection Competent Person needs to be identified in a designated letter developed, provided, and signed by a senior manager of the subcontractor.			
4 The Confined Space Competent Person needs to be identified in a designated letter developed, provided, and signed by a senior manager of the subcontractor (if applicable).			
5 Provide resume and/or related information to verify competency of the Competent Person through documented Competent Person training, experience, knowledge, and verification that they are capable of recognizing and resolving safety issues.			
6 Competent person training documentation for trenching and excavations, fall protection, and confined space (if applicable).			
7 Employee training documentation for trenching and excavations, fall protection, and confined space (if applicable).			
8 A complete, detailed and area specific Activity Hazard Analysis (AHA) will need to be developed and provided in the plan using the USACE EM385-1-1 format.			
9 The plan needs to include a sign-in document verifying that the AHA meeting was held to review the plan and AHA with all involved before the work takes place. The sign-in sheet needs to include presenter (Safety Director or Safety Manager) with the legible company name, printed name of each attendee, signature of each attendee, and date.			
10 Engineered drawings relating to the excavation, trench, or sheeting and shoring.			
11 Tabulated data for all trench boxes to be used onsite included in the plan.			
12 Daily excavation/trench inspection checklist needs to be included.			
13 Access and egress into the excavation/trench.			
14 Means and methods for fall protection, and plans for fall protection at the top of the excavation and trench.			
15 CPR and first aid training documentation for the Competent Person.			
16 Specific confined space equipment information needs to be provided in the plan. Example 4 gas monitor, tripod, full body harness, attachable lifeline, forced air fans, etc. (if applicable)			

17	Top Man designation for confined space (if applicable)			
18	A copy of the following forms need to be provided: a. Confined space entry checklist. b. Confined space entry sign-in/sign-out document. c. Confined space entry permit. d. Confined space air monitoring log.			
19	Identify who by name and title the Attendant / "Top Man" outside the confined space will be.			
20	Verify in the plan that the Top Man can adequately communicate in English with those outside the confined space and with those personnel working in the confined space.			
21	Provide the emergency Point of Contact (POC) name, title, cell phone number and emergency services contact information. Provide an alternate emergency POC with information.			
22	Verify in the plan that the subcontractor has actually contacted and talked with the local emergency services as required and verified that they are aware of the area, work taking place, when, the contractor involved, and that they will be able to provide emergency services if needed.			
23	Provide current (not expired) First Aid & CPR training documents for the Attendant / Top Man and an alternate.			
24	Plan needs to state that continuous air monitoring of the space will take place and be documented on the air monitoring form.			
25	Plan needs to state the immediate emergency evacuation or extraction procedures for workers or injured personnel from the specific work space(s).			
26	Plan needs to state that all those in the confined space will follow the direction of the Top Man when told they need to immediately come out of the space.			
27	If materials or chemicals are used inside the confined space then the Safety Data Sheet (SDS) documents need to be provided.			
28	If respiratory protection is needed or required then a site and area specific respiratory protection plan needs to be provided to include medical evaluations, medical authorization, and annual fit testing documentation.			
29	A detailed communication plan between the Top Man and those working in the confined space needs to be provided.			
30	Specific hazard controls and devices need to be stated in the plan in regards to Lock Out/Tag Out.			
31	Confined space lighting plans need to be included based on the conditions, hazards and/or potential hazards of the space.			
32	Provide the name, title and cell phone number of the subcontractor Safety Director or Safety Manager that will be onsite to oversee the confined space setup, material handling, safety measures in accordance with the established and approved confined space entry plan.			
33	Provide contractor safety person credentials and training certifications that would deem this person to be the subcontractors designated Competent Person by the company Executives or Principals.			

Tree Felling Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the tree felling work plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1 Overview to include a detailed summary of the work, Grunley project name, Grunley project number, Grunley project address, Subcontractor name, Subcontractor address and Subcontractor phone number.			
2 Competent Person (CP) designation in writing and signed by an Executive Officer or Owner of the company designating their Competent Person by name and title.			
3 Competent Person designation letter states that the Competent Person is responsible for the work, shall be onsite during the work, enforces compliance of the plan, inspects the equipment and the setup prior to it being used, and has the Company's authority to take action and expend funds when needed to resolve safety issues.			
4 Documentation of Competent Person training must be provided in tree felling activities.			
5 Documentation of employee training within the past 5-years to verify that they have been trained in the use, care, and inspection of the specific equipment to be used such as: (chainsaws, chippers, grinders, ropes, etc.).			
6 Provide inspection criteria and removal from service procedures for damaged or defective equipment.			
7 Provide operator licenses for all heavy equipment operators specific to the piece of equipment to be used within the respective compliance dates.			
8 Traffic control plan must be provided to identify steps to manage the disruptions in vehicular traffic. Provide dates for areas where this will be anticipated, as well as best estimate of maximum duration of traffic stoppages.			
9 Provide a diagram showing specific locations of where this work will occur and identify the number and size ranges of the trees to be felled.			
10 Provide provisions to keep unauthorized personnel away from hazards associated with specific equipment.			
11 Provide a list of specific personal protective equipment (PPE) to be used for EACH TYPE OF ACTIVITY PERFORMED . For example, use of chainsaws would include: (hard hats, safety glasses, cut resistant gloves or gauntlets, safety toed work boots, class II high visibility vest, hearing protection, and leather leg chaps).			
12 Provide an emergency action plan (EAP) that outlines provisions for emergency contacts, rally point(s), escape routes, rescue, etc. during tree felling operations.			
13 Provide information of how the trees will be delimbed. Provide steps to assure that a kickback hazard will be minimized.			
14 Provide a brief summary of refueling operations to include that a 40 B:C rated fire extinguisher will be provided.			

15 Provide a diagram showing the refueling area for the equipment.			
16 Provide a noise hazard summary to include signage to be posted and where. Noise shall not exceed the action level of 85 decibels without hearing protection.			
17 Develop and provide the Tree Felling Activity Hazard Analysis (AHA) using the US Army Corps of Engineers (USACE) current AHA format. (see attached).			
18 Provide a copy of the completed sign-in sheet to verify the AHA meeting with all personnel involved with the work was held prior to the work taking place to include presenter (preferably the company safety representative), company name, legible printed name and signature of each attendee, and date of meeting.			
19 Provide the name, title, phone number, and email address of the contractor's Safety Director, Safety Representative or Safety Consultant, that will frequently and periodically visit the project to monitor and confirm compliance of the approved tree felling work plan.			
20 Provide contractor safety person credentials and training certifications that would deem this person to be the subcontractors designated Competent Person by the company Executives or Principals.			

Confined Space Entry Program

Site and activity specific work plans from the confined space entry subcontractor shall be submitted to the Grunley Project Team **using Grunley's Confined Space Plan Checklist** before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.

- Prior to mobilization the subcontractor shall submit Competent Person resume and training documents related to confined space to the Grunley Safety Department for review. **The Competent Person must provide documentation of First Aid/CPR training within compliance dates, OSHA 30 training valid within 5-years, 8-hour confined space entry training, and 24-hour fall protection training. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered. A letter of designation must be provided for the named Competent Person. This letter shall be signed by an Executive Manager, Safety Director, or Company Owner deeming this person Competent in Confined Space activities.**

Definition of a Confined Space

- Is large enough and so configured that an employee can bodily enter and perform assigned work.
- Has limited or restricted means of entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry).
- Is not intended for continuous employee occupancy

Definition of a Permit Required Confined Space means a confined space that has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere.
- Contains a material that has the potential for engulfing an entrant.
- Has an internal configuration such that a entrant could be trapped or asphyxiated by inwardly converging walls by a floor which contains slopes downward and tapers to a smaller cross-section
- Contains any other recognized serious safety or health hazard.

Confined Space Entry

- During the project startup, the Project Manager shall notify the Director of Corporate Safety or the Project Superintendent of any spaces that may be deemed confined spaces. Following this review, procedures shall be developed to address access and/or walk in each specific area.
- Prior to entering into a confined space, Supervisory personnel shall notify the Safety Department with advanced notice prior to entering an area meeting the criteria for a "Confined Space".
- Prior to entry, a Rescue Plan (peculiar to each entry area) shall be prepared and approved by the Grunley Director of Corporate Safety. All workers involved in the confined space operation will be trained on the plan, and be able to recognize hazards associated with the confined space entry.
- The Grunley or subcontractor's Safety Department will complete a safety checklist, implement any testing needed, and will issue a Confined Space Entry Permit if warranted.
NO ONE SHALL ENTER A CONFINED SPACE WITHOUT A VALID ENTRY PERMIT.

- Entry Permits are valid for one shift only and must be issued at the start of each new shift and must be posted at the entrance to the confined space.
- At least one “**Attendant**” shall be trained in First Aid and CPR.
- Before any entry, all workers involved shall be trained to recognize the hazards of that entry. **Training must be within a 5-year compliance date or when hazards change.**
- **The Confined Space Competent Person shall coordinate with local emergency responders to determine if they are capable of a timely rescue from the specific confined space. If the local emergency responders do not have the appropriate rescue capability this needs to be developed onsite by the responsible Contractor.**
- A rescue plan, peculiar to each entry situation, shall be written before the entry. All workers involved shall be knowledgeable of the plan’s contents.
- Any and all systems, which may affect the entry, shall be locked and tagged out. A Zero Mechanical State (ZMS) must exist during the entry.
 - Zero Mechanical State – All energy from electrical, mechanical, hydraulic, air, etc. shall be neutralized. All potential and kinetic energy must be at its lowest value.
- Any and all special equipment, i.e., respiratory protective equipment (see Respirator Protection Program), shall be in place and training provided prior to the entry. **All confined gas monitoring equipment shall be calibrated and functionally tested before each entry in accordance with the Manufacturer’s instructions.**

NOTE: AN ENTRY PERMIT WILL BE ISSUED ONLY WHEN **ALL** SAFETY ITEMS HAVE BEEN COMPLETED. THE ENTRY PERMIT MUST BE POSTED AT THE SCENE.

CONFINED SPACE ENTRY CHECKLIST (Page 1 of 2)

All items must be answered YES or N/A before a confined space entry permit can be issued

OPERATING PROCEDURES PROVIDED OR ENFORCEMENT:	ANSWERS
1. PROCEDURES REVIEWED, TRAINING VERIFIED, AND/OR COMPLETED?	
2. QUALIFIED ENTRY SUPERVISOR ON-SITE TO MONITOR AND ENFORCE THE PROCEDURE?	
3. SDS PROVIDED, AVAILABLE, REVIEWED?	
WELDING, CUTTING, AND BURNING PROCEDURES WRITTEN AND AVAILABLE?	
IF YES, IS A BURN PERMIT ESTABLISHED?	
LOCKOUT TAGOUT SUPPLIES AND DEVICES PROVIDED AND IN PLACE?	
LOCKOUT TAGOUT PERMIT COMPLETED?	
ATMOSPHERIC MONITORING:	
1. HAS ATMOSPHERIC AIR MONITORING BEEN PERFORMED?	
2. OXYGEN LEVEL BETWEEN 19.5-22%?	
3. TOXICITY AND COMBUSTIBILITY LEVELS WITHIN ACCEPTABLE RANGES?	
4. IS CONTINUOUS AIR VENTILATION AVAILABLE, NEEDED, AND/OR PROVIDED?	
5. IS VENTILATION EQUIPMENT ELECTRICAL POWERED?	
6. IF FUEL POWERED, IS THE EXHAUST VENTILATED TO A LOCATION AWAY FROM THE CONFINED SPACE?	
SAFETY EQUIPMENT:	
1. FULL BODY HARNESS AND RETRIEVAL LIFELINE?	
2. HOISTING APPARATUS AND/OR RESCUE TRIPOD?	
3. HARD HAT, EYE, HAND, AND FOOT PROTECTION PROVIDED AND WORN?	
4. FIRE EXTINGUISHER (10# SIZE OR GREATER) PROVIDED AND AVAILABLE?	

CONFINED SPACE ENTRY CHECKLIST (PAGE 2 OF 2)

5. PROPER LIGHTING PROVIDED?	
6. WALKING WORKING SURFACES SAFE AND PROTECTED?	
INFECTIOUS MATERIALS:	
1. ARE PERSONNEL GOING TO COME IN CONTACT WITH INFECTIOUS MATERIALS?	
2. HAS INFECTIOUS MATERIALS TRAINING BEEN PROVIDED?	
3. HAVE SAFETY MEASURES BEEN ESTABLISHED TO PREVENT INFECTIOUS MATERIALS CONTACT WITH SKIN?	
4. POLYCOATED TYVEK SUITS, GOGGLES, FACE SHIELDS, AND RUBBER BOOTS PROVIDED?	
5. SURGICAL GLOVES UNDERNEATH PVC RUBBER-COATED GLOVES PROVIDED?	
6. HEPATITIS B & C SHOTS OFFERED AND PROVIDED 30 DAYS BEFORE ENTRY?	
7. AREA WASHED DOWN AND CLEANED PRIOR TO ENTRY?	
EMERGENCY PROCEDURES AND TRAINING:	
1. HAS THE TOP MAN OR SAFETY OBSERVER BEEN ESTABLISHED AND TRAINED?	
2. DOES THIS INDIVIDUAL UNDERSTAND THEIR RESPONSIBILITIES?	
3. DOES THIS INDIVIDUAL UNDERSTAND THAT THEY ARE TO PERFORM NO OTHER DUTIES OR LEAVE THE AREA WHILE PERSONNEL ARE IN THE CONFINED SPACE?	
4. IS EMERGENCY RESCUE EQUIPMENT PROVIDED AND AVAILABLE?	
5. IS COMMUNICATION FOR EMERGENCY SERVICES ESTABLISHED AND READY?	

CONFINED SPACE ENTRY PERMIT

This permit is valid for one shift only. It must be updated or renewed for each shift. This permit must be posted and remain at the entry location

JOB NAME: _____ DATE: _____

CONFINED SPACE WORK SITE LOCATION: _____

SHIFT TIME START: _____ TIME COMPLETED: _____

DESCRIPTION OF WORK: _____

PERSONS AUTHORIZED TO ENTER (Print Name Legibly): _____

EMERGENCY PROCEDURES

Do not enter without emergency escape hood or rescue SCBA if and when the confined space requires such by the Grunley Safety Department

EMERGENCY TELEPHONE NUMBER: _____

ENTRY SUPERVISOR: _____

PRINT NAME

SIGNATURE

QUALIFIED PERSON: _____

(TOP MAN)

PRINT NAME

SIGNATURE

Temperature readings if working in hot areas, such as steam tunnels: (Certain provisions for worker heat/rest ratios will need to be implemented in these work areas).

START TIME & TEMPERATURE: _____

4 HOURS LATER & TEMPERATURE: _____

CONFINED SPACE AIR MONITORING

GASES	OXYGEN (O2)	LOWER EXPLOSIVE LIMITS (LEL)	CARBON MONOXIDE (CO)	HYDROGEN SULFIDE (H2S)
TYPICAL READINGS:	20.9	0	0	0
ALARM POINTS	19.5	10	35	10
DATE -				
BEGIN SHIFT TIME -				
AFTER BREAK TIME -				
AFTER LUNCH TIME -				
DATE -				
BEGIN SHIFT TIME -				
AFTER BREAK TIME -				
AFTER LUNCH TIME -				
DATE -				
BEGIN SHIFT TIME -				
AFTER BREAK TIME -				
AFTER LUNCH TIME -				
DATE -				
BEGIN SHIFT TIME -				
AFTER BREAK TIME -				
AFTER LUNCH TIME -				

CONFINED SPACE – LOCKOUT TAGOUT PERMIT

NAME & TITLE		COMPANY NAME	PHONE NUMBER
TYPE OF ENERGY		MAGNITUDE	CONTROL METHOD
ELECT:		VOLTS:	
AIR:		PRESSURE:	
WATER:		PRESSURE:	
TYPE OF MECHANICAL CONTROLS		EQUIPMENT LOCATIONS	
DISCONNECTS:			
STOP SWITCH:			
VALVE:			
TYPE OF ISOLATING DEVICES		LOCK LOCATIONS	
LOCK:			
CABLE:			
TYPE OF STORED ENERGY		LOCK LOCATIONS	
ELECTRONIC:			
AIR:			
WATER PRESSURE:			

Confined Space Entry Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the confined space plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1 Confined space overview to include a detailed summary of the confined space work, contractor, area/location, type of structure and/or type of confined space, etc.			
2 The Plan needs to identify the known hazards or hazards that will be encountered by the work and/or materials involved and what measures will be taken to remove the hazards.			
3 A complete, detailed and area specific Activity Hazard Analysis (AHA) will need to be developed and provided in the plan using the USACE EM385-1-1 format.			
4 The plan needs to include a sign-in document verifying that the AHA meeting was held to review the plan and AHA with all involved before the work takes place. The sign-in sheet needs to include presenter (Safety Director or Safety Manager) with the legible company name, printed name of each attendee, signature of each attendee, and date.			
5 The AHA needs to state that confined space signage will be posted at point of entry.			
6 Specific confined space equipment information needs to be provided in the plan. Example 4 gas monitor, tripod, full body harness, attachable lifeline, forced air fans, etc.			
7 Detailed information identifying how employees will be accessing into and egressing from the confined space.			
8 If scaffolding will be used provide the scaffold manufacturers or Registered Professional Engineer (RPE) stamped and signed erection documents.			
9 If scaffolding is used provide current scaffold training documents for the personnel that will be working from the scaffolding.			
10 If scaffolding is used provide a letter from the subcontractor senior management designating the Scaffolding Competent Person by name and title.			
11 If scaffolding is being used provide the current scaffold training documents for the designated subcontractor Competent Person.			
12 Current confined space training documentation needs to be provided for all those involved with the work, to include the Competent Person, Entry Supervisor, Entrants, and Attendee or "Top Man."			
13 The Confined Space Competent Person and Entry Supervisor needs to be identified in a designation letter developed, provided and signed by a senior manager of the subcontractor.			
14 Detailed fall protection plan, equipment to be used, and procedures to be followed.			
15 Documentation of current fall protection training for all employees.			
16 The Fall Protection Competent Person needs to be identified in a designation letter developed, provided and signed by a senior			

manager of the subcontractor.			
17 A copy of the following forms need to be provided: e. Confined space entry checklist. f. Confined space entry sign-in/sign-out document. g. Confined space entry permit. h. Confined space air monitoring log.			
18 Identify who by name and title the Attendant / "Top Man" outside the confined space will be.			
19 Verify in the plan that the Top Man can adequately communicate in English with those outside the confined space and with those personnel working in the confined space.			
20 Provide the emergency Point of Contact (POC) name, title, cell phone number and emergency services contact information. Provide an alternate emergency POC with information.			
21 Verify in the plan that the subcontractor has actually contacted and talked with the local emergency services as required and verified that they are aware of the area, work taking place, when, the contractor involved, and that they will be able to provide emergency services if needed.			
22 Provide current (not expired) First Aid & CPR training documents for the Attendant / Top Man and an alternate.			
23 Plan needs to state that continuous air monitoring of the space will take place and be documented on the air monitoring form.			
24 Plan needs to state the immediate emergency evacuation or extraction procedures for workers or injured personnel from the specific work space(s).			
25 Plan needs to state that all those in the confined space will follow the direction of the Top Man when told they need to immediately come out of the space.			
26 If materials or chemicals are used inside the confined space then the Safety Data Sheet (SDS) documents need to be provided.			
27 If respiratory protection is needed or required then a site and area specific respiratory protection plan needs to be provided to include medical evaluations, medical authorization, and annual fit testing documentation.			
28 A detailed communication plan between the Top Man and those working in the confined space needs to be provided.			
29 Specific hazard controls and devices need to be stated in the plan in regards to Lock Out/Tag Out.			
30 Confined space lighting plans need to be included based on the conditions, hazards and/or potential hazards of the space.			
31 Provide the name, title and cell phone number of the subcontractor Safety Director or Safety Manager that will be onsite to oversee the confined space setup, material handling, safety measures in accordance with the established and approved confined space entry plan.			
32 Provide contractor safety person credentials and training certifications that would deem this person to be the subcontractors designated Competent Person by the company Executives or Principals.			

Construction Equipment

- Site and activity specific work plans from the subcontractor having and using construction equipment on the project shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Prior to mobilization, the subcontractor shall submit Competent Person resume and training documents related to excavation to the Grunley Safety Department for review. **The Competent Person must hold a First Aid/CPR training within compliance dates and OSHA 30 training documentation must be valid within 5 years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered. A letter of designation must be provided for the named Competent Person. This letter shall be signed by an Executive Manager, Safety Director, or Company Owner deeming this person Competent in related activities.**
- All the affected underground structures and utilities shall be identified, protected, and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will also require the involvement of a Registered Professional Structural Engineer at the subcontractor's expense. Capacities of structures, utilities, garages, tunnels, floors, facilities or similar must be known and documented before any loading of them takes place.
- If it's anticipated that equipment is to be moved, placed, or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the subcontractor expense and submitted to Grunley for review, comments and approval prior to the work and loading taking place.
- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- All equipment operators must be trained, experienced, and qualified **for the specific piece of equipment they will be operating**. Certificates of training **will be required within a 5-year compliance date to verify this**. Safety belts are to be always worn by all equipment operators.
- **A DC Operators license must be provided if operating equipment >25 horsepower anywhere within the Washington, DC city limits. This license must be within the compliance dates and provided to Grunley prior to mobilization.**

- There will be no riders allowed on equipment or vehicles that do not have seat belts for them. This means no riders in the cab of backhoes, no riders on forklifts, no riders in the back of pickup trucks, and no riders in the backhoe, Bobcat, or similar material buckets.
- All materials carried in the back of vehicles or trucks will be secured down in a manner where items will not become displaced during transport.
- Competent mechanic(s) will be used to service and maintain equipment. Any repairs related of hydraulic cylinders will need braces installed on the cylinders to prevent release of pressure and crushing of personnel.
- Audible reverse alarms and/or bi-directional alarms must be present and operable on all earth moving equipment, track hoes, and dump trucks. Roll-Over Protection (ROP) will be provided on all equipment unless otherwise specified by the manufacturer. Installed ROP's will not be removed prior to operation of the equipment. **All equipment shall be equipped with a minimum of 10lb ABC fire extinguisher. The fire extinguisher shall be inspected annually by a 3rd party, be fully charged, and have the pin, seal, and inspection tag.**
- Onsite storage of equipment fuel tanks shall contain double walls, shall not be elevated and moved with fluids in the tank, must have physical protection placed around the tank, shall have "No Smoking" signage posted, shall have a 20# fire extinguisher located within 25', shall be placed in dikes that can hold 1 ½ times the amount of fluids that are contained in the tank, and spills outside of the dike area must be reported to the Superintendent within 24 hours and properly cleaned up. Fuel tanks and containers will not be stored within 50' of the building.
- Windshields and other glass will be "safety glass" and shall not contain damages that will interfere or obstruct the operator's vision. Plexiglass or plastic sheeting will not be allowed.
- **Operators shall not eat, drink, smoke, or vape while operating heavy construction equipment.**
- **Operators shall not use a hand-held cellular phone for call or text messaging while operating heavy construction equipment.**
- **Operators shall not use portable headphones, head-phones, ear-buds or other listening devices while operating heavy construction equipment.**
- **Equipment operators must complete daily heavy equipment checklist inspections and provided to Grunley daily.**
- **Fuel containers are not to be stored on equipment unless designated by the Manufacturer.**
- **Contractors shall provide an environmental spill kit that is adequately sized for the equipment they are operating.**

- A copy of the current 3rd party annual crane inspection certification shall be readily available and requested prior to any use on the project. Any deficiencies will have been resolved prior to its use on the project.
- The Grunley Crane Plan Checklist (GCPC) and subsequent crane information needs to be completed and submitted well in advance of the crane work to assure the anticipated start date is achieved. This will require the joint effort of the subcontractor, crane company and traffic control group (if applicable) to assure a complete and concise plan is developed. The completed GCPC needs to be placed at the beginning of the plan. The plan contents needs to follow the GCPC as listed on the checklist. All of the crane plan information needs to be provided in one all-inclusive PDF for review, as opposed to multiple attachments. The Grunley Safety Department will need to approve all crane plans before the crane work can take place. Once the Grunley Safety Department approves the crane plan it is submitted to the owner/client for their review, comments and acceptance before the crane work takes place.
- Daily and weekly equipment operator visual inspections will be performed and a current logbook maintained to detail that this is taking place.
- Employees are not permitted to work in areas where they may come in contact with moving equipment. Signal persons will wear proper reflective vests when directing traffic. The appropriate Flagger training will be provided and confirmed for those engaged in these activities in Maryland, Virginia, and/or Washington, DC.
- Equipment will never be left unattended **the Operator must remain in the seat while the equipment is running and/or when the boom, forks, mast or loads are elevated off the ground.** Equipment will be locked with the emergency brake engaged when not in use. Nothing will be left elevated without the operator sitting in the cab and monitoring the controls.
- Boom type or any type of equipment that could possibly contact overhead electrical power lines shall not be operated within 10 feet at a minimum of electrical lines.
- Street plates will span the openings enough so that they extend beyond the area a minimum of 2' on all sides. They shall be secured with pins to prevent displacement and have cold patch placed on all sides. Advanced warning "street plates ahead" signs will be posted.
- Lift truck (forklift) activities taking place in close proximity to pedestrian areas will be performed with the accompaniment of another employee walking out in front of the lift truck with a flag to assure that personnel do not come in contact with the loads or the lift truck.
- Before personnel operate lift trucks (forklifts) they must have completed a lift truck training class that included classroom, written, and hands-on training and testing specific to each type of lift truck to be used, i.e. warehouse lift truck, rough terrain Lull type extendable

boom lift truck, electric powered, propane powered. Evidence related to completion of this training and retraining every 3 years must be available from the Company before they begin work and by the operator if requested. Lift truck activities will be stopped if operators are not able to provide current evidence of training.

- The “Daily Forklift Inspection Checklist” form is provided on the following page.
- Air compressor hose (pneumatic hose) whip check lines are needed and required to be at each hose to coupling connection in addition the connection wire, pin or cotter keys before the air compressor hoses are used.

FORKLIFT INSPECTION FORM

DATE:	TRUCK NUMBER:	PROJECT NAME:	SHIFT:
<input type="checkbox"/> INTERNAL COMBUSTION	<input type="checkbox"/> ELECTRIC	HOUR METER START: _____ END: _____ TOTAL: _____	
OPERATOR'S SIGNATURE:		SUPERVISOR'S SIGNATURE:	

**IDENTIFY ANY DEFECTIVE ITEM WITH AN "X" AND GIVE
DETAILS BELOW, OTHERWISE PLACE A "✓" IN BOX**

ACCELERATION	LIGHTS – HEAD AND TAIL
BATTERY CONNECTOR	LIGHTS – WARNING
BATTERY – DISCHARGE INDICATOR	OIL LEAKS
BRAKES – PARKING	OIL PRESSURE
BRAKES – SERVICE	OVERHEAD GUARD
ENGINE OIL LEVEL	RADIATOR LEVEL
FUEL LEVEL	STEERING
GAUGES	TIRES
HORN	UNUSUAL NOISES
HOURLMETER	SEAT BELT
HYDRAULIC CONTROLS	FIRE EXTINGUISHER
MAST & FORKS	BACK-UP ALARM

DETAILS:

Cranes

- Before any crane and/or hoisting equipment that contains a line, hook, drum or rigging anticipated to be used beneath forks of a lift truck or hook on a piece of equipment, a plan must be developed using the following (attached) Grunley Crane Plan Checklist. This plan must be developed well before the work is anticipated to take place (generally 4 weeks in advance) and submitted to the Grunley Safety Department for approval prior to the work taking place. The Crane Plan should be reviewed in its entirety by the Superintendent for completeness prior to forwarding to the Safety Department. The Crane Plan should be presented as one complete package in pdf format. Keep in mind that once the Grunley Safety Department approves the plan it may be required to be submitted to the owner/client. An adequate amount of time needs to be planned for the Owner's review and acceptance process.
- **The Competent Person must hold at a minimum an OSHA 30 within a 5-year compliance date and First Aid/CPR training within compliance dates. A letter of designation for the Competent Person must be provided signed by an Executive Manager, Safety Director or Company Owner deeming the person Competent in the related activity.**
- **Only currently NCCCO certified and trained operators will be allowed to operate, run or move cranes.**
- **Qualified Riggers must be trained within a 5-year compliance date and proof of this training provided in the submitted and developed crane plan.**
- Identification and support of structures will also require the involvement of a Registered Professional Engineer (RPE) at the subcontractor's cost. Capacities of structures, utilities, garages, tunnels, floors, or facilities shall be known before any loading on, over or in close proximity to them takes place.
- As stated in our subcontract agreements, all cranes that are scheduled to be used on Grunley projects must have been inspected and approved for use by a competent third-party independent inspection firm within twelve (12) months prior to the scheduled use. This includes boom trucks.
- A documented load test by a 3rd party independent crane inspection company must be provided every 2 years, or sooner if major rework or repairs are made to the structural portions of the crane.
- Daily crane inspections must be performed by the operator and a logbook shall be kept to assure the safety of the crane and its functional abilities. Noted items that can create injury must be fixed immediately.
- The crane operator will maintain the daily inspection sheet copies in the operators logbook and/or provide copies of these inspections to the Grunley Superintendent on a daily basis.

- The crane operator must be able to provide and present the daily inspection sheets upon request by the Grunley Superintendent, Grunley Project Management, Grunley Safety Department, or OSHA Compliance Officers.
- Crane load charts will be posted or readily available by the crane operator to assure that safe lifting procedures such as weight of item, swing radius, and boom angle, etc. will be determined prior to items being lifted. No test lifting will be performed.
- Crane rigging cables, slings, hooks, safety latches, and other rigging apparatus are to be in good working condition and free of damages, which may impact the structural integrity of the items. Damaged or defective items will be removed from service, destroyed immediately, and disposed of to prevent future use and the potential for injuries or damages.
- Safety items such as, but not limited to proper signage, back up alarms or motion alarms, fire extinguishers, lights, flashers, horns, mirrors, reflectors, and other required items will be installed and operable at all times.
- Anti-two blocks will be installed and operable on all cranes no matter what type of crane is being used.
- All cranes must have an operable boom angle indicator device unless it is outfitted with an operable electronic controls system.
- **Horns or whistles will need to be utilized by the Riggers/Signalers to notify others in the area when loads will be lifting and swung overhead so they can be made aware of what is taking place and move out of the way.**
- Sound footing for the crane outrigger pads will be determined by the operator. Outriggers need to be maintained fully extended unless the crane allows for a shorter distance and the related load chart identifies load capabilities accordingly.
- Substantial outrigger pads or additional fill will be provided to ensure proper bearing prior to the commencement of crane work. Loose pieces of dunnage will not be allowed to be used. Additional support of outrigger bases will be provided by solid pads.
- **Subcontractors and crane companies are responsible to review the contract drawings and/or civil drawings to assure the safe placement of cranes setup area before they are brought on site. This review must be confirmed, and the related documentation provided in the site-specific crane plan.**
- Cranes will not be permitted to hoist two or more separately rigged loads (Tandem or Christmas tree lifting), regardless of weight unless this is performed in accordance with the 29 CFR 1926.750 Subpart R "Steel Erection" standards and the **applicable** information is provided with the plan for review and approval.

- Crane operation signal illustrations will be adhered to the crane or available at the site trailer for viewing purposes.
- Only qualified, trained, and authorized employees will operate cranes. The crane operator must be able to read the load chart and operators manual and understand what is required of him to take the necessary steps to lift and place loads safely.
- If tall boom cranes are used in the vicinity of commercial or local air traffic and the boom extends above the building, the crane will be required to have a high visibility flag installed at the top of the crane's head assembly. The crane will also be required to have a strobe light or other type of light beacon installed.
- Trained, qualified and approved personnel that will be communicating and signaling with the crane will need to wear an orange high visibility class 2 vest, high visibility gloves, and have a red X on the top of their hard hat. They will also need to have an "Approved Signalperson" hard hat sticker provided to them by Grunley once they have provided documentation of training.
- Air compressor hose (pneumatic hose) whip check lines are needed and required to be at each hose to coupling connection in addition the connection wire, pin or cotter keys before the air compressor hoses are used.
- A copy of the crane hand signal chart has been provided on the following page.
- A copy of the daily inspection checklist form has been provided after the hand signal chart.
- **If lightning is observed, all Load Handling Equipment (LHE) shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

DAILY CRANE INSPECTION CHECKLIST

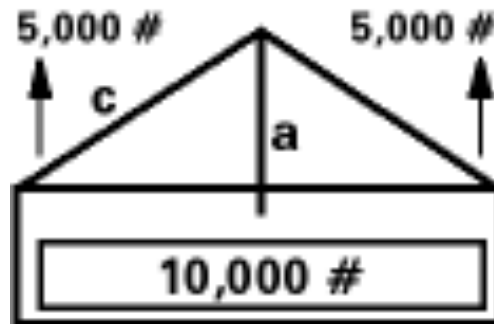
MOBILE CRANE OPERATORS DAILY INSPECTION CHECKLIST													
MANUFACTURER:				MODEL NUMBER:				SERIAL NUMBER:				RATED CAPACITY:	
MACHINE DESCRIPTION:							OWNER NAME:				OWNERS ID:		
MACHINE SET-UP INSPECTION				S	U	NA	MACHINE SET-UP INSPECTION				S	U	NA
1.	GROUND CONDITIONS						17.	JIB STRUCTURE					
2.	BLOCKING/CRIBBING INSTALLED						18.	WIRE ROPE CONNECTIONS: (LUBE)					
3.	SWING BARRICADE INSTALLED						19.	HOISTING DRUM SPOOLING					
4.	WARNING SIGNS LEGIBLE						20.	WIRE ROPE REEVING/ROPE LENGTH					
5.	CHECK CLEARANCE: SWING/BOOM						21.	END CONNECTIONS & BECKETS					
6.	MACHINE SET-UP CHECKED						22.	BLOCKS, SHEAVES, HEADACHE BALL					
7.	CRANE/JOBSITE HAZARD AWARENESS						23.	HOOK & SAFETY LATCHES					
							24.	LUBRICATION					
							25.	OTHER (DESCRIBE)					
WALK AROUND INSPECTIONS				S	U	NA							
1.	CARRIER FRAME/CAR BODY INSPECTION												
2.	CRAWLER TRACKS/ADJUSTMENTS												
3.	TIRE CONDITION												
4.	WALKWAYS, LADDERS, GRAB RAILS												
5.	GUARD, COVERS, SAFETY PLATES												
6.	EXHAUST SYSTEM: LEAKS/GUARDED												
7.	ENGINE, OIL, FUEL, HYDRAULIC FLUID												
8.	COOLANT SYSTEM												
9.	GAUGES: OPERATION/ACCURACY												
10.	BATTERY/ELECTRICAL CONNECTIONS												
11.	HOSES, LINES, FITTINGS: CONDITION												
12.	AIR TANKS DRAINED: (LEAKAGE)												
13.	OUTRIGGER PADS												
14.	OUTRIGGER LOCKING PINS												
15.	SWING/HOUSE LOCKS												
16.	BOOM STRUCTURE: HEEL PINS/KEEPERS												
CRANE STATION INSPECTION													
				S	U	NA							
1.	PROPER LOAD CHART: CLEAR/LEGIBLE												
2.	CAB GAUGES: CONDITION/ACCURACY												
3.	ANTI-TWO BLOCKING DEVICE												
4.	LOAD INDICATOR LMI DEVICE												
5.	BOOM UPPER LIMIT DEVICE												
6.	BOOM ANGLE/LENGTH INDICATOR												
7.	WARNING HORN, LIGHTS												
8.	OPERATIONAL ALL CONTROLS												
9.	ENGINE EMERGENCY STOP												
10.	BRAKES, CLUTCHES, DOGS RATCHETS												
11.	OPERATIONAL TEST ALL CONTROLS												
12.	OPERATORS CAB GLASS: CLEANED												
13.	UNUSUAL NOISES, VIBRATIONS, ETC.												
14.	HOUSEKEEPING												
<p>S = SATISFACTORY U = UNSATISFACTORY NA = NOT APPLICABLE</p> <p>ALL ITEMS THAT ARE MARKED "UNSATISFACTORY" MUST BE REPORTED TO YOUR SUPERVISOR PRIOR TO OPERATING YOUR MACHINE.</p>													

RIGGING SLING SELECTION

Slings are used in combination with a lifting device. The most common lifting devices are overhead cranes, hoists, and forklifts. To select the correct sling, two questions must be answered: what type of sling and what size (diameter or thickness)?

THE FOUR MAIN TYPES OF SLINGS AND THEIR APPLICATIONS ARE:	
1. CHAIN	COMBINES SUPERIOR STRENGTH, EASE OF HANDLING, AND DURABILITY. THE COMBINATION OF HEAVY LOADS, ELEVATED WORKING TEMPERATURES, AND SEVERE LIFT CONDITIONS USUALLY DICTATE THAT AN ALLOY CHAIN SLING BE USED. TYPICALLY USED IN STEEL MILLS, FOUNDRIES, AND HEAVY MACHINING OPERATIONS THAT REQUIRES REPETITIVE LIFTS.
2. WIRE ROPE	THE MOST COMMONLY USED SLING. IT ALSO HAS THE LOWEST COST PER TON OF LIFT. USED IN THE CONSTRUCTION INDUSTRY AND OTHER INDUSTRIES WHERE HEAVY LOADS AND RUGGED CONDITIONS EXIST.
3. MESH	WIRE AND CHAIN. EXCELLENT IN LIFTING OBJECTS THAT ARE HOT OR HAVE SHARP EDGES, SUCH AS BAR STOCK OR PLATE STEEL. MESH SLINGS USUALLY HAVE WIDE LOAD BEARING SURFACES THAT GREATLY ENHANCE LOAD BALANCING. MACHINE SHOPS AND STEEL WAREHOUSES TYPICALLY HAVE APPLICATIONS REQUIRING MESH SLINGS.
4. SYNTHETIC	BOTH WEB AND ROUND SLINGS ARE USED WHERE LOADS MUST BE PROTECTED FROM DAMAGE. THE LIGHT WEIGHT AND FLEXIBILITY REDUCE FATIGUE AND STRAIN ON THE RIGGER.

The size of the sling is determined by the weight, shape, and size of the load. When determining the stress that will be applied to a sling, the length of the sling is divided by the vertical distance from the top of the load to the lifting device. The resulting quotient is multiplied by the shared weight of the load.



Tension in "c" = length "c" *divided by* length "a" *multiplied by* share of load wt.
 "c"/"a" = Load Factor

Given: length "c" = 10' and length "a" = 8', what is tension in "c"?

Solution: Tension in "c" = $10/8 \times 5,000$, $T_c = 1.25 \times 5,000$, $T_c = 6,250\#$

Once the stress is determined, use the Rigger's Reference Charts (Figures 2 and 3) to determine the diameter necessary to safely lift the load.

Figure 2 - Sling Capacities:

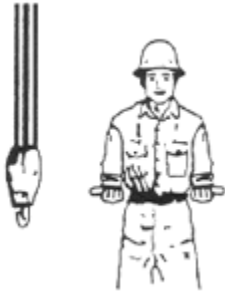
MECHANICAL SPLICE IN POUNDS – DESIGN FACTOR – 5:1 WIRE ROPE IPS IWRC								
SIZE IN INCHES	VERTICAL	CHOKER	2-LEGS OR BASKET 90°	60°	45°	30°	COLOR CODE (OPTIONAL)	SIZE IN INCHES
¼	1,100	840	2,200	1,940	1,580	1,100	WHITE	1/4
5/16	1,700	1,300	3,400	3,000	2,400	1,700	LT. GREEN	5/16
3/8	2,400	1,860	4,800	4,200	3,600	2,400	RED	3/8
7/16	3,400	2,500	6,800	5,800	4,800	3,400	YELLOW	7/16
½	4,400	3,200	8,800	7,600	6,200	4,400	LT. BLUE	1/2
9/16	5,500	4,200	11,000	9,600	7,700	5,500	BLACK	9/16
5/8	6,800	5,000	13,600	11,800	9,600	6,800	ORANGE	5/8
¾	9,700	7,200	19,400	16,800	13,600	9,700	TAN	3/4
7/8	13,000	9,800	26,000	22,000	18,300	13,000	DK. GREEN	7/8
1	17,000	12,800	34,000	30,000	24,000	17,000	PURPLE	1
1-1/8	20,000	15,600	40,000	36,000	30,000	20,000	DK. BLUE	1-1/8
1-1/4	25,000	18,400	50,000	42,000	34,000	25,000	GOLD	1-1/4
			MULTIPLIER →	1.00	.75	.60	← MULTIPLIER	

Formula to find sling length ---> Load width x Multiplier = Sling Length

Figure 3 - Sling Capacities:

	SIZE IN INCHES	VERTICAL	CHOKER	2-LEGS OR BASKET 90°	60°	45°	30°	COLOR CODE (OPTIONAL)	SIZE IN INCHES
CHAIN G-8	9/32	3,500	2,620	7,000	6,050	4,950	3,500	MUST BE TAGGED FOR LENGTH AND STRENGTH	9/32
	3/8	7,100	5,300	14,200	12,300	10,000	7,100		3/8
	1/2	12,000	9,000	24,000	20,800	17,000	12,000		1/2
	5/8	18,100	13,500	36,200	31,300	25,600	18,100		5/8
WEB	1-9-1	1,600	1,280	3,200	2,770	2,260	1,600	MUST BE TAGGED FOR TYPE, LENGTH, AND STRENGTH	1-9-1
	1-9-2	3,200	2,560	6,400	5,540	4,452	3,200		1-9-2
	1-9-3	4,800	3,840	9,600	8,320	6,780	4,800		1-9-3
	1-9-4	6,400	5,120	12,800	11,090	9,040	6,400		1-9-4
	2-9-3	8,880	7,100	17,760	15,390	12,540	8,880		2-9-3
2-9-4	11,520	9,210	23,040	19,960	16,270	11,520	2-9-4		
POLYPRO ROPE	1/2	645	325	1,290	1,120	910	645	SHOULD BE TAGGED FOR LENGTH AND STRENGTH	1/2
	9/16	780	390	1,560	1,350	1,100	780		9/16
	5/8	950	475	1,900	1,650	1,340	950		5/8
	3/4	1,300	650	2,600	2,250	1,840	1,300		3/4
	7/8	1,760	880	3,520	3,050	2,490	1,760		7/8
1	2,140	1,070	4,280	3,700	3,030	2,140	1		

CRANE HAND SIGNAL CHART



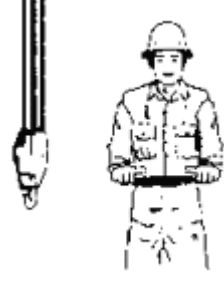
EXTEND BOOM



DOG EVERYTHING



TRAVEL



RETRACT BOOM



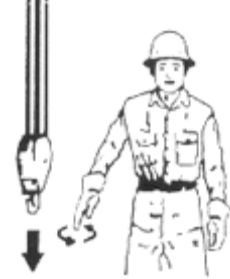
EXTEND BOOM
(ONE HAND)



RETRACT BOOM
(ONE HAND)



HOIST



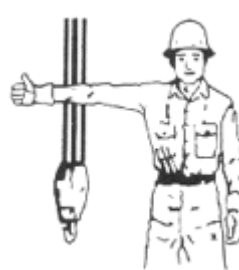
LOWER



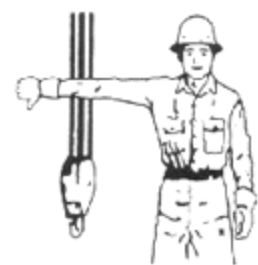
USE MAIN HOIST



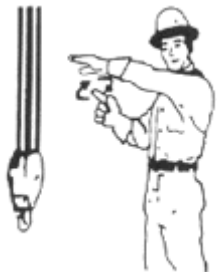
USE WHIP LINE



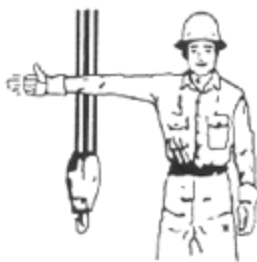
RAISE BOOM



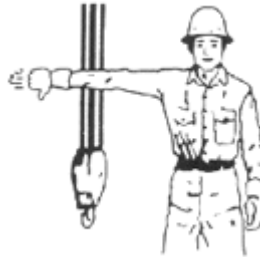
LOWER BOOM



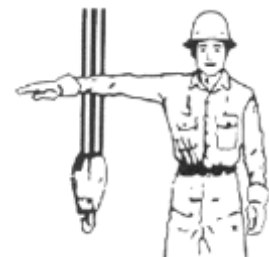
MOVE SLOWLY



RAISE THE BOOM &
LOWER THE LOAD



LOWER THE BOOM &
RAISE THE LOAD



SWING

Grunley Crane Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the crane plan is developed by the contractor or reviewed by Grunley.

Information Needed	Yes Included	No Not Included	Not Applicable With Reason
1 Crane lift overview to include a detailed summary of the crane work, Crane Company, Contractor, Traffic Control Company, Grunley project name, Grunley project address, and Grunley project number.			
2 Insurance certificates provided in the plan and within compliance for the crane company, responsible subcontractor and traffic control company with Grunley named as Additional Insured and Certificate Holder.			
3 Material list, material details and weights of all items or each lift or maximum lift based on scale information, cut sheets and/or manifest per each setup of the crane.			
4 Detailed communication plan narrative – hand signals, specific two-way radio and channel, etc. (example: Motorola Bear-com wireless handheld radio model number BC130, ground to roof hand signals, etc.)			
5 Plan states that there will be no lifting or carrying on rubber (tires) and daylight must be maintained beneath the wheels.			
6 Written pedestrian control and lane/road closure plan – Consider potential issues and measures to be taken and confirmation in plan for Contractor to provide additional personnel for sidewalk pedestrian control, additional personnel to flag and control traffic, allow for building access, emergency egress, fire lanes, bus stops, cross walks, loading/unloading of trucks, etc.			
7 Copy of documented lane/road closure permit and pedestrian control area permit.			
8 Name the company that will be setting up the lane/road closures			
9 Provide flagger and traffic control training certificates			
10 Provide the designated and trained traffic control supervisor information and training certificates.			
11 Identify provisions to accommodate disruption of bus stops, employee building access, child care drop-off area, fire lanes, overhead protection, access for building engagements related to road/lane closure, pedestrian access, maintenance of DANGER tapes, fencing, cones, barrels, sidewalks closures, etc.			
12 State the maximum wind speed allowed for the use of crane (based on manufacturers requirements specifically from the operator’s manual based on actual crane configuration). Grunley requires a maximum of 20 mph unless otherwise stated by the manufacturer.			
13 Verify items to be provided on crane to include anti-two block, anemometer to verify wind speed, and flag and/or light beacon.			

Information Needed	Yes Included	No not Included	Not Applicable With Reason
14 Current annual 3 rd party independent crane inspection report with documentation stating no deficiencies found or all deficiencies have been fully corrected.			
15 Daily crane operator checklist document.			
16 Specific location noted on load chart indicating maximum capability based on maximum load, boom angle and geometry of the crane (circle this location on load chart).			
17 Survey of ground conditions and location of crane by Subcontractor Competent Person and/or Engineer to identify underground utilities and the potential impact of them to include piping, structures, tunnels, parking garage, crane stability, manholes, excavations, shoring systems, etc. Pre-existing streets, tunnels, manholes, etc. that have not been impacted by construction activities is the responsibility of the Subcontractor.			
18 Verify that the Subcontractor representative and the crane company representative have physically walked the site to observe and verify the area, site conditions, pulled measurements and identified the location of adjacent underground structures and utilities prior to developing the crane plan.			
19 Crane activities that involves the crane to set up on disturbed soil from construction activities will be the responsibility of the General Contractor to assure proper foundation for crane set up.			
20 Verify and confirm that crane set up and use does not come within 20' of overhead power lines and/or in accordance with COE EM 385-1-1 Table 11-1 or Table 16-3.			
21 Verify and confirm that proper access to the site and proposed setup area is provided for the crane.			
22 Size and makeup of supplemental outrigger pads to be a minimum of 3 times the size of the manufactured crane outrigger pads.			
23 Geometry of the crane - Detailed diagram of crane, specific crane information and cut sheets, maximum radius, boom length and boom angle and/or with jib being used if applicable.			
24 Break down showing the maximum intended load, weight of line, weight of block or ball, weight of rigging, weight of jib (if used or stowed) and how this corresponds with the maximum load to be lifted.			
25 Verify that the lift(s) are or are not a critical lift at or >75% capacity, involving more than 1 crane, swung or placed out of the operators view, non-routine difficult rigging arrangement, hoisting personnel, or any other lift a crane operator believes should be critical. If so, provide a critical lift plan using the USACE EM385-1-1 Form 16-3.			
26 Confirm if a jib is going to be used or stowed on side of crane. Include calculations using jib load chart.			

Information Needed	Yes Included	No Not Included	Not Applicable With Reason
27 Rigging cut sheets showing each type of rigging being used, configuration of rigging for lifts, maximum capacity of rigging based on rigging details (nylon straps, cable chokers, spreader bars, shackles, bridles, chains, Christmas Treeing, etc.). Circle specific rigging to be used based on cut sheets.			
28 Provide a rigging diagram showing details of how the loads will be rigged (basket, choke, vertical, etc.), along with inspection criteria prior to rigging being used.			
29 National Commission for the Certification of Crane Operators (NCCCO) license and certification documents to include CDL license, DOT medical card if mobile on road/highway crane, and DC Operators License if being brought into and used in DC.			
30 Identify who will be the qualified riggers along with their training documents verifying certifications within a 5 year compliance date.			
31 Activity Hazard Analysis (AHA) for crane work using Corps of Engineers (COE) current acceptable format.			
32 Sign-in document verifying the AHA meeting with all involved with the work to include presenter (preferably the company safety representative), company name, printed name of each attendee, signature of each attendee to include the crane operator, and date of AHA meeting prior to work taking place.			
33 Documentation of 3 rd party independent load test must be performed within 3 years. If the crane is less than 3 years old, no load test is required.			
34 Verification that a complete dry run will be performed after crane setup and prior to actual lifting of materials to assure the characteristics of the lift and location of setting the crane is accurate.			
35 All previously described information that relates to the use of any other secondary or supplemental cranes to be used to build the main crane. This crane information needs to follow this checklist and the information required needs to be included in this plan.			
36 If the crane has to be brought in by sections on separate trucks and built onsite then a 3 rd party independent crane inspection and load test needs to be done after it's built and before it's used. Confirm that this will be done and if so who is the person and company coming to the site to perform this inspection and load test.			
37 Documentation of 3 rd party independent load test if the crane components will be brought in separately for the crane to be built onsite.			
38 Provide Contractor safety professional credentials and training certifications that would deem this person to be the Competent Person in crane and rigging activities. A designated letter must be provided by an executive manager or owner deeming this person Competent.			

CORPORATE SAFETY PLAN

Information Needed	Yes Included	No Not Included	Not Applicable With Reason
39 Confirmation that a hard copy of the accepted crane plan will be reviewed by the Competent Person and Crane Operator prior to work occurring and a hard copy will be onsite the day of the crane activities.			
40 Contractor to confirm in the plan that their trained, authorized, designated Competent Person, Supervisor and/or company designated Safety Director, Manager or Safety Inspector will be onsite and oversee compliance with the plan and assure project safety during its erection, setup, AHA review, rigging inspection, pedestrian controls, traffic controls, and dismantling of the crane until the point that the crane is removed from the site.			
41 Printed name, signature and title of the Contractors Safety Director, Safety Manager, Safety Inspector, Risk Manager, Vice President, Operations Manager, President, Principal of the Company or otherwise authorized executive manager of the company has reviewed, accepted and takes responsibility for the developed and submitted crane plan.			

Demolition

- A written demolition plan shall be established using the **Grunley Demolition Plan Checklist** by the subcontractor and submitted to the project team and the Grunley Safety Department for review, comments and approval prior to the work taking place.
- **Prior to mobilization, the Subcontractor shall submit Competent Person (CP) (and an alternate) resume and training documents to the Grunley Safety Department for review and acceptance prior to mobilization. The minimum safety documentation for the Competent Person shall consist of First Aid & CPR training within compliance dates, OSHA 30-hour training valid within 5-years, 24-hour CP Fall Protection, 8-hour scaffold training, along with any other related safety training. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered.**
- **A CP designation letter must be provided for the named Competent Person (and alternate). This letter shall be signed by a Senior Manager, Safety Director, or Company Owner deeming this person Competent in related activities.**
- If and when the demolition process includes work that affects the structural portions of the building then the plan must be developed, stamped and signed by a Registered Professional Engineer (RPE) at the Subcontractors expense. This is necessary and required to assure that pre-work provisions have been determined and provided to support, brace, secure and prevent failure or collapse.
- Identification and support of structures will also require the involvement of a Registered Professional Engineer (RPE) at the Subcontractors expense. Capacities of structures, utilities, garages, tunnels, floors or facilities shall be known before any loading of them takes place.
- **A site-specific “Engineering Survey” for non-structural demolition will need to be performed by a Competent Person and documented in the demolition work plan.**
- **A site-specific “Engineering Survey” for structural demolition will need to be performed by a Registered Professional Engineer (RPE) and documented in the demolition work plan that is stamped and signed by the RPE.**
- All subcontractors will verify and make all systems safe before demolition work takes place. This will include the implementation of lockout tagout devices in accordance with the Grunley or building owner procedures, whichever is more stringent, before work begins. All responsible Subcontractors shall paint or otherwise properly identify the items or systems that they are responsible for in the areas scheduled for demolition accordingly with the appropriate paint before work begins.

GREEN paint – SAFE TO DEMOLISH

BLUE paint – ASBESTOS, DO NOT DEMOLISH

- A Competent person that is adequately capable of communicating with the Grunley Superintendent will be onsite and monitoring the demolition activities during the work shift and will have a communication device so that he/she can be contacted if needed and for use in case of an emergency.
- Personnel involved with demolition will have or be provided with the proper Personal Protective Equipment (PPE) to be used to protect the workers during these activities.
- Rigging, duct jacks, scaffolding, supporting members, or other systems will be provided and used to lower items that are being demolished without them falling or needing multiple workers to manually restrain the items.
- Overhead support systems will be installed where required before walls, openings, doorframes, floors, etc. are removed or opened up.
- Wall demolition will take place working from the top down as opposed to removing the lower area and having the wall materials fall.
- Areas under demolition will have an adequate number of carts, wheel barrels, and personnel to remove the materials shortly after they have been demolished. If this cannot be accomplished, then the demolition of additional areas must cease until the materials are removed.
- Nails and/or other types of fasteners will be removed or otherwise bent over to prevent injuries to the feet.
- Areas under demolition will be demarcated with physical barriers, signage, or other means to assure that personnel do not enter into the area during these activities. If these systems do not work adequately then they will be modified to assure that this is accomplished.
- All hazards that are created by the demolition subcontractor shall be made safe as the work takes place or at its completion to assure that no personnel are exposed to the hazards.
- Adequate ventilation with ducting to the outside air will be provided and used during the demolition process.
- Spray misting with water will be conducted as the demolition work takes place for **Silica, and** dust control. Alternative measures for dust control will be determined and provided where there are energized electrical services, communication panels, or other systems that would pose hazards or cause damages if impacted by water.
- Areas where demolition has been completed will be final cleaned using compound while sweeping.
- If air compressors are allowed to be used inside of the building, they will be equipped with exhaust air scrubbers and adequate ventilation systems will be provided to assure that exhaust is removed from the area and sent to the outside air.

- Air compressors will be equipped with anti-blow back devices.
- Conduits or electrical lines shall be protected and not touched or cut unless they are painted green.
- If scaffolding is used it will be erected under the direction and monitoring of the deemed Competent Person based on the 29 CFR 1926.450 OSHA Scaffold Standard definitions.
- No materials shall be dropped to any point lying outside the exterior walls of the structure unless the area is effectively protected.
- Small diameter materials, no matter what length, and/or loose debris will not be loaded onto the material hoists without being first loaded into trash carts with bottoms and sides.
- **Equipment training such as scissor lifts, aerial lifts, skid steer, excavator, etc. must be provided for each piece of equipment being operated and shall be within a 5-year compliance date.**
- **Each fuel operated piece of equipment shall be equipped with air Carbon Monoxide air scrubbers and monitored daily.**
- Access points of construction personnel, building occupants, and/or pedestrians shall be protected by sheds, canopies, or both and enclosed on the sides where they may also be exposed from materials, tools, or debris that may become displaced or fall from above. The overhead protection shall be capable of withstanding the intended impact of items that could become displaced. The protection ceiling shall be constructed **at a minimum** of continuous and solid **2" lumber material consisting of tightly butted 2"x10" lumber with ½" plywood completely covering the area and secured to prevent displacement. The sides of the overhead protection framing shall have a minimum of ½" plywood placed along the sides from floor to ceiling to protect those walking inside of the protection area from displaced materials.**
- There will be no uncontrolled falling of debris without protection and physical barriers provided around the lower elevation to assure that personnel or others are not contacted by the materials. In addition, there will not be any uncontrolled dropping or falling of materials greater than 20' to the lower elevation without using a trash chute or other type of similar enclosure.
- If trash chutes are used, **a trash chute installation plan must be provided using the Grunley Trash Chute Work Plan Checklist.** They will be installed by a Competent Contractor and supervised by the "Competent Person" in the manner that they are designed.
- Subcontractors performing the demolition of painted surfaces that contain or have lead-based paint shall have an Environmental Consultant review the work along with the work plan established by the Subcontractor, or establish the written Lead Exposure Assessment (LEA) plan and provide this to Grunley for review before the work is performed. This plan and the work to be performed shall be conducted in accordance with the 29 CFR 1926.62

Lead in Construction OSHA Standards. The Subcontractor and Environmental Consultant shall determine where the Lead concentration is the worst and perform the LEA in that area to represent the worse-case scenario. The Environmental Consultant shall monitor the work to assure that the plan is followed and shall perform inside of area, outside of area, and personal air samples to determine what the exposures and concentrations will be while this work is performed. Generated debris will be placed in 6 mil plastic bags and labeled as LEAD WASTE until the Environmental Consultant collects a representation of the materials and performs a Toxicity Characteristic Leaching Procedure (TCLP) test of the materials to determine if it is to be disposed of as hazardous waste or general construction debris. A report from the Environmental Consultant summarizing the work, the outcome of the air sampling, and the outcome of the TCLP test shall be provided to the Grunley Superintendent before the remainder of the work commences. Modifications to the work plan will be modified based on the elevated sampling from the LEA.

- Cutting of Lead containing or Lead based paint materials with saws, torches, or other methods shall not be performed unless this is addressed and performed as specified in the Subcontractors written LEA plans that has been approved and/or accepted by Grunley and the Environmental Consultant, and/or the owner or construction management environmental representative before the work commences. **These work plans shall be developed using the Grunley Lead Abatement or Impact Work Plan Checklist.**
- The following contains the daily Grunley Hot Work Permit for the subcontractor to complete and use when they need to perform this type of work. Grunley will have a copy in the Superintendent's office and the original will be posted in the established Hot Work area. All personnel involved in the hot work will know what is required of them through discussions by their supervisor.
- Air compressor hose (pneumatic hose) whip check lines are required to be at each hose to coupling connection in addition the connection wire, pin or cotter keys before the air compressor hoses are **turned** on and used.
- **If lightning is observed, all work on elevated platforms or scaffolding, roofing activities, or work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

DAILY HOT WORK PERMIT

BUILDING NAME:		NAME OF EMERGENCY CONTACT:	
TELEPHONE NUMBER:	OFFICE ISSUING PERMIT:	SPECIFIC LOCATION OF WORK COVERED:	
DATE OF WORK:	START TIME:	STOP TIME:	
NATURE OF WORK IN DETAIL:			
DO YOU UNDERSTAND THAT THIS PERMIT NEEDS TO BE CONSPICUOUSLY POSTED IN THE SPECIFIC HOT WORK AREA? YES NO			
HAS EACH EMPLOYEE WORKING UNDER THIS HOT WORK PERMIT BEEN BRIEFED IN RELATION TO KNOW WHAT IS EXPECTED OF THEM TO PERFORM THIS HOT WORK? YES NO			
SUPERVISOR'S SIGNATURE:			
ANTICIPATED HAZARDS DUE TO WORK (SAFETY, HEALTH, FIRE)			
<ol style="list-style-type: none"> 1. ARE ALL COMBUSTIBLES AND/OR FLAMMABLES REMOVED FROM THE AREA OR LOCATIONS BELOW PRIOR TO THE WORK? YES NO 2. ARE FIRE BLANKETS USED TO COVER AND/OR PROTECT MATERIALS THAT CANNOT BE REMOVED FROM THE AREA? YES NO 3. IS A CHARGED FIRE EXTINGUISHER LOCATED WITHIN 25' OF THE HOT WORK? YES NO 4. IS A WATER HOSE GOING TO BE USED IN ADDITION TO THE FIRE EXTINGUISHER TO PREVENT FIRES? YES NO 5. ARE ELECTRICAL SYSTEMS PROTECTED OR DEENERGIZED PRIOR TO USING WATER NEAR THEM TO CONTROL FIRES? YES NO 6. IS A VENTILATION FAN OR SMOKE EATER PROVIDED FOR THE WORK AND EXHAUSTED TO THE OUTSIDE AIR? YES NO 7. ARE WELDING BLINDS PROVIDED AND GOING TO BE USED WHEN PERFORMING WELDING WORK? YES NO 8. ARE OXYGEN AND ACETYLENE BOTTLES SECURED TO A CART AND ARE THE PROTECTIVE CAPS PROVIDED? YES NO 9. IS THE SUPERVISOR GOING TO ASSURE THAT A FIRE WATCH IS PROVIDED WEARING A RED HIGH VISIBLY VEST WITH FIRE WATCH PRINTED ON THE BACK AND HAS WALKED THE AFFECTED AREAS TO ASSURE THAT THERE ARE NO SMOLDERING EMBERS 60 MINUTES AFTER THE WORK HAS BEEN COMPLETED? YES NO 			
LIST OF PROTECTIVE CLOTHING, EQUIPMENT, AND CONTROLS REQUIRED FOR THE WORK (INCLUDING PPE AND PUBLIC PROTECTION)			
CIRCLE THE APPLICABLE PPE ITEMS THAT WILL BE USED: WELDING GLOVES, LEATHER CUTTING GLOVES, WELDING SHIELDS, FIRE RETARDANT APRONS, FIRE RETARDANT SMOCKS, LEGGINGS, SLEEVES, LEATHER WELDING JACKETS, NOMEX TYPE FIRE RETARDANT JACKETS			
NAME OF PERSON(S) AUTHORIZED TO PERFORM WORK:		NAME OF PERSON(S) TRAINED TO SERVE AS THE FIRE WATCH:	
EMERGENCY PRECAUTIONS (INCLUDE TYPE, NUMBER, AND LOCATION OF FIRE EXTINGUISHERS)			
PERMIT ISSUED BY			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
PERMIT ISSUED TO			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
PAPERWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
60 MINUTE POSTWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	

Demolition Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the Demolition Work Plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1 Overview and summary of the demolition to take place, the contractor name, methods and equipment to be used, and the specific location(s) where demolition will take place.			
2 Insurance certificates provided in the plan and within compliance for the responsible subcontractor with Grunley named as Additional Insured and Certificate Holder.			
3 Non-Structural Demolition - Contractor to provide an engineering survey by a competent person, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. Any adjacent structure where employees may be exposed shall also be similarly checked. The employer shall have in writing evidence that such a survey has been performed.			
4 Structural Demolition – Contractor to confirm that a Registered Professional Engineer (RPE) will perform an Engineering Survey, document their findings, and provide their recommendations before structural demolition takes place.			
5 Verify that the areas have been surveyed and provide the report that identifies or denies the presence and location of asbestos, lead, PCB's, mercury, oils, chemicals, gases, fluids, etc. that will be addressed before demolition takes place.			
6 Demolition plan for work that involves the removal of painted surfaces that contain or have Lead-based paint, involvement of an Environmental Consultant to review the work plan, the establishment of the written Lead Exposure Assessment (LEA) plan.			
7 Identify access points of construction personnel, building occupants, and/or pedestrians and plans to protect them with sheds, canopies, or both and enclosed on the sides where they may be exposed from materials, tools, or debris.			
8 Identify that cutting of Lead containing or Lead-based paint materials with saws, torches, or other methods shall not be performed unless this is addressed and performed as specified in the contractors written and approved LEA.			
9 State that the related mechanical and electrical systems will be disengaged, locked and tagged out to make safe, and verified as such by those involved with the work before demolition takes place.			

10	Provide the Lockout Tagout (LOTO) plans and procedures that will be implemented in accordance with the Grunley or Building owner procedures.			
11	Identify (with cut sheets) the specific energy isolation devices that will be placed on valves, switches, disconnects, breakers, etc. before activities take place and the trained persons that will be involved with the installation.			
12	Identify the specific locations and systems (by device and identification name) where the LOTO devices will be installed.			
13	Identify the plans, specific safe-guards, protection and PPE that will be used when performing each LOTO and “Make Safe” task.			
14	Confirm that a joint survey has been conducted by Grunley, the Building Owner, and each Contractor involved and responsible for the equipment and/or systems to be locked and tagged out.			
15	State that the items or systems scheduled for demolition are identified with the appropriate paint or markings before work begins. RED Paint – DO NOT DEMOLISH GREEN Paint – SAFE TO DEMOLISH BLUE Paint – ASBESTOS, DO NOT DEMOLISH			
16	Provide a signed Competent Person (CP) designation letter by Senior Management. Confirm that the CP is capable of communicating with the Grunley Superintendent, will monitor all the demolition activities, will take corrective action when needed, and will take action in case of an emergency. Provide the resume, experience and knowledge of the CP. Provide the CP training documentation as applicable.			
17	Provide a Site-Specific Scaffold Plan based on Grunley’s Scaffold Work Plan Checklist if the Scaffolding will be used during demolition.			
18	Provide a Site-Specific Fall Protection Plan based on Grunley’s Fall Protection Plan Checklist if workers are exposed to heights 6’ or greater during demolition work.			
19	Provide a Site-Specific Hoisting Plan based on Grunley’s Hoisting Work Plan Checklist if hoisting will be used during the Demolition Process.			
20	Provide a full and detailed AHA for each demolition type activity using the USACE EM 385-1-1 format.			
21	Provide a sign-in sheet to the Grunley Superintendent that contains legible printed name, signature, company name, and date to verify all workers have been briefed on the demolition plan and AHA.			
22	Detailed plans from start to finish as it relates to mobilization, off-loading and use of equipment, sketch showing the dumpster locations and travel path of equipment and trucks.			

<p>23 Provide details and sketch related to material-controlled drop areas or the installation of trash chutes showing specific anchorage points and lower elevation protection measures to be established.</p>			
<p>24 Plans to assure that trash chute access points will be protected, closed and locked on each level when not in use or when chute clogs are being resolved or dumpsters are being pulled and replaced.</p>			
<p>25 Plans to wet materials for dust control before they are dropped down the chute; plans to provide water source at dumpster to control dust; plans to prevent freezing of water sources; and plans to control falling debris into dumpsters to prevent projectiles from striking others.</p>			
<p>26 Identify the specific rigging, duct jacks, scaffolding, supporting members, chain falls, or other systems that will be provided and used to lower items that are being demolished without them falling or needing multiple workers to hold onto the items.</p>			
<p>27 Provide the contractor Safety Directors information that will be frequently visiting the site to assure the work complies with the plan and safety standards.</p>			
<p>28 Provide details and engineered support system documentation as it relates to walls, wall and floor openings, doorframes, floors, beams, columns, etc.</p>			
<p>29 State that an adequate number of personnel, carts, wheel barrels, and/or other measures will be provided to remove all the demolition materials from the work locations shortly after being generated.</p>			
<p>30 State and verify the predetermined elevated floor load capacities before any equipment is brought onto them or debris is dropped or staged on them.</p>			
<p>31 Provide the engineering plans to protect elevated floor slabs before materials are dropped onto them.</p>			
<p>32 State that nails and other types of fasteners will be removed or bent over to prevent injuries.</p>			
<p>33 Provide the site and activity specific Silica Written Exposure Control Plans (SWECP) to comply with Table 1, with no dry sweeping, spray misting, alternate methods when working around electrical and communication systems, any additional means and methods to control visible airborne emissions of dust.</p>			
<p>34 Provide details of adequate ventilation, ducting to the outside air, HEPA NAM's, HEPA vacuums, etc.</p>			
<p>35 Plans to complete and post the Grunley's Daily Hot Work Permit in the vicinity of the work areas during any operations that create open flames or sparks.</p>			

36 Plans to provide a fire watch and 20lb ABC fire extinguisher in the immediate area when performing hot work and confirmation that the fire extinguishers will be inspected daily for damages, and will be fully charged with the seals, pins provided.			
37 Provide the emergency services phone number and procedures in the event of an emergency.			
38 Printed name, signature and title of the Contractors Safety Director, Safety Manager, Risk Manager, Vice President, Operations Manager, President, Principal of the Company or otherwise authorized company executive manager has reviewed and accepted the developed and submitted work plan.			

Electrical

- Site and activity specific work plans from the Electrical Subcontractor on the project shall be submitted to the Grunley Project Team before mobilization takes place. **These plans will be reviewed by the Project Team and Safety Department. Acceptance by the Grunley Safety Department will need to take place before the subcontractor's pre-work preparatory meeting is scheduled and prior to mobilization and work beginning.**
- All affected underground structures and utilities shall be identified, protected, and supported accordingly and as required prior to the start of operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the involvement of a Registered Professional Structural Engineer at the Subcontractors expense. Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.
- If equipment is to be moved, placed or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the Subcontractor expense and submitted to Grunley for review, comments and approval prior to the work and loading taking place.
- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- **The electrical subcontractor, along with any-and-all of their tier subcontractors, electrical testing and/or commissioning companies shall provide Grunley with evidence of current NFPA 70E training for their Master and Journeyman Electricians.**
- Adequate temporary protection of active energized or electrical switch gear, controls, transformers, lines raceways, and/or related services to remain shall be properly installed **by the electrical subcontractor or the safe installation of such shall be supervised by their Competent Person** and maintained by the electrical subcontractor to assure it is not impacted or damaged during the course of construction activities.
- **No work shall take place with energized electrical switch gear, buss ducts, overhead power lines, panels or outlets.**
- Electrical rooms shall have doors installed with locks provided, doors locked, and "DANGER HIGH VOLTAGE" signage posted **by the responsible electrical subcontractor** and maintained on them.
- Dust control shall be implemented and maintained to assure that electrical systems, communication systems or control systems are not impacted by dust.

- Construction personnel will use portable Ground Fault Circuit Interrupter's (GFCI) protection when using permanent or new building power outlets that do not contain GFCI protection.
- **Flexible power cords must be at a minimum of 12 gauge in size. Tools and extension cords will remain in continuous lengths without splices, undamaged, and with the wires at the plug end intact. Multiple cords used as a "daisy chain" is not allowed.**
- Each employee is required to check all power tools and cords for damages and defects prior to their use. **If damages are observed the equipment must be immediately repaired or removed from service. Repairs with electrical tape is prohibited.**
- If Grunley Supervisory or Safety personnel find power cords during inspections that are damaged or have the plug ends pulled away from the cord and wiring is showing or if the ground pin is missing, they will remove them from service immediately and cut off the damaged areas and/or dispose of them. **Replacement of damaged or destroyed power cords will not be the responsibility of Grunley.**
- Damages to the outside insulation sheathing or internal wire insulation of power cords is not acceptable and shall not be repaired with electrical tape, duct tape, or splices. Damaged power cords will have the damages cut off and removed from service until a competent person can make the power cord shorter and install replacement cord ends. Otherwise, the power cords will be destroyed and disposed of. **Replacement will not be the responsibility of Grunley.**
- Some power tool male cord ends are not manufactured with a ground prong. When a particular tool is made with a ground prong and the tool cord does not presently contain it, then it will be taken out of service and repaired.
- Extension cord male plug ends are designed to have the ground prong and must contain them; otherwise, they will be removed from service and/or repaired **by a qualified person.**
- Temporary power for construction personnel shall be equipped with GFCI protection.
- Exterior temporary power panels and outlets exposed to the weather will be protected **by the electrical subcontractor** with a watershed cover and weatherproof outlet boxes.
- Plug ends will not be used with Romex wiring. Typical plug ends are designed to be used with braided or extension cord type wire and not hard wire.
- Temporary wiring supplied from electrical panels will be run through a knockout hole in the panel or box and will be secured with the appropriate panel/box wire connector.
- Temporary lighting will be tied into its own dedicated service and not the temporary service that is equipped with a Ground Fault Circuit Interrupter (GFCI). This will prevent the potential of a GFCI from activating and personnel finding themselves working in the dark.

- Temporary lighting will be suspended independently from the structure to the top loop in the protective bulb basket with non-conductive coated wire.
- Temporary lighting **bulb and basket** maintenance will take place periodically **by the electrical subcontractor** to maintain an illuminated workplace of at least 5-foot candles or greater.
- All wiring and power cords will be protected from sharp edges. **Power cords or wiring shall not be run through doorways, across pathways, stairways or driveways where they can become damaged or where they create trip hazards.**
- Temporary wiring or power cords that are placed in the pathway of vehicles, equipment, pallet jacks, or carts shall be protected from damage by suitable and adequate means. This could be by elevating them or placing them inside of conduits or adequate protective circumferences before burying them.
- Unless an electrical panel is currently being tended to, and a Qualified Electrician is performing work, electrical panel box covers will be kept in place at all times. All screws required to secure the cover in place are needed. This is to protect personnel from energized live circuits. Unprotected and energized electrical panels shall not be left open and/or unattended. Another option is for the Electrical Subcontractor to lock the doors and have possession of the key. The Electrical Subcontractor is responsible for the safety of the space.
- Temporary wiring and electrical cords will be suspended from ceilings or coiled up and hung on walls to prevent damage.
- Temporary wiring and outlet power boxes will be mounted to walls or portable stands.
- Outlet covers will be maintained on energized outlet boxes. All energized electrical outlets/switches/junction boxes need to be properly covered and secured on all temporary and permanent power supplies.
- Unused open breakers in the electrical service panels will have proper blanks installed.
- Knockout holes in electrical panel boxes will have proper blanks installed. Tape does not suffice.
- Temporary wiring will have electrical tape on the wire-nuts to prevent displaced and possible exposure to electrical hazards during construction activities, unless mechanical crimp connectors are used.
- Circuit identification shall be performed to determine the service and location that it provides for lockout and tagout purposes to protect those working in such areas.

- When work on electrical systems is intended to take place a lockout and tagout program shall be developed and initiated by the related subcontractors prior to performing the work.
- Assured Equipment Grounding Program's will not be authorized or implemented on Grunley projects unless the subcontractor can verify and prove that the program is established and implemented in accordance with the applicable standards.
- Exterior electrical panels will be installed in a partially enclosed structure with a watershed cover to minimize and prevent the hazard of rain and moisture.
- Multiple plug electrical office strips will not be allowed for use on Grunley projects.
- Splices in wiring systems will be performed accordingly in a grounded junction box with wire connectors mounting to the box.
- Temporary lighting splices can be established as long as the wire nuts and splice area is wrapped with electrical tape and the splice is maintained at a height of 7' or greater off of the ground to prevent personnel and/or materials from hitting the splice. If equipment is being used in the area, the splices must be elevated far enough above the height of the equipment where it will not be contacted.
- Independent and/or separate two wire electrical wiring for temporary lighting or any other services will not be used.
- **Vented hard hats are not allowed, since they do not meet the requirements of the National Electrical Code (NEC).**
- **Electrical panel, pull boxes, or junction box covers shall remain in place and secured unless they are currently and physically being used or worked on. Otherwise, they will be installed shortly thereafter the related work has been finished during the day and before the end of each shift**
- **Aluminum ladders are strictly prohibited for use.**
- **If lightning is observed, all Load Handling Equipment (LHE), drill rigs, work on elevated platforms or scaffolding, roofing activities, pole climbing activities, or work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

The following contains the Grunley Lockout Tagout permit that will be completed, implemented, posted in the work areas, and adhered to during the course of the associated work activities.

Grunley Cut Cap & Make Safe Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the cut cap and make safe work plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include a detailed summary of the work to take place and the contractor performing this work.			
2. The Competent Person shall be identified in a designation letter and shall, at a minimum, have a current OSH 30-hour card within the past 5 years, current First Aid & CPR card, current NFPA 70E training (if applicable).			
3. Identify the specific location of the building where the building shut off valve is located.			
4. Identify the specific location where the cutting will take place and the size of piping.			
5. Identify the specific location where the purge will take place.			
6. State in detail how the system will be purged and where the purge point(s) will be prior to disassembly or cutting.			
7. Identify how it will be determined that the pipe has been adequately purged before any disassembly or cutting will take place.			
8. State what the provisions for venting the purge will be and where it will be vented so others aren't impacted by the purge gases.			
9. Identify the specific type of lockout / tagout devices will be used and where they will be placed and tag completed by whom.			
10. Identify if a multi-gang hasp being used and who is responsible for the last lock by person and company name.			
11. Provide information for the contractor's safety person that will be physically onsite during the time of the work to assure the work complies with the plan.			
12. Provide information related to the required PPE for the work.			
13. Provide specific information as it related to the type of tools to be used to include spark resistant tools if warranted and applicable.			
14. Are blank flanges going to be used? If so, provide the information for these and where they will be installed.			
15. Provide the emergency services phone number and procedures in the event of an emergency.			
16. Provide documents for First Aid & CPR training for Competent Person.			
17. Identify the supervision that is responsible for the work.			
18. Red paint should be placed on the piping/service until the point where the service is determined to be dead and then green paint needs to be applied.			

CORPORATE SAFETY PLAN

19. If purge gas is provided describe how much will be brought, where will it be placed, how will it be secured, and labeled.			
20. Has it been assured that no other operations will be in the areas that could pose a problem with the cut cap and make safe work.			
21. Have and complete the Grunley Lockout / Tagout forms and post them in the vicinity.			
22. Have and complete the Grunley Daily Hot Work Permit and post in the vicinity.			
23. Complete and provide a full and detailed AHA form for this work using the USACE EM 385-1-1 format.			
24. Provide a sign-in sheet to the Grunley Superintendent that contains legible printed name, signature, company name, and date to verify all have been briefed on the plan and AHA.			
25. Confirm that no electronic devices will be in or used in the purge and cut cap and make safe area.			
26. Provide any other applicable information.			
27. Printed name, signature and title of the Contractors Safety Director, Safety Manager, Safety Inspector, Risk Manager, Vice President, Operations Manager, President, Principal of the Company or otherwise authorized executive manager of the company has reviewed, accepted and takes responsibility for the developed and submitted work plan.			

Grunley Lock Out/Tag Out Plan Checklist

Write yes, no or n/a with the reason in the spaces below.

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include a detailed summary of the work, the Grunley project name, Grunley project number, Grunley project address, Subcontractor name, Subcontractor address and Subcontractor phone number.			
2. Provide a current Certificate of Insurance (COI) with the project name stated and Grunley Named as Certificate Holder and Additional Insured.			
3. Provide a Competent Person (CP) designation letter on Company letterhead and signed by a Senior Manager of the Company. The CP designation letter needs to state that the Competent Person is responsible for the work, shall be onsite full time, enforces compliance with the plan, inspects the equipment and the setup prior to it being used, and has the Company's authority to take action and expend funds when needed to resolve safety issues.			
4. Provide documentation of Competent Persons resume with their credentials, certifications and training documentation as it relates to project safety and the Lock Out/Tag Out process.			
5. Describe in the LO/TO plan how all parties involved will be notified of the pending LO/TO work.			
6. State in the plan specifically who the representative(s) from Grunley, the Subcontractor and the Building Owners in-house facility staff are by name and title with cell phone number that will be involved with providing their locks and tags to the devices and who will be removing them after the work has been completed.			
7. Specific information identifying precisely the systems, their numbering and locations that will be locked and tagged out.			
8. Provide the drawing or a detailed diagram or pictures showing the specific Lock Out/Tag Out location(s).			
9. Identify the specific type of LO/TO devices that will be used and provide cut sheets for them.			
10. Date and Time of Planned Shut Down of Equipment			

<p>11. Develop and provide a site and activity specific Activity Hazard Analysis (AHA) using the USACE EM385-1-1 format for the Lock Out / Tag Out work.</p>			
<p>12. Provide a copy of the AHA meeting sign-in sheet and a completed copy afterwards to verify the AHA meeting with all personnel involved with the work was held prior to the work taking place to include presenter (preferably the company safety representative) company name, legible printed name and signature of each attendee, and date of meeting.</p>			
<p>13. Provide copies of the applicable Lock Out Tag Out Grunley, Subcontractor and/or Building Owner LO/TO forms that will be completed and posted in the area.</p>			
<p>14. Provide the name, title, phone number and email address of the contractors Safety Director, Safety Manager, Safety Representative or Safety Consultant that will oversee and frequently visit the project to monitor and confirm compliance of the approved Lock Out Tag Out plan.</p>			
<p>15. Provide contractor Safety Director, Safety Manager, Safety Representative or Safety Consultant credentials and training documentation that would deem this person to be the Qualified Person.</p>			
<p>16. Provide the printed name, signature and title of the Contractors Safety Director / Manager, Risk Manager, Vice President, Operations Manager, Officer, Principal, Executive Manager or President of the Company that has reviewed and accepted the developed and submitted Lock Out Tag Out Plan.</p>			

Excavations

- Site and activity specific work plans from the excavation Subcontractor on the project shall be **submitted using the Grunley Excavation Work Plan Checklist, to the Grunley Project Team. The submitted work plans will be reviewed and accepted by the Grunley Safety Department before mobilization and work takes place. The accepted work plans shall be reviewed by the Project Team at the subcontractor's at the required preparatory meeting.**
- **The Competent Person must hold (at a minimum) a current First Aid/CPR training within compliance dates, an OSHA 30-hour training document that is valid within 5 years, documentation of a Competent Person (CP) 8-hour Excavation training, and Sediment & Erosion Control training. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered.**
- **A Competent Person designation letter must be provided for the named Competent Person and an alternate. This letter shall be signed by a Senior Manager, Safety Director, or Company Owner deeming this person Competent in related activities.**
- **Worker training shall include Excavation within a 5-year compliance date, Heavy Equipment training within a 5-year compliance date, and DC Operator license if operating equipment within the Washington, DC city limits.**
- The documented sediment and erosion control plan that corresponds with the local and State Department of the Environment office shall be established, submitted, approved and measures in place prior to the disturbance of any ground areas.
- **Inspection of the sediment and erosion control systems shall be inspected by the responsible subcontractor after each rain event and the findings shall be documented with any repairs made promptly.**
- Dewatering and pumping filtration system plans will need to be provided for review, approval and submission to the client and required agencies that meet the federal, state, local or jurisdictional requirements. **Discharged water shall be properly and adequately filtered through a pre-approved system before entering storm water inlets.**
- Audible reverse alarms and/or bi-directional alarms shall be provided on all earth moving equipment and dump trucks.
- **Heavy equipment training must be provided for each operator that will be operating each specific piece of equipment.**
- **Those that will be operating equipment >25 horsepower anywhere within the vicinity of Washington, DC shall provide Grunley with a DC Operator licenses within the compliance date for each operator.**

- Onsite storage of equipment fuel tanks shall be placed in dikes to prevent fuel spills.
- **Contractors shall supply environmental spill kits and sweeping compound to adequately clean up potential hazardous spills from equipment.**
- All the affected underground structures and utilities shall be identified, protected and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the Subcontractor to obtain the involvement of a Registered Professional Structural Engineer at the Subcontractors expense.
- Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known and documented before any loading of them takes place.
- If equipment and/or excavated spoils are to be moved, placed or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer and submitted to Grunley for review, comments and approval prior to the work and loading taking place.
- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- Shields or other excavation protection must be used in trench excavations of five feet or greater unless the soil classification has been determined and the proper sloping or benching has been established and provided.
- **Where employees are exposed to a fall hazard 6' or greater to the bottom of the excavation a guardrail system shall be installed by the subcontractor at their cost in the manner stated in the OSHA 1926.502(b) standard.**
- Trench box tabulated data must arrive before or with the box for evaluation purposes.
- Only the manufacturer components can be used on the trench box. Supports, bracing pipes, safety pins, cotter keys, and other components from the trench box manufacturer cannot be substituted.
- No work can be done outside the shielded area. All work, including using the access and egress ladder must take place in the protected shield.
- Walls above the shield must be laid back at least to a 1-to-1 slope or 45 degree angle, depending on the soil classification.

- All trench boxes must arrive onsite with the appropriate manufacturer's engineers' data and information stating the allowable use of the box. Some boxes can be stacked and some cannot. This data contains this type of information.
- The shield or trench box sides must be above the top of elevation of the trench at a minimum of 18" **and raised no more than 24" from the bottom of the trench box**. The sides of shields must be tight against the excavated earth or have soil backfilled against them to assure that there are no voids on the outside of the shield.
- Spoil piles must be kept back from the edge of the excavation at least two feet.
- A safe means of egress must be provided at all times. Ladders are to be placed any further than twenty-five (25) feet apart in any direction of the trench. If the trench is 50' long then 3 ladders will be required, one at each end and one in the middle.
- Existing structures that may be impacted, undermined, or affected by the excavation are required to be underpinned, supported, or shored to prevent failure.
- Shoring designs, trench boxes, and/or underpinning support designs will be provided by an approved Registered Professional Engineer and provided to the job site supervision for review and acceptance prior to submitting and execution.
- A Competent Person and/or Soils Engineer will determine soils classification. Sloping, benching, and/or shoring will be based on this determination.
- **All Type C and/or pre-disturbed soil shall not be benched and all must be sloped at a minimum of 1½ : 1**
- A Competent Person will be established by the subcontractor performing the excavation work. The Competent Person will be determined by their qualifications, training, and experience.
- The Competent Person will be responsible for monitoring the work throughout the day as it takes place and supervising all related operations to assure that the work is conducted safely and in accordance with the OSHA excavation standards.
- Water must be removed from trenches before workers enter into them.
- Slope protection must be provided to retain proper angle and deter erosion.
 - Type A – ½:1
 - Type B – 1:1
 - Type C – 1 ½:1
- Previously disturbed soil shall be classified as class C and benched and/or sloped accordingly, unless otherwise determined by acceptable testing and documented results.

- Important phone numbers: Miss Utility 1-800-257-7777, PEPCO-Outages 1-877-737-2662 and PEPCO Customer Care 202-833-7500.

- Grunley and subcontractors will need to identify the perimeter of proposed excavation locations (limits of disturbance) with white spray paint so that the utility locator can identify the utilities within that grid or perimeter. Color codes for underground utilities are as follows:
 - White – proposed excavation area
 - Pink – temporary service markings
 - Red – electrical power lines
 - Yellow – gas, oil, steam, petroleum, or gaseous materials
 - Orange – communication, alarms, signal lines, cables, conduits
 - Blue – potable water
 - Purple – reclaimed water, irrigation, slurry lines

- All underground utilities will need to be identified and marked. If one locator service does not mark all utilities, then a separate locator will need to be contacted to locate and identify the remaining utilities.

- Locator markings or flags must be kept visible at all times and refreshed when needed to assure they are visible.

- Air compressor hose (pneumatic hose) whip check lines are needed and required to be at each hose to coupling connection. In addition, the connection wire, pin or cotter keys must be installed before the air compressor and hoses are used.

- All motorized equipment shall have a mounted and charged fire extinguisher with a current annual inspection, along with a pin and plastic seal to maintain the pin in place and inspected monthly.

- **If lightning is observed, all Load Handling Equipment (LHE), drill rigs or work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

EXCAVATION INSPECTION CHECKLIST

PROJECT:		WEATHER:		DATE:	
LOCATION OF TRENCH/EXCAVATION:					
MEASUREMENT OF EXCAVATION/TRENCH:	DEPTH:	LENGTH:	WIDTH:		
PROTECTIVE SYSTEM USED:	TRENCH SHIELD	SLOPING	BENCHING	SHORING	
HAS VISUAL SOIL TEST BEEN CONDUCTED?	YES	NO	WHAT TYPE		
HAS MANUAL SOIL TEST BEEN CONDUCTED?	YES	NO	WHAT TYPE		
TYPE OF SOIL?	A	B	C	STABLE ROCK	

		YES	NO	COMMENTS
1.	HAVE ALL PERSONNEL PERFORMING WORK WITHIN THE EXCAVATION/TRENCH BEEN PROPERLY TRAINED?			
2.	HAS PROPER UTILITY LOCATOR BEEN NOTIFIED PRIOR TO EXCAVATION AND MARKED?			
3.	ARE THERE ANY SURFACE ENCUMBRANCES PRESENT? IF YES, DESCRIBE AND EXPLAIN.			
4.	IS EXCAVATION/TRENCH BARRICADED OR MAINTAINED TO PROTECT WORKERS AND PUBLIC?			
5.	ARE LADDERS OR RAMPS IN THE EXCAVATION WITHIN 25' OF ALL WORKERS?			
6.	ARE EMPLOYEES EXPOSED TO EQUIPMENT OR VEHICULAR TRAFFIC? CLASS 2 VESTS ARE REQUIRED.			
7.	DO LADDERS EXTEND AT LEAST 3' ABOVE THE TOP EDGE OF THE EXCAVATION?			
8.	HAS EXCAVATION/TRENCH BEEN MONITORED TO ENSURE PROPER AIR QUALITY WITHIN ACCEPTABLE LIMITS?			
9.	DOES EXCAVATION/TRENCH CONTAIN WATER ACCUMULATION THAT NEEDS REMOVED?			
10.	DO PROTECTIVE SYSTEMS, SLOPING OR BENCHING MEET REQUIREMENTS FOR SOIL TYPE AND CONDITIONS?			
11.	IS EXCAVATED SPOILS PILE MATERIALS KEPT AT A MINIMUM OF 2' BACK FROM THE EDGE OF THE EXCAVATION?			
COMMENTS				

Printed name and signature of Competent Person: _____ Date: _____

Excavation and Trenching Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the excavation and trenching plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include a detailed summary of the work, company, contractor, project name, and project address where work will occur.			
2. The Excavation/Trenching Competent Person needs to be identified in a designation letter developed, provided, and signed by a senior manager of the subcontractor.			
3. The Fall Protection Competent Person needs to be identified in a designated letter developed, provided, and signed by a senior manager of the subcontractor.			
4. The Confined Space Competent Person needs to be identified in a designated letter developed, provided, and signed by a senior manager of the subcontractor (if applicable).			
5. Provide resume and/or related information to verify competency of the Competent Person through documented Competent Person training, experience, knowledge, and verification that they are capable of recognizing and resolving safety issues.			
6. 8-hour minimum Competent Person training documentation for trenching and excavations, 24-hour training for fall protection, and 8-hour training for confined space (if applicable).			
7. 8-hour worker training documentation for trenching and excavations, 8-hour training for fall protection, and 8-hour training for confined space (if applicable).			
8. A complete, detailed and area specific Activity Hazard Analysis (AHA) will need to be developed and provided in the plan using the USACE EM385-1-1 format.			
9. The plan needs to include a sign-in document verifying that the AHA meeting was held to review the plan and AHA with all involved before the work takes place. The sign-in sheet needs to include presenter (Safety Director or Safety Manager) with the legible company name, printed name of each attendee, signature of each attendee, and date.			
10. Engineered drawings relating to the excavation, trench, or sheeting and shoring.			
11. Tabulated data for all trench boxes to be used onsite included in the plan.			
12. Daily excavation/trench inspection checklist needs to be included.			
13. Access and egress into the excavation/trench.			
14. Means and methods for fall protection, and plans for fall protection at the top of the excavation and trench.			
15. CPR and first aid training documentation for the Competent Person.			
16. Specific confined space equipment information needs to be provided in the plan. Example 4 gas monitor, tripod, full body			

harness, attachable lifeline, forced air fans, etc. (if applicable)			
17. Top Man designation for confined space (if applicable)			
18. A copy of the following forms need to be provided: i. Confined space entry checklist. j. Confined space entry sign-in/sign-out document. k. Confined space entry permit. l. Confined space air monitoring log.			
19. Identify who by name and title the Attendant / "Top Man" outside the confined space will be.			
20. Verify in the plan that the Top Man can adequately communicate in English with those outside the confined space and with those personnel working in the confined space.			
21. Provide the emergency Point of Contact (POC) name, title, cell phone number and emergency services contact information. Provide an alternate emergency POC with information.			
22. Verify in the plan that the subcontractor has actually contacted and talked with the local emergency services as required and verified that they are aware of the area, work taking place, when, the contractor involved, and that they will be able to provide emergency services if needed.			
23. Provide current (not expired) First Aid & CPR training documents for the Attendant / Top Man and an alternate.			
24. Plan needs to state that continuous air monitoring of the space will take place and be documented on the air monitoring form.			
25. Plan needs to state the immediate emergency evacuation or extraction procedures for workers or injured personnel from the specific work space(s).			
26. Plan needs to state that all those in the confined space will follow the direction of the Top Man when told they need to immediately come out of the space.			
27. If materials or chemicals are used inside the confined space then the Safety Data Sheet (SDS) documents need to be provided.			
28. If respiratory protection is needed or required then a site and area specific respiratory protection plan needs to be provided to include medical evaluations, medical authorization, and annual fit testing documentation.			
29. A detailed communication plan between the Top Man and those working in the confined space needs to be provided.			
30. Specific hazard controls and devices need to be stated in the plan in regards to Lock Out/Tag Out.			
31. Confined space lighting plans need to be included based on the conditions, hazards and/or potential hazards of the space.			
32. Provide the name, title and cell phone number of the subcontractor Safety Director or Safety Manager that will be onsite to oversee the confined space setup, material handling, safety measures in accordance with the established and approved confined space entry plan.			
33. Provide contractor safety person credentials and training certifications that would deem this person to be the subcontractors designated Competent Person by the company Executives or Principals.			

Fall Protection

- Site and activity specific work plans from each subcontractor having work that requires the installation and use of fall protection equipment or measures on the project shall be submitted to the Grunley Project Team **using Grunley's Fall Protection Plan Checklist** before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Prior to mobilization, the subcontractor shall submit Competent Person resume and training documents related to fall protection to the Grunley Safety Department for review.
- **The Competent Person must hold a First Aid/CPR training within compliance dates, 24-hour Fall Protection training, and OSHA 30 training documentation must be valid within 5 years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered. A letter of designation must be provided for the named Competent Person. This letter shall be signed by an Executive Manager, Safety Director, or Company Owner deeming this person Competent in the related activities.**
- **Competent Person and Worker fall protection training documentation must be provided within a 5-year compliance date.**
- A working surface, with a minimum horizontal dimension of 45 inches in any direction, that exposes an employee to a fall of 6 feet or greater, must be protected by a standard guardrail system, safety net system, personal fall arrest system, or substantial floor opening cover.
- Anytime the work requires an employee to be exposed outside the parameters of a standard guardrail or standard guardrail system, the following must be implemented:
 - Lifelines, safety harnesses, and shock-absorbing lanyards shall be used only for employee safeguarding.
 - Any lifeline, safety harness, or shock-absorbing lanyard that is actually subjected to an in-service loading shall be immediately taken out of service and destroyed.
 - Lifelines shall be secured above the point of operation to an anchorage point or structural member capable of supporting without failure a minimum weight of 5000 pounds.
 - Only shock absorbing lanyards with a length of 3' shall be used with vertical lifelines and rope grabs.
 - Lifelines subject to abrasion or cutting shall be a minimum of 7/8 inch wire core manila rope.
 - Where abrasion or cutting is not a consideration, 3/4 inch manila or equivalent, with a minimum breaking strength of 5000 pounds shall be used.
 - Safety Harness shock-absorbing lanyards shall be a minimum of 1/2 inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet.

- The shock-absorbing lanyard shall have a nominal breaking strength of 5400 pounds.
- **Trauma straps are required to be provided and installed on each full body harness so they can be used to prevent trauma to the body when a person should fall and remain suspended for any given amount of time.**
- Each subcontractor shall assure that their employees have been provided with fall protection training as it relates to the associated hazards and equipment intended to be used prior to the work taking place.
- Wooden or cable guardrails, fall protection connection apparatus, full body harnesses, retractable lifelines, positioning belts with hooks, deceleration lanyards, floor opening covers, or other methods will be provided, implemented, or installed to provide fall protection where necessary.
- Safety nets can be used when practical as-long-as they are erected and tested in accordance with the 29 CFR 1926.500 Subpart M requirements. **All safety net information with diagrams of the proposed installation and cut sheets of the system shall be submitted to Grunley Safety for review and approval before they are installed.**
- Anchorage points shall be capable of supporting an imposed load of 5,000 pounds.
- Horizontal lifelines shall not be used for fall protection but will be authorized for attachment use to keep personnel back away from where the fall hazard exists for fall prevention as opposed to fall protection purposes.
- Horizontal or static lines can only be used if they are an engineered and approved system by the fall protection manufacturer and only if they are installed in accordance with the manufacturer's guidelines.
- Only engineered fall protection systems will be authorized for use.
- If other means of fall protection cannot be provided, work on flat roof and those with a pitch of less than 4:12 can be performed within the confines of a Warning Line System that will encompass the intended access path and work area.
- **The Warning Line System shall be placed at a minimum of 6' back from the fall hazard exposing workers to a fall greater than 6' for ROOFERS ONLY and placed 15' back from the fall hazard exposing workers to a fall greater than 6' for all other workers. Warning lines shall have a minimum tensile strength of 500 pounds and weights stanchions shall be provided so they don't blow or fall over. Stanchions shall be placed close enough to that the warning line does not sag any lower than 39" off the ground.**
- All materials shall be kept at a minimum of 10' from the edge of the building on all floors including the roof. No materials are to be stored within the area that is 10' from the building edge.

- Personnel are not to work for any amount of time in the area 6' from the edge unless they use a personal fall arrest system. In addition, a supervisor who is deemed the competent person shall monitor the overall roof work to assure that it is being safely performed.
- **A Safety Monitor System program is strictly prohibited and will not be permitted.**
- Guardrails:
 - Shall consist of posts, top rails, mid-rails, and toe boards.
 - Top rail shall be 42" (+/- 3") above the floor, mid-rail at 21" (+/- 3"), and toe board shall be 4" high.
 - Supporting stanchions shall be placed at intervals of no more than 8' apart.
 - The top guardrail must be capable of withstanding an imposed load of 200 pounds of downward and outward pressure without failure.
 - The mid-rail must be capable of withstanding 150 pounds of downward and outward pressure without failure.
 - Must be provided at floor openings, scaffolds greater than 10', elevated work surfaces, and any other location where access and egress exists and/or where a fall hazard of 6' or greater exists.
- Floor and Wall Openings:
 - All floor and roof openings shall be guarded or covered, all floor and roof holes shall be covered. Particle board may not be used. A minimum of ¾" plywood (not OSB) is required for use.
 - Coverings for floor and roof openings shall be labeled, of sufficient strength to support any load which may be imposed and shall be secured in place.
 - Wall openings where there is a drop of more than 4 feet and where the bottom of the opening is less than 3 feet above the working surface shall be guarded with a top rail or top and intermediate rail.
- **If lightning is observed, all work on elevated platforms or scaffolding, roofing activities, tree trimming activities, pole climbing activities, or work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

Grunley Fall Protection Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as it relates to the Fall Protection Plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include a detailed summary of the work, the Grunley project name, Grunley project number, Grunley project address, Subcontractor name, Subcontractor address and Subcontractor phone number.			
2. Competent Person (CP) Designation – In writing and signed by an Officer of the Company designating their Competent Person by name and title.			
3. The Officer letter needs to state that the Competent Person is responsible for the work, shall be onsite full time, enforces compliance with the plan, inspects the equipment and the setup prior to it being used, and has the Company’s authority to take action and expend funds when needed to resolve safety issues.			
4. Documentation of Fall Protection Competent Person training must be provided. This training shall be a minimum of 24 hours with combination of formal classroom training and practical application as Per USACE 21. C.04.			
5. Provide documentation of employee/worker fall protection training within the past 5-years to verify that they have been trained in the use, care, and inspection of the specific fall protection equipment.			
6. Provide inspection criteria and removal from service procedures for fall protection equipment.			
7. Provide a detailed diagram or pictures showing specific anchor points for personal fall arrest systems that are capable of holding 5000 pounds.			
8. Provide Fall Protection Manufacturer Engineered system cut sheets with details of installation. Circle or highlight the sections that show the actual equipment intended to be used.			
9. Develop and provide the Fall Protection Activity Hazard Analysis (AHA) using the US Army Corps of Engineers (USACE) current AHA format.			
10. Provide a copy of the completed sign-in sheet to verify the AHA meeting with all personnel involved with the work was held prior to the work taking place to include presenter (preferably the company safety representative) company name, legible printed name and signature of each attendee, and date of meeting.			

<p>11. Provide a detailed rescue plan with an emergency point of contact and alternate name and phone number.</p>			
<p>12. Provide the name, title, phone number and email address of the contractors Safety Director, Safety Manager, Safety Representative or Safety Consultant that will frequently and periodically visit the project to monitor and confirm compliance of the approved fall protection work plan.</p>			
<p>13. Provide contractor Safety Director, Safety Manager, Safety Representative or Safety Consultant credentials and training documentation that would deem this person to be the Qualified Person.</p>			
<p>14. Printed name, signature and title of the Contractors Safety Director / Manager, Risk Manager, Vice President, Operations Manager, Officer, Principal, Executive Manager or President of the Company that has accepted the developed and submitted Fall Protection Plan.</p>			

Fire Prevention

- Site and activity specific fire prevention work plans are required from each subcontractor on the project. These plans shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- No OPEN FLAMES or FIRES for heating devices or open burning will be left unattended.
- Hallways and corridors will be maintained throughout all construction areas for safe passage in the event of a fire (36" for aisles and 15 feet from the exterior of the building) and exits will be clearly identified with signage.
- Temporary heating devices will meet the following:
 - Heating devices will be installed in accordance with the manufacturer's guidance.
 - Heaters in construction areas will have a safe clearance of 3-feet on all sides.
 - Heaters will be placed on a minimum of 1" of concrete or one layer of bricks or concrete blocks. No cardboard, wooden pallets or stands will be permitted.
 - Heaters will be placed no closer than 10' from combustible material, such as pallets, paper, lumber, or trash.
 - Open flame heaters will be placed a minimum distance of 10' from liquefied petroleum gas (LPG) fuel sources. This does not apply to diesel/kerosene-fired salamanders which have the fuel storage attached to the burner housing.
 - After hours heating with open flame heaters will require a full-time fire watch to stand guard and maintain the heaters.
- Smoking **of tobacco, E-Cigarettes, vaporizing oil and/or pens** is not allowed in the building(s) or on Grunley projects. Smoking is only be authorized in designated smoking areas.
- Portable ABC fire extinguishers with at least a **20-pound** rating or larger, unless otherwise required, will be available or located at the following areas:
 - Provided for every 3,000 square feet of work area or within a maximum of 100' traveling distance for personnel and mounted at a height of 48".
 - Outside of, but not more than 10 feet from, the door opening into any room used for the storage of more than 60 gallons of flammable or combustible liquids.
 - No less than 25 feet or more than 75 feet from any outside flammable liquid storage area.
 - On all tank trucks or other vehicles used for transporting and/or dispensing flammable or combustible liquids.
 - Within 75 feet of the pump dispenser at refueling locations, lubrication, and/or service areas.
- **Fire extinguishers shall be inspected monthly for damages and to ensure it is fully charged with all seals, pins, and tags in place. This inspection shall be documented on the fire**

extinguisher or a separate accessible form with the month, and year of the inspection as well as the inspector's initials.

- Fire hoses may also be used when water supply is available.
- Grunley site supervision will coordinate with the facility firehouse personnel in order to maintain and establish the location of fire lanes at the job site.
- Flammable liquids, such as fuels, will be stored in areas with adequate ventilation and in self-latching metal safety cans equipped with spark arrester screens.
- Plastic or non-safety rated fuel cans are prohibited on site. They will be removed from the site immediately upon observation by the Safety Department or the subcontractor.
- Sources of ignition will be prohibited in areas where flammable liquids are stored.
- No Smoking or Open Flame signage will be posted in areas where flammables are stored.
- Flammable liquids, fields, or compressed gas cylinders are to be stored in closed containers when not in use.
- **Flammable and/or combustibles shall be stored in an approved metal storage cabinet. They shall not be placed, kept, or stored in interior emergency egress pathways. They shall not be placed, kept or stored any closer than 20' of emergency egress pathways on the outside of buildings.**
- Unopened containers of liquids such as paints, varnishes, lacquers, thinners, and solvents, shall be kept in a well-ventilated location free of excessive heat, smoke, sparks, flame, or direct sunlight.
- Combustibles shall not be stored in gang boxes but stored in approved flammable locations with adequate ventilation.
- **Oxygen and acetylene bottles will be removed from the building after use each day. They will be secured and stored with caps installed in the approved location outside of the building. Tanks are to be stored in a manufactured storage cage with a manufactured fire wall or stored separately by 25' with a 20-pound ABC fire extinguisher located within 25' of the flammable storage location with "NO SMOKING" signage installed.**
- Tanks shall be turned off and the lines bled to remove gases.
- Gauges shall be removed when the compressed gas cylinders are not in use.
- Compressed gas cylinders will be stored and transported in an upright secured position to prevent displacement. Unlike compressed gas cylinders will be stored 25' apart or separated by a 1-hour fire rated wall.

- Heating devices of the open flame type having exposed fuel below the flame are prohibited.
- Ignition of flame or sparks will not be allowed in areas where flammable liquids are stored, handled, or processed.
- All spills of flammable liquids must be cleaned up immediately.
- Proper ventilation will be provided in all areas where flammable liquids are stored, handled, dispensed, or processed.
- Flammable liquids dispensed from fuel tanks, 55 gallons drums or other similar storage containers will be equipped with an approved and grounded pumping system.
- Small quantities of flammable liquids will be stored and transported in approved safety cans.
- A welding and/or burning permit will be secured daily and prior to the commencement of hot work operations.
- A welding and/or burning permit will be secured daily and prior to the commencement of hot work operations.
- The Hot Work Permit is valid for one day only unless otherwise specified by the governing enforcement authority.
- All of the provisions noted on the Hot Work Permit shall be strictly enforced.
- Hot Work Permits shall be issued for each subcontractor performing hot work in each separate area. Personnel are to keep a copy of the Hot Work Permit posted in each subcontractor's individual work area. Personnel performing Hot Work will periodically be asked to show the permit to supervisory personnel at various intervals during the course of the project.
- **The named fire watch listed on Grunley's Daily Hot Work Permit shall be clearly identified by wearing a red vest with "FIRE WATCH" printed on the back. The Fire Watch shall have no other duties besides keeping the workers safe and preventing fires.**
- **All fuel cans and compressed gas cylinders shall not be kept or stored inside the building and shall be removed from the building each day before the end of each shift. They shall be kept and stored appropriately on the outside of the building and not within 20' of an emergency egress pathway.**
- All above ground fuel storage tanks require a catch basin. The catch basin needs to be pumped out periodically as needed to remain empty. A 20# fire extinguisher is required at all storage tank locations. Catch basins need to be able to hold 1 ½ times the capacity of the intended tank without leaking or overflowing, no matter if the tank is a double wall insulated tank.

DAILY HOT WORK PERMIT

BUILDING NAME:		NAME OF EMERGENCY CONTACT:	
TELEPHONE NUMBER:	OFFICE ISSUING PERMIT:	SPECIFIC LOCATION OF WORK COVERED:	
DATE OF WORK:	START TIME:	STOP TIME:	
NATURE OF WORK IN DETAIL:			
DO YOU UNDERSTAND THAT THIS PERMIT NEEDS TO BE CONSPICUOUSLY POSTED IN THE SPECIFIC HOT WORK AREA? YES NO			
HAS EACH EMPLOYEE WORKING UNDER THIS HOT WORK PERMIT BEEN BRIEFED IN RELATION TO KNOW WHAT IS EXPECTED OF THEM TO PERFORM THIS HOT WORK? YES NO			
SUPERVISOR'S SIGNATURE:			
ANTICIPATED HAZARDS DUE TO WORK (SAFETY, HEALTH, FIRE)			
10. ARE ALL COMBUSTIBLES AND/OR FLAMMABLES REMOVED FROM THE AREA OR LOCATIONS BELOW PRIOR TO THE WORK? YES NO 11. ARE FIRE BLANKETS USED TO COVER AND/OR PROTECT MATERIALS THAT CANNOT BE REMOVED FROM THE AREA? YES NO 12. IS A CHARGED FIRE EXTINGUISHER LOCATED WITHIN 25' OF THE HOT WORK? YES NO 13. IS A WATER HOSE GOING TO BE USED IN ADDITION TO THE FIRE EXTINGUISHER TO PREVENT FIRES? YES NO 14. ARE ELECTRICAL SYSTEMS PROTECTED OR DEENERGIZED PRIOR TO USING WATER NEAR THEM TO CONTROL FIRES? YES NO 15. IS A VENTILATION FAN OR SMOKE EATER PROVIDED FOR THE WORK AND EXHAUSTED TO THE OUTSIDE AIR? YES NO 16. ARE WELDING BLINDS PROVIDED AND GOING TO BE USED WHEN PERFORMING WELDING WORK? YES NO 17. ARE OXYGEN AND ACETYLENE BOTTLES SECURED TO A CART AND ARE THE PROTECTIVE CAPS PROVIDED? YES NO 18. IS THE SUPERVISOR GOING TO ASSURE THAT A FIRE WATCH HAS WALKED THE AFFECTED AREAS TO ASSURE THAT THERE ARE NO SMOLDERING EMBERS 60 MINUTES AFTER THE WORK HAS BEEN COMPLETED? THE FIRE WATCH WILL WEAR A RED VEST WITH FIRE WATCH PRINTED ON THE BACK. YES NO			
LIST OF PROTECTIVE CLOTHING, EQUIPMENT, AND CONTROLS REQUIRED FOR THE WORK (INCLUDING PPE AND PUBLIC PROTECTION)			
CIRCLE THE APPLICABLE PPE ITEMS THAT WILL BE USED:			
WELDING GLOVES, LEATHER CUTTING GLOVES, WELDING SHIELDS, FIRE RETARDANT APRONS, FIRE RETARDANT SMOCKS, LEGGINGS, SLEEVES, LEATHER WELDING JACKETS, NOMEX TYPE FIRE RETARDANT JACKETS			
NAME OF PERSON(S) AUTHORIZED TO PERFORM WORK:		NAME OF PERSON(S) TRAINED TO SERVE AS THE FIRE WATCH:	
EMERGENCY PRECAUTIONS (INCLUDE TYPE, NUMBER, AND LOCATION OF FIRE EXTINGUISHERS)			
PERMIT ISSUED BY			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE
PERMIT ISSUED TO			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE
PAPERWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE
60 MINUTE POSTWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE

Formwork, Falsework, & Concrete

- Site and activity specific formwork, falsework and concrete placement on the project shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Prior to mobilization, the subcontractor shall submit Competent Person resume and training documents related to fall protection and scaffolding to the Grunley Safety Department for review.
- Formwork and Falsework information will be provided by a Professional Engineer and will include safety information showing the calculated loads and tabulated data of shoring, falsework, and formwork.
- The provided information will be reviewed by the Grunley management site supervision to assure proper installation and implementation on the project.
- The formwork drawings will include provisions for wall ties, walers, stiff backs, and diagonal shoring. It should also include provisions for scaffolding and handrail systems.
- The supporting ground will be sound and capable of carrying the maximum intended load. If this is questionable, then a soils engineer will become involved prior to the work taking place.
- Supporting members will be erected vertical and plumb with the proper bracing installed according to the submitted and approved information.
- Fall protection shall be provided when working at elevations above 6 feet.
- **For fall protection purposes, fully planked platforms shall be provided and installed by the concrete contractor on both sides of formed walls before they are poured. The work platforms shall have the top edge of a top guardrail installed at 39" to 45" with a mid-rail installed at 21" and toe-boards installed at a nominal height of 4". Both ends of the work platform shall have the same guardrail system installed unless a ladder is positioned in the opening and protects those using the platform from falls.**
- **Personnel pouring concrete will not climb any higher than the work platform height or they will need to use a personal fall arrest system, or a supplemental set of guardrails will need to be installed to accommodate the additional height of those performing work.**
- All materials shall be kept at a minimum of 10' from the edge of the building on all floors including the roof. No materials are to be stored within the area that is 10' from the building edge.

- If outrigger type scaffold platforms are used, they need to have guardrail systems installed that include toe boards and end rails. Access **ladders** need to be provided to the scaffold platform areas and need to be secured at the top, bottom, or ends.
- Personnel placing concrete must use hard hats, safety eyewear, **face shields, rubber boots,** and rubber gloves.
- Pouring of wall forms will be performed at vertical intervals and horizontal heights that are within the specification requirements, formwork design, and within reason to prevent the formwork from blowing out.
- Gas powered concrete troweling machines will not be used inside of the building unless sufficient and adequate air ventilation and exhausting equipment is provided and fumes are fully removed from the area and exhausted to the outside air.
- Troweling machines will be filled with gas before they are used. Fuel cans will not be stored inside of the building. The fuel cans will be taken outside of the building and stored in an established fuel storage area that is away from vehicular, pedestrian, workers, or equipment traffic. This area will be set up with a fire extinguisher that is visible and in close proximity to the storage area. No smoking signs will also be established in this area.
- Manually operated or driver operated troweling machines shall not be used within 6' from the edge of the building or flush height finished formwork that is elevated off the ground.
- Materials removed from formwork during stripping activities will have the nails pulled as the materials are taken off and the materials will be stored in a safe manner as the materials are removed.
- Air compressor hose (pneumatic hose) whip check lines are needed and required to be at each hose to coupling connection in addition the connection wire, pin or cotter keys before the air compressor hoses are used.
- **When forming of stairways in being performed the top and lower elevations and landings must have guardrails installed and signage posted by the subcontractor to notify others that the stairway is being worked on, is not complete, is unsafe and must not be used.**
- All underground structures and utilities affected by this work shall be identified, protected, and supported accordingly and as required prior to the start of these operations. These will be identified by a qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the subcontractor to obtain the involvement of a Registered Professional Structural Engineer at the subcontractor's expense.
- Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.

- If equipment are to be moved, placed or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at their expense and submitted to Grunley for review, comments and approval prior to the work taking place.
- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- **If lightning is observed, all Load Handling Equipment (LHE), drill rigs, work on elevated platforms or scaffolding, roofing activities, or work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

Housekeeping

- Site and activity specific housekeeping work plans shall be developed and submitted by each Subcontractor performing work on the project. Each plan shall identify the measures to be used to assure that housekeeping is implemented as the work takes place and daily clean up, with dust control measures, is performed before the end of each shift. The plan also needs to state that the Subcontractor will provide an adequate number of personnel and trash carts to address and resolve the generated trash each day. These plans shall be submitted to the Grunley Project Team before mobilization takes place. They will be reviewed by the Project Team and Safety Department and discussed at the Subcontractor's pre-work preparatory meeting.
- All materials shall be kept at a minimum of 10' from the edge of the building on all floors including the roof. No materials are to be stored within the area that is 10' from the building edge.
- **Dry sweeping is prohibited. All sweeping must be performed by using adequate amounts of water or sweeping compound to assure there is no visible emissions of dust.**
- All scrap materials and debris will be cleaned up and removed from the work areas by the responsible Subcontractor on a daily basis.
- Trash dumpsters will be removed periodically and replaced to prevent overfilling, displacement of materials and to reduce the potential of rodent harborage.
- Boardwalks, wire mesh gating, and/or pedestrian mats will be provided as needed to prevent the transporting of dirt, dust, mud, and water into sensitive areas of the project.
- Pedestrian mats will be provided at the dust proof partitions and/or demising walls that divide the construction spaces for personnel to clean boots prior to entering into the occupied space(s).
- Areas outside of the construction spaces/demising walls shall be periodically maintained to prevent the migration of dust into occupied areas.
- Stairs and walkways will be kept free of all materials, equipment, extension cords, and debris.
- All nails from the used lumber will be removed or bent over as the material is taken apart and the nails are exposed.
- Used lumber will be neatly stacked, stored, and maintained.
- Temporary steps to trailers and project areas will be constructed properly and maintained to prevent slips and falls.

- All construction materials will be maintained in an orderly fashion to assist in the reduction of potential injuries.
- Employees performing trash and material cleanup/removal shall use **cut resistant** protective gloves to prevent injury to the hands.
- Hallways and corridors will be maintained throughout all construction areas for safe passage in the event of a fire at 36" for hallways and aisles and 15-feet from the exterior of the building.
- Safe passage shall be provided in stairways and corridors that are maintained free of debris and/or construction materials.
- **Placing or storage of materials in stairway landings is prohibited.**

Ladders

- Site and activity specific work plans are required to be developed and submitted to the Grunley Project Team and Safety Department for each subcontractor that intends to have and use ladders onsite. Plans shall be submitted to the Grunley Project Team, reviewed by the Safety Department, and discussed at the subcontractor's pre-work preparatory meeting before mobilization and work takes place.
- All materials shall be kept at a minimum of 10' from the edge of the building on all floors including the roof. No materials are to be stored within the area that is 10' from the building edge.
- Aluminum side rail ladders are prohibited from being used on Grunley projects
- Ladders shall be used as they are intended, and the top two steps shall not be used.
- **All ladders shall have legible warning labels. If warning labels are not legible the ladder shall be immediately removed from service until the labels have been installed.**
- Stepladders shall be used in a fully open position and not leaned next to walls or structures. Stepladder usage while leaning on walls or other structures is prohibited.
- Ladders used on the job will be free of noticeable defects or missing parts, which can alter structural integrity and aid in causing injury. Modifications or repairs to step ladders are prohibited.
- Ladders that are broken or contain damages to the rungs, braces, supports, rails, steps, or any other portion, will be destroyed or immediately removed from the site.
- Non-conductive fiberglass ladders with aluminum rungs will be used in all locations where an electrical hazard may exist.
- Extension ladders shall be secured at the top and/or bottom to prevent displacement during use. The bottom of an extension ladder will be secured or held by others while climbing to secure the top.
- When extension ladders or job built ladders are used to access upper elevations, the side rails must extend at least 3'-0" above the top elevation for a handhold.
- All extension ladders shall always remain together and shall not be used as separate pieces.
- Job made ladders will be built in accordance with the 29 CFR 1926.1050 Subpart X requirements.

- Rungs on job made ladders will be supported in between by the use of cleats. Rung spacing for job made ladders shall be no less than 10" and no more than 14" apart and have the same continuous spacing throughout.
- Improperly built "job made" ladders will be destroyed or removed from the site.
- Pallets, masonry blocks, scaffold pick boards, and/or buckets will not be used in place of ladders.
- Ladders when used directly adjacent to a guardrail system will be positioned perpendicular to the guardrail to prevent falls from greater heights should a fall take place.
- Ladders shall not be supported with bricks, blocks, stones, or any other unstable object. It must be positioned on a firm sound base.
- Stepladders shall not be used on scaffold platforms.
- Light duty ladders shall not be used on the construction projects.
- Extension ladders shall be placed at a 4:1 angle. This will be obtained by placing the bottom of the ladder 1' away from the structure for every 4' in vertical ladder rise.

Lasers

- Site and activity specific work plans are required to be developed and submitted to the Grunley Project Team and Safety Department for each subcontractor that intends to have and use lasers onsite. Plans shall be submitted to the Grunley Project Team, reviewed by the Safety Department, and discussed at the subcontractor's pre-work preparatory meeting before mobilization and work takes place.
- Safety training will be provided to employees prior to the commencement of such work activities.
- Laser warning signs will be posted when in use, regardless of type of laser, energy density, or visible light transmission.
- Laser goggles/glasses will be used when the power density exceeds a safe level. Refer to 29 CFR 1926.102(b), table E-3 for proper selection of optical density of laser safety glasses. (Warning: Welding goggles are not strong enough to filter some laser outputs).
- Operators will not point lasers in unknown areas where other persons are located.
- Unauthorized persons must not be allowed to use the laser.
- Laser devices cannot be pointed at reflective surfaces.
- Laser beam placement will be placed at an elevation other than eye level.
- Laser siting devices will be turned off when not needed or when unattended.
- Lasers will be setup at an elevation above the normal site of view.

Lead

- **Site and activity specific work plans using Grunley's Lead Abatement or Lead Exposure Checklist provided** from the lead abatement Subcontractor or any other Subcontractor that plans to demolish, impact, cut, drill into, or otherwise disturb lead paint shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- **Prior to mobilization, the subcontractor shall submit Competent Person resume and training documents related to excavation to the Grunley Safety Department for review. The Competent Person must hold a First Aid/CPR training within compliance dates, Lead Supervisor training, and OSHA 30 training documentation must be valid within 5 years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered. A letter of designation must be provided for the named Competent Person. This letter shall be signed by an Executive Manager, Safety Director, or Company Owner deeming this person Competent in related activities.**
- **Workers shall have documented lead awareness training at no cost to Grunley. Verification of this training shall be provided in the lead plan and submitted to Grunley Safety for review.**
- **Biological monitoring shall be provided prior to arrival onsite for all employees involved in lead related activities. This shall include blood lead and ZPP level sampling by the subcontractor's Licensed Health Care Provider (LHCP) at no cost to Grunley prior to the involvement of lead removal process. After the work has been completed, documentation of a post work blood lead level sampling with acceptable test results shall be conducted and documentation provided to Grunley.**
- **Subcontractors shall provide the employees with the proper respirator that complies to the removal process based on the associated hazards and lead removal requirements.**
- **Subcontractors shall provide Grunley with their site and activity specific respiratory protection program to include medical evaluations and fit testing records.**
- **The required regulated area signage must be posted in lead work areas by the subcontractor.**
- **All surfaces shall be maintained as free as practicable of accumulated of lead dust. Lead contaminated debris shall be stored in the properly labeled containers or disposal bags.**
- **The content of painted surfaces needs to be determined by the Contracting Officer or facility. The building owner is obligated to provide subcontractors with this information.**

- A work plan will need to be established and documented prior to work involved with displacing or impacting known lead containing materials.
- A Negative Exposure Assessment (NEA) shall be established by an environmental firm to determine what personal exposures are prior to performing further work that may displace or impact lead containing materials.
- Only qualified, trained, and protected employees shall engage in the NEA.
- NEA's shall be overseen and supervised by an Industrial Hygienist (IH) and shall be representative of the work areas and each activity to be performed.
- Work involved with the lead painted surfaces shall be conducted as required by the contract, IH, Grunley Safety Department, and/or NEA established work plan.
- Dry Sweeping shall not be performed when cleaning up lead containing materials. Wet, misting, HEPA vacuums, and/or sweeping compound shall be used to control airborne dust/particulate.
- Cleaning facilities need to be provided in close proximity to the work around lead containing painted surfaces.
- Lead painted surfaces being handled as demolition activities shall be handled differently as opposed to lead paint abatement activities.
- Work plans to handle lead painted surfaces as a demolition activity shall be performed and accomplished in accordance with the NEA guidelines.
- Work plans to handle lead painted surfaces as an abatement activity shall be performed and accomplished based on the environmental subcontractor's policies and procedures and direction of the industrial hygiene firm/representatives.
- A representative TCLP shall be collected by an industrial hygiene firm to determine if the materials can be handled as general construction debris or if they must be handled as hazardous materials.
- Lead containing materials being demolished need to be adequately wet misted during the operation and the area beneath the demolition area needs to be covered with plastic to contain and collect the materials and not contaminate the floors and work areas.
- **Upon completion of the lead activities that subcontractor shall have an Industrial Hygienist perform wipe sampling to assure that the cleanliness of the areas affected by the work are within the acceptable range.**

Grunley Lead Abatement or Impact Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below and provide the related work plan information for review and acceptance by the Grunley Safety Department before work takes place

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include the Grunley project name, address, subcontractor name, and detailed summary of the work where this will take place.			
2. Provide a current Certificate of Insurance (COI) for the subcontractor performing the work that includes the required coverages, includes the project name and address, and names Grunley Construction Company as Certificate Holder and Additional Insured.			
3. Provide the site and activity specific lead abatement or lead impact work plans and procedures related to the disturbance, scraping, removal, abatement, handling, storing, transport, recycle and/or disposal of lead containing building materials.			
4. State how the affected areas will be contained, segregated from others and identified with the required bilingual signage.			
5. Provide a site and activity specific respiratory protection program to include the documented medical evaluations and documented annual respiratory fit testing records.			
6. Identify and state where the equipment, materials, coatings or surfaces are located that contain Lead.			
7. Identify the qualified third-party Industrial hygiene firm that will be involved with conducting the exposure assessment or relevant historical data and the lead exposure assessment (LEA).			
8. Provide a copy of the IH firms accreditation and business license.			
9. Provide the Industrial Hygienist (IH) name and an alternate, their phone number, email address and current licenses, certifications, and training documentation.			
10. Provide the current worker training documentation of training and licenses for those that will be involved with impacting, disturbing, scraping, removal, abatement, handling, and disposal of the lead containing materials and/or establishing the LEA.			
11. Identify the details and what is included in establishing the hygiene and wash stations that will be setup adjacent to and in-close proximity to the lead work areas.			
12. State what will be done to protect the surfaces below lead activities and capture any loose or impacted materials and the means and methods to adequately wetting or misting the Lead surfaces that will be impacted.			
13. State that a representative Toxicity Characteristic Leaching Procedure (TCLP) sample has been collected or will be collected by an industrial hygiene firm prior to the work taking place to determine how the materials will be disposed of.			
14. State how the lead contaminated waste storage area will be established, the signage to be posted, 6 mil polyethylene floor			

and wall coverings (wall covers to extend to height of stored materials), drums w/liquid or palletized off the floor (this allows for visual identification of leakage), daily inspection sheet, spill kit & fire extinguisher.			
15. Provide a blank copy of the material disposal manifest.			
16. State in the plan that the waste manifests shall be signed by the building owner or his/her representative per Federal Resource Conservation and Recovery Act (RCRA) Subtitle C and DOT regulations.			
17. Provide a copy of the hazardous waste transport company Certificate of Insurance and CDL license and medical card.			
18. Identify the Competent Person (CP) and alternate with their listed authorization in a designation letter that is signed by the subcontractor's senior manager, Vice President, or President.			
19. Provide the CP resume that includes their experience, knowledge, and documentation of training to verify their competency and to verify that they are capable of recognizing and resolving safety issues.			
20. State that bulk lead remediation waste may not be stored onsite for no more than 180 days after sealed in the disposal container.			
21. State that the Lead waste containers shall have the lead warning labels applied that include the removal company name, date of generation, and date sealed.			
22. Identify the required PPE for activities including (hard hat, face shield, respiratory protection, impermeable gloves, disposable coveralls, booties, etc..)			
23. Provide a complete, detailed and area specific Activity Hazard Analysis (AHA) using the USACE EM385-1-1 AHA format.			
24. Include a sign-in document verifying that the AHA meeting was held to review the work plan and AHA with all those involved with the work before it starts. The sign-in sheet needs to include presenter (Safety Director or Safety Manager) with the legible company name, printed name of each attendee, signature of each attendee, and date.			
25. Provide Safety Data Sheet (SDS) documents for proposed materials to be used during the lead related work.			
26. Provide a copy of the Daily Equipment Inspection templates to be performed by subcontractor.			
27. Provide the name, title, cell phone number and email address of the subcontractor Safety Director or Safety Manager that will be periodically onsite to oversee the Lead related work activities and confirm all work is taking place in accordance with the established and approved plans.			
28. Provide the subcontractor's safety person credentials and training certifications that would deem this person to Competent by the subcontractors Senior Managers, Executives or Principals.			
29. Include the printed name, signature and title of the Contractors Safety Director / Manager, Risk Manager, Vice President, Operations Manager, Officer, Principal, Executive Manager or President of the Company that has accepted the developed and submitted plan.			

Lockout Tagout

- Site and activity specific work plans from subcontractors involved with de-energizing electrical, piping, valves, switches, controls, connections, gauges, or any other similar system feature shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Machines or equipment will be isolated from potentially hazardous energy when performing maintenance, repair, or installation. Energy isolation devices will be placed in position on the valves, switches, disconnects, breakers, etc. and locked-out and tagged before any activities take place by the person(s) performing the work. It is the subcontractor's supervisory responsibility to verify that this has been adequately and properly accomplished.
- **The Competent Person must hold a First Aid/CPR training within compliance dates, Lockout/Tagout (LO/TO) training, NFPA 70E training if the LO/TO work involved electricity, and OSHA 30 training documentation must be valid within 5 years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topic(s) covered. A letter of designation must be provided for the named Competent Person. This letter shall be signed by an Executive or Senior Manager, Safety Director, or Company Owner deeming this person Competent in the related activities.**
- Employers having employees that will be performing work that exposes them to potential hazardous energy, such as Electricians, Pipefitters, Plumbers, Steamfitters, Elevator Mechanics, or any other personnel working with mechanized or otherwise powered equipment shall be trained in the safe performance of lockout/tagout procedures by the employer. **Documentation of this training shall be provided to Grunley in their work plan.**
- Names, job titles, and phone numbers of those employees authorized to perform lockout tagout of energized systems will be maintained on each site.
- Persons working in or around energy isolation devices shall be trained in lockout tagout procedures by their employer and may review the list (which will be located and maintained in the Grunley Superintendent's office) of those personnel who have been authorized to perform such operations.
- A joint survey will be conducted as the work commences by the Grunley supervision and those subcontractors responsible for the equipment or systems. This will take place to locate and identify all the energy isolation devices to be certain which switches, valves, disconnects, or other energy isolation devices are to be locked out. More than one isolation device (electrical, mechanical, hydraulic, pneumatic, etc.) may be involved. A list will be maintained of all energy isolation devices, their location, and what they serve or service.
- When a lockout is to be implemented, all affected subcontractors will be notified by the tag that will be placed on the device. If other personnel will be working on the same system

and/or will have their personnel exposed to the system, they too will need to place their lock and tag on the device until it has been determined by all parties that the system is safe to be reactivated. Each trade involved will remove their lock and tag when their work on the system has been completed and determined to be safe. **LO/TO tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area.**

- The installer of locks and tags shall know the type and magnitude of the energy the machine, equipment, or system utilizes and understands the associated hazards.
- LOCKOUT AND TAGOUT PROCEDURES: The following will be implemented in the stated sequence for lockout and tagout of energy isolation devices:
 - If the machine or equipment is operating, implement normal stopping or disconnecting procedures.
 - Operate the switch, valve, or other energy isolation device, so that the equipment or machine is isolated from its energy source(s). Stored energy, such as springs, elevated machine members, hydraulic systems, air, gas, steam, or water pressure, must be purged, dissipated, or restrained by repositions, blocking, bleeding, etc.
 - Lockout and tag the energy isolation device with controlled, individual, lock(s) and tags that identify the person, subcontractor, phone number, and date the lock and tag was installed.
 - If the energy isolation device cannot accept multiple locks and tags, a multiple gang hasp will be used.
 - A single lock may be used with the key placed in a lockout box or cabinet that allows multiple locks and tags to be placed on the box to ensure it by the responsible subcontractors.
 - Each employee/subcontractor will use their own personal locks and tags to secure the box. All locks being used for this purpose will be keyed differently.
 - As each person or subcontractor no longer needed to maintain lockout tagout protection, that person or subcontractor will remove their lock from the box, cabinet, or multiple gang hasp.
 - The established Site Safety Officer or Grunley Superintendent will ensure that a roster is maintained for multiple gang lockout procedures with a sign-in and sign-out sheet.
 - Operate the normal operating controls again after ensuring that no personnel are exposed to determine that the machine or system does not operate. CAUTION: Return operating controls to neutral or off position after the test.
 - The machine, equipment, or system is now locked out.
- RESTORING TO NORMAL OPERATIONS:
 - After service, maintenance, or installation is complete, and the equipment is ready for normal operations, check the area around the equipment, machine, or system to ensure that nothing is left inside the working area and to assure that no personnel are exposed to the working components of the system.
 - After all tools and materials have been removed from the equipment, machine, or system, and guards have been reinstalled, remove the tag and lockout devices.
 - If any locks and tags remain, the responsible party must be notified so that they too can confirm and assure that their work has been completed and that their part of

the system is safe to reenergize. At no time is anybody to remove another subcontractor's locks and tags. The responsible subcontractor must perform this task.

Operate the energy isolation devices to restore energy to the machine, equipment, or system.

NOTE: All equipment shall be locked-out and tagged-out to prevent accidental operation of equipment, machinery, or systems. DO NOT attempt to energize, operate, or switch any energy isolation device that is locked or tagged without checking with the person whose name is on the tag.

- The following contains the Grunley lockout tagout permit that will be used when these procedures are implemented.

LOCKOUT TAGOUT PERMIT

NAME & TITLE	COMPANY NAME	PHONE NUMBER
TYPE OF ENERGY	MAGNITUDE	CONTROL METHOD
AIR:	PRESSURE:	
WATER:	PRESSURE:	
TYPE OF MECHANICAL CONTROLS	EQUIPMENT LOCATIONS	
DISCONNECTS:		
STOP SWITCH:		
VALVE:		
TYPE OF ISOLATING DEVICES	LOCK LOCATIONS	
LOCK:		
CABLE:		
TYPE OF STORED ENERGY	LOCK LOCATIONS	
ELECTRONIC:		
AIR:		
WATER PRESSURE:		

Grunley Lock Out/Tag Out Plan Checklist

Write yes, no or n/a with the reason in the spaces below.

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include a detailed summary of the work, the Grunley project name, Grunley project number, Grunley project address, Subcontractor name, Subcontractor address and Subcontractor phone number.			
2. Provide a current Certificate of Insurance (COI) with the project name stated and Grunley Named as Certificate Holder and Additional Insured.			
3. Provide a Competent Person (CP) designation letter on Company letterhead and signed by a Senior Manager of the Company. The CP designation letter needs to state that the Competent Person is responsible for the work, shall be onsite full time, enforces compliance with the plan, inspects the equipment and the setup prior to it being used, and has the Company's authority to take action and expend funds when needed to resolve safety issues.			
4. Provide documentation of Competent Persons resume with their credentials, certifications and training documentation as it relates to project safety and the Lock Out/Tag Out process.			
5. Describe in the LO/TO plan how all parties involved will be notified of the pending LO/TO work.			
6. State in the plan specifically who the representative(s) from Grunley, the Subcontractor and the Building Owners in-house facility staff are by name and title with cell phone number that will be involved with providing their locks and tags to the devices and who will be removing them after the work has been completed.			
7. Specific information identifying precisely the systems, their numbering and locations that will be locked and tagged out.			
8. Provide the drawing or a detailed diagram or pictures showing the specific Lock Out/Tag Out location(s).			
9. Identify the specific type of LO/TO devices that will be used and provide cut sheets for them.			
10. Date and Time of Planned Shut Down of Equipment			
11. Develop and provide a site and activity specific Activity Hazard Analysis (AHA) using the USACE EM385-1-1 format for the Lock Out / Tag Out work.			

<p>12. Provide a copy of the AHA meeting sign-in sheet and a completed copy afterwards to verify the AHA meeting with all personnel involved with the work was held prior to the work taking place to include presenter (preferably the company safety representative) company name, legible printed name and signature of each attendee, and date of meeting.</p>			
<p>13. Provide copies of the applicable Lock Out Tag Out Grunley, Subcontractor and/or Building Owner LO/TO forms that will be completed and posted in the area.</p>			
<p>14. Provide the name, title, phone number and email address of the contractors Safety Director, Safety Manager, Safety Representative or Safety Consultant that will oversee and frequently visit the project to monitor and confirm compliance of the approved Lock Out Tag Out plan.</p>			
<p>15. Provide contractor Safety Director, Safety Manager, Safety Representative or Safety Consultant credentials and training documentation that would deem this person to be the Qualified Person.</p>			
<p>16. Provide the printed name, signature and title of the Contractors Safety Director / Manager, Risk Manager, Vice President, Operations Manager, Officer, Principal, Executive Manager or President of the Company that has reviewed and accepted the developed and submitted Lock Out Tag Out Plan.</p>			

Grunley Cut Cap & Make Safe Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the cut cap and make safe work plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include a detailed summary of the work to take place and the contractor performing this work.			
2. Identify the specific location of the building where the building shut off valve is located.			
3. Identify the specific location where the cutting will take place and the size of piping.			
4. Identify the specific location where the purge will take place.			
5. State in detail how the system will be purged and where the purge point(s) will be prior to disassembly or cutting.			
6. Identify how it will be determined that the pipe has been adequately purged before any disassembly or cutting will take place.			
7. State what the provisions for venting the purge will be and where it will be vented to so others aren't impacted by the purge gases.			
8. Identify the specific type of lockout / tagout devices will be used and where they will be placed and tag completed by whom.			
9. Identify if a multi-gang hasp being used and who is responsible for the last lock by person and company name.			
10. Provide information for the contractor's safety person that will be physically onsite during the time of the work to assure the work complies with the plan.			
11. Provide information related to the required PPE for the work.			
12. Provide specific information as it related to the type of tools to be used to include spark resistant tools if warranted and applicable.			
13. Are blank flanges going to be used? If so, provide the information for these and where they will be installed.			
14. Provide the emergency services phone number and procedures in the event of an emergency.			
15. Provide documents for First Aid & CPR training for Competent Person.			
16. Identify the supervision that is responsible for the work.			
17. Red paint should be placed on the piping/service until the point where the service is determined to be dead and then green paint needs to be applied.			
18. If purge gas is provided describe how much will be brought, where will it be placed, how will it be secured, and labeled.			
19. Has it been assured that no other operations will be in the areas that could pose a problem with the cut cap and make safe work.			

CORPORATE SAFETY PLAN

20. Have and complete the Grunley Lockout / Tagout forms and post them in the vicinity.			
21. Have and complete the Grunley Daily Hot Work Permit and post in the vicinity.			
22. Complete and provide a full and detailed AHA form for this work using the USACE EM 385-1-1 format.			
23. Provide a sign-in sheet to the Grunley Superintendent that contains legible printed name, signature, company name, and date to verify all have been briefed on the plan and AHA.			
24. Confirm that no electronic devices will be in or used in the purge and cut cap and make safe area.			
25. Provide any other applicable information.			
26. Printed name, signature and title of the Contractors Safety Director, Safety Manager, Safety Inspector, Risk Manager, Vice President, Operations Manager, President, Principal of the Company or otherwise authorized executive manager of the company has reviewed, accepted and takes responsibility for the developed and submitted work plan.			

Masonry and Stone

- Site and activity specific work plans from the masonry and/or stone subcontractor shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- **The Competent Person must hold a First Aid/CPR training within compliance dates, 24hr Fall Protection Training, Scaffold Training, Silica Training, and OSHA 30 training documentation must be valid within 5 years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered. A letter of designation must be provided for the named Competent Person. This letter shall be signed by an Executive or Senior Manager, Safety Director, or Company Owner deeming this person Competent in the related activities.**
- **Workers must be trained in Scaffolding, Fall Protection, and Silica if they will be performing tasks related to this training. All training must be current within a 5-year compliance date and documentation of this training must be provided to Grunley in the subcontractors work plan prior to starting work.**
- **Anyone who operates a Forklift will need to have documentation of Forklift training that is compliant with within the past 3-years. Documentation of this training will need to be provided prior to starting work. If a Forklift will be operated within the Washington DC city limits, then a DC Operator license will need to be provided within compliance.**
- All affected underground structures and utilities shall be identified, protected, and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the involvement of a Registered Professional Structural Engineer at the Subcontractors expense. Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.
- If equipment will be moved, placed or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the subcontractor expense and submitted to Grunley for review, comments and approval prior to the work and loading taking place.
- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- All safety measures anticipated to be implemented by the subcontractor to prevent injury shall be included in the plan.

- All materials shall be kept at a minimum of 10' from the edge of the building on all floors including the roof. No materials are to be stored within the area that is 10' from the building edge.
- Bags of cement and lime will not be stacked more than ten bags high without setback except when stacked against walls of appropriate structure.
- Brick and block shall be stacked on an even surface. Block shall not be placed in areas as steps and used for these purposes. Ladders or stairways must be used as opposed to stacked brick or block.
- No more than a daily supply of brick shall be stored on scaffolds or work stands and will be distributed evenly along the scaffolding as opposed to placing an entire or partial pallet of brick or block on the scaffolding.
- Cubes of brick or block shall not be placed on scaffolding. These can be lifted into the areas, but then the materials need to be distributed throughout the scaffolding to prevent breaking of the scaffold boards/planks, failure or collapse. At no time will a pallet of brick or block be placed on scaffold system or on an outrigger setup on the outside portion of the scaffolding.
- Unitized brick shall not be stacked more than three units high with banding or shrink wrap installed. No loose pallets of brick or block shall be stacked.
- Installed masonry walls shall be supported and braced on both sides according to the masonry guidelines to prevent fall over due to winds.
- Brick or block shall be stacked on an even surface. Brick or block stacked higher than six feet shall be setback and secured or otherwise shrink wrapped or banded to assure that the loads are safe and do not shift.
- Empty bags shall be maintained in an orderly manner and disposed of on a daily basis.
- Personnel and material hoists will be tested and certified prior to use and on a ninety-day revolving inspection. Personnel will not ride material lifts while they are loaded with materials.
- Only personnel that can verify certification of instruction and training in accordance with the 1998 Federal requirements shall be authorized to operate industrial lift trucks and rough terrain forklifts. Subcontractors will be asked to provide this information and training cards before work begins.
- All scaffolds and work stands shall be installed and maintained in good condition and sufficient strength.
- Scaffolding walk boards with cracks or other visual damage that may impact the strength of the board will not be used.

- Outrigger scaffold brackets will have end rails to protect personnel from falls when the scaffold height reaches or exceeds 10' or greater in height.
- **Scaffold tagging systems must be utilized. Red tags for "Danger - Do Not Use," Yellow for "Caution – Modifications Being Made," or Green tags – for (safe to Use" once it has been inspected by the Competent Person. Scaffold tags are to be visible and signed daily.**
- A Controlled Access Zone (CAZ) will be established and maintained on the ground or work area that protects personnel from being hit by materials that could drop during work or fall over due to adverse weather conditions. **"Work Taking Place Overhead" signage must be posted outside the CAZ.**
- All masonry cutting will be performed with wet saws or by using wet methods, proper respiratory protection, and/or other applicable controls to prevent employee(s) overexposure from silica dust.
- **No visible emissions of dust shall be observed during sawing or grinding. Tools need to be equipped with HEPA vacuums, or the use of water to comply with the Silica OSHA standard 1926.1153.**
- **When work will take place that consists of using respiratory protection, a site and activity specific respiratory protection program must be developed and submitted Grunley that includes medical evaluations, approval to wear a respirator, and updated annual fit testing documentation before the work takes place.**
- Scaffolding requirements will be provided in the subcontractors Activity Hazard Analysis (AHA) for Scaffolding.
- Excess materials will be cleaned up and removed from the scaffolding platforms during the shift and also beneath the scaffolding as the work takes place on a daily basis. **Nobody is allowed to access the lower areas of scaffolding to perform any work with there are others working above and overhead.**
- Personnel cleaning brick or block surfaces with scrapers shall use safety eyewear **and cut resistant gloves.**
- Those cleaning surfaces using pressure washers or cleaning fluids shall wear long sleeve shirts or rain jackets, **cut resistant rubber gloves, and a face shield that mounts to the hard hat while this work is being performed.**
- Saws used to cut masonry or stone shall be equipped with the proper blade guard that comes with the tool and is required to be used based on the manufacturer requirements.
- Oversized blades for grinders need to be used on the grinder that the blade is required so that guards can be placed on the grinder.

- **Cut resistant** hand protection shall be worn when handling scaffold components, scaffold boards, brick, block, stone, and/or when using saws and grinders.
- **If lightning is observed, all Load Handling Equipment (LHE), work on elevated platforms or scaffolding, roofing activities, or work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

Grunley Masonry and Stone Work Plan Checklist

Write Yes, No or N/A with the reason in the areas provided below.

Information Needed	Yes Included	No Not Included	Not Applicable With Reason
1. Title page to include the Grunley project name and project address, Subcontractor name, Subcontractor representative establishing the plan, along with their phone number and email address.			
2. Subcontractor's Certificate of Insurance (COI) in accordance with the subcontract agreement with Grunley named as the Certificate Holder and Additional Insured, and the project name and address noted in the description of operations area.			
3. Detailed summary of work to be performed, specific location(s) on the project, steps and procedures for loading and unloading materials, equipment to be used, supports and bracing, and material storage.			
4. Contractor Competent Person (CP) designation letter(s) on company letterhead signed by a Senior Manager of the company. CP must be full time onsite while the work is performed.			
5. Provide documentation of Competent Person (CP) training as it relates to Silica, OSHA 30 Hour, First Aid/CPR, Scaffolding, Fall Protection, Equipment Operator, etc.			
6. Provide documentation of worker training as it relates to silica, scaffolding, fall protection, and equipment.			
7. Provide a site and activity specific Written Exposure Control Plan (WECP) as it relates to Crystalline Silica.			
8. List the equipment and engineering control methods that will be implemented to remain in accordance with Table-1.			
9. If work is not compliant with Table-1, provide plans, measures, enclosure information, respiratory protection medical authorization, respiratory annual fit test documentation, personal air monitoring information with test results, proper issuance of worker respiratory protection based on the air monitoring results and respirator assigned protection factor.			
10. Provide a copy of the site and activity specific Respiratory Protection Program to include, but not limited to half face piece respirators and N95 respirators. Provide annual worker respirator medical authorization documentation and fit testing documents.			

11. Provide copies of the Safety Data Sheets (SDS's) for all materials intended to be used.			
12. Provide details to confirm that bags of cement/lime will not be stacked more than 10 bags high without a 1:1 setback except when stacked against walls or appropriate structures that will withstand them.			
13. Provide details to confirm that brick and block will be stacked on level and even surfaces.			
14. Provide details the brick/block will not be stacked more than 2 pallets high and no loose pallets of brick/block will be stacked. Brick/block stacked higher than 6ft will be set back at a 1:1, secured, or otherwise shrink wrapped/banded to ensure materials are secured.			
15. Provide details of how high brick or block will be stored on scaffoldings and how they will be distributed evenly throughout the scaffolding to prevent overloading of planks.			
16. Provide details to confirm that no employee shall be permitted to apply cement through a pneumatic hose without wearing a protective head and face shield.			
17. Provide detailed plans for the use of Fraco/Hek lifts using the Grunley Fraco/Hek Lift Work Plan Checklist if and when applicable.			
18. Provide detailed plans for use of scaffolding using the Grunley Scaffold Work Plan Checklist if and when applicable.			
19. Provide the specific details of how and when walls >8' in height will be braced, using what materials and at what intervals laterally and vertically to prevent them from falling over until they have fully cured or have been permanently supported by the installation of design elements to the structure.			
20. Details for erecting and maintaining the Limited Access Zone (LAZ) on the opposite side of the wall that is being constructed at the distance of the wall height +4' beyond.			
21. Confirm that only those employees that are actively engaged in constructing the wall will have access to LAZ area.			
22. State that nobody will be allowed beneath the wall installation scaffolding for any reason unless all activities have stopped above.			
23. Provide details to confirm that all materials will be stored at a minimum of 10' back from the roof/slab edge or a solid physical barrier will be erected at the edge so that materials will not fall beyond.			
24. Provide details that excess materials will be cleaned up and removed from the scaffolding platforms during the shift and beneath the scaffold after the work has stopped.			

<p>25. Provide the predetermined capacities of structures, roofs, utilities, parking garages, tunnels, floors, or similar in which material loading will take place to prevent the structures from being overloaded.</p>			
<p>26. Provide the details of installing adequate solid 2” lumber without gaps that provides continuous overhead protection to protect others from falling materials, tools or debris that may become displaced during the work and fall from above onto access/egress points, walkways or sidewalks being used by others.</p>			
<p>27. Provide a complete and detailed Activity Hazard Analysis (AHA) using the current USACE EM385-1-1 format with a sign-in sheet for those to provide their legible printed name, signature and date.</p>			
<p>28. Verify that company Safety Director/Manager or Competent Person will have a hard copy of the accepted AHA and Work plan so they can hold the AHA and work plan meeting with all those involved prior to the start of work to assure everyone knows what will be required of them. Provide Grunley with a copy of the completed sign-in sheet.</p>			

Material Hoist

- Site and activity specific work plans **using the Grunley's Material Hoist Work Plan Checklist will be required to be developed by the subcontractor and submitted to the Grunley Safety Department for review and acceptance as it relates to the installation, use and dismantling of a man and material hoist, or material only hoist** before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- **The Competent Person must hold a First Aid/CPR training within compliance dates, 24-hour Fall Protection training, and OSHA 30 training documentation that is valid within 5 years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topic(s) covered. A letter of designation must be provided for the named Competent Person. This letter shall be signed by an Executive or Senior Manager, Safety Director, or Company Owner deeming this person Competent in related activities.**
- **During erection and dismantling, Workers shall be trained in Fall Protection and documentation of this training must be within a 5-year compliance date and provided.**
- **While installing or dismantling the material hoist by using a Forklift, all Operators must provide documentation of Forklift training within a 3-year compliance date.**
- All affected underground structures and utilities shall be identified, protected and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the involvement of a Registered Professional Structural Engineer at the subcontractor's expense. Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.
- If equipment is to be moved, placed or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the subcontractor expense and submitted to Grunley for review, comments and approval prior to the work and loading taking place.
- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- Serious injury may result from improper use of the material lift equipment.
- Erectors and users must be familiar with the material lift equipment and follow safe practices along with the instructions and safety rules contained herein.

- The hoist is operated only by a Grunley Construction Company employee by using the controls located at the base of the hoist.
- This individual will be deemed competent by training, experience, and performance.
- The operator must not attempt to perform maintenance or align the lift cable while working the controls. The operator must attend controls only.
- Two persons are required for reeving wire rope on the drum. Do not reeve wire rope on drum unless another person is at the operating station.
- Make sure that all persons who install, operate, dismantle, or use this equipment are competent to perform this work and comply with the safety rules.
- Along with these safety rules, law, and governmental regulations, codes, and ordinances requirements of in the installation and use of this equipment.
- Inspect all equipment before using. Never use equipment which is damaged in any way or shows signs of abuse.
- Safety requirements for material hoists under ANSI A10.5-1985 require platform enclosures with roof, operators guard, base enclosure, barricades on each landing, and a fire extinguisher within easy reach of the operator.
- Foundations of the hoist shall be constructed to support the towers live and dead loads.
- Hoist shall be plumb and must be erected, guyed, and butted in accordance with hoist manual instructions.
- Hoist shall be erected and dismantled only under the direct supervision of competent personnel.
- When using the gin pole to add or take down tower sections, make sure the swivel boom is anchored to clear the tower before moving the platform.
- On electronically powered hoists, check voltage identification on equipment to make sure it matches source voltage before making connections. Equipment is normally set for 220 or 480 volts, 3 phases.
- When installing tower sections with gin pole make sure the platform is secured to the tower with the safety chains to prevent any movement. Install personnel must use appropriate safety equipment (belts) when working on the tower.
- Keep hands clear of all hinge points.

- ANSI A10.5 1981 (16.5) Safety equipment for material hoists states: The hoisting machine shall be attended by the operator, who shall not leave the controls while the load is suspended, or the master clutch is engaged.
- Personnel should use an approved signaling system to control all equipment functions.
- Do not allow anyone to ride this material hoist. Workmen shall be prohibited from riding the hoist platform except for authorized inspection and maintenance, a sign shall be posted on the car frame or cage enclosure and on barricade at bottom landing: "NO RIDERS ALLOWED". Before starting the hoist power unit, make sure the controls are in neutral and all persons are clear of the equipment.
- Before raising or lowering the platform, make sure loads are evenly distributed on the platform.
- When construction buggies, wheel barrows, or other similar wheeled equipment are placed on the platform, they must be secured to prevent movement.
- Do not store any material on landing access platforms.
- Make sure that area directly under and around hoist platform is kept clear of personnel.
- Maintain equipment in proper operating condition at all times and in accordance with manufacturer's instructions. Never permit unauthorized repairs or substitution of parts. Do not permit use of for any purpose except that designed for.
- All sheaves, hoisting cable, guy ties bolt connections, clamps, braces, grips, and similar parts need to be inspected at regular and frequent intervals during use. These inspections shall also be conducted as part of the maintenance program that is implemented on the monthly program.
- If any parts or cables are found to be worn or defective, hoist operations shall be stopped until proper repairs have been made.
- Disconnect all equipment from power source, or shut off gasoline engine before attempting to make normal adjustments or authorized repairs.
- In the event of malfunction notify your superior and discontinue operation of equipment until the malfunction is corrected.
- Make sure to inspect the slack cable safety device daily for proper operation.
- Make sure to inspect lift cable and fittings daily and replace if worn or damaged.
- Operators need to be qualified and trained before operating the material lift.

- Operators must read and acknowledge that they understand this information. This qualification and training needs to be documented by the individual's signature and their printed name, along with the person who has provided the documentation, and training to this individual before authorizing them to operate the material lift.
- Operators must visually verify the following before running the lift:
 - The guardrails are in place at the lower level and personnel are clear from the lift.
 - If applicable, that the material lift transition drop plates are pulled away from access platform and material lift before the lift is moved.
 - At upper levels, the material lift doors/gates are closed or latched.
 - At upper levels, the guardrails are replaced if doors are not to be used.
 - An authorized person has given a signal or notice that they are done with the lift and that the lift can be moved.
- Weights of materials to be loaded onto the lift must be known to assure that the material lift capacity rating is not exceeded before loading the materials onto the lift.
- If weights are not known, there will not be any test lifts to see if they can be raised.
- Material lift operators are to be responsible in assuring that the cable is reaving or spooling correctly on the drum. The cable should lay on the drum directly adjacent to the last cable and not cross over the cables. If this is not taking place then the Grunley supervisor needs to be notified so that it can be fixed and/or re-spooled by competent and trained personnel.
- Protective materials need to be installed on the inside of the material lift cabs to assure that items do not fall through the expanded metal openings. Acceptable materials would include plywood, peg board, tight mesh fabric, small diameter chicken wire, or other similar and/or suitable materials.
- Barricades to be erected at the upper and lower levels must be installed far enough away so that materials and/or personnel cannot come in contact with the lift while it is in motion.
- **A 6' tall solid barrier shall be installed around all moving parts at the base of the hoist. A protective barrier shall be installed at all areas above where personnel can access that is 24" or less in distance from the moving parts of the lift.**
- Overhead protection structures at the operator station must be equipped with a clear plexiglass window that does not impair the visibility of the operator and is structurally able to withstand the potential load of falling objects.
- The operator station roof needs to be structurally sound and built with 2" of tight materials installed overhead for protection.
- **Guardrails shall have yellow and black bi-directional tape installed at each level.**
- **Guardrails shall be installed at each floor level at a minimum of 2' back away from the leading edge and the moving hoist cage.**

- Danger signage needs to be posted at each guardrail system that states Danger – Replace the guardrails before the material lift is moved. **“NO PERSONNEL ARE ALLOWED TO RIDE THIS MATERIAL LIFT” and “DANGER – DO NOT ENTER INTO THIS AREA WHILE THE MATERIAL LIFT IS ELEVATED”** signage shall be posted on the guardrails or doors at the lower elevation of the lift.
- The material lift controls and/or disconnect must be kept locked or the key taken if the operator needs to leave the material lift.
- The operator shall not leave the operator’s station while the material lift is elevated.
- Personnel not cooperating with the safe operations of the material lift must immediately be brought to the attention of the Grunley Superintendent.
- Any deficiencies, safety non-compliance, incidents, or damages to the material lift and/or platforms no matter how slight, need to be reported to the Grunley Superintendent before the material lift is operated any further.
- Materials that are loaded onto the material hoist and extend beyond the gate must have a minimum of $\frac{3}{4}$ of the weight and length loaded on the lift and secured in some manner to prevent displacement before it is elevated. In addition, it is up to the hoist operator and the material handler to make sure that personnel are not standing out under the load or in the area while the lift is being elevated and unloaded. The area will need to be secured until this has been completed.
- Material hoists shall have a regular service setup with the erector or other competent provider for monthly intervals of maintenance and inspection on the lift as a whole.
- **All material hoist operator stations and areas in which personnel will access or exit the man or material hoists shall have overhead protection installed that is designed by a Registered Professional Engineer (RPE) to determine how it will be constructed and how far out away from the hazards the overhead protection will extend to assure the required protection. The RPE designed overhead protection system cover shall be identified in the stamped and signed drawings and constructed at a minimum of solid 2” of lumber materials, such as tightly placed 2”x10” boards with solid $\frac{1}{2}$ ” plywood cover that is fully secured over top.**
- **Material Hoists that have been erected shall not be used until Grunley has inspected the installation for compliance.**
- **If lightning is observed, all Load Handling Equipment (LHE), work on elevated platforms or scaffolding, and work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the**

lightning is away from you. If lightning is 10-miles away or less, work should stop until 30-minutes after the last audible thunder or visible flash of lightning.

Material Hoist Daily Inspection Checklist
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Contractor Name: Grunley Construction Company	Equipment Name and Number:
Operator Inspecting Equipment (print legibly):	Project Location:
Operator's Signature:	Date of Inspection:

	Yes	No	N/A
1. Is the operator station protected by solid walls and 2" overhead protection?			
2. Can the operator adequately view material lift operations through plexiglass panels?			
3. Are the hoist operation safety rules posted in the operator station?			
4. At the lowest level are all unused sides of the material lift car protected by a 6' minimum plywood wall so others cannot access this area?			
5. Are access ramps to the material lift in good and undamaged condition?			
6. Does the ramp to the lower level material lift platform and each access level above contain non-skid material in good condition?			
7. Are removable guardrails or physical doors at the lower level material lift platform and each access level above placed at a minimum of 24" back from the moving parts of the material lift?			
8. Are guardrails along the access ramp and platform lower level and each access level above in good condition?			
9. Is diagonal contrasting colors (yellow and black) provided and visible on the removable guardrails systems located on the lower level material lift platform and all other access level locations?			
10. Are the following bilingual signs posted at each access platform level - "No Rider", "Replace Guardrail When Done", "Do Not Remove Guardrail Until Material Lift Has Stopped", and "Do Not Enter Beyond This Area While Material Lift Is Elevated"			
11. Is the material lift sliding door safety cable installed?			
12. When lift is at lowest level are there 4 wraps of cable on the drum?			

13. Is the cable lubricated?			
14. Are grease fittings greased?			
15. Is there any hydraulic fluid leaks? If so, contact supervisor to call the service provider to address the issue immediately?			
16. Are there any unusual noises while the material lift or equipment is operating?			
17. Are the material lift mast rollers in good condition?			
18. Has the material lift inspection and maintenance provider serviced the material lift in the past 30 days as required?			
19. Is the document for the 30 day service posted in the material lift operator station?			
20. Are the brakes working properly on the material lift?			
21. Is there any inadvertent jumping or dropping of the material lift during operations?			
22. Is there any unordinary shaking or rattling of the material lift while in operation?			
23. Are hydraulic hoses and connections in good shape and without damages or dry rot?			
24. Is the secondary brake installed and being used?			
25. Is there any broken, bent, kinked, distorted, bird caging, crushed or corroded wire rope?			
26. Is the hoist cable properly revving on the drum?			
27. Is the operator lever in good shape and not damaged?			
28. Is the hoist support in good condition and stationary on a firm level foundation?			
29. Are the material lift doors and side provided with peg board, vented or perforated type material to assure that loose items do not fall outside of the car?			
30. If the material lift is equipped with a mast climber type gear, are the teeth in good condition and not damaged?			

31. If long materials are placed in the material lift car and extend beyond the doors, are the pull down doors being closed to protect those unloading the materials from falling?			
32. Are upper level guardrails painted with orange paint or otherwise visible to the operator to assure they have been replaced before the material lift has moved?			
33. Are verbal or hand communications working well between the operator and those using the material lift?			
34. Are the material lift operator controls locked and tagged out or otherwise disengaged when the operator is not there to assure that others cannot operate the material lift?			
35. Does the material lift operator remain at the controls and not leave the area or perform any other tasks while the material lift is elevated?			
36. Is the material lift capacity sign posted in the material lift?			
37. Is adequate lighting provided in the operator station and at each material lift access platform for dark or nighttime operations?			
38. Does the operator have the authorization to stop all material lift operations when a safety issue arises or there are noticeable safety concerns that need to be resolved with the equipment?			
39. Does the operator inform the supervisor immediately of any safety issues or concerns that arise with the safe operation of the material lift and if so are these items addressed and corrected promptly?			

Grunley Material Hoist Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the material lift plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. If a crane or boom truck is used to erect the material hoist then a separate crane plan needs to be provided using the Grunley Crane Plan Checklist.			
2. Hoist placed in a location where it doesn't impede emergency service vehicles or the fire department building connection for water service.			
3. Operator station protected by 6' tall solid walls on all sides and 2" thick solid roof for overhead protection.			
4. Operator station provided with a view port in the roof with 3/4" thick impact resistant plexiglass.			
5. Hoist operator safety rules posted on the wall.			
6. Hoist operator daily inspection sheets posted on the wall.			
7. Hoist operator properly trained by the hoist provider, erector or outside operator instructor.			
8. Hoist operator training document on the operators person or posted on the wall of the operators station.			
9. All 4 sides of the hoist car covered with perforated plywood, chicken wire, Coreplast, or pegboard to assure nothing can fall out of the hoist cab through the expanded metal.			
10. Movable or hinged drop plate provided for the host a car and the opening between the car and the floor.			
11. Platform and ramp provided to access the material lift car and ramp provided with non-skid tape or materials.			
12. Solid 6' tall wall built around moving parts of material lift to prevent contact and access. Solid 6' tall door at access area to material lift car.			
13. If the access door is not a 6' tall solid door to the material lift car the door or guardrails must be placed a minimum of 2' back from the moving parts of the lift.			
14. Swing doors or guardrails installed at a minimum of 2' minimum back from the moving parts of the hoist on each floor.			
15. Guardrails in good condition and free of damages that could cause splinters. Install duct tape to assure.			
16. Provide diagonal contrasting colors (yellow and black) tape or paint on the top of each removable guardrail at each upper and lower level floor locations.			
17. Material lift sliding door safety cable installed.			
18. Install the following bilingual signs at each access platform level. <ul style="list-style-type: none"> - No Riders - Replace Guardrails When Done - Do Not remove Guardrail Until Material Lift Has Stopped - Do Not Enter Beyond This Point While Material Lift Is Elevated (bottom level only) 			

19. Stop blocks, concrete Jersey walls, water filed Jersey walls or other similar protection provided so trucks, vehicles and equipment can't come in contact with the hoist protection or scaffold back structure.			
20. Assure cable is lubricated with the proper lubricant.			
21. When material lift is at its lowest level assure that there are a minimum of 4 wraps of wire rope cable on the drum.			
22. Check and assure that there are no damages, kinks, distortion, bird caging, crushed, or corroded wire rope being used in the hoisting operations.			
23. Make sure the hoist wire rope is reeving properly on the drum.			
24. Make sure that the hoist operator lever is in good shape, installed tight, doesn't slip, and not damaged.			
25. The hoist support system is in good condition, stationary and on firm level ground.			
26. The mast climber teeth are in good condition, without damages and working properly.			
27. Assure that the fittings are greased.			
28. Verify that there are no hydraulic fluid leaks.			
29. Assure that there are no unusual noises.			
30. The material lift mast rollers are in good condition.			
31. Voice communication system (radios or similar) provided between the hoist operator and the floor above.			
32. Obtain and post in the operator's station a copy of the initial complete material lift inspection from the installer.			
33. Obtain and post a copy of the initial load test document provided by the material lift installer in the operator's station.			
34. Check and assure that the brakes are working properly and that they do not slip or drift.			
35. Assure that the secondary brake is installed, being used and operating properly.			
36. Assure that there isn't any unordinary shaking, rattling or dropping of the material lift during operations.			
37. Check to assure that all the hydraulic hoses are in good condition and free of damages, leaks and dry rot.			
38. Determine from the RPE what the maximum wind speed is before the material lift cannot be operated and grounded and post this information.			
39. Long material placed in the car are done so with the gate pulled down as tight as possible and the materials sticking out of the back no further than 1/3 of the length.			
40. The upper level guardrails are also painted with high visibility orange paint so they are visible to the operator below.			
41. Assure that the material lift operator hand controls and/or power supply is locked and tagged out each day when the lift is not in use to prevent others from operating it.			
42. Assure that the lift capacity weight is posted in the material lift.			
43. Assure that adequate lighting is provided in the material hoist and the operator's station.			
44. Confirm that the operator has the responsibility for the hoist and can stop it at any time when a safety issue or concern arises that would warrant such and promptly contact the Grunley Superintendent with the information to take action.			

PCB's

- Site and activity specific work plans from the subcontractor(s) involved with removing, handling, storing, transport, recycle and/or disposal of PCB's shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Equipment and materials that contain PCB's need to be identified to Grunley and its subcontractors by the building or facility owner, or construction management group prior to demolishing or removing and disposing of these items.
- Work involved with handling, removal, and disposal of PCB's shall be performed by trained and licensed environmental subcontractors while wearing disposable suits with booties and rubber gloves that will be disposed of as hazardous materials. Personnel will need to remove the disposable items before leaving the established regulated area to assure that they do not contaminate other areas of the project.
- A written PCB removal plan **using Grunley's PCB Work Plan Checklist** will need to be established by the environmental subcontractor and/or by their environmental consultant and will need to be submitted and approved by Grunley, the construction management environmental representative, and/or the building or facility owner environmental consultant or representative before the work takes place.
- Work involving the handling or removal of PCB's shall be conducted in an established regulated area. The regulated area setup shall be determined through the subcontractors approved plan.
- The removal area and regulated areas shall be set up with two layers of 6 mil plastic placed beneath the work area and/or stored materials and extended as large enough to encompass the established PCB work area.
- If the stored materials are intended to be stacked in the regulated area then the two layers of 6 mil plastic needs to be placed on the walls as high as the materials will be stacked. If the items that contain or have been contaminated with PCB's are to be stored in impermeable drums, then the regulated storage areas only need to have one layer of 6 mil plastic placed beneath the drums.
- The regulated area shall also be identified with the proper PCB Danger – Do Not Enter – Authorized Personnel Only signage.
- All plastic used on the floors during removal and on the floor and on the floors and walls of the regulated areas shall be removed and disposed of as a PCB contaminated materials.
- If and when light fixtures or other items are found to have contained leaking PCB's, then the ballast, entire fixture, cover, and lens need to be disposed of as contaminated hazardous waste.
- The storage trailer that will remove the PCB's from site will need to be lined with two layers of 6 mil plastic as high as the materials will be stored. The floor plastic needs to extend up

the walls a minimum of 12" and the wall plastic needs to extend down over the floors a minimum of 12".

PCB Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the PCB plan is developed by the contractor and compile all the related documents into one complete PDF for review by Grunley Safety as opposed of sending multiple attachments.

Information Needed	Yes included	No not included	Not Applicable with reason
1. Provide overview to include a detailed summary of the work, company, contractor, project name, and project address where work will occur.			
2. Provide site and activity specific work plan details related to the removal, handling, storage, transport, recycle and/or disposal of PCB's.			
3. Identify the equipment and materials containing PCB's that will be removed and disposed of during the course of work.			
4. Provide a current and complete Certificate of Insurance (COI) that also contains Pollution insurance for the Prime Subcontractor, Tier Subcontractor, and hazardous material transport company naming Grunley as Certificate Holder and Additional Insured with the project name and address added into the Description of Operations area.			
5. Provide documentations of Competent Person and Worker training and licensing for those involved with the PCB removal, handling and storage work.			
6. Provide in the plan the Facility Owner/Operator EPA Hazardous Waste Generator Identification Number and label that will be placed on barrels/containers prior to transport.			
7. Provide a designation letter on company letterhead naming the Competent Person that is signed by a senior manager of the subcontractor.			
8. Provide resume and/or related information to verify competency of the Competent Person through documented Competent Person training, experience and knowledge.			
9. State the plans required to establish a regulated area where the PCB's will be removed to include the signage, decontamination/transitional zones, 6mil polyethylene protective floor covering, critical barriers, etc.			
10. Identify in a narrative and drawing showing where the PCB contaminated waste storage area will be located.			
11. Provide a picture of the hazardous material warning signs and barrel/container labels that will be posted in the PCB affected area(s) and where barrels/containers will be stored.			
12. State in the plan how the storage area will be setup and established to warn others of the hazards, restrict access by others and to avoid damages from vehicles and/or equipment, to include the require signage, 6mil polyethylene floor and wall coverings (wall covers to extend to height of stored materials), drums palletized off the floor to visually see if leakage occur, posted daily inspection sheet, spill kit & fire extinguisher.			

<p>13. State in the plan that bulk PCB remediation waste barrels/containers may only be stored in the preapproved and designated are for no more than 180 days.</p>			
<p>14. State in the plan that light fixtures or other items that are found to have contained leaking PCB's, then the ballast and the entire fixture, cover, and lens will be handled, packaged and disposed of as PCB contaminated hazardous waste.</p>			
<p>15. If a storage trailer will be used to store or transport PCB barrels/containers that it will be lined with two layers of 6 mil plastic on the floor and walls to the height of the stored materials.</p>			
<p>16. Provide a copy of the waste manifest that will be used and signed by the owner or his/her representative with Federal Resource Conservation and Recovery Act (RCRA) Subtitle C and DOT regulation training and return a completed manifest after the disposal site has received the materials.</p>			
<p>17. State in the plan and identify the specific electrical/hydraulic devices that will be impacted and taken out of service prior to the PCB removal activities along with the Lock Out / Tag Out procedures to be taken and by whom to make-safe through de-energizing, de-pressurization including hazard controls and devices.</p>			
<p>18. Provide a complete, detailed and site and area specific Activity Hazard Analysis (AHA) for PCB work using the USACE EM385-1-1 format.</p>			
<p>19. Provide an AHA sign-in document verifying that the AHA meeting was held to review the plan and AHA with all involved before the work takes place. The sign-in sheet needs to include presenter (Safety Director, Safety Manager or Competent Person) with the legible company name, printed name of each attendee, signature of each attendee, and date.</p>			
<p>20. Provide Safety Data Sheet (SDS) documents related to the PCB removal, storage and transport work.</p>			
<p>21. Provide a copy of any daily equipment inspections to be performed by subcontractor.</p>			
<p>22. Provide the name, title and cell phone number of the subcontractor Safety Director or Safety Manager that will be regularly and periodically onsite to oversee the PCB removal, remediation and storage activities to assure compliance with the established and approved plans.</p>			

Personal Protective Equipment (PPE)

- Site and activity specific work plans involving the use, care and inspection of PPE are required from each abatement subcontractor shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Grunley has a 100% safety eyewear requirement policy, therefore all construction personnel arriving to Grunley projects are required to wear safety eyewear at all times while on the project at their own cost. **Dark or shaded safety glasses shall not be worn in-doors.**
- The subcontractor shall provide appropriate Personal Protective Equipment (PPE) to their employees with respect to the hazard that exists.
- **Grunley has a 100% glove requirement, therefore all construction personnel arriving on Grunley Projects are required to wear gloves at all times while on the project at the subcontractor's own cost. The proper type and glove style shall be determined by the subcontractor's safety representative based on the work that is being performed. Any exception to the 100% glove use policy must be identified within an Activity Hazard Analysis (AHA). The AHA will be reviewed by the Grunley Safety Department and comments or acceptance provided.**
- PPE must be in good condition, free of any defects or flaws, and shall be used or worn during the performance of all applicable activities.
- Safety Glasses shall be worn over prescription glasses unless the prescription glasses meet the NIOSH standards of shatter proof lens and are stamped with Z87+, in which case, the Z87+ stamped glasses shall also have side shields attached.
- Substantial boots with full leather uppers shall be worn on all construction sites. Protective steel toe footwear will be worn as required when hazards to the feet exist. Tennis shoes, open-toed shoes, sandals, and/or high heel shoes are prohibited.
- Personnel must wear shirts with sleeves that go over the shoulders at least 4". Tank top shirts are prohibited.
- Personnel must wear long pants at all times. Shorts are prohibited.
- Personnel are not to wear loose fitting clothing or clothing that contains rips or tears that could possibly get caught on materials or equipment or cause tripping hazards.
- Hard hats will be worn at all times on construction sites in the manner in which the manufacturer requires them to be worn. Therefore, hard hats will be worn with the bill facing towards the front and baseball caps **or loose-fitting head coverings such as baseball caps, hoodies or knitted hats** will not be worn underneath of them.

- Personnel performing welding may wear the hard hats backwards with the bill facing towards the back when they need to wear a welding hood over top of them.
- **Non-vented (Class E for high voltage and Class G for low voltage conductors) hard hats are to be worn 100% of the time while onsite.**
- Personnel performing surveying may wear their hard hats backwards when it interferes with the instruments they are using.
- Metal hard hats and bump caps are prohibited. Welders shall have and use welding hoods that attach to their hard hats at all times. No welding shall take place without both head and eye protection in place.
- Personnel performing welding work will need to erect and maintain welding blinds or screens to protect others in the vicinity from flash burn to the eyes.
- Employees working on electrical systems will be required to wear all the appropriate protective equipment as required by the National Electrical Code.
- A qualified First Aid Attendant with adequate medical supplies shall be available on each shift.
- Personal protective equipment such as, but not limited to, hard hats, safety glasses, high visibility safety vests, safety shields, fire retardant clothing, goggles, respiratory protection, welding hoods, cutting goggles, and gloves will be worn at all times when required by safety codes and the type of work being performed.
- Fire retardant clothing shall be worn to protect personnel while performing welding or cutting operations.
- Employees must be physically able and medically qualified to use PPE.
- Persons involved in activities that would subject the hands to injury shall use protective gloves suitable to protect the hands from the hazard.
- Respirators are required to protect personnel from hazards associated with the lungs and specific tasks that create the hazard. Potentially exposed persons will be medically evaluated and fit-tested before entry into hazardous areas, or before performing the specific task(s). Employees are responsible for cleaning and proper storage of personal respirators after each daily use. The employer or their representatives will provide training.
- Facial hair that would interfere with the proper seal of respirators will be removed before donning masks. Inability to maintain a seal will prohibit that person from entering the containment area or performing the related task.

- **Face shields will be required to be worn during grinding, cutting, or sawing when flying fragments, large chips, particles, sand, dirt, etc. has the potential for side exposure to the eyes. This would also include but not limited to performing these task overhead.**
- **Hearing protection shall be provided and worn during operations exceeding 85db. Operations that exceed 85db shall be monitored and warning signs posted warning others in the area that hearing protection is required.**

Powder Actuated Tools

- Site and activity specific work plans from subcontractors that anticipate the use of powder actuate tools shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Personnel using powder actuated tools will be trained, certified, and have a current license card for the particular tool prior to performing such work **and shall have documentation of training on their person while operating tool.**
- When not in use, powder actuated tools shall be **unloaded from the tool and** kept in the box they came from or locked up in the appropriate container.
- **Used shot clips that contain unused loads shall be placed in a bucket of water when done with the clips.**
- These tools will not be used in a flammable or explosive atmosphere.
- Special permission, from the Construction Representative, must be obtained prior to the use of "high velocity" tools.
- The operator, helpers, and persons working in the immediate vicinity must wear appropriate Personal Protective Equipment (PPE), eyewear, and hearing protection when the tool is being used.
- The firing mechanism must be **Manufactured** so the tools cannot discharge during loading or when dropped.
- Tools are to be inspected before each use on a daily basis. They are to be properly cleaned and lubricated on a periodic basis.
- Powder actuated tools are not to be used in any material that will allow a pin to penetrate completely through, such as drywall, masonry block, thin plywood, etc.
- Persons using the tool while fastening items to walls must ensure that individuals are not located on the opposite side so that a fully penetrated fastener does not strike them.
- The tools shall not be pointed at any person at any time.
- Powder strips with live loads shall be retained in the load box and not left lying around the construction area.
- **Each powder actuated tool shall be placed in a lockable container with the words "POWDER ACTUATED TOOL" in plain sight on the outside and a notice reading "WARNING**

POWDER ACTUATED TOOL TO BE USED ONLY BY A QUALIFIED OPERATOR AND KEPT UNDER LOCK AND KEY WHEN NOT IN USE.”

- Powder actuated guns will be held firmly and square to surface to prevent a projectile.
- Safety eyewear **and ear plugs shall** be worn **by personnel using the powder actuated tools and/or those that are working** in the vicinity of those using powder-actuated tools.

Roofing Operations

- Site and activity specific work plans from the roofing subcontractor **shall be submitted using Grunley's Roof Work Plan Checklist** to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- **The Competent Person must hold (at a minimum) current First Aid & CPR training within compliance dates, 24-hour Competent Person Fall Protection training, and OSHA 30 hour training documentation that is current within the past 5-years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered.**
- **A letter of designation must be provided for the named Competent Person and an alternate. This letter shall be signed by a Senior Manager, Safety Director, or Company Owner deeming this person Competent in related activities.**
- **Workers shall be trained in Fall Protection within the past 5-years compliance and documentation of training must be provided before they begin work.**
- All affected underground structures and utilities shall be identified, protected, and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the involvement of a Registered Professional Structural Engineer at the subcontractor's expense. Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.
- If equipment are to be moved, placed or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the subcontractor expense and submitted to Grunley for review, comments and approval prior to the work and loading taking place.
- A warning line must be erected and maintained in accordance with the applicable standards and is placed at a minimum of 6' back from the building edge **before roofing work begins.**
- All materials **placed or used on the roof area** must be kept at a minimum of 10' from the building edge in accordance with the OSHA standards. If this cannot be complied with then the subcontractor will place the warning line at a minimum of 10' back from the building edge.
- All access and work needing to take place beyond the warning line system will need to be performed with those using an approved personal fall arrest systems.

- **If personal fall arrest systems are to be used, a site and activity-specific fall protection plan will need to be developed by the contractor following Grunley's Fall Protection Plan Checklist and accepted by the Grunley Safety Department before work takes place.**
- The roofing work plan needs to specifically identify the anticipated location of travel and loading, with the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- **If hoisting mechanisms are to be used, a site-specific hoisting plan must be developed using Grunley's Hoisting Plan Checklist.**
- Hoist mechanisms will be equipped with ratchet gears. All parts of the hoist must be in good shape and constructed to safely lift the imposed loads.
- The hoist must be securely braced, anchored, and equipped with a swing type boom.
- Hoist operators must work on level, guarded platforms with appropriate fall protection installed and adequate overhead protection if necessary.
- Toe boards will be installed on roof edges where falling materials could cause a hazard to workers below. Materials will not be stored within 6 feet of the roof edge.
- Heating devices, melting kettles, and compressed gas cylinders will be located on a level, firm foundation, protected against traffic and securely supported to prevent tipping and falling. This area shall be located at least 25-feet from buildings, storage areas, vehicles, etc.
- **The area beneath the hot pot kettle extension pipe to upper elevations shall be fully protected so that nobody can enter into these areas.**
- **Grunley's Daily Hot Work Permit must be completed and posted in the vicinity of the work during any operations that involve open flames, or sparks.**
- Compressed gas cylinders will be **placed beyond 20' or emergency egress pathways** and located at least 10-feet away from melting kettles, with hoses protected and properly sealed.
- Cylinders will be equipped with pressure reduction valve, excess flow valves, and the hose line will be equipped with a thermal safety valve. Melting kettle lids must be in-place and fit properly to ensure correct thermo readings.
- Kettle operators must wear protective eyewear/goggles, **full face shields kept over the face**, gloves, rubber boots and aprons.
- Melting kettles will not be used inside or on the top of buildings and must never be left unattended when in use.

- Hot tar or substances will not be carried up and/or down ladders. Passageways for hot substances must be kept free of any obstructions.
- Hot tar kettles will not be used when raining.
- Hot tar kettles will only have the lids open when the tender is placing material inside, otherwise the top or lid will remain closed at all times. All the necessary PPE for the tender needs to be worn when placing materials into the kettle and when tending the equipment.
- Vessels for transporting hot substances must be constructed for that purpose.
- Paper, trash, and other debris must be kept a minimum of twenty-five feet from heating devices or kettles and must be removed from the job on a daily basis.
- A **fully charged and inspected** 20-pound ABC fire extinguisher will be available in the area where any hot work is being performed.
- Fall protection will be established in the subcontractors fall protection plan and will meet or exceed all the noted OSHA requirements. Roofing subcontractors will submit a copy of their area and activity specific fall protection plan for review to the Grunley Safety Department **for review and acceptance** prior to the commencement of such work.
- **Work will need to be monitored if wind speeds affect the ability for personnel to safely handle and control the handling of materials. The Competent Person shall monitor and make the decision as to when this work shall be stopped. Grunley may also make this decision based on the situation. Typically roofing work that involves material handling will be stopped at winds or gusts of 18 miles per hour or greater. This will depend on the location and circumstances.**
- Skylights, roof openings, and holes will be properly barricaded, protected, guarded, or covered and “HOLE” signage installed over them before and during work activities.
- Existing roofing material will be tested for asbestos prior to starting the related work. If the test results are positive for asbestos, the removal and disposal of such material will be performed according to the established requirements. **The applicable work plan shall be developed and submitted to the Grunley Safety Department for review and acceptance before work takes place by using the Grunley Asbestos Abatement Work Plan Checklist.**
- Proper overhead protection will be provided in areas below where others may be injured from items falling or hot roof fluids leaking onto them.
- Roofing materials and equipment will be maintained at a minimum of 10’ away from the edge of the building at all times unless it is being installed.

- Personnel working within 6' from the edge of the building and at elevations above 6' will need to use personal fall arrest systems or guardrails will need to be installed to prevent workers from falling over the side.
- **Using the "Safety Monitor System" is prohibited.**
- All roofing fall protection systems will need to be an engineer designed system that is installed properly and capable of handling the anticipated load(s).
- A "Competent Person" shall be **onsite at all times while work is taking place and** at the actual area of work monitoring the safety of the work and supervision the work taking place.
- **If lightning is observed, all Load Handling Equipment (LHE), work on elevated platforms or scaffolding, roofing activities, and work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**

DAILY HOT WORK PERMIT

BUILDING NAME:		NAME OF EMERGENCY CONTACT:	
TELEPHONE NUMBER:	OFFICE ISSUING PERMIT:	SPECIFIC LOCATION OF WORK COVERED:	
DATE OF WORK:	START TIME:	STOP TIME:	
NATURE OF WORK IN DETAIL:			
DO YOU UNDERSTAND THAT THIS PERMIT NEEDS TO BE CONSPICUOUSLY POSTED IN THE SPECIFIC HOT WORK AREA? YES NO			
HAS EACH EMPLOYEE WORKING UNDER THIS HOT WORK PERMIT BEEN BRIEFED IN RELATION TO KNOW WHAT IS EXPECTED OF THEM TO PERFORM THIS HOT WORK? YES NO			
SUPERVISOR'S SIGNATURE:			
ANTICIPATED HAZARDS DUE TO WORK (SAFETY, HEALTH, FIRE) 19. ARE ALL COMBUSTIBLES AND/OR FLAMMABLES REMOVED FROM THE AREA OR LOCATIONS BELOW PRIOR TO THE WORK? YES NO 20. ARE FIRE BLANKETS USED TO COVER AND/OR PROTECT MATERIALS THAT CANNOT BE REMOVED FROM THE AREA? YES NO 21. IS A CHARGED FIRE EXTINGUISHER LOCATED WITHIN 25' OF THE HOT WORK? YES NO 22. IS A WATER HOSE GOING TO BE USED IN ADDITION TO THE FIRE EXTINGUISHER TO PREVENT FIRES? YES NO 23. ARE ELECTRICAL SYSTEMS PROTECTED OR DEENERGIZED PRIOR TO USING WATER NEAR THEM TO CONTROL FIRES? YES NO 24. IS A VENTILATION FAN OR SMOKE EATER PROVIDED FOR THE WORK AND EXHAUSTED TO THE OUTSIDE AIR? YES NO 25. ARE WELDING BLINDS PROVIDED AND GOING TO BE USED WHEN PERFORMING WELDING WORK? YES NO 26. ARE OXYGEN AND ACETYLENE BOTTLES SECURED TO A CART AND ARE THE PROTECTIVE CAPS PROVIDED? YES NO 27. IS THE SUPERVISOR GOING TO ASSURE THAT A FIRE WATCH IS PROVIDED WEARING A RED HIGH VISIBLY VEST WITH FIRE WATCH PRINTED ON THE BACK AND HAS WALKED THE AFFECTED AREAS TO ASSURE THAT THERE ARE NO SMOLDERING EMBERS 60 MINUTES AFTER THE WORK HAS BEEN COMPLETED? YES NO			
LIST OF PROTECTIVE CLOTHING, EQUIPMENT, AND CONTROLS REQUIRED FOR THE WORK (INCLUDING PPE AND PUBLIC PROTECTION) CIRCLE THE APPLICABLE PPE ITEMS THAT WILL BE USED: WELDING GLOVES, LEATHER CUTTING GLOVES, WELDING SHIELDS, FIRE RETARDANT APRONS, FIRE RETARDANT SMOCKS, LEGGINGS, SLEEVES, LEATHER WELDING JACKETS, NOMEX TYPE FIRE RETARDANT JACKETS			
NAME OF PERSON(S) AUTHORIZED TO PERFORM WORK:		NAME OF PERSON(S) TRAINED TO SERVE AS THE FIRE WATCH:	
EMERGENCY PRECAUTIONS (INCLUDE TYPE, NUMBER, AND LOCATION OF FIRE EXTINGUISHERS)			
PERMIT ISSUED BY			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
PERMIT ISSUED TO			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
PAPERWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
60 MINUTE POSTWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	

Grunley Roof Work and/or Warning Line System Plan Checklist

Write yes, no or n/a with the reason in the spaces below as the roof work plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. Overview to include a detailed summary of the work, company, contractor.			
2. Detailed information provided for access to roof area.			
3. Detailed fall protection plan provided.			
4. Provided a detailed list of the fall protection equipment planned to be used.			
5. Provide inspection criteria for fall protection equipment.			
6. Identify attachment points for personal fall protection systems.			
7. Provide documented fall protection training.			
8. Provide use of Manufactured/Engineered systems.			
9. Provide documents for First Aid & CPR training for Competent Person.			
10. Warning lines erected around all sides of roof work area minimum of 6' back from the leading edge. Erected on both sides of travel area from the roof access to and around work area.			
11. Warning line stanchions installed and will remain erect and withstand winds and a force of 16lbs applied horizontally and perpendicularly.			
12. Warning lines shall withstand a tensile strength of 500 pounds.			
13. Warning line ropes, chains, or wire need to be flagged not more than 6' intervals with high visibility material.			
14. Warning lines shall be rigged and supported in a way that the lowest point including sag is no less than 34" high from the walking surface and its highest point.			
15. All work taking place beyond the warning line systems will require 100% fall protection in place and attached to the person before entering the area beyond the warning lines.			
16. Plans if hot work is taking place.			
17. Stated in the plan that all material storage will kept at a minimum of 10' back from the edge minimum.			
18. Activity Hazard Analysis (AHA) for roof work using Corps of Engineers (COE) current acceptable format (sample AHA and user friendly AHA can be provided if needed for modifications specific to the project)			

19. Provide information for the access to the roof area and how the access will be secured to prevent displacement.			
20. Statement in the plan that a Safety Monitor System is prohibited by Grunley policy and will not be used.			
21. Statement in the plan to constantly secure, band, tie or implement other means to prevent materials from displacement and to perform prompt cleanup and trash removal from the roof areas.			
22. Sign-in document verifying the AHA meeting with all involved with the work to include presenter (preferably the company safety representative, company name, printed name of each attendee, signature of each attendee and date of AHA meeting prior to work taking place			
23. Emergency action rescue plan provided. Emergency contact phone numbers provided.			
24. Name and title of the contractor safety person that will be onsite to oversee the roof work, safety measures, and pedestrian safety.			
25. Provide contractor safety person credentials and training certifications that would deem this person to be the competent person and designated as such by the Company Executives of Principals.			
26. Printed name, signature and title of the Contractors Safety Director, Safety Manager, Safety Inspector, Risk Manager, Vice President, Operations Manager, President, Principal of the Company or otherwise authorized executive manager of the company has reviewed, accepted and takes responsibility for the developed and submitted roof work plan.			

Grunley Hoisting Plan Checklist

Write yes, no or n/a with the reason in the spaces below.

Information Needed	Yes Included	No Not Included	Not Applicable with Reason
1. Title page to include the Grunley project name, Grunley project number, Grunley project address, Subcontractor name, Subcontractor address and Subcontractor phone number.			
2. Lift overview to include a detailed summary of the work.			
3. Contractor Competent Person (CP) designation letter(s) on company letterhead signed by an Executive Manager or Owner of the company. The CP must be full time and onsite as work is performed.			
4. Insurance certificates within compliance for the responsible subcontractor with Grunley named as Additional Insured and Certificate Holder.			
5. Provide specific equipment manufacturer information and cut sheets that will be used during the hoisting operation.			
6. Material list, material details and weights of all items or each lift or maximum lift based on scale information, cut sheets and/or manifest per each lift setup.			
7. Daily equipment inspection checklist document.			
8. Geometry of the lift – Detailed diagram of the lifting equipment, max weight to be lifted in relation to equipment lifting capacity (percentage), and load chart information.			
9. Rigging cut sheets showing each type of rigging being used, configuration of rigging for lifts, maximum capacity of rigging based on rigging details (nylon straps, cable chokers, spreader bars, shackles, bridles, chains, Christmas treeing, etc.) Circle specific rigging to used based on cut sheets.			
10. Rigging diagram showing details of how the loads will be rigged (basket, choke, vertical, etc.), along with inspection criteria prior to rigging being used.			

<p>11. Provide flagger/pedestrian control training certifications for equipment operations that will impede sidewalks, and/or lanes of traffic.</p>			
<p>12. Identify who will be the qualified riggers along with their training documents.</p>			
<p>13. Activity Hazard Analysis (AHA) for lifting operations using Corps of Engineers (COE) format.</p>			
<p>14. Sign-in document verifying the AHA meeting with all involved with the work has been held prior to the work taking place.</p>			
<p>15. Contractor to confirm in the plan that their trained, authorized, designated Competent Person, Supervisor and/or company designated Safety Director, Manager or Safety Inspector will be onsite and oversee compliance with the developed hoisting plan and assure project safety during setup, AHA review, rigging inspection, pedestrian controls, and traffic controls until the point that the work has been fully completed.</p>			
<p>16. Printed name, signature and title of the Contractors Safety Director, Safety Manager, Safety Inspector, Risk Manager, Vice President, Operations Manager, President, Principal of the Company or otherwise authorized executive manager of the company has reviewed, accepted and takes responsibility for the developed and submitted hoisting plan.</p>			

Scaffolding

- Site and activity specific work **plans using Grunley's Scaffolding Work Plan Checklist** from subcontractors anticipating the installation, use and dismantling of scaffolding shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Prior to mobilization, the subcontractor shall submit Competent Person resume and training documents related to fall protection and scaffolding to the Grunley Safety Department for review.
- **The Competent Person must hold (at a minimum) a current First Aid & CPR training card within compliance dates, Scaffolding Competent Person training, 24-hour Competent Person Fall Protection training, 8-hour Scaffold training, and OSHA 30-hour training documentation that is valid within 5 years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered.**
- **A letter of designation must be provided for the named Competent Person and an alternate. This letter shall be signed by a Senior Manager, Safety Director, or Company Owner deeming this person Competent in related activities.**
- **Workers shall be 8-hour minimum trained in Scaffolding within a 5-year compliance date and documentation of this training shall be provided in the subcontractors work plan.**
- **Workers shall be 8-hour trained in Fall Protection within a 5-year compliance date and documentation of this training provided.**
- **Personnel are not allowed to push/move another employee on a baker/rolling scaffold. Workers must get down from the scaffold and reposition themselves. The wheels/castors must be locked on a baker/rolling scaffold while in use and that wheels/castors cannot be used on ramps or in stairwells.**
- **All scaffolding guardrails will be installed at a height of 42" (+/- 3") toprail, 21" midrail, and a 4" toeboard.**
- **Guardrails or Personal Fall Arrest Systems (PFAS's) must be provided and used on all scaffolding with a work platform of 4' or higher.**
- **Forklift operators shall be trained within a 3-year compliance date and documentation of this training submitted.**

- **If Forklifts will be operated anywhere within the Washington DC city limits, on the street, sidewalk or on the jobsite, a DC Operator license must be provided within the compliance date of the license expiration.**
- All affected underground structures and utilities shall be identified, protected, and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the involvement of a Registered Professional Structural Engineer at the Subcontractors expense. Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.
- If equipment will be moved, placed, or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the subcontractor expense and submitted to Grunley for review, comments and approval prior to the work and loading taking place.
- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- Registered Professional Engineer (RPE) scaffold drawings need to be submitted to the project team for review and approval by the Grunley Safety Department before materials are brought onsite to erect.
- The scaffold drawings will need to be detailed and complete showing the leg or frame placements with dimensioning, base mud sills and/or weight distribution details, securing guys and ties with description, access ladders or stairways, along with the maximum loading and capacity rating information provided.
- Before the scaffolding is used a member of the Grunley Safety Department will need to walk and inspect the scaffolding to assure it has been installed in accordance with the submitted and approved RPE scaffold drawings. Once this has been accomplished the Grunley Safety Department member will provide a documented approval for the system to be used.
- All materials shall be kept at a minimum of 10' from the edge of the building on all floors including the roof. No materials are to be stored within the area that is 10' from the building edge.
- Only qualified and trained employees will erect and dismantle scaffolding. The erection and dismantling will be performed under the close supervision of the established Competent Person.
- Only trained personnel with the oversight of the Competent Person shall use or work from scaffolding.

- The Competent Person is responsible for performing a daily inspection prior to personnel using the scaffold and shall be responsible for the safety of all personnel working from it during each shift.
- The Competent Person is also responsible for the daily compliance of their personnel using or working from scaffolding.
- Scaffolding will be erected level, plumb, and on firm footings.
- Safety pins will be installed at all tubular frame joints to secure the scaffold from uplifting and/or separation.
- Scaffold boards with cracks, knots, splits, or other visual damages will not be used since it will impact the integrity and strength of the boards.
- Each scaffold work platform will be fully planked, and base plates will be nailed to mudsills when used.
- Extension or attachable ladders shall be used to access the scaffold work areas unless frames are fabricated with approved fixed access ladders or stair towers are used.
- Scaffold planks will overlap at the joints a minimum of 12" or secured from movement if less than 12".
- Scaffold planks will extend over the end supports not less than 6" and no more than 12" unless they are manufactured with retaining hooks or equivalent means such as cleats are provided.
- Scaffold planks that extend beyond the supports less than 6" will need to have cleats attached to the bottom to prevent displacement.
- Scaffold towers will be secured to the structure or wall where the scaffold height exceeds four times the minimum scaffold base dimension and every 30' or less of lateral distance.
- **Overhead protection such as entrances to buildings, sidewalk protection, or any other personnel protection shall be constructed with a minimum of 2" thick and solid lumber materials, such as tightly butted 2"x10" boards with fully covered and secured ½" plywood.**
- Toe boards or **debris netting** will be installed on all scaffolding where there is a chance of persons below being struck by falling items.
- **"WORK OVERHEAD" signs must be posted during erection and dismantling.**

- Scaffold work platforms or outriggers installed to use as work platforms need to be setup so the distance or gap between the work platform and the building face (or working face) is less than 12”.
- Securing to an adjacent structure, or outriggers installed and used when the upper elevation of a baker’s scaffold or other scaffold platform with the width dimensions of less than 30” meets or exceeds three times the width of the frame in height. The OSHA minimum standard for scaffolding requires this to be accomplished when the platform reaches four times the width of the frame. Grunley has made this requirement more stringent.
- Suspension, catenary, pump jack, ladder jack, needle beam, outrigger, and/or other types of scaffolds shall be erected as designed by the provider, vendor, and/or manufacturer.
- Guardrails or other personal fall arrest systems must be installed or otherwise used when personnel are using bakers or any other type of scaffolding system that is being used at elevations of 4’ or greater is height.
- The intersection of cross braces is not to be used in place of horizontal guardrails on Grunley projects. Grunley requires that all scaffolding work platforms greater than 4’ in height above a lower elevation be provided with a horizontal top rail at 42” (+/- 3”) and midrail at 21”.
- No stepladders or extension ladders are to be placed on a scaffold platform unless the scaffold platform covers the entire area such as a fully installed wall to wall dance floor. If access to and from one elevation to another is needed the scaffold erector shall provide attachable ladders or job made ladders that are fully secured at the top and bottom to prevent displacement.
- At no time shall an extension ladder or a step ladder be placed on a baker’s scaffold, a scissor (aerial) lift or a suspended (swing stage) scaffold.
- **Work will need to be monitored if wind speeds affect the ability for personnel to safely handle and control the handling of materials. The Competent Person shall monitor and make the decision as to when this work shall be stopped. Grunley may also make this decision to stop work based on the wind speeds and current working situation.**
- Scaffolding tagging systems shall be completed by the Competent Person and attached at the access point(s) when erecting, using and dismantling scaffold systems.
- Red tags shall be used, filled out daily by the Competent Person, and posted at the access point(s) to the scaffolding when scaffolding is being erected and not yet complete for the use or access of others. A posted Red Tag means “Do Not Use the Scaffolding.”
- Red tags shall also be used and filled out daily by the Competent Person and placed at the specific separation point(s) where a portion of the scaffolding may have been Green Tagged for use and the remaining scaffolding is still being erected or dismantled.

- **Yellow Tags shall be used when modifying the scaffold system or when the scaffold poses a hazard to the user. The yellow tag shall indicate the potential hazard on the back of the tag. The yellow tag shall not be removed until the scaffold has returned back to a safe condition and inspected by the Competent Person.**
- **Green Tags will be posted at the access point to verify that the Competent Person has inspected the scaffold and that it is complete and released for use by others. Green tags shall be signed and dated daily and legible.**
- **If multiple contractors are using the scaffold system, then each contractor shall have their own trained Competent Person inspect the scaffolding before their personnel access the systems and provide their own green tag that is signed and dated by their Competent Person.**
- **For those that intend to use rolling scaffolding in the work areas, they will need to know what the floor capacities are and determine if they will be overloading them with them beforehand. If it is questionable then a Registered Professional Engineer (RPE) will need to be hired at the Subcontractors cost to make the determination and provide the stamped and signed documentation and letter prior to bringing them onsite.**
- **For those that intend to use rolling scaffolding in the work areas, they will need install stop blocks at all floor depressions, elevation changes and floor opening covers before they are brought onsite to prevent them from being rolled into or over them.**
- **If lightning is observed, all Load Handling Equipment (LHE), work on elevated platforms or scaffolding, roofing activities, and work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30- minutes after the last audible thunder or visible flash of lightning.**
- **Inspection and tagging of the scaffold shall be performed by the Competent Person who is experienced in the erection of scaffold. A unique scaffold identification tag must be clearly identified. All scaffolds shall be inspected after the erection and prior to use daily as per the Occupational Health and Safety Act requirements. All scaffold identification tags will be of a solid green, yellow, or red color with black lettering. All scaffold identification tags will have the front information displayed and must be completed for each tag.**
 - **Date Erected / Tagged**
 - **Inspected By: Name (print & signature)**
 - **Inspection Date**

- Department or Group (Company) Responsible for Erection/Maintaining/Dismantling on the reverse. It is common practice to use the following color schemes:
- Green "SAFE FOR USE" tags will be hung on scaffolds that have been inspected and are safe for use. A green tag(s) shall be attached to the scaffold at each access point after the initial inspection is complete. Scaffolding is required to be inspected daily by each subcontractor's Competent Person that has workers using the scaffolding and with Green tags updated daily and prior to work and dated accordingly. Each subcontractor using a scaffold needs to have their own Competent Person for scaffolding and hang their own Green Tag after their daily inspection has been performed.
- Yellow "CAUTION" tag(s) will replace all Green "Safe Scaffold" tag(s) whenever the scaffold has been modified to meet work requirements and could present a hazard to the user. This tag indicates special requirements for safe use. The tag as a minimum requirement will have; the unusual or potential hazard marked on the reverse; the preventative measures that must be taken prior to use to mitigate the hazard marked on the reverse; the name of the company representative (printed) using the Yellow tagged scaffold. The yellow tag shall not be removed until the scaffold has been returned to a safe condition and by the inspection of a "Competent Person" and then Green Tagged accordingly. Based on the results of that inspection, if the scaffold is found to be unsafe to use by others then a Red Tag will be hung on the scaffold and the yellow tag removed. NOTE: Use of the "yellow tag" status is not intended to override the green tag system. All efforts should be made to return the scaffold to a "Green Tag" status as soon as possible. Each subcontractor using a scaffold needs to provide their own Competent Person for scaffolding inspect the scaffold daily prior to use and hang their own Yellow Tag at each access area if they have modified the scaffold and areas contain a hazard that others will need to be made aware of.
- Red " DANGER – UNSAFE FOR USE" tag(s) will be used during the erection and/or dismantling of the scaffold is not complete and not ready for use. The Red tag(s) as a minimum will include (printed and legible) the project name, the inspection date and the name of the Competent Person who performed the inspection filled in on the front of the card. The designation - under erection, being dismantled, being repaired or required for overhead protection only, will be printed legibly on the reverse. Scaffold re-inspections must be completed any time when conditions may have changed causing the integrity of the scaffold to be suspect or questionable. The subcontractor erecting or dismantling the scaffold needs to have their Competent Person for scaffolding hang and update their Red Tag daily after their inspection has been performed.

- Scaffolding systems must have the engineering either by the manufacturer or by a Registered Professional Engineer no matter what height it will be erected. The relevant information, manufacturer cut sheets and/or the RPE stamped and signed drawings will need to be submitted for review and acceptance prior to mobilization and use.
- Personnel are not to perform work beneath personnel working above. Scaffolding shall contain full work platforms and access ladders or stair towers. Personnel shall not climb cross braces for access to or egress from work platforms. Cross brace intersections are not to be used in place of horizontal guardrails. Horizontal guardrails at the appropriate heights are required.
- All scaffolding that will be installed and used as overhead protection for construction workers, building occupants and/or for pedestrians and the general public shall be designed by a Registered Professional Engineer to determine how it will be constructed and how far out away from the hazards the overhead protection will extend to assure the required protection. The RPE designed overhead protection system cover shall be identified in the stamped and signed drawings and constructed at a minimum of solid 2" thick lumber materials, such as tightly placed 2"x10" boards with solid ½" plywood cover that is completely and securely fastened over top of them.

Grunley Scaffold Work Plan Checklist

Write yes, no or n/a with the reason in the spaces below as it relates to the Scaffold Work Plan is developed by the contractor or reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. Include this completed Grunley Scaffolding Work Plan Checklist document at the beginning of the plan.			
2. Updated and current Certificate of Insurance (COI).			
3. Overview to include a detailed summary of the work to take place and the subcontractor company name.			
4. Grunley project name, project number and project address.			
5. Subcontractor Safety Manager name and cell phone number.			
6. Anticipated start and completion date.			
7. Detailed information provided for access to the work area.			
8. Competent Person (CP) Designation – In writing from the contractor management (Officer) designating their Competent Person by name, title, and cell phone number.			
9. Provide a signed letter from management designating the Competent Person for the work on the specific project.			
10. Provide the resume, experience and knowledge of the Competent Person, along with Competent Person training documentation specifically for Scaffolding and Fall Protection.			
11. State in the plan that the Competent Person is responsible for the work, shall be onsite during the work, enforces compliance with the plan, inspects the equipment and the setup prior to it being used, and has the Company’s authority to take-action and expend funds when necessary to resolve safety issues.			
12. Current and specific worker training documentation as it relates to Fall Protection and Scaffolding.			
13. Provide a drawing that includes the lay down area, travel path, equipment to be used, access point(s), guardrails, etc.			
14. Provide a copy of the manufacturer installation guidelines and applicable information.			
15. Provide a copy of the scaffold daily inspection checklist.			
16. Independent PE stamped drawings and manufacturer cut sheets for the scaffold system.			

17. Professional Engineer identification of the worker attachment points on the scaffold to use when erecting and dismantling the scaffolding.			
18. Detailed diagram showing the location and type of scaffold attachment points to the structure.			
19. Specific personal fall protection equipment to be used.			
20. If hoists are to be used, provide the details and/or manufacturer cut sheets.			
21. Provide daily inspection checklist for fall protection equipment.			
22. Develop and provide the Scaffold and Fall Protection Activity Hazard Analysis (AHA) using the Corps of Engineers (COE) current AHA format.			
23. Sign-in sheet to verify the AHA meeting with all involved prior to the work taking place to include presenter (preferably the company safety representative) company name, printed name and signature of each attendee, and date of meeting.			
24. Ground control means and methods. Identify the physical barriers, signs, and controls to be setup on the ground areas to assure nobody walks beneath those working above. This needs to include a ground person (spotter) at all times to assure everything remains in place and nobody enters the area.			
25. Plans for tethering of tools to prevent them from displacement.			
26. Provide an emergency action rescue plan with an emergency point of contact and alternate name and phone number.			
27. Name, title, phone number and email address of the contractors Safety Director or Safety Manager that will frequently and periodically check out and monitor the work for compliance.			
28. Provide contractor Safety Director or Safety Manager credentials and training certifications that would deem this person to be the Competent Person.			
29. Printed name, signature and title of the Contractors Safety Director, Safety Manager, Safety Inspector, Risk Manager, Vice President, Operations Manager, President, Principal of the Company, or otherwise authorized executive manager of the company that has reviewed and accepted the developed and submitted Scaffold and Fall Protection plan's.			

Scissor Lifts

- Site and activity specific work plans from subcontractor anticipating the use of scissor lifts onsite shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Personnel shall be trained in the safe handling of scissor lifts prior to their use and authorization will only be provided to those employees who have been trained. **Training shall be within a compliance date of 5 years.**
- Training shall consist of control use, unauthorized use on slope areas, access, and egress from the work platform, battery recharging, inspection, use near overhead power lines, use or unstable footing, and fall protection.
- A visual inspection shall be performed before operating the lift. This will include inspection of tires, controls, safety rails and chains, hydraulic fluid, battery, hazard signals, and proper motion of the lift.
- Material shall not extend beyond the handrail or platform confines when moving.
- Materials shall be secured to prevent displacement and to avoid contact with the controls and/or the operator.
- Personnel shall not climb the scissor lift while elevated and personnel shall not climb or sit on the top handrails of the scissor lift.
- A personal fall arrest system is required to be provided, secured, and used at all times for any and all personnel needing to use or work from a scissor lift.
- Ladders, buckets, blocks, scaffold boards or any other item shall not be placed on scissor lifts platforms, toe boards, or handrails to gain access to a higher elevation.
- Center-rail drop chains or swing gates will be installed when workers have accessed the platforms and before travel or vertical climb is accomplished.

- Employees shall not travel over areas where scissor lifts are in use shall be free of electrical cords, excess material, or debris to prevent damages or tip over”
- Operators must visually watch the surrounding areas to assure that contact with structures, other equipment, or personnel does not occur.
- Scissor lifts must not be driven over floor covers unless it has been determined to withstand the weight.
- Employees shall discontinue the use of a scissor lift and contact their supervisor immediately when problems with the lift are observed.
- Scissor lifts shall not be raised by forklifts or any other type of equipment to gain access to a higher elevation.
- Employee retraining shall be required and provided when deemed necessary at the contractor’s expense.
- Personnel shall not use scissor lifts and/or work within **20** feet of overhead power lines.
- Employees shall not use scissor lifts on ramps unless the manufacturers’ recommendations and direction are being properly followed.
- Scissor lift operators shall not travel while the lift is elevated. Short movements for positioning in the specific work area is acceptable. When travel beyond the specific work area other than positioning is needed then the lift shall be placed at the lowest elevation and then travel can take place.
- **Subcontractors that intend to use scissor lifts in the work areas, they will need to know what the floor capacities are beforehand and determine if they will be overloading the floors with the lift(s). If it is questionable, then a Registered Professional Engineer (RPE) will need to be hired at the Subcontractors cost to make the determination and provide the stamped and signed documentation and letter prior to bringing the scissor lifts onsite.**
- **Subcontractors that intend to use scissor lifts in the work areas, the subcontractor will need install and secure stop blocks at all floor depressions, elevation changes, and floor opening covers where scissor lifts are being used to prevent the lifts from being driven beyond elevation changes and/or over top of floor opening covers.**

Crystalline Silica WECP

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1. Purpose

The purpose of this plan is to define the processes and controls that Grunley Construction Company and our subcontractors will use to comply with the Title 29 Code of Federal Regulations (CFR) 1926.1153 for Respirable Crystalline Silica Standard, the related Appendix –A of 29 CFR 1926.55 Gases, Vapors, Dusts and Mists Standard, and 29 CFR 1910.134 Respiratory Protection Standard. **This program deals with exposure to Crystalline Silica and hazards associated with work activities that may potentially create an airborne silica exposure.**

To achieve compliance, we must first implement all feasible administrative and engineering controls. However, when such controls are not feasible, we will use protective equipment or other protective measures to keep the exposure of employees to air contaminants within the limits prescribed in Appendix-A of 29 CFR 1926.55 and CFR 1926.1153.

This program applies to all construction work (including new construction, alteration, repair, etc.) where one or more employees may be occupationally exposed to gases, vapors, fumes, dusts, and mists at concentrations above those specified in Appendix-A of 29 CFR 1926.55

2. Administrative Duties

This safety program covers the Grunley Construction Company (Grunley), its various project locations and the personnel working on them. The Safety Director and Safety Department will work with the Grunley project team and each subcontractor's Safety Director with the intent to assure compliance and implementation of the program to meet the required safety measures. The Safety Department will work with outside Industrial Hygiene professionals to establish an effective exposure control method and plan. This plan will be available in writing and updated, as necessary, and reviewed on a yearly basis. Copies of the written program will be included in the safety plan, distributed to personnel, posted and available at Grunley field office trailers.

3. Potential Exposures

Exposure to fine particles of silica has been shown to cause silicosis, which is a serious and sometimes fatal lung disease. Over exposure to silica dust can cause cancer, can adversely affect the auto immune system and kidneys, and can cause Chronic Obstructive Pulmonary Disease (COPD). Construction employees who inhale fine particles of silica may be at risk of developing these diseases. Workers can produce dusts containing silica when they cut, grind, crush, or drill construction materials such as concrete, masonry, tile and rock. The small particles easily become suspended in the air and when inhaled, penetrate deep into the exposed person's lungs.

The following activities may cause crystalline silica dust to be present in the air, and are not limited to:

- Sawing, hammering, cutting, drilling, grinding, and chipping of concrete or masonry
- Chipping, hammering, and drilling rock
- Dry sweeping or pressurized air blowing of dust, concrete, rock, or sand
- Excavating, grading, loading, hauling, and dumping of dirt and/or rock
- Sandblasting
- Demolition of concrete and masonry structures containing crystalline silica
- Mixing of concrete, mortar and/or grout
- Cutting with stationary and/or handheld masonry saws
- Using hand-operated grinders
- Tuck-pointing and mortar removal
- Jackhammers (concrete breakers)
- Rotary hammer drills & similar tools
- Vehicle-mounted rock drilling rigs
- General housekeeping and dust suppression
- Working with ceramics, clay, tile, and pottery

When Grunley employees are involved with any of the above referenced work activities water, wet misting, dust enclosures, wet sweeping, or sweeping compound will be used to control any potential silica containing dust. If it is not feasible to use water, then either a vacuum system will be used to contain all potential silica containing dust or appropriate respiratory protection will be provided and used. Employees may also experience potential exposure to harmful levels of silica when performing work activities near other contractors performing construction activities. All Grunley subcontractors will be required to control all silica containing dusts during their work.

4. Controlling Silica Exposure

Due to the nature of construction, materials, and work activities throughout the construction industry, it is assumed that the potential for employee exposure to crystalline silica will be present. To that point Grunley has developed the following plan to control, reduce and prevent employee exposures of silica below the OSHA action level of 25 $\mu\text{g}/\text{m}^3$ of respirable silica.

Controlling employee exposure to crystalline silica can be accomplished in many ways. Grunley will assure that trades performing work on our projects will use the appropriate methods to reduce and eliminate dust as work is being performed in order to protect personnel from exposures to silica.

This process will include, but will not be limited to the following:

- Train personnel
- Follow Table 1 of the OSHA Crystalline Silica Standard
- Develop work plans to control dust
- Implement adequate dust control methods
- Perform personal air monitoring
- Establish control methods based on personal air monitoring results

5. Monitoring

Respirable silica/dust sampling procedures, analytical methods and equipment shall conform to current NIOSH methods, or equivalent. The following steps at a minimum will be followed to establish Grunley's crystalline silica/dust monitoring plan at a minimum:

- Identify sources of silica/dust, based on visual inspections, air monitoring, job task review, environmental conditions, and work related activities.
- Identify "similar exposure groups" based on job classification, work tasks, process and environmental conditions.
- Observe, consider and document process and environmental conditions during the sampling period.
- Determine airborne exposure levels for each similar exposure group and compare to OSHA's action level (AL) and permissible exposure level (PEL).
- Sampling will be conducted randomly or based on "worst case" conditions, with respect to dates, shift and location/individuals, within each exposure group.
- Obtaining and using similar work plans, dust control systems, and air monitoring data from other contractors performing the same task under similar circumstances.
- A system for the management of data will be used.
- All records pertaining to the development, implementation and maintenance of the silica/dust monitoring plan will be available to the employee, their representative(s), other contractors, and/or outside authorities for review upon request.
- The silica and dust monitoring plan, program and procedures will be reviewed by Grunley annually. When warranted, the review will be conducted in response to any management changes (i.e., changes in personnel, process, handling, storage, etc.) within the facility or organization.

The frequency of sampling for each exposure group will be, as a minimum and as follows:

Respirable Dust and/or Respirable Silica Concentration	Sampling Frequency
<25 µg/m ³ (AL)	initial sampling
>25 µg/m ³ < 50 µg/m ³ (PEL)	sampling every 6 months
>50 µg/m ³	sampling every 3 months

The frequency of sampling for each similar exposure group will be, as a minimum, as follows and is assumed:

- That sampling is random or worst case, and representative of the population, as a minimum. Worst-case conditions will be used for the initial establishment of similar exposure group sampling frequency.
- That sampling of each similar exposure group is representative of the total number of workers within that group.
- Any time conditions change to indicate an elevation in worker exposure, sampling of the similar exposure group affected will be carried out regardless of the frequency table requirements above.
- Sampling will consist of both area and personal samples.



6. Control Measures

Grunley will take all necessary measures by means of engineering controls, work practices and hygiene practices, and facilities to ensure that the 8-hour Time Weighted Average (TWA) exposure of a worker to silica is reduced to the lowest practical level.



Grunley will facilitate the implementation of controls needed to limit or prevent employee exposures to crystalline silica. The following table shall be used as a minimum standard for action.

7. 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)		<i>What does full and proper implementation require?*</i>
		≤ 4 hours /shift	> 4 hours /shift	
<p>(i) Stationary masonry saws</p> 	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p>	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzle is working properly to apply water at the point of dust generation; ■ The spray nozzle is not clogged or damaged; and ■ All hoses and connections are intact.
<p>(ii) Handheld power saws (any blade diameter)</p> 	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	<p>None</p> <p>APF 10</p>	<p>APF 10</p> <p>APF 10</p>	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzle is working properly to apply water at the point of dust generation; ■ The spray nozzle is not clogged or damaged; ■ All hoses and connections are intact.


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WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(iii) Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less)</p> 	<p>For tasks performed <u>outdoors only</u>:</p> <ul style="list-style-type: none"> ■ 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	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud or cowl is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions to prevent clogging; and ■ The dust collection bags are emptied to avoid overfilling.
<p>(iv) Walk-behind saws</p> 	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	None APF 10	None APF 10	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly to apply water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.


**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)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(v) Drivable saws</p> 	<p>For tasks performed <u>outdoors only</u>:</p> <ul style="list-style-type: none"> ■ 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	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.
<p>(vi) Rig-mounted core saws or drills</p> 	<ul style="list-style-type: none"> ■ 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	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.


**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)		What does <i>full and proper</i> implementation require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)</p> 	<ul style="list-style-type: none"> ■ 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	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud or cowling is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.


**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)		What does <i>full and proper</i> implementation require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(viii) Dowel drilling rigs for concrete</p> 	<p>For tasks performed <u>outdoors only</u>:</p> <ul style="list-style-type: none"> ■ 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	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.


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WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(ix) Vehicle-mounted drilling rigs for rock and concrete</p> 	<p>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.</p> <p align="center">OR</p> <p>Operate from within an enclosed cab and use water for dust suppression on drill bit.</p>	None	None	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud or hood is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling. <p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust Suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water on the discharge point from the dust collector; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.


**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)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(x) Jackhammers and handheld powered chipping tools</p> 	<p>Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. <p align="center">OR</p> <p>Use tool equipped with commercially available shroud and dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>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.</p> <ul style="list-style-type: none"> ■ When used outdoors. ■ When used indoors or in an enclosed area. 	<p>None</p> <p>APF 10</p>	<p>APF 10</p> <p>APF 10</p> <p>APF 10</p> <p>APF 10</p>	<p>Water Controls‡:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The water sprays are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact. <p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.


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WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xi) Handheld grinders for mortar removal (i.e., tuckpointing)</p> 	<p>Use grinder equipped with commercially available shroud and dust collection system.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>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.</p>	APF 10	APF 25	<p>Dust Collection Systems:</p> <ul style="list-style-type: none"> ■ The shroud is intact, encloses most of the grinding blade, and is installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; ■ The dust collection bags are emptied to avoid overfilling; ■ The blade is kept flush against the surface whenever possible; and ■ The tool is operated against the direction of blade rotation, whenever practical.


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WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper</i> implementation require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xiv) Small drivable milling machines (less than half-lane)</p> 	<p>Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant.</p> <p>Operate and maintain machine to minimize dust emissions.</p>	None	None	<p>Water Controls:</p> <ul style="list-style-type: none"> ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.


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WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xvi) Crushing machines</p> 	<p>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).</p> <p>Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.</p>	None	None	<p>Water Controls^{††}:</p> <ul style="list-style-type: none"> ■ Nozzles are located upstream of dust generation points and positioned to thoroughly wet the material; ■ The volume and size of droplets is adequate to sufficiently wet the material (optimal droplet size is between 10 and 150 μm); and ■ Spray nozzles are located far enough from the target area to provide complete water coverage but not so far that the water is carried away by wind.

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WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper</i> implementation require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(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**</p> 	<p>Operate equipment from within an enclosed cab.</p> <p>When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.</p>	None	None	No additional information provided. Refer to the engineering and work practice control methods outlined.

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WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†**

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)		What does <i>full and proper implementation</i> require?*
		≤ 4 hours /shift	> 4 hours /shift	
<p>(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials</p> 	<p>Apply water and/or dust suppressants as necessary to minimize dust emissions.</p> <p align="center">OR</p> <p>When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.</p>	None	None	<p>The following scenarios are examples of when the employer must use water and/or dust suppressants as necessary to minimize dust emissions:</p> <ul style="list-style-type: none"> ■ Equipment for grading and excavating is not equipped with enclosed, pressurized cabs. <p align="center">OR</p> <ul style="list-style-type: none"> ■ Employees other than the operator are engaged in the task. If water or dust suppressants are applied as necessary to minimize visible dust, the employer need not provide an enclosed, filtered cab for the operator.

APF 10 (requires fit testing)		APF 25	
 <p>Dust Mask/Half Mask</p>	 <p>Half Mask (Elastomeric)</p>	 <p>Loose-Fitting Powered Air-Purifying Respirator (PAPR)</p>	 <p>Hooded Powered Air-Purifying Respirator (PAPR)</p>

† (1) When implementing the control measures specified in Table 1, each employer shall:

- i. *For tasks performed using wet methods*, apply water at flow rates sufficient to minimize release of visible dust. The appropriate water flow rates for controlling silica dust emissions can vary; therefore, it is necessary to follow manufacturers' instructions when determining the required flow rate for dust suppression systems on a given worksite. Integrated water systems must be developed specifically for the type of tool in use so they will apply water at the appropriate dust emission points based on tool configuration and do not interfere with other tool components or safety devices.

Any slurry generated when using water to suppress dust should be cleaned up to limit secondary exposure to silica dust when the slurry dries following procedures described in the employer's *Written Exposure Control Plan*.

When working in cold temperatures, where there is a risk of water freezing, additional work practices such as insulating drums, wrapping drums with gutter heat tape or adding environmentally-friendly antifreeze.

- ii. *For tasks performed using commercially available, dust collection systems (i.e. LEV)*, use equipment that is designed to effectively capture dust generated by the tool being used and does not introduce new hazards such as obstructing or interfering with safety mechanisms. The "commercially available" limitation is meant only to eliminate on-site improvisations of equipment by the employer. When employers use methods other than commercially available systems for dust suppression, they must conduct exposure assessments and comply with the PEL.

Some Table 1 entries for dust collection systems specify use of cyclonic pre-separators and filter cleaning mechanisms to prevent buildup of debris on filters that result in less dust capture. A cyclonic pre-separator collects large debris before the air reaches the filters. A filter cleaning mechanism prevents the need for manually cleaning filters to prevent buildup of debris (caking). Some vacuums are equipped with a gauge indicating filter pressure or an equivalent device (e.g., timer to periodically pulse the filter) to help employees in determining when it is time to run a filter cleaning cycle.

- i. *For tasks performed indoors or in enclosed areas*, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust. Indoors or in an enclosed areas mean areas where airborne dust can build up unless additional exhaust is used. Sufficient air circulation in enclosed or indoor environments is important to ensure the effectiveness of the control strategies and to prevent the accumulation of airborne dust. The means of exhaust necessary could include: the use of portable fans (box fans, floor fans, and axial fans), portable ventilation systems, or other systems that increase air movement and assist in the removal and dispersion of airborne dust. To be effective, the ventilation must be set up so that movements of employees during work, or the opening of doors and windows, will not negatively affect the airflow.
- ii. *For measures implemented that include an enclosed cab or booth*, ensure that the enclosed cab or booth:
 - a. Is maintained as free as practicable from settled dust;
 - b. Has door seals and closing mechanisms that work properly;
 - c. Has gaskets and seals that are in good condition and working properly;
 - d. Is under positive pressure maintained through continuous delivery of fresh air;
 - e. Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and
 - f. Has heating and cooling capabilities.

(2) Where an employee performs more than one task on Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

* Refer to [OSHA's Small Entity Compliance Guide](#) for more information.

‡ The water delivery system is not required to be integrated or mounted on the tool; it can be assembled and installed by the employer. Acceptable water delivery systems include direct connections to fixed water lines or portable water tank systems. These water delivery systems can be operated by one worker or could require a second worker to supply the water at the point of impact.

§ The integrated water delivery system can be a free-flowing water system designed for blade cooling as well as manufacturers' systems designed for dust suppression alone. This option applies only when grinders are used outdoors.

†† The water spray systems can be installed so that they can be activated by remote control.

** NOTE: When the operator exits the enclosed cab and is no longer actively performing the task, the operator is considered to have stopped the task. However, if other abrading, fracturing, or demolition work is performed by other heavy equipment and utility vehicles in the area while an operator is outside the cab, that operator is considered to be an employee "engaged in the task" and must be protected by the application of water and/or dust suppressants.

The following methods will be used to control and eliminate employee exposures to airborne levels of silica. They are listed below in order of hierarchy:

- Substitution – using materials that do not contain silica
- Isolation – separating the worker from the hazard (i.e. enclosing the work activity)
- Enclosure – isolating an area with sealed poly walls and negative air machines
- Process modification – change the work activity to reduce or eliminate employee exposure
- Local suppression – applying water to eliminate or reduce dust levels
- Local and general ventilation and/or dust collection systems
- Personal hygiene and safe work practices
- Preventive maintenance and housekeeping
- Respiratory protection

Work activities and the related control measures will be evaluated and implemented accordingly based on the work to be performed and characteristics of the work area, and will be reviewed periodically to ensure their effectiveness. There should be no visible emissions of dust during work activities. Silica dust generating work activities that will take place and are not covered in Table 1 above will require the following:

- Evaluation of the work to be performed
- Assessment of the potential hazards to those performing the work
- Identify the intended tools to be used
- Determination of controls to be put in place
- Development of a written silica exposure control plan specific to the work activity
- Verification of medical authorization for each worker to wear a respirator
- Annual respirator fit testing
- Training on the use and care of the respirator
- Worker silica training
- Personal air monitoring established
- Implementation of the written silica exposure control plan
- Laboratory analysis of the personal air monitoring samples
- Notification to the project team and workers of the sample results
- Determination if the methods in which the work was performed meet the standard
- Continue with the work as performed as if the methods and outcome meet the standard
- Revise the measures implemented if the results do not meet the standard
- Perform a new exposure assessment if the plans and measures are revised

The Competent Person onsite will maintain a record of airborne silica/dust complaints and develop a system for responding to silica/dust related complaints in an effective manner. At no time, will a complaint be dismissed intentionally or un-intentionally. In the event that the Competent Person cannot fully address the complaint, he/she will forward the complaint to the Grunley Safety Department for further assistance.

Grunley will take reasonable precautions to ensure that workers are protected from silica. Additionally, Grunley will notify, assess and evaluate employees of other trade contractors, who will be performing work that will create silica hazards with the intent of assuring that their work has been preplanned and measures are in place so their personnel and other trades are not adversely affected. If issues arise then the work that involves the hazard will be ceased and corrective measures will be initiated to protect these workers and others from the hazards.

8. Respiratory Protection

It is the full intention of Grunley to establish and implement control measures so respiratory protection devices are not required. It is our belief that exposures to crystalline silica dust can be reduced to levels below the 50 $\mu\text{g}/\text{m}^3$ PEL thus eliminating the need for respiratory protection.

9. Housekeeping

Grunley, its subcontractors, and other trade employers will be responsible for regular and routine cleaning of all areas of construction as their work takes place and prior to the end of each work shift. The accumulation of dust and debris is not allowed. Trades that generate trash, debris and dust are responsible for cleaning up after themselves as their work takes place. It is the responsibility of those trades to also remove these materials from the building prior to the end of each work shift.

Where potential silica dust is present then dry sweeping and the use of compressed air for cleaning purposes is strictly prohibited. These work areas will require wet washing, wet sweeping, sweeping with compound, continuous wet misting, water and squeegees, or vacuuming conducted through the use of a High Efficiency Particulate Air (HEPA) filtered vacuum system. There should be no visible emissions of dust during cleanup activities.

Emphasis will be placed on preventative maintenance and repair of equipment, proper storage of dust producing materials, and the collection of dust that contains silica. Where applicable and able, wet washing of surfaces will be performed. Water trucks will be required and used frequently to disperse water over larger areas to control potential silica/dust exposures. Crane operators, dump truck drivers and equipment operators will keep their cabs clean and free of dust and perform their work with the windows and doors closed.

10. Personal Hygiene and Practices

All food, beverages, tobacco products, non-food chewing products, and unapplied cosmetics are not allowed in work areas where the potential for silica dust exposure is present. Grunley and our subcontractors will make all reasonable attempts to provide washing facilities for personnel on our projects. In the event that washing facilities are not feasible, then other cleaning facilities such as garden hoses, portable water jugs, waterless soap, and/or hand cleaning products with paper towels will be provided as necessary.

Crystalline Silica WECP Template

COMPANY NAME:

Purpose

The purpose of this plan is to define processes and controls that **Company Name** will utilize to inform interested persons, including employees, that **Company Name** is complying with OSHA's - Gases, Vapors, Fumes, Dusts, and Mists standard, Title 29 Code of Federal Regulations 1926.55, 1926.1153 Respirable Silica, and other OSHA rules as needed to ensure that no employee is exposed to inhalation, ingestion, skin absorption, or contact with any material or substance at a concentration above those specified in the "Threshold Limit Values of Airborne Contaminants for 1970" of the American Conference of Governmental Industrial Hygienists found in Appendix A of 29 CFR 1926.55. **This program deals with exposure to Crystalline Silica and hazards associated with work activities that may potentially create an airborne silica exposure.**

To achieve compliance we must first implement all feasible administrative and engineering controls. However, when such controls are not feasible, we will use protective equipment or other protective measures to keep the exposure of employees to air contaminants within the limits prescribed in Appendix-A of 29 CFR 1926.55 and CFR 1926.1153.

This program applies to all construction work (including new construction, alteration, repair, etc.) where one or more employees may be occupationally exposed to gases, vapors, fumes, dusts, and mists at concentrations above those specified in Appendix-A of 29 CFR 1926.55

Administrative Duties

This safety program covers **Company Name**'s various work sites. The Safety Director and or Site Safety and Health Officer (SSHO) is the on-site program coordinator/manager and responsible for its daily implementation. The Safety Department will work with the SSHO and outside Industrial Hygiene professionals to establish an effective exposure control method and plan. This plan will be available in writing and updated, as necessary, and/or reviewed on a yearly basis. Copies of the written program may be obtained from the Safety Policy located in the **Company Name** job site Office Trailer or the Main Office, located in _____.

Potential Exposures

Exposure to fine particles of silica has been shown to cause silicosis, a serious and sometimes fatal lung disease as well as cancer, immune system effects, and kidney effects. Construction employees who inhale fine particles of silica may be at risk of developing these diseases. Employees can produce dusts containing silica when they cut, grind, crush, or drill construction materials such as concrete, masonry, tile and rock. The small particles easily become suspended in the air and, when inhaled, penetrate deep into employees' lungs.

Job Positions where a greater potential for exposure include: **MODIFY THE LIST BELOW TO BE SPECIFIC TO JOB POSITIONS OF YOUR COMPANY**

- Foreman – Dedication
- Dedication Laborer
- General Laborer
- Pipe Laborer
- Front End Loader Operator
- Trackhoe Operator
- Vac Truck Operator
- Backhoe Operator
- Pan Operator
- Dozer Operator
- Dedication Operator
- Milling Machine Operator
- Clearing Operator
- Grader Operator

The following activities may cause crystalline silica dust to be present in the air include, but are not limited to: **MODIFY THE LIST BELOW AS THEY RELATE TO YOU JOBSITES**

- Sawing, hammering, cutting, drilling, grinding, and chipping of concrete or masonry
- Chipping, hammering, and drilling rock
- Dry sweeping or pressurized air blowing of concrete, rock, or sand dust
- Crushing, loading, hauling, and dumping rock
- Sandblasting
- Demolition of concrete and masonry structures
- Demolition of materials containing crystalline silica
- Concrete mixing
- Working with ceramics, clay, tile, and pottery
- Stationary masonry saws
- Handheld masonry saws
- Hand-operated grinders
- Tuck-pointing and mortar removal
- Jackhammers (concrete breakers)
- Rotary hammers & similar tools
- Vehicle-mounted rock drilling rigs
- General housekeeping and dust suppression

When **Company Name** employees are involved with any of the above referenced work activities water will be used to control any potential silica containing dust. If it is not feasible to use water a vacuum system will be used to contain all potential silica containing dust. Employees may also experience exposure to potentially harmful levels of silica when performing work activities in areas where other contractors are performing construction activities. All other contractors will be required to control all silica containing dusts on our jobsites.

Controlling Silica Exposure

Due to the nature of construction and the materials and work activities throughout the construction industry it is assumed that the potential for employee exposure to crystalline silica is agreed. To that end **Company Name** has developed the following plan to control, reduce and prevent employee exposures of silica below the OSHA action level of 25 ug/m³ of respirable silica.

Controlling employee exposure to crystalline silica can be accomplished in many ways. **Company Name** will utilize the following system to reduce and/or eliminate employee exposures to silica:

- Air monitoring
- Control methods based on the results of the air monitoring

Monitoring

Respirable silica/dust sampling procedures, analytical methods and equipment shall conform to current NIOSH methods, or equivalent.

The following steps will be followed to establish **Company Name**'s crystalline silica/dust monitoring plan at a minimum:

- Identify sources of silica/dust, based on visual inspections, instantaneous and integrated air monitoring, job task review, environmental conditions, and work related activities.
- Identify "similar exposure groups" (SEG) based on job classification, work tasks, process and environmental conditions.
- Observe, consider and document process and environmental conditions during the sampling period.
- Determine airborne exposure levels for each similar exposure group and compare to OSHA's action level (AL) and permissible exposure level (PEL).
- The frequency of sampling for, as a minimum, will be based on the following table.
- All sampling will be conducted randomly or based on "worst case" conditions, with respect to dates, shift and location / individuals, within each exposure group.
- A system for the statistical management of the data will be used. Such a system will utilize measure of central tendency in order to verify the accuracy of similar exposure groups. A system such as "A strategy for Assessing and Managing Occupational Exposures", AIHA, 1998 shall be used (or an equivalent system acceptable to OSHA/USACE).

- All records pertaining to the development, implementation and maintenance of the silica/dust monitoring plan will be available to the employee their representative(s) and/or outside authorities for review upon request.
- The silica/dust monitoring plan will be reviewed by **Company Name** annually. In addition, a review must be conducted in response to management of change (change in process, handling, storage, etc.) within the facility or organization.

The frequency of sampling for each similar exposure group will be, as a minimum, as follows:

Respirable Dust &/or Respirable Silica Concentration (Use most preventative)	Sampling Frequency
<25 ug/m ³ (AL)	initial sampling
>25 ug/m ³ < 50 ug/m ³ (PEL)	sampling every 6 months
>50 ug/m ³	sampling every 3 months

The frequency of sampling for each similar exposure group will be, as a minimum, as follows:

It is assumed:

- That sampling is random or worst case, and representative of the population, as a minimum. Worst-case conditions will be used for the initial establishment of similar exposure group sampling frequency.
- That sampling of each similar exposure group is representative of the total number of workers within that group. (Guidance documents: NIOSH, Analytical Methods statistical table, AIHA)
- Any time conditions change to indicate an elevation in worker exposure, sampling of the similar exposure group affected will be carried out regardless of the frequency table requirements above.
- Sampling will consist of both area and personal samples.

Control Measures

Company Name will take all necessary measures by means of engineering controls, work practices and hygiene practices and facilities to ensure that the 8-hour Time Weighted Average (TWA) exposure of a worker to silica is reduced to the lowest practical level.

Company Name will facilitate the implementation of controls needed to limit or prevent employee exposures to crystalline silica. The following table shall be used as a minimum standard for action.

**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)
		≤4hours /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. – When used indoors or in an enclosed area.	None	APF 10
		APF 10	APF 10
(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	None
		APF 10	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	None	None

	emissions.		
(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
(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. – When used indoors or in an enclosed area.	None APF 10	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. – When used indoors or in an enclosed area.	APF 10 APF 10	APF 10 APF 10
(xi) Handheld grinders for mortar removal (i.e., tuckpointing)	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	APF 10	APF 25

	greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.		
(xii) Handheld grinders for uses other than mortar removal	<p>For tasks performed outdoors only: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>OR</p> <p>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. – When used indoors or in an enclosed area.</p>	None	None
(xiii) Walk-behind milling machines and floor grinders	<p>Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>OR</p> <p>Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.</p>	None	None
(xiv) Small drivable milling machines (less than half-lane)	<p>Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.</p>	None	None
(xv) Large drivable milling machines (half-lane and larger)	<p>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. Operate and maintain machine to minimize dust</p>	None	None

	<p>emissions.</p> <p>For cuts of four inches in depth or less on any substrate:</p> <p>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.</p> <p>Operate and maintain machine to minimize dust emissions.</p> <p>OR</p> <p>Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant.</p> <p>Operate and maintain machine to minimize dust emissions.</p>		
(xvi) Crushing machines	<p>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).</p> <p>Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions.</p> <p>Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.</p>	None	None
(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	<p>Operate equipment from within an enclosed cab.</p> <p>When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.</p>	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	<p>Apply water and/or dust suppressants as necessary to minimize dust emissions.</p> <p>OR</p> <p>When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.</p>	None None	None None

The following methods will be utilized to control employee exposures to airborne levels of silica. They are listed below in order of hierarchy:

- Substitution – using materials that do not contain silica
- Isolation – separating the worker from the hazard (i.e. enclosing the work activity)
- Process modification – changing the work activity to reduce/eliminate employee exposure
- Local suppression – applying water to eliminate/reduce dust levels
- Local and general ventilation / dust collection
- Personal hygiene and safe work practices
- Preventive maintenance / housekeeping

These control measures will be evaluated, adopted as necessary, and reviewed periodically to ensure their effectiveness.

The SSHO will maintain a record of airborne silica/dust complaints and develop a system for responding to silica/dust related complaints in an effective manner. At no time, will a complaint be dismissed intentionally or un-intentionally. In the event that the SSHO cannot fully address the complaint he/she should forward the complaint to the Safety Department for further assistance.

Company Name will take every reasonable precaution to ensure that workers under our employ are protected. Additionally we will notify, assess and evaluate employees of other trade contractors, whose health may be affected by silica/dust, and initiate corrective measures to protect these workers as well.

Respiratory Protection

It is the full intention of **Company Name** to not utilize respiratory protection devices, other than voluntary use of dust masks, at anytime during the construction process. It is our belief that exposures to crystalline silica/dust can be reduced to levels below the 50 ug/m³ PEL thus eliminating the need for respiratory protection and a written respiratory protection program.

Company Name will make available, for voluntary use only, dust masks for employees who choose to use them as additional protection. The following masks are available to the employee(s) who choose to use them:

- ***INSERT MODEL, NAME AND MAKE OF APPROVED MASKS***

Company Name will provide employees who voluntarily use dust masks with the information contained in Appendix D of OSHA Standard 29 CFR 1910.134. **A copy of Appendix D can be found in the Company Name Safety Manual under Section ????- Plans required by the Safety Manual, Appendix D, Section ???? - Respiratory Protection Plan. NEED CORRECT REFERENCE TO BEI'S RESPIRATORY PROTECTION POLICY**

Protective Clothing

Company Name will provide protective clothing (poly or Tyvek one-piece jump suit) to be worn by the employee. Suits are available in the **Company Name** job site Office Trainer and will be distributed by the SSHO upon request.

Housekeeping

Company Name, its subcontractors, and other trade employers will be responsible for regular and routine cleaning of all areas of construction. Accumulation of dust and debris is not permissible.

Where potential dispersal of silica dust is present dry sweeping and the use of compressed air for cleaning purposes is prohibited.

Where potential dispersal of silica dust is present, vacuuming will be conducted through the use of a High Efficiency Particulate Air (HEPA) filtered vacuum system.

Emphasis will be placed on preventative maintenance and repair of equipment, proper storage of dust producing materials, and the collection of dust containing silica. Gentle, wet washing of surfaces will be encouraged. Water trucks will be utilized to disperse water over larger areas to control potential silica/dust exposures.

Personal Hygiene and Practices

All food, beverages, tobacco products, non-food chewing products, and unapplied cosmetics are not allowed in work areas where the potential for silica/dust exposure is present.

Company Name will make all reasonable attempts to provide washing facilities on all projects. In the event that washing facilities are not feasible, waterless soap and hand cleaning products will be provided as necessary.

Grunley Silica Written Exposure Control Plan (WECP) Checklist

Write yes, no or n/a with the reason in the spaces below as it relates to the WECP.

Information Needed	Yes Included	No Not Included	Not Applicable With Reason
1 Title page to include the Grunley project name, Grunley project number, Grunley project address, Subcontractor name, Subcontractor address and Subcontractor phone number.			
2 Contractor complete and an accurate Site and Activity specific Written Exposure Control Plan (WECP) as it relates to Crystalline Silica.			
3 Contractor Competent Person (CP) designation letter(s) on company letterhead signed by an Executive Manager or Owner of the company. Keep in mind that the CP must be full time and onsite as work is performed.			
4 Contractor needs to supply Competent Person Silica training certification(s).			
5 Contractor to supply worker Silica training certifications for all workers onsite.			
6 Contractor to list equipment and engineering control methods that will be taken in accordance with Table-1. Contractor to state in plan if work methods and procedures will comply with Table-1.			
7 Contractor to supply Safety Data Sheets (SDS's) for all materials intended to be used in the course of the work.			
8 Contractor to state if work performed will not be in compliance with Table-1. If work is not compliant with Table-1, Contractor to provide: plans, measures, enclosure information, personal air monitoring information with test results, proper issuance of worker respiratory protection based on the air monitoring results and respiratory assigned protection factor.			
9 Contractor Site Specific Respiratory Protection Program to include but not limited to: half face piece respirators and N95 dust mask respirators. Contractor to provide annual worker respirator medical authorization documentation and fit testing documents.			

CORPORATE SAFETY PLAN

Information Needed	Yes Included	No Not Included	Not Applicable With Reason
10 Provide an Activity Hazard Analysis (AHA) using the Corps of Engineers (COE) current acceptable format.			
11 Sign-in document verifying the AHA meeting with all involved with the work to include: presenter (preferably the company safety representative), company name, printed name of each attendee, signature of each attendee, and date of the AHA meeting prior to work taking place.			

Steel Erection

Only persons experienced and trained in the erection of steel shall be employed for that purpose. In accordance with 29 CFR 1926, Subpart R and National Union agreements with Ironworkers, the following apply: Some of the following may be more stringent than the OSHA and National Union of Ironworker agreements but contain the Grunley safety rules that will be required and adhered to on Grunley projects.

- Site and activity specific work plans from the steel erection subcontractor shall be submitted **using Grunley's Steel Erection Work Plan Checklist** to the Grunley Project Team before mobilization takes place. **These plans shall be reviewed by the Grunley Safety Department for comments and acceptance before the work takes place. The final work plan will** be discussed at the subcontractor's pre-work preparatory meeting.
- Prior to mobilization, the subcontractor shall submit Competent Person resume and training documents related to fall protection and scaffolding to the Grunley Safety Department for review.
- **A letter of designation must be provided for the named Competent Person and an alternate. The letter must be signed by a Senior Manager, Safety Director or Company Owner that deems this person(s) Competent in the related activities.**
- **The Competent Person at a minimum must hold a current First Aid & CPR training card, Scaffolding training (if applicable) that is current within 5-years, a current 24-hour Competent Person Fall Protection training that is current within the past 5-years, and an OSHA 30-hour training documentation that is current within the past 5-years. The training must be documented on a certificate that includes the date of training, name of individual trained, the trainer, and topics covered.**
- **Workers shall be trained in Fall Protection within the past 5-years and documentation of this training shall be submitted to Grunley in the subcontractors work plan.**
- All affected underground structures and utilities shall be identified, protected, and supported accordingly and as required prior to the start of these operations. These will be identified by qualified Subcontractor and Grunley Personnel or by an outside locator.
- Identification and support of structures will require the involvement of a Registered Professional Structural Engineer at the subcontractor's expense. Capacities of structures, utilities, garages, tunnels, floors, facilities or similar shall be known before any loading of them takes place.
- If equipment is planned to be moved, placed, or staged onto structures, parking garages, utilities, tunnels, floors, or similar, a prework plan needs to be developed by the subcontractor and their Registered Professional Structural Engineer at the subcontractor expense and submitted to Grunley for review, comments and approval prior to the work and loading taking place.

- This plan will need to specifically identify the anticipated location of travel and loading, the known and documented weights, along with the known capacities of the structures beneath before placement and loading takes place.
- The crane portion of this section is also applicable to this work and must be complied with in full.
- Structural steel will be stored in orderly piles and securely stacked to prevent members sliding or the toppling of the stack.
- Only qualified personnel will be employed in the erection of steel.
- All cranes will, at all times, adhere to the twenty-foot rule when working near overhead electrical lines.
- Tag lines will be used to control all loads raised by the crane.
- Welding screens will be used when warranted.
- **During hot work that creates spark or open flames a Grunley Daily Hot Work Permit must be completed and posted in the vicinity of the work. A fire watch shall be assigned at all hot work areas. The Fire watch will wear a red vest with "FIRE WATCH" printed on the back. The Fire Watch shall have no other duties other than to assure the safety of the person performing hot work and put out smoldering embers or fires when observed.**
- No personnel will be exposed to loads being moved overhead.
- All cranes will be required to have the proper Safety certification and/or annual inspection records and logbooks.
- All employee fall protection shall adhere to the current standards.
- Subcontractors shall submit a copy of the site-specific fall protection plan using **Grunley's Fall Protection Work Plan Checklist** for review and acceptance prior to the commencement of work.
- Personnel erecting or working on the steel need to use personal fall protection systems when attachment points exist. This will be accomplished by using beam slides, column brackets, tie off to columns, or engineered static lines.
- **Work will need to be monitored if wind speeds affect the ability for personnel to safely handle and control the handling of materials. The Competent Person shall monitor and make the decision as to when this work shall be stopped. Grunley may also make this decision to stop work when it's not safe based on the situation.**
- **Work shall be immediately stopped when lightning is visible or detected within 10 miles of the work.**

- Ladder access must be provided by the steel erection subcontractor. If extension or job made ladders are used they must extend a minimum of 3' above the upper level and be tied off/secured at the top, bottom or both to prevent movement and/or displacement.
- The steel erection subcontractor shall install both the top cable rail at a maximum height of 45" and mid cable rail at 21" around the perimeters and openings of the work areas. Until these fixed fall protection measures are in place all personnel working in the areas and exposed to falls greater than 6' shall have and use 100% personal fall arrest systems provided by the subcontractor.
- If step ladders are used on decks or floor areas and placed in the general vicinity of perimeter fall protection systems or opening protection, the ladders need to be placed perpendicular to the rails so the worker is not exposed to the hazard. If this cannot be complied with then the worker must have and use a person fall arrest system in place and provided by the subcontractor.
- The fall protection portion of this plan is applicable and required to be complied with in full and implemented by the subcontractor as it relates to the steel erection work.
- An adequate access road will be established for the crane and delivery trailers, along with means and methods to control and protect vehicles and pedestrians and a firm and properly graded and drained area that is readily accessible for a laydown area, the work and erector's crane, trailers, and equipment.
- Each employee engaged in a steel erection activity while walking or working from a surface with unprotected sides or edges greater than 6' above a lower level needs to be protected from falls with guardrails, personal fall arrest systems, or safety nets.
- Safety nets will be installed in accordance with the manufacturer's directions and extend outwards from the building at the necessary distances based on potential fall heights. These provisions are identified in the Subpart R – Steel Erection Standards section 1926.502 (c).
- Air compressor hose (pneumatic hose) whip check lines are needed and required to be at each hose to coupling connection in addition the connection wire, pin or cotter keys before the air compressor hoses are used.
- Multiple hoist lifts (Christmas Treeing) is authorized to be performed as long as the details of this work is incorporated into the subcontractor's written plan and is in accordance with the OSHA 1926 and USACE EM385-1-1 Safety & Health Standards. It will be the responsibility of the subcontractors onsite Competent Person to assure that the work is being adhered to in accordance with the plan and safety standards.
- All materials shall be kept at a minimum of 10' from the edge of the building on all floors including the roof. No materials are to be stored within the area that is 10' from the building edge.

- For subcontractors that intend to use scissor lifts in the work areas, they will need to know what the floor capacities are and determine if they will be overloading them with the lift(s) beforehand. If it is questionable then a Registered Professional Engineer (RPE) will need to be hired at the Subcontractors cost to make the determination and provide the stamped and signed documentation and letter prior to bringing them onsite.
- For subcontractors that intend to use scissor lifts in the work areas, they will need install stop blocks at all floor depressions, elevation changes and floor opening covers before they are brought onsite to prevent the lifts from being driven into or over them.
- If lightning is observed, all Load Handling Equipment (LHE), work on elevated platforms or scaffolding, roofing activities, and work in open areas shall stop. A determination shall be made as to the proximity to the operation being performed. Once lightning is seen, count the number of seconds until you hear the thunder. Divide number of seconds by 5 to get the distance the lightning is away from you. If lightning is 10-miles away or less, work should stop until 30-minutes after the last audible thunder or visible flash of lightning.

DAILY HOT WORK PERMIT

BUILDING NAME:		NAME OF EMERGENCY CONTACT:	
TELEPHONE NUMBER:	OFFICE ISSUING PERMIT:	SPECIFIC LOCATION OF WORK COVERED:	
DATE OF WORK:	START TIME:	STOP TIME:	
NATURE OF WORK IN DETAIL:			
DO YOU UNDERSTAND THAT THIS PERMIT NEEDS TO BE CONSPICUOUSLY POSTED IN THE SPECIFIC HOT WORK AREA? YES NO			
HAS EACH EMPLOYEE WORKING UNDER THIS HOT WORK PERMIT BEEN BRIEFED IN RELATION TO KNOW WHAT IS EXPECTED OF THEM TO PERFORM THIS HOT WORK? YES NO			
SUPERVISOR'S SIGNATURE:			
ANTICIPATED HAZARDS DUE TO WORK (SAFETY, HEALTH, FIRE)			
28. ARE ALL COMBUSTIBLES AND/OR FLAMMABLES REMOVED FROM THE AREA OR LOCATIONS BELOW PRIOR TO THE WORK? YES NO 29. ARE FIRE BLANKETS USED TO COVER AND/OR PROTECT MATERIALS THAT CANNOT BE REMOVED FROM THE AREA? YES NO 30. IS A CHARGED FIRE EXTINGUISHER LOCATED WITHIN 25' OF THE HOT WORK? YES NO 31. IS A WATER HOSE GOING TO BE USED IN ADDITION TO THE FIRE EXTINGUISHER TO PREVENT FIRES? YES NO 32. ARE ELECTRICAL SYSTEMS PROTECTED OR DEENERGIZED PRIOR TO USING WATER NEAR THEM TO CONTROL FIRES? YES NO 33. IS A VENTILATION FAN OR SMOKE EATER PROVIDED FOR THE WORK AND EXHAUSTED TO THE OUTSIDE AIR? YES NO 34. ARE WELDING BLINDS PROVIDED AND GOING TO BE USED WHEN PERFORMING WELDING WORK? YES NO 35. ARE OXYGEN AND ACETYLENE BOTTLES SECURED TO A CART AND ARE THE PROTECTIVE CAPS PROVIDED? YES NO 36. IS THE SUPERVISOR GOING TO ASSURE THAT A FIRE WATCH IS PROVIDED WEARING A RED HIGH VISIBLY VEST WITH FIRE WATCH PRINTED ON THE BACK AND HAS WALKED THE AFFECTED AREAS TO ASSURE THAT THERE ARE NO SMOLDERING EMBERS 60 MINUTES AFTER THE WORK HAS BEEN COMPLETED? YES NO			
LIST OF PROTECTIVE CLOTHING, EQUIPMENT, AND CONTROLS REQUIRED FOR THE WORK (INCLUDING PPE AND PUBLIC PROTECTION)			
CIRCLE THE APPLICABLE PPE ITEMS THAT WILL BE USED: WELDING GLOVES, LEATHER CUTTING GLOVES, WELDING SHIELDS, FIRE RETARDANT APRONS, FIRE RETARDANT SMOCKS, LEGGINGS, SLEEVES, LEATHER WELDING JACKETS, NOMEX TYPE FIRE RETARDANT JACKETS			
NAME OF PERSON(S) AUTHORIZED TO PERFORM WORK:		NAME OF PERSON(S) TRAINED TO SERVE AS THE FIRE WATCH:	
EMERGENCY PRECAUTIONS (INCLUDE TYPE, NUMBER, AND LOCATION OF FIRE EXTINGUISHERS)			
PERMIT ISSUED BY			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
PERMIT ISSUED TO			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
PAPERWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	
60 MINUTE POSTWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:	SIGNATURE:	DATE	

Grunley Steel Erection Plan Checklist

Write yes, no or n/a with the reason in the spaces below as it relates to the Steel Erection Plan which is developed by the subcontractor and reviewed by Grunley

Information Needed	Yes included	No not included	Not Applicable with reason
1. Include this completed Grunley Steel Erection Plan Checklist document at the beginning of the plan.			
2. Overview to include the Grunley project name, project number, a detailed summary of the work to take place address and the subcontractor name.			
3. Updated and current Certificate of Insurance (COI) with the project name and address noted in the Description of Operations area, Grunley named as Certificate Holder and Grunley named as Additional Insured.			
4. Site-Specific Sequence of Erection Activities and diagram showing crane setup and steel erection area.			
5. Confirm written notification of concrete compressive strength test for anchor bolts.			
6. Provide welding certifications if moment welds will be done.			
7. Subcontractor Safety Manager name and cell phone number.			
8. Anticipated start and completion date.			
9. Detailed information provided for access to the steel beams, and metal decking.			
10. Detailed information on how the stability of the columns are going to stay maintained during steel erection process.			
11. Detailed information showing the placement and securing of decking to prevent displacement after bracing has been installed.			
12. Competent Person (CP) Designation – In writing, on company letterhead, signed by a senior manager of the company designating their Competent Person by name, title, and cell phone number on the specific project.			
13. Provide the resume, experience and knowledge of the Competent Person, along with Competent Person training documentation specifically for Steel Erection and Fall Protection.			
14. State in the plan that the Competent Person is responsible for the work, shall be onsite during the work, enforces compliance with the site-specific steel erection plan, and has the Company's authority to take-action and expend funds when necessary to resolve safety issues.			
15. Current and specific worker training documentation as it relates to Steel Erection and Fall Protection			
16. Provide a copy of connector training for each employee performing connecting operations.			

17. Provide a copy of rigging and signal training for all workers involved in the Steel Erection Process that is current within 5 years.			
18. Provide information and manufacturer cut sheets for the specific fall protection that will be used and how it will be setup.			
19. Describe falling object protection procedures.			
20. Describe elevator shaft protection.			
21. Attach a copy of the Grunley approved Crane Plan for the crane being used for the Steel Erection activities.			
22. Provide the details, rigging cut sheets and documentation of specific training provided by a Qualified Person as it relates to multiple lift rigging procedures.			
23. Include the qualified person's name, phone number and credentials.			
24. Scissor lift and boom lift documentation of training for the steel erection activities.			
25. Provide daily inspection checklist for fall protection equipment.			
26. Develop and provide the Steel Erection and Fall Protection Activity Hazard Analysis (AHA) using the Corps of Engineers (COE) current AHA format.			
27. Sign-in sheet to verify the AHA meeting with all involved prior to the work taking place to include presenter (preferably the company safety representative) company name, printed name and signature of each attendee, and date of meeting.			
28. Ground control means and methods to establish and identify the Controlled Erection Zone (CEZ) with physical barriers, signs, and controls to be setup on the ground areas to assure nobody walks beneath those working above. This needs to include a ground person (spotter) at all times to assure everything remains in place and nobody enters the established areas.			
29. Plans for tethering of tools to prevent them from displacement.			
30. Provide an emergency action rescue plan with an emergency point of contact and alternate name and phone number.			
31. Name, title, phone number and email address of the contractors Safety Director or Safety Manager that will frequently and periodically evaluate and monitor the work for compliance.			
32. Provide contractor Safety Director or Safety Manager credentials and training certifications that would deem this person to be the Competent Person.			
33. Printed name, signature and title of the Contractors Safety Director, Safety Manager, Safety Inspector, Risk Manager, Vice President, Operations Manager, President, Principal of the Company, or otherwise authorized senior manager of the company that has reviewed and accepted the developed and submitted Steel Erection and Fall Protection plan's.			

Ventilation and Dust Control

- Site and activity specific work plans from subcontractors involving ventilation systems and controlling of dust shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- Adequate ventilation shall be provided in all work locations where it is necessary or determined to be a respiratory health concern (i.e. interior welding, cutting demolition, airborne dust displacement type activities, etc.)
- Dust protection measures shall be established to assure dust does not migrate into the building.
- Acceptable indoor air quality shall be continuously maintained in the work areas.
- **There shall be no dry sweeping.** Sweeping compound or the use of water shall be implemented **to assure there are no visible emissions of dust during clean-up.**
- Wet misting of the area shall be administered **to remove airborne dust** and to remove the potential of employee exposure **to silica** where adequate ventilation cannot be provided.
- Wet misting shall not be conducted if potential electrical hazards exist.
- Saw cutting of stone or concrete shall take place using wet methods to control airborne dust **and assure that the work is being conducted as required in Table 1 of the OSHA Silica Standards.**
- **HEPA vacuums will be used for clean-up and** Negative Air Machines (NAM's) will be used in the work areas when warranted to filter the air and provide acceptable indoor air quality.
- All efforts and measures will be taken by each subcontractor to assure that visible dust is non-existent as they perform their work.

Welding and Cutting

- Site and activity specific work plan from subcontractors involved with welding and cutting activities shall be submitted to the Grunley Project Team before mobilization takes place. These plans shall be reviewed by the Project Team and Safety Department and discussed at the subcontractor's pre-work preparatory meeting.
- A permit to perform welding or cutting operations will be obtained from the local fire departments or safety offices.
- A Grunley Daily Hot Work Permit will be completed and updated daily by the safety officer, superintendent, and/or foreman prior to the commencement of work **and posted in the vicinity of the work or taped to the 20-pound ABC fire extinguisher that the subcontractor will provide.**
- The person responsible for issuing the permits will review the conditions and determine the precautionary measures to be followed in granting the authorization.
- All cutting and/or welding equipment will be in good condition and maintained during the project.
- A "Safety Check Valve" will be installed on all Oxygen and acetylene torches to prevent "blow back" of the gases.
- All hose splices and connections must be accomplished under the American Welding Society guidelines.
- Only persons certificated to repair gauges will perform such work. When a gauge is repaired or adjusted, it must be calibrated by a recognized gas-authority.
- Combustibles will be removed from the areas of welding and cutting, or if unable to be moved, they will be protected by fire blankets, stand-by fire extinguishers, water hose, **and a designated full time Fire Watch will wear a high visibility red vest with "FIRE WATCH" printed on the back to identify them. The Fire Watch must have no other duties other than to assure the safety of the person performing the hot work and extinguishing and embers of fires that occur. The Fire Watch must remain an hour after the hot work is completed to assure there are no fires or smoldering materials present in the affected hot work areas.**
- A 20-pound ABC fully charged fire extinguisher with an annual inspection tag, plastic pin seal (keeper) and monthly inspected ABC fire extinguisher for welding and cutting operations will be provided by the subcontractor at their expense and maintained at a minimum of 10 feet, but not farther than 50 feet from the hot work area.

- Welding shields or blinds will be used in high traffic areas or if employees occupy the same work area and are not protected from welding flash.
- No welding or cutting operations will be performed on used barrels, tanks, or other containers, unless adequately purged and documentation is provided to verify that this has been accomplished.
- Compressed gas cylinders will remain in an upright position at all times, capped when not in use, gauges removed and capped for overnight storage, and secured to prevent displacement at all times.
- All oxygen, propane or acetylene compressed gas cylinders shall be removed from the building when not in use and stored in storage cages or the designated storage areas with the proper separation, no smoking and flammable signage posted, and a fire extinguisher in close proximity before the end of each day.
- All persons performing welding or cutting will have and use the proper personal protective equipment at all times. These items will include, but are not limited to, welding hoods attached to hard hats, fire retardant clothing, welding, or cutting gloves, and cutting goggles.
- Welding or cutting will be accomplished in well-ventilated areas. When ventilation is inadequate, negative air machines, forced air or smoke eaters with organic vapor charcoal filters, ducting and ventilators will be used.
- Welding or cutting in confined spaces will be reviewed. Atmospheric testing will be performed to determine if fumes are not being ventilated well. If fumes are not ventilated as necessary, a Class-C respirator may be required.
- Welding cables will not have any repairs within the last 10' of the electrode holder.
- Personnel performing welding will need to check their hoods to make sure the lenses are not scratched. Typically, welders will use a #10 lens or greater lens in the welding hoods. Welding hoods need to attach to the hard hat.
- The following contains the Grunley Hot Work Permit form that must be completed, posted at the hot work place, and adhered to before the associated hot work takes place.
- **All compressed gas cylinders will be removed from the building and placed in the pre-approved storage location after each work shift. No compressed gas cylinders will be left in the building after work.**

DAILY HOT WORK PERMIT

BUILDING NAME:		NAME OF EMERGENCY CONTACT:	
TELEPHONE NUMBER:	OFFICE ISSUING PERMIT:	SPECIFIC LOCATION OF WORK COVERED:	
DATE OF WORK:	START TIME:	STOP TIME:	
NATURE OF WORK IN DETAIL:			
DO YOU UNDERSTAND THAT THIS PERMIT NEEDS TO BE CONSPICUOUSLY POSTED IN THE SPECIFIC HOT WORK AREA? YES NO			
HAS EACH EMPLOYEE WORKING UNDER THIS HOT WORK PERMIT BEEN BRIEFED IN RELATION TO KNOW WHAT IS EXPECTED OF THEM TO PERFORM THIS HOT WORK? YES NO			
SUPERVISOR'S SIGNATURE:			
ANTICIPATED HAZARDS DUE TO WORK (SAFETY, HEALTH, FIRE)			
37. ARE ALL COMBUSTIBLES AND/OR FLAMMABLES REMOVED FROM THE AREA OR LOCATIONS BELOW PRIOR TO THE WORK? YES NO 38. ARE FIRE BLANKETS USED TO COVER AND/OR PROTECT MATERIALS THAT CANNOT BE REMOVED FROM THE AREA? YES NO 39. IS A CHARGED FIRE EXTINGUISHER LOCATED WITHIN 25' OF THE HOT WORK? YES NO 40. IS A WATER HOSE GOING TO BE USED IN ADDITION TO THE FIRE EXTINGUISHER TO PREVENT FIRES? YES NO 41. ARE ELECTRICAL SYSTEMS PROTECTED OR DEENERGIZED PRIOR TO USING WATER NEAR THEM TO CONTROL FIRES? YES NO 42. IS A VENTILATION FAN OR SMOKE EATER PROVIDED FOR THE WORK AND EXHAUSTED TO THE OUTSIDE AIR? YES NO 43. ARE WELDING BLINDS PROVIDED AND GOING TO BE USED WHEN PERFORMING WELDING WORK? YES NO 44. ARE OXYGEN AND ACETYLENE BOTTLES SECURED TO A CART AND ARE THE PROTECTIVE CAPS PROVIDED? YES NO 45. IS THE SUPERVISOR GOING TO ASSURE THAT A FIRE WATCH HAS WALKED THE AFFECTED AREAS TO ASSURE THAT THERE ARE NO SMOLDERING EMBERS 60 MINUTES AFTER THE WORK HAS BEEN COMPLETED? THE FIRE WATCH SHALL BE IDENTIFIED BY WEARING A RED VEST WITH FIRE WATCH PRINTED ON THE BACK. YES NO			
LIST OF PROTECTIVE CLOTHING, EQUIPMENT, AND CONTROLS REQUIRED FOR THE WORK (INCLUDING PPE AND PUBLIC PROTECTION)			
CIRCLE THE APPLICABLE PPE ITEMS THAT WILL BE USED: WELDING GLOVES, LEATHER CUTTING GLOVES, WELDING SHIELDS, FIRE RETARDANT APRONS, FIRE RETARDANT SMOCKS, LEGGINGS, SLEEVES, LEATHER WELDING JACKETS, NOMEX TYPE FIRE RETARDANT JACKETS			
NAME OF PERSON(S) AUTHORIZED TO PERFORM WORK:		NAME OF PERSON(S) TRAINED TO SERVE AS THE FIRE WATCH:	
EMERGENCY PRECAUTIONS (INCLUDE TYPE, NUMBER, AND LOCATION OF FIRE EXTINGUISHERS)			
PERMIT ISSUED BY			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE
PERMIT ISSUED TO			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE
PAPERWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE
60 MINUTE POSTWORK SITE INSPECTOR			
NAME, TITLE, COMPANY:		SIGNATURE:	DATE

Q. ACTIVITY HAZARD ANALYSIS (AHA)

The following is a sample list of some hazards that are likely to be encountered on a typical Grunley Construction project. The list is not meant to be all-inclusive and contains elements that are not appropriate for each specific project. Each Job Specific Safety Plan will include a job specific list of hazards and a more detailed review of these hazards will be conducted at each Preparatory Phase meeting in which an Activity Hazard Analysis will be required for each Definable Feature of Work. All Activity Hazard Analyses (AHA's) will be developed and submitted to Grunley as part of the subcontractors work plans using the USACE EM 385-1-1 format for review, comments and approval before work takes place.

- AHA Template/Sign-In Sheet
- Aerial (Scissor) Lifts
- Articulating Boom Lift
- Asbestos Abatement
- Carpentry
- Chain-link Fences and Gates
- Chute Installation and Dismantling
- Clearing and Grading
- Clearing, Grubbing, & Tree Removal
- Concrete Formwork
- Concrete Placement
- Confined Space
- Conveyors
- Crane Hoisting & Rigging
- Cut, Cap, & Make Safe
- Demolition
- Earth Moving Equipment
- Electrical Rough-In
- Electrical & Mechanical Lockout & Tagout
- Excavation and Trenching
- Fall Protection & Prevention
- Forklift
- Hand & Power Tools
- Horizontal Confined Space
- Housekeeping
- HVAC
- Installation of Fire Prevention Systems
- Ladders
- Lead Abatement
- Lockout/Tagout
- Material Hoist Installation & Operation
- Masonry
- Metal Studs & Drywall
- Mobilization & Office Trailer Setup
- Painting

- PCB's
- Personal Protective Equipment (PPE)
- Powder Actuated Tools
- Pulling Cables
- Receiving Deliveries & Unloading Trucks
- Roofing
- Sediment & Erosion Control
- Scaffold Erection & Dismantling
- Steel Erection
- Temporary Electrical Installation
- Temporary Lighting
- Ventilation, Dust, & Fume Control
- Welding, Grinding, & Cutting
- Window Washing
- Windows & Glasswork

**BE
ACT
WORK** safe

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