



Safety and Loss Control Program



Carter & Carter Construction, LLC
730 N Dean Rd., Ste. 200
Auburn, AL 36830

Carter & Carter Safety Policy and Procedures Acknowledgements

I have read and understand the attached company policies and procedures and agree to abide by them. I have also had the duties of the position which I have accepted explained to me, and I understand the requirements of the position. I understand that any violation of the above policies is reason for disciplinary action up to and including termination.

Employee Signature

Date

Employee Name

Supervisor Signature

Date

Supervisor Name



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SECTION 1

Safety and Loss Control Program Structure

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1.1 PURPOSE

The purpose of this *Safety & Loss Control Program* is to provide for the systematic identification, evaluation, and prevention or control of general workplace hazards, specific job hazards, and potential hazards that may arise from foreseeable conditions.

This *Safety & Loss Control Program Manual* has been prepared so that each Carter & Carter employee will have a reference as to what is expected of him or her with regard to safe working practices on each Carter & Carter jobsite and shop area. It must be clear that safety on each site and in each area is our *highest priority*.

Employee rights and responsibilities go hand in hand. We fully expect that no Carter & Carter employee will ever intentionally expose any worker to an unsafe condition, or observe actual or possible exposure without reporting the instance to his or her supervisor as soon as possible. Employees are expected to develop their own commitment to safety and health protection for themselves and for their fellow workers. Any employee who does not comply with the company safety policy, or who is persistently negligent in his or her responsibilities in this regard may be subject to disciplinary action or dismissal.

1.2 SCOPE AND INTENT

The *Safety & Loss Control Program* establishes the duties and responsibilities of the field supervisory staff, as well as the basic procedures to be followed by each Carter & Carter employee. The regulations and objectives are to help assure the health and safety of each Carter & Carter employee, their fellow workers, all persons authorized to be on each jobsite, and the public.

In the preparation of this Manual, every effort has been made to be complete, yet practical. It is the explicit intention of Carter & Carter that each program, policy, and procedure described herein be comprehensive, and comply with all applicable current laws to the best of our ability to interpret and apply them to our daily work processes.

It is possible that a process or requirement on any jobsite may not be completely addressed, or that a new process or requirement may be encountered. In such conditions, it is understood that each new situation must be addressed by immediately referring to and applying local, state, and/or federal laws governing the situation--*prior to performing the related work activities*. If there is any question, contact the Carter & Carter Safety and Health Manager for assistance and direction. The Safety and Health Manager has the authority to halt any work activity which he or she believes may be an imminent threat to life, health, property, or equipment.

1.3 MANUAL ORGANIZATION

The Manual is divided into major sections for clarity and ease of reference. Each major section includes the Carter & Carter company policies and procedures with respect to all project and employee requirements, responsibilities, and expectations.

The Safety & Loss Control Program Manual is further coordinated with two other company procedure manuals:

1. The Hazard Communication Program Manual, and



2. The Human Resources Manual

These manuals are explained in their respective sections in this Manual. Together, all three manuals make up the complete Carter & Carter Safety & Loss Control Program, and should be maintained as a single set.

1.3.1 Hazard Communication Program Manual

The complete *Safety & Loss Control Program Manual* will further be coordinated with the separate *Hazard Communication Program Manual (HAZ-COM Manual)* described in Section 9 of this Manual.

The HAZ-COM Manual is a separate book containing the actual MSDS (Material Safety Data Sheets) for those materials commonly used by Carter & Carter on its jobsites.

1.3.2 Human Resources Manual

The Carter & Carter *Human Resources Manual* describes the complete set of company policies and procedures with respect to the human resources function. It is further coordinated with the related safety policies contained in this *Safety & Loss Control Program Manual*.

1.4 CARTER & CARTER SAFETY AND HEALTH MANAGER

The Company Safety and Health Manager is:

Collin Carter
Mobile Phone: (334) 663-6846

This individual is the authorized company official who will be available to answer questions and disseminate information with respect to company safety policies, programs, and procedures. Contact him whenever necessary.

1.5 MANUAL ISSUE, REVISIONS, AND USE

The Manual is issued to all Carter & Carter supervisory personnel, including Project Managers and Site Superintendents. Through these individuals, its information is to be made available to all Carter & Carter employees to refer to at any time. As future needs and changes in requirements occur, revisions will be made, and each employee will be advised.

This Safety & Loss Control Program Manual is the property of Carter & Carter. It is the responsibility of the issued employee to keep the Manual current with all revisions as they are distributed, to maintain the Manual in good and usable condition at all times, and to return the Manual to Carter & Carter upon termination of employment.

Any clarifications or variances sought must be obtained through the Company Safety and Health Manager.



1.6 NEW HIRE TRAINING

Every new hire at Carter & Carter will receive a personal condensed version of this safety manual. He or she will be instructed to read through it prior to beginning work, and directed to keep the personal manual available at all times. The Personnel Manager or the Safety and Health Manager will conduct a safety orientation with the new hire(s), concluding with a short time to answer any questions that the new hire(s) may have concerning safety. At the end of this orientation session, the new hire(s) may be released to his or her supervisor for assignment.

Rehires of less than six (6) months duration need not be considered new hires for the purposes of safety orientation.



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Safety and Health Policy

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EMERGENCY RESPONSE PLAN

This must be filled out BEFORE beginning work on each site.

FOR _____ JOBSITE

CITY/LOCATION: _____

SUBDIVISION: _____

STREET NAME: _____

JOB ADDRESS: _____

JOB PHONE CONTACT: _____

EMERGENCY PHONE CONTACT NUMBERS

LOCAL FIRE DEPT/EMS AREA: _____

AMBULANCE SERVICE: _____

NEAREST MEDICAL TREATMENT: _____

DIRECTIONS (EMS/Clinic/Dr.): _____

DIRECTIONS TO WORKSITE: _____



2.3 EMERGENCY RESPONSE TO HAZARDOUS SUBSTANCES

If any substance is found of unknown origin, company policy is to **LEAVE IT ALONE!** Immediately evacuate the area, and contact the nearest hazardous material response team. Do not allow employees on site until declared safe by the response team.

2.4 FIRST AID

- Arrangements must be made **BEFORE** starting the project, to provide for prompt medical response in the event of an emergency
- In areas where severe bleeding, suffocation, or severe electrical shock can occur, a 3 to 4 minute response time is required
- If medical attention is not available within 4 minutes, then a first aid trained person must be available on the jobsite at all times
- An appropriate, weatherproof first aid kit must be on site. It must be checked weekly
- Provisions for an ambulance or other transportation must be made in advance.
- Contact methods must be provided
- Telephone numbers must be posted where 911 is not available.

On this jobsite, Carter & Carter has designated _____ as having adequate training to render first aid in the event of a medical emergency in areas where emergency response time is in excess of 4-min. They will maintain appropriate first aid kits and check them weekly to assure they are properly stocked.

First aid kits are located at the following locations:

- _____
- _____
- Every employee shall be trained in emergency procedures:
 - Evacuation plan
 - Alarm systems
 - Shutdown procedures for equipment
 - Types of potential emergencies

It is the Employer's responsibility to review their job sites addressing all potential emergency situations.



2.5 POLICY STATEMENT

It is Carter & Carter's belief that our people are our most important asset and the preservation of employee Safety and Health must remain a constant consideration in every phase of our business. We will provide the resources necessary to manage, control, or eliminate all safety and health hazards.

All employees are responsible for working safely and productively, as well as recognition and awareness of hazards in their work areas. Employees are also responsible for following safe work practices, including the use of Personal Protective Equipment (PPE) where necessary.

It is our belief that any safety and health program must have total employee involvement. Therefore, this program has management's highest priority, support, and participation.

PRODUCTION IS NOT SO URGENT THAT WE CANNOT TAKE TIME TO DO OUR WORK SAFELY.

Collin Carter
Carter & Carter, President



2.6 GOAL

Safety begins at the top and goes downward throughout the company. The primary goal of Carter & Carter is to continue operating a profitable business while protecting employees from injuries, illness or harm. This can be achieved in part by delegating responsibility and accountability to all involved in this company's operation.

- **Responsibility:** Having to answer for activities and results.
- **Accountability:** The actions taken by management to insure the performance of responsibilities.

In other words, to reach our goal of a safe workplace everyone needs to take responsibility and be held accountable.

Benefits of achieving our goals are:

- Minimizing of injuries and accidents
- Minimizing the loss of property and equipment
- Elimination of potential fatalities
- Elimination of potential permanent disabilities
- Elimination of potential OSHA fines
- Reductions in workers' compensation costs
- Reductions in operating costs
- Having the best Safety and Health conditions possible in the workplace.
- Enter Additional Company Goals and Objectives As Necessary.

2.7 MANAGEMENT COMMITMENT

The management of Carter & Carter is committed to the company's safety policy, and to provide direction and motivation by:

- Appointing **Collin Carter** as our Safety and Health Manager.
- Establishing company safety goals and objectives.
- Developing and implementing a written Safety and Health program.
- Ensuring total commitment to the Safety and Health program.
- Facilitating employees' safety training.
- Establishing responsibilities for management and employees to follow.
- Ensuring that management and employees are held accountable for performance of their safety responsibilities.
- Establishing and enforcing disciplinary procedures for employees.
- Reviewing the Safety and Health program annually, and revising or updating as needed.



2.8 SAFETY COMMITTEE and SAFETY MEETINGS

The Committee shall consist of representatives from management and non-management employees with Collin Carter as the chairman. The committee is a forum, created for the purpose of fostering safety and health through communication.

The responsibilities of Safety Committee Members include:

- Discussing safety policies and procedures with management and making recommendations for improvements.
- Reviewing accident investigation reports on all accidents and “near-misses”.
- Identifying unsafe conditions and work practices and making recommendations for corrections.

All Carter & Carter field personnel shall attend and participate in the Weekly safety meetings. The Weekly safety meeting shall be conducted by (SAFETY PERSON). Problems that have arisen or that are anticipated shall be discussed along with any other safety and health topics. The meeting shall be kept a valuable educational experience by:

- Keeping the meetings moving.
- Starting and Stopping on time.
- Using illustrated material and demonstrations to make the point.
- Discussing each topic thoroughly, providing handouts if possible.
- Reviewing accidents, injuries, property losses, and “near misses”.
- Evaluating accidents, injuries, property losses, and “near misses” for trends and similar causes to initiate corrective actions.

The Safety and Health Manager must document the meetings using the form in Appendix A.

2.9 ASSIGNMENT OF RESPONSIBILITY

2.9.1 Safety and Health Manager

Carter & Carter has designated (SAFETY PERSON) as our Safety and Health Manager. Their cell phone and office phone numbers are:

Office: (334) 502-4100

Cell: (334) 663-6846

It shall be the duty of the Safety and Health Manager to assist the Supervisor/Foreman and all other levels of Management in the initiation, education, and execution of an effective safety program including the following:

- Introducing the safety program to new employees.
- Following up on recommendations, suggestions, etc., made at the Weekly safety meetings. All topics of safety concerns must be documented accordingly.
- Assisting the personnel in the execution of standard policies.



- Conducting safety inspections on a periodic basis.
- Addressing all hazards or potential hazards as needed.
- Preparing monthly accident reports and investigations.
- Maintaining adequate stock of first aid supplies and other safety equipment to insure their immediate availability.
- Making sure there is adequate number of qualified first aid certified people on the work site.
- Becoming thoroughly familiar with OSHA regulations and local and state safety codes.
- Defining the responsibilities for safety and health of all subordinates and holding each person accountable for their results through the formal appraisal system and where necessary, disciplinary procedures.
- Emphasizing to employees that accidents create unnecessary personal and financial losses.
- **ENTER ADDITIONAL RESPONSIBILITIES AS NECESSARY**

2.9.2 Supervisor/Foreman

The Supervisors and/or Foremen will establish an operating atmosphere that insures that safety and health is managed in the same manner and with the same emphasis as production, cost, and quality control.

- Regularly emphasizing that accident and health hazard exposure prevention are not only moral responsibilities, but also a condition of employment.
- Identifying operational oversights that could contribute to accidents which often result in injuries and property damage.
- Participating in safety and health related activities, including routinely attending safety meetings, reviews of the facility, and correcting employee behavior that can result in accidents and injuries.
- Spending time with each person hired explaining the safety policies and the hazards of his/her particular work.
- Ensuring that initial orientation of "new hires" is carried out by **(SAFETY PERSON)**.
- Making sure that if a "Competent Person" is required, that one is present to oversee, and instruct employees when necessary.
- Never short-cutting safety for expediency, nor allowing workers to do so.
- Enforcing safety rules consistently, and following company's discipline and enforcement procedures.
- Conducting a daily, job-site safety inspection and correcting noted safety violations.
- **ENTER ADDITIONAL RESPONSIBILITIES AS NECESSARY**

2.9.3 Employees

It is the duty of each and every employee to know the safety rules, and conduct his work in compliance with these rules. Disregard of the safety and health rules shall be grounds for disciplinary action up to and including termination. It is also the duty of each employee to make full use of the safeguards provided for their protection. Every employee will receive an



orientation when hired and receive a copy of the Company Safety and Health Program.

Employee responsibilities include the following:

- Reading, understanding and following safety and health rules and procedures.
- Signing the Policies and Procedures Acknowledgement included in Appendix B.
- Wearing Personal Protective Equipment (PPE) at all times when working in areas where there is a possible danger of injury.
- Wearing suitable work clothes as determined by the supervisor/foreman.
- Performing all tasks safely as directed by their supervisor/foreman.
- Reporting ALL injuries, no matter how slight to their supervisor/foreman immediately, and seeking treatment promptly.
- Knowing the location of first aid, fire fighting equipment, and other safety devices.
- Attending any and all required safety and health meetings.
- Not performing potentially hazardous tasks, or using any hazardous material until properly trained, and following all safety procedures when performing those tasks.
- STOPPING AND ASKING QUESTIONS IF EVER IN DOUBT ABOUT THE SAFETY OF ANY OPERATION
- ENTER ADDITIONAL RESPONSIBILITIES AS NECESSARY

2.10 DISCIPLINE/ENFORCEMENT

CARTER & CARTER seeks to establish and maintain standards of employee conduct and supervisory practices which will support and promote safe and effective business operations. These supervisory practices include administering corrective action when employee safety performance or conduct jeopardizes this goal. This policy sets forth general guidelines for a corrective action process aimed to document and correct undesirable employee behavior. Major elements of this policy include:

- A. Constructive criticism/instruction by the employee's supervisor/foreman to educate and inform employees of appropriate safety performance and behavior.
- B. Correcting employee's negative behavior to the extent required.
- C. Informing the employee that continued violation of company safety policies may result in termination.
- D. Written documentation of disciplinary warnings and corrective action taken.

Depending on the facts and circumstances involved with each situation, the company may choose any corrective action including immediate termination. However, in most circumstances the following steps will be followed:

1. **VERBAL WARNING** informally documented, by supervisor/foreman or Safety and Health Manager for minor infractions of company safety rules. Supervisor/foreman or Safety and Health Manager must inform the employee what safety rule or policy was violated and how to correct the problem.
2. **WRITTEN WARNING**, documented in employee's file. Repeated minor infractions or a more substantial safety infraction requires issuance of a written warning. Every attempt



should be made to re-educate the employee on the desired performance. The employee should acknowledge the warning by signing the document before it is placed in their personnel file.

3. **SUSPENSION**, for three (3) working days. If employee fails to appropriately respond or management determines the infraction is sufficiently serious.
4. **TERMINATION**, for repeated or serious safety infractions.

2.11 CONTROL OF HAZARDS

Where feasible, workplace hazards are prevented by effective design of the job site or job. Where it is not feasible to eliminate such hazards, they must be controlled to prevent unsafe and unhealthy exposure. Once a potential hazard is recognized, the elimination or control must be done in a timely manner. These procedures include measures such as the following:

- Maintaining all extension cords and equipment.
- Ensuring all guards and safety devices are working.
- Periodically inspecting the worksite for safety hazards.
- Establishing a medical program that provides applicable first aid to the site, as well as nearby physician and emergency phone numbers.
- Addressing any and all safety hazards with employees.
- **ENTER ADDITIONAL RESPONSIBILITIES AS NECESSARY**

2.12 FIRE PREVENTION

Fire prevention is an important part of protecting employees and company assets. Fire hazards must be controlled to prevent unsafe conditions. Once a potential hazard is recognized, it must be eliminated or controlled in a timely manner. The following fire prevention requirements must be met for each site:

- One conspicuously located 2A fire extinguisher (or equivalent) for every floor.
- One 2A conspicuously located fire extinguisher (or equivalent) for every 3000 sq/ft
- A conspicuously located, 10B fire extinguisher for everywhere more than 5-gallons of flammable liquids or gas are stored.
- Generators and internal combustion engines located away from combustible materials.
- Site free from accumulation of combustible materials or weeds.
- No obstructions or combustible materials piled in the exits.
- No more than 25-gallons of combustible liquids stored on site.
- No LPG containers stored in any buildings or enclosed spaces.
- Fire extinguishers in the immediate vicinity where welding, cutting or heating is being done.
- **ENTER ADDITIONAL REQUIREMENTS AS NECESSARY**



2.13 TRAINING AND EDUCATION

Training is an essential component of an effective safety and health program addressing the responsibilities of both management and employees at the site. Training is most effective when incorporated into other education on performance requirements and job practices.

Training programs should be provided as follows:

- Initially when the safety and health plan is developed
- For all new employees before beginning work
- When new equipment, materials, or processes are introduced
- When procedures have been updated or revised
- When experiences/operations show that employee performance must be improved
- At least annually

Besides the standard training, employees should also be trained in the recognition of hazards – be able to look at an operation and identify unsafe acts and conditions. A list of typical hazards employees should be able to recognize may include:

- **Fall Hazards** - Falls from- Floors, Roofs and roof openings, Ladders (Straight and Step), Scaffolds, Wall openings, Tripping, Trenches, Steel Erection, Stairs, Chairs
- **Electrical Hazards**- Appliances, Damaged cords, Outlets, Overloads, Overhead High Voltage, Extension cords, Portable Tools (broken casing or damaged wiring), Grounding, Metal Boxes, Switches, Ground fault circuit interrupters(GFCI)
- **Housekeeping Issues** - Exits, Walkways, Floors, Trash, Storage of Materials (Hazardous and Non-Hazardous), Protruding Nails etc.,
- **Fire Hazards**- Oily-Dirty Rags, Combustibles, Fuel Gas Cylinders, Exits (blocked) Trips/Slips Stairs, Un-even flooring, Electrical cords, icy walkways
- **Health Hazards**- Silicosis, Asbestos, Loss of hearing, Eye injury due to flying objects

Employees trained in the recognition and reporting of hazards and supervisors/foremen trained in the correction of hazards will substantially reduce the likelihood of a serious injury.

2.14 RECORDKEEPING AND OSHA LOG REVIEW

In the event of a fatality (death on the job) or catastrophe (accident resulting in hospitalization of three or more workers) contact (SAFETY PERSON). Their office and cell-phone numbers are:

Office: (334) 502-4100

Cell: (XXX) XXX-XXXX

The Safety and Health Manager will in turn report it to the OSHA Region VIII Office at (303) 844-1600, within 8 hours after the occurrence.



If an injury or accident should ever occur, you are to report it to your supervisor/foreman as soon as possible. A log entry and summary report shall be maintained for every recordable injury and illness. The entry should be done within 7 days after the injury or illness has occurred. The OSHA 300 or equivalent shall be used for the recording.

An OSHA recordable injury or illness is defined as an injury resulting in loss of consciousness, days away from work, days of restricted work, or medical treatment beyond first aid.

First Aid includes:

- Tetanus shots
- Band-aids or butterfly bandages
- Cleaning, flushing or soaking wounds
- Ace bandages and wraps
- Non-prescription drugs at non-prescription strength (Aspirin, Tylenol, Etc.)
- Drilling fingernails/toenails
- Eye patches, eye flushing and foreign body removal from eye with Q-tips
- Finger guards
- Hot or cold packs
- Drinking fluids for heat stress

An annual summary of recordable injuries and illnesses must be posted at a conspicuous location in the workplace and contain the following information: Calendar year, company name/establishment name, establishment address, certifying signature, title, and date. If no injury or illness occurred in the year, zeroes must be entered on the total line.

The OSHA logs should be evaluated by the employer to determine trends or patterns in injuries in order to appropriately address hazards and implement prevention strategies.

2.15 ACCIDENT INVESTIGATION

Supervisors/Foreman

- Provide first aid, call for emergency medical care if required.
- If further medical treatment is required, arrange to have an employer representative accompany the injured employee to the medical facility.
- Secure area, equipment and personnel from injury and further damage.
- Contact Safety and Health Manager.

Safety and Health Manager

- Investigate the incident (injury)--gather facts, employee and witness statements; take pictures and physical measurements of incident site and equipment involved.
- Complete an incident investigation report form (Included in Appendix C) and the necessary workers' compensation paperwork within 24 hours whenever possible.
- Insure that corrective action to prevent a recurrence is taken.



- Discuss incident, where appropriate, in safety and other employee meetings with the intent to prevent a recurrence.
- Discuss incident with other supervisors/foremen and other management.
- If the injury warrants time away from work, insure that the absence is authorized by a physician and that you maintain contact with your employee while he/she remains off work.
- Monitor status of employee(s) off work, maintain contact with employee and encourage return to work even if restrictions are imposed by the physician.
- When injured employee(s) return to work they should not be allowed to return to work without “return to work” release forms from the physician. Review the release carefully and insure that you can accommodate the restrictions, and that the employee follows the restrictions indicated by the physician.

2.16 SAFETY RULES AND PROCEDURES

- No employee is expected to undertake a job until that person has received adequate training.
- All employees shall be trained on every potential hazard that they could be exposed to and how to protect themselves.
- No employee is required to work under conditions which are unsanitary, dangerous or hazardous to their health.
- Only qualified trained personnel are permitted to operate machinery or equipment.
- All injuries must be reported to your supervision/foreman.
- Manufacturer’s specifications /limitations /instructions shall be followed.
- Particular attention should be given to new employees and to employees moving to new jobs or doing non-routine tasks.
- All OSHA posters shall be posted.
- Emergency numbers shall be posted and reviewed with employees
- Each employee in an excavation/trench shall be protected from cave-ins by an adequate protective system.
- Employees working in areas where there is a possible danger of head injury, excessive noise exposure, or potential eye and face injury shall be protected by Personal Protection Equipment (PPE).
- All hand and power tools and similar equipment, whether furnished by the employer or the employee, shall be maintained in a safe condition.
- All materials stored in tiers shall be stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling or collapse.
- The employer shall insure that electrical equipment is free from recognized hazards that are likely to cause death or serious physical harm to employees.
- All scaffolding shall be erected in accordance with the CFR 1926.451 subpart L. standard guardrails for fall protection and ladders for safe access shall be used.
- All places of employment shall be kept clean, the floor of every workroom shall be maintained, so far as practicable, in a dry condition; standing water shall be removed.



- Where wet processes are used, drainage shall be maintained and false floors, platforms, mats or other dry standing places or appropriate waterproof footwear shall be provided.
- To facilitate cleaning, every floor, working place, and passageway shall be kept free from protruding nails, splinters, loose boards, and holes and openings.
 - All floor openings, open sided floor and wall openings shall be guarded by a standard railings and toe boards or cover.
 - The employer shall comply with the manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks.
 - All equipment left unattended at night, adjacent to a highway in normal use, or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, to identify the location of the equipment.
 - No construction loads shall be placed on a concrete structure or portion of a concrete structure unless the employer determines, based on information received from a person who is qualified in structural design, that the structure or portion of the structure is capable of supporting the loads.
 - A stairway or ladder shall be provided at all personnel points of access where there is a break in elevation of 19 inches or more, and no ramp, runway, sloped embankment, or personnel hoist is provided.
 - As Carter & Carter is committed to a safe and healthy jobsite, additional procedures can be found in **Appendix 1 – Jobsite-Specific Recommended Practices** which are required of Carter & Carter employees. Additionally, this supplement exemplifies the extent to which Carter & Carter prioritizes a safe and healthy jobsite. As jobsite safety is an effort involving multiple parties, subcontractors working on Carter & Carter jobsites should share our commitment to a safe and healthy jobsite, and if needed, can use this supplement to model their own jobsite safety practices accordingly.

2.17 EMPLOYEE EMERGENCY ACTION PLAN:

Fire & Other Emergencies

The following emergency action plan is appropriate only for small construction sites, larger sites should have a much more detailed plan.

1. **Emergency escape procedures:** Immediately leave the building through the closest practical exit. Meet up at the foremen's truck.
2. **Critical plant operations:** shut off the generator on your way out if possible, otherwise evacuate the building.
3. **Accounting for Employees:** Foreman/Supervisor is to account for all employees after emergency evacuation has been completed and assign duties as necessary.
4. **Means of reporting fires and other emergencies:** Dial 911 on the cell-phone, report the location of the emergency and provide directions to the responders.
5. **Further Information:** Contact the Safety and Health Manager or further information or explanation of duties under the plan.



Alarms Systems/Evacuation: Carter & Carter establishes the call: Fire, Fire, Fire: (el fuego, el fuego, el fuego) by any employee, as the signal to immediately evacuate the building/facility for: fire and other emergencies.

Training: Before implementing the emergency action plan, a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees will be designated and trained.

The plan will be reviewed with each employee covered by the plan at the following times:

1. Initially when the plan is developed or upon initial assignment.
2. Whenever the employee's responsibilities or designated actions under the plan change.
3. Whenever the plan is changed.

The plan will be kept at the worksite and made available for employee review.

For those employers with 10 or fewer employees the emergency action plan may be communicated orally to employees and the employer need not maintain a written plan.



SECTION 3

Safety & Loss Control Employee Participation

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3.1 RESPONSIBILITY ASSIGNMENT

Whether at the jobsite, warehouse, shop, or office, every employee has a responsibility to themselves, to the other employees, and to the company to work safely. That responsibility includes the elimination of hazards wherever possible, and reporting actual or potential hazards to management or to the Safety and Health Manager immediately upon their observation.

Supervisors are held accountable for compliance with all safety objectives in the performance of every activity. This is especially so in the areas of training and hazard control. Any performance evaluation(s) will reflect their involvement and active participation in accident prevention.

The fact that the company has assigned a Safety and Health Manager does not release managers or supervisors from their safety and health responsibilities in any way. The Safety and Health Manager will be available to assist supervisors in implementing the company Safety and Health Program, but will not be expected to perform the respective supervisors' duties.

3.2 THE CARTER & CARTER SAFETY COMMITTEE

3.2.1 Description

The Carter & Carter Safety Committee is made up of both employer and employee representatives who are charged with the responsibility of general oversight of the Carter & Carter Safety & Loss Control Program. The Committee convenes quarterly, and performs the important functions described in Section 3.2.2.

3.2.2 Committee Function and Objectives

1. Meet regularly to review the overall Safety & Loss Control Program, and specific operating issues that may arise during the period.
2. Serve in an advisory capacity to the Safety and Health Manager, and to management.
3. Familiarize themselves with applicable construction safety standards.
4. Review established company procedures and evaluate the effectiveness of their implementation.
5. Recommend corrections and improvements in procedures, safety rules, and company policies with respect to accident and illness prevention on our jobsites and in our offices.
6. Communicate procedures approved by Carter & Carter management to all Carter & Carter employees. Ensure that all updates and changes to company procedure as approved by Carter & Carter management are adopted, properly coordinated with the entire company Safety & Loss Control Program, and distributed.
7. Participate in communication procedures by which Carter & Carter shall train committee members and Carter & Carter employees.
8. Prepare and distribute minutes of committee meetings. Make records of committee activities and communications available to Carter & Carter employees.

3.2.3 Safety Committee Structure and Duties

SAFETY COMMITTEE DUTIES:



- Develop company-wide action plans for compliance with safety regulations.
- Develop an action program for project accountability.
- Provide suggestions and direction for efficient implementation of prescribed corrective measures.
- Direct the distribution of safety regulations, programs, and other informational materials.

CHAIRMAN DUTIES:

- Schedule and enforce participation in all Safety Committee meetings.
- Prepare and distribute Safety Committee meeting agendas.
- Report to senior company management regarding the status of all recommendations.
- Ensure preparation of minutes of meetings, and distribute.
- In the absence of the Chairman, the Co-Chairman is authorized to assume all responsibilities and authority of the Chairman.

MEMBER DUTIES: (*Superintendents, Foremen, Managers, and Employees*)

- Participate in all Safety Meetings.
- Assist with safety inspections.
- Apply and enforce OSHA and company regulations.
- Report unsafe conditions.
- Report all accidents or near accidents.
- Contribute ideas and suggestions for improvement of safety and better communication of safety programs and information.

3.3 THE SAFETY AND HEALTH MANAGER

The company Safety and Health Manager is responsible for the administration of routine dissemination of all company Safety & Loss Control information, for the administration of all company Safety & Loss Control procedures, and for monitoring the compliance of Carter & Carter employees with all stated policies and procedures. The Safety and Health Manager is to be recognized as a deputy of each Senior Project Manager, and shall report directly to them. In matters of imminent safety concern, the Safety and Health Manager will simultaneously report directly to company senior management. Any recommendations issued by the Safety and Health Manager with respect to safety and loss control are to be considered as issued by the Senior Project Manager.

IN SITUATIONS WHERE IMMINENT DANGER OR SERIOUS HAZARD EXISTS, THE SAFETY AND HEALTH MANAGER HAS THE AUTHORITY TO ORDER A WORK SUSPENSION.

The Safety and Health Manager will assist the Project Managers and Site Superintendents in all matters pertaining to safety and loss control. Duties of the Safety and Health Manager will include but may not be limited to:



- Assist each company employee with compliance with all company and OSHA safety and health policies and regulations.
- Implement the company Safety, Health, & Loss Control Programs, and monitor compliances.
- Coordinate all company safety activities in ways that facilitate their implementation.
- Advise on the purchase of safety and health materials to ensure compliance with all safety standards.
- Advise management regarding proposed and/or necessary changes in safety standards and regulations.
- Conduct field inspections in efforts to identify unsafe conditions and/or actions of jobsite personnel. Make verbal and written recommendations for both immediate and future correction. Follow up to assure correction. Issue warnings of persistent, uncorrected unsafe conditions.
- Organize and conduct training of supervisory and hourly employees in safe work procedures.
- Be thoroughly familiar with applicable state, local, and OSHA laws, procedures, and standards. Be available to assist management in interpretations, development of policy, and implementation of all adopted procedures.
- Represent Carter & Carter management during any local, state, insurance, or OSHA inspections in every jobsite situation.
- Coordinate the deployment of emergency care systems, such as first aid, medical, fire protection, evacuation, and fire alarms.
- Be knowledgeable of health-related and hygiene-related activities, and pursue continuing education with respect to same.
- Coordinate any/all site security procedures and personnel, when required for the specific project.
- Assist all Project Managers in the implementation of the Carter & Carter safety programs as they relate to the specific projects. Maintain communication with Carter & Carter management.
- Respond to company managers and supervisors with answers to their requests for information.
- Coordinate jobsite meetings with Carter & Carter Project Managers. Assist or lead weekly jobsite Tailgate Safety Meetings for Carter & Carter trades to the extent available to do so. Assist all project managers with organization and presentation of weekly Tailgate Safety Meetings.
- Assist the Project Managers in the establishment and maintenance of all jobsite notices, signs, etc., and maintenance of each "# Days Safely Worked" sign on each company jobsite.
- Coordinate the organization and implementation of all emergency care warning and evacuation systems.
- Maintain all accident reporting and documentation procedures, including preparation of all reports, notifications to all parties, and accident investigation reporting.
- Promptly notify Carter & Carter management and other required parties whenever necessary.



- Assist in the preparation and presentation of the monthly Supervisory Safety Meeting, and quarterly Employee Safety Meetings.
- Coordinate and participate in disciplinary actions and procedures.
- Review all accident reports for correct form, complete information, and proper preparation.
- Periodically evaluate the effectiveness of all Safety, Health, & Loss Control Programs, and make appropriate recommendations to management.

3.4 THE SENIOR PROJECT MANAGER

The Senior Project Manager is responsible for supervising and monitoring the Safety & Loss Control Programs for all projects under his or her direct supervision, and through each Project Manager for those projects being reported to him or her. Safety inspections are to be conducted by the Senior Project Manager during all routine jobsite tours.

3.5 THE PROJECT MANAGER

The Project Manager is ultimately responsible for the complete Safety & Loss Control effort on the projects under his or her direct authority. All reporting will be made to the Project Manager, who will:

- Plan production so that all work will be performed in accordance with established safety regulations.
- Administer the Safety & Loss Control Program on all projects under his or her control.
- Disseminate all safety information to all appropriate personnel and subcontractors.
- Receive and process all reports, surveys, accident reports, and other information relating to safety and loss control that are to be submitted to the Project Manager.
- Determine the need for corrections that may be necessary to remedy or improve various situations, and ensure that such action is implemented and maintained.

The Project Manager shall coordinate his or her specific responsibilities as listed in this Section 3.5 with the Site Superintendent and Safety and Health Manager, and determine the most effective implementation of all Safety & Loss Control responsibilities between the Project Manager and Site Superintendent.

3.6 THE SITE SUPERINTENDENT

The Site Superintendent, as coordinated with and under the direction of the Project Manager, is responsible for components of all aspects of the jobsite safety program, and for the proactive administration of all jobsite safety and loss control activities. The responsibilities of the Site Superintendent may be coordinated with and/or shared by the Project Manager as the Project Manager will determine, and in any event will include but may not be limited to:

- Plan production so that all work will be performed in accordance with established safety laws, procedures, and regulations.



- Assist in the preparation, notification, and monitoring of the Jobsite Safety Program.
- Establish, post, and maintain all jobsite safety and health notices, signs, etc.
- Regularly conduct jobsite and work area inspections in an effort to identify unsafe or potentially unsafe conditions and/or activities of jobsite personnel.
- Make recommendations for both immediate correction and future improvements in each condition. Follow through on each recommendation in order to ensure proper responses and continuing improvements.
- Be knowledgeable of all applicable local, state, and OSHA rules, procedures, regulations, and standards.
- Be prepared and available to accompany any local, state, insurance, or OSHA inspectors to represent Carter & Carter management and/or assist the Safety and Health Manager or project manager in such representation whenever requested to do so.
- Coordinate the organization and development of emergency care materials, including first aid equipment, medical materials, and fire protection equipment.
- Coordinate emergency evacuation procedures and fire alarm provisions with the company Safety and Health Manager.
- Be familiar with health issues, and or industrial hygiene. Be aware of all procedures needed to deal with industrial hygiene issues.
- Coordinate site security procedures and personnel as may be required for the specific project, and as may be determined to be necessary by the project manager.
- Lead weekly jobsite Tailgate Safety Meetings for Carter & Carter trades. Assist the Safety and Health Manager in the presentation of Tailgate Safety Meetings when he or she is available for such meetings as coordinated.
- Coordinate emergency care warning and evacuation systems as required for the specific project.
- Ensure that proper safety material, equipment, and protective devices are available, well maintained, in correct working order, and used whenever required.
- Instruct all foremen in safety requirements and make certain that each foreman regularly passes the instruction on to their crews.
- Take advantage of all safety training as it is offered, be aware of all safety rules, and respect the need for continuing safety education.
- Review all accidents, oversee correction of all unsafe practices, and file accident reports.
- Conduct jobsite safety meetings as described in the related section(s) of this Safety & Loss Control Program Manual, and provide all employees with proper instruction on safety requirements.
- Require conformance to safety standards by all subcontractors as required by the standard company Subcontractor Safety Policy.
- Notify the Carter & Carter home office of all actual or alleged safety violations by any/all parties.
- Provide for the protection of the public from company operations.
- Regularly attempt to ensure safe performance and enforce all compliances by others present on the site, including the project owner and architect/engineer representatives, the general public, visitors, and the employees of other contractors.

3.7 THE JOB FOREMAN



The Job Foreman, as coordinated with and under the direction of the Site Superintendent, is responsible for the proactive administration, control, and enforcement of all provisions of the company jobsite safety program as they relate to the crews under their direction.

The responsibilities of the project foreman will include but may not be limited to:

- Carry out the Jobsite Safety Program at the work level.
- Be aware of all safety requirements and safe working practices.
- Plan all work activities in ways that comply with safe working practices.
- Instruct new employees and existing employees performing new tasks in safe working practices.
- Provide crews with continuing instruction on safety requirements, and conduct regular Tailgate Safety Meetings.
- Install and maintain all devices in a manner coordinated with the Site Superintendent and Project Manager, in order to protect the public from company operations.
- Make certain that protection equipment is available, maintained in operating condition, and used.
- Act without delay to correct all hazards including unsafe acts and conditions which are within the scope of your crews' work.
- Act to secure prompt medical attention for any injured persons.
- Immediately report all actual, perceived, or alleged safety violations to your immediate supervisor.

3.8 CARTER & CARTER EMPLOYEES

Each Carter & Carter employee is to make themselves aware of their safety, health, and loss control responsibilities. Each employee will be expected to comply with all safety, health, and loss control rules, regulations, and stated company policies which are applicable to their work. Employees are expected to report observed safety and health violations, suspected violations, and anticipated hazards to his or her immediate supervisor immediately upon observation or detection. If such reported conditions are not subsequently corrected, the employee is to report the failed correction to the Safety and Health Manager.

Workers Shall:

- Work safely and in such a manner as to ensure their own safety, as well as the safety of coworkers and all others.
- Request help when unsure of how to perform any task safely.
- Correct unsafe acts or conditions within the scope of immediate work.
- Report any uncorrected unsafe acts or conditions to supervision.
- Report for work in good physical and mental condition to safely carry out assigned duties.
- Avail themselves of company and industry sponsored safety programs.
- Use and maintain all safety devices provided.
- Maintain and properly use all tools under his or her control.



- Follow all safety rules.

Provide fellow employees with help in implementing safety procedures and complying with safety requirements.

All Personnel Shall:

- Strive to make all work environments and company operations safe.
- Maintain mental and physical health conducive to working safely.
- Keep all work areas clean and free of debris and obstacles.
- Assess results of their actions on the entire workplace.
- Replace or repair safety precautions removed or altered before leaving work area.
- Abide by all safety rules and regulations of the owner and every legal authority on each jobsite.
- Work in strict conformance with OSHA regulations.

No Carter & Carter employee shall be required or knowingly be permitted to work in an unsafe environment, except for the purpose of making safety corrections; and then only after proper precautions have been taken for their protection.

3.9 CARTER & CARTER SUBCONTRACTORS AND TRADE CONTRACTORS

Each Carter & Carter subcontractor or trade contractor is completely responsible for the safety, health, and security of the individuals in their employment. Each is required to comply with the requirements of the Carter & Carter Safety Program as incorporated into their respective subcontracts or purchase agreements, and with all laws, regulations, and requirements of OSHA, the owner, and every other agency having jurisdiction over the work.

Each Carter & Carter subcontractor or trade contractor is to be required to submit to the Carter & Carter Project Manager copies of their respective safety programs prior to the start of their work. Each subcontractor or trade contractor will:

- Abide by all company and project safety rules.
- Participate in all periodic jobsite safety meetings and regular site safety inspections.
- Appoint one representative and one alternate representative with the responsibility to attend safety meetings, respond to notified safety violations, and otherwise participate in the project ongoing safety program.
- Provide an adequate first aid kit for use by its employees.
- Provide a list of employees qualified in first aid who may be available to administer first aid.
- Notify all other contractors when their activities could possibly affect the health or safety of employees of other companies.
- Report all injuries or any unsafe conditions that may become apparent to the Carter & Carter Project Superintendent or Project Manager.

3.10 ARCHITECTS, ENGINEERS, OWNERS, AND VISITORS



Prior to being allowed to proceed anywhere on a jobsite, all personnel and representatives of architects, engineers, owners, and visitors shall be required to:

- Abide by all company and project safety rules.
- Check in with the project site superintendent so that possession and use of proper personal protective equipment may be confirmed or provided, such as hard hats, or eye or respirator protection.
- Refrain from entering any construction area without the knowledge of Carter & Carter jobsite supervision, and confirmation that all required and appropriate precautions and protections have been made.



SECTION 4

Jobsite Safety and Health Program

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4.1 SAFETY AND HEALTH ADMINISTRATION

Each worksite must be regularly analyzed on a continuing basis in order to identify existing actual or potentially hazardous conditions. It is the responsibility of the Project Manager to administer the complete Jobsite Safety Program through the Site Superintendent and in a manner coordinated with the Safety and Health Manager.

The consideration of the Safety Program begins at the site utilization planning stage, and continues throughout the life of the project. Consider the Site Safety Planning Checklist of Section 4.3 as a starting point to help organize the particular project's Jobsite Safety Program.

4.2 JOBSITE SAFETY AND HEALTH INSPECTION PROGRAM

4.2.1 Description

Carter & Carter has established a jobsite inspection program designed to identify safety and health violations and hazards that exist in all the work environments. It is the responsibility of all supervisors to regularly observe jobsites, work areas, tools, and equipment daily, and take all appropriate actions necessary to eliminate or control any hazards that are identified. If eliminating or controlling the hazard goes beyond the authority of the supervisor, the Safety and Health Manager is to be asked for assistance. Both Carter & Carter employees and non-company personnel must be kept away from every identified hazard until it is corrected.

The frequency of inspections will be based upon potential hazards and the type and complexity of the project. The frequency determination will be made by the Project Manager, Superintendent or the Safety and Health Manager.

It is important to note that more accidents result from unsafe acts or actions than from unsafe conditions. In addition to inspecting jobsites and work areas for unsafe conditions, supervisors should observe operations, work procedures, and employee actions. Unsafe activities must be eliminated and replaced with safe procedures. ***All Carter & Carter employees committing unsafe acts or violating safe working procedures are to be reprimanded according to the Disciplinary Action Policy of Section 2.4.***

All hazards identified during daily observations or periodic inspections should be corrected or controlled immediately. The report of such inspections may be included in the Project's ***Daily Field Report*** that includes all activities on the jobsite, or may be completed using the ***Jobsite Safety Inspection Report Form*** of Section 4.2.3.

All field reports and inspection reports noting any safety deficiency or safety concern are to be forwarded to the Safety and Health Manager for review and follow-up action when required.

The Safety and Health Manager shall make both scheduled and surprise inspections. The results of his or her inspection will be discussed with the project management and supervisory staff immediately following the inspection. Supervisors will take immediate action to eliminate, correct, or control the hazard, or ensure that project management has taken such action.



4.2.2 Field Inspection Procedures

The manner in which a field inspection is conducted depends upon its purpose and scope. The following is a list of guidelines and suggestions that will help ensure that each field safety inspection is comprehensive and efficient:

- Be aware in advance of what you plan to inspect.
- Review applicable regulations. Familiarize yourself with the hazards that are associated with the operation or equipment that you intend to inspect.
- Schedule the inspection at a time that will allow a maximum opportunity to view operations and work practices. Mid-morning or early afternoon are often good times.
- Be alert to all hazards, and do not merely run through the checklist. A checklist is only a reminder. Hazards unique to a specific situation should not be overlooked.
- Choose a systematic inspection route. Cover the entire area footprint and leave nothing out. When re-inspecting a work area, approach from a different direction or use a different route to gain a different perspective of jobsite conditions.
- Take notes, and be sure to note the exact description and/or location of every hazard when observed. Include ideas for corrective action. Do not wait until after the inspection to record hazardous conditions or unsafe actions; details might get forgotten.
- Look for the source cause(s) of adverse conditions and practices. Think in terms of correction action only. Do not focus on fixing blame.
- If an unsafe piece of equipment or condition is observed, the supervisor shall warn the employees of the hazard(s) involved. If a life-threatening hazard exists, the operation must be immediately suspended. The work will be allowed to resume only after the supervisor is satisfied that the hazard has been thoroughly corrected.
- Any unsafe conditions on the part of a subcontractor must be brought to that company's immediate attention. All such unsafe conditions must be reported in writing and noted in the *Daily Field Report* or field *Safety Inspection Report*. All reports are to be forwarded to the subcontractor, with a copy sent to the Carter & Carter Safety and Health Manager. ***Always remember that you and Carter & Carter could be held accountable for the actions and negligence of every subcontractor associated with our work.***

4.2.3 Sample Jobsite Safety Inspection Report Form

The report of all jobsite inspections may be included in the project's *Daily Field Report*, or may be completed using the *Sample Jobsite Safety Inspection Report Form* of this section (sample appears on the following page).



4.3 JOBSITE SAFETY PLANNING CHECKLIST

Prior to the startup of every construction project, consideration must be given to the basic logistics of safety in and around the jobsite. As the project develops in the field, the initial determinations and arrangements for each of the items may require periodic or special modification in order to ensure that all safety considerations remain adequate as conditions on the jobsite change. At a minimum, the items listed below must be addressed. Where necessary, action must be taken during all appropriate stages of job development--prior to, during, and after construction.

The following is a checklist of specific items to be considered during the development of the specific jobsite safety program. It is a helpful aid, but is not necessarily conclusive. Check with the Safety and Health Manager, and *review the specific project requirements*.

1. Administration: Establish and maintain on-file adequate supplies of:
 - a. Site Safety Program _____
 - b. Safety Review Checklists _____
 - c. Posted listings of emergency services _____
 - d. Accident Investigation Report Forms _____
 - e. Accident Eyewitness Statement Outline _____
 - f. Tailgate Safety Meeting Agendas _____
 - g. OSHA forms 101 & 200 (See Section 8) _____

2. Forward "Job Startup Notice" to Carter & Carter insurance carrier _____

3. Identify all formal and available informal safety personnel:
 - a. Carter & Carter Safety Officer _____
 - b. Carter & Carter On-Site Safety Representative _____
 - c. Owner Safety Representative _____
 - d. All Carter & Carter employees with first aid, CPR or other safety training _____
 - e. All owner employees with first aid, CPR or other safety training _____
 - f. All sub-vendor employees with first aid, CPR or other safety training _____

4. Identify safety and emergency services:
 - a. Notify of the presence of the jobsite, anticipated work force, and duration of the project:
 - 1) Fire Department _____
 - 2) Police Department _____
 - 3) Medical facilities _____
 - b. Identify locations and emergency travel routes to:
 - 1) Emergency rooms _____
 - 2) Non-emergency medical facilities _____
 - 3) Fire Department _____
 - 4) Police Department _____
 - c. Listings of local services:
 - 1) Physicians _____
 - 2) Eye experts _____



3) Orthopedics _____

4) Paramedics _____

5. Unique owner requirements (in addition to "usual" considerations):

a. Construction parking _____

b. Occupied area parking _____

c. Limited parking or access _____

d. Strict security _____

e. "Hot work" permits _____

f. Full or part-time safety person _____

g. Insurance wrap-up policy _____

h. Other: _____

6. Traffic control--a plan to address:

a. Entering/leaving of the construction work force _____

b. Material/equipment deliveries _____

c. Equipment access and storage _____

d. Street and site cleanup and maintenance _____

e. Adequate warning signs and other postings _____

7. Utility location protection--locate and protect/relocate:

a. Water _____

b. Gas _____

c. Electric _____

d. Telephone _____

e. Telex/cable _____

f. Communication _____

g. Storm/sanitary sewer _____

8. Preexisting condition survey: _____

Prior to the start of any construction, record all preexisting damage by whatever means appropriate, including engineered surveys, photographs, or videotape recordings.

a. Initial survey should be made by the Site Superintendent.

b. Determine the need for additional detailed inspection(s). _____

c. If sufficient evidence of damage is present, consider retaining a professional photographer to record it. _____

d. If extreme or unique circumstances, determine if a professional engineer is/may be needed to produce surveys or other documentation. _____

e. Prior to proceeding with (c) or (d), secure approval from Carter & Carter Senior Project Manager. _____

f. In every case, photograph and videotape the entire site, as well as all approach roads and routes. Prior to site mobilization and start of any construction activity, include:

1) Surrounding buildings _____



- 2) Roads _____
- 3) Utilities _____

9. Plan the locations and configurations of site services and their relative proximities:

- a. Field offices _____
- b. Material staging and storage areas _____
- c. Fuel storage and fuel distribution arrangements _____
- d. Traffic control _____
- e. Administrative and worker parking _____
- f. Pedestrian access _____
- g. Location and configuration of temporary utilities _____
- h. Ongoing temporary power arrangements _____
- i. Temporary lighting--Site _____
- j. Temporary lighting--Other construction areas _____
- k. Temporary heat _____
- l. Temporary power _____
- m. Welding and cutting torches (friendly fire) _____

10. Identify specific owner requirements that may exceed customary considerations, such as:

- a. Special access requirements or needs _____
- b. Unique security requirements _____
- c. Involvement of owner or other designated safety or security personnel _____
- d. Special insurances or legal considerations _____
- e. Special notices or other required communications _____

11. Determine necessary provisions for protection of the public:

- a. Site fencing _____
- b. Lighting _____
- c. Signs and notices _____
- d. Traffic control _____
- e. Guardrails _____
- f. Walkways (covered/uncovered) _____

12. Determine all fire protection needs. Project-specific planning should include:

- a. Appropriate ABC-type fire extinguishers:
 - 1) Sizes _____
 - 2) Quantities _____
 - 3) Locations _____
- b. Fire-protected storage cabinets and/or areas for vital, sensitive, or special files or materials _____
- c. Establishment and maintenance of all appropriate fire protection measures in accordance with OSHA requirements for specific work operations _____

13. Consider necessary protection of the site and building (if there is one):

- a. Signs and notices posted _____



- b. Special walkways and traffic provisions _____
- c. Barricades and other safety barriers _____
- d. Fences, guardrails, and canopies _____
- e. Parking, traffic and walkway lighting _____
- f. All provisions for handicap access _____
- g. Security and safety personnel _____

4.4 VENDOR INSURANCES

4.4.1 Coverages

All contractors, subcontractors, trade contractors, and independent individuals performing *any* work on the site must be covered by all insurances to the specified limits as enumerated in the Contract Documents, *as described in their specific agreements for services*, or as otherwise required by Carter & Carter.

It is the responsibility of the Project Manager and the Site Superintendent to confirm the presence of all such insurances and to secure the correct and complete certificates of such insurances from each entity on the site before allowing *any* work to proceed.

There are *no* exceptions.

4.4.2 Additional Insured

It is a standard requirement of Carter & Carter that all subvendor agreements provide that Carter & Carter is specifically named as additional insured on the respective policy.

It is the responsibility of the Project Manager--through the Project Engineer if one is assigned to the project--that Carter & Carter is actually named as additionally insured. Note that the specific language "additionally insured" is the only acceptable language. Terms such as "certificate holder" or other language not specifically noting "additionally insured" will not be accepted.

4.5 FIRST AID KIT

Carter & Carter will provide a complete medical first aid kit on each jobsite for use by company personnel. All contractors, subcontractors, trade contractors, and individuals (non-Carter & Carter employees) on the site are required to provide and maintain their own first aid kits in manner adequate for the type of work being performed. It is the responsibility of the Carter & Carter Project Manager, Site Superintendent, and each trade foreman to enforce this requirement on the parts of each subvendor on every jobsite.

4.6 SAFETY AND FIRST AID TRAINING

4.6.1 Basic First Aid and CPR

All Carter & Carter personnel are encouraged to take basic first aid training and to become certified in first aid and CPR (cardio-pulmonary resuscitation). The Superintendent, Project



Manager, all trade foremen, and everyone in any supervisory capacity should feel a particular responsibility in this area.

Carter & Carter **may** arrange for in-house company training in basic first aid and CPR from time to time. It is not necessary for any company employee to wait for this convenience, however. Contact the local Red Cross, area hospitals, and local fire departments to identify medical first aid training programs available. Participation by every Carter & Carter employee throughout every jobsite and office is strongly encouraged.

4.6.2 Reimbursement for Training Expenses

In most instances, the cost of certain first aid training programs may be reimbursed to the Carter & Carter employee if the program of interest had been first coordinated with the Carter & Carter Safety and Health Manager, and approved in advance by Carter & Carter senior management.

If any Carter & Carter employee wishes to arrange for such basic or advanced first aid training on their own, it is the policy of Carter & Carter to reimburse the employee 100% of the tuition and direct expenses associated with the training program. The employee needs only to present the program certificate or other written documentation that the program has been successfully completed by the employee.

4.7 JOBSITE SAFETY MEETINGS

4.7.1 General

It is the policy of Carter & Carter that regular jobsite safety meetings be conducted by the Site Superintendent, trade foreman, and/or the Safety and Health Manager to:

- Orient all Carter & Carter and subvendor tradespeople to project requirements and objectives.
- Identify areas on the site that present special problems or concerns, and determine the best corrective action for each situation.
- Swap or trade safety and health topics of both general and specific nature. Develop conversation and discussion, and documentation that will further the safety education and awareness of all project participants.

The Carter & Carter Jobsite Safety Meeting program series is arranged in three levels:

1. The Initial Project Safety Orientation Meeting
2. Ongoing Carter & Carter Jobsite Safety Meetings
3. Periodic (weekly) Jobsite "Tailgate" Safety Meetings

4.7.2 Initial Project Safety Orientation Meeting

The Project Safety Orientation Meeting is conducted by the Site Superintendent at the very onset of the project. It can be its own stand-alone meeting, or it can be combined with an early Superintendent's Meeting with all Carter & Carter and subvendor trade foremen.



The meeting must be given the complete attention by all project participants that it deserves. All subvendors will be required to participate. Attendance will be documented.

At a minimum, items to be reviewed at the meeting include:

1. All safety requirements of the Carter & Carter Contract, and the stated requirements of each vendor's contracts and subcontracts.
2. Carter & Carter, project, and special rules as they relate to the specific project.
3. The jobsite utilization program, specifically with regard to arrangements for stored materials, proper materials handling, traffic, access, security, communication, etc.
4. Fire protection requirements and procedures; general consideration and specific "hot work" areas.
5. Evacuation procedures; alarms, routes, communication, personnel, etc.
6. Posting of all emergency phone numbers.
7. Designation of each company's Safety Officer and Alternate; phone numbers, contact procedure, etc.
8. Identification of all jobsite personnel with any medical training. Issue of hard hat red crosses.
9. Review of required first aid and medical supplies; inventory of current jobsite supplies and necessary supplements.
10. Specific jobsite precautions with respect to protection of workers and protection of the public; temporary protection, fall protection, hard hat, safety shoes, gloves, eye protection, etc.
11. Jobsite security issues and arrangements; fences, site and field office area lighting, alarms, etc.
12. Notification to all Carter & Carter and subvendor participants that willful and/or repeated violations may be grounds for layoffs or ejection from the jobsite.
13. Notification of the expectation of regular participation in periodic safety meetings, and of the need for all trade foremen to periodically conduct their own Tailgate Safety Meetings and to immediately forward minutes of those meetings to Carter & Carter.

4.7.3 Ongoing Jobsite Safety Meetings

Regular ongoing Jobsite Safety Meetings can be conducted as their own stand-alone arrangements. It may, however, be more effective and more easily accomplished if the meetings are combined with the regular Superintendent's Meetings with all trade foremen as the first routine item on each meeting agenda.

Meeting agenda items regarding safety and health will at a minimum include:

1. Review of any observed actual or possible safety violations. Determination and implementation of corrective measures, and responsibility for correction.
2. Any planned or other changes in the jobsite utilization program as previously established.
3. Jobsite housekeeping and cleanup status; protection, safety, and security.
4. Review of stored materials and equipment.
5. Review of past or upcoming hot work, and the handling of burning and welding equipment. Review of hot work permit requirements.



6. Review of temporary power and maintenance, and any necessary corrections or upcoming changes.
7. Review of temporary heat and temporary fuel requirements and handling.
8. Review of all safety performances throughout the project.

Consider combining this meeting with a Tailgate Safety Meeting as described in the following section. You already have everyone's attention; use it.

4.7.4 Weekly Tailgate Safety Meetings

Each Site Superintendent--or Crew Foreman if that is the senior site position--is responsible to conduct *weekly* safety training sessions with all field personal under that individual's authority. Such meetings may be coordinated by the Carter & Carter Safety and Health Manager for assistance in such presentations, but the responsibility remains with the senior Carter & Carter site representative.

Topics will be relevant and timely with respect to the perceived current needs and all general concerns. Attendance will be recorded by signature, and be kept on-file by the Safety and Health Manager. Persistent absences by any Carter & Carter employee will be recorded and the information distributed to that employee's personnel record.

The Tailgate Safety Meeting is a 10 to 15 minute discussion, conducted for the purposes of:

1. Disseminating information included in the regular Safety Meetings.
2. Reviewing jobsite safety and cleanup conditions and establishment of corrective measures.
3. Discussion of specific safety items for the training and education of all tradespeople. When possible, the items should be relevant to some observed job condition and ongoing work practices, but they can be of random nature as well.

4.7.5 CARTER & CARTER Tailgate Safety Bulletin

As an aid in the organization, presentation, and recording of each Tailgate Safety Meeting, a Carter & Carter Tailgate Safety Bulletin may be sent periodically to the jobsite by Safety and Health Manager.

Highlights of each bulletin include:

- One topic per bulletin;
- Clear outline of issues and ideas to be discussed;
- Area provided (on the back) to record signatures of each Safety Meeting attendee.

4.7.6 Suggested Tailgate Safety Meeting Topics and Outlines

Whether or not a Tailgate Safety Bulletin is used, the following list is an aid in the organization and development of the jobsite Tailgate Safety Meeting Program.

One topic should be covered per meeting. Suggested outlines can include:



1. Emergency care and procedures to obtain aid. Determination of qualifications for administering first aid.
2. Controlling and restoring breathing. Aiding a choking victim.
3. Aiding a burning victim. Aiding a shocked victim.
4. Aiding a victim with a broken bone.
5. Fire regulations at the work site.
 - a. Smoking and nonsmoking areas
 - b. Location and use of fire fighting equipment
 - c. Periodic check of fire extinguisher "charges"
 - d. Storage and use of combustible materials
6. Chains and slings
 - a. Care and proper use
7. On-site accidents
 - a. Falls--causes and prevention
 - b. Jewelry--rings, chains, etc.
 - c. How to manually lift loads safely
8. Trench safety
 - a. Shoring requirements
 - b. Cave-ins
 - c. Rescue procedure
9. Compressed gas cylinders
 - a. Dangers of compressed air
 - b. Handling and storage of cylinders
10. Use of friendly fire
 - a. Temporary heat and fuel
 - b. Temporary power
 - c. Proper use of cutting and welding equipment
 - d. Jobsite "hot work" permit requirements
11. Personal safety rules and equipment
 - a. Hard hat
 - b. Safety shoes
 - c. Gloves
 - d. Proper clothing
 - e. Proper use of safety belts and nets
 - f. Goggles and eye injuries
12. Safe handling of power tools
 - a. Rip saws
 - b. Bench grinders
 - c. Drills
 - d. Power-actuated tools
13. Heavy equipment
 - a. General safe use
 - b. General equipment safe operating procedures
14. Cranes and rigging
 - a. General safe use
15. Earth-moving equipment



- a. General safe use
- b. Operation near embankments
- c. Operation in confined areas
- 16. Hazardous materials--industrial hygiene
 - a. Asbestos--detection and reaction
 - b. Treatment and disposal of hazardous or controlled materials
 - c. PCP
 - d. Carbon monoxide
 - e. Lead
- 17. Confined-area activity
 - a. Definitions of confined area
 - b. Egress
 - c. Ventilation
 - d. Evacuation
- 18. Scaffolding and staging
 - a. Erecting procedures
 - b. Working on it
 - c. Use arrangements
- 19. Ladders
 - a. Types and uses
 - b. Areas of use
- 20. Protection of the public
 - a. Walkways
 - b. Lighting
 - c. Barricades
 - d. Signs and notices
- 21. General emergency safety procedures
 - a. General procedures
 - b. Accidents involving serious injury or death
 - c. Property damage accidents
- 22. Hazard communication
 - a. The CARTER & CARTER HAZ-COM Manual
 - b. Hazardous chemicals on the jobsite
 - c. MSDS's
 - d. Labels and warning systems
- 23. Basic first aid topics
 - a. Identification of on-site personnel with safety training
 - b. Availability of safety training programs.

4.8 JOBSITE SAFETY REVIEW CHECKLIST

The Jobsite Safety Review Checklist that follows is prepared as a convenience to aid the Site Superintendent, the Safety and Health Manager, and the Project Manager in their periodic and routine reviews of each jobsite in order to help identify possible conditions that may cause or contribute to an accident.



It is by no means any guarantee that all possible hazards will be identified or accommodated, nor is it a list that specifically complies with any regulatory requirements, but is a list of those items that are frequently observed and easily identified.

Check OSHA regulations, those of all appropriate authorities having jurisdiction over the jobsite, and, through the Carter & Carter home office, with our insurance carrier.

The Checklist may include many items that may not necessarily apply to a particular project, or that may otherwise might apply to projects of a nature other than the specific jobsite being considered each time. Even so, reviewing the entire list periodically may help to identify issues previously overlooked, and that may now apply.

Finally, the use of the Checklist and any other site safety reviews should not be confined strictly to Carter & Carter operations:

- For practical purposes, and to aid in the most comprehensive perspective, consider the entire site as if it were in the custody of Carter & Carter, whether or not it is legally the case.
- Observe the conditions being provided for by any general contractor, construction manager, other subcontractors, and any separate contractors that may also be operating on the site.
- Report observed violations or possible violations immediately to your Carter & Carter supervisor, in order that the entire site may be made safer for Carter & Carter, all other workers, and the public.

4.8 JOBSITE SAFETY REVIEW CHECKLIST (continued)

1. Signs, Notices, and Notifications

- a. Safety signs in place _____
- b. Emergency phone numbers _____
- c. Evacuation plan _____
- d. Warnings and instructions to public _____
- e. Restricted access areas _____
- f. Exits _____
- g. No Smoking _____
- h. Electrical dangers _____
- i. Personal protective equipment req'd _____
- j. Operating instructions _____
- k. Flammable materials _____
- l. Hazardous materials _____
- m. Danger areas _____
- n. Trenches _____
- o. All personnel and occupants notified to expect loud noises _____
- p. _____
- q. _____

2. Overhead Protection

- a. Entrances _____
- b. Warnings _____



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- c. Construction _____
- d. _____
- e. _____

3. Hoisting Equipment

- a. Guys _____
- b. Cables and Sheaves _____
- c. Turnbuckles _____
- d. Signals _____
- e. Carcover and enclosure _____
- f. Ladder _____
- g. Car arresting device _____
- h. Base barricade _____
- i. Platforms _____
- j. Clear staging areas _____
- k. _____
- l. _____

4. Walkways and Ramps

- a. Adequate construction _____
- b. Width _____
- c. Railings _____
- d. Curbs and toe boards _____
- e. Slope and rise limit _____
- f. Non-slip treads and tactile areas _____
- g. _____
- h. _____

5. Ladders

- a. Construction _____
- b. Secure placement _____
- c. Cleats _____
- d. Landings _____
- e. Hand-holds _____
- f. Cages _____
- g. _____

6. Excavations and Trenches

- a. Shoring _____
- b. Slope reposes _____
- c. Ladders _____
- d. Stockpile of excavated material _____
- e. Removal of excavated material _____
- f. Barricades and railings _____
- g. Tunnels _____
- h. Blasting arrangements _____



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- i. Excavations properly dewatered _____
- j. Approved shoring designs _____
- k. Proper ventilation; free of toxic fumes _____
- l. _____
- m. _____

7. Fire Protection

- a. Storage of flammable materials _____
- b. Container markings _____
- c. Temporary heaters _____
- d. Compressed gas cylinders _____
- e. Tar kettles _____
- f. Welding equipment and operations _____
- g. Fire extinguishers (quantity/type) _____
- h. Fire safety equipment _____
- i. _____
- j. _____

8. Openings--Walls, Floors, Roofs

- a. Perimeter railing _____
- b. Toe boards _____
- c. Tight covers _____
- d. Flaggings _____
- e. _____
- f. _____

9. Scaffolds

- a. Construction _____
- b. Secure placement _____
- c. Railings and toeboards _____
- d. Rigging _____
- e. Safety lines, belts, rope guards _____
- f. _____
- g. _____

10. Stairs and Landings

- a. Adequate construction _____
- b. Temporary treads _____
- c. Clear of debris _____
- d. Proper rise/run _____
- e. Railings _____
- f. _____
- g. _____

11. Material Handling

- a. Size/bulk _____



- b. No sharp edges _____
- c. Weight limits _____
- d. Team lifting _____
- e. _____

12. Housekeeping

- a. Nails, debris _____
- b. Tool storage and staging _____
- c. Containers _____
- d. Clear aisles and walkways _____
- e. Clean site _____
- f. Dumpster(s) location/condition _____
- g. Proximity of waste storage to hazardous conditions _____
- h. _____
- i. _____

13. Lighting and Temporary Wiring

- a. Lighting _____
- b. Wire height _____
- c. Proper grounding _____
- d. Wire connections _____
- e. Overcurrent protection _____
- f. Extension cords in good repair _____
- g. Extension cords and temp.power receptacles using GFI's _____
- h. Temp. power closed to weather _____
- i. _____
- j. _____

14. Grounding and Electrical Equipment

- a. Correct grounding _____
- b. Ground Fault Interceptors _____
- c. _____
- d. _____

15. Portable and Power Saws

- a. In good conditions _____
- b. Guards _____
- c. Kickback protection _____
- d. Ventilation _____
- e. Safe fuel procedures _____
- f. _____
- g. _____

16. Hand Tools

- a. In good condition _____
- b. Insulated/grounded _____



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- c. Projectile tools _____
- d. Power-actuated tools _____
- e. Operators trained in proper use _____
- f. _____
- g. _____

17. First Aid

- a. Proper kit size and components _____
- b. Kit supply maintained _____
- c. Trained employees _____
- d. Emergency numbers posted _____
- e. Hospital routes known _____
- f. _____
- g. _____

18. Traffic Control

- a. Parking _____
- b. Speed control _____
- c. Barricades _____
- d. Separation of haul roads _____
- e. _____
- f. _____

19. Personal Protective Equipment

- a. Hard hats _____
- b. Goggles/safety glasses _____
- c. Gloves _____
- d. Respirators _____
- e. Hearing protection _____
- f. Safety shoes _____
- g. No loose clothing _____
- h. All work areas sanitary _____
- i. _____
- j. _____

20. Heavy Equipment

- a. Guards _____
- b. Warning bells _____
- c. Fueling arrangements _____
- d. Ground slope (areas of operation) _____
- e. Rough terrain _____
- f. Operator qualifications _____
- g. _____
- h. _____

21. Security



- a. Fencing _____
- b. Lighting _____
- c. Alarm systems _____
- d. Monitoring arrangements _____
- e. Guard service _____
- f. Target equipment _____
- g. Secure equipment practices _____
- h. Police notification procedures _____
- i. _____
- j. _____

22. Liability

- a. Release forms executed/delivered for all trades using: _____
- a. Hoists _____
- b. Elevators _____
- c. Scaffolding _____
- d. Equipment _____
- b. Arrange for jobsite inspection by insurance carrier _____
- c. _____
- d. _____

23. Other

- a. _____
- b. _____

4.9 JOBSITE SAFETY INSPECTIONS BY OUTSIDE OFFICIALS

The following procedure is to be used in the event an outside official enters a Carter & Carter jobsite with the intent of inspecting or investigating jobsite safety. Such outside officials can include:

- OSHA inspectors
- State inspectors
- Fire inspectors
- Worker's Compensation investigators
- Insurance investigators

Note that the intent of this procedure is not in any way to obstruct or otherwise make any inspection more difficult. The actions discussed in this section are only intended to allow the company to exercise our legal right to proper representation to certain government inspections, and to be sure that all facts are properly considered.

The Carter & Carter procedure upon such a visit is as follows:

1. Direct the inspector to the highest ranking Carter & Carter employee present on the jobsite at that time.



2. The highest ranking Carter & Carter employee will then:
 - a. Ask the inspector of his or her complete intentions, and for proper identification.
 - b. Write down the inspector's name, title, organization, ID or badge number, date, and the time of day.
 - c. Request the inspector to delay further activity until the Carter & Carter Safety and Health Manager or other appropriate Carter & Carter official can be dispatched to the jobsite.
 - d. Contact the Carter & Carter Safety and Health Manager and the Carter & Carter Senior Project Manager, and provide the information obtained to that point. If either individual is unavailable for any reason, so notify the other. If both individuals are unavailable for any reason, immediately contact company senior management.
 - e. Offer a place for the inspector to sit and wait, if possible. Should the inspector insist on proceeding without the Safety and Health Manager or other Carter & Carter official present, note the time and accompany him or her through the entire inspection. Take comprehensive notes of the entire activity.

Above all, every Carter & Carter employee is to be courteous, helpful, and fully cooperative with every authorized inspector at all times.

Contact the Carter & Carter Safety and Health Manager if there are any questions regarding these situations.



SECTION 5

First Aid, Medical, and Emergency Procedures

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5.1 FIRST AID PROCEDURE

5.1.1 Minor First Aid Treatment

All job related injuries and illnesses, no matter how minor, must be reported to the employee's immediate supervisor. Where minor first aid treatment is required and adequate first aid supplies are available at the jobsite, office, shop, etc., seeking outside medical facility help is not mandatory.

5.1.2 First Aid Kits

Approved first aid kits must be present and adequately supplied at every Carter & Carter main office, shop, remote offices, and in most of our company on-road type vehicles at all times. They are available at the Carter & Carter main office or by contacting the company Safety and Health Director.

5.1.3 First Aid Qualified Employees

Carter & Carter has several first aid qualified employees throughout the company. Many of these employees have elected to display a Red Cross decal on his or her hard hat stating "Certified First Aid." These employees each have a wallet-sized card from the qualifying organization.

On all remote job sites where outside emergency medical assistance is further than (20) minutes away (i.e., walk-in clinic, hospital, doctor's office, etc.), the company shall have at least one approved first aid kit, and endeavor to have at least one first aid qualified employee on the site, if possible.

All Carter & Carter employees are urged to participate in certified CPR and/or basic first aid training. All employees are eligible for reimbursement of 100% of the cost of such training. Refer to Section 4.6.2 of this *Safety & Loss Control Program Manual* for additional information regarding such training and reimbursement.

5.1.4 Mobile Communication

Each jobsite with a field office has a permanent telephone installed. It is available for company use only for regular business purposes, but is available for use by anyone during a safety or medical emergency.

For those jobsites that do not have a permanent field office, the senior company employee on the jobsite shall make arrangements for a mobile telephone, and to be sure that the mobile telephone is in close proximity at all times. The mobile telephone is to be used for company business only; or by anyone in the event of a safety or medical emergency.

5.2 EMERGENCY PROCEDURE (INJURY)

The general procedure to follow in the case of an injury that is serious enough to require professional medical attention is as follows:

- Immediately attend to the injured's life-threatening conditions.



- Call 911, or send someone to call 911 if a phone is not available for any reason. Give your exact location, and the specific details of the emergency.
- Be certain that the Carter & Carter Safety and Health Director is notified of the emergency at the earliest opportunity. Secure the accident scene until released by the Safety and Health Director or Carter & Carter company principal.

5.3 MEDICAL ATTENTION

If there is a need to send a Carter & Carter employee to a medical facility for a job related injury or illness *other than an emergency*, we currently use the (insert the name of the company worker's compensation insurance and managed care provider).

An injured employee must never be allowed to drive or otherwise transport himself or herself to any off-site area or facility. The injured person must be driven by a Carter & Carter employee in good physical condition and with a valid driver's license to the nearest approved medical care provider.

Under Alabama law, the employer has the right to choose the authorized medical provider in all cases except emergencies. We have found the (insert the name of the company worker's compensation insurance and managed care provider) to provide excellent service to our employees, and are a great advantage strategically for most of our work areas.

Every employee intending to use outside medical attention should make every effort to contact the Carter & Carter Human Resources Department for pre-authorization and direction.

Contact: (Individual's Name), Human Resources Director
Collin Carter, Safety and Health Director

This communication is desired but not essential if not practical or possible. In such cases, refer to Section 5.5 following for the complete listing of approved medical care providers for your own determination of the most appropriate and expedient medical care location.

5.4 HOSPITAL EMERGENCY ROOMS

Emergency care facilities are to be identified and posted as part of the safety portion of the Jobsite Utilization Program. If it becomes necessary to bring any employee to an emergency room, use the list below as a convenience.

NOTE TO MANUAL PREPARER: Provide a complete list of all hospital emergency rooms and any other emergency care facilities throughout the area(s) of company operation. Include directions to each one from main thoroughfares.

It is also helpful to provide two listings: one by area/location and the other alphabetically.

5.5 MEDICAL CARE PROVIDER LISTING AND LOCATION



The complete list of approved medical care providers in the (insert the name of the company worker's compensation insurance and managed care provider) listing along with their addresses and telephone numbers is included in its entirety in the pages that follow.

- The first half is the listing of care providers arranged by area.
- The second half is the same listing arranged alphabetically.

NOTE TO MANUAL PREPARER: Insert the complete listing of services and providers as identified and explained in this manual section for medical care providers who participate in any company medical benefit package that may be made available to company employees. Note that it is also helpful to provide two listings: one by area/location and the other alphabetically.



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6.1 SECTION DESCRIPTION

This section addresses particular field conditions, and describes the procedures to be followed by every Carter & Carter employee on every jobsite. It is arranged alphabetically for ease of reference. Additionally, Carter & Carter recognizes these procedures to be *examples* of safe jobsite practices and encourages all subcontractors to adopt similar procedures conducive to our overall goal of jobsite safety and health.

The section information catalogs specific jobsite and shop hazards, and provides direct instruction that will help each employee to work in and around each condition in a safe manner that minimizes risk of injury or health impairment.

Each set of instructions has been written with the explicit intention of providing for the proper implementation of the respective OSHA and other legal and practical requirements with respect to the particular issue. In many cases, interpretation of the controlling standard or standards may have been necessary in order to determine an appropriate set of procedures to apply to or comply with the stated or implicit interpretation of the respective requirement.

Although every effort has been made to be comprehensive, complete, and practical, it is possible that a condition on a jobsite may not be completely addressed, or a new condition may be encountered which may not be covered at all. Each new situation of these types must be immediately addressed by referring to and applying local, state, and/or federal laws governing the process. In such cases, the Carter & Carter Safety and Health Manager should be immediately contacted for assistance and direction.

The company Safety and Health Manager has the authority to halt any work activity which he or she believes may hold an imminent threat to life, health, property, or equipment.

6.2 BLASTING AND EXPLOSIVES

6.2.1 General Policy

- a. No Carter & Carter employee is permitted to handle or use explosives or blasting materials.
- b. All blasting and explosive work will be done by the use of outside contractors licensed and qualified to perform in the state in which the blasting and explosive work is to be performed.
- c. All outside contractors and subcontractors engaged to perform blasting and explosive work must be required to provide all appropriate bonds and insurances as are necessary for proper indemnification of Carter & Carter throughout the performance of all blasting and explosive work. Confirm all such requirements with the Carter & Carter contract manager if necessary.
- d. Smoking or open flames are not permitted within 50 ft. of explosives, detonator storage magazines, or other such materials and equipment.
- e. When planning to perform any blasting near or around buildings or other structures, contact the Project Manager to determine the reasonable level of monitoring to confirm the existing and subsequent status of structures in the proximity of the blasting area. Such monitoring is critical to substantiating facts relating to subsequent claims by property owners for cracks or other damage alleged to have occurred as a result of the blasting activity.



6.3 COMPRESSED GASSES

6.3.1 Compressed Gas Cylinders

- a. All cylinder valves must be closed when any work is finished and when any cylinders are empty or being moved.
- b. Valve protection caps must be placed and secured properly before compressed gas cylinders are transported, moved, or stored.
- c. Compressed gas cylinders must be secured in an upright position with chain or other appropriate and approved systems designed for such purpose at all times.
- d. All cylinders must be kept a safe distance from welding or cutting operations or shielded from same.
- e. All cylinders must be placed where they cannot become part of an electrical circuit.
- f. *Oxygen and acetylene must not be stored together.***
- g. Oxygen and fuel gas regulators, hoses, and associated equipment must never be modified from their factory design, and must be in proper working order while in use.

6.3.2 Compressed Air Cleaning

- a. Compressed air can be extremely dangerous if allowed to penetrate the skin. Careless use of compressed air may also cause unnecessary dust and airborne particulates to be introduced into the work area atmospheres, thereby increasing risk of health danger to employees.
- b. Compressed air used for cleaning purposes may not exceed 30 psi and then only in conjunction with effective chip guarding and personnel protective equipment that is designed for that application. Exceptions to 30 psi are allowed only for concrete form, mill scale, and similar cleaning operations.
- c. *The use of compressed air to clean off yourself or other workers is strictly prohibited.***

6.4 CONCRETE, CONCRETE FORMWORK, AND SHORING

6.4.1 Reinforcing Steel

- a. All concrete reinforcing steel that leaves open ends or otherwise protrudes in a way that leaves a condition where employees could fall and be injured by cutting or impalement on the reinforcing steel bars must have protective devices put in place on the reinforcing steel, or otherwise be guarded to eliminate the hazard of cutting or impalement.
- b. Welded Wire Mesh (or Welded Wire Fabric) is to be placed in a manner that prevents or otherwise is secured from recoiling.

6.4.2 Formwork and Shoring

- a. Concrete formwork and shoring is to be designed and constructed in a manner that safely supports all loads imposed during concrete placement. All formwork and shoring is to be designed strictly in accordance with published practices of the formwork manufacturer,



and performed by qualified personnel. All formwork and shoring components are to be inspected by qualified personnel prior to, during, and after erection. Drawings or plans of jack layout, formwork, shoring, working decks and scaffolding systems are to be available at the jobsite at all times.

- b. Formwork and shoring are not to be removed until it has been determined through proper testing that the concrete has gained sufficient strength to support its weight and any superimposed loads, and meets all requirements of the project contract documents.

6.5 CRANES AND HOISTING EQUIPMENT

6.5.1 General Procedures

- a. On every crane or piece of hoisting equipment notices of all rated load capacities, recommended operating speeds, and any hazard warnings or special instructions must be conspicuously posted. All instructions and warnings must be visible from the equipment operator's station.
- b. Copies of maintenance and inspection records must be presented in the operator's cab if there is a practical area for appropriate storage. If not, contact the Carter & Carter Equipment Manager for instruction regarding the maintenance and storage of such records.
- c. All areas within swing radius of cranes that are potentially accessible by pedestrian, vehicular, or equipment movement must be barricaded to prevent anyone or any vehicle or equipment from being struck by the crane or hoisting equipment, or its load(s).
- d. Except where electrical distribution and transmission lines have been deenergized and visibly grounded, or where insulating barriers not a part of or an attachment to the equipment or machinery have been erected to prevent physical contact with such lines, no part of a crane or its load shall be operated within 3 ft. of any power line.
- e. Cranes will be inspected before each use by the operator. Any defects must be corrected before use. Logs of crane inspection must be kept with the crane.

6.5.2 Suspended Personnel Platforms

- a. Although use of suspended personnel platforms is allowed as specified in OSHA 1926.550, it is the policy of Carter & Carter that suspended personnel platforms with crane or hoisting equipment not be used unless the provision and use of conventional means of reaching the worksite would be more hazardous or not possible. It is recognized, however, that such a circumstance is highly unusual, and will only be considered by the company in extreme and unique situations.

6.6 DISPOSAL CHUTES

- a. An enclosed chute is to be used whenever materials are dropped more than 20 ft. to any exterior point of a building or site area.
- b. When debris is dropped through floor holes without a chute, the area where the material is dropped must be enclosed with barricades at a minimum of 42 in. and not less than 6 ft. back from projected edges of the opening overhead.



- c. Warning signs are to be posted at each floor level.

6.7 ELECTRICAL

6.7.1 Permanent Electrical Installations

- a. All permanent installations of electrical materials, equipment, and circuitry or repairs, modifications, or maintenance to permanent installations of electrical materials, equipment, or circuitry must be done by a qualified person properly licensed as required in the location in which the work is performed. The individuals performing the work must meet all applicable federal, state, and local codes and requirements.
- b. All repairs, modifications, and maintenance required on permanent installations of electrical materials, equipment, and circuitry must meet or exceed their original capacity and quality.

6.7.2 Temporary Electrical Installations and Uses During Construction Activity

The following guidelines are to be considered the absolute minimum requirements to be supplemented by requirements of all applicable codes and standards for such work:

- a. Wiring and Branch Circuits
 - i. Must be protected by a proper amperage overcurrent device such as a fuse or circuit breaker.
 - ii. Must be located so as to prevent physical damage to the wire conductors.
- b. Lighting
 - i. Temporary lights must be located at appropriate distances from the respective lighted work area(s).
 - ii. All temporary lighting fixtures must be protected from accidental contact or breakage.
 - iii. Temporary lights shall not be suspended by their electric cords unless they are designed for this type of installation.
 - iv. Portable electric lights used in wet or potentially wet locations must be either low voltage type (12 volts or less) or protected by a GFI (ground fault interrupter).
 - v. Portable light cords designed with (2) conductors are not to be used as extension cords to supply power tools.
- c. Extension Cords
 - i. Must be visually checked before each use and periodically while in use to assure their original integrity is maintained. Cords with cuts, breaks, deep abrasions, etc. shall be taken out of service immediately. Repairs to extension chords shall only be performed by qualified, licensed electricians.
 - ii. Are not to be hung across walkways, work areas, stairways, etc. where they create possible tripping hazards, or where they might be damaged by equipment or traffic. Cords may be hung overhead with sufficient minimum clearance or rerouted under or around walkways and work places. Cords crossing vehicle traffic areas may be covered or encased by suitable material to protect them that is designed for this purpose.



- iii. Must not be fastened, or attached with any type of conductive material such as nails, metal wire, staples, etc.
- iv. Must not be allowed to lay in wet or potentially wet areas.
- v. Must be of the 3-wire type when used with portable electric tools and appliances.

6.7.3 Underground Electric

- a. Before any work is allowed to begin in areas where there is a possibility that underground electric lines may be encountered, the senior company employee on the site must ensure that the necessary authorities are contacted, and the lines are located and marked.
- b. Every electric line or cable of unknown origin that is discovered or exposed during a digging, drilling, probing, or similar operation is to be considered as energized and life threatening. The senior company employee on the site will ensure that all necessary safety precautions are taken in order to isolate the line from all workers and the public. Such precautions may include halting the operation if appropriate. The senior company employee on the site is to then contact the proper authorities to have the line identified and either confirmed to be abandoned and/or made safe for continuing the work.
- c. In work areas where exact locations of suspected underground lines cannot be confirmed, employees using jack-hammers, probes, shovels, and similar hand tools must use tools made to insulate the user against electrical shock or must use insulated protective gloves designed for such use.
- d. Any and all underground lines that are discovered or become severed must be considered energized on both sides of the sever, and be treated accordingly.

6.7.4 Overhead Electric

- a. All overhead electric lines are to be considered as energized and life threatening until or unless it is positively confirmed that the proper authorities have identified and have deenergized them.
- b. All overhead ground lines that are discovered or become severed must be considered energized on both sides of the sever, and be treated accordingly.
- c. In general, equipment or machinery being moved or transported must maintain minimum clearances of 25 ft. to all power lines. If equipment or machinery must operate within 25 ft. of energized power lines, one of the following must occur before beginning work:
 - i. The senior company employee on the site must positively confirm the voltage(s) of the line(s) involved and coordinate the following information with the Carter & Carter Safety and Health Manager to confirm the minimum clearances for the lines:

Line Voltages	Minimum Clearance
50 KV and less	10 ft.
51 KV to 200 KV	15 ft.
201 KV to 345 KV	20 ft.



346 KV to 500 KV

25 ft.

NOTE:

- a) In lieu of the above clearances, a distance of at least twice the length of the line insulator may be used, but never less than 10 ft.
- b) Equipment swing and/or boom restraints or alarms may be installed to physically limit or warn against proper clearance encroachment.
- ii. If the operation of the project allows, the senior company employee on the site may contact the proper authorities and arrange to have the line(s) be deenergized, including physical grounds, for the duration of the operation.
- iii. Arrangements are made with the proper authorities to have all such power line(s) effectively shielded during the construction operation.
- c) The senior company employee on the site is to designate a person to assist the equipment operator in observing and maintaining proper clearances in order to comply with the above.
- d) An adequate ground line or jumper shall be placed as needed in order to dissipate any induced voltage charge (static electricity) in equipment or materials being handled in the vicinity of transmitter towers or high voltage electric lines. In addition, combustible and flammable liquids are not allowed to be stored or transported through such areas.

6.7.5 Electrical Grounding Program for 110 Volt AC Equipment

- a. The electrical grounding program is established to provide a systematic inspection procedure for all 110 volt electrical equipment used on every company jobsite and shop area. The purpose of this inspection procedure is to identify any existing faults or potential faults with the grounding conductors of all 110 volt construction equipment, identify work area conditions that may cause or contribute to a fault condition, and implement immediate corrections to each situation identified. These efforts are necessary in order to prevent accidental electrical shock to an employee using the 110 volt electrical equipment. This program does not in any way replace regular safe-operating practice or the responsibility of all employees to visually check this and any other type of equipment before using it or placing it into operation.
- b. Types of 110 volt equipment to be inspected in the program include: power tools, extension cords, light cords that have receptacles, plug and wiring adapters, multi-receptacle adapters, and portable generators with receptacles having three (3) wires. Exceptions are: double-insulated power tools, non-portable 110 volt equipment, receptacles that are part of a building or permanent structure, non-construction use equipment and equipment other than nominal 110 volt. Any 110 volt equipment that is always operated from a GFI (Ground Fault Interrupter) circuit is also exempt from the following Ground Assurance Program.
- c. Electrical grounding inspections will be conducted periodically for equipment on all jobsites and shop areas **where needed**, and will be performed by qualified personnel who have been trained in proper procedure. A grounding inspection schedule **may** be prepared by the company Safety and Health Manager and sent to the appropriate foreman and



superintendent prior to each inspection. As much notice as possible will be given, advising each crew of the date they are to bring their equipment into the shop. Each crew is to bring their equipment into the shop at the end of their shift and pick it up the following work day prior to the beginning of their shift. Any equipment failing the inspection and not repaired or replaced will be noted to the foreman and other arrangements to secure replacement equipment will be made.

- d. Any equipment required to be inspected but not available or feasible to be brought in at the scheduled time will be rescheduled by the shop for later inspection or on-site inspection as necessary.
- e. Equipment under this program **may** be inspected quarterly. Color codes of tape will be used to identify equipment that has been inspected and passed for the respective quarters. The colored tape will be placed by the inspector around the cord near the plug end of each piece of equipment passing each periodic inspection according to the following scheme:

January-March	White (Winter)
April-June	Green (Spring)
July-September	Red (Summer)
October-December	Orange (Fall)

6.7.6 Battery Storing and Charging

- a. Batteries of the unsealed type are to be stored in well-ventilated rooms or in enclosures with outside vents.
- b. Batteries being charged must be in a well-ventilated open or outside area. Vent caps must be functioning properly and in place. Fumes must not be allowed to migrate into confined rooms or spaces.
- c. There must always be a means in the immediate vicinity of charging operations to adequately wash out eyes and flush skin with water. An appropriate fire extinguisher must also be located in the vicinity of all battery charging operations.

6.8 FIRE PROTECTION, PREVENTION, AND EMERGENCY PROCEDURES

6.8.1 Fire Protection

NOTE TO MANUAL PREPARER: Confirm all respective current legal requirements before finalizing the language of the following sample section.

- a. The basic first defense against fire is the portable fire extinguisher. Most commonly, ABC (universal extinguishing agent) type extinguishers in 2 to 20 lb. sizes are used in



- jobsite and shop areas, along with a smaller number of 3 to 20 lb. CO₂ BC (liquid or electrical class fire) type extinguishers for special circumstances.
- b. Fire-fighting equipment must be conspicuously located and readily accessible at all times, and periodically inspected and maintained in operating condition. Immediately report any inoperative or missing equipment to jobsite and/or company supervision.
 - c. If a building project under construction includes automatic sprinkler protection, installation of the fire protection system will closely follow construction and be placed in service as soon as proper construction sequencing and applicable laws permit, following completion of each construction area.
 - d. On building jobsites, fire extinguishers, rated not less than 2A, will be provided for each 3,000 square ft. of building area (or major fraction). Travel distance from any point to the nearest fire extinguisher may not exceed 100 ft. with at least one extinguisher per floor. In multi-story buildings, at least one fire extinguisher must be located adjacent to each stairway.
 - e. Periodic fire protection/prevention training **may** be conducted under the direction of the company Safety and Health Manager, including instruction and demonstrations on the proper use of portable extinguishers. It is, however, the responsibility of each employee to read the instructions and familiarize themselves with the extinguisher(s) in their respective areas of work, whether it be in an office, shop area, construction area, on a piece of heavy equipment, or in a pick-up truck, or other company vehicle.
 - f. The extinguishers on each jobsite will be procured by the jobsite management and staff, and be maintained in the field by company jobsite personnel. Fire extinguisher quantities and areas of placement are subject to the direction of the company Safety and Health Manager. Periodic and annual maintenance and inspection of all extinguishers will be controlled by the shop, either through an outside certified contractor or under the direction of the company Safety and Health Manager.
 - g. Should any company employee use an extinguisher, or observe one that has been used or that needs charge or other attention, they should immediately contact the shop or Safety and Health Manager. At a minimum, extinguishers requiring attention include those with gauges indicating low charge, gauges missing pins, missing inspection labels or tags, and obvious signs of damage or deterioration.
 - h. Access to all fire-fighting equipment must be kept clear at all times.
 - i. All heavy equipment and certain selected company vehicles will be equipped with a fire extinguisher.

6.8.2 Fire Prevention

- a) General:
 - i. Housekeeping on all company jobsites, in all offices, in all shop areas, in all field offices, and in all work trailers will be maintained in order to assure that no potential fire hazards exist.
 - ii. Used cleaning rags that are oily, greasy, and/or fuel soaked are to be placed and stored in non-combustible solid containers with lids.
- b) Outdoor Storage Areas



- i. Combustible materials are not to be piled higher than 20 ft. and shall have accessways of at least 3 ft. in width between piles and are to be placed at a minimum of 10 ft. from any building or structure.
 - ii. Proper fire extinguishers shall be placed in combustible material storage yards so that no more than 100 ft. exist from an employee to the nearest extinguisher at any time.
- c) Indoor Storage Areas
- i. The manner of material storage must not be allowed to obstruct or adversely affect any fire-fighting equipment or any means of exit.
 - ii. Adequate aisle space must be maintained between all stored materials in order to accommodate the largest piece of fire-fighting equipment anticipated to be used in an area.
 - iii. No material may be stored within 36 in. of a sprinkler head deflector.
- d) Flammable and Combustible Liquids
- i. Approved safety cans and tanks must be used in handling and storing flammable and combustible liquids in quantities over one (1) gallon. Quantities of 1 gallon or less may be left in the original container or placed in an approved safety can.
 - ii. Flammable/combustible liquids must not be stored in any area normally used for the safe passage of people.
 - iii. Flammable/combustible liquids in quantities over 25 gallons stored indoors must be placed in an approved safety cabinet. Not more than 60 gallons of flammable or combustible liquids shall be stored in any one safety cabinet. Follow manufacturer's limits.
 - iv. Flammable/combustible liquids stored outdoors in containers less than 60 gallons each must not exceed a combined amount of 1,100 gallons in one area or pile.
 - v. Each pile or area of storage of such flammable/combustible liquids stored outdoors must be separated by 5 ft. clearance and must not be within 20 ft. of a building or structure.
 - vi. Storage areas for flammable/combustible liquids must be kept free of weeds, debris and other combustibles not necessary to the storage.
 - vii. At least one (1) approved fire extinguisher must be located not less than 25 ft. and not more than 75 ft. from any outside flammable liquid storage area.
 - viii. At least one (1) approved fire extinguisher must be located within 75 ft. of every fueling area.
 - ix. There shall be no smoking or open flames within 50 ft. of fuel dispensing areas or other areas where fuel is used.
 - x. Engines of all equipment must be shut off during refueling operations.
 - xi. All portable fuel tanks (60 gallons or more) must be clearly labeled as to their contents and a "No Smoking" or "No Open Flame" sign placed on or near the tank.

6.8.3 Emergency Procedures (Fire)

- a. Portable fire extinguishers control 85 to 90% of all construction fires. If a fire is encountered in its early stages, the nearest fire extinguisher should be used immediately. Simultaneously, others in the vicinity should be warned, and their help be solicited if



appropriate. Operate the fire extinguisher as trained or as described on the instruction label. If the flames go out, do not continue to operate the extinguisher. Save its use as you stand by watching for a flare-up. Should the fire get out of control or be in an extremely hazardous area, leave the area while alerting others in the vicinity and call for outside emergency assistance.

(Note: Remember, water hoses, water buckets, dirt, blankets, etc. make excellent portable fire extinguishing agents.)

- b. Call 911 or send someone to call 911 if a phone is available. Give the exact location of the incident, the type of emergency, and the type of equipment that may be needed.
- c. Be certain that the company Safety and Health Manager is notified of the fire as soon as possible.

6.9 GASSES, VAPORS, FUMES, DUSTS, AND MISTS

- a. Exposure to toxic gasses, vapors, fumes, dusts, and mists above acceptable concentration must be avoided.
- b. When it is not feasible or possible to bring the area itself into compliance through the use of engineering and administrative controls, appropriate protective equipment or other protective measures are to be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and technical measures used for this purpose must be reviewed for each particular use by a technically qualified person. In such circumstances, employees will use all issued equipment at all times.

6.10 HAND TOOLS, POWER TOOLS, AND POWER-ACTIVATED TOOLS

6.10.1 General

- a. No employee will operate electric, gas, or hand powered tools or equipment unless thoroughly familiar with use of the item and with all required safety precautions.
- b. Faulty equipment shall be taken out of service immediately.
- c. Employees will not use unsafe hand tools. Wrenches are not to be used when jaws are sprung to the point slippage occurs. Impact tools are to be kept free of mushroomed heads. Wooden tool handles are to be kept free of splinters or cracks, and are to be maintained tightly in the tool.
- d. Employees are responsible to make a visual inspection of any tool before each use to ensure no unsafe conditions exist. If broken or excessively worn conditions exist, the tool must not be used until corrections or replacements are made.
- e. Safety glasses or other approved eye protection must be worn by any employee using or being near a tool that normally or possibly could produce a projectile, splinters, or dust during its use or operation.
- f. Manufacturer's switches and safety devices shall not be altered, removed, or overridden in any manner, including all types of guards, baffles, and shields.

6.10.2 Hand Tools



- a. Impact tools such as hammers, chisels, wedges, drift pins, etc. must be kept free of mushroomed or splintered ends and must not be used until these unsafe conditions are corrected or the tool is replaced.
- b. Tools with wooden handles that are loose, splintered, or cracked shall not be used until corrections or replacements are made.

6.10.3 Power, Poser-Actuated, and Air Tools

- a) Fuel Powered Tools
 - i. All fuel powered tools must be shut off while being refueled, serviced, or maintained.
 - ii. Smoking, matches, open lights or similar ignition sources are prohibited in the vicinity of any refueling operation.
 - iii. Any fuel powered tool that develops a leak in the fuel system must be taken out of service immediately and repaired or replaced before continuing the operation.
 - iv. When fuel powered tools must be operated indoors or in confined areas, or near occupied underground pits, manholes, vaults, etc. proper ventilation of such confined spaces must be maintained so as not to allow a hazardous atmosphere to form.
- b) Electric
 - i. All 110 volt power tools must either be approved double insulated or have a current assured grounding test I.D. (see Section 11.5). Those not meeting one of these requirements must be taken to the shop for testing or replacement before use.
 - ii. Trailing cords of power tools are not to be used to lift or lower the tool.
 - iii. Bench and floor mounted grinders must have safety guards and work rests. Work rests must be kept within 1/8 in. from the wheel at all times.
 - iv. The use of any attachment wheel rated lower than the rated RPMs of the grinder is strictly prohibited.
- c) Air Driven
 - i. Percussion type impact tools must have a safety clip or retainer to prevent the attachment from disengaging while in use.
 - ii. Compressed air in excess of 30 psi shall not be used for cleaning purposes. (Exception: concrete form cleaning and similar processes being performed by trained personnel.)
 - iii. All pressurized hose quick disconnect type (non-threaded) fittings, couplings, and connectors must have a safety mechanism providing a positive means to prevent accidental disconnect.
 - iv. All hose lines greater than 1/2 in. diameter are to be equipped with a safety device at the source or branch line from the source to automatically reduce pressure in case of hose failure.
 - v. Hoses are not to be used for lifting and lowering air tools.
- d) Power Actuated Tools
 - i. Only persons trained in the proper use of the particular power actuated tool are permitted to operate it.
 - ii. The tool must never be pointed at another person whether it is empty or loaded.



- iii. The tool must only be loaded just prior to its use and never left unattended when loaded.
 - iv. The tool must never be used near flammable or explosive materials or atmosphere.
 - v. Fasteners must never be driven into extremely hard or brittle materials, such as cast iron, glazed tile, face-hardened steel, glass block, face brick, etc.
 - vi. Fasteners must never be driven into materials that might be easily penetrated unless suitably protected against the possibility of rear exit.
- e) Grinders--Abrasive
- i. Abrasive wheel bench or stand grinders must have safety guards strong enough to withstand bursting wheels. Adjust work rests on grinders to a clearance not to exceed 1/8 in. between rest and wheel surface. Inspect and ring test abrasive wheels before mounting. Always leave wheel in working condition for next user. Properly dress wheel before using and/or when finished. The RPM rating of the abrasive wheel must be in accordance with the RPM rating of the motor.
- f) Grinders--Portable (Air, Electric or Fuel)
- i. Portable grinders used with any wheel attachment must have guards, hoods, and/or safety flanges in place except when wheels less than 2 in. O.D. are used or when the wheel is entirely within the work being processed.
 - ii. The use of any attachment wheel rated lower than the rated RPMs of the grinder is strictly prohibited.

6.11 HAZARD MATERIAL COMMUNICATIONS

6.11.1 General

- a. Refer to the *Carter & Carter Hazard Communication Program*, for complete description of the program.

6.11.2 The CARTER & CARTER Hazard Communication Program Manual

- a. Refer to the *Carter & Carter Hazard Communication Program Manual* for description of the use of the manual.

6.12 HEAVY EQUIPMENT AND TRUCKS

6.12.1 General

- a. Manufacturer's Operator Manuals and safety information shall be readily available to the operator at all times.
- b. Any special load rating capacity charts, recommended operating speeds, hazard warnings, or similar instructions shall be posted where they are visible to the operator while at the control station.
- c. An appropriate fire extinguisher in good operating condition, properly sealed, with a current inspection certification, shall be kept with all motorized heavy equipment and trucks.



- d. All cab glass must be safety glass or the equivalent and must be kept clear of visible distractions affecting safe operation. All broken or cracked glass must be replaced.
- e. Seat belts must be provided and used on all heavy equipment and trucks with the exception of equipment not requiring rollover protection, or that is designed for stand-up operation only.
- f. It is the operator's responsibility to see that no personnel are allowed to ride on their equipment or truck unless there are seats installed for this purpose and the person is seated properly. Truck beds are not to be used to haul personnel under any circumstances.
- g. All heavy equipment and trucks must have a functional horn at the operator's station.
- h. All heavy equipment and trucks shall be equipped with an automatically operated back-up alarm that can be heard above the surrounding noise level. Exceptions are vehicles used only for on-road driving, and vehicles 1 ton or less that have a clear view to the rear.
- i. In a temporary situation, a vehicle with a recently inoperable alarm can be backed if the operator has a clear view to the rear or if an observer is used to assure the operator that all is clear to the rear.
- j. All equipment and trucks that are equipped with apparatus that can be raised and lowered from the operator's station (i.e., backhoes, endloaders, dump trucks, forklifts, etc.) must be placed in the "grounded," closed, or lowered position before the operator leaves the control station. This would also apply when the operator has completed one task and will be waiting a substantial or unknown amount of time until the next task.
- k. Operating levers that control dumping/hoisting devices on dump trucks must have a latching or other device that prevents accidental operation.

6.12.2 Maintenance and Repairs

- a. During the maintenance or repairs of any vehicle or piece of equipment, the person(s) doing the work must first take steps to assure that no one will inadvertently attempt to operate it (i.e., tag-out, lock-out, disable power source, remove keys, etc.).
- b. During the maintenance or repairs of a piece of equipment or truck which must be performed with apparatus in the opened, raised, or lifted position, the apparatus must be physically blocked, pinned, locked, or otherwise supported to prevent accidental lowering or closure of the apparatus.
- c. Should it become necessary for a person performing repairs or maintenance on a piece of equipment or vehicle to leave even for a short time prior to completing the work, the steps in 3.12.2.a above must be applied.

6.12.3 Inspections

- a. The operator or a designated competent person must make a safety inspection of the equipment to be used prior to each work shift. Any conditions found that can result in unsafe operation must be corrected before continuing. This applies to conditions arising during operation as well. Refer to Section 3.5 for inspections to hoisting equipment.

6.12.4 Site Clearing Equipment



- a. All equipment used in site clearing must have an overhead canopy of at least 1/8" steel plate or 1/4" woven wire mesh of a maximum 1" openings. Openings or windows in the rear of the canopy must have 1/4" woven wire mesh of maximum 1" openings or equivalent protection.

6.12.5 Cranes, Draglines, and Hoisting Equipment

- a. All hand signals to cranes, etc. must be those prescribed by the American National Standards Institute (ANSI) for the specific crane in use.
- b. An annual inspection must be made by a competent person or agency and records maintained for each piece of hoisting equipment.
- c. The operator or a designated competent person must periodically check all wire rope used in conjunction with hoisting equipment. Wire rope found to be out of compliance with OSHA 1926.550(a)(7) must be taken out of service.
- d. The operator shall be responsible to see that no person is permitted to be lifted, lowered, or ride on any hoisting equipment's load lines, attachments to load lines, boom, etc.
- e. The operator shall never lift a load over the head of another person, including persons in vehicles, equipment, trailers, etc.
- f. The operator shall consider all signaling not understood as a "Stop" signal.
- g. The operator shall be responsible to see that the rear swing radius of a crane or dragline that is accessible to personnel is barricaded to prevent persons from becoming struck or crushed by the crane's rear structure.
- h. Overhead cranes shall be operated only by authorized persons that have received instructions on their proper use.
- i. When the operator does not have a clear unobstructed view of the hoisting operation, intermediate signaling person(s) or radios must be used.

6.12.6 Procedure to Remove Rebar or Other Objects from Equipment Tracks, Tires, or Undercarriage

- a. If concrete reinforcing steel (rebar) or any other object becomes lodged in any equipment track, tire, or undercarriage immediately:
 - i. **STOP THE EQUIPMENT.** Secure it in park and shut off the engine.
 - ii. Notify your immediate supervisor.
 - iii. Notify, or ensure that your supervisor notifies, the Carter & Carter Safety and Health Manager.
 - iv. **DO NOT** resume operation of the equipment until:
 - a) Specific instruction has been given by your supervisor, and
 - b) The corrective procedure is provided under the guidance of the Safety and Health Manager and/or the company equipment foreman.

6.13 HOISTS--MATERIAL AND PERSONNEL

- a. Rated load capacities, recommended operating speeds, and special hazard warnings or instructions posted on cars and platforms may not be exceeded under any circumstances.



- b. (Material hoistway entrances hoists) will be protected by substantial full width gates or bars.
- c. Hoistway doors or gates of personnel hoists will be not less than 6 ft. 6 in. high, and will be protected with mechanical locks which cannot be operated from the landing side and are accessible only to persons on the car.
- d. No riders are allowed on material hoists except for inspection or maintenance.

6.14 HOUSEKEEPING AND DISPOSAL OF WASTE MATERIAL

6.14.1 Housekeeping

- a. Generally, housekeeping responsibilities fall on every employee to see that their immediate work area is free from housekeeping hazards that might cause slips, trips, falls, fires, health hazards, electrical hazards, etc. Similarly, each employee should be looking out for similar hazards while walking from place to place during their daily work activities, and should correct or report any such hazards at once.
- b. Jobsites must be maintained in such a manner that no debris is allowed to accumulate in or to clutter work areas, walkways, stairs, ladders, aisles, doorways, trailer floors, etc.
- c. Form and scrap lumber with protruding nails and all other debris will be kept clear from work areas. Remove combustible scrap and debris at regular intervals.
- d. Depending upon the specific requirements of the individual subcontracts, containers may be provided for collection and separation of all refuse.
- e. Covers are required on containers used for flammable or harmful substances.
- f. Unless absolutely necessary, no glass containers allowed on jobsites.
- g. At the end of each portion of work, return all tools and excess material to proper storage. Each employee is responsible for clean-up of all debris from their own work areas before moving on to the next phase of work.

6.14.2 Disposal of Waste Material

- a. Combustible scrap materials shall be removed from jobsites at intervals sufficient to prevent unnecessary fire potential.
- b. Scrap or form lumber with protruding nails must be processed while being disassembled to eliminate the obvious hazard of the sharp nail points. Removal of the nail is desired, however, pounding the point back into the board or bending it over is acceptable when the lumber is to be disposed of shortly.
- c. Garbage that might present a health hazard, such as decomposing food, acids, harmful dusts, etc. shall be kept in covered containers and disposed of at frequent intervals.
- d. All flammable waste such as certain solvents, oily rags, etc. must be kept in fire resistive covered containers until removed and disposed of.
- e. All materials classified as hazardous must be disposed of using approved methods described in the manufacturer's MSDS (Material Safety Data Sheet) or other legally approved information.
- f. All disposal of waste material and debris by burning shall comply with local fire regulations. Burning permits must be obtained where required. Changing wind conditions must be considered and action taken to prevent any uncontrolled burning. At least one



person must be in the general area during the burn to monitor conditions until the fire is completely out.

6.15 LADDERS, STAIRWAYS, AND RAILINGS

6.15.1 Ladders

- a. Always face the ladder when moving up or down on it, keeping at least one hand grasping the ladder.
- b. Never carry a load on a ladder that might cause you to lose your balance or fall.
- c. Never use the top step of a ladder as a step.
- d. All ladders must be kept free of oil, grease, and other slipping hazards.
- e. Any ladder that becomes defective, weakened, broken, or otherwise faulty, must be tagged "DO NOT USE" and placed out of service until repaired.
- f. Ladders used where they could possibly come in contact with energized electrical equipment or lines must have non-conductive side rails.
- g. Ladders used to access an elevated area or landing must extend at least 3 ft. above the landing. If not possible, then the ladder must be secured at the top and a grab rail or similar grasping device at the landing be provided.
- h. Ladders that are not permanently fixed or self-supporting shall be used at a ratio of approximately 4:1 (i.e., ladder being used at a working length of 16 ft. would need to be 4 ft. from the wall at the base).
- i. Ladders used on unstable or unlevel surfaces must be secured to prevent their displacement.
- j. Ladders used in unbarricaded areas of traffic such as doorways, driveways, etc. must be secured against displacement. Ladders used on hard, smooth, slippery type surfaces must be secured or must have slip-resistant safety feet.
- k. Fixed ladders must be constructed so that a minimum clearance of 7 in. is maintained behind the ladder and 30 in. is maintained at the front (climbing) side of the ladder.
- l. Job-made ladders can be constructed and used with prior approval from the Safety and Health Manager. Requirements of ANSI Standard A14.4 must be met in their construction and use.

6.15.2 Stairways

- a. Generally any personnel access area with a difference in elevation of 9 in. or more must have an approved means of moving from one elevation to the other, including stairways, ramps, sloped embankment, hoist, etc.
- b. Stairways having four or more risers or raising more than 30 in. must have a handrail and midrail along each unprotected side. The handrail shall be between 30 and 37 in. high.
- c. Where doors or gates swing open into a stairway, a landing platform or area must be maintained that is a minimum of 20 in. in width.

6.15.3 Railings



- a. A standard railing will consist of top rail, intermediate rail, toeboard and posts, and have a vertical height of approximately 42 in. from upper surface of top rail to floor, platform, etc. The top rail of the railing will be smooth surfaced, with a strength to withstand at least 200 pounds. The intermediate rail will be approximately halfway between top rail and floor.
- b. A stair railing will be of a construction similar to a standard railing, but the vertical height will be no more than 34 in. or less than 30 in. from upper surface of top rail to surface of tread in line with face of the riser at the forward edge of the tread.

6.16 LASERS

- a. Only qualified and trained employees will be allowed to operate lasers. Employees will wear proper eye protection where there is a potential exposure to laser light greater than 0.005 watts (5 milliwatts).
- b. Proof of qualification of laser operator must be available at all times.
- c. Beam shutters or caps will be utilized, or laser turned off when laser transmission is not actually required. When lasers are left unattended for a substantial period of time, they are to be turned off.

6.17 MASONRY WALL ACCESS ZONE

- a. Limited access zones are to be established on the unscaffolded side of unbraced masonry walls. The zone is to be equal to the finished height of the wall plus 4 ft.

6.18 MATERIAL STORAGE, HANDLING, AND RIGGING

6.18.1 Storage

- a. Material shall not be stored in aisles, passageways, doorways, etc., nor shall it obstruct or adversely affect any fire-fighting equipment.
- b. No material may be stored within 36 in. of a sprinkler head deflector.
- c. Bagged materials shall be stacked by stepping back the layers and cross keying the bags at least every 10 bags high.
- d. Brick stacks shall be limited to 7 ft. maximum height. Loose stacks shall be stepped back 2 in. per foot in height for every foot over 4 ft.
- e. Masonry block shall be stepped back 1/2 block per tier above the 6 ft. high level. Lumber must be stacked free of nails, level, self-supporting and a maximum of 16 ft. high.
- f. Poles, pipes, bars, etc. shall either be stored in racks or stacked and blocked to prevent rolling or spreading.
- g. Cans, drums, pails, etc. to be stored loose must be stepped back 1 container per tier above the 4 ft. high level.

6.18.2 Handling and Rigging



- a. Rigging equipment shall be inspected prior to use on each shift and as needed during its use to ensure it is safe. Defective or suspicious equipment must be removed from service immediately.
- b. Makeshift rigging equipment is prohibited.
- c. Use of wire rope:
 - i. Safe working loads for wire rope rigging equipment, as provided by the manufacturer or as determined by approved informational charts (i.e., OSHA 1926.251 Tables H-3 through H-14), shall not be exceeded when handling material, etc.
 - ii. Wire rope used in lifting, lowering or pulling loads shall be one continuous piece without splice.
 - iii. Eye splices in lifting bridles and slings shall not be made with wire rope clips or knots.
 - iv. When using wire rope clips or similar items to form eyes and splices in cables, the manufacturer's instruction must be strictly followed with respect to size, number, and installation procedure of the particular clips or similar items.
 - v. Wire rope rigging equipment shall be taken out of service when in any length of 8 times the diameter, the total number of visible broken wires exceeds 10% of the total wire construction of the wire rope (i.e., a 6 x 7 constructed 1" diameter cable has 42 wires. 10% of 42 = 4 wires. 1" diameter x 8 = 8 ins.; thus, if the cable has more than 4 visible wires broken in any 8 in. section it must be replaced).
- d. All shackles and hooks used in rigging shall exceed the manufacturer's safe working load rate for the load being handled. Unidentified shackles must conform to an approved safe workload informational chart (i.e., OSHA 1926.251 Table H-19). Unidentified hooks must be treated and documented at (2) times the intended load before using.

6.19 OPENINGS: FLOORS, WALLS, ELEVATOR SHAFTS, AND SIMILAR AREAS

- a. All openings in floors, walls, elevator shafts, and similar areas are to be protected with a properly designed guard rail and toeboard, or are to be covered in a manner that will prevent falls. Provide railing on all exposed sides, except at entrances to stairways.
- b. Every open-sided floor or platform that is 6 ft. or more above the adjacent floor or ground level must be protected by a properly designed railing, or equivalent, on all open sides except where there is an entrance to a ramp, stairway, or fixed ladder.
- c. Ladderway floor openings or platforms must be protected with appropriately designed guard rails and standard toeboards on all exposed sides, except at entrances to openings. Passage through the railing is to be provided by a swinging gate, or must be offset so that a person cannot walk directly into the opening.
- d. Runways 4 ft. high or more need standard railings on all open sides.
- e. Floor holes into which persons can accidentally walk are to be protected by either an appropriately designed railing with toeboard on all exposed sides, or an appropriate floor hole cover. While the cover is not in place, the floor hole will be protected by a properly designed railing.
- f. Wall openings through which there is a drop of more than 4 ft., and the bottom of which is less than 3 ft. above the working surface, must be protected. When the height and



- placement of the opening in relation to the working surface is such that a properly designed rail will effectively reduce the danger of falling, the rail must be provided.
- g. The bottom of a wall opening which is less than 4 ft. above the working surface will be protected by a properly designed toeboard or an enclosing screen.

6.20 PERSONAL PROTECTIVE EQUIPMENT

6.20.1 General

- a. In general, the employee is responsible for wearing and using appropriate personal protective equipment in operations where there is exposure to hazardous conditions or where need is indicated to reduce hazard. The company will always endeavor to anticipate all such needs and issue appropriate equipment, but it remains the employee's responsibility to use all such issued equipment, and to advise company management if needed equipment had not been issued.

6.20.2 Proper Clothing (Field Personnel, Shop Personnel, and Truck Drivers)

- a. General: All clothing shall be adequate to protect the employee from the known and suspected hazards normally acquainted with the type of work to be performed.
- b. Shirts:
- i. Must be worn at all times.
 - ii. Must not have large rips, tears, holes, etc.
 - iii. Must extend to at least the waistline.
 - iv. Must have full top of shoulders protection (i.e., tank tops are *inadequate*, muscle T-shirts are *adequate*).
 - v. Loose, floppy, etc. shirts shall not be worn around equipment that could catch the material and pull the person into it.
- c. Pants:
- i. Must be full length.
 - ii. Must not have large rips, tears, holes, etc.
- d. Footwear:
- i. Must be of leather or solid man-made materials; not canvas, rubber, etc. (i.e., no tennis or running shoes).
 - ii. Must not have large rips, tears, holes, etc.
 - iii. The employee must wear socks that protect both foot and ankle.
 - iv. A good heavy work boot that at least covers your ankle is highly recommended. Steel toe and steel shank boots provide even better protection and are strongly encouraged.

6.20.3 Head Protection

- a. Approved hard hats in good repair and with proper suspension are required to be worn by all employees at all times on every project, when not under separate overhead protection (i.e., inside a nearly finished building, inside equipment or vehicle with a roof, etc.).



- b. Employees working in or around the main office/shop complex will only be required to wear hard hats in areas where there is a potential danger of head injury due to falling, flying, or moving objects.

6.20.4 Hearing Protection

All hearing protection used by any employee:

- a. Must be approved, of known attenuation type supplied by the company, or approved by the company Safety and Health Manager.
- b. Must be used as described by manufacturer's directions and/or company designated instructors.
- c. Must be used in any work area where the noise level is found to be above the permissible levels of Table 1 below, after all feasible engineering and administrative controls have been implemented in effort to reduce the noise conditions of the respective work area(s).

Table 1. Permissible Noise Levels

Decibels of Noise (dbs)	Worktime Allowed Per Day
90	8 Hours
92	6 Hours
95	4 Hours
97	3 Hours
100	2 Hours
102	1.5 Hours
105	1 Hour
110	.5 Hour

- d. Portable radios, tape players, and similar devices that require earphones or ear plugs are strictly prohibited while working (break and lunch times excluded). This restriction especially applies while driving a company vehicle or operating any equipment.

6.20.5 Eye and Face Protection

- a. Protecting eyesight with proper eye protection full time during the work day is highly recommended.
- b. Approved industrial safety glasses and/or eye protection shall be worn by employees while performing any duty or working near any operation where the potential exists for an eye injury from physical, chemical or radiant agent.
- c. Employees who must wear corrective lenses that are not of an approved industrial safety glasses type are required to wear safety goggles over their personal corrective lenses to comply with (a) above.
- d. Employees who are working with or near a laser beam operation must never look into or allow the beam to contact their eye(s). Normal safety glasses will not provide adequate protection against radiation damage to the eye, if exposed.



- e. All welding, torch and gas soldering operations require approved eye protection including a shaded lens. The following Table 2 is a guideline to be used in selecting the correct filtered lens shade number:

Table 2. Filter Lens Shade Numbers

Operation	Shade Number
All forms of arc welding	10-14
All forms of gas welding	4-8
Braxing and cutting	3-5
Gas soldering	2

6.20.6 Respiratory Protection

- No employee shall enter or work in an area where a known or suspected toxic or harmful atmosphere may prevail. The Safety and Health Manager must be notified to allow for proper testing of the area and for prescribing the proper respiratory protection program or other safeguards to be initiated. This includes areas of potential low levels of oxygen.
- In all situations in which employees are working in areas where abnormal levels of common nuisance dusts, fumes, or mists prevail, an approved dust mask must be worn.
- In emergencies, or when feasible engineering or administrative controls are not completely effective in controlling toxic substances, approved respiratory protective equipment must be used by every employee working in such conditions. Respiratory protective devices will be approved and issued for the hazardous material involved and extent and nature of work requirements and conditions.
- Employees required to use respiratory protective devices will be thoroughly trained in their use. Respiratory protective equipment will be inspected regularly and maintained in good condition.

6.20.7 Safety Belts and Lifelines

- An approved safety belt with maximum 6 ft. lanyard attached to a structure able to hold 5,400 lbs. shall be worn by any employee working in an area in which a fall of 10 ft. or more is possible, or in which a fall into a hazardous area is possible (such as into a tank or vat of chemical, into a working part of a machine, and into the path of moving vehicles).
- A lifeline able to hold 5,400 lbs. attached to a structure of comparable strength must be used to support a safety belt, where required.

6.20.8 Life Jackets and Ring Buoys

- Employees working over or near water where a life threatening hazard exists must wear a life jacket at all times.



- b. A ring buoy with at least 90 ft. of throw line shall be readily available also to supplement (a) above.

6.20.9 Back Support Belts

- a. A **mandatory Back Belt Program is in effect for all field** and shop personnel. This program applied to all mechanics, truck drivers, equipment operators, and field personnel at "working foreman" level and below. Supervisors, managers, office personnel, etc. will be exempt from the mandatory requirement, but are advised to use the back belts whenever engaged in any movement or lifting operations that carry the possibility of back injury.
- b. The belts issued are equipped with suspenders, are made of breathable materials, come in various sizes, and are adjustable. They are to be worn throughout the workday. They should be adjusted loose when not doing strenuous activities and snug when engaged in work that strains the lower back. Failure to wear and use your back belt will be treated as any other violation of job safety rules and regulations. An individually signed receipt will be used to document each employee being issued the belt and the employee's understanding of replacement costs, should the belt be lost or abused. Normal wear and tear or replacements of faulty material will be made at the company's expense. Proper care, including security from theft and washing as needed, will be the issued employees' responsibility. Exceptions to full time mandatory back belt program are the following:
 - i. During normal break time, lunch time or while riding in vehicles.
 - ii. Temporarily, as approved by employee's foreman or supervisor, when the possibility exists that the belt or suspenders could get caught or snagged on equipment or structure members causing a hindrance or potential hazard to the employee. The belt must be put back on as soon as the immediate task is completed.

6.21 Safety Nets

- a. Safety nets are required when workplaces are more than 25 ft. above the surface and the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts is impractical.

6.22 SANITATION CONTROLS

6.22.1 Drinking Water

- a. An adequate supply of fresh drinking water is to be readily available at every jobsite.
- b. Where portable water containers are used, they must be kept clean, tightly closed, never dipped into for ice or water, and never used as a cold storage for other items such as lunches, soda, etc.
- c. Each portable drinking water area shall be supplied with single use disposable cups, a clean container to hold cups, and a cup disposal container.

6.22.2 Toilet Facilities



- a. Where permanent toilet facilities are not readily available to workers at a jobsite, portable facilities of the chemical type will be provided as required by the particular agreement for construction services.
- b. Under temporary field conditions or on jobsites with one to twenty employees, there must be at least one seated toilet.
- c. Twenty or more employees at a jobsite must be supplied with a minimum of one seated toilet and one urinal per forty workers.

6.23 SCAFFOLDS

6.23.1 General Scaffolds

- a. All scaffolds will be capable of supporting 4 times maximum their intended load and erected on sound, rigid footing, capable of carrying the maximum intended load without settling or displacement.
- b. Guard rails and toeboards will be installed on all open sides and ends of platforms more than 6 ft. above ground or floor, except needle beam scaffolds and floats which require the use of safety belts. Scaffolds 4 ft. to 10 ft. in height, with a minimum dimension in either direction of less than 45 in., will have appropriate guard rails installed on all sides and ends.
- c. Where persons are required to work or pass under scaffolds, there will be a screen with maximum 1/2" openings between toeboard and guard rail. Planking will be scaffold grade or equivalent as recognized by approved grading rules for the species of wood used in the planking. Scaffold planking is to be overlapped a minimum of 12 in. or otherwise be secured from movement.
- d. Scaffold planks will extend over end supports not less than 6 in. nor more than 12 in. Scaffolding and accessories with defective parts will be immediately repaired or replaced.

6.23.2 Mobile Scaffolds

- a. All platforms are to be tightly planked for the full width of the scaffold, except as may be necessary for entrance openings. Platforms will be secured in place.
- b. Guard rails made of lumber are not to be less than 2 x 4 in. (or equivalent), approximately 42 in. high, with a midrail of 1 x 6" lumber (or equivalent). Toeboards will be installed at all open sides and ends on scaffolds more than 10 ft. above ground or floor. Toeboards will be minimum 4 in. in height. Where persons are required to work or pass under scaffolds, wire mesh is to be installed between toeboard and guard rail.

6.23.3 Swinging Scaffolds

- a. On suspension scaffolds designed for a working load of 500 pounds, no more than two workers are permitted to work on the scaffold simultaneously. On suspension scaffolds with a working load of 750 pounds, no more than three workers are permitted on the scaffold simultaneously. Each employee on the scaffold must use an approved safety life belt attached to a lifeline. The lifeline is to be securely attached to substantial members of



the structure (not the scaffold itself) or to securely rigged lines which will safely suspend a worker in event of a fall.

6.23.4 Tubular Welded Frame Scaffolds

- a. Scaffolds will be properly braced as recommended by the manufacturer by cross bracing or diagonal braces, or both, for securing vertical members together laterally. Cross braces will be of such length as will automatically square and align vertical members or erected scaffold is plumb, square, and rigid.

6.24 SECURITY AND VANDALISM

- a. The planning, layout, and monitoring that goes into a jobsite security and vandalism control program is usually the difference between loss control and expensive thefts and damage. A jobsite without guards, fencing, adequate lighting, or controlled exits presents an easy target for even the inexperienced vandal or thief.
- b. Before or during the initial project mobilization, the project supervisory staff should meet with the local police, state highway patrol, or county sheriff and the local fire department. The law enforcement professionals should be provided with the details of the project, the type of construction, anticipated work schedules, planned starting times and scheduled dates of completion. The names of key personnel, telephone numbers, and how to reach them during non-working hours should also be given. The authorities should be kept informed at all times. Request a crime prevention survey of your site, and include them to the greatest extent possible in all pre-job security planning.

6.25 SIGNS, SIGNALS AND BARRICADES

6.25.1 Signs and Barricades

- a. In cases where employees are required to work on or adjacent to a public roadway, proper signs and barricades warning and directing the area traffic must be in place prior to work proceeding and must be maintained and modified as needed throughout the time frame of the activity. Whenever possible, the arrangement should be accomplished through a contractual agreement with an outside company as determined by a particular project's needs. Such an arrangement, however, does not eliminate the responsibility of the project manager to assure that adequate signage and barricades are being properly used and appropriately maintained.
- b. Proper signs and barricades are to be used on Carter & Carter jobsites whenever needed, in order to warn and direct pedestrian traffic and our own employees walking and working in the vicinity of a potential hazard, such as an open manhole, trench, falling or flying debris, high pressure pipe testing, etc.

6.25.2 Signaling (Traffic Control)



- a. When operations on or adjacent to a public roadway are such that signs and barricades do not adequately protect employees or warn and direct the traffic, flagmen or local law enforcement must be used.
- b. Flagmen and any other employee working on or near a public roadway must wear a brightly colored orange or red safety vest. The vest must have reflective material incorporated front and back if used at night or in any dim-light conditions.
- c. Signaling by flagmen should be done by the use of brightly colored red or orange flags 18 in. square (minimum) or by use of proper sign paddles or pivot posts.
- d. Flagmen working in conjunction with one another must maintain good visual or other appropriate communications at all times.
- e. Signals used by flagmen must conform to those established under the ANSI Manual or Uniform Traffic Control Devices. Consult with the company Safety and Health Manager for additional assistance and detail.

6.25.3 Guarding Opened Manholes and Similar Structures

- a. A single crew must not have more than two (2) manholes opened at any one time.
Exception: Three (3) may be opened for short durations during outside agency and client inspections. An extra manhole guard should be posted if needed.
- b. Opened manholes must be barricaded with free standing metal manhole guards, cones with flagging encompassing entire manhole, or stakes and flagging encompassing manhole. Metal manhole guards must have chains in place when left unattended. Refer to (c), below.
- c. An opened manhole not properly barricaded for any reasons (refer to (b), above) must be attended at all times. A manhole is considered unattended if there is no employee above ground within arm's length of the opened hole keeping persons away from it.
- d. Where several manholes on a jobsite must be accessed periodically throughout a work day, temporary plywood manhole lids may be used to cover those manholes not otherwise barricaded.

6.25.4 Accident Prevention Signs and Tags

- a. Signs and symbols required by hazardous jobsite conditions are to be visible at all times when work is being performed, and are to be removed or covered promptly when the hazards no longer exist.
- b. Types of signs include:
 - 1) **Danger Signs**
 - a. Are to be used where immediate hazards exist.
 - b. Shall have red as the predominant color for the upper panel; black outline on the borders; and white lower panel for additional sign wording.
 - 2) **Caution Signs**
 - a. Are to be used to warn of potential hazards, or to caution against unsafe practices.
 - b. Shall have yellow as the predominant color; black upper panel and borders; yellow lettering of "caution" on the black panel, and lower panel for additional sign wording. Black lettering shall be used for additional wording.

**3) Exit Signs**

- a. When required, shall be in legible red letters not less than 6" high on a white field.

4) Safety Instruction Signs

- a. When used shall be white with green upper panel with white letters to convey the principle message. Any additional wording shall be black letters on the white background.

5) Directional Signs

- a. Other than automotive traffic signs described in (6) below, shall be white with a black panel and white directional symbol. Additional wording on the sign shall be black letters on a white background.

6) Traffic Signs

- a. Construction areas are to be posted with legible traffic signs at points of hazard.
- b. All traffic control signs are to conform to American National Standards Institute D6.1-1971 Manual of Uniform Traffic Control Devices for Streets and Highways.
- c. Refer to the company Safety and Health Manager for additional direction or confirmation of proper signage procedure.

6.26 TAG-OUT AND LOCK-OUT PROGRAMS**6.26.1 Safety Tag--"Out of Service"**

- a. This tag is authorized to be used by the company Safety and Health Manager or his/her designee only. The tag will be used to tag "out of service" on any type of equipment, machinery, tools, etc. deemed necessary.
- b. The tag is in black letters on a red background and has the universal danger sign on one side.

6.26.2 General Tag-Out/Lock-Out Program

- a. This program is being implemented in order to provide additional protection to employees who may need to work on or near potentially hazardous electrical or mechanical equipment that has been deenergized, disconnected, or otherwise disabled. The person responsible for the deenergizing process will also be responsible for assuring that the equipment is tagged out of service and, wherever possible, locked out. The tag must be signed and dated and must be hung on or within 12 in. of the switch, disconnect, breaker, etc. that is shut off.
- b. Upon completion of work, the person who tagged out/locked out the equipment will be responsible for removal of all tags and locks. If that person is not available at the work site, then his or her immediate supervisor may designate a qualified person to perform this task, provided the supervisor informs the original "tag-out-of-service" person of such action before he or she resumes work at that work site. In either event, the responsible person must make a visual inspection to clear the affected area and equipment prior to reenergizing it.



- c. Tags and locks used to comply with this program can be obtained from the company Safety and Health Manager. Ongoing company safety training classes will periodically include instructions concerning this program.

Should there be any questions about the Tag--Out of Service / Lock Out program, please contact the Safety and Health Manager.

- d. The tag is black letters on white background

6.27 TRENCHING AND EXCAVATING

6.27.1 General Requirements

- a. Preplanning of every excavation by the responsible supervisor is required in order to prevent problems with items such as underground utilities, vehicular and pedestrian traffic, overhead utility lines, surface drainage, substructures and superstructures, excessive noise laws, environmental impact laws, medical and/or emergency response facilities, potential for hazardous atmosphere, communications and back-up availability, and normal amounts of vibration in the area.
- b. Dewatering as required to sustain a dry excavation must be initiated and maintained while work is being performed.
- c. Persons working in or around an excavation must be alert to any unnatural or suspicious changes in the excavation. Any observation or concern must be reported to their immediate supervisor immediately. Such concerns may include cracks in walls or surface, water seepage, suspicious odors, change in surrounding vibrations, incoming drainage, etc.
- d. Prior to starting any work in the excavation area, the immediate supervisor (designated Competent Person) shall inspect the excavation for possible hazards and to see that all safety regulations are met. Additional inspections will be made throughout the day as required by changing conditions and at the beginning of each new work day or work shift. Each inspection is to be documented by the designated Competent Person using the appropriate company form, or as may be adequate on the project's complete daily field report. Any separately completed forms must be turned in to the Safety Department on a regular basis.
- e. The immediate supervisor (Competent Person) must remain in the general vicinity of any excavation in which persons are working. Should the designated Competent Person find it necessary to leave, they must designate a qualified person as Competent Person. This designee must have a working knowledge of the trenching and excavation regulation, be able to identify existing and potential hazards associated with the operation, and have authority to take immediate corrective measures. Should no such person be available, work within the excavation must be halted until the Competent Person returns.
- f. At the end of the work shift or when the work area must be left unattended at any time, the immediate supervisor shall perform a walk-around inspection of the area assuring that no hazardous or unsafe conditions are left exposed or unprotected.
- g. Carter & Carter policy requires that all field employees wear a safety vest at all times when performing any activities on any jobsite not inside a building structure. In any event



and at a minimum, employees working on or near a public roadway must wear a safety vest. Refer to section 3.25.2b for requirements.

- h. Where a condition exists that vehicular traffic poses a potential hazard to persons working in or around an excavation, adequate barricades, signage, earthen berms, signalmen, barriers, etc. must be provided that would best control the hazard.
- i. The Safety and Health Manager must be informed of any proposed excavation in excess of 20 ft. deep in order to allow for the proper engineering or optional protection system(s) to be planned and implemented.

6.27.2 Excavation Access and Egress

- a. All excavations 4 ft. or deeper must have a ladder, ramp (earthen or structural), or similar safe means of access/egress within 25 ft. of persons working in the excavation.
- b. Ladders used in excavations as access/egress must be secure and must extend at least 3 ft. above the top landing area or have an adequate grab rail or grab bar system at the top.
- c. Earthen ramps must be at no greater incline than that which would allow a person to exit in an upright position.
- d. Structural ramps must have a non-slip walking surface or must be supplied with cleats.
- e. Employees entering bell-bottom shaped excavations (i.e., pier holes) or similar deep, confined footing excavations must wear a safety harness with a lifeline at all times. The lifeline must be continually attended by person outside the excavation.

6.27.3 Hazardous Atmospheres

Refer to Safety and Health Manager for appropriate instructions.

6.27.4 Soils Classifications

- a) There are basically (4) types of soil classifications used to determine stability of soils:

- Stable Rock
- Type A (cohesive)
- Type B (mildly cohesive)
- Type C (non-cohesive)

When in doubt as to the soil type in a particular excavation Type C is to be assumed for the purpose of safety in trenching and excavating. All sloping, benchings, and protection systems used on our projects must conform to Type C soil requirements. Exceptions will only be allowed when authorized and classified by the Safety Department.

- b) The immediate supervisor (Competent Person) must make at least one visual test and one physical or manual test to determine the soil classification.

1) **Visual**

By looking at the soil around the excavation, the soil that is excavated, or the walls of the excavation and deciding whether it is:

Cohesive A-Type



(high clay or cemented soil content)

Mildly Cohesive B-Type

(high loam or silt mixed with clay or sand)

Non-Cohesive C-Type

(sandy, granular soil or extremely wet soil or clay).

2) **Physical**

By seeing how difficult it is to press your thumb into an undisturbed section or clump of soil and how deep a penetration is obtained

Cohesive A-Type

(hard pressure with little to no penetration)

Mildly Cohesive B-Type

(mild pressure and full penetration)

Non-Cohesive C-Type

(easily penetrated several inches).

Remember: Work in A and B soil classifications must be authorized by the Safety and Health Manager.

6.27.5 Sloping

- a. All excavated materials, spoils, loose dirt, stones, tools, etc. must be kept back at least 2 ft. from the edge of an excavation or adequate retaining shields or blocking devices must be used to ensure that materials cannot fall onto employees in the excavation.
- b. Type-C soils must be sloped to an incline of at least 1:1; that is, for every 1 ft. depth you must have top of slope back 1 ft. from toe of slope or 1 ft. horizontal for every 1 ft. vertical.

6.27.6 Benching

- a. Type-C soils--Generally benching is not permitted in Type-C soils unless used in combination with a trench box or shoring. Exceptions are made for layered soils where Type-C soils are above Type-B or Type-A soils. In such conditions, the Safety and Health Manager or company official must be notified for authorization.
- b. Benching is permitted in Type-C soils for any depth excavation provided that the upper bench or benches are excavated back far enough from the edge of the next lower top of slope to virtually make the upper bench non-affecting the lower bench; for example, scalping an area 4 ft. deep and 50 ft. wide for a proposed trench 10 ft. deep and 10 ft. wide. The result would be a trench 6 ft. deep so that the closest bench to the top of its slopes would be back 20 ft., which would allow an 8 ft. high trench box to be used safely.



6.27.7 Shoring

- a. Any excavations deemed necessary to use shoring will be handled on an individual basis. The proper materials or system to be used will be determined through a combined effort of the Competent Person, field supervision and the Safety and Health Manager.
- b. Generally, shoring systems may include the following:
 - i. **Designs for timber shoring in trenches** shall be determined by the Competent Person or registered professional engineer. For aluminum hydraulic shoring, designs will strictly meet or exceed requirements expressed in the manufacturer's tabulated data.
 - ii. **Designs using manufacturers' tabulated data** may be used; deviation is not allowed.
 - iii. **Designs using other tabulated data** may be used provided the data is in writing and includes: Explanatory information to aid the user in making a selection, the criteria determining the selection, and the limits on the use of the data. At least one copy of the information, including the identity of the registered professional engineer, must be kept at the worksite during construction of the protective system.
 - iv. **Design by a registered professional engineer.** Design systems not using any of the three previously cited options must be approved by a registered professional engineer, shall be in writing, and include the identity of the registered professional engineer and details such as sizes, types, and configurations of the materials to be used. At least one copy of the plan is to be at the jobsite during construction and throughout the period of work in the shored excavation.

6.27.8 Trench Boxes (Shields)

- a. Trench boxes may be used in excavations where sloping requirements cannot be met or are an undesirable option for protection against cave-ins.
- b. Only trench boxes that have a signed approved tabulated data sheet available may be used. The tabulated data sheets are prepared by the trench box manufacturer and are available through the Safety and Health Manager or the shop supervisor's office, and may be permanently attached to some boxes. The limits set forth by these data sheets must not be exceeded.
- c. Trench boxes must be inspected by the immediate supervisor (Competent Person) prior to and during use, to guard against structural failures. Boxes requiring assembly must be done under the supervision of the designated Competent Person.
- d. Trench boxes may be used in conjunction with sloping or benching in order to meet the required safe employee protection regulations.
- e. Trench boxes may be undercut up to 2 ft. as long as overall tabulated data sheet limits are not exceeded and the soil the box is sitting on is stable.
- f. Trench boxes must extend at least 18 in. above the top of slope of the excavation to prevent materials, earth, tools, etc. from falling into the work area. Generally, extra shields or plates may be used to provide the additional 18 in.
- g. Personnel working in a trench box must always remain in the protected area(s) including during access and egress. Ladders, when used, must be inside the protected area.



- h. A trench box must never be moved while personnel are in it or on it.

6.28 UNDERWATER WORK

6.28.1 General Policy

- a. All underwater work required will be done by the use of outside contractors licensed and qualified to perform such work in the state in which the project is located.

6.29 WELDING AND TORCH OPERATIONS (HOT WORK)

6.29.1 General

- a. No welding or torch operations are to be performed by any Carter & Carter subcontractor without a properly prepared hot work permit.
- b. When possible, items to be welded, cut, heated, etc. shall be moved to a safe location free of combustible or flammable material. If this is not possible, then all combustibles/flammables that can be removed from the area will be moved and a positive means of confining arcs and sparks generated by the process will be taken and additional person(s) will be stationed as fire watch for the area(s) still exposed.
- c. Appropriate fire-fighting equipment is to be available in close proximity of any welding and torch operations at all times.
- d. Drums, tanks, and similar containers that have contained flammable or toxic material shall not be welded, cut, or heated until they have been made safe by water filling, thorough cleansing, or similar accepted practices. The container must also be ventilated during the welding, cutting, or heating process.
- e. Proper eye protection must be worn during all welding and torch operations.
- f. Proper ventilation is required for any welding or torch operations performed in a confined space.
- g. Any welding or torch operations performed on metals of toxic compounds or coating such as zinc, stainless steel, lead, cadmium, chromium, and beryllium must be properly ventilated and/or proper respiratory protection must be worn by any person that could be exposed to fumes, vapors, and gasses created by the welding and torch cutting processes.

6.29.2 Arc Welding

- a. Wherever it is practical, all arc welding operations shall be shielded to prevent direct light rays or sparks from contacting persons in the vicinity or from reaching areas normally used to travel through or into the vicinity. Where this is not practical, persons who must be in the area are to use proper eye and skin protection. Other persons who are not participating in the welding or torch operations are not to be allowed into the hazard zone.
- b. Welders and other employees who are exposed to arc welding radiation must wear suitable clothing and protective apparel to prevent burns and other types of ultraviolet radiation damage to the skin.



- c. Arc welding machines must be shut down when being moved or when they are not in continuous use.
- d. Electrode holders left unattended must have electrodes removed and must not be left where they might contact employees or conducting objects.
- e. Energized electrodes must never be dipped in water.
- f. Welding hoods must be checked for light leaks periodically to ensure the user will be protected against eye flash burns.
- g. Welders must guard against allowing materials adjacent to or behind them to reflect radiation back toward them or towards others in the area. Reflected radiation can cause skin burns and eye flash burns.

6.29.3 Gas Welding and Torch Operations

- a. Compressed gas cylinders must always be secured from tipping or falling, whether in use, in storage or in transit. The cylinders must always be secured upright, except during times when actually being hoisted or carried.
- b. Valve caps must be in place when cylinders are not in use. Valve caps must never be used for lifting the cylinder vertically.
- c. Regulators must be removed when cylinders are not in use or are in transit, unless the cylinder is firmly secured on a special carrier designed for this purpose.
- d. Cylinders being transported by a powered vehicle must be secured in an upright position.
- e. Cylinders being hoisted must be secured on a pallet cradle or similar lifting platform.
- f. Cylinders must be shielded or kept far enough away from welding or torch operations so that sparks, flames, or slag from the operation cannot reach them.
- g. Cylinders containing oxygen or fuel gasses must not be taken into confined spaces.
- h. Fuel gas cylinders requiring special wrenches shall have the wrench in place on the stem while the cylinder is in use, so that it is immediately available to close the cylinder valve.
- i. Oxygen cylinders shall be stored a minimum of 20 ft. from fuel gas cylinders or must have an approved fire wall between them.
- j. Oily or greasy substances must never be allowed to get near or come in contact with the valve end of an oxygen cylinder or its related apparatus (hose, regulator). This includes hands, gloves, etc. that have oil or grease on them.
- k. Torches must only be lit by approved strikers; never with matches, cigarette lighters, or hot work.

6.30 WIRE ROPES, CHAINS, ROPES, ETC.

- a. Wire ropes, chains, ropes and other rigging equipment will be inspected prior to use and as necessary during use to assure their safety. Defective rigging equipment is to be removed from service immediately.
- b. Job or shop hooks and links, or makeshift fasteners formed from bolts, rods, or other such attachments, are not to be used. When U-bolts are used for eye splices, the U-bolt will be applied so the "U" section is in contact with dead end of rope.

Carter & Carter Accident Investigation Form

INCIDENT INFORMATION				
Date of Accident	Time	Day of Week S M T W T F S	Shift 1 2 3	Job Site

INJURED PERSON	
Name:	Address:
Age:	Phone:
Job Title:	Supervisor/Foreman Name:
Length of Employment at Company:	Length of Employment at Job:
Employee Classification: <input type="checkbox"/> Full Time <input type="checkbox"/> Part Time <input type="checkbox"/> Contract <input type="checkbox"/> Temporary	

Nature of Injury	<input type="checkbox"/> Bruising	<input type="checkbox"/> Dislocation	<input type="checkbox"/> Other (specify)	Injured Part of Body:
<input type="checkbox"/> Strain/Sprain	<input type="checkbox"/> Scratch/Abrasion	<input type="checkbox"/> Internal		
<input type="checkbox"/> Fracture	<input type="checkbox"/> Amputation	<input type="checkbox"/> Foreign Body	Remarks:	
<input type="checkbox"/> Laceration/Cut	<input type="checkbox"/> Burn/Scald	<input type="checkbox"/> Chemical Reaction		
Treatment	Name and Address of Treating Physician or Facility			
<input type="checkbox"/> First Aid				
<input type="checkbox"/> Emergency Room				
<input type="checkbox"/> Dr.'s Office				
<input type="checkbox"/> Hospitalization				

DAMAGED PROPERTY	
Property, Equipment, or Material Damaged	Describe Damage
Object or Substance Inflicting Damage:	

INCIDENT DESCRIPTION
Describe what happened (attach photographs or diagrams if necessary)

ROOT CAUSE ANALYSIS (Check All that Apply)		
Unsafe Acts	Unsafe Conditions	Management Deficiencies
<input type="checkbox"/> Improper work technique	<input type="checkbox"/> Poor work area design or layout	<input type="checkbox"/> Lack of written procedures or policies
<input type="checkbox"/> Safety rule violation	<input type="checkbox"/> Congested work area	<input type="checkbox"/> Safety rules not enforced
<input type="checkbox"/> Improper PPE or PPE not used	<input type="checkbox"/> Hazardous substances	<input type="checkbox"/> Hazards not identified
<input type="checkbox"/> Operating without authority	<input type="checkbox"/> Fire or explosion hazard	<input type="checkbox"/> PPE unavailable
<input type="checkbox"/> Failure to warn or secure	<input type="checkbox"/> Inadequate ventilation	<input type="checkbox"/> Insufficient worker training
<input type="checkbox"/> Operating at improper speeds	<input type="checkbox"/> Improper material storage	<input type="checkbox"/> Insufficient supervisor training
<input type="checkbox"/> By-passing safety devices	<input type="checkbox"/> Improper tool or equipment	<input type="checkbox"/> Improper maintenance
<input type="checkbox"/> Guards not used	<input type="checkbox"/> Insufficient knowledge of job	<input type="checkbox"/> Inadequate supervision
<input type="checkbox"/> Improper loading or placement	<input type="checkbox"/> Slippery conditions	<input type="checkbox"/> Inadequate job planning
<input type="checkbox"/> Improper lifting	<input type="checkbox"/> Poor housekeeping	<input type="checkbox"/> Inadequate hiring practices
<input type="checkbox"/> Servicing machinery in motion	<input type="checkbox"/> Excessive noise	<input type="checkbox"/> Inadequate workplace inspection
<input type="checkbox"/> Horseplay	<input type="checkbox"/> Inadequate guarding of hazards	<input type="checkbox"/> Inadequate equipment
<input type="checkbox"/> Drug or alcohol use	<input type="checkbox"/> Defective tools/equipment	<input type="checkbox"/> Unsafe design or construction
<input type="checkbox"/> Unnecessary haste	<input type="checkbox"/> Insufficient lighting	<input type="checkbox"/> Unrealistic scheduling
<input type="checkbox"/> Unsafe act of others	<input type="checkbox"/> Inadequate fall protection	<input type="checkbox"/> Poor process design
Other:	Other:	Other:



Carter & Carter Construction, LLC
730 N Dean Rd., Ste. 200
Auburn, AL 36830

Carter & Carter Safety Violation Warning Notice

To Be Completed By Supervisor

Notice Date _____

Employee Name _____ #: _____

Date of Violation _____ Time _____ Jobsite _____

Jobsite Address _____ Phone _____

City _____ State _____ Zip Code _____

Was anyone injured as a result of this violation? _____

Was any property or equipment damaged as a result of this violation? _____

Description of Violation: _____

Course of Action: _____

Employee Warned of: Suspension Dismissal Dismissal Without Pay

Employee Name (Print)

Employee Signature

Date

Supervisor Name (Print)

Supervisor Signature

Date

Employee Comments (optional): _____

