

# Bradbury Stamm COMPANIES

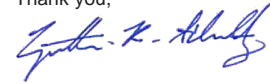
## EMPLOYEE SAFETY PASSPORT

rev. 05/18

Bradbury Stamm (BSC) welcomes you to our construction project. We invite and encourage you as an employee/subcontractor to join us in making this project a safe one. We are providing you with a safe environment and proper equipment, so that you will be working in the safest conditions. However, safe conditions are not enough; safe work habits are a vital part of a successful program. This handbook is provided as a basic guide to your safe conduct on the job. Read it carefully, learn the general safety rules and keep the handbook with you at work at all times. If there is anything in here you do not understand, ask your supervisor. They will be glad to help.

Remember, our having a good safety program depends on you!

Thank you,



Cynthia K. Schultz  
CEO  
Bradbury Stamm Construction, Inc.

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### 1. General Safety Rules

- Report to work rested and physically fit to perform your job.
- Wear clean clothing suitable for the weather and your work. Torn or loose clothing, cuffs and ties are hazardous. Minimum clothing is a full t-shirt and full-length trousers.
- Wear good work shoes, preferably safety shoes. No tennis shoes, open-toed shoes, or shoes with high heels.
- Use correct gloves when welding, handling chemicals, rough materials or items with sharp edges.
- Jewelry that can get caught or snagged by work practice should NOT be worn.
- Keep horseplay and roughhousing away from the job. Practical jokes often become painful injuries. Anyone involved in verbal abuse, harassment or fighting on the job may be subject to immediate dismissal.
- Never point an air hose at anyone or use it to clean clothing.
- Use only designated toilets.
- Inspect your safety equipment daily. If defective, do not use. Report it to your Foreman immediately.
- Work with care and good judgment at all times to avoid accidents – even if a specific safety rule is not contained in this manual.
- Soft drinks, food, etc., are not to be cooled in drinking water kegs or ice storage boxes.
- Do not operate any vehicle or equipment unless authorized by your foreman.
- The use of Alcoholic Beverage and/or Illegal Drugs is strictly prohibited on any BSC project, and in any BSC vehicle, and may be subject to immediate dismissal.
- Do not violate company Safety Directives. See your Foreman to become familiar with all Safety Directives that apply to your work.

### 2. Reporting Injuries

In order to receive medical treatment, it is a requirement and the policy of this company that you report any injury to your Foreman or other company supervisor on the same day of the injury, whether or not you go to the doctor that day.

**3. Your Foreman**

- If you do not understand any safety rule, ask your Foreman to explain it.
- Before doing a job where you are not familiar with the hazards, ask your Foreman to show you the safe way to do the job. They'll be glad to do it.
- Give your wholehearted support to safety activities. Preventing accidents depends mostly on you!

**4. Unsafe Acts or Conditions**

Report or correct any unsafe acts or unsafe conditions or equipment to your Foreman immediately.

**5. Work Areas**

- Be aware of work going on around you, keep clear of suspended loads, traffic areas, etc.
- Before entering new work areas, familiarize yourself with any unusual hazards.
- Place barricades to warn traffic, overhead dangers, open footings, excavation, swing radius of crane cab., etc.
- Work, eat lunch, etc. only in your work area.
- Remove nails from crates and lumber immediately.
- Stay in your assigned work area. Do not wander around the jobsite.
- Do not cross or remove "Caution Tape" or flagging. Respect all warning lines.

**6. Housekeeping**

- Keep materials orderly; prevent piles of materials from falling or shifting (tie down or support if necessary).
- Clean up any oil, liquids, or other materials spilled or dropped on stairs, walkways, ladders or floors. Place your lunch sacks, paper, and soft drinks or other containers in trash barrels.
- Have all cords, welding leads, hoses placed to avoid tripping hazards or from getting damaged.
- Keep loose materials off stairs, walkways, ramps, platforms, scaffolds, etc.
- Put or replace caps on rebar and grade stakes.

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- Do not work in areas with inadequate lighting. Tell your Foreman and he/she will get it corrected.
- Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- Secure material and equipment so it will not be blown out of the building.

**7. Lifting**

- Check for a clear path first. Then have a clear view while carrying load.
- Avoid back strains when lifting (including shoveling) by following these few simple suggestions:
  - Take a good look at what you're going to lift. If it is too heavy or bulky for you, get help. (Another employee, chain hoist, forklift, crane, etc.)
  - Get a firm clear footing and keep your feet about shoulder distance apart.
  - Squat down, keep whatever you are lifting close to you and lift with your strong leg muscles keeping your back straight.
  - While carrying whatever you have lifted, avoid twisting of the body as much as possible.
  - When setting the object down, reverse the lifting procedure; that is, keep your back straight and lower with your leg muscles.
- When carrying long objects with another employee, be sure you both carry the load on the same shoulder.
- Have just one person give commands when teaming big loads.

**8. Drugs and Alcohol**

Possession, consumption or use of alcoholic beverages or illegal drugs (including marijuana) is not permitted. Anyone violating this policy will be subject to immediate termination. You must pass a drug screen prior to employment, after any accident, at any time that your Foreman or other Company supervisory personnel suspect that the policy is being violated. Random drug tests may also be requested.

**3****9. Safety Meetings**

Attend all safety meetings and safety training classes held at your job site. You will get the latest information on what the company is doing and what you can do to keep from getting hurt.

**10. Hard Hats**

- Hard hats are to be worn whenever there is an overhead hazard, work is being performed overhead or a hazard from falling objects.
- Employees will have a hard hat with them on all jobsites.
- During the final stages of construction (touch-up paint, carpeting, floor waxing etc.) the wearing of hard hats may not be required as the site Superintendent sees fit.

**11. Eye Protection**

General-purpose safety glasses will be issued to employees and must be on their person at all times. Eye protection must be worn when:

- Using grinders (all types), using cleaning materials, table saws, jack hammers, chipping guns, masonry saws, welding or cutting torches (under welding hood in arc welding), nailers, powder actuated tools.
- Cleaning a weld or when the wind is such that it is blowing dust, sand, rust or other particles about.
- Handling material in powder form such as cement or when mixing or cleaning brick with acid or other cleaning material.
- There is danger of concrete or mortar splashing in the eye.
- Filing or buffing any material.
- Working near persons whose work requires them to wear eye protection.
- There is other dangerous exposure to your eyes.
- Sunglasses are okay for outside but clear glasses are to be worn with the employee for inside work.

**12. Respirable Dust Protection**

1a. Respirable crystalline silica is made by cutting, grinding, polishing, jackhammering and drilling materials containing sand such as concrete, asphalt, block, brick, tile, mortars and grout.

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Always use water and/or vacuum systems to prevent silica from being inhaled.

1b. Have your Foreman train and sign your Silica Exposure Log whenever you alter silica (sand) containing materials by methods listed in a. above. Fill-out Silica Exposure Log every day you alter silica containing materials.

1c. Be sure to not expose other employees around you to respirable silica.

2. Dust masks should be used when spray painting, handling cement, lime, or when exposed to a steady dust hazard. Special equipment is required when sandblasting, welding, and cutting in confined spaces, on galvanized material or metal coated with red or zinc chromate - See your Foreman under these circumstances.

**13. Fall Protection**

Employees within 6 feet of a fall hazard greater than 6 feet in height shall be protected from falling by:

- Guardrails - 42" high  $\pm$  3", strong enough to withstand 200 pounds in down and outward directions, a mid rail is required. If persons are working or walking beneath or next to the fall zone a toeboard will be included or the area will be restricted to:
  - Lifelines, seat harnesses, full-body harnesses, lanyard and static lines connected to anchor points capable of supporting 3,000 pounds. Safety belts are not allowed.
  - A lifeline and harness shall be used in all areas where materials are loaded, landed or unloaded if an employee is within 6 feet of the edge. Check your harness carefully each day. If defective, do not use, return it to your Foreman. Some alternative fall protection methods are allowed. See your Foreman.

**14. Hearing Protection**

- Hearing protection must be in your possession at all times

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- while on the job.
- b. Wear your hearing protection when around noise, even if you are not operating the equipment.

#### 15. Hand Tools

- a. Inspect tools before using to make sure they are not defective.
- b. When hand tools are not in use, lay them down in a safe place where they will not fall on a fellow worker or cause him/her to trip.
- c. Do not carry hand tools up or down a ladder; use a rope or tool belt.
- d. Know the correct use of hand tools before using; use the right tool for the job. If you are not sure how to use any tool talk to your Foreman, they will instruct you on the proper and safe use of any tool.
- e. Have tools, with burred or mushroomed heads, ground down. Keep cutting tools sharp and carry in a container or on a tool belt (not in your pocket).
- f. Do not use tools with split, broken, or loose handles.
- g. Be sure you have a clear area behind you before swinging a sledgehammer, axe, pick, or other tools or materials.

#### 16. Portable Power Tools

- a. Be sure the electrical tools, such as portable power saws, grinders, drills, etc. are grounded (unless they are double insulated tools). Do not stand in water or on damp ground when using tools. (Report any minor shocks to your Foreman)
- b. Make sure the tool has the proper guard and never block or lock the guard in an open position.
- c. Never block or lock the safety switch on a power tool so that it will operate the tool.
- d. Keep extension cords and power cords out of the center of walkways and off of ladders and stairways.
- e. Never point a compressed air tool or powder-actuated tool at yourself or a fellow employee.
- f. Only qualified personnel should operate or service power tools.

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- f. Do not try to get additional height from ladder by placing it on a makeshift cribbing such as boxes, boards or scaffolds.
- g. Do not place a ladder in front of a door unless it is locked, barricaded, or guarded by another employee.
- h. Always engage snap spreaders on stepladders.
- i. Face ladder when climbing up or down; use both hands. Use hand line to lift or lower loads.
- j. Portable metal ladders must not be used for electrical work or around electric lines.
- k. Never work off of the top two steps of a ladder.
- l. Inspect all ladders daily or before use.

#### 20. Scaffolds and Aerial Lifts

- a. Scaffolds are to be erected only by employees trained to erect scaffolds. See your Foreman.
- b. Do not get on scaffolds until they have been inspected by the competent scaffold person.
- c. Scaffolds are to be inspected every day before employees get on the scaffolds. Before any employee is allowed on any scaffold it must have a **GREEN** tag attached.
- d. Scaffolds with a fall height greater than 10 feet must have guardrails.
- e. Whenever working in any aerial lift in which the manbasket extends beyond the perimeter of the vehicle's wheels you must wear a safety harness and lanyard tied to the approved anchorage point.
- f. Do not stand on the guardrails unless connected to the manbasket with full body harness and lanyard.

#### 21. Floor Openings

- a. Keep materials away from entrance or exits of stairs, hoists and elevators landings, traffic lanes and ladders.
- b. Avoid shortcuts - use ramps, stairs, walkways, ladders, etc.
- c. Do not work in areas with inadequate lighting. Tell your Foreman and he will get it corrected.
- d. When necessary to remove guardrails around a floor opening or building perimeter, make certain they are replaced each time you leave the work area and immediately upon completion of work.

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- g. Do not use defective power tools. Report condition to your Foreman.
- h. Right-angle grinder **MUST** be equipped with half moon or 180° guard.

#### 17. Powder Actuated Tools

- a. Never use a powder actuated tool unless you are properly trained and have a **VALID CERTIFICATE CARD** in your possession.
- b. Always wear eye protection and hearing protection.
- c. Do not shoot through sheetrock or plywood without making sure no one is on the other side.

#### 18. Machines

- a. Before starting machinery, opening valves, switches, etc. check to make sure fellow employees are in the clear and have all safety guards in place.
- b. Never adjust or repair machinery while it is running.
- c. Operate machinery and vehicles within safe speeds and at rated capacity.
- d. Never refuel an engine while it is running.
- e. When using a gasoline or diesel engine in an enclosed area, be sure to vent the exhaust outside.
- f. Never use an air hose for pressure to empty gasoline drums.
- g. Do not start or use any machinery unless you have been authorized to do so.
- h. If you are in charge of a compressed air tank, be sure to drain the tank and test the safety valve daily.

#### 19. Ladders

- a. Be sure straight or extension ladders are tied off at the top.
- b. Get someone to hold ladder while you are tying off, or if you can't tie it off.
- c. Make sure extension ladder locking clamps are in place before using.
- d. Have ladder reach at least 36" above landing for easy access.
- e. Use only sturdy ladders on firm level base at a 4 to 1 pitch and have clear access at top and bottom.

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- e. Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- f. Secure material and equipment so it will not be blown out of the building.
- g. Any floor opening greater than 1.5" in the least dimension must be covered and secured with a suitable covering marked "hole" and "ojo."

#### 22. Hoists

- a. Ride the personnel hoist only; never ride a material hoist.
- b. To prevent overloading of a personnel hoist, you must follow hoist operator's instruction for the loading of people or material.
- c. When hoisting pipe or material that must stand upright, secure it to prevent ends from catching in the hoist tower. Never ride a material hoist to hold the material.
- d. Be sure to close hoist way gate after unloading.
- e. When loading or unloading a material hoist, never stay on it longer than necessary.
- f. Be sure to replace the guard rails at the hoist landing.

#### 23. Electrical

- a. Consider all wire "live" until checked out.
- b. Never remove or cut ground prong of any electrical tool or extension cord. **PLUG INTO MATCHING RECEPTACLE ONLY.**
- c. All electrical power tools and extension cords should have RUBBER insulation. Damaged cords should be repaired or replaced immediately. Only type "S" cords are permitted.
- d. All repairs to electrical tools and extension cords must be made by qualified personnel only.
- e. Do not drive vehicles, aerial lifts or rolling scaffolds over extension cords.

#### 24. Compressed Gas Cylinders

- a. Always turn cylinder valves off when not in use or when unattended for an extended period of time, such as during the lunch period.
- b. Always secure a cylinder, full or empty, in an upright position.

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- c. When cylinders are lowered or hoisted, use a skip box, net or cart. Never use a choker or hook on to the valve cap.
- d. Never store oxygen cylinders near flames, flammable, or combustible liquids or materials, oil, grease, or within 20 feet of fuel gas cylinders (acetylene, propane etc.).
- e. Keep oily rags and oily gloves away from oxygen cylinders. (This could cause an explosion)
- f. Keep valve caps on cylinders, full or empty.

## 25. Fire Prevention

### 25.1. General

- a. Know the location of and how to use fire extinguishers and fire hoses.
- b. Take extra care in disposing of cigarette butts and matches. Extinguish thoroughly. When in refineries or chemical plants, or waste water plants smoke only in designated areas.
- c. Flammable liquids should be transported and stored only in the original container or in an approved metal safety can with self closing lid or nozzle.
- d. Store oily rags or paint rags in covered metal containers.
- e. Be sure there is a fire watch before welding or cutting above combustible materials.
- f. Tell your Foreman if you use a fire extinguisher so it can be refilled.

### 25.2. Fire Protection for Wood-Frame Construction

*This section applies to all wood frame construction on BSC sites and on sites where questions of flammable or combustible material may create a fire hazard as determined by the job Superintendent and/or Safety Director.*

- a. Housekeeping is critical to avoid fires. Sweep up sawdust and ends of sawed materials at the end of every shift.
- b. No smoking will be permitted anywhere on the jobsite with the exception of a single, posted smoking area. Ask your Foreman if you need the location of the smoking area.
- c. Do not start work until fire hydrants are live and hoses and

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Superintendent.

- c. When driving about the jobsite, never exceed 15 mph. At all times observe the rules of safe driving.
- d. Every day, check the company truck you are driving to see that the brakes, turn indicator, head lights, back up alarm (if required) and stoplights are working properly.  
WEAR YOUR SEATBELT AT ALL TIMES.

## 29. Protection of Public

- a. Anytime you see sightseers or children in the work area, ask them to leave so they will not be hurt.
- b. If there is danger of pedestrians, automobiles, etc., being struck by falling materials that you are working with, tell your Foreman so he can arrange the necessary protection.
- c. Direct any visitors without hardhats to the job office for proper job clearance.
- d. Do not visit with students on schools.

## 30. Hazard Communication Program

This Company has a written hazard Communication program, and in accordance with OSHA Standard 1926.59, the following items are available to you at your request:

- a. A copy of the Company's written Hazard Communication Program;
- b. A copy of the Company's "List of Hazardous Chemicals" for your workplace; and
- c. Copies of Safety Data Sheets (SDS) for any covered chemicals to which you are exposed. To obtain any of this information, contact your supervisor.

## 31. Health Hazard Evaluations Records

Upon written request, you may obtain a copy of any medical record or any analysis of sampling taken while on or near you with regard to your working conditions or workplace.

## 32. Civil Jobsites

- a. Flagmen are required when equipment crosses the streets not closed off. Flagmen must have passed a flagmen

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- hydrant wrenches are at the fire hydrant.
- d. A fire watch shall be posted for at least one hour whenever open flame or similar source of ignition is used. The fire watch will have means with them to extinguish flame or smoldering material.
- e. Plumbers using torches to sweat pipes will have a spray bottle on hand which shall be used to pre-wet and soak (douse) combustibles affected by the heat source. Plumbers must have within arm's length a functioning fire extinguisher.
- f. When requested, employees will attend training on fire prevention and fire suppression.

## 26. Excavations

- a. Never enter an excavation or trench more than 5' deep unless it is shored or sloped.
- b. In any trench 4 feet or greater in depth that you cannot walk out of, place an access ladder within 25' of any workman.
- c. When digging a trench, place soil (dirt from the excavation) at least 2' away from edge of excavation. Remove surface rocks, clods of dirt or other debris that could fall.
- d. All employees entering excavations must have training.

## 27. Clearing and Grading Equipment

- a. Always operate a dozer, scraper, grader, backhoe / loader etc. at a safe speed.
- b. Only the operator should be on the operating platform or seat. No one else should be on the equipment.
- c. Walk around your equipment before starting up to make certain no one is in a danger zone.
- d. Always be aware of those persons working around your equipment.
- e. Always wear your seatbelt.

## 28. Safe Driving

- a. Do not ride on vehicle or mobile equipment except on seat or designated passenger platform.
- b. Do not ride in the back of pickups unless approved by BSC

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- training course, ask your Foreman.
- b. Hardhats will always be with employees at all times when in trucks or equipment with a protective cab.
- c. Safety vests must be worn at all times when around traffic and moving equipment.
- d. Eye protection should be worn at all times. Glasses should have a UV coating to protect eyes from long-term exposure to sunlight.
- e. Sunscreen is encouraged as are long-sleeved shirts.
- f. Seat belts are to be worn at all times.
- g. Riding in the back of trucks and equipment is not allowed, unless approved by the BSC Superintendent and the BSC Safety Director.
- h. Hearing protection will be worn when sawing and jack hammering. Face shields or goggles will be worn when jack hammering or sawing.
- i. Excavations cannot be entered until inspected by a Bradbury Stamm Competent Person. If a trench box is used, do not leave the protection of the trench box.
- j. Support all cross lines, pipes, conduits, and wires.
- k. Do not get under suspended loads.
- l. Back-up alarms are required on water trucks, loaders, and excavators.
- m. Use taglines when setting trench boxes.

## 33. Confined Spaces

- a. Confined spaces are not to be entered without the Foreman first checking the atmosphere.
- b. If a confined space has a hazard (hazardous atmosphere, engulfment, entrapment, etc.) that cannot be eliminated before entry, do not enter until the Bradbury Stamm permit-required Confined Space Competent Person authorizes entry. Ask your Foreman.
- c. Do not operate gasoline saws in deep trenches, manholes, or areas of poor air circulation without a ventilator and/or the supplied air hood.
- d. Jackhammer and chipping operations in confined spaces will be done only with supplied air hoods or ventilators and respiratory protection.

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**Silica Exposure Log**

Trained by Competent Person - Name: \_\_\_\_\_ Date: \_\_\_\_\_

Date	Hours Worked	Tool Used	Control Method: Wet or Vacuum	Outdoors Yes/No	Work Location

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EMPLOYEE NAME

If you have questions about this document or the Bradbury Stamm Construction Safety Passport Program, contact:

Safety Director, Bradbury Stamm Construction, Inc.  
505.765.1200

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# Bradbury Stamm COMPANIES

## FOREMAN SAFETY PASSPORT

rev. 05/18

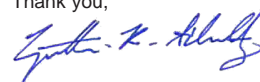
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Bradbury Stamm (BSC) welcomes you to our construction project. We invite and encourage you as an employee/subcontractor to join us in making this project a safe one. We are providing you with a safe environment and proper equipment, so that you will be working in the safest conditions. However, safe conditions are not enough; safe work habits are a vital part of a successful program. This handbook is provided as a basic guide to your safe conduct on the job. Read it carefully, learn the general safety rules and keep the handbook with you at work at all times. If there is anything in here you do not understand, ask your supervisor. They will be glad to help.

Remember, our having a good safety program depends on you!

Thank you,



Cynthia K. Schultz  
CEO  
Bradbury Stamm Construction, Inc.

This Foreman Safety Passport is issued to BSC Employees engaged in supervising field employees. Safety practices and rules in this Passport are in greater detail requiring greater understanding of the hazards and practices used to protect employees. These rules affect all BSC employees and employees of subcontractors. The practices and rules contained here are to be followed by employees and management alike.

### 1. General Safety Rules

- Report to work rested and physically fit to perform your job.
- Wear clean clothing suitable for the weather and your work. Torn or loose clothing, cuffs and ties are hazardous. Minimum clothing is a full t-shirt and full-length trousers.
- Wear good work shoes, preferably safety shoes. No tennis shoes, open-toed shoes, or shoes with high heels.
- Use correct gloves when welding, handling chemicals, rough materials or items with sharp edges.
- Jewelry that can get caught or snagged by work practice should NOT be worn.
- Keep horseplay and roughhousing away from the job. Practical jokes often become painful injuries.
- Anyone involved in verbal abuse, harassment or fighting on the job may be subject to immediate dismissal.
- Never point an air hose at anyone or use it to clean clothing.
- Use only designated toilets.
- Inspect your safety equipment daily. If defective, do not use. Report it to your Foreman immediately.
- Work with care and good judgment at all times to avoid accidents – even if a specific safety rule is not contained in this manual.
- Soft drinks, food, etc., are not to be cooled in drinking water kegs or ice storage boxes.
- Do not operate any vehicle or equipment unless authorized by your foreman.
- The use of Alcoholic Beverage and/or Illegal Drugs is strictly prohibited on any BSC project, and in any BSC vehicle, and may be subject to immediate dismissal.
- Do not violate company Safety Directives. See your Foreman to become familiar with all Safety Directives that apply to your work.

**Foremen: Employees operating forklifts must have the BSC Safe Equipment Operator Passport. Employees operating backhoes, loaders, skid-steer loaders and excavators must have the BSC Safe Equipment Operator Passport. See the Supervising Superintendent for further details or call the Safety Director. Every Foreman or Superintendent who supervises excavator or forklift operators on their job site must complete classroom training and pass written tests for the equipment in use.**

**2. Reporting Injuries**

In order to receive medical treatment, it is a requirement and the policy of this company that you report any injury to your Foreman or other company supervisor on the same day of the injury, whether or not you go to the doctor that day.

**Foremen: Report to the Superintendent any employee that brings to your attention an injury or complaint of an injury. Injuries are to be treated, not ignored. As a Foreman it is your responsibility to notify the Superintendent. BSC wants to provide the best care to employees as soon as possible. If there is an event where an employee falls, trips, is struck by something, etc., and the employee says they are ok, report this to the Superintendent. Refer to and follow the BSC document, "Guidelines for Following Injured Workers" available from the Safety Office.**

**3. Your Foreman**

- If you do not understand any safety rule, ask your Foreman to explain it.
- Before doing a job where you are not familiar with the hazards, ask your Foreman to show you the safe way to do the job. They'll be glad to do it.
- Give your wholehearted support to safety activities. Preventing accidents depends mostly on you!

**4. Unsafe Acts or Conditions**

Report or correct any unsafe acts or unsafe conditions or equipment to your Foreman immediately.

**Foremen: Unsafe conditions include uncapped rebar. Employees need to replace rebar caps as they walk by.**

**5. Work Areas**

- Be aware of work going on around you, keep clear of suspended loads, traffic areas, etc.
- Before entering new work areas, familiarize yourself with any unusual hazards.
- Place barricades to warn traffic, overhead dangers, open footings, excavation, swing radius of crane cab., etc.
- Work, eat lunch, etc. only in your work area.
- Remove nails from crates and lumber immediately.
- Stay in your assigned work area. Do not wander around the

**2****24 hours of a written notice.****7. Lifting**

- Check for a clear path first. Then have a clear view while carrying load.
- Avoid back strains when lifting (including shoveling) by following these few simple suggestions:
  - Take a good look at what you're going to lift. If it is too heavy or bulky for you, get help. (Another employee, chain hoist, forklift, crane, etc.)
  - Get a firm clear footing and keep your feet about shoulder distance apart.
  - Squat down, keep whatever you are lifting close to you and lift with your strong leg muscles keeping your back straight.
  - While carrying whatever you have lifted, avoid twisting of the body as much as possible.
  - When setting the object down, reverse the lifting procedure; that is, keep your back straight and lower with your leg muscles.
- When carrying long objects with another employee, be sure you both carry the load on the same shoulder.
- Have just one person give commands when teaming big loads.

**Foremen: When employees are to move and lift materials, take the time to review the Safety Passport lifting section with them. Encourage stretching exercises and warm-up of muscles to help prevent strains and sprains, especially in cold weather.**

**8. Drugs and Alcohol**

Possession, consumption or use of alcoholic beverages or illegal drugs (including marijuana) is not permitted. Anyone violating this policy will be subject to immediate termination. You must pass a drug screen prior to employment, after any accident, at any time that your Foreman or other Company supervisory personnel suspect that the policy is being violated. Random drug tests may also be requested.

**Foremen: Employees can be sent for drug testing if their behavior or appearance suggests they may be impaired. Contact the Safety Office of HR Director if you suspect**

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jobsite.

- Do not cross or remove "Caution Tape" or flagging. Respect all warning lines.

**Foremen:**

- Enclosed Spaces: Operation of motorized equipment, power screen, power trowels, generators, welders and propane heaters elevate carbon monoxide levels and deplete oxygen in enclosed spaces. A gas monitor may be needed to ensure the breathing air is safe. Equipment must be shut-down and/or employees removed from enclosed spaces when:**
  - Oxygen level is below 19.5%;
  - Carbon monoxide is above 35 ppm. OSHA PEL is 50. NIOSH & AGIHA recommend 35 ppm.
- Lighting: General working/walking areas require 3' candles of light to be measured at the walking surface. Task lighting for detail work is required to be 5' candles. Light meters are available from the Safety Director.**

**6. Housekeeping**

- Keep materials orderly; prevent piles of materials from falling or shifting (tie down or support if necessary).
- Clean up any oil, liquids, or other materials spilled or dropped on stairs, walkways, ladders or floors. Place your lunch sacks, paper, and soft drinks or other containers in trash barrels.
- Have all cords, welding leads, hoses placed to avoid tripping hazards or from getting damaged.
- Keep loose materials off stairs, walkways, ramps, platforms, scaffolds, etc.
- Put or replace caps on rebar and grade stakes.
- Do not work in areas with inadequate lighting. Tell your Foreman and he/she will get it corrected.
- Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- Secure material and equipment so it will not be blown out of the building.

**Foremen:**

**It is your responsibility to arrange for compliance of a clean-up request by Superintendent/Project Manager within**

**3****alcohol or drug use by an employee.****9. Safety Meetings**

Attend all safety meetings and safety training classes held at your job site. You will get the latest information on what the company is doing and what you can do to keep from getting hurt.

**Foremen:**

- Before employees start a task, review the pertinent section in the Safety Passport. This is pre-task planning and goes a long way to preventing injuries.**
- Foremen and/or Superintendents shall hold weekly Safety Meetings if there are any employees working on the job site. Copies of Safety Meeting notes along with sign-in sheets will be maintained in the job site office.**

**10. Hard Hats**

- Hard hats are to be worn whenever there is an overhead hazard, work is being performed overhead or a hazard from falling objects.
- Employees will have a hard hat with them on all jobsites.
- During the final stages of construction (touch-up paint, carpeting, floor waxing etc.) the wearing of hard hats may not be required as the site Superintendent sees fit.

**11. Eye Protection**

General-purpose safety glasses will be issued to employees and must be on their person at all times. Eye protection must be worn when:

- Using grinders (all types), using cleaning materials, table saws, jack hammers, chipping guns, masonry saws, welding or cutting torches (under welding hood in arc welding), nailers, powder actuated tools.
- Cleaning a weld or when the wind is such that it is blowing dust, sand, rust or other particles about.
- Handling material in powder form such as cement or when mixing or cleaning brick with acid or other cleaning material.
- There is danger of concrete or mortar splashing in the eye.
- Filing or buffing any material.
- Working near persons whose work requires them to wear

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- eye protection.
- g. There is other dangerous exposure to your eyes.
- h. Sunglasses are okay for outside but clear glasses are to be with the employee for inside work.

**Foremen: Be sure you have your eye protection with you; set the best possible example. Ask employees where their glasses are. Issue them clear glasses for inside work or to wear under a welding hood.**

## 12. Respirable Dust Protection

1a. Respirable crystalline silica is made by cutting, grinding, polishing, jackhammering and drilling materials containing sand such as concrete, asphalt, block, brick, tile, mortars and grout. Always use water and/or vacuum systems to prevent silica from being inhaled.

1b. Have your Foreman train and sign your Silica Exposure Log whenever you alter silica (sand) containing materials by methods listed in a. above. Fill-out Silica Exposure Log every day you alter silica containing materials.

1c. Be sure to not expose other employees around you to respirable silica.

2. Dust masks should be used when spray painting, handling cement, lime, or when exposed to a steady dust hazard. Special equipment is required when sandblasting, welding, and cutting in confined spaces, on galvanized material or metal coated with red or zinc chromate - See your Foreman under these circumstances.

**Foremen: OSHA requires a written respiratory protection program for employees wearing respirators. Many different respirators are available for different hazards. In all cases, including voluntary, a medical evaluation by a licensed health care professional must be conducted before employees can wear respirators. For more details contact your Superintendent or the Safety Director.**

## 13. Fall Protection

Employees within 6 feet of a fall hazard greater than 6 feet in height shall be protected from falling by:

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- a. Guardrails - 42" high  $\pm$  3", strong enough to withstand 200 pounds in down and outward directions, a mid rail is required. If persons are working or walking beneath or next to the fall zone a toeboard will be included or the area will be restricted to:
  - (1) Lifelines, seat harnesses, full-body harnesses, lanyard and static lines connected to anchor points capable of supporting 3,000 pounds. Safety belts are not allowed.
  - (2) A lifeline and harness shall be used in all areas where materials are loaded, landed or unloaded if an employee is within 6 feet of the edge. Check your harness carefully each day. If defective, do not use, return it to your Foreman. Some alternative fall protection methods are allowed. See your Foreman.

**Foremen: There are 3 conventional forms of Fall Protection:**

**a Guardrails - Capable of holding 200lbs in down and outward direction**

- 42" high plus or minus 3"
- no more than 9" from open side
- have midrails
- any material greater than 1/4"

**b. Safety Nets- Call the Safety Office**

**c. Personal Fall Protection Equipment – that being lanyards and harnesses in Fall Arrest or Positioning Equipment modes. Positioning equipment mode prevents falls.**

**Fall arrest stops an ongoing fall exposing employees to serious injury. Alternative methods of fall protection include Controlled Access Zones, Safety Monitors, wood framing practices and Warning lines. Written Site Specific Fall Protection Plans may be required. See the Safety Directive on Fall Protection.**

## 14. Hearing Protection

- a. Hearing protection must be in your procession at all times while on the job.
- b. Wear your hearing protection when around noise, even if you are not operating the equipment.

**Foremen: Have your hearing protection with you. Remind**

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employees often to wear it.

## 15. Hand Tools

- a. Inspect tools before using to make sure they are not defective.
- b. When hand tools are not in use, lay them down in a safe place where they will not fall on a fellow worker or cause him/her to trip.
- c. Do not carry hand tools up or down a ladder; use a rope or tool belt.
- d. Know the correct use of hand tools before using; use the right tool for the job. If you are not sure how to use any tool talk to your Foreman, they will instruct you on the proper and safe use of any tool.
- e. Have tools, with burred or mushroomed heads, ground down. Keep cutting tools sharp and carry in a container or on a tool belt (not in your pocket).
- f. Do not use tools with split, broken, or loose handles.
- g. Be sure you have a clear area behind you before swinging a sledgehammer, axe, pick, or other tools or materials.

## 16. Portable Power Tools

- a. Be sure the electrical tools, such as portable power saws, grinders, drills, etc. are grounded (unless they are double insulated tools). Do not stand in water or on damp ground when using tools. (Report any minor shocks to your Foreman)

**Foremen: Check all GFCI's weekly. Tripping devices are available from the Safety Department or have the Electrical Contractor install them. Right angle grinders must be equipped with a half moon guard. Fatalities have occurred with right angle grinders.**

- b. Make sure the tool has the proper guard and never block or lock the guard in an open position.
- c. Never block or lock the safety switch on a power tool so that it will operate the tool.
- d. Keep extension cords and power cords out of the center of walkways and off of ladders and stairways.

**Foremen: Do not let employees string extension cords where the cords will be run over by vehicles and machinery. Operators are required to assist in burying**

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**cords if in the way of excavating equipment.**

- e. Never point a compressed air tool or powder-actuated tool at yourself or a fellow employee.
- f. Only qualified personnel should operate or service power tools.
- g. Do not use defective power tools. Report condition to your Foreman.
- h. Right-angle grinder MUST be equipped with half moon or 180° guard.

**Foremen: Observe employees using tools. Show them the correct methods. Have them read the operators manual or instructions. Discuss it with them. Report any injuries involving power tools to the Superintendent and the safety department. Doing so may prevent another accident.**

## 17. Powder Actuated Tools

- a. Never use a powder actuated tool unless you are properly trained and have a VALID CERTIFICATE CARD in your possession.
- b. Always wear eye protection and hearing protection.
- c. Do not shoot through sheetrock or plywood without making sure no one is on the other side.

**Foreman: Before employees (including Subcontractor Employees) use powdered actuated tools; remind them to wear their hearing and eye protection. Make sure the material being shot will not let the projectile pass through. Remove other employees from the area.**

## 18. Machines

- a. Before starting machinery, opening valves, switches, etc. check to make sure fellow employees are in the clear and have all safety guards in place.
- b. Never adjust or repair machinery while it is running.
- c. Operate machinery and vehicles within safe speeds and at rated capacity.
- d. Never refuel an engine while it is running.
- e. When using a gasoline or diesel engine in an enclosed area, be sure to vent the exhaust outside.
- f. Never use an air hose for pressure to empty gasoline drums.
- g. Do not start or use any machinery unless you have been authorized to do so.

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- h. If you are in charge of a compressed air tank, be sure to drain the tank and test the safety valve daily.

#### 19. Ladders

- Be sure straight or extension ladders are tied off at the top.
- Get someone to hold ladder while you are tying off, or if you can't tie it off.
- Make sure extension ladder locking clamps are in place before using.
- Have ladder reach at least 36" above landing for easy access.
- Use only sturdy ladders on firm level base at a 4 to 1 pitch and have clear access at top and bottom.
- Do not try to get additional height from ladder by placing it on a makeshift cribbing such as boxes, boards or scaffolds.
- Do not place a ladder in front of a door unless it is locked, barricaded, or guarded by another employee.
- Always engage snap spreaders on stepladders.
- Face ladder when climbing up or down; use both hands. Use hand line to lift or lower loads.
- Portable metal ladders must not be used for electrical work or around electric lines.
- Never work off of the top two steps of a ladder.
- Inspect all ladders daily or before use.

**Foremen: OSHA requires all employees to be trained in the use and setup of ladders. This is your responsibility. Train employees on the ladder rules above. Be sure they understand the rule and refer to the Passport before setting up.**

#### 20. Scaffolds and Aerial Lifts

- Scaffolds are to be erected only by employees trained to erect scaffolds. See your Foreman.
- Do not get on scaffolds until they have been inspected by the competent scaffold person.
- Scaffolds are to be inspected every day before employees get on the scaffolds. Before any employee is allowed on any scaffold it must have a **GREEN** tag attached.
- Scaffolds with a fall height greater than 10 feet must have guardrails.
- Whenever working in any aerial lift in which the manbasket

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- follow hoist operator's instruction for the loading of people or material.
- When hoisting pipe or material that must stand upright, secure it to prevent ends from catching in the hoist tower. Never ride a material hoist to hold the material.
  - Be sure to close hoist way gate after unloading.
  - When loading or unloading a material hoist, never stay on it longer than necessary.
  - Be sure to replace the guard rails at the hoist landing.

**Foreman: Employees handling equipment near a fall hazard 6' or greater in height must be protected by a guardrail or a harness and lanyard connected to a suitable anchor point. It is your job to provide hoisting access and fall protection. Remind employees and enforce these rules. See the section on Fall Protection.**

#### 23. Electrical

- Consider all wire "live" until checked out.
- Never remove or cut ground prong of any electrical tool or extension cord. **PLUG INTO MATCHING RECEPTACLE ONLY.**
- All electrical power tools and extension cords should have RUBBER insulation. Damaged cords should be repaired or replaced immediately. Only type "S" cords are permitted.
- All repairs to electrical tools and extension cords must be made by qualified personnel only.
- Do not drive vehicles, aerial lifts or rolling scaffolds over extension cords.

**Foremen: Electrical safety is part of the daily inspection process. Be aware of these rules as you walk around the job site.**

#### 24. Compressed Gas Cylinders

- Always turn cylinder valves off when not in use or when unattended for an extended period of time, such as during the lunch period.
- Always secure a cylinder, full or empty, in an upright position.
- When cylinders are lowered or hoisted, use a skip box, net or cart. Never use a choker or hook on to the valve cap.
- Never store oxygen cylinders near flames, flammable, or

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extends beyond the perimeter of the vehicle's wheels you must wear a safety harness and lanyard tied to the approved anchorage point.

- Do not stand on the guardrails unless connected to the manbasket with full body harness and lanyard.

**Foremen: All scaffolds on the job site will be checked daily by a BSC designated employee and must have a tag RED, GREEN or YELLOW attached to the scaffold. For training and any questions call the Safety Director.**

#### 21. Floor Openings

- Keep materials away from entrance or exits of stairs, hoists and elevators landings, traffic lanes and ladders.
- Avoid shortcuts - use ramps, stairs, walkways, ladders, etc.
- Do not work in areas with inadequate lighting. Tell your Foreman and he will get it corrected.

**Foremen: OSHA requires 3' candles of lighting to be present in all areas where employees walk through/work. Task lighting may be used for fixed work areas but is not a substitute for lighting in corridors, walkways, basements, etc.**

- When necessary to remove guardrails around a floor opening or building perimeter, make certain they are replaced each time you leave the work area and immediately upon completion of work.
- Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- Secure material and equipment so it will not be blown out of the building.
- Any floor opening greater than 1.5" in the least dimension must be covered and secured with a suitable covering marked "hole" and "oioyo."

**Foremen: All coverings over floor holes are to be:**

- 2 times the intended load
- secured in place
- marked in Spanish "oioyo" and English "hole"

**Holes greater than one and a half inches shall be covered.**

#### 22. Hoists

- Ride the personnel hoist only; never ride a material hoist.
- To prevent overloading of a personnel hoist, you must

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- combustible liquids or materials, oil, grease, or within 20 feet of fuel gas cylinders (acetylene, propane etc.).
- Keep oily rags and oily gloves away from oxygen cylinders. (This could cause an explosion)
  - Keep valve caps on cylinders, full or empty.

#### 25. Fire Prevention

##### 25.1. General

- Know the location of and how to use fire extinguishers and fire hoses.
- Take extra care in disposing of cigarette butts and matches. Extinguish thoroughly. When in refineries or chemical plants, or waste water plants smoke only in designated areas.
- Flammable liquids should be transported and stored only in the original container or in an approved metal safety can with self closing lid or nozzle.
- Store oily rags or paint rags in covered metal containers.
- Be sure there is a fire watch before welding or cutting above combustible materials.
- Tell your Foreman if you use a fire extinguisher so it can be refilled.

##### 25.2. Fire Protection for Wood-Frame Construction

*This section applies to all wood frame construction on BSC sites and on sites where questions of flammable or combustible material may create a fire hazard as determined by the job Superintendent and/or Safety Director.*

- Housekeeping is critical to avoid fires. Sweep up sawdust and ends of sawed materials at the end of every shift.
- No smoking will be permitted anywhere on the jobsite with the exception of a single, posted smoking area. Ask your Foreman if you need the location of the smoking area.
- Do not start work until fire hydrants are live and hoses and hydrant wrenches are at the fire hydrant.
- A fire watch shall be posted for at least one hour whenever open flame or similar source of ignition is used. The fire watch will have means with them to extinguish flame or smoldering material.
- Plumbers using torches to sweat pipes will have a spray

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bottle on hand which shall be used to pre-wet and soak (douse) combustibles affected by the heat source. Plumbers must have within arm's length a functioning fire extinguisher.

- f. When requested, employees will attend training on fire prevention and fire suppression.

#### 26. Excavations

- Never enter an excavation or trench more than 5' deep unless it is shored or sloped.
- In any trench 4 feet or greater in depth that you cannot walk out of, place an access ladder within 25' of any workman.
- When digging a trench, place soil (dirt from the excavation) at least 2' away from edge of excavation. Remove surface rocks, clods of dirt or other debris that could fall.
- All employees entering excavations must have training.

**Foremen: Refer to and enforce the Safe Operator Passport that is contained in this booklet.**

#### 27. Clearing and Grading Equipment

- Always operate a dozer, scraper, grader, backhoe / loader etc. at a safe speed.
- Only the operator should be on the operating platform or seat. No one else should be on the equipment.
- Walk around your equipment before starting up to make certain no one is in a danger zone.
- Always be aware of those persons working around your equipment.
- Always wear your seatbelt.

**Foremen: All BSC equipment operators must have the Safe Operator Passport on their person and have passed the test. It is your job to ensure the practices and rules in the Safe Operator Passport are followed.**

#### 28. Safe Driving

- Do not ride on vehicle or mobile equipment except on seat or designated passenger platform.
- Do not ride in the back of pickups unless approved by BSC Superintendent.
- When driving about the jobsite, never exceed 15 mph. At all

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- and moving equipment.
- Eye protection should be worn at all times. Glasses should have a UV coating to protect eyes from long-term exposure to sunlight.
- Sunscreen is encouraged as are long-sleeved shirts.
- Seat belts are to be worn at all times.
- Riding in the back of trucks and equipment is not allowed, unless approved by the BSC Superintendent and the BSC Safety Director.
- Hearing protection will be worn when sawing and jack hammering. Face shields or goggles will be worn when jack hammering or sawing.
- Excavations cannot be entered until inspected by a Bradbury Stamm Competent Person. If a trench box is used, do not leave the protection of the trench box.
- Support all cross lines, pipes, conduits, and wires.
- Do not get under suspended loads.
- Back-up alarms are required on water trucks, loaders, and excavators.
- Use taglines when setting trench boxes.

#### 33. Confined Spaces

- Confined spaces are not to be entered without the Foreman first checking the atmosphere.
- If a confined space has a hazard (hazardous atmosphere, engulfment, entrapment, etc.) that cannot be eliminated before entry, do not enter until the Bradbury Stamm permit-required Confined Space Competent Person authorizes entry. Ask your Foreman.
- Do not operate gasoline saws in deep trenches, manholes, or areas of poor air circulation without a ventilator and/or the supplied air hood.
- Jackhammer and chipping operations in confined spaces will be done only with supplied air hoods or ventilators and respiratory protection.

**Foremen: BSC has a Permit-Required Confined Space entry system that must be followed before entering confined spaces. Entry equipment is available from the Main Office supply yard. Entry Permits are available from the superintendent and/or the Safety Office. Training must precede all entries. Fatalities in confined spaces are**

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- times observe the rules of safe driving.
- Every day, check the company truck you are driving to see that the brakes, turn indicator, head lights, back up alarm (if required) and stoplights are working properly. WEAR YOUR SEATBELT AT ALL TIMES.

#### 29. Protection of Public

- Anytime you see sightseers or children in the work area, ask them to leave so they will not be hurt.
- If there is danger of pedestrians, automobiles, etc., being struck by falling materials that you are working with, tell your Foreman so he can arrange the necessary protection.
- Direct any visitors without hardhats to the job office for proper job clearance.
- Do not visit with students on schools.

#### 30. Hazard Communication Program

This Company has a written hazard Communication program, and in accordance with OSHA Standard 1926.59, the following items are available to you at your request:

- A copy of the Company's written Hazard Communication Program;
- A copy of the Company's "List of Hazardous Chemicals" for your workplace; and
- Copies of Safety Data Sheets (SDS) for any covered chemicals to which you are exposed. To obtain any of this information, contact your supervisor.

#### 31. Health Hazard Evaluations Records

Upon written request, you may obtain a copy of any medical record or any analysis of sampling taken while on or near you with regard to your working conditions or workplace.

#### 32. Civil Jobsites

- Flagmen are required when equipment crosses the streets not closed off. Flagmen must have passed a flagmen training course, ask your Foreman.
- Hardhats will always be with employees at all times when in trucks or equipment with a protective cab.
- Safety vests must be worn at all times when around traffic

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common and entirely preventable.

#### 34. Air Test Balls and Plugs

- Test inflation of test balls and air plugs for leaks before use.
- Do not inflate while you are in a manhole.
- Face shields are to be worn when inflating and deflating.
- Stay out of the line of fire and keep back as much as possible.

#### 35. Safety Violations

**Foremen: It is your responsibility to write up each and every employee who violates provisions in BSC Safety Passport. Failure to document and discipline employees is a violation of the Safety Passport, thus, Foremen/ Superintendents are subject to being written up in their Safety Passports for failure to enforce safety rules.**

- The FIRST Safety Violation is a written warning and will not result in penalty.
- The SECOND Violation will result in employee being sent home without pay for the rest of the workday.
- The THIRD Violation will result in employee being sent home without pay for the rest of current workday AND the following day.
- The FOURTH Violation will result in three days without pay suspension and possible termination based on the recommendation of the Superintendent.
- The FIFTH Violation will result in automatic termination unless the Superintendent requests an interview with the Safety Director and Human Resources Manager.

#### 36. Equipment Operator's Safety Certification

(See Equipment Operator's Safety Passport on the following pages.)

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**VIOLATION LOG****RULE****DATE**

1. \_\_\_\_\_

Violation \_\_\_\_\_

2. \_\_\_\_\_

Violation \_\_\_\_\_

3. \_\_\_\_\_

Violation \_\_\_\_\_

4. \_\_\_\_\_

Violation \_\_\_\_\_

5. \_\_\_\_\_

Violation \_\_\_\_\_

**18****36. Safe Equipment Operators Passport EXCAVATORS****36.1 Excavating Equipment Operations**

This Safe Operators Passport is for BSC employees hired to operate front loaders, backhoes, skid-steer loaders (Bobcats) and excavators. This Passport is not for forklifts, rollers and water trucks. This Passport is in addition to the Safety Passport which must be on your person when on a BSC jobsite.

**General Rules**

- The Operator is directly responsible for the safe operation of the equipment. Reckless and careless driving is prohibited.
- The Operator is required to complete a pre-shift and a post-shift operation checklist. The checklists are printed in small pocket sized books. Tear off the page and attach to your time sheet for that day.
- Wear your seat belt when operating the tractor. This includes excavators and backhoe digging operations.
- Hard hats are required to be with operators at all times. When not protected by the tractor cab, a hardhat will be worn.
- Do not drive over extension cords.
- Report broken windows on the checklist. Windows must be clean for good visibility.
- Back-up alarms must be in working order. Horns must be in working order.
- Flashers and hazard lights must be in working order.
- Wheeled tractors must have a Slow Moving Vehicle triangle mounted in visible location for traveling on public right-of-way.
- Mirrors are required. Keep mirrors clean. If mirrors are inadequate, note on the checklist.
- Do not check for hydraulic leaks with your hand. Use a piece of cardboard or paper. High-pressure leaks can cut your fingers off.
- Do not get under the elevated loader or bucket without securing the safety supports.
- Set the Parking Brake whenever you get off the machine. Lower the front bucket also.
- If a bucket must be left up to do not leave the machine unattended. OSHA says the operator must be within 25'.
- When employees get within the swing radius of the

**20****EMPLOYEE ORIENTATION ACKNOWLEDGMENT**

I have received the Bradbury Stamm Employee Safety Passport. I have read and understand the General Safety Rules and agree to abide by the Safety Program while employed by Bradbury Stamm. I understand that I must keep this book with me at all times while at work, and if for any reason I do not have my Safety Passport with me, I understand that I will not be allowed to work or be on the payroll until I can present my Safety Passport.

I have read the consequences for each safety violation that is written in my Safety Passport and understand that if I reach FIVE Safety Violations, I will be automatically terminated unless the Superintendent requests an interview.

If I lose or destroy my Safety Passport a new Safety Passport will be issued after a THREE day without pay suspension is completed.

*\*After a 12-month period, all violations are erased, and a new Safety Passport will be issued.*

New book Issued \_\_\_\_\_ (Date)

Employee Name \_\_\_\_\_  
(Please Print)

Employee Number \_\_\_\_\_

Employee Signature \_\_\_\_\_

Date \_\_\_\_\_

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boom/bucket, lower and contact the ground to prevent unintentional boom/bucket movement.

- Do not operate the boom/bucket when employees are within swing radius. This is common of laborers when digging around; you may have to get out and explain this to them.
- Have employees operating compactors and rollers face the area your operating in. They need to see you.
- Do not lift loads using the teeth. Connect the load to a lifting eye or around a bucket pivot pin.
- When using backhoe or excavator for demolition, attachment operation or stressful operation close the rear or front window to protect operator. Expanded metal screen can also be used.

**Specific to Excavators**

- Overhead power lines must be insulated if the excavator boom can get within 10'. Many fatalities have occurred because the operators did not take this seriously.
- Counterweight swing radius has crushed many employees. When working in tight spaces barricade the swing radius. Have a quick safety meeting with employees working or passing through the area. Your Foreman will support this.
- Load Charts are to be in every excavator. Know the difference between the English and Metric chart values.
- If you run both backhoes and excavators on your job, ask your Foreman to have the excavator controls altered to match the backhoe. Many fatalities have occurred when operators have switched from one tractor to the other and the controls were opposite. Your Foreman will report this to the Superintendent who can have it corrected.

**Foreman: Check the Machine Operators Manual to switch controls from excavator patten to backhoe and vice versa.**

**Specific to Backhoes**

- When driving a tractor equipped with left and right brakes pedals connect both pedals for driving. This way a quick stop won't let the tractor lurch to one side.
- Engage the Boom lock for loader operations.
- Do not lift or hoist loads with the boom lock engaged. If it breaks it can kill the operator or adjacent employees.

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**Specific to Scrapers**

- Stay on designated haul roads when not loading or unloading.
- Maintain a sufficient distance between scrapers on haul roads to stop safely.
- Slow down and check for traffic when crossing roads.
- Obey Flag Person's directions.
- Stay on machine unless in designated area. See your Foreman.

**36.2 Operators Underground Utilities Protection****36.2.1 Purpose**

Protection of underground utilities is of vital importance to BSC. Underground utilities are gas lines, electric lines, water, storm and sanitary sewer pipelines and communication lines such as telephone, fiber optic and cable television. These lines are the property of the utilities owners or the property owner. They are obstacles to be worked around or removed and replaced. Other than cable television lines, all lines are considered as safety issues.

**36.2.2 Procedure**

The statute governing underground utilities is clear. Contractors must call for spots and powered excavating equipment must not dig within 24" of the spotted lines.

Therefore:

- Spots must be called for. Document in the Daily Log or other appropriate place the call time, date and name of person receiving the call.
- Meet with them and have them place flags if on dirt in addition to paint.
- Copy their sketch or plans of the utilities buried. Have them sign the copy clearly.
- Using a tape measure, measure 24" on each side of their spot marks and mark with WHITE paint. Take photographs of the spots and our marks. These marks are known as "offset marks".
- Only allow hand digging between our marks. Equipment operators and other employees who violate this hand-

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Standard. BSC provides excavation training, inspections, design and soil classification through its Safety Department.

Equipment Operators are the employees who construct excavations. Excavations are tricky to construct safely. Frequently employees working in excavations have little input into their design and shape. Operators have a tremendous amount of control over the excavations. Although the ultimate responsibility of safe excavations lies with the Superintendent, the Superintendents don't observe each foot of an excavation as it is constructed. In addition, compliance with OSHA Excavation regulations must be maintained on BSC job sites.

**36.3.2 Excavation Rules**

- Soils must be classified by visual and manual tests (including the thumb test) or are considered Type C Soils and will be excavated to Type C soil sloping requirements.
- Type C Soil cannot have benches greater than 2' high.
- Vertical walls greater than 5' high in trenches, excavations or spoil piles are prohibited.
- Unsafe excavations on BSC sites need to be corrected if any employees are exposed or will be exposed to cave-ins or collapsing spoil piles.
- Spoil piles will be set back 2' or more from the edge of all excavations.
- Do not let employees in an excavation unless they have a ladder or you have constructed a ramp they can walk up and down.
- Do not let employees get under loads that are handled by lifting or digging equipment. Use taglines on suspended loads that employees will guide or direct.
- Do not allow employees to work in the excavation above other employees unless the lower level employees are adequately protected.
- While the excavation is open, underground installations are to be protected, supported, or removed as necessary to safeguard employees. Adjacent structures are to be supported to prevent possible collapse.
- Operators must construct diversion ditches, dikes or other means to prevent surface water from entering an excavation

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digging zone may be subject to termination.

**36.2.3 Operator Underground Utilities Rules**

- Do not dig or remove earth in an area that may have underground utilities without review of the area by the supervising Superintendent.
- Roads, alleys, overhead power lines, driveways, homes, businesses and sidewalks all indicate the presence of underground utilities. Colored metal markers usually mark fields and open lots having underground utilities. Do not dig in these areas unless the utilities have been called and the locators have conducted spotting.
- If spots for lines are on concrete and asphalt and are removed then the lines must be re-spotted. Stop and wait for re-spots. Following this rule has saved BSC tens of thousands of dollars.
- Do not dig unless photographs have been taken of the line spots and the offset marks.
- Do not dig within 24" of the spot marks with excavating equipment. Be sure the offset marks are not disturbed while excavating.
- Support underground utilities and their structures (phone boxes, telephone poles) before digging beneath.
- Operator must not violate any practice or procedure in Safety Directive 36.2 Underground Utilities Protection.

**36.3.1 Excavations**

Excavations account for many fatalities in construction or permanent disabling injuries. Employees may die in the excavation from inhaling dirt, being crushed and suffocated, and even if rescued suffer crippling muscular and skeletal injuries and suffer postponed death from "Crushing Syndrome," where vital organs fail over a matter days when deprived of oxygen while being buried.

Unsafe excavations are entirely preventable. All excavations are designed and constructed by employers and their employees and how safe that excavation is dependent on the employer and the employee. BSC wants all excavations to be safe for employees and in compliance with OSHA's Excavation

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and to provide drainage to the adjacent area.

- Do not let employees work in excavations where water has accumulated or is accumulating unless adequate precautions have been taken.
- Operator must not violate any part of 36.3 Appendix A of Safe Equipment Operators Passport EXCAVATIONS Rules.

**36.3 Appendix A**

Note: This appendix is only for excavations using sloping and benching to prevent cave-ins. Shoring, shields, trench boxes or a combination of these will be designed and approved of by the Supervising Superintendent and the Safety Director.

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**Soil Types**

**Type A** is composed chiefly of clay and can be sloped from 54° or 3/4 to 1 from horizontal (9 inches for every 1 foot of depth). Caliche is frequently Type A.

**Type B** is composed chiefly of silt or loam and can be sloped from 45° or 1 to 1 from horizontal (1 foot for every 1 foot of depth).

**Type C** Soils are composed chiefly of sand and gravel and must be sloped 34° or 1 1/2 to 1 from horizontal (1.5 feet for every 1 foot of depth).

**MAXIMUM ALLOWABLE SLOPES**

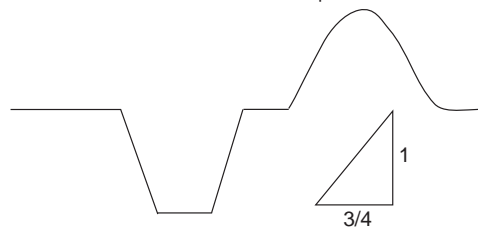
SOIL OR ROCK TYPE SLOPES	MAXIMUM ALLOWABLE (H:V)(*) FOR EXCAVATIONS LESS THAN 20 FEET DEEP (**)
STABLE ROCK	VERTICAL (90 Deg.)
TYPE A	3/4:1 (53 Deg.)
TYPE B	1:1 (45 Deg.)
TYPE C	1 1/2:1 (34 Deg.)

\* Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.

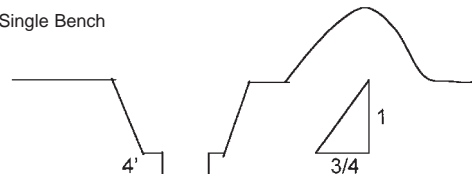
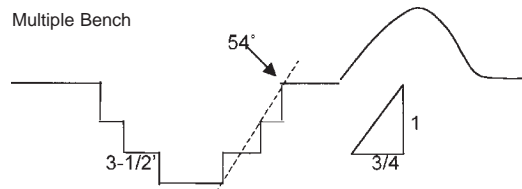
\*\* Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

**26****Slope Configurations****Excavations made in Type A Soil**

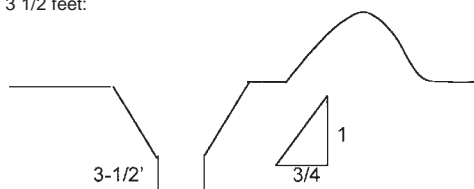
1. All simple slope excavation 20 feet or less in depth in Type A soil shall have a maximum allowable slope or 3/4 to 1.



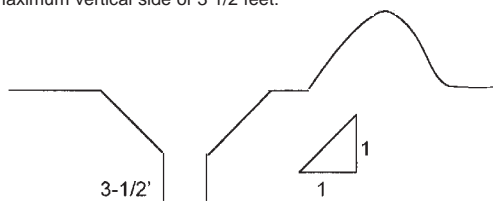
2. All benched excavations 20 feet or less in depth in Type A soil shall have a maximum allowable slope of 3/4 to 1 and maximum bench height of 4 feet:

**Single Bench****Multiple Bench****27**

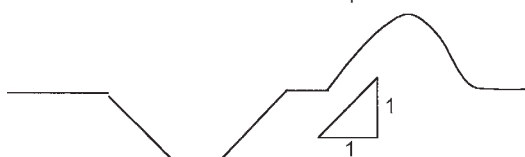
3. All excavations in Type A Soil 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum allowable slope of 3/4:1 and a maximum vertical side of 3 1/2 feet:



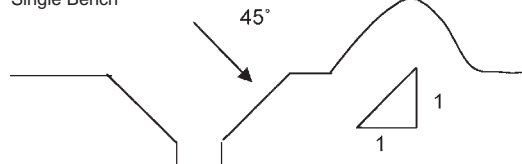
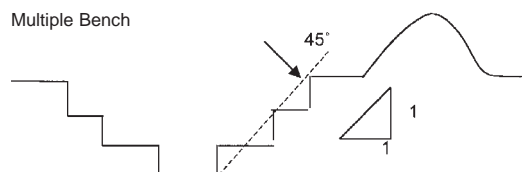
4. All excavations in Type A soil more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3 1/2 feet:

**Excavations Made in Type B Soil**

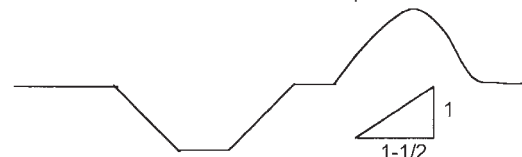
5. All simple slope excavations 20 feet or less in depth in Type B soil shall have a maximum allowable slope of 1:1:

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6. All benched excavations 20 feet or less in depth in Type B soil shall have a maximum allowable slope of 1:1 and maximum bench dimensions as follows:

**Single Bench****Multiple Bench****Excavations Made in Type C Soil**

7. All simple slope excavations 20 feet or less in depth in Type C soil shall have a maximum allowable slope of 1 1/2:1:



8. Benches higher than 2 feet are not allowed in Type C Soil.

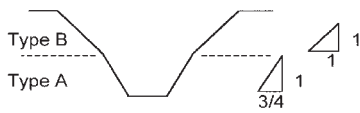
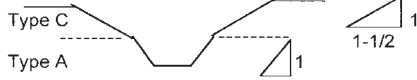
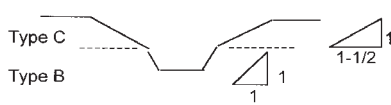
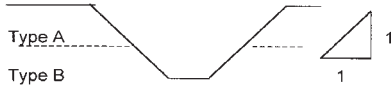
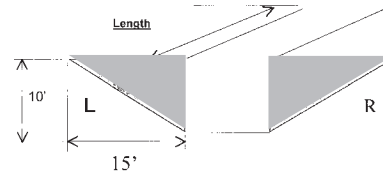
9. All previously disturbed dirt is classified as Type C Soil.

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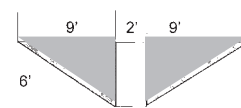
**Layered Soil Sloping Configurations**

10. Type A soils (clay and adobe) are frequently found on top of Type C soils (sand and gravel). Many fatalities occurred because the Type C soil beneath collapsed causing the Type A soil to crush to death an employee. Follow the sloping rules for Layered Soils:

**B over A****C over A****C over B****A over B****30****A over C and B over C****36.3 Appendix B****Formulas, Data and Useful Information**

Type C Sloping Requires so much soil removal these Excavations are rarely in compliance with 1926.652

If an excavation 6 feet deep X 2 feet wide in Type C soil has to be sloped, it has to be sloped 9 feet on each side.



$(9 \times 6) + (2 \times 6) \div 27 = \text{Yards to move per foot of excavation length.}$   
 $54 + 12 \div 27 = 2.4 \text{ yds/foot.}$

So, to make one foot of progress, 2.4 yards have to be removed. The Backhoe cycle time given is .40 yards per minute. By dividing 2.4 yards by .40 = 6 minutes per foot. If the trench is 10 feet long it is  $10 \times 6 = 60$  minutes or about an hour to correctly dig a safe excavation. And this is only if every cycle is within 30 seconds. By the time you account for machine movement, hard digging and other variables this time should be doubled or tripled.

**31****Bucket Fill Factor Table**

Material	Fill Factor*
Moist Loam or Sandy Clay	100%
Sand and Gravel	95%
Hard Tough Clay	80%
Rock-Well Blasted	60%
Rock-Poorly Blasted	40%
Broken Concrete	30%

**Cycle Times and Bucket Capacities**

Front loader, backhoe buckets and excavator hold different amounts of materials depending on the material itself. Bucket capacities are typically measured two ways: struck capacity and heaped bucket capacity.

- Struck capacity refers to a bucket filled to level, whereas heaped capacity is a bucket filled with a heaping load.
- Heaped Capacity is the more useful measurement and varies depending on the material. This is called the Bucket Fill Factor. To determine the average bucket payload the Heaped Capacity is multiplied by the Bucket Fill Factor (See Table) as in the formula below:

Using a Cat standard duty 24" backhoe bucket with a heaped capacity of 7 cu feet and a bucket Fill Factor of 80%

$$7 \text{ cu ft} \times 80\% = \text{Average Bucket Payload}$$

$$7 \times .80 = 5.6 \text{ cubic feet of material per cycle}$$

If a backhoe can make a complete cycle in 30 seconds every minute it can move 11 cubic feet of earth:

$$30 \times 2 = 60 \text{ sec or 1 minute so } 5.6 \text{ cubic feet} \times 2 = 11 \text{ cubic foot per minute}$$

If this number is divided by 27 it gives the yards / minute:  
 $11 \div 27 = .4 \text{ yards per minute.}$

**32****37. Equipment Operators Passport FORKLIFTS****37.1 Inspection and Maintenance**

The forklift to be operated must be inspected prior to use and can be used only if the following conditions have passed inspection:

- The forks and backrest must be securely mounted.
- Look under the forklift and take note of any loose hardware or excessive leaks. The steering linkage should be tight and well greased.
- Look at the engine. Take note of loose or worn belts.
- Make sure all covers, guards and inspection cover plates are secured properly.
- Check the oil level, fuel level, hydraulic fluid level, radiator coolant level, battery acid level and hydraulic brake fluid level.
- Note the tire condition and inflation. The tires should have proper inflation as recommended by the manufacturer, since the forklift's stability can be directly affected. Check owner/operator's manual for ballast filled tire maintenance.
- Inspect the hydraulic and brake lines. These lines often show signs of excessive wear before they break.
- Use a piece of cardboard to inspect for leaks. Never use bare hands to check for hydraulic leaks.
- If pressurized hydraulic fluid has penetrated your skin, seek medical attention immediately. Hydraulic fluid, injected into the skin, can cause gangrene. Wear eye protection when operating and inspecting forklifts.
- Check to make sure the overhead guard is secure.
- Check brake lights and turn signals, if so equipped.
- Check the back-up alarm.
- If conditions call for use of headlights, check them.
- You must check the operator's manual for the specific inspection procedures for your specific forklift. Many forklifts are different from each other and general inspection guidelines may not be sufficient. The operator's manual will instruct operators on proper inspection techniques and maintenance procedures.
- Check to see if the load chart is in the forklift.

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**37.2 Controls and Operations**

BSC Forklift Training is general in nature for telescopic boom rough terrain forklifts. Supervising Superintendents and Operators must become familiar with each machine's capacities and limits.

- a. Do not operate forklifts with known mechanical defects.
- b. Do not travel on unsafe routes such as next to excavation edges, soft ground, holes, in public right-of-way, near overhead power lines, etc.
- c. Do not carry unsafe loads such as loads that may swing or slide taking the forklift beyond its center of gravity.
- d. Do not use unsafe operating techniques such as starting and stopping quickly, not using horn properly, etc.
- e. The Operator is responsible for the safe condition and operation of his machine.
- f. Never operate a forklift from anywhere other than the operator's seat and never allow riders on the forks, frame, etc.
- g. Use grab rails when mounting and dismounting machine. Don't grab levers to pull yourself up.
- h. Never reach through potential pinch points.
- i. Beware of loose clothing, harnesses and lanyards, long hair around moving or rotating parts (fans, pulleys, belts).
- j. Keep all body parts inside the operator's compartment and WEAR YOUR SEATBELT.
- k. Wear your hard hat to prevent injury from smaller objects penetrating the overhead protective structure. Hard hats may save your life in the event of a turnover.
- l. Eye protection is required for windy, dusty conditions or when placing loads overhead.
- m. Use extreme caution when adjusting forks. Tilt forks forward to relieve the weight. Wear gloves and keep fingers from between pinch points.
- n. Space forks at their maximum width that will safely lift the load.
- o. "Feather" the load when starting and stopping, raising and lowering.
- p. Turnovers can be avoided by adhering to the following practices.

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- be driven up or down very steep inclines.
- c. Loaded forklifts should always keep the load on the uphill side whether driving up or down a hill for stability and traction.
    - Drive forward up a hill with a load.
    - Back down a hill with a loaded forklift.
    - Keep load uphill when driving on steep inclines.

**Stacking/Unstacking Loads**

- a. Make sure all loads are well centered and stable.
- b. Use proper feathering techniques to ensure that the forks or the vehicle itself does not bump the stacks.

**Load Capacities**

Forklift capacity charts show the amount of weight that can be safely carried, how high, and how far in front of the front axle the load can be extended.

- a. Extendable boom forklift load charts must contain at least the following information:
  - Weights that can be lifted.
  - Full range of boom extensions.
  - Angles of operation.
- b. Do not extend boom with load beyond chart.
- c. Do not operate forklifts without readable load charts.
- d. Do not operate, carry or lift loads beyond the load chart capacity. Some load charts are very complex and may be somewhat difficult to read.
- e. Make sure you understand all of its information before you operate the machine.
- f. Be aware of outrigger and ballast filled tire requirements for certain load charts.
- g. Be sure that you are reading the right load chart for your forklift's conditions.

**Forklift Attachments**

Some telescopic boom machines offer attachments that effectively transform the forklift into a crane, excavator, or specialized material-handling piece of equipment. These attachments alter the machine's rated capacities as a forklift making the existing load chart inaccurate.

**36****Forward Tipping**

- a. Use only two-wheel steering when traveling at higher speed to prevent turnovers.
- b. Do not extend the load too far forward.
- c. Do not pick up loads too heavy for the machine.
- d. Anticipate changes to forward momentum: avoid sudden stopping.

**Side Tipping**

- a. Do not raise loads while the machine is on uneven ground.
- b. Machines with self level feature must be leveled prior to raising loads.
- c. Control momentum (especially when turning the machine with a raised load) – it is the Number One cause of machines overturning!
- d. Do not drive into holes or on soft ground.
- e. Re-level the machine after adjusting for a side hill when traveling.
- f. Do not travel with raised load that can swing or shift.

**Outriggers**

Outriggers widen the stability triangle when they are set on the ground.

- a. Be very careful when reading load charts for forklifts equipped with outriggers – they can drastically affect the amount of weight that can be safely lifted.

**Backward Tipping**

Elevated loads place more weight on the rear axle of the forklift, especially with the mast tilted back or boom retracted. Any pivoting action of the frame tilt or rear wheels can shift that weight to the forklift's most vulnerable point. Loss of braking power or traction at the front wheels causes the machine to run out of control.

- a. Do not back down a hill with a load elevated too high.

**Driving on Inclines**

- a. Unloaded forklifts should always be driven forward down an incline.
- b. Forklifts, whether they are loaded or unloaded, should not

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- a. BSC Safety Director must approve job-made forklift attachments.
- b. Load Chart for Attachments must be developed and used for attachments.
  - Attachments can change the lifting capacities of a forklift.
  - Be aware of the changes and refer to your new load chart.

**Parking or Leaving the Machine**

- a. Park out of traffic lanes
- b. Park on level ground, if possible
- c. Do not park in deep mud or water, especially in freezing weather.
- d. Lower the forks.
- e. If the forks must be left elevated do not leave the machine unattended. OSHA says the operator must be within 25 feet.
- f. Neutralize all controls.
- g. Set the parking brake.
- h. Turn off the engine.
- i. Block the wheels if the forklift is on an incline.

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### FORKLIFT OPERATOR – JOB SPECIFIC

### Silica Exposure Log

### Silica Exposure Log

Trained by Competent Person - Name:

Date: \_\_\_\_\_

[illegible]EMPLOYEE NAME

If you have questions about this document or the Bradbury Stamm Construction Safety Passport Program, contact:

Safety Director, Bradbury Stamm Construction, Inc.  
505.765.1200

# Bradbury Stamm COMPANIES

## SUBCONTRACTOR SAFETY PASSPORT

rev. 05/18

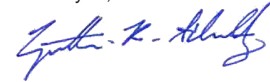
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Bradbury Stamm (BSC) welcomes you, as a subcontractor, to our construction project. We invite and encourage you to join us in making this project a safe one. A safe environment is not enough; safe work habits are a vital part of a successful program. This handbook is provided as a basic guide to your safe conduct on the job. Read it carefully, learn the general safety rules and keep the handbook with you at work at all times. If there is anything in here you do not understand, ask a Bradbury Stamm Foreman or Superintendent. They will be glad to help.

Remember, our having a safe workplace environment depends on you!

Thank you,



Cynthia K. Schultz  
CEO  
Bradbury Stamm Construction, Inc.

### 1. General Safety Rules

- Report to work rested and physically fit to perform your job.
- Wear clean clothing suitable for the weather and your work. Torn or loose clothing, cuffs and ties are hazardous. Minimum clothing is a full t-shirt and full-length trousers.
- Wear good work shoes, preferably safety shoes. No tennis shoes, open-toed shoes, or shoes with high heels.
- Use correct gloves when welding, handling chemicals, rough materials or items with sharp edges.
- Jewelry that can get caught or snagged by work practice should NOT be worn.
- Keep horseplay and roughhousing away from the job. Practical jokes often become painful injuries. Anyone involved in verbal abuse, harassment or fighting on the job may be subject to immediate dismissal.
- Never point an air hose at anyone or use it to clean clothing.
- Use only designated toilets.
- Inspect your safety equipment daily. If defective, do not use. Report it to your Foreman immediately.
- Work with care and good judgment at all times to avoid accidents – even if a specific safety rule is not contained in this manual.
- Soft drinks, food, etc., are not to be cooled in drinking water kegs or ice storage boxes.
- Do not operate any vehicle or equipment unless authorized by your foreman.
- The use of Alcoholic Beverage and/or Illegal Drugs is strictly prohibited on any BSC project, and in any BSC vehicle, and may be subject to immediate dismissal.
- Do not violate company Safety Directives. See your Foreman to become familiar with all Safety Directives that apply to your work.

### 2. Reporting Injuries

In order to receive medical treatment, it is a requirement and the policy of this company that you report any injury to your Foreman or other company supervisor on the same day of the injury, whether or not you go to the doctor that day.

**3. Your Foreman**

- a. If you do not understand any safety rule, ask your Foreman to explain it.
- b. Before doing a job where you are not familiar with the hazards, ask your Foreman to show you the safe way to do the job. They'll be glad to do it.
- c. Give your wholehearted support to safety activities. Preventing accidents depends mostly on you!

**4. Unsafe Acts or Conditions**

Report or correct any unsafe acts or unsafe conditions or equipment to your Foreman immediately.

**5. Work Areas**

- a. Be aware of work going on around you, keep clear of suspended loads, traffic areas, etc.
- b. Before entering new work areas, familiarize yourself with any unusual hazards.
- c. Place barricades to warn traffic, overhead dangers, open footings, excavation, swing radius of crane cab., etc.
- d. Work, eat lunch, etc. only in your work area.
- e. Remove nails from crates and lumber immediately.
- f. Stay in your assigned work area. Do not wander around the jobsite.
- g. Do not cross or remove "Caution Tape" or flagging. Respect all warning lines.
- h. Subcontractors must provide 5 foot candles of task lighting.

**6. Housekeeping**

- a. Keep materials orderly; prevent piles of materials from falling or shifting (tie down or support if necessary).
- b. Clean up any oil, liquids, or other materials spilled or dropped on stairs, walkways, ladders or floors. Place your lunch sacks, paper, and soft drinks or other containers in trash barrels.
- c. Have all cords, welding leads, hoses placed to avoid tripping hazards or from getting damaged.
- d. Keep loose materials off stairs, walkways, ramps, platforms, scaffolds, etc.

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drug tests may also be requested.

**9. Safety Meetings**

Attend all safety meetings and safety training classes held at your job site. You will get the latest information on what the company is doing and what you can do to keep from getting hurt.

**10. Hard Hats**

- a. Hard hats are to be worn whenever there is an overhead hazard, work is being performed overhead or a hazard from falling objects.
- b. Employees will have a hard hat with them on all jobsites.
- c. During the final stages of construction (touch-up paint, carpeting, floor waxing etc.) the wearing of hard hats may not be required as the site Superintendent sees fit.

**11. Eye Protection**

General-purpose safety glasses will be issued to employees and must be on their person at all times. Eye protection must be worn when:

- a. Using grinders (all types), using cleaning materials, table saws, jack hammers, chipping guns, masonry saws, welding or cutting torches (under welding hood in arc welding), nailers, powder actuated tools.
- b. Cleaning a weld or when the wind is such that it is blowing dust, sand, rust or other particles about.
- c. Handling material in powder form such as cement or when mixing or cleaning brick with acid or other cleaning material.
- d. There is danger of concrete or mortar splashing in the eye.
- e. Filing or buffing any material.
- f. Working near persons whose work requires them to wear eye protection.
- g. There is other dangerous exposure to your eyes.
- h. Sunglasses are okay for outside but clear glasses are to be with the employee for inside work.

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- e. Put or replace caps on rebar and grade stakes.
- f. Do not work in areas with inadequate lighting. Tell your Foreman and he/she will get it corrected.
- g. Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- h. Secure material and equipment so it will not be blown out of the building.

**7. Lifting**

- a. Check for a clear path first. Then have a clear view while carrying load.
- b. Avoid back strains when lifting (including shoveling) by following these few simple suggestions:
  - (1) Take a good look at what you're going to lift. If it is too heavy or bulky for you, get help. (Another employee, chain hoist, forklift, crane, etc.)
  - (2) Get a firm clear footing and keep your feet about shoulder distance apart.
  - (3) Squat down, keep whatever you are lifting close to you and lift with your strong leg muscles keeping your back straight.
  - (4) While carrying whatever you have lifted, avoid twisting of the body as much as possible.
  - (5) When setting the object down, reverse the lifting procedure; that is, keep your back straight and lower with your leg muscles.
- c. When carrying long objects with another employee, be sure you both carry the load on the same shoulder.
- d. Have just one person give commands when teaming big loads.

**8. Drugs and Alcohol**

Possession, consumption or use of alcoholic beverages or illegal drugs (including marijuana) is not permitted. Anyone violating this policy will be subject to immediate termination. You must pass a drug screen prior to employment, after any accident, at any time that your Foreman or other Company supervisory personnel suspect that the policy is being violated. Random

**3****12. Respirable Dust Protection**

1a. Respirable crystalline silica is made by cutting, grinding, polishing, jackhammering and drilling materials containing sand such as concrete, asphalt, block, brick, tile, mortars and grout. Always use water and/or vacuum systems to prevent silica from being inhaled.

1b. Have your Foreman train and sign your Silica Exposure Log whenever you alter silica (sand) containing materials by methods listed in a. above. Fill-out Silica Exposure Log every day you alter silica containing materials.

1c. Be sure to not expose other employees around you to respirable silica.

2. Dust masks should be used when spray painting, handling cement, lime, or when exposed to a steady dust hazard. Special equipment is required when sandblasting, welding, and cutting in confined spaces, on galvanized material or metal coated with red or zinc chromate - See your Foreman under these circumstances.

**13. Fall Protection**

Employees within 6 feet of a fall hazard greater than 6 feet in height shall be protected from falling by:

- a. Guardrails - 42" high  $\pm$  3", strong enough to withstand 200 pounds in down and outward directions, a mid rail is required. If persons are working or walking beneath or next to the fall zone a toeboard will be included or the area will be restricted to:
  - (1) Lifelines, seat harnesses, full-body harnesses, lanyard and static lines connected to anchor points capable of supporting 3,000 pounds. Safety belts are not allowed.
  - (2) A lifeline and harness shall be used in all areas where materials are loaded, landed or unloaded if an employee is within 6 feet of the edge. Check your harness carefully each day. If defective, do not use, return it to your Foreman. Some alternative fall

**5**



protection methods are allowed. See your Foreman.

#### 14. Hearing Protection

- Hearing protection must be in your possession at all times while on the job.
- Wear your hearing protection when around noise, even if you are not operating the equipment.

#### 15. Hand Tools

- Inspect tools before using to make sure they are not defective.
- When hand tools are not in use, lay them down in a safe place where they will not fall on a fellow worker or cause him/her to trip.
- Do not carry hand tools up or down a ladder; use a rope or tool belt.
- Know the correct use of hand tools before using; use the right tool for the job. If you are not sure how to use any tool talk to your Foreman, they will instruct you on the proper and safe use of any tool.
- Have tools, with burred or mushroomed heads, ground down. Keep cutting tools sharp and carry in a container or on a tool belt (not in your pocket).
- Do not use tools with split, broken, or loose handles.
- Be sure you have a clear area behind you before swinging a sledgehammer, axe, pick, or other tools or materials.

#### 16. Portable Power Tools

- Be sure the electrical tools, such as portable power saws, grinders, drills, etc. are grounded (unless they are double insulated tools). Do not stand in water or on damp ground when using tools. (Report any minor shocks to your Foreman)
- Make sure the tool has the proper guard and never block or lock the guard in an open position.
- Never block or lock the safety switch on a power tool so that it will operate the tool.
- Keep extension cords and power cords out of the center of walkways and off of ladders and stairways.

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- Have ladder reach at least 36" above landing for easy access.
- Use only sturdy ladders on firm level base at a 4 to 1 pitch and have clear access at top and bottom.
- Do not try to get additional height from ladder by placing it on a makeshift cribbing such as boxes, boards or scaffolds.
- Do not place a ladder in front of a door unless it is locked, barricaded, or guarded by another employee.
- Always engage snap spreaders on stepladders.
- Face ladder when climbing up or down; use both hands. Use hand line to lift or lower loads.
- Portable metal ladders must not be used for electrical work or around electric lines.
- Never work off of the top two steps of a ladder.
- Inspect all ladders daily or before use.

#### 20. Scaffolds and Aerial Lifts

- Scaffolds are to be erected only by employees trained to erect scaffolds. See your Foreman.
- Do not get on scaffolds until they have been inspected by the competent scaffold person.
- Scaffolds are to be inspected every day before employees get on the scaffolds. Before any employee is allowed on any scaffold it must have a **GREEN** tag attached.
- Scaffolds with a fall height greater than 10 feet must have guardrails.
- Whenever working in any aerial lift in which the manbasket extends beyond the perimeter of the vehicle's wheels you must wear a safety harness and lanyard tied to the approved anchorage point.
- Do not stand on the guardrails unless connected to the manbasket with full body harness and lanyard.

#### 21. Floor Openings

- Keep materials away from entrance or exits of stairs, hoists and elevators landings, traffic lanes and ladders.
- Avoid shortcuts - use ramps, stairs, walkways, ladders, etc.
- Do not work in areas with inadequate lighting. Tell your Foreman and he will get it corrected.

8

- Never point a compressed air tool or powder-actuated tool at yourself or a fellow employee.
- Only qualified personnel should operate or service power tools.
- Do not use defective power tools. Report condition to your Foreman.
- Right-angle grinder **MUST** be equipped with half moon or 180° guard.

#### 17. Powder Actuated Tools

- Never use a powder actuated tool unless you are properly trained and have a **VALID CERTIFICATE CARD** in your possession.
- Always wear eye protection and hearing protection.
- Do not shoot through sheetrock or plywood without making sure no one is on the other side.

#### 18. Machines

- Before starting machinery, opening valves, switches, etc. check to make sure fellow employees are in the clear and have all safety guards in place.
- Never adjust or repair machinery while it is running.
- Operate machinery and vehicles within safe speeds and at rated capacity.
- Never refuel an engine while it is running.
- When using a gasoline or diesel engine in an enclosed area, be sure to vent the exhaust outside.
- Never use an air hose for pressure to empty gasoline drums.
- Do not start or use any machinery unless you have been authorized to do so.
- If you are in charge of a compressed air tank, be sure to drain the tank and test the safety valve daily.

#### 19. Ladders

- Be sure straight or extension ladders are tied off at the top.
- Get someone to hold ladder while you are tying off, or if you can't tie it off.
- Make sure extension ladder locking clamps are in place before using.

7

- When necessary to remove guardrails around a floor opening or building perimeter, make certain they are replaced each time you leave the work area and immediately upon completion of work.
- Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- Secure material and equipment so it will not be blown out of the building.
- Any floor opening greater than 1.5" in the least dimension must be covered and secured with a suitable covering marked "hole" and "oioyo."

#### 22. Hoists

- Ride the personnel hoist only; never ride a material hoist.
- To prevent overloading of a personnel hoist, you must follow hoist operator's instruction for the loading of people or material.
- When hoisting pipe or material that must stand upright, secure it to prevent ends from catching in the hoist tower. Never ride a material hoist to hold the material.
- Be sure to close hoist way gate after unloading.
- When loading or unloading a material hoist, never stay on it longer than necessary.
- Be sure to replace the guard rails at the hoist landing.

#### 23. Electrical

- Consider all wire "live" until checked out.
- Never remove or cut ground prong of any electrical tool or extension cord. **PLUG INTO MATCHING RECEPTACLE ONLY.**
- All electrical power tools and extension cords should have **RUBBER** insulation. Damaged cords should be repaired or replaced immediately. Only type "S" cords are permitted.
- All repairs to electrical tools and extension cords must be made by qualified personnel only.
- Do not drive vehicles, aerial lifts or rolling scaffolds over extension cords.

#### 24. Compressed Gas Cylinders

- Always turn cylinder valves off when not in use or when

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- unattended for an extended period of time, such as during the lunch period.
- b. Always secure a cylinder, full or empty, in an upright position.
- c. When cylinders are lowered or hoisted, use a skip box, net or cart. Never use a choker or hook on to the valve cap.
- d. Never store oxygen cylinders near flames, flammable, or combustible liquids or materials, oil, grease, or within 20 feet of fuel gas cylinders (acetylene, propane etc.).
- e. Keep oily rags and oily gloves away from oxygen cylinders. (This could cause an explosion)
- f. Keep valve caps on cylinders, full or empty.

## 25. Fire Prevention

### 25.1. General

- a. Know the location of and how to use fire extinguishers and fire hoses.
- b. Take extra care in disposing of cigarette butts and matches. Extinguish thoroughly. When in refineries or chemical plants, or waste water plants smoke only in designated areas.
- c. Flammable liquids should be transported and stored only in the original container or in an approved metal safety can with self closing lid or nozzle.
- d. Store oily rags or paint rags in covered metal containers.
- e. Be sure there is a fire watch before welding or cutting above combustible materials.
- f. Tell your Foreman if you use a fire extinguisher so it can be refilled.

### 25.2. Fire Protection for Wood-Frame Construction

*This section applies to all wood frame construction on BSC sites and on sites where questions of flammable or combustible material may create a fire hazard as determined by the job Superintendent and/or Safety Director.*

- a. Housekeeping is critical to avoid fires. Sweep up sawdust and ends of sawed materials at the end of every shift.

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## 28. Safe Driving

- a. Do not ride on vehicle or mobile equipment except on seat or designated passenger platform.
- b. Do not ride in the back of pickups unless approved by BSC Superintendent.
- c. When driving about the jobsite, never exceed 15 mph. At all times observe the rules of safe driving.
- d. Every day, check the company truck you are driving to see that the brakes, turn indicator, head lights, back up alarm (if required) and stoplights are working properly. WEAR YOUR SEATBELT AT ALL TIMES.

## 29. Protection of Public

- a. Anytime you see sightseers or children in the work area, ask them to leave so they will not be hurt.
- b. If there is danger of pedestrians, automobiles, etc., being struck by falling materials that you are working with, tell your Foreman so he can arrange the necessary protection.
- c. Direct any visitors without hardhats to the job office for proper job clearance.
- d. Do not visit with students on schools.

## 30. Hazard Communication Program

This Company has a written hazard Communication program, and in accordance with OSHA Standard 1926.59, the following items are available to you at your request:

- a. A copy of the Company's written Hazard Communication Program;
- b. A copy of the Company's "List of Hazardous Chemicals" for your workplace; and
- c. Copies of Safety Data Sheets (SDS) for any covered chemicals to which you are exposed. To obtain any of this information, contact your supervisor.

## 31. Health Hazard Evaluations Records

Upon written request, you may obtain a copy of any medical record or any analysis of sampling taken while on or near you with regard to your working conditions or workplace.

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- b. No smoking will be permitted anywhere on the jobsite with the exception of a single, posted smoking area. Ask your Foreman if you need the location of the smoking area.
- c. Do not start work until fire hydrants are live and hoses and hydrant wrenches are at the fire hydrant.
- d. A fire watch shall be posted for at least one hour whenever open flame or similar source of ignition is used. The fire watch will have means with them to extinguish flame or smoldering material.
- e. Plumbers using torches to sweat pipes will have a spray bottle on hand which shall be used to pre-wet and soak (douse) combustibles affected by the heat source. Plumbers must have within arm's length a functioning fire extinguisher.
- f. When requested, employees will attend training on fire prevention and fire suppression.

## 26. Excavations

- a. Never enter an excavation or trench more than 5' deep unless it is shored or sloped.
- b. In any trench 4 feet or greater in depth that you cannot walk out of, place an access ladder within 25' of any workman.
- c. When digging a trench, place soil (dirt from the excavation) at least 2' away from edge of excavation. Remove surface rocks, clods of dirt or other debris that could fall.
- d. All employees entering excavations must have training.

## 27. Clearing and Grading Equipment

- a. Always operate a dozer, scraper, grader, backhoe / loader etc. at a safe speed.
- b. Only the operator should be on the operating platform or seat. No one else should be on the equipment.
- c. Walk around your equipment before starting up to make certain no one is in a danger zone.
- d. Always be aware of those persons working around your equipment.
- e. Always wear your seatbelt.

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## 32. Civil Jobsites

- a. Flagmen are required when equipment crosses the streets not closed off. Flagmen must have passed a flagmen training course, ask your Foreman.
- b. Hardhats will always be with employees at all times when in trucks or equipment with a protective cab.
- c. Safety vests must be worn at all times when around traffic and moving equipment.
- d. Eye protection should be worn at all times. Glasses should have a UV coating to protect eyes from long-term exposure to sunlight.
- e. Sunscreen is encouraged as are long-sleeved shirts.
- f. Seat belts are to be worn at all times.
- g. Riding in the back of trucks and equipment is not allowed, unless approved by the BSC Superintendent and the BSC Safety Director.
- h. Hearing protection will be worn when sawing and jack hammering. Face shields or goggles will be worn when jack hammering or sawing.
- i. Excavations cannot be entered until inspected by a Bradbury Stamm Competent Person. If a trench box is used, do not leave the protection of the trench box.
- j. Support all cross lines, pipes, conduits, and wires.
- k. Do not get under suspended loads.
- l. Back-up alarms are required on water trucks, loaders, and excavators.
- m. Use taglines when setting trench boxes.

## 33. Confined Spaces

- a. Confined spaces are not to be entered without the Foreman first checking the atmosphere.
- b. If a confined space has a hazard (hazardous atmosphere, engulfment, entrapment, etc.) that cannot be eliminated before entry, do not enter until the Bradbury Stamm permit-required Confined Space Competent Person authorizes entry. Ask your Foreman.
- c. Do not operate gasoline saws in deep trenches, manholes, or areas of poor air circulation without a ventilator and/or the supplied air hood.

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## Silica Exposure Log

**Trained by Competent Person - Name:**

Date: \_\_\_\_\_

[illegible]

EMPLOYEE NAME

If you have questions about this document or the Bradbury Stamm Construction Safety Passport Program, contact:

Safety Director, Bradbury Stamm Construction, Inc.  
505.765.1200

# Bradbury Stamm COMPANIES

## SAFE EQUIPMENT OPERATOR PASSPORT

### EXCAVATORS FORKLIFTS

rev. 05/18

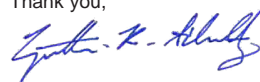
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Bradbury Stamm (BSC) welcomes you to our construction project. We invite and encourage you as an employee/subcontractor to join us in making this project a safe one. We are providing you with a safe environment and proper equipment, so that you will be working in the safest conditions. However, safe conditions are not enough; safe work habits are a vital part of a successful program. This handbook is provided as a basic guide to your safe conduct on the job. Read it carefully, learn the general safety rules and keep the handbook with you at work at all times. If there is anything in here you do not understand, ask your supervisor. They will be glad to help.

Remember, our having a good safety program depends on you!

Thank you,



Cynthia K. Schultz  
CEO  
Bradbury Stamm Construction, Inc.

#### 1. General Safety Rules

- Report to work rested and physically fit to perform your job.
- Wear clean clothing suitable for the weather and your work. Torn or loose clothing, cuffs and ties are hazardous. Minimum clothing is a full t-shirt and full-length trousers.
- Wear good work shoes, preferably safety shoes. No tennis shoes, open-toed shoes, or shoes with high heels.
- Use correct gloves when welding, handling chemicals, rough materials or items with sharp edges.
- Jewelry that can get caught or snagged by work practice should NOT be worn.
- Keep horseplay and roughhousing away from the job. Practical jokes often become painful injuries. Anyone involved in verbal abuse, harassment or fighting on the job may be subject to immediate dismissal.
- Never point an air hose at anyone or use it to clean clothing.
- Use only designated toilets.
- Inspect your safety equipment daily. If defective, do not use. Report it to your Foreman immediately.
- Work with care and good judgment at all times to avoid accidents – even if a specific safety rule is not contained in this manual.
- Soft drinks, food, etc., are not to be cooled in drinking water kegs or ice storage boxes.
- Do not operate any vehicle or equipment unless authorized by your foreman.
- The use of Alcoholic Beverage and/or Illegal Drugs is strictly prohibited on any BSC project, and in any BSC vehicle, and may be subject to immediate dismissal.
- Do not violate company Safety Directives. See your Foreman to become familiar with all Safety Directives that apply to your work.

#### 2. Reporting Injuries

In order to receive medical treatment, it is a requirement and the policy of this company that you report any injury to your Foreman or other company supervisor on the same day of the injury, whether or not you go to the doctor that day.

**3. Your Foreman**

- a. If you do not understand any safety rule, ask your Foreman to explain it.
- b. Before doing a job where you are not familiar with the hazards, ask your Foreman to show you the safe way to do the job. They'll be glad to do it.
- c. Give your wholehearted support to safety activities. Preventing accidents depends mostly on you!

**4. Unsafe Acts or Conditions**

Report or correct any unsafe acts or unsafe conditions or equipment to your Foreman immediately.

**5. Work Areas**

- a. Be aware of work going on around you, keep clear of suspended loads, traffic areas, etc.
- b. Before entering new work areas, familiarize yourself with any unusual hazards.
- c. Place barricades to warn traffic, overhead dangers, open footings, excavation, swing radius of crane cab., etc.
- d. Work, eat lunch, etc. only in your work area.
- e. Remove nails from crates and lumber immediately.
- f. Stay in your assigned work area. Do not wander around the jobsite.
- g. Do not cross or remove "Caution Tape" or flagging. Respect all warning lines.

**6. Housekeeping**

- a. Keep materials orderly; prevent piles of materials from falling or shifting (tie down or support if necessary).
- b. Clean up any oil, liquids, or other materials spilled or dropped on stairs, walkways, ladders or floors. Place your lunch sacks, paper, and soft drinks or other containers in trash barrels.
- c. Have all cords, welding leads, hoses placed to avoid tripping hazards or from getting damaged.
- d. Keep loose materials off stairs, walkways, ramps, platforms, scaffolds, etc.
- e. Put or replace caps on rebar and grade stakes.

**2****9. Safety Meetings**

Attend all safety meetings and safety training classes held at your job site. You will get the latest information on what the company is doing and what you can do to keep from getting hurt.

**10. Hard Hats**

- a. Hard hats are to be worn whenever there is an overhead hazard, work is being performed overhead or a hazard from falling objects.
- b. Employees will have a hard hat with them on all jobsites.
- c. During the final stages of construction (touch-up paint, carpeting, floor waxing etc.) the wearing of hard hats may not be required as the site Superintendent sees fit.

**11. Eye Protection**

General-purpose safety glasses will be issued to employees and must be on their person at all times. Eye protection must be worn when:

- a. Using grinders (all types), using cleaning materials, table saws, jack hammers, chipping guns, masonry saws, welding or cutting torches (under welding hood in arc welding), nailers, powder actuated tools.
- b. Cleaning a weld or when the wind is such that it is blowing dust, sand, rust or other particles about.
- c. Handling material in powder form such as cement or when mixing or cleaning brick with acid or other cleaning material.
- d. There is danger of concrete or mortar splashing in the eye.
- e. Filing or buffing any material.
- f. Working near persons whose work requires them to wear eye protection.
- g. There is other dangerous exposure to your eyes.
- h. Sunglasses are okay for outside but clear glasses are to be worn with the employee for inside work.

**12. Respirable Dust Protection**

1a. Respirable crystalline silica is made by cutting, grinding, polishing, jackhammering and drilling materials containing sand such as concrete, asphalt, block, brick, tile, mortars and grout.

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- f. Do not work in areas with inadequate lighting. Tell your Foreman and he/she will get it corrected.
- g. Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- h. Secure material and equipment so it will not be blown out of the building.

**7. Lifting**

- a. Check for a clear path first. Then have a clear view while carrying load.
- b. Avoid back strains when lifting (including shoveling) by following these few simple suggestions:
  - (1) Take a good look at what you're going to lift. If it is too heavy or bulky for you, get help. (Another employee, chain hoist, forklift, crane, etc.)
  - (2) Get a firm clear footing and keep your feet about shoulder distance apart.
  - (3) Squat down, keep whatever you are lifting close to you and lift with your strong leg muscles keeping your back straight.
  - (4) While carrying whatever you have lifted, avoid twisting of the body as much as possible.
  - (5) When setting the object down, reverse the lifting procedure; that is, keep your back straight and lower with your leg muscles.
- c. When carrying long objects with another employee, be sure you both carry the load on the same shoulder.
- d. Have just one person give commands when teaming big loads.

**8. Drugs and Alcohol**

Possession, consumption or use of alcoholic beverages or illegal drugs (including marijuana) is not permitted. Anyone violating this policy will be subject to immediate termination. You must pass a drug screen prior to employment, after any accident, at any time that your Foreman or other Company supervisory personnel suspect that the policy is being violated. Random drug tests may also be requested.

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Always use water and/or vacuum systems to prevent silica from being inhaled.

1b. Have your Foreman train and sign your Silica Exposure Log whenever you alter silica (sand) containing materials by methods listed in a. above. Fill-out Silica Exposure Log every day you alter silica containing materials.

1c. Be sure to not expose other employees around you to respirable silica.

2. Dust masks should be used when spray painting, handling cement, lime, or when exposed to a steady dust hazard. Special equipment is required when sandblasting, welding, and cutting in confined spaces, on galvanized material or metal coated with red or zinc chromate - See your Foreman under these circumstances.

**13. Fall Protection**

Employees within 6 feet of a fall hazard greater than 6 feet in height shall be protected from falling by:

- a. Guardrails - 42" high  $\pm$  3", strong enough to withstand 200 pounds in down and outward directions, a mid rail is required. If persons are working or walking beneath or next to the fall zone a toeboard will be included or the area will be restricted to:
  - (1) Lifelines, seat harnesses, full-body harnesses, lanyard and static lines connected to anchor points capable of supporting 3,000 pounds. Safety belts are not allowed.
  - (2) A lifeline and harness shall be used in all areas where materials are loaded, landed or unloaded if an employee is within 6 feet of the edge. Check your harness carefully each day. If defective, do not use, return it to your Foreman. Some alternative fall protection methods are allowed. See your Foreman.

**14. Hearing Protection**

- a. Hearing protection must be in your procession at all times

**5**



- while on the job.
- b. Wear your hearing protection when around noise, even if you are not operating the equipment.

#### 15. Hand Tools

- a. Inspect tools before using to make sure they are not defective.
- b. When hand tools are not in use, lay them down in a safe place where they will not fall on a fellow worker or cause him/her to trip.
- c. Do not carry hand tools up or down a ladder; use a rope or tool belt.
- d. Know the correct use of hand tools before using; use the right tool for the job. If you are not sure how to use any tool talk to your Foreman, they will instruct you on the proper and safe use of any tool.
- e. Have tools, with burred or mushroomed heads, ground down. Keep cutting tools sharp and carry in a container or on a tool belt (not in your pocket).
- f. Do not use tools with split, broken, or loose handles.
- g. Be sure you have a clear area behind you before swinging a sledgehammer, axe, pick, or other tools or materials.

#### 16. Portable Power Tools

- a. Be sure the electrical tools, such as portable power saws, grinders, drills, etc. are grounded (unless they are double insulated tools). Do not stand in water or on damp ground when using tools. (Report any minor shocks to your Foreman)
- b. Make sure the tool has the proper guard and never block or lock the guard in an open position.
- c. Never block or lock the safety switch on a power tool so that it will operate the tool.
- d. Keep extension cords and power cords out of the center of walkways and off of ladders and stairways.
- e. Never point a compressed air tool or powder-actuated tool at yourself or a fellow employee.
- f. Only qualified personnel should operate or service power tools.

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- f. Do not try to get additional height from ladder by placing it on a makeshift cribbing such as boxes, boards or scaffolds.
- g. Do not place a ladder in front of a door unless it is locked, barricaded, or guarded by another employee.
- h. Always engage snap spreaders on stepladders.
- i. Face ladder when climbing up or down; use both hands. Use hand line to lift or lower loads.
- j. Portable metal ladders must not be used for electrical work or around electric lines.
- k. Never work off of the top two steps of a ladder.
- l. Inspect all ladders daily or before use.

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- a. Scaffolds are to be erected only by employees trained to erect scaffolds. See your Foreman.
- b. Do not get on scaffolds until they have been inspected by the competent scaffold person.
- c. Scaffolds are to be inspected every day before employees get on the scaffolds. Before any employee is allowed on any scaffold it must have a **GREEN** tag attached.
- d. Scaffolds with a fall height greater than 10 feet must have guardrails.
- e. Whenever working in any aerial lift in which the manbasket extends beyond the perimeter of the vehicle's wheels you must wear a safety harness and lanyard tied to the approved anchorage point.
- f. Do not stand on the guardrails unless connected to the manbasket with full body harness and lanyard.

#### 21. Floor Openings

- a. Keep materials away from entrance or exits of stairs, hoists and elevators landings, traffic lanes and ladders.
- b. Avoid shortcuts - use ramps, stairs, walkways, ladders, etc.
- c. Do not work in areas with inadequate lighting. Tell your Foreman and he will get it corrected.
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- g. Do not use defective power tools. Report condition to your Foreman.
- h. Right-angle grinder **MUST** be equipped with half moon or 180° guard.

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- a. Never use a powder actuated tool unless you are properly trained and have a **VALID CERTIFICATE CARD** in your possession.
- b. Always wear eye protection and hearing protection.
- c. Do not shoot through sheetrock or plywood without making sure no one is on the other side.

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- a. Before starting machinery, opening valves, switches, etc. check to make sure fellow employees are in the clear and have all safety guards in place.
- b. Never adjust or repair machinery while it is running.
- c. Operate machinery and vehicles within safe speeds and at rated capacity.
- d. Never refuel an engine while it is running.
- e. When using a gasoline or diesel engine in an enclosed area, be sure to vent the exhaust outside.
- f. Never use an air hose for pressure to empty gasoline drums.
- g. Do not start or use any machinery unless you have been authorized to do so.
- h. If you are in charge of a compressed air tank, be sure to drain the tank and test the safety valve daily.

#### 19. Ladders

- a. Be sure straight or extension ladders are tied off at the top.
- b. Get someone to hold ladder while you are tying off, or if you can't tie it off.
- c. Make sure extension ladder locking clamps are in place before using.
- d. Have ladder reach at least 36" above landing for easy access.
- e. Use only sturdy ladders on firm level base at a 4 to 1 pitch and have clear access at top and bottom.

7

- e. Keep all stored materials a minimum of 6' away from any shaft opening and 10' from building edge.
- f. Secure material and equipment so it will not be blown out of the building.
- g. Any floor opening greater than 1.5" in the least dimension must be covered and secured with a suitable covering marked "hole" and "ojo."

#### 22. Hoists

- a. Ride the personnel hoist only; never ride a material hoist.
- b. To prevent overloading of a personnel hoist, you must follow hoist operator's instruction for the loading of people or material.
- c. When hoisting pipe or material that must stand upright, secure it to prevent ends from catching in the hoist tower. Never ride a material hoist to hold the material.
- d. Be sure to close hoist way gate after unloading.
- e. When loading or unloading a material hoist, never stay on it longer than necessary.
- f. Be sure to replace the guard rails at the hoist landing.

#### 23. Electrical

- a. Consider all wire "live" until checked out.
- b. Never remove or cut ground prong of any electrical tool or extension cord. **PLUG INTO MATCHING RECEPTACLE ONLY.**
- c. All electrical power tools and extension cords should have RUBBER insulation. Damaged cords should be repaired or replaced immediately. Only type "S" cords are permitted.
- d. All repairs to electrical tools and extension cords must be made by qualified personnel only.
- e. Do not drive vehicles, aerial lifts or rolling scaffolds over extension cords.

#### 24. Compressed Gas Cylinders

- a. Always turn cylinder valves off when not in use or when unattended for an extended period of time, such as during the lunch period.
- b. Always secure a cylinder, full or empty, in an upright position.

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- c. When cylinders are lowered or hoisted, use a skip box, net or cart. Never use a choker or hook on to the valve cap.
- d. Never store oxygen cylinders near flames, flammable, or combustible liquids or materials, oil, grease, or within 20 feet of fuel gas cylinders (acetylene, propane etc.).
- e. Keep oily rags and oily gloves away from oxygen cylinders. (This could cause an explosion)
- f. Keep valve caps on cylinders, full or empty.

## 25. Fire Prevention

### 25.1. General

- a. Know the location of and how to use fire extinguishers and fire hoses.
- b. Take extra care in disposing of cigarette butts and matches. Extinguish thoroughly. When in refineries or chemical plants, or waste water plants smoke only in designated areas.
- c. Flammable liquids should be transported and stored only in the original container or in an approved metal safety can with self closing lid or nozzle.
- d. Store oily rags or paint rags in covered metal containers.
- e. Be sure there is a fire watch before welding or cutting above combustible materials.
- f. Tell your Foreman if you use a fire extinguisher so it can be refilled.

### 25.2. Fire Protection for Wood-Frame Construction

*This section applies to all wood frame construction on BSC sites and on sites where questions of flammable or combustible material may create a fire hazard as determined by the job Superintendent and/or Safety Director.*

- a. Housekeeping is critical to avoid fires. Sweep up sawdust and ends of sawed materials at the end of every shift.
- b. No smoking will be permitted anywhere on the jobsite with the exception of a single, posted smoking area. Ask your Foreman if you need the location of the smoking area.
- c. Do not start work until fire hydrants are live and hoses and

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Superintendent.

- c. When driving about the jobsite, never exceed 15 mph. At all times observe the rules of safe driving.
- d. Every day, check the company truck you are driving to see that the brakes, turn indicator, head lights, back up alarm (if required) and stoplights are working properly.  
WEAR YOUR SEATBELT AT ALL TIMES.

## 29. Protection of Public

- a. Anytime you see sightseers or children in the work area, ask them to leave so they will not be hurt.
- b. If there is danger of pedestrians, automobiles, etc., being struck by falling materials that you are working with, tell your Foreman so he can arrange the necessary protection.
- c. Direct any visitors without hardhats to the job office for proper job clearance.
- d. Do not visit with students on schools.

## 30. Hazard Communication Program

This Company has a written hazard Communication program, and in accordance with OSHA Standard 1926.59, the following items are available to you at your request:

- a. A copy of the Company's written Hazard Communication Program;
- b. A copy of the Company's "List of Hazardous Chemicals" for your workplace; and
- c. Copies of Safety Data Sheets (SDS) for any covered chemicals to which you are exposed. To obtain any of this information, contact your supervisor.

## 31. Health Hazard Evaluations Records

Upon written request, you may obtain a copy of any medical record or any analysis of sampling taken while on or near you with regard to your working conditions or workplace.

## 32. Civil Jobsites

- a. Flagmen are required when equipment crosses the streets not closed off. Flagmen must have passed a flagmen

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- hydrant wrenches are at the fire hydrant.
- d. A fire watch shall be posted for at least one hour whenever open flame or similar source of ignition is used. The fire watch will have means with them to extinguish flame or smoldering material.
- e. Plumbers using torches to sweat pipes will have a spray bottle on hand which shall be used to pre-wet and soak (douse) combustibles affected by the heat source. Plumbers must have within arm's length a functioning fire extinguisher.
- f. When requested, employees will attend training on fire prevention and fire suppression.

## 26. Excavations

- a. Never enter an excavation or trench more than 5' deep unless it is shored or sloped.
- b. In any trench 4 feet or greater in depth that you cannot walk out of, place an access ladder within 25' of any workman.
- c. When digging a trench, place soil (dirt from the excavation) at least 2' away from edge of excavation. Remove surface rocks, clods of dirt or other debris that could fall.
- d. All employees entering excavations must have training.

## 27. Clearing and Grading Equipment

- a. Always operate a dozer, scraper, grader, backhoe / loader etc. at a safe speed.
- b. Only the operator should be on the operating platform or seat. No one else should be on the equipment.
- c. Walk around your equipment before starting up to make certain no one is in a danger zone.
- d. Always be aware of those persons working around your equipment.
- e. Always wear your seatbelt.

## 28. Safe Driving

- a. Do not ride on vehicle or mobile equipment except on seat or designated passenger platform.
- b. Do not ride in the back of pickups unless approved by BSC

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- training course, ask your Foreman.
- b. Hardhats will always be with employees at all times when in trucks or equipment with a protective cab.
- c. Safety vests must be worn at all times when around traffic and moving equipment.
- d. Eye protection should be worn at all times. Glasses should have a UV coating to protect eyes from long-term exposure to sunlight.
- e. Sunscreen is encouraged as are long-sleeved shirts.
- f. Seat belts are to be worn at all times.
- g. Riding in the back of trucks and equipment is not allowed, unless approved by the BSC Superintendent and the BSC Safety Director.
- h. Hearing protection will be worn when sawing and jack hammering. Face shields or goggles will be worn when jack hammering or sawing.
- i. Excavations cannot be entered until inspected by a Bradbury Stamm Competent Person. If a trench box is used, do not leave the protection of the trench box.
- j. Support all cross lines, pipes, conduits, and wires.
- k. Do not get under suspended loads.
- l. Back-up alarms are required on water trucks, loaders, and excavators.
- m. Use taglines when setting trench boxes.

## 33. Confined Spaces

- a. Confined spaces are not to be entered without the Foreman first checking the atmosphere.
- b. If a confined space has a hazard (hazardous atmosphere, engulfment, entrapment, etc.) that cannot be eliminated before entry, do not enter until the Bradbury Stamm permit-required Confined Space Competent Person authorizes entry. Ask your Foreman.
- c. Do not operate gasoline saws in deep trenches, manholes, or areas of poor air circulation without a ventilator and/or the supplied air hood.
- d. Jackhammer and chipping operations in confined spaces will be done only with supplied air hoods or ventilators and respiratory protection.

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**34. Air Test Balls and Plugs**

- Test inflation of test balls and air plugs for leaks before use.
- Do not inflate while you are in a manhole.
- Face shields are to be worn when inflating and deflating.
- Stay out of the line of fire and keep back as much as possible.

**35. Safety Violations**

- The FIRST Safety Violation is a written warning and will not result in penalty.
- The SECOND Violation will result in employee being sent home without pay for the rest of the workday.
- The THIRD Violation will result in employee being sent home without pay for the rest of current workday AND the following day.
- The FOURTH Violation will result in three days without pay suspension and possible termination based on the recommendation of the Superintendent.
- The FIFTH Violation will result in automatic termination unless the Superintendent requests an interview with the Safety Director and Human Resources Manager.

**36. Equipment Operator's Safety Certification**

(See Equipment Operator's Safety Passport on the following pages.)

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**VIOLATION LOG****RULE****DATE**

1. \_\_\_\_\_

Violation \_\_\_\_\_

2. \_\_\_\_\_

Violation \_\_\_\_\_

3. \_\_\_\_\_

Violation \_\_\_\_\_

4. \_\_\_\_\_

Violation \_\_\_\_\_

5. \_\_\_\_\_

Violation \_\_\_\_\_

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**EMPLOYEE ORIENTATION ACKNOWLEDGMENT**

I have received the Bradbury Stamm Employee Safety Passport. I have read and understand the General Safety Rules and agree to abide by the Safety Program while employed by Bradbury Stamm. I understand that I must keep this book with me at all times while at work, and if for any reason I do not have my Safety Passport with me, I understand that I will not be allowed to work or be on the payroll until I can present my Safety Passport.

I have read the consequences for each safety violation that is written in my Safety Passport and understand that if I reach FIVE Safety Violations, I will be automatically terminated unless the Superintendent requests an interview.

If I lose or destroy my Safety Passport a new Safety Passport will be issued after a THREE day without pay suspension is completed.

*\*After a 12-month period, all violations are erased, and a new Safety Passport will be issued.*

New book Issued \_\_\_\_\_ (Date)

Employee Name \_\_\_\_\_  
(Please Print)

Employee Number \_\_\_\_\_

Employee Signature \_\_\_\_\_

Date \_\_\_\_\_

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**36. Safe Equipment Operators Passport EXCAVATORS****36.1 Excavating Equipment Operations**

This Safe Operators Passport is for BSC employees hired to operate front loaders, backhoes, skid-steer loaders (Bobcats) and excavators. This Passport is not for forklifts, rollers and water trucks. This Passport is in addition to the Safety Passport which must be on your person when on a BSC jobsite.

**General Rules**

- The Operator is directly responsible for the safe operation of the equipment. Reckless and careless driving is prohibited.
- The Operator is required to complete a pre-shift and a post-shift operation checklist. The checklists are printed in small pocket sized books. Tear off the page and attach to your time sheet for that day.
- Wear your seat belt when operating the tractor. This includes excavators and backhoe digging operations.
- Hard hats are required to be with operators at all times. When not protected by the tractor cab, a hardhat will be worn.
- Do not drive over extension cords.
- Report broken windows on the checklist. Windows must be clean for good visibility.
- Back-up alarms must be in working order. Horns must be in working order.
- Flashers and hazard lights must be in working order.
- Wheeled tractors must have a Slow Moving Vehicle triangle mounted in visible location for traveling on public right-of-way.
- Mirrors are required. Keep mirrors clean. If mirrors are inadequate, note on the checklist.
- Do not check for hydraulic leaks with your hand. Use a piece of cardboard or paper. High-pressure leaks can cut your fingers off.
- Do not get under the elevated loader or bucket without securing the safety supports.
- Set the Parking Brake whenever you get off the machine. Lower the front bucket also.
- If a bucket must be left up to do not leave the machine

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- unattended. OSHA says the operator must be within 25'.
- o. When employees get within the swing radius of the boom/bucket, lower and contact the ground to prevent unintentional boom/bucket movement.
- p. Do not operate the boom/bucket when employees are within swing radius. This is common of laborers when digging around; you may have to get out and explain this to them.
- q. Have employees operating compactors and rollers face the area your operating in. They need to see you.
- r. Do not lift loads using the teeth. Connect the load to a lifting eye or around a bucket pivot pin.
- s. When using backhoe or excavator for demolition, attachment operation or stressful operation close the rear or front window to protect operator. Expanded metal screen can also be used

#### **Specific to Excavators**

- a. Overhead power lines must be insulated if the excavator boom can get within 10'. Many fatalities have occurred because the operators did not take this seriously.
- b. Counterweight swing radius has crushed many employees. When working in tight spaces barricade the swing radius. Have a quick safety meeting with employees working or passing through the area. Your Foreman will support this.
- c. Load Charts are to be in every excavator. Know the difference between the English and Metric chart values.
- d. If you run both backhoes and excavators on your job, ask your Foremen to have the excavator controls altered to match the backhoe. Many fatalities have occurred when operators have switched from one tractor to the other and the controls were opposite. Your Foreman will report this to the Superintendent who can have it corrected.

#### **Specific to Backhoes**

- a. When driving a tractor equipped with left and right brakes pedals connect both pedals for driving. This way a quick stop won't let the tractor lurch to one side.
- b. Engage the Boom lock for loader operations.
- c. Do not lift or hoist loads with the boom lock engaged. If it

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- of the spots and our marks. These marks are known as "offset marks".
- e. Only allow hand digging between our marks. Equipment operators and other employees who violate this hand-digging zone may be subject to termination.

#### **36.2.3 Operator Underground Utilities Rules**

- a. Do not dig or remove earth in an area that may have underground utilities without review of the area by the supervising Superintendent.
- b. Roads, alleys, overhead power lines, driveways, homes, businesses and sidewalks all indicate the presence of underground utilities. Colored metal markers usually mark fields and open lots having underground utilities. Do not dig in these areas unless the utilities have been called and the locators have conducted spotting.
- c. If spots for lines are on concrete and asphalt and are removed then the lines must be re-spotted. Stop and wait for re-spots. Following this rule has saved BSC tens of thousands of dollars.
- d. Do not dig unless photographs have been taken of the line spots and the offset marks.
- e. Do not dig within 24" of the spot marks with excavating equipment. Be sure the offset marks are not disturbed while excavating.
- f. Support underground utilities and their structures (phone boxes, telephone poles) before digging beneath.
- g. Operator must not violate any practice or procedure in Safety Directive 36.2 Underground Utilities Protection.

#### **36.3.1 Excavations**

Excavations account for many fatalities in construction or permanent disabling injuries. Employees may die in the excavation from inhaling dirt, being crushed and suffocated, and even if rescued suffer crippling muscular and skeletal injuries and suffer postponed death from "Crushing Syndrome," where vital organs fail over a matter days when deprived of oxygen while being buried.

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breaks it can kill the operator or adjacent employees.

#### **Specific to Scrapers**

- a. Stay on designated haul roads when not loading or unloading.
- b. Maintain a sufficient distance between scrapers on haul roads to stop safely.
- c. Slow down and check for traffic when crossing roads.
- d. Obey Flag Person's directions.
- e. Stay on machine unless in designated area. See your Foreman.

#### **36.2 Operators Underground Utilities Protection**

##### **36.2.1 Purpose**

Protection of underground utilities is of vital importance to BSC. Underground utilities are gas lines, electric lines, water, storm and sanitary sewer pipelines and communication lines such as telephone, fiber optic and cable television. These lines are the property of the utilities owners or the property owner. They are obstacles to be worked around or removed and replaced. Other than cable television lines, all lines are considered as safety issues.

##### **36.2.2 Procedure**

The statute governing underground utilities is clear. Contractors must call for spots and powered excavating equipment must not dig within 24" of the spotted lines.

Therefore:

- a. Spots must be called for. Document in the Daily Log or other appropriate place the call time, date and name of person receiving the call.
- b. Meet with them and have them place flags if on dirt in addition to paint.
- c. Copy their sketch or plans of the utilities buried. Have them sign the copy clearly.
- d. Using a tape measure, measure 24" on each side of their spot marks and mark with WHITE paint. Take photographs

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Unsafe excavations are entirely preventable. All excavations are designed and constructed by employers and their employees and how safe that excavation is dependent on the employer and the employee. BSC wants all excavations to be safe for employees and in compliance with OSHA's Excavation Standard. BSC provides excavation training, inspections, design and soil classification through its Safety Department.

Equipment Operators are the employees who construct excavations. Excavations are tricky to construct safely. Frequently employees working in excavations have little input into their design and shape. Operators have a tremendous amount of control over the excavations. Although the ultimate responsibility of safe excavations lies with the Superintendent, the Superintendents don't observe each foot of an excavation as it is constructed. In addition, compliance with OSHA Excavation regulations must be maintained on BSC job sites.

#### **36.3.2 Excavation Rules**

- a. Soils must be classified by visual and manual tests (including the thumb test) or are considered Type C Soils and will be excavated to Type C soil sloping requirements.
- b. Type C Soil cannot have benches greater than 2' high.
- c. Vertical walls greater than 5' high in trenches, excavations or spoil piles are prohibited.
- d. Unsafe excavations on BSC sites need to be corrected if any employees are exposed or will be exposed to cave-ins or collapsing spoil piles.
- e. Spoil piles will be set back 2' or more from the edge of all excavations.
- f. Do not let employees in an excavation unless they have a ladder or you have constructed a ramp they can walk up and down.
- g. Do not let employees get under loads that are handled by lifting or digging equipment. Use taglines on suspended loads that employees will guide or direct.
- h. Do not allow employees to work in the excavation above other employees unless the lower level employees are

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- adequately protected.
- While the excavation is open, underground installations are to be protected, supported, or removed as necessary to safeguard employees. Adjacent structures are to be supported to prevent possible collapse.
  - Operators must construct diversion ditches, dikes or other means to prevent surface water from entering an excavation and to provide drainage to the adjacent area.
  - Do not let employees work in excavations where water has accumulated or is accumulating unless adequate precautions have been taken.
  - Operator must not violate any part of 36.3 Appendix A of Safe Equipment Operators Passport EXCAVATIONS Rules.

### 36.3 Appendix A

Note: This appendix is only for excavations using sloping and benching to prevent cave-ins. Shoring, shields, trench boxes or a combination of these will be designed and approved of by the Supervising Superintendent and the Safety Director.

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### Soil Types

**Type A** is composed chiefly of clay and can be sloped from 54° or 3/4 to 1 from horizontal (9 inches for every 1 foot of depth). Caliche is frequently Type A.

**Type B** is composed chiefly of silt or loam and can be sloped from 45° or 1 to 1 from horizontal (1 foot for every 1 foot of depth).

**Type C** Soils are composed chiefly of sand and gravel and must be sloped 34° or 1 1/2 to 1 from horizontal (1.5 feet for every 1 foot of depth).

### MAXIMUM ALLOWABLE SLOPES

SOIL OR ROCK TYPE SLOPES	MAXIMUM ALLOWABLE (H:V)(*) FOR   EXCAVATIONS LESS THAN 20 FEET DEEP (**)
STABLE ROCK	VERTICAL (90 Deg.)
TYPE A	3/4:1 (53 Deg.)
TYPE B	1:1 (45 Deg.)
TYPE C	1 1/2:1 (34 Deg.)

\* Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.

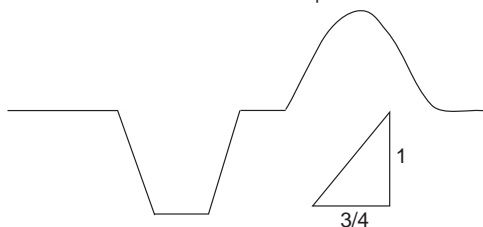
\*\* Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

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### Slope Configurations

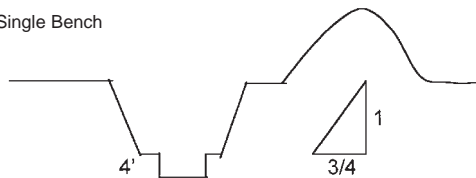
#### Excavations made in Type A Soil

- All simple slope excavation 20 feet or less in depth in Type A soil shall have a maximum allowable slope of 3/4 to 1.

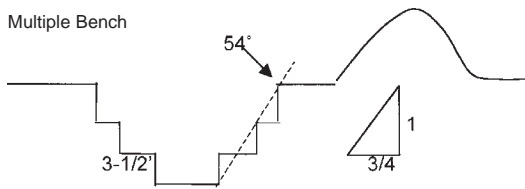


- All benched excavations 20 feet or less in depth in Type A soil shall have a maximum allowable slope of 3/4 to 1 and maximum bench height of 4 feet:

#### Single Bench

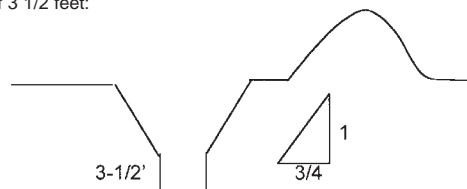


#### Multiple Bench

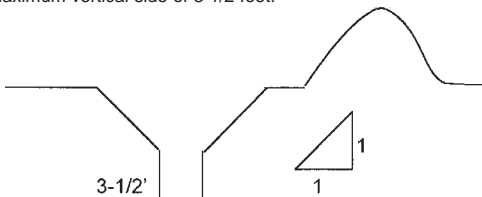


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- All excavations in Type A Soil 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum allowable slope of 3/4:1 and a maximum vertical side of 3 1/2 feet:

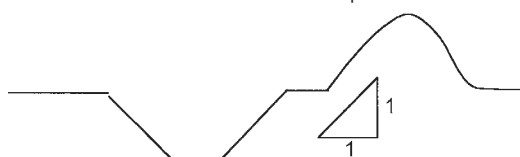


- All excavations in Type A soil more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3 1/2 feet:



#### Excavations Made in Type B Soil

- All simple slope excavations 20 feet or less in depth in Type B soil shall have a maximum allowable slope of 1:1:

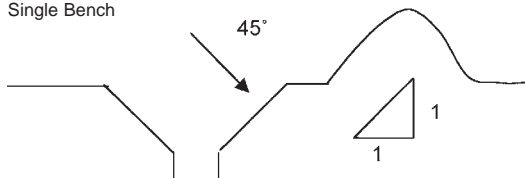


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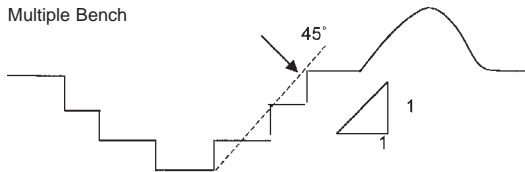


6. All benched excavations 20 feet or less in depth in Type B soil shall have a maximum allowable slope of 1:1 and maximum bench dimensions as follows:

Single Bench

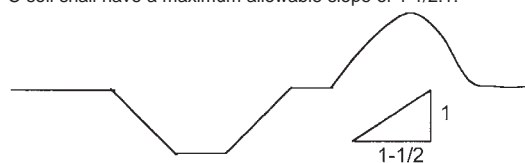


Multiple Bench



#### Excavations Made in Type C Soil

7. All simple slope excavations 20 feet or less in depth in Type C soil shall have a maximum allowable slope of 1 1/2:1:



8. Benches higher than 2 feet are not allowed in Type C Soil.

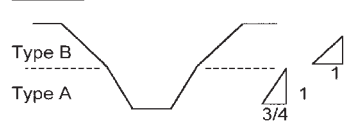
9. All previously disturbed dirt is classified as Type C Soil.

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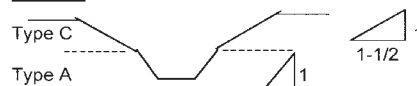
#### Layered Soil Sloping Configurations

10. Type A soils (clay and adobe) are frequently found on top of Type C soils (sand and gravel). Many fatalities occurred because the Type C soil beneath collapsed causing the Type A soil to crush to death an employee. Follow the sloping rules for Layered Soils:

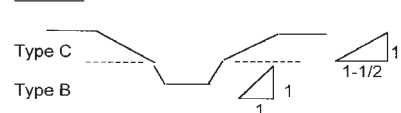
B over A



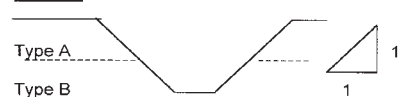
C over A



C over B



A over B



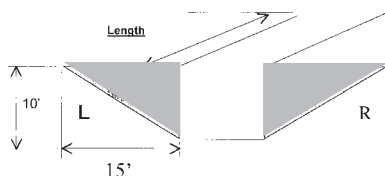
27

A over C and B over C



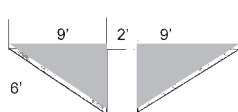
#### 36.3 Appendix B

Formulas, Data and Useful Information



Type C Sloping Requires so much soil removal these Excavations are rarely in compliance with 1926.652

If an excavation 6 feet deep X 2 feet wide in Type C soil has to be sloped, it has to be sloped 9 feet on each side.



$(9 \times 6) + (2 \times 6) = 27 = \text{Yards to move per foot of excavation length.}$   
 $54 \div 12 \div 27 = 2.4 \text{ yds/foot.}$

So, to make one foot of progress, 2.4 yards have to be removed. The Backhoe cycle time given is .40 yards per minute. By dividing 2.4 yards by .40 = 6 minutes per foot. If the trench is 10 feet long it is  $10 \times 6 = 60$  minutes or about an hour to correctly dig a safe excavation. And this is only if every cycle is within 30 seconds. By the time you account for machine movement, hard digging and other variables this time should be doubled or tripled.

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#### Bucket Fill Factor Table

Material	Fill Factor*
Moist Loam or Sandy Clay	100%
Sand and Gravel	95%
Hard Tough Clay	80%
Rock-Well Blasted	60%
Rock-Poorly Blasted	40%
Broken Concrete	30%

#### Cycle Times and Bucket Capacities

Front loader, backhoe buckets and excavator hold different amounts of materials depending on the material itself. Bucket capacities are typically measured two ways: struck capacity and heaped bucket capacity.

- Struck capacity refers to a bucket filled to level, whereas heaped capacity is a bucket filled with a heaping load.
- Heaped Capacity is the more useful measurement and varies depending on the material. This is called the Bucket Fill Factor. To determine the average bucket payload the Heaped Capacity is multiplied by the Bucket Fill Factor (See Table) as in the formula below:

Using a Cat standard duty 24" backhoe bucket with a heaped capacity of 7 cu feet and a bucket Fill Factor of 80%

$$7 \text{ cu ft} \times 80\% = \text{Average Bucket Payload}$$

$$7 \times .80 = 5.6 \text{ cubic feet of material per cycle}$$

If a backhoe can make a complete cycle in 30 seconds every minute it can move 11 cubic feet of earth:

$$30 \times 2 = 60 \text{ sec or 1 minute so } 5.6 \text{ cubic feet} \times 2 = 11 \text{ cubic foot per minute}$$

$$\text{If this number is divided by 27 it gives the yards / minute: } 11 \div 27 = .4 \text{ yards per minute.}$$

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### 37. Equipment Operators Passport FORKLIFTS

#### 37.1 Inspection and Maintenance

The forklift to be operated must be inspected prior to use and can be used only if the following conditions have passed inspection:

- The forks and backrest must be securely mounted.
- Look under the forklift and take note of any loose hardware or excessive leaks. The steering linkage should be tight and well greased.
- Look at the engine. Take note of loose or worn belts.
- Make sure all covers, guards and inspection cover plates are secured properly.
- Check the oil level, fuel level, hydraulic fluid level, radiator coolant level, battery acid level and hydraulic brake fluid level.
- Note the tire condition and inflation. The tires should have proper inflation as recommended by the manufacturer, since the forklift's stability can be directly affected. Check owner/operator's manual for ballast filled tire maintenance.
- Inspect the hydraulic and brake lines. These lines often show signs of excessive wear before they break.
- Use a piece of cardboard to inspect for leaks. Never use bare hands to check for hydraulic leaks.
- If pressurized hydraulic fluid has penetrated your skin, seek medical attention immediately. Hydraulic fluid, injected into the skin, can cause gangrene. Wear eye protection when operating and inspecting forklifts.
- Check to make sure the overhead guard is secure.
- Check brake lights and turn signals, if so equipped.
- Check the back-up alarm.
- If conditions call for use of headlights, check them.
- You must check the operator's manual for the specific inspection procedures for your specific forklift. Many forklifts are different from each other and general inspection guidelines may not be sufficient. The operator's manual will instruct operators on proper inspection techniques and maintenance procedures.
- Check to see if the load chart is in the forklift.

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practices.

#### Forward Tipping

- Use only two-wheel steering when traveling at higher speed to prevent turnovers.
- Do not extend the load too far forward.
- Do not pick up loads too heavy for the machine.
- Anticipate changes to forward momentum: avoid sudden stopping.

#### Side Tipping

- Do not raise loads while the machine is on uneven ground.
- Machines with self level feature must be leveled prior to raising loads.
- Control momentum (especially when turning the machine with a raised load) – it is the Number One cause of machines overturning!
- Do not drive into holes or on soft ground.
- Re-level the machine after adjusting for a side hill when traveling.
- Do not travel with raised load that can swing or shift.

#### Outriggers

Outriggers widen the stability triangle when they are set on the ground.

- Be very careful when reading load charts for forklifts equipped with outriggers – they can drastically affect the amount of weight that can be safely lifted.

#### Backward Tipping

Elevated loads place more weight on the rear axle of the forklift, especially with the mast tilted back or boom retracted. Any pivoting action of the frame tilt or rear wheels can shift that weight to the forklift's most vulnerable point. Loss of braking power or traction at the front wheels causes the machine to run out of control.

- Do not back down a hill with a load elevated too high.

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### 37.2 Controls and Operations

BSC Forklift Training is general in nature for telescopic boom rough terrain forklifts. Supervising Superintendents and Operators and must become familiar with each machine's capacities and limits.

- Do not operate forklifts with known mechanical defects.
- Do not travel on unsafe routes such as next to excavation edges, soft ground, holes, in public right-of-way, near overhead power lines, etc.
- Do not carry unsafe loads such as loads that may swing or slide taking the forklift beyond its center of gravity.
- Do not use unsafe operating techniques such as starting and stopping quickly, not using horn properly, etc.
- The Operator is responsible for the safe condition and operation of his machine.
- Never operate a forklift from anywhere other than the operator's seat and never allow riders on the forks, frame, etc.
- Use grab rails when mounting and dismounting machine. Don't grab levers to pull yourself up.
- Never reach through potential pinch points.
- Beware of loose clothing, harnesses and lanyards, long hair around moving or rotating parts (fans, pulleys, belts).
- Keep all body parts inside the operator's compartment and WEAR YOUR SEATBELT.
- Wear your hard hat to prevent injury from smaller objects penetrating the overhead protective structure. Hard hats may save your life in the event of a turnover.
- Eye protection is required for windy, dusty conditions or when placing loads overhead.
- Use extreme caution when adjusting forks. Tilt forks forward to relieve the weight. Wear gloves and keep fingers from between pinch points.
- Space forks at their maximum width that will safely lift the load.
- "Feather" the load when starting and stopping, raising and lowering.
- Turnovers can be avoided by adhering to the following

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#### Driving on Inclines

- Unloaded forklifts should always be driven forward down an incline.
- Forklifts, whether they are loaded or unloaded, should not be driven up or down very steep inclines.
- Loaded forklifts should always keep the load on the uphill side whether driving up or down a hill for stability and traction.
  - Drive forward up a hill with a load.
  - Back down a hill with a loaded forklift.
  - Keep load uphill when driving on steep inclines.

#### Stacking/Unstacking Loads

- Make sure all loads are well centered and stable.
- Use proper feathering techniques to ensure that the forks or the vehicle itself does not bump the stacks.

#### Load Capacities

Forklift capacity charts show the amount of weight that can be safely carried, how high, and how far in front of the front axle the load can be extended.

- Extendable boom forklift load charts must contain at least the following information:
  - Weights that can be lifted.
  - Full range of boom extensions.
  - Angles of operation.
- Do not extend boom with load beyond chart.
- Do not operate forklifts without readable load charts.
- Do not operate, carry or lift loads beyond the load chart capacity. Some load charts are very complex and may be somewhat difficult to read.
- Make sure you understand all of its information before you operate the machine.
- Be aware of outrigger and ballast filled tire requirements for certain load charts.
- Be sure that you are reading the right load chart for your forklift's conditions.

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**Forklift Attachments**

Some telescopic boom machines offer attachments that effectively transform the forklift into a crane, excavator, or specialized material-handling piece of equipment. These attachments alter the machine's rated capacities as a forklift making the existing load chart inaccurate.

- a. BSC Safety Director must approve job-made forklift attachments.
- b. Load Chart for Attachments must be developed and used for attachments.
  - Attachments can change the lifting capacities of a forklift.
  - Be aware of the changes and refer to your new load chart.

**Parking or Leaving the Machine**

- a. Park out of traffic lanes
- b. Park on level ground, if possible
- c. Do not park in deep mud or water, especially in freezing weather.
- d. Lower the forks.
- e. If the forks must be left elevated do not leave the machine unattended. OSHA says the operator must be within 25 feet.
- f. Neutralize all controls.
- g. Set the parking brake.
- h. Turn off the engine.
- i. Block the wheels if the forklift is on an incline.

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## EQUIPMENT OPERATOR CERTIFICATION PAGE

### EXCAVATION OPERATORS

\_\_\_\_\_,  
has completed Bradbury Stamm Construction's  
Excavator Operator Passport Training and has earned a  
passing score on the test over the training material.

\_\_\_\_\_  
Trainer\_\_\_\_\_  
Date\_\_\_\_\_  
Employee\_\_\_\_\_  
Date\_\_\_\_\_  
Superintendent\_\_\_\_\_  
Date

**\*This certificate is valid for a 1-year  
period from the date above.**

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### FORKLIFT OPERATOR – ALL BSC

\_\_\_\_\_,  
has completed Bradbury Stamm Construction's Forklift  
Operator Passport Training and has earned a passing  
score on the test over the training material.

\_\_\_\_\_  
Trainer\_\_\_\_\_  
Date\_\_\_\_\_  
Employee\_\_\_\_\_  
Date\_\_\_\_\_  
Superintendent\_\_\_\_\_  
Date

**\*This certificate is valid for a 1-year  
period from the date above.**

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### FORKLIFT OPERATOR – JOB SPECIFIC

\_\_\_\_\_,  
passed a driving skills proficiency exam given by his/her  
jobsite Superintendent and can operate a forklift on this  
jobsite.

\_\_\_\_\_  
Employee\_\_\_\_\_  
Date\_\_\_\_\_  
Superintendent\_\_\_\_\_  
Date\_\_\_\_\_  
Jobsite

**\*This certificate is valid for a 1-year  
period from the date above.**

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## Silica Exposure Log

**Trained by Competent Person - Name:**

Date:

[illegible]

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EMPLOYEE NAME

If you have questions about this document or the Bradbury Stamm Construction Safety Passport Program, contact:

Safety Director, Bradbury Stamm Construction, Inc.  
505.765.1200

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## Silica Exposure Log

**Trained by Competent Person - Name:**

Date:

[illegible]

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