

SAFETY PROGRAM

1. POLICY

It is the policy of Scott K. Miller Enterprises (SKM) to maintain safe working conditions, as free from hazard as is possible and to comply affirmatively with all applicable federal, state and local safety regulations.

Each project is responsible for accident prevention within its job area. The prevention of accidents and the concept of loss control are primary responsibilities of all those who supervise others in the performance of their work. Providing safety equipment and devices is not an end. Supervision must be constantly alert to see that they are properly used and that safe working practices are followed.

In addition, every employee has a responsibility to himself, his fellow workers and to practice the safety standards that have been established in the mutual interest of the employee and the company. They must understand and accept concept that our employees are our most important asset and their safety must receive our prime support and participation.

2. CONTROL

The responsibility for safety is vested in line management with each level of management being accountable to its superior for safety performance.

A. The Safety Director, Is responsible for:

Establishing overall company safety policy-overseeing all jobs to assure strict adherence to all company safety requirements, maintaining control in assuring the uniform compliance of the safety program requirements are met.

B. The Job Superintendent is responsible for:

Coordination of the project safety program. Maintain an effective control so that the safety requirements are uniformly applied throughout the work site, with prompt action being taken on safety matters.

C. The Job Foreman is responsible for: (as assigned by Job Superintendent).

3. SITE SPECIFIC TRAINING

- A. Frequent regular inspections of the job site, materials and equipment must be conducted by a competent person to advise employees of work related hazards.
- B. A competent person is one who is able to recognize hazards and have the authority to take corrective action.
- C. Weekly tool box safety meetings must be held with all employees to familiarize them with site specific hazards associated in the workplace.

4. HOUSEKEEPING

- A. Good housekeeping must be in the primary concern of all employees. It should be planned at the beginning of the job, carefully supervised and followed to the final cleanup.
- B. Provide adequate and proper storage space for tools and materials.
- C. Maintain sufficient containers for waste material and place them so they can be used easily.

5. PERSONAL PROTECTION EQUIPMENT

- A. Personal protective equipment will be used when needed and its use must constantly enforced. This equipment is the best and most comfortable type available.
- B. Personal protective equipment provided is, but not limited to, hard hats, safety glasses, face shields, hearing protection and respirators.

6. FLAMMABLE AND COMBUSTIBLE LIQUIDS

- A. Store these liquids in approved containers in well ventilated areas away from heat and sparks.
- B. Be sure all containers for flammable and combustible liquids are clearly labeled to indicate their purpose.

7. ELECTRICITY

- A. Check for frayed insulation and damaged plugs on power cords or extension cords and damp or wet wires.
- B. A cord that is warm to the touch when current is passing through should warn you of a possible overload or hidden damage.
- C. Ensure that all 120 volt single phase 15 and 20 amp receptacle outlets on construction site which are not part of the permanent wiring of the building or structure and which are in use by employees shall have approved GFCI ground fault circuit interrupters or an assured equipment grounding conductor program. Note: See 1926.404 (B) (iii) for requirements for assured equipment grounding program.
- D. Check extension cords to ensure ground pins are not broken off.

8. HEAD PROTECTION

Employees working in areas where there is a possible danger of head injury from impact, or from falling of flying objects, or from electrical shock and burns, shall be protected by protective helmets.

9. LIFTING

In order to prevent injury as a result of unsafe lifting practices the following will be strictly adhered to at all times:

- A. When lifting heavy materials:
 - a. Stand with secure footing directly in front of object to be lifted.
 - b. Bend the knees and keep the back erect, use legs to lift heavy material.
 - c. Take a firm grip on the
 - d. Do not attempt to lift beyond your normal physical capability. Obtain help, if necessary, to lift or handle heavy or cumbersome objects.
 - e. Lift with your legs not your back.

B. When two or more employees handle heavy or bulky materials or objects:

a. One employee shall be designated to give prearranged signals for all movements, which movements (lifting, carrying, dropping or placing) are to be made in unison. Teamwork is essential.

b. When practical, avoid walking backwards.

C. When carrying long material be aware of obstructions and persons nearby to avoid striking them. Allow plenty of room when following a person carrying a long tool or material.

D. Allowing material to rest in an insecure position, even for an instant, is prohibited.

E. Throwing or dropping material from moving or standing equipment without knowing that no one is in a position to be struck by it, is prohibited.

F. Place material on a substantial foundation, in an orderly manner, clear of the walkways.

10. LADDERS AND STAIRWAYS

A. GOVERNING CODES

...OSHA 29 cfr 1926.1050 THRU 1060

...ANSI

B. GENERAL

a. Employer is responsible for providing and installing safe access for employees.

b. A ladder stairway shall be provided to all personnel points of access where a break in elevation is 19 inches or more and other safe access (ramps, sloped walkway, etc.) do not exist.

c. Ladders and stairways shall be designed/approved for intended use.

- d. Use of spiral ladders which are not part of permanent building is not permitted.
- e. Where twenty-five or more employees use a ladder to access/exit work area, a double cleat ladder shall be provided affording simultaneous two way travel.
- f. Each point of access shall be kept clear of obstructions, blockage, trip or slip hazards.
- g. When portable ladders are used for access to an upper landing surface, the side rails must extend at least 3 feet above landing surface and be tied off to prevent slippage.
- h. Painting of ladders is not permitted, except for identification Purposes of SKM enterprises.
- i. Metal ladders shall not be used where exposure to electrical hazards exists.
- j. Ladders are to be inspected for damage/defects such as loose, missing, cracked, split side rails, rungs or steps or bent, loose or missing hardware.
- k. All labels, caution signs, etc., affixed to ladders shall be legible.
- l. Ladders are not to be tied or fastened together to extend ladder, unless designed to do so by the manufacturer.
- m. Ladders are to be stored in accordance with the manufacturers instructions.
- n. Ladders are not to be positioned at doors or in any area where they present a hazard to personnel, or are exposed to contact by vehicles/equipment or other items.
- o. Ladders are not to be installed in a manner which blocks an exit, at a stairway or hinders safe exit of personnel.
- p. Ladders are to be climbed using both hands while facing ladder, materials are to be hoisted by a rope or other means.

- q. Ladders shall not be installed in a horizontal position and used as a work platform or runway.
- r. Ladders shall be kept clear of oil, grease, mud or other slip hazards.
- s. Ladders are not be to moved, extended or shifted while occupied.
- t. Ends of handrails shall not protrude beyond post creating a hazard to personnel.
- u. Stairways shall contain one handrail and some stairway system along each unprotected edge.
- v. Stairways having metal pan type risers/platforms shall not be used for personnel access unless pans are filled with solid material to a height equal to the depth of the pan. Such solid material shall not present a hazard to personnel. Exception applied to employees actually installing such stairways where additional fall protection is used.

C. TRAINING

- a. The employer shall provide a training program for each employee using ladders and stairways, as necessary. The program shall:
 - Enable employees to recognize hazards.
 - Instruct employees in proper use.
 - Nature of fall hazards and use of fall protection devices equipment.
 - Proper construction use, care and maintenance of ladders and stairways and loading capabilities.
- b. Training shall be provided by a competent person.
- c. Restraining shall be performed to ensure employee maintains a knowledge of safe practices relating to ladders and stairways.

11. SCAFFOLDING

- A. No scaffold shall be erected, moved, dismantled, or altered except under the supervision of competent person.

B. Guardrails and toe-boards shall be installed on all open sides and ends of platforms more than 10 feet above the ground.

C. Guardrails shall be 2 by 4 inches or the equivalent, approximately 42 inches high, with a mid-rail, when required. Supports shall be at intervals not to exceed 8 feet.

D. All planking shall be scaffold grade or equivalent.

12. WALKING/WORKING SURFACES

A. GOVERNING CODES

...OSHA 29 CFR 1926.500 thru 503 (effective 2/5/95)

...ANSI A10.11 - Nets

...ANSI A10.14 – Safety Belts/Harnesses

B. DUTY TO HAVE FALL PROTECTION

a. Employer shall determine if walking/working surface is structurally sound and capable of supporting employees, including equipment/materials.

b. Employees on horizontal/vertical surfaces having unprotected edges which are six (6) feet above lower level shall be protected from falling through use of a guardrail system, safety net system or personal fall system, or any alternate system approved by OSHA.

c. Holes:

Employees on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 ft. above lower level (in accordance with “B” above).

d. Roofing work on low-sloped roofs:

Each employee engaged in roofing work on low-sloped roofs (a roof having a slope less than or equal to four in twelve) with unprotected sides and edges 6 ft. or more above lower levels shall be protected by a guardrail system, safety net system, personal fall arrest system or any alternate system approved by OSHA.

e. Steep Roofs

Each employee on a step roof with unprotected sides and edges 6 ft. or more above lower levels shall be protected by a guardrail system with toe-boards, safety net systems, or personal fall arrest systems or any alternate system approved by OSHA.

13. GUARDRAIL SYSTEM

A. GENERAL

- a. Must be capable of withstanding a force of 200 lbs., applied in a downward or outward direction.
- b. Top rail must be forty-two (42) inches off floor (finished floor) plus three (3) inches. NOTE: Use of stilts mandates height adjustment.
- c. Must be at least one-quarter (1/4) inch diameter/thickness and smooth, preventing laceration-where wire rope is used, it must be flagged with highly visible material every six (6) feet (max.).
- d. Can be of solid construction, 2x4 wire rope, manila or synthetic rope, providing testing is acceptable.

B. TOP RAIL

- a. 42 inches high + 3 inches.
- b. Smooth-free of defects which expose personnel to laceration/puncture type injury or catch clothing.
- c. Not to extend beyond post-unless hazard of injuring personnel does not exist.
- d. Capable of withstanding a force of 200 lbs., applied in a downward or outward direction. Permissible deflection = three (3) inches.

C. MID RAIL

- a. Required if parapet wall or other solid barrier does not exist.

- b. Installed between top rail and floor (at least 21 inches high).
- c. Capable of withstanding a force of 150 lbs., applied in a downward or outward direction.
- d. Constructed using same material as top rail.

D. SCREEN/MESH

- a. Required if there is no mid-rail or parapet/wall > 21" high.
- b. To extend from top rail to floor and from post to post along entire opening.

E. SAFETY NET SYSTEM

- a. To be of 6"x6" webbing (debris net having a smaller webbing is not for fall protection).
- b. Installed as close under the work area as possible, but not further than thirty (30) feet.
- c. Extend beyond protected area (outer most projection of the work surface) as follows:

Distance between work surface and horizontal plane of net

- < 5 feet
- < 10 feet
- > 10 feet

Minimum horizontal distance of outer edge of net from edge of work surface

- 8 feet
- 10 feet
- 13 feet

- d. Sufficient clearances between net and lower obstructions is to be maintained, preventing personnel from striking such obstructions.

e. Test weight of 400 lb bag of sand dropped into net from highest Walking/working surface is required.

Exception of drop test may be taken, provided proper certification Of installation is documented and on file at project.

Testing is to be performed after initial installation and before being Used as fall protection and after its recollection, major repair and at Six (6) month intervals (if left in one place).

f. To be inspected by a “competent person” at least weekly.

g. Damaged/defective nets are to be removed from service.

h. Nets are to be clear of debris/trash-removed as soon as possible, but before next shift.

i. Border rope to have a minimum breaking strength of 5,000 lbs.

j. Connections between panels to be as strong as net.

F. FALL PROTECTION PLAN (CRITERIA)

a. Only available (applicable) to Leading Edge, Precast Concrete or Residential Construction Work when it can be demonstrated that it is infeasible (impossible to perform construction work or technologically impossible) or creates a greater hazard to use conventional fall protection equipment.

a. Prepared by a qualified person; including changes.

c. Development specifically for the site and each location.

d. Copy of plan in site.

e. Implementation under supervision of “Competent Person.”

f. Shall document why conventional fall protection system cannot be used (infeasible or greater hazard).

g. Shall contain a written discussion of other measures to be taken to reduce/eliminate fall hazards-use of ladders, platforms, scaffolds,

elevating equipment, etc.

h. Area(s) where Fall Protection Plan is in use shall be classified as "Controlled Access Zone."

Defined by control line or approved equivalent.

Control line to be not less than six (6) feet or more than twenty-five (25) feet from leading edge. For precast concrete work, zone must be not less than six (6) feet, nor more than six (6) feet from leading edge or half the length of the member being erected.

Control line must extend the entire length of unprotected edge and parallel to edge.

Shall be connected on each side to a guardrail system or wall.

i. Fall Protection Plan must include a statement providing the name or other method of identifying employees designated to work in Controlled Access Zone-only those specified are permitted in zone.

j. Where other alternatives are not implemented, employer must institute a safety monitoring system.

G. SAFETY MONITORING SYSTEM

a. To incorporate criteria specified in "Fall Protection Plan".

b. Competent person to monitor workers

Capable of recognizing fall hazard potentials.

Warn employees upon recognition of a fall hazard or when

Unsafe practices are observed.

Shall be on same walking/working surface as activity, and within visual distance of employees being monitored and close enough to relay information orally.

Shall have no other duties/responsibilities which prevent constant attention to activity.

H. FLOOR HOLE COVERS

1. ROADWAYS

- a. Capable of supporting twice the maximum axle load of the largest vehicle expected to cross over cover.
- b. Cover is to be adequately secured against accidental displacement.
- c. Should include non-slip surface and beveled edges/build up sides.

2. WALKWAYS, FLOORS, ROOFS

- a. Capable of supporting twice the weight employees/ anticipated loading whichever is greater.
- b. To be secured against displacement.
- c. To be identified by color code or the words "HOLE COVER".

I. WARNING LINE SYSTEM

- a. Erected on all sides of roof work area.
- b. Installed six (6) feet from edge of roof, where mechanical equipment is not used. Where mechanical equipment is used warning line is to be installed six (6) feet from roof edge parallel to direction of equipment operation and ten (10) feet to perpendicular to direction of mechanical equipment operation.
- c. Point of access and hoist areas to be protected by barrier and access formed by two (2) warning lines-access path to be closed when not in use by chain, rope, etc.
- d. To consist of rope, chain, wires supported on stanchions:

To be flagged at not more than six (6) intervals with highly Visible material.

Lowest point if not to exceed thirty-four (34) inches.

Highest point is not to be more than thirty-nine (39) inches.

Capable of resisting a force of sixteen (16) pounds without tipping.

Rope, chain, etc., to have minimum tensile strength of 500 lbs. after attachment.

Attached to stanchion in a method that prevents slackening of line if pulled before stanchion tips over.

e. Only employees performing roof work are permitted in area.

J. POSITIONING DEVICE (BODY BELT-SAFETY BELT)

a. Rigged so that free-fall is not more than two (2) feet.

b. Anchorage is to support at least twice the impact load of employees or 3,000 lbs. whichever is greater.

c. Connectors to be approved type-effective January 1998, only locking type snap-locks are permitted.

d. Positioning device is to be inspected prior to each day's use.

e. Only approved fall protection equipment is to be used.

f. Snap-hooks are to be compatible to object they are connected to such as webbing, rope, wire rope, each other, to a Dee-Ring which another snap-hook is attached, horizontal life-line, etc.

K. FALLING OBJECTS

a. Suitable methods are to be employed, preventing personnel from being struck by falling objects.

Toe boards

Screen or mesh or solid wall

Debris are to be kept clear of edge of work area

Canopies or other approved overhead protection (capable of Withstanding force).

Storage of materials:

Height (above toe board-solid material/screen required between

Top rail and toe board).

Distance from edge:

Bricklaying-store material >4 ft. from edge

Roofing work-store material >6 ft. from edge

NOTE: Materials grouped/stacked near a roof edge shall be stable and self-supporting.

Guardrails are not to contain openings which allow items to pass through.

14. PERSONAL FALL ARREST SYSTEMS

A. GENERAL

- a. Effective 1/1/98 body (safety) belts will no longer be acceptable as fall arrest protection-may only be used as a positioning device.
- b. Effective 1/1/98 only lock type snap-hooks shall be used.
- c. Fall protection devices shall be approved for intended use and tested where required. System and accessories shall be compatible.

B. HORIZONTAL/VERTICAL LIFELINES/LANYARDS

- a. Designed, installed and used under the supervision of a qualified person, as part of a Fall Arrest System.
- b. Maintain a safety factor of two (2) horizontal lifeline.
- c. Lanyards and vertical lifelines shall have minimum breaking strength of 5,000 lbs. One lifeline-one employee (except elevator shaft erection work)
Independent of suspended scaffold
- d. Lifelines, lanyards are to be protected from damage, such as abrasion or cutting.
- e. In cases where horizontal lifelines can become vertical lifelines, the devices used to connect to lifeline shall be capable of locking in any

direction.

C. ANCHORAGE POINT

- a. Shall be independent and capable of supporting at least 5,000 lbs./employee.
- b. Designed, installed and used as part of a complete fall arrest system, maintaining a safety factor of two (2).
- c. When stopping (arresting) a fall have the following factors:

Body belt use-maximum force to employees=900 lbs.

Body harness use-maximum force to employee=1800 lbs.

D. RETRACTABLE LIFELINE

- a. Limit free-fall to not greater than two (2) feet.
- b. Inspected/tested per manufacturer.
- c. Prevent swing-type injuries.
- d. Mounted directly overhead.
- e. Proper anchorage required.