Fall Protection Policy

Fall Protection

Policy

Global Link employees working 1.8 meters or more above a lower level shall be protected from fall hazards and falling objects in accordance with this policy.

Scope

The following systems and procedures have been designed to prevent employees from falling off, onto or through working levels. *Areas covered by this policy include, but are not limited to:*

Controlled access zones:

- Ramps, runways and other walkways
- Holes
- Leading edge work
- Unprotected sides and edges
- Roofing work
- Wall openings
- Other walking/working surfaces

Authority and Responsibility

Environmental Health and Safety is responsible for:

- Developing, implementing and updating the University's Fall Protection program
- Reporting all questionable conditions discovered to the responsible department
- Inspecting all building specific equipment quarterly
- Coordinating outside contractors for the inspection and certification of the Administration Building system
- Providing fall protection training

Departments affected by this policy are responsible for:

- Ensuring all affected employees are trained in fall protection

- Ensuring all affected employees follow the described practices within this policy
- Purchasing all appropriate fall protection equipment and related safety devices
- Contacting Environmental Health and Safety for access to the Administration Building roof
- Ensuring all inspection and maintenance practices for fall protection equipment are followed in accordance with this policy.
- Employees are responsible for complying with the practices within the Fall Protection Policy.

General Requirements

This standard, 10085 OSACT and SANS, describes the duty to provide fall protection, sets the criteria and practices for all fall protection systems and the required training. It covers hazard assessment, fall protection and safety monitoring systems. Also addressed, are controlled access zones and

Guardrails, personal fall arrest, warning line system and positioning device systems

Controlled Access Zones

Controlled access zones, when created to limit entrance to areas where leading edge work and other operations are taking place, shall be defined by a controlling line or other means that restricts access. Control lines shall consist of ropes, wires, tapes or equivalent material, supporting stanchions and each shall:

- Be flagged or otherwise clearly marked at not more than six foot intervals with high visibility material;
- Be rigged and supported in such a way that the lowest point (including sag) is not less than 99 centimetres from the walking/working surface and the highest point is not more than 127 centimetres
- Be strong enough to sustain stress of not less than 90 kilograms;
- Extend along the entire length of the unprotected leading edge and shall be parallel to the unprotected or leading edge
- Be connected on each side to a guardrail system or wall.

When control lines are used they shall be erected not less than 1.8 meters and no more than 7.5 meters from the unprotected or leading edge, except when precast concrete members are being erected. In the latter case, the control line shall be erected not less than 1.8 meters and no more than 18 meters or half the length of the member being erected, whichever is less, from the leading edge.

Controlled access zones when used to determine access to areas where overhand plastering and related works are taking place shall be defined by a control line erected not less than 3 meters and

no more than 4.5 meters from the working edge. Additional control lines shall be erected at each end to enclose the controlled access zone. Only employees engaged in overhand bricklaying or related works are permitted in these zones.

On floors and roofs where guardrail systems are not in place prior to the start of overhand bricklaying operations, controlled access zones shall be enlarged as necessary to enclose all points of access, material handling areas and storage areas.

On floors and roofs where guardrail systems are in place, but need to be removed to allow leading edge work to take place, only the portion of the guardrail necessary to accomplish that day's work shall be removed.

Excavations

Each employee at the edge of an excavation 1.8 meters deep or more shall be protected from falling by a guardrail system, fence barricade or cover. Where walkways are provided to permit employees to cross over excavations, guardrails are required on the walkway.

Guardrail Systems

If a guardrail system is used to protect employees from falls, the system shall meet the following criteria:

- Toprails and midrails of guardrail systems shall be at least 0.5 centimetres;
- If wire rope is used for toprails, it shall be marked every 1.8 meters with highly visible material
- Steel or plastic banding material shall not be used as toprails or midrails
- Manila, plastic or synthetic rope used for toprails or midrails shall be inspected frequently to ensure strength and stability
- The top edge height of toprails or guardrails shall be 105 centimetres plus or minus 10 centimetres above the walking level
- When workers are using stilts, the top edge height of the top rail or equivalent shall be increased equal to the height of the stilts

- Screens, midrails, mesh, intermediate vertical members or equivalent intermediate structural members shall be installed between the top edge of the guardrail system and the walking/working surface when there are no walls or parapet walls at least 53 centimetres high
- When midrails are used, they shall be installed at a height midway between the top edge of the guardrail system and the walking/working level
- When screens and mesh are used they shall extend from the toprail to the walking/working level and along the entire opening between toprail supports
- Intermediate members, such as balusters, when used between posts, shall not be more than 45 centimetres apart

- Other structural members, such as additional midrails and panels, shall be installed so that there are no openings larger than 45 centimetres
- The guardrail system shall be capable of withstanding a force of at least 90 kilograms
- Midrails, screens, mesh, intermediate vertical members, solid panels and equivalent structural members shall be capable of withstanding a force of at least 70 kilograms
- Guardrail systems shall have smooth surfaces to protect employees from punctures or lacerations and prevent clothing from snagging
- The ends of toprails and midrails shall not overhang terminal posts, except where such overhang does not constitute a projection hazard
- A chain gate or removable guardrail section shall be placed across the access opening between guardrail sections when hoisting operations are not taking place
- At holes, 1.8 meters or more in depth, guardrail systems shall be set up on all unprotected sides or edges and all holes shall be covered when not in use
- Guardrail systems with a gate shall be used around holes that are access points to prevent employees from falling into these holes
- If guardrail systems are used at the sides or edges of ramps and runways, they shall be erected on each side or edge

Personal Fall Arrest Systems

(The use of a body belt for fall protection is prohibited)

All personal fall arrest systems shall be inspected by the user prior to each use. The inspection shall include examination for wear, damage and other deterioration. If during the inspection the user discovers defects or damage, the user shall immediately remove the component from service.

Dee-rings and snap-hooks shall have a minimum tensile strength of 2,200 kilograms without cracking, breaking or suffering permanent deformation. Snaphooks shall be sized to be compatible with the member to which they will be connected, or shall be of a locking configuration.

Snaphooks that are not of the locking type and designed for the following connections shall not be engaged directly to:

- Webbing, rope or wire rope
- To each other
- To a dee-ring to which another snaphook or other connector is attached
- To a horizontal lifeline
- To any object incompatible in shape or dimension relative to the snaphook, thereby causing the connected object to depress the snaphook keeper and release unintentionally

- A hook is considered to be compatible when the diameter of the dee-ring to which the snaphook is greater than the inside length of the snaphook when measured from the bottom (hinged-end) of the snaphook keeper to the inside curve of the top of the snaphook. Thus, no matter how the dee-ring is positioned or moved with the snaphook attached, the dee-ring cannot touch the outside of the keeper, thus depressing it open. The use of non-locking dee-rings is prohibited.

On suspended scaffolds or similar work platforms with horizontal lifelines that may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.

Horizontal lifelines shall be designed, installed and used under the supervision of a qualified person, as part of a complete fall arrest system that maintains a safety factor of at least two. Lifelines shall be protected against being cut or abraded.

Self-retracting lifelines and lanyards that automatically limit free fall distance to two feet or less shall be capable of sustaining a minimum tensile load of 1,400 kilograms applied to the device with the lifeline or lanyard in the fully extended position.

Self-retracting lifelines and lanyards that do not limit free fall distance to two feet or less, ripstitch lanyards, and tearing and deforming lanyards shall be capable of sustaining a minimum tensile load of 2,200 kilograms applied to the device with the lifeline or lanyard in the fully extended position.

Ropes and straps used in lanyards, lifelines and strength components of body belts and body harnesses shall be made of synthetic fibres.

Anchorage shall be designed, installed and used under the supervision of a qualified person. Anchorage used to attach personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms and shall be capable of supporting at least 2,200 kilograms per person attached.

Lanyard and vertical lifelines shall have a minimum breaking strength of 2,200 kilograms

Personal Positioning Device

Body harness systems shall be set up so that a worker can free fall no more than 0.6 meters. All belts or harnesses shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 1,400 kilograms, whichever is greater.

Warning Line Systems

Warning line systems used on roofs shall consist of ropes, wires or chains, and supporting stanchions. *The warning lines shall be constructed as follows:*

- Flagged at not more than1.8 meters intervals with high visibility material
- Rigged and supported so that the lowest point including sag is no less than 90 centimetres from the walking/working surface and its highest point is no more than 100 centimetres from the walking/working surface
- Stanchions, after being rigged with warning lines, shall be capable of resisting, without tipping over, a force of at least 7 kilograms applied horizontally against the stanchion, 70 centimetres above the walking/working surface, perpendicular to the warning line and in the direction of the floor, roof or platform edge
- The rope, wire or chain shall have a minimum tensile strength of 220 kilograms and after being attached to the stanchions, shall support without breaking the load applied to the stanchions as prescribed above

- Shall be attached to each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.
- When mechanical equipment is being used, the warning line shall be erected not less than 1.8 meters from the roof edge parallel to the direction of mechanical equipment operation, and not less than 3 meters from the roof edge perpendicular to the direction of mechanical equipment operation.
- When mechanical equipment is not being used, the warning line shall be erected not less than 1.8 meters from the roof edge.

Hoist Areas

All employees in a hoist area shall be protected from falling 1.8 meters or more by guardrail systems or personal fall arrest systems. If guardrail systems or portions thereof must be removed to facilitate hoisting operations, as during the landing of materials, and a worker must lean through the access opening to receive or guide equipment and materials, that employee shall be protected by a personal fall arrest system.

Holes, Openings, Ramps, Runways and Other Walkways

All holes, openings, ramps, runways, and other walkways crossing or covering openings 1.8 meters or more, shall be protected with a guardrail system.

Wall Openings

All employees working on, at or near wall openings where the bottom edge of the wall opening is six feet or more and the inside bottom edge of the wall opening is less than 90 centimetres above the walking/working surface, shall be protected by use of either a guardrail system or a personal fall arrest system.

Covers

Covers used over openings in the roadways and vehicular aisles shall meet the following criteria:

- Support twice the maximum axle weight of the largest vehicle the cover might be subjected
- Support twice the weight of employees, equipment and materials that may be imposed on the cover at anytime
- Be secured at all times
- Be identified with markings indicating “HOLE” or “COVER”

Roofs

Low-Sloped Roofs

- All employees working on low-sloped roofs with unprotected sides and edges 1.8 meters or more above the lower levels shall be protected from falling by guardrail systems or a combination warning line system and personal fall arrest system, or a combination warning line system and a safety monitoring system.

Roofs that are 15 meters or less in width can use a safety monitoring system without a warning line system.

Steep Roofs

- All employees on a steep roof with unprotected sides and edges 1.8 meters or more above the lower levels shall be protected by either guardrail systems with toeboards or a personal fall arrest system.

Protection from Falling Objects

When guardrail systems are used to prevent materials from falling from one level to another, any opening shall be small enough to prevent passage of potential falling objects. No materials or equipment, except masonry or mortar shall be stored within four feet of working edges. Excess mortar, broken or scattered masonry, and all other materials and debris shall be kept clear of the working area by removal at regular intervals.

During roofing work, materials and equipment shall not be stored within six feet of a roof edge unless guardrails are erected at the edge, and materials piled, grouped, or stacked near a roof edge shall be stable and self-supporting.

Toeboards

When toeboards are used as protection from falling objects, they shall be erected along the edges of the overhead walking or working surface for a distance sufficient to protect persons working below. Toeboards shall be capable of withstanding a force of at least 22 kilograms applied in any downward or outward direction at any point along the toeboard. Toeboards shall be a minimum of 10 centimetres tall from their top edge to the level of the walking/working surface, have no more than 0.6 centimetres clearance above the walking/working surface, and be solid or have openings no larger than 3 centimetres

DATE:	
RESPONSIBLE PERSON:	
SIGNATURE:	

THIS POLICY IS ENDORSED AND WILL BE IMPLEMENTED BY GLOBAL LINKS MEMBERS AND SENIOR MANAGEMENT.