Site: Wakefield Building, 2021

OPERATIONS & MAINTENANCE MANUAL

Height Safety Systems

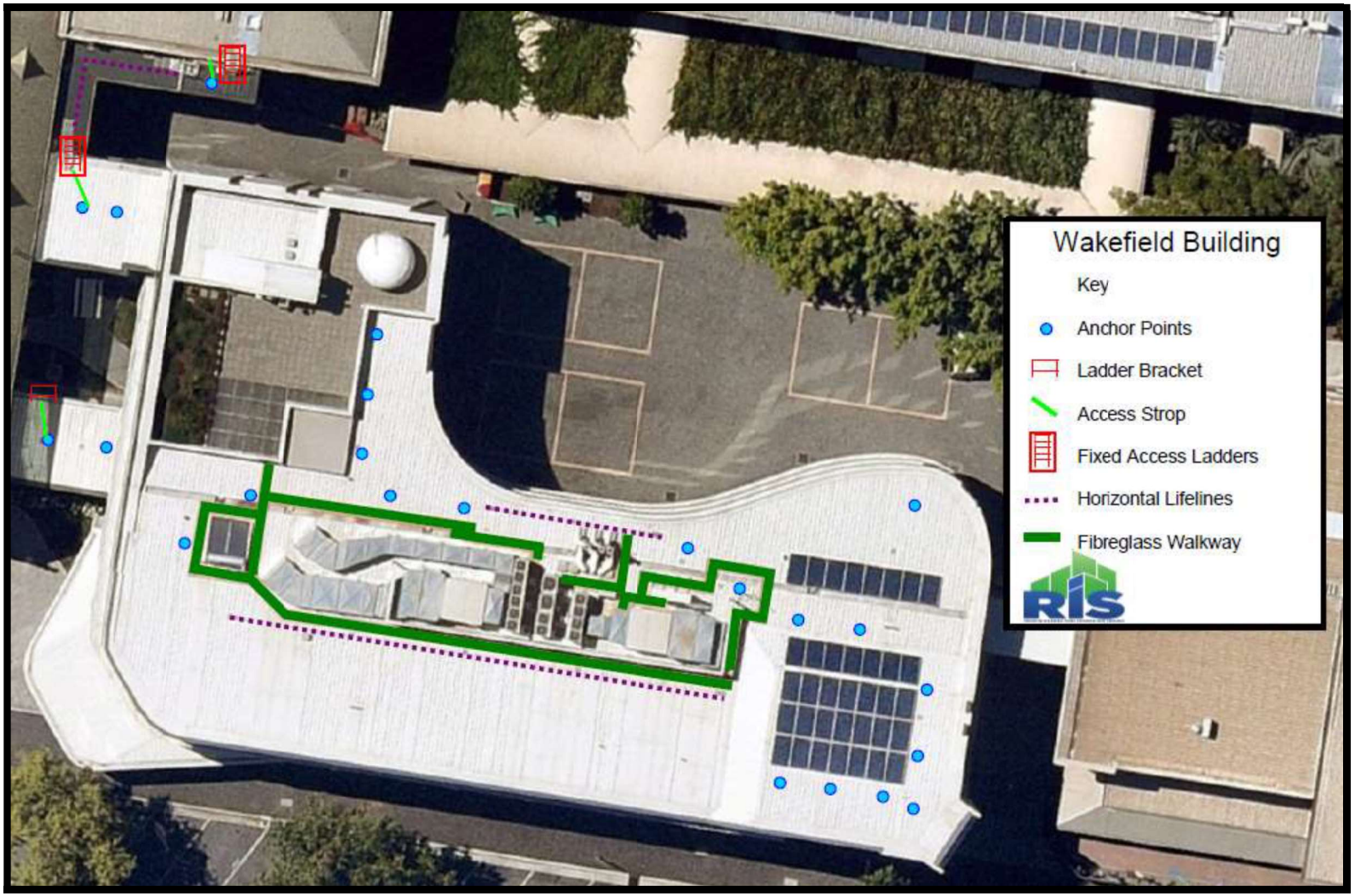
Height systems are designed following the risk assessment process, identifying work situations where a worker will need added protection through the use of PPE (personal protective equipment) and a physical connection with the structure they are working on.

Site Address: 214 Wakefield Street, Adelaide SA 5000.

RIS certifies that the systems as outlined in the site Roof Plan Layout for the Wakefield Building are certified* to meet the requirements of AS/NZS 1891.4.2009 Industrial Fall Arrest Systems & Devices Part 4: Selection, Use & Maintenance.

* Where items of non-conformance are listed on the certificate of inspection as per Appendix of document the items do NOT conform with AS/NZS 1891.4.2009 Industrial Fall Arrest Systems & Devices Part 4: Selection, Use & Maintenance or with AS/NZS 1657-2013 Fixed Platforms, walkways, stairways, ladders – Design, construction and installation. Details of why items are non-conformant will be clearly listed

Roof Layout


Wakefield Building
Key
Anchor Points
Ladder Bracket
Access Strop
Fixed Access Ladders
Horizontal Lifelines
Fibreglass Walkway

Safe Use

Step 1

Complete your site induction with the system owner and confirm that the users can demonstrate competence in the activity of working at heights by provision of a nationally recognised certification or equivalent.

Step 2

Develop and sign off on risk assessment/work method statement for the task, considering task specifics elements that will affect the user's safety:

- Type of work
- Length of time required to complete the work
- Surface conditions
- Materials to be used
- Ladder requirements
- Placement of the materials
- Additional hazards introduced by the task such as:
    - Working around plant and equipment
    - Working near energised electrical installations
    - Public safety and security
    - Dropped objects
- PPE, plant and equipment inspection pre-use (ladders, scaffold, scissor lifts etc)
- Rope length requirements for the work
- Anchor testing requirements
- Rescue requirement s for any activity where fall arrest techniques are to be used

Safety Warning:

All height safety systems are designed to be used by competent trained persons only. The way all height systems are used will be relative to a range of variables not able to be captured in this operations manual. These user instructions are indicative only and may change depending on site conditions, types of work required to be completed and number of person involved in the task. Progressing to complete work without assessing and controlling the risk relative to the work and the use of the systems is in contravention of work health and safety regulations and highly dangerous and not recommended. The above list is not exhaustive.

General System Configuration

The active fall protection system contains Sayfa Travel8 lifelines and Sayfa 3Sixty Anchor Points.
The roof is pitched at less than 5 degrees and the top roof has fibreglass walkway.

There are three roof access points on this building and this manual will demonstrate step by step instructions on how to safely access the roof and connect to the fall arrest equipment. Only work on live edges that have fall protection in place, and always stay connected when working on roof ledges less than 2m in width, please contact the facilities manager if there are any further questions.

Potential Hazards

Restrained and free-fall injuries. These hazards usually occur when the person(s):

- Uses the protective equipment incorrectly
- Exceeds the number of persons rated for the system
- Does not connect or is not properly connected
- Does not follow clear instructions or guidelines

Ensure all people working on the roof have been competently trained in Height Safety and possess at a minimum a nationally recognized work safely at heights qualification that is less than 2 years old or equivalent.
Make sure you possess and wear the correct equipment and that there is a rescue plan in place.
Before climbing the portable ladder or accessing the roof, make sure each worker has their Personal Fall Protection Equipment (PFPE) and any additional Personal Protective Equipment (PPE) in a backpack or on their person. Only approved full body harness, gear and equipment with an energy absorber certified to Australian Standard AS/NZS 1891 is to be used with the systems provided.

At minimum the PFPE required is:

1 x TRW01 – Full Body Harness

1 x WLAD02 – Shock Absorbing Lanyard

1 x ROPEK20 – 20m Kernmantle Rope with Rope Grab

6 x L024T – Karabiners

1 x Pilot Traveller

1 x AK040 - Backpack kit Bag 50m capacity

Safe Work Method Statement - Roof Anchors

- **Ensure that all people working on roof have been competently trained in Height Safety and possess at a minimum a nationally recognised work safely at heights qualification that is less than 2 years old or equivalent.**

- **Make sure you possess and wear the correct equipment.**

1.) ACCESS TO ROOF AREA IS VIA: LADDER BRACKET / TEMPORARY LADDER

- **INFORM MANAGEMENT OR SECURITY THAT WORK IS BEING CONDUCTED ON THE ROOF AREA BEFORE COMMENCEMENT OF ANY WORKS – ALWAYS WORK ON THE ROOF AREA WITH A SECOND PERSON (ANOTHER WORKER or SPOTTER)**

- **Inspect the intended work access areas and confirm the height safety systems have been inspected within the last 12 months (as per AS1891.4.2009).**

- **Always read and comply with the instructions for use that accompanies the system and safety equipment required.**

- Prior to accessing the roof area, fit the harness and connect a 300mm shock absorbing lanyard to the rear attachment point on the harness.
- Connect the loose end of the same lanyard to a rope adjuster and rope. Ensure the rope is long enough to complete the task required. Store all excess rope and equipment in a backpack.
- Position the temporary ladder at the roof entry point (ladder bracket location):
- Ladder angle is at a ratio of 4 to1.
- Ladder is positioned 1m above the resting point and secured on the ladder bracket.
- Secure the base of the ladder.
- With all required equipment secured in the backpack on the worker's back, climb the temporary ladder. Always ensure that the worker maintains three points of contact on the ladder. When within 1m of the top of the ladder, stop in a position where you can reach the roof anchor mounted strop safely and at the same time maintain three points of contact.
- Connect the free end of the personal shock absorber on the front of the harness to the anchor strop via the karabiner.
- Make your way to the next available anchor point by adjusting the rope and rope adjuster to allow movement.
- When you reach the next anchor available to connect to, stop in a position where you can reach the anchor safely. Redirect the rope through the anchor via a karabiner. Continue on using this process until you reach your desired rigging location.
- Rig the rope access system in the desired configuration and position to suit the work and rescue requirements outlined by your safe work method statement.

- When repositioning the rope, ensure that the workers remain attached and connected to the nearest anchor point at all times.
- Repeat the same access and egress process for all other workers.
- Update or sign off the risk assessment/work method statement and advise responsible person work has been completed and controls are effective.

Safe Work Method Statement - Roof Anchors

- **Ensure that all people working on roof have been competently trained in Height Safety and possess at a minimum a nationally recognised work safely at heights qualification that is less than 2 years old or equivalent.**

- **Make sure you possess and wear the correct equipment.**

ACCESS TO ROOF AREA IS VIA: Fixed Access ladder to Horizontal Lifeline

- **INFORM MANAGEMENT OR SECURITY THAT WORK IS BEING CONDUCTED ON THE ROOF AREA BEFORE COMMENCEMENT OF ANY WORKS – ALWAYS WORK ON THE ROOF AREA WITH A SECOND PERSON (ANOTHER WORKER or SPOTTER)**

- **Inspect the intended work access areas and confirm the height safety systems have been inspected within the last 12 months (as per AS1891.4.2009).**

- **Always read and comply with the instructions for use that accompanies the system and safety equipment required.**

Roof pitch is less than 15 degrees.

- Access top roof by climbing the down ladder from the Smith Building
- Maintain three points of contact whilst climbing the Ladder.
- Ensure all equipment is in backpack.
- Once on the landing connect to the access strop with lanyard
- Walk to the lifeline
- Connect to lifeline to make your way to the next ladder
- Connect to the access strop
- Disconnect from the lifeline and climb the ladder
- Make sure you always keep three points of contact
- Perform the work required using care.

NOTE – When accessing the corners of the building connect the Karabiner to the Adjustable Rope and then connect the Karabiner to the Diversion Anchor to prevent a pendulum effect.

- Detach yourself from the anchor point only when you are in a position (i.e. greater than 2 meters from the edge)
- To attach to the other anchor points, ensure that you repeat the above steps

Safe Work Method Statement - Roof Anchors

- **Ensure that all people working on roof have been competently trained in Height Safety and possess at a minimum a nationally recognised work safely at heights qualification that is less than 2 years old or equivalent.**

- **Make sure you possess and wear the correct equipment.**

3.) ROOF ENTRANCE IS VIA: STAIRWELL

- **INFORM MANAGEMENT OR SECURITY THAT WORK IS BEING CONDUCTED ON THE ROOF AREA BEFORE COMMENCEMENT OF ANY WORKS – ALWAYS WORK ON THE ROOF AREA WITH A SECOND PERSON (ANOTHER WORKER or SPOTTER)**

- **Inspect the intended work access areas and confirm the height safety systems have been inspected within the last 12 months (as per AS1891.4.2009).**

- **Always read and comply with the instructions for use that accompanies the system and safety equipment required.**

- **Roof pitched less than 5 degrees**
- **Horizontal Lifeline (from Sayfa website) and Anchors to be used for full roof access SWMS**
- Ensure a full body harness and suitable rope line lanyard is used with this system.
- Harness gear must be certified to Australian Standards.
- Travel 8 system must be used with a tear-web energy absorbing lanyard connected to fall arrest point of harness.
- Ensure harness gear serviceability dates are current.
- Only the Pilot traveller must be used with the Travel 8 static line system.
- Approach system from a 'Safe Zone 'i.e. no risk of fall or injury.
- Correct attachment of the Pilot traveller is essential for safe use.
- Remove karabiner from traveller.
- Slide traveller latch to open position.
- Place traveller over cable.
- Flip traveller over and slide latch to closed position.
- Insert karabiner into traveller.
- Ensure traveller is securely attached to cable and karabiner screw gate is closed and locked (if it is a screw type gate, tighten gate then loosen by half a turn).
- Do not attempt to use the traveller upside down. Should access to the opposite side of the line be required, the traveller must be removed and re-attached correctly.
- Pilot traveller is ready to use.
- Attach lanyard snap hook to traveller karabiner.

- Rope line must be attached to harness fall arrest connection via tear-web energy absorbing lanyard.
- Adjust rope line to a safe and comfortable distance to traverse roof.
- Maintain close proximity to static line for optimum safety and traveller operation
- Once in line with area to be accessed, adjust rope line length evenly toward roof edge.
- Ensure NO slack rope line.
- Ensure there is NO possibility of pendulum when at fall edge.
- User must remain in restraint at all times limiting access beyond the fall edge i.e.: NO slack rope line.
- Use diversion anchors to access corners
- Disconnecting from the system – return to static Line keeping rope line tensioned.
- Ensure there is no risk of a fall at detachment locational pendulum areas. Attach rope line to diversion anchorage using karabiner.
- Disconnect Pilot traveller.
- Proceed safely back to the roof access point.
- Follow your organisation's procedures on reporting completion of work.
- Detach yourself from the anchor point only when you are in a position (i.e. greater than 2 meters from the edge)

Recommended Personal Fall Protection Equipment per user:

1 x TUITRW – Ultimate Roof Workers Kit

1 x ULMP02 - Harness

1 x WLSA01 – 300mm Shock Absorbing Lanyard

1 x WL01 – 1.5m Lanyard with Karabiner or Snaphook

1 x ROPEK20M – 20m Kernmantle Rope with Rope Grab

4 x L024NH - Karabiners

1 x AK040 - Backpack kit Bag 50m capacity

Pilot traveller

User Competence and Risk Assessment

People that work at heights are exposed to the risk of falling. Falling from heights at work is one of the most common causes of serious injury and death in the Australian workplace. Installing safety systems is one element of managing these risks. In order to meet the full requirements of all State, Territory and Commonwealth Work Health and Safety Laws and Regulations, fall prevention system users must be competent in the use of the systems, and a risk assessment must be undertaken prior to use.

Every system will have subtle differences that may impact the way a user can operate the system effectively. Issues such as the work environment, type of work, access and other activities in close proximity to the work must be considered before beginning work, and must be part of a documented pre-start risk assessment.
Work Health and Safety Regulations require that the person commissioning the work ensures that those completing the work (be they an employee, contractor or volunteer) have a thorough understanding of the risks involved with the work and can demonstrate competence in completing the task, including being prepared to react to a rescue scenario where fall arrest systems are utilised in a workplace.

Periodic Inspections Testing & Certification

The RIS Altitude products that form the system are tested and certified to the following Australian standards:

AS/NZS 1891.2	Industrial Fall Arrest Systems & Devices Part 2: Horizontal Lifeline and Rail Systems
AS/NZS 1891.3	Industrial Fall Arrest Systems & Devices Part 3: Fall Arrest Devices
AS/NZS 1891.4	Industrial Fall Arrest Systems & Devices Part 4: Selection, Use & Maintenance

Your RIS system(s) requires regular inspections to ensure they remain fit for use. Every location will have differences, and the inspection time frames will be relative to possible deterioration caused by many factors including but not limited to age, weathering, site conditions and usage factors. Inspection time frames may differ based on a risk assessment and depending on the product type.

As the manufacturer of the product, RIS recommends inspection time frames in alignment with Australian Standards recommendations of 12 months. RIS may recommend alternative inspection time frames in the following cases:

1. Frequently used systems
    a. Any RIS systems that is used more than 5 times in 1 week
2. Infrequently used systems
    a. Any RIS systems that is used less than 1 time in 12 months
3. Once off installation not to be used again

Inspections should be carried out by a competent height safety inspector that can demonstrate a capacity to inspect the systems thoroughly against the installation and certification criteria set out below:

- Has been trained and certified by RIS to undertake inspections and certification activity for RIS products.
- Demonstrates relevant industry experience in the inspection and use of height safety equipment.
- Can develop and implement a risk management approach to the inspection of the systems in order to inspect and review suitability prior to connecting to the anchor.
- Can demonstrate capacity to update and advise the owner at the time of the inspection regarding any defects and warranty issues.
- Works within the guidelines of the professional indemnity insurance carried by RIS that protects the systems owner from liability for the activities relevant to certification and inspection of new and existing systems.
- Provides a signed work method statement prior to the inspection relevant to the inspection, including the RIS systems recertification inspection criteria.

Appendix: Harness Fitting Guide