Roof Safety Survey

BUILDING 4

Version 4
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1 Introduction

The following document outlines the Roof Safety Survey (RSS) for Building 4 of the University of Wollongong located at Wollongong Campus Northfields Avenue Wollongong NSW 2522.

2 Purpose

This RSS is to be used as a general guideline to provide awareness and control measures for site personnel and contractors when accessing various roof areas. Personnel must make an assessment prior to accessing the roof. Should there be any potential for falls, all personnel must ensure the necessary fall prevention systems are utilised and operated in a “fall restraint” working mode. All ends users of Fall arrest equipment must be trained to a level of national recognition. All work practices and systems operations must be identified and documented in the risk assessment and safe work method statement.

3 Disclaimer

This document should be used as a general guide for roof access purposes only. Items detailed within this document were in situ at the time of inspection and may change. End users must use caution and evaluate the conditions as suitable to themselves.

Riverlands Roofing and Waterproofing (Louey Models Pty Ltd) accepts no responsibility for the actions of persons accessing these areas and or legislative compliance of fittings and fixtures of the site.
4 Building 4 Roof Area Aerial Photo Zone Layout

Zone: A
  - North Roof
  - East Roof
  - South West Roof

Legend:
- Highlighted Zone Areas
- Primary Roof Access Door (via building 2)
- Building 4 North Roof Access Ladder
5 Risk Management

5.1 Risk Matrix

This risk assessment matrix below must be used reviewing in context with the University’s Risk Management Guidelines.

![Risk Matrix Diagram]

5.2 Risk Control

Risk control is a method of managing the risk with the primary emphasis on controlling the hazards at source. For a risk that is assessed as “high”, steps should be taken immediately to minimize risk of injury. The method of ensuring that risks are controlled effectively is by using the “hierarchy of controls”.

The Hierarchy of Controls are:

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Control Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firstly</td>
<td>Eliminate</td>
<td>Removing the hazard, eg taking a hazardous piece of equipment out of service.</td>
</tr>
<tr>
<td>Secondly</td>
<td>Substitute</td>
<td>Replacing a hazardous substance or process with a less hazardous one, eg substituting a hazardous substance with a non-hazardous substance.</td>
</tr>
<tr>
<td>Thirdly</td>
<td>Isolation</td>
<td>Isolating the hazard from the person at risk, eg using a guard or barrier.</td>
</tr>
<tr>
<td>Fourthly</td>
<td>Engineering</td>
<td>Redesign a process or piece of equipment to make it less hazardous.</td>
</tr>
<tr>
<td>Fifthly</td>
<td>Administrative</td>
<td>Adopting safe work practices or providing appropriate training, instruction or information.</td>
</tr>
<tr>
<td>Sixthly</td>
<td>Personal protective equipment</td>
<td>The use of personal protective equipment could include using gloves, glasses, earmuffs, aprons, safety footwear, dust masks.</td>
</tr>
</tbody>
</table>

For more information on risk management visit: [https://www.uow.edu.au/about/services/safe-at-work/whs-framework](https://www.uow.edu.au/about/services/safe-at-work/whs-framework)
### 5.3 Contractors Risk Assessment

The below tables have been populated by the University with known hazards that may be applicable for roof work.

All contractors are required to establish their own risk assessment and SWP/SWMS/etc specific to each task they perform, taking into account hazards that may not have been identified by the University.

#### Assessment of Hazards

<table>
<thead>
<tr>
<th>Hazard No.</th>
<th>Description of Activity/Service Item</th>
<th>Description of Hazard (What has potential to cause injury or damage to property/environment?)</th>
<th>Current Controls (What is in place today that controls the risk? List any control measures already implemented)</th>
<th>Risk rating (With current controls in place)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consequence Likelihood Risk</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Consequence Likelihood Risk</td>
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<td>Consequence Likelihood Risk</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consequence Likelihood Risk</td>
</tr>
</tbody>
</table>

#### Risk Control

<table>
<thead>
<tr>
<th>Hazard No.</th>
<th>Additional Control Description (What should be done in the future to control the risk? What can be done to eliminate or further reduce the risk?)</th>
<th>Control Type (Elimination, Substitution, Isolation, Engineering, Administration, PPE)</th>
<th>Person Responsible</th>
<th>Risk rating (With additional controls in place)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consequence Likelihood Risk</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consequence Likelihood Risk</td>
</tr>
</tbody>
</table>
6 Roof Safety Survey Building 4

6.1 Building 4 General Information

Note: Before commencing any work obtain Roof Permit from Facilities Management Division

Building:
University of Wollongong Campus Building 4

Description:
Multi storey low pitched metal roof with services that include solar panels, air conditioning units, roof ventilation, ducts, some exposed pipework and antenna.

SafetyNet Risk Assessment Reference Number:
- UOW 01572

Roof Access:

North Roof Access:
- Access to the North roof is via building 2 roof access door. The roof access door is located at the top on the internal staircase. Once on the roof are of building 2 follow the walkway west in the direction of building 4. A small concrete roof area and a fixed metal ladder leads to the North Roof area of Building 4.

East Roof Access
- Access to the East roof area is via the north roof, walkway is provided. The east roof also has a roof area walkway across to building 1.

South West Roof Access
- Access to South West roof area is via the north roof, walkway is provided. The south West roof also has roof access to building 1.

Signage:
- Various restricted areas

Compliance Plates:
- Data Plate for Lifelines & Anchor point data tags

Height of Building:
- Multi storey

Pitch:
- < 5 degrees

Roof Construction:
- Metal and Concrete
Structural Integrity:

- Sound

Vegetation:

- Yes (North & South West roofs ends have trees growing over the roof area)

Fall Arrest System:

<table>
<thead>
<tr>
<th>System</th>
<th>Certification Status</th>
<th>Certification By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various Anchor Points</td>
<td>Current</td>
<td>Riverlands Roofing</td>
</tr>
<tr>
<td>RIS Hammerhead:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(End users must follow manufacturer’s instructions and use compatible attachments. More specifically, the connection system for horizontal lifelines Sayf8 or Sayfglida 12 must use the ss130 shuttle device)

Services:

- ☒ Gutters
- ☐ A/C Units
- ☒ Ducts
- ☒ Roof Ventilators
- ☐ Fume Cupboards
- ☐ Telco Towers
- ☐ Satellite Dishes
- ☒ Antenna
- ☐ Fiberglass Skylights
- ☒ Pipework
- ☐ Cooling Tower
- ☒ Roof Top Solar Panels

Existing Safety Systems:

- ☒ Horizontal Lifelines
- ☐ Vertical Lifelines
- ☒ Anchor Points
- ☒ Handrail
- ☒ Walkway
- ☐ Parapets

Work Activity & Frequency:

- Clean gutters/routine maintenance – 6 months
- Service A/C plant- monthly
6.2 Building 4 Safety Systems Aerial Photo Layout

The following aerial photo indicates access points and safety systems layout.

**Legend:**
- **AD**: Roof Access Door (Building 2)
- **FL**: Fixed Ladder Access to Building 4
- **Anchor Point**
- **Lifeline**
6.3 Building 4 Roof Photos

North Roof

Building 2 internal staircase

Building 2 Roof access door also access to building 4

Building 4 fixed ladder access point

Building 4 North roof area

Building 4 North roof area with lifeline (Certification by Riverlands Roofing Status Current)

Building 4 North roof area with lifeline (Certification by Riverlands Roofing Status Current)
**East Roof**

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 4 East roof area access with walkway &amp; atrium roof highlighted</td>
<td>Building 4 East roof area walkway Caution no end cap on walkway</td>
</tr>
<tr>
<td>Building 4 East roof area with exposed pipework and lifeline</td>
<td>Building 4 East roof area with exposed pipework and lifeline (Certification by Riverlands Roofing Status Current)</td>
</tr>
<tr>
<td>Building 4 East roof area with lifeline, ducts and vents</td>
<td>Building 4 East roof area with lifeline (Certification by Riverlands Roofing Status Current)</td>
</tr>
<tr>
<td></td>
<td>Building 4 East roof upper atrium roof area with ventilators</td>
</tr>
<tr>
<td>Building 4 East roof walkway to Building 1 with lifeline</td>
<td>Building 4 East roof walkway to Building 1 Caution when stepping down</td>
</tr>
<tr>
<td></td>
<td>(Certification by Riverlands Roofing Status Current)</td>
</tr>
</tbody>
</table>

*Images of Building 4 East roof area with different features.*
South West Roof

Building 4 South West roof area with walkway access, air con units and lifeline (Certification by Riverlands Roofing Status Current)

Building 4 South West roof area with walkway

Building 4 South West roof area with solar panels

Building 4 South West roof area with solar panels

Building 4 South West roof area with solar panels

Building 4 South West roof area with trip hazard lifeline across the walkway (Certification by Riverlands Roofing Status Current)

7 Program Evaluation

Conditions that might warrant a review of the guidelines on a more frequent basis would include:

- changes to the roof
- change in the relevant legislation or Australian Standards
- organisational needs or WHS Committee concern.
8 Related Documents

- Managing the Risk of Falls Guidelines
- Working at Heights Rescue Plan
- Roof Access Permit
- Roof Access Procedure

9 References

9.1 Legislation

- NSW Work Health and Safety Regulation 2017 Part 4.4 Falls
- NSW Public Health Regulation 2012
- Public Health Amendment (Legionella Control) Regulation 2018

9.2 Australian Standards

- AS 1657: Fixed platforms, walkways, stairways and ladders - Design, construction and installation
- AS 1891.1: Industrial fall-arrest systems and devices - Harnesses and ancillary equipment
- AS 1891.2: Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems
- AS 1891.3: Industrial fall-arrest systems and devices - Fall-arrest devices
- AS 1891.4: Industrial fall-arrest systems and devices - Selection, use and maintenance
- AS 2210.1: Safety, protective and occupational footwear - Guide to selection, care and use
- AS 3666: Air-handling & Water Systems for Buildings - Microbial Control
- AS 4994.1: Temporary edge protection - General requirements
- AS 4994.2: Temporary edge protection - Roof edge protection - Installation and dismantling
- AS 5532: Manufacturing requirements for single-point anchor device used for harness-based work at height
- AS 2550.10: Crane, Hoists and lifting equipment. section 5.9

9.3 Codes of Practice

- Managing the Risk of Falls at Workplaces (SafeWork NSW)
- NSW Guidelines for Legionella Control in Cooling Water Systems

10 Version Control Table

<table>
<thead>
<tr>
<th>Version Control</th>
<th>Date Released</th>
<th>Approved By</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>1</td>
<td>November 2012</td>
<td>Manager WHS</td>
<td>New document</td>
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<td>2</td>
<td>February 2014</td>
<td>Manager WHS</td>
<td>Update</td>
</tr>
<tr>
<td>3</td>
<td>January 2018</td>
<td>Manager WHS</td>
<td>Revision and update</td>
</tr>
<tr>
<td>4</td>
<td>October 2020</td>
<td>Manager WHS</td>
<td>Document recreated by GO from Riverlands Roofing. All information reviewed/updated.</td>
</tr>
</tbody>
</table>
11 Appendix A: Sample Images

Before contractors use any Fall Arrest System (lifeline or Anchor point) users must complete the following:

- Locate the fall arrest systems data plate or data tag.
- Validate that the system is current and that a yearly certification has been completed.
- Complete a personal visual & physical inspection of the system.
- Users must never exceed the MAX LOAD or USERS of the system.

![Fall Arrest System Data Plate](image1.png)

![Anchor Point Data Tag](image2.png)