UOW SAFE@WORK

Roof Safety Survey
BUILDING 18
Version 5
1 Introduction

The following document outlines the Roof Safety Survey (RSS) for Building 18 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 end 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 18 Roof Area Aerial Photo Zone Layout

Zone: A

- Main Roof

Legend:

- Highlighted Zone Areas
- Main Roof North Access Door
- Main Roof South Access Door
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.

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Description</th>
<th>Likelihood</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>Death or extensive injuries</td>
<td>Almost Certain</td>
<td>Is expected to occur in most circumstances</td>
</tr>
<tr>
<td>Major</td>
<td>Medical treatment</td>
<td>Likely</td>
<td>Will probably occur in most circumstances</td>
</tr>
<tr>
<td>Moderate</td>
<td>First aid treatment</td>
<td>Possible</td>
<td>May occur at some time</td>
</tr>
<tr>
<td>Minor</td>
<td>Injury report, no treatment</td>
<td>Unlikely</td>
<td>May occur, but probably never will</td>
</tr>
</tbody>
</table>

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>
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</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>
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</tbody>
</table>

Consequence | Likelihood | Risk
---|---|---

6 Roof Safety Survey Building 18

6.1 Building 18 General Information

Note: Before commencing any work obtain Roof Permit from Facilities Management Division. All personnel accessing the roof must contact the building manager prior to access to confirm no toxic gases are used in laboratories and fume cupboards functioning

**Building:**
University of Wollongong Campus Building 18

**Description:**
Multi storey low pitched metal roof with an internal courtyard area, services include air conditioning units, roof ventilation, fume cupboards, antenna, skylight and confined space area.

**SafetyNet Risk Assessment Reference Number:**
- UOW01605

**Roof Access:**

**Main Roof Access:**
- Access to the main roof area is via the plant room. Use the building internal fire stairwell (2) located on the western side of the building, the plant room access door is at the top of the stairwell. The plant room has two roof access doors “North” & “South” both doors can be used to access the roof area.

**Signage:**
- Various restricted areas

**Compliance Plates:**
- Data Plate for Lifelines

**Height of Building:**
- Multi storey

**Pitch:**
- < 5 degrees

**Roof Construction:**
- Metal

**Structural Integrity:**
- Sound

**Vegetation:**
- Yes (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>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Horizontal Lifelines BULLIVANTS TRAVSAFE</td>
<td>Current</td>
<td>Riverlands Roofing</td>
</tr>
<tr>
<td>(Manufacturers User Manual link to be provided)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(End users must follow manufacturer’s instructions and use compatible attachments)

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
- ❑ Walkway
- ❑ Anchor Points
- ✗ Handrail
- ❑ Parapets

Work Activity & Frequency:
- Clean gutters/routine maintenance – 6 months
- Service A/C plant- monthly
6.2 Building 18 Safety Systems Aerial Photo Layout

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

Legend:

SA  South Roof Access Door
NA  North Roof Access Door
PL  Plant Room Roof Access Ladder

Anchor Point

Lifeline
6.3 Building 18 Roof Photos

Main Roof

Building 18 internal fire stairwell (2) located on the western side of the building

Building 18 internal fire stairwell (2) top floor

Building 18 internal fire stairwell (2) plant room access door

Building 18 plant room area caution high voltage switchboards

Building 18 plant room area south roof access door

Building 18 plant room area with direct south roof access door

Building 18 main roof area with walkway & fume cupboards

Building 18 main roof area with walkway fume cupboards

Building 18 main roof area with lifeline (Certification by Riverlands Roofing Status Current)
<p>| Building 18 main roof area looking up to the plant room roof area |
| Building 18 main roof area with fume cupboards |
| Building 18 main roof area with fume cupboards |
| Building 18 main roof area with roof ventilation and walkway, handrail &amp; lifeline (Certification by Riverlands Roofing Status Current) |
| Building 18 main roof area with a confined space area Caution only authorised access by trained users |
| Building 18 main roof area with air conditioning units and hot water system |
| Building 18 main roof area with fibreglass skylights |
| Building 18 main roof area with walkway and fume cupboards |
| Building 18 main roof area with walkway / handrail and services area |</p>
<table>
<thead>
<tr>
<th>Building 18 main roof area with roof ventilation, walkway and lifeline (Certification by Riverlands Roofing Status Current)</th>
<th>Building 18 main roof area with the plant room roof fixed access ladder</th>
<th>Building 18 plant room roof area with roof ventilation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 18 plant room roof area with lifeline (Certification by Riverlands Roofing Status Current)</td>
<td>Building 18 Main roof area with the north roof access door (external)</td>
<td>Building 18 Main roof area with the north roof access door (internal)</td>
</tr>
</tbody>
</table>
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 2550.10 – 2006 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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>November 2012</td>
<td>Manager WHS</td>
<td>New document</td>
</tr>
<tr>
<td>2</td>
<td>April 2014</td>
<td>Manager WHS</td>
<td>Recertification update</td>
</tr>
<tr>
<td>3</td>
<td>February 2018</td>
<td>Manager WHS</td>
<td>Revision and update</td>
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<tr>
<td>4</td>
<td>March 2019</td>
<td>Manager WHS</td>
<td>Revision and update</td>
</tr>
<tr>
<td>5</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.

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Fall Arrest System Data Plate

Anchor Point Data Tag