UNIVERSITY
OF WOLLONGONG
AUSTRALIA

UOW SAFE@WORK

Roof Safety Survey
BUILDING 3

Version 4

Contents

1 Introduction

The following document outlines the Roof Safety Survey (RSS) for Building 3 of the University of Wollongong located at Wollongong Campus Northfields Avenue Wollongong NSW 2522.

2 Purpose

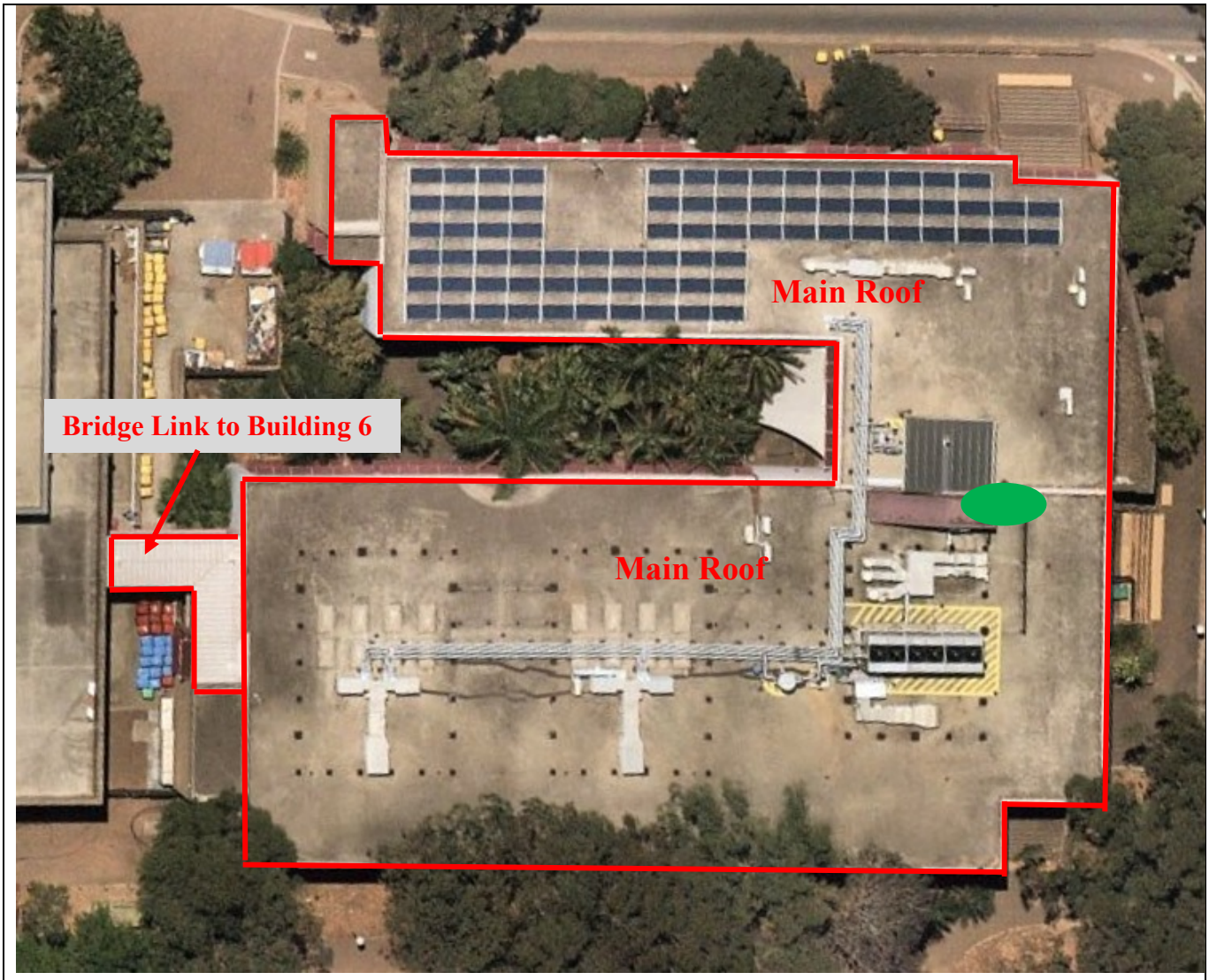
This RSS is to be used as a general guideline to provide awareness and control measures for site personnel and contractors when accessing various roof areas. Personnel must make an assessment prior to accessing the roof. Should there be any potential for falls, all personnel must ensure the necessary 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 3 Roof Area Aerial Photo Zone Layout



Zone: A

- Main Roof
- Bridge Link Roof to Building 6

Legend:

- Highlighted Zone Areas
- Primary Roof 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.

Step 1 – Consider the Consequences

What are the consequences of this incident occurring? Consider what could reasonably have happened as well as what actually happened. Look at the descriptions and choose the most suitable Consequence.

CONSEQUENCES

Step 2 – Consider the Likelihood

What is the likelihood of the consequence identified in step 1 happening? Consider this without new or interim controls in place. Look at the descriptions and choose the most suitable Likelihood.

LIKELIHOOD

Step 3 – Calculate the Risk

1. Take step 1 rating and select the correct column
2. Take Step 2 rating and select the correct line
3. Circle the risk score where the two ratings cross on the matrix below.

H = High, M = Medium, L = Low

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

LIKELIHOOD	CONSEQUENCES: Minor	Moderate	Major	Severe
Almost Certain	M	M	H	H
Likely	L	M	H	H
Possible	L	L	M	H
Unlikely	L	L	M	M

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:

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

For more information on risk management visit:

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

Risk Control						
Hazard No.	**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?)	**Control Type** (Elimination, Substitution, Isolation, Engineering, Administration, PPE)	**Person Responsible**	**Risk rating** (With additional controls in place)		
				Consequence	**Likelihood**	**Risk**

6 Roof Safety Survey Building 3

6.1 Building 3 General Information

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

Building:

University of Wollongong Campus Building 3

Description:

Multi storey flat U-shaped building with a concrete roof and services that include solar panels, air conditioning units, antenna, roof ventilation and ducts. The building has a flat metal bridge link to building 6 with a SALA Evolution lifeline install.

SafetyNet Risk Assessment Reference Number:

- UOW01612

Roof Access:

Main Roof Access:

- Access to the main roof is via the buildings internal fire stairs. The roof access door is located at the top of the stairwell. No safety systems are installed on the main roof area.

Bridge Link to Building 6 Roof Access

- Access to the building 6 bridge link roof is direct from building 3's roof. A SALA Evolution lifeline is installed and must be used when transferring between the buildings.

Signage:

- Various restricted areas

Compliance Plates:

- Data Plate for Lifeline (SALA Evolution)

Height of Building:

- Multi storey

Pitch:

- < 5 degrees

Roof Construction:

- Concrete / Metal

Structural Integrity:

- Sound

Vegetation:

- Yes (Some trees growing over the roof area)

Fall Arrest System:

System	Certification Status	Certification By
Various Anchor Points	Current	Riverlands Roofing
Horizontal Lifeline Sala Evolution (Manufacture's User Manual in link below) https://documents.uow.edu.au/content/groups/public/@web/@ohs/documents/doc/uow236530.pdf	Current	Riverlands Roofing

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

Services:

☒ Gutters	☐ Fume Cupboards	☐ Fiberglass Skylights
☒ A/C Units	☐ Telco Towers	☒ Pipework
☒ Ducts	☐ Satellite Dishes	☒ Cooling Tower
☒ Roof Ventilators	☒ Antenna	☒ 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 3 Safety Systems Aerial Photo Layout

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

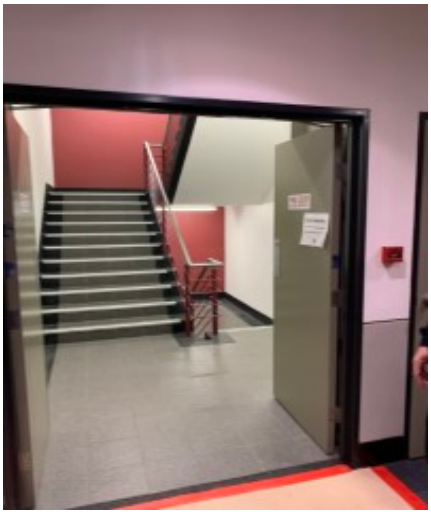
Legend:

AD Roof Access Door

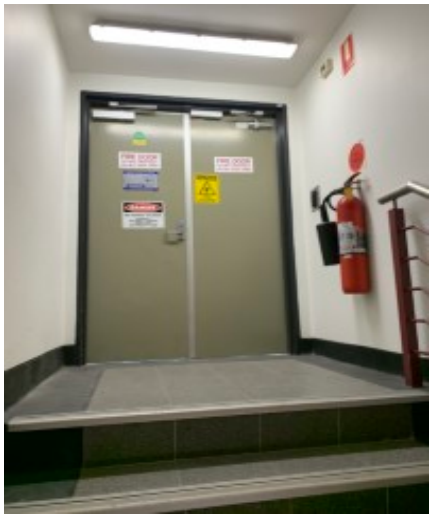
Lifeline (Bridge Link to Building 6)

6.3 Building 3 Roof Photos

Building 3 entry steps



Building 3 internal fire stairs



Building 3 Roof access door

Building 3 roof access door and roof area

Building 3 roof area

Building 3 roof area with chiller unit

Building 3 roof area with solar panels installed caution when walking between rows

Building 3 roof area with exposed pipework

Building 3 roof area with ducts

 Building 3 roof area with cooling tower	 Building 3 roof area with exposed pipework	 Bridge Link to Building 6 with SALA Evolution lifeline (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 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

Version Control	Date Released	Approved By	Amendment
1	November 2012	Manager WHS	New document
2	February 2014	Manager WHS	Standards update and re-certification review
3	January 2018	Manager WHS	Revision and update
4	October 2020	Manager WHS	Document recreated by GO from Riverlands Roofing. All information reviewed/updated.

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

Anchor Point Data Tag