# Building 15 Roof Safety Assessment

## Roof Safety Survey

### GENERAL INFORMATION

**CAMPUS:** Wollongong Campus  
**BUILDING:** Austin Keane Building (15)  
**DESCRIPTION:** Three storey H-shaped building with flat metal roof. The eastern end of the southern wing has a single storey annex currently housing the Exercise Science & Rehabilitation Unit. There is a covered walkway linking the eastern end of the northern wing to Building 35. On western side there is a single storey gas storage facility with a curved metal roof and two skylights - no fall arrest system in place.

**RISK ASSESSMENT #:** UOW01597

### ROOF ACCESS:

1) Main  
- Access through Plantroom on Level 2 (S4 opposite lift)  
2) South east wing  
- Via door 1P11 Mechanical (through to 1P12) to landing  
3) Entry awning and links  
- Portable ladder required - No ladder brackets

### SIGNAGE:

Danger - No Access to Roof without a Buildings and Grounds Roof Access UOW Permit to work; Caution - Trip Hazard

### COMPLIANCE PLATES:

Anchor plates on covered awnings over entrance tagged. Locations of compliance plates for horizontal lifelines marked on aerial photo.

### SAFE WORK AREA:

Two enclosed services areas adjacent to roof access doors

### ROOFING SYSTEM:

- **TYPICAL ANCHORS**
- **HEIGHT OF BUILDING:** 3 storey
- **PITCH:** Flat < 5 degrees
- **ROOF CONSTRUCTION:** Metal roof
- **STRUCTURAL INTEGRITY:** Sound
- **VEGETATION:** Yes

### ADJOINING ROOFES:

Biological Sciences (35) but no access from there - only a linking single story passageway.

### SERVICES:

<table>
<thead>
<tr>
<th>Service</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gutters</td>
<td>Yes</td>
</tr>
<tr>
<td>A/C Units</td>
<td>Yes</td>
</tr>
<tr>
<td>Exhaust Fans</td>
<td>Yes</td>
</tr>
<tr>
<td>Ducts</td>
<td>Yes</td>
</tr>
<tr>
<td>Roof Ventilators</td>
<td>No</td>
</tr>
<tr>
<td>Fume Cupboards</td>
<td>5</td>
</tr>
<tr>
<td>Telco Towers</td>
<td>No</td>
</tr>
<tr>
<td>Satellite Dishes</td>
<td>Yes</td>
</tr>
<tr>
<td>Antenna</td>
<td>Yes</td>
</tr>
<tr>
<td>Skylights Domes</td>
<td>Yes</td>
</tr>
<tr>
<td>Glass Skylights</td>
<td>No</td>
</tr>
<tr>
<td>Pipework</td>
<td>Yes</td>
</tr>
<tr>
<td>Cooling Tower</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### EXISTING SAFETY ITEMS:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Status</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Lifelines</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Anchor Points</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Vertical Lifelines</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Handrail</td>
<td>Yes</td>
<td>1200 mm</td>
</tr>
<tr>
<td>Walkway</td>
<td>Yes</td>
<td>200 mm</td>
</tr>
<tr>
<td>Parapets</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

### WORK ACTIVITY DETAILS:

<table>
<thead>
<tr>
<th>Task</th>
<th>Status</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Gutters / Routine Maintenance</td>
<td>Yes</td>
<td>Every 6 weeks</td>
</tr>
<tr>
<td>Service A/C Plant</td>
<td>Yes</td>
<td>Monthly</td>
</tr>
<tr>
<td>Fume Cupboards</td>
<td>Yes</td>
<td>Every 6 months</td>
</tr>
<tr>
<td>Cooling Tower Maintenance</td>
<td>Yes</td>
<td>Every 3 Months</td>
</tr>
</tbody>
</table>

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

### What is the Activity/Service Item
- Access to Upper Roof via plantroom door Building
- Access to Lower roof via plant area
- Access to front awnings
- Access to Roof
- Air Conditioning Maintenance
- Roof / gutter maintenance
- Roof Plant Maintenance greater than 2m from roof edge
- Roof Plant Maintenance within 2m from roof edge
- Working near fume cupboard vents
- Antenna Maintenance
- Working near Skylights on Gas Storage Annex
- General

### What are the potential Hazards
- Access ladders
- Step access to roof
- Portable access ladder required
- Unauthorised access
- Atmospheric contaminents; Legionnaires Disease from A/C Units
- Fume Cupboard Emissions
- Failing near or through skylight
- Trip Hazard - Roof Sheeting
- Trip Hazard - Horizontal Lifeline or Anchor Points
- Environmental Hazards - Spiders, Wasps, and other insects
- Weather Trips/Slips - Wet Roofs
- Weather - Windy Condition
- Weather - Hot Conditions
- Climbing ladder

### What is the Risk Level
- M (Moderate)
- H (High)
- F (Low)

### List any Control Measures already Implemented
- Minimum awareness - ladder rungs close to wall.
- Minimum awareness - safe use of portable ladder
- Secure ladder to façade prior to access
- Barricade ground level. Tie ladder prior to use
- All access points to roof are locked and made secure so are not accessible by unauthorised persons; signage
- Regular inspection and cleaning of Air filters; intakes and exhausts; ductwork and cooling towers
- Secure ladder to façade prior to access
- Risk Assessment and Roof Safety Survey
- Regular inspection and cleaning of Air filters; intakes and exhausts; ductwork and cooling towers
- Safe Work Procedure
- Refer to SWMS of contractor
- SWP developed is followed by Contractors
- Safe Work Procedure
- Walkway or minimum awareness in Safe Work Procedure
- Signage & System is visible
- Appropriate PPE and insect repellent and Pest control as required
- Safe Work Procedure, do not work on wet roof
- Safe Work Procedure, do not work in high wind conditions
- Safe Work Procedure
- Maintain 3 points of contact; Signage; and Working at Heights Guidelines - Working from Ladders

### Describe what can be done to eliminate risk or reduce the harm
- Risk Assessment and Roof Safety Survey
- Continuing Maintenance
- Ensure horizontal lifeline & anchors used correctly
- Signage and liaise with faculty when work needs to be carried out on Fume Cupboards. An Equipment Lockout Procedure (ELP) must be developed so that the equipment can be serviced safely.
- Install fall restraint system; or Protective gridmesh or handrail around skydomes; Signage
- Ensure SWP developed is followed by Contractors
- Install fall restraint system; or Protective gridmesh or handrail around skydomes; Signage
- Do not work in windy conditions
- Do not work while roofs are wet or have dew
- Do not work in windy conditions
- Use sunscreen, hats and remain hydrated and take appropriate breaks
- Ensure that ladder is used correctly

### Note:
The hazards identified do not include hazards that related to specific work tasks. These should be identified in the Safe Work Method Statement (SWMS) of the contractor.
Reference Documentation

Legislation
NSW Work Health and Safety Regulation 2011 Part 4.4 Falls
Public Health (Microbial Control) Regulation 2000

Australian Standards
AS 1657 - 2013 : Fixed platforms, walkways, stairways and ladders - Design, construction and installation
AS 1891.1 - 2007 : Industrial fall-arrest systems and devices - Harnesses and ancillary equipment
AS 1891.2 - 2001 : Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems
AS 1891.3 - 1997 : Industrial fall-arrest systems and devices - Fall-arrest devices
AS 1891.4 - 2009 : Industrial fall-arrest systems and devices - Selection, use and maintenance
AS 1892.5 - 2000 : Portable ladders - Selection, safe use and care
AS 2210.1 - 2010 : Safety, protective and occupational footwear - Guide to selection, care and use
AS 2243.8 - 2006 : Safety in Laboratories - Fume Cupboards
AS 2243.9 - 2009 : Safety in Laboratories - Recirculating Fume Cabinets
AS 3666- 2011 : Air-handling & Water Systems for Buildings - Microbial Control
AS 4994.1 - 2009 : Temporary edge protection - General requirements
AS 4994.2 - 2009 : Temporary edge protection - Roof edge protection - Installation and dismantling
AS 5532 - 2013 : Manufacturing requirements for single-point anchor device used for harness-based work at height

Code of Practice
Safe Work Australia - Managing the Risk of Falls at Workplaces
NSW Health Department Code of Practice for the Control of Legionnaires’ Disease

UOW Documentation
Managing the Risk of Falls Guidelines
Thermal Comfort Guidelines
UOW Roof Access Permit
UOW Roof Access Certificate

Other
SALA - Fall Arrest and Height Safety Systems - Fall Protection Manual
WorkCover - Safe Working at Heights Guide 2006
WorkCover Safety Guide - Portable Ladders February 1999
Building 15 Roof Safety Assessment

HRD-WHS-REF-444.2  2014 April

A - location of access to roof
P - location of access to roof

_ _ _ _ _ _ _ _
Horizontal lifeline

_ _ _ _ _ _ _ _
Anchors

Safe Roof Work Area
Existing controls
Building 15 Roof Safety Assessment

Anchor point on awning
Location of compliance plate north east wing
Gas storage annex on western side of Building 15
Access to south east annex landing
Location of compliance plate south east annex

Location of compliance plate south east annex
SAFE USE OF SALA “SAYFGLIDA & SAYF8” LIFELINE.

1. TYPICAL LIFELINE.  
2. ATTACHMENT OF SHUTTLE

3. SHUTTLE IN CLOSED POSITION.  
4. CORRECT ORIENTATION
1. TYPICAL LIFELINE.

2. ATTACHMENT OF SHUTTLE

- Slide the locking pin / attachment point into the slot on the safelink and open the mouth (the attachment point must be facing you or the mouth will not open.)
- Place the safelink over the cable and close the mouth.
- Slide the locking pin back to the original position and lift the locking pin / attachment point.
- Connect the hardware from the lanyard or rope grab to the hole in the locking pin / attachment point to prevent the locking pin from falling into the slot and the mouth opening.

SALA SAYFLINK SHUTTLE  part # SS130

3. SHUTTLE IN CLOSED POSITION.

4. CORRECT ORIENTATION
**GUIDE LINE ONLY**

This operation manual should be considered a guide only. All persons using the equipment listed in this manual must be competently trained. “The Installer” installs systems only and does not manufacture the systems. End users to enquire with “The Manufacturer” (Bullivants) at their own discretion. Always follow manufacturers instructions.

**TYPICAL ANCHORS**

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<thead>
<tr>
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<tbody>
<tr>
<td><img src="image1.png" alt="Typical Anchors 1" /></td>
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<tr>
<td><img src="image3.png" alt="Typical Anchors 3" /></td>
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