



University of Manchester

Roof Edge Protection Scheme - Sugden Sports Centre

Design & Access Statement

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Currie & Brown

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1. Introduction

The University of Manchester has identified a lack of edge protection to areas of roof at the Sugden Sports Centre.

The works are necessary to meet the requirements of the Work at Height Regulations 2007 and Section 7 of the Work Place (Health, Safety and Welfare) Regulations 1992.

Selection of work equipment for work at height

7.—(1) Every employer, in selecting work equipment for use in work at height, shall—

(a) give collective protection measures priority over personal protection measures; and

(b) take account of—

(i) the working conditions and the risks to the safety of persons at the place where the work equipment is to be used;

(ii) in the case of work equipment for access and egress, the distance to be negotiated;

(iii) the distance and consequences of a potential fall;

IN addition to the above, the Workplace Regulations state the following:-

Falls or falling objects

(1) So far as is reasonably practicable, suitable and effective measures shall be taken to prevent any event specified in paragraph (3).

(2) So far as is reasonably practicable, the measures required by paragraph

(1) shall be measures other than the provision of personal protective equipment, information, instruction, training or supervision

(3) The events specified in this paragraph are:

(a) any person falling a distance likely to cause personal injury;

(b) any person being struck by a falling object likely to cause personal injury.

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2. Options Appraisal

2.1 Option 1- Mansafe System

The fall arrest mansafe system has the advantage that it has a low visible impact, but is far outweighed by the negative impacts in that:-

- Users must be trained and equipped to use the system.
- Severely restricts areas of access across the roof to that adjacent to the mansafe cables.
- The system must be regularly maintained and tested.
- High risk of suspension trauma, harness induced injury and even death.

For this reason the University of Manchester has adopted a policy of removing singular fall protection systems and replacing with collective fall arrest and prevention solutions.

2.2 Option 2- Collapsible Guardrail System

A collapsible guardrail system also has the advantage that it has a low visible impact, but has been discounted for the majority of areas due to issues of risk of falls prior to the system being erected. Additionally operatives often leave the system erected nullifying advantage of the low visual impact.

For this reason we have discounted the use of this system.

2.3 Option 3- Free-Standing Guardrail System

This permanent solution has a greater visual impact than the previous two options but provides a significantly safer solution. The visual impact will be reduced by setting back the guardrail from the edge of the building, it has a galvanised steel finish which helps the guardrail blend in with the building.

2.4 Option 4- Parapet Mounted Guardrail System

This system is similar to the system described above however the guardrail is mechanically fixed to the inside face of the parapet wall. This system has a greater visual impact therefore its use is restricted to areas where access is required for the maintenance of gulleys, hoppers & downpipes etc.

2.5 Chosen Option

Where practical we have specified a free standing guardrail system which is set back from the edge to minimise the visual impact.

The free standing guardrail system is 1100mm high but given the height of the existing parapet, only approximately the top 700mm will be visible.

Access the roof is currently by temporary ladder or MEWP. We have specified a new removable ladder with platform on the north elevation to allow access to the single storey roof above the changing area. Additionally a fixed ladder has been specified from the roof above to the changing area to the two storey roof above the main entrance.

Access to the roof is restricted and subject to a permit to work system.

3. Justification

Currently there are Health & Safety Access Issues at roof level at the university's building. The proposals outlined in our application seek to address this by providing safe access for University Staff and Contractors working in these areas.

The proposals outlined above have been designed to achieve the following for both university staff and contractors undertaking works on the roof.

1. Compliance with HSE guidance
2. Compliance with the University's own Health & Safety Policies
3. Avoid damage to the fabric of the building
4. Compliance with the terms of warranties and structural requirements
5. Reduce Maintenance costs
6. Provide a fool proof solution which is not reliant on individuals and their equipment.



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