



FEASIBILITY STUDY

THE CONSTRUCTION OF A NEW MUGA

August 2024

Job No.
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For
The Highland Council

by
Sports Labs Ltd
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Livingston
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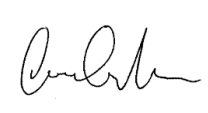
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1 INTRODUCTION

- 1.1 Sports labs Consult have been commissioned by The Highland Council to carry out a feasibility report and provide supported budget costs for the construction of a new MUGA at Lochcarron Primary School, located within the existing natural grass area. The site inspection was conducted by Project Engineer, Calum Hirst, on Thursday 20th June 2024.

1.2 Scope of the Investigation

- 1.2.1 The following works/inspections were carried out as part of this study –

- a) Photographic Survey
- b) Feasibility Report
- c) Concept design

The outcomes of which will be expanded on as part of this report.

2 SPORTS LABS

- 2.1 Sports Labs are a professional services company, not a contractor. We are independent of all contractors, suppliers and manufacturers and operate a Consultancy Practice and an internationally accredited sports surface testing laboratory. We take pride in providing excellence in both sectors. The Consultancy team specialises in the design, procurement, tendering and project management of new or refurbished sports facilities such as artificial pitches and athletics tracks.

3 DESKTOP STUDY

3.1 Location

3.1.1 The site is located within the grounds at Lochcarron Primary School.



Figure 1 – Site Location

3.2 Site Constraints & Requirements

- 3.2.1 The proposed site is in a remote location, with the main construction access off a narrow road. There is a turning head within the vicinity of the site access, though this would need to be reviewed by contractors to confirm suitability.
- 3.2.2 It was noted by the school's staff that they have struggled with surface water in recent times. For this reason, a channel has been constructed along the West of the grass area to prevent surface water runoff from the steep slope. The surface water is then discharged via a culvert to the south of the site to the adjacent watercourse. The drainage design of any proposed development in this location would be of the utmost importance. While a ground investigation has not been undertaken, it is anticipated that the underlying soils will have a poor infiltration capacity.
- 3.2.3 There is an electrical powerline running between the grass area and the road. Should floodlights be included in the proposed development it must be ensured that the columns provide the necessary offset from these lines.

3.3 Proposed Dimensions

3.4 Maximum size:

- 60m x 25m metre surface area.
- Surface area 1,500 m².

3.5 Preferred size:

- 30m x 20 metre surface area.
- Surface area 600m².

3.6 Previous Usage

3.6.1 Looking at records dating back to 2004, this area has only be used as a playing area in its recent history.

3.7 Current Usage

3.7.1 The current usage is primarily for physical education by the school and local clubs. At the time of the inspection there was one set of football goals set up in the area.

3.8 Topography

3.8.1 A topographical survey has not been conducted of the area, though it was deemed to be reasonably flat and it is not anticipated that a large volume of earthworks would be required.

4 GEOLOGICAL ASSESSMENT

4.1 Site Geology

4.1.1 The site was assessed for superficial layers that are expected to exist over the site area. See Table 1 – site Geology below which was taken from British Geological Survey

Layer	Material	Comments
Superficial (Soils)	Raised Beach deposits	Expected to primarily consist of sand, gravel, and silt. This would indicate it is likely that the infiltration values on site would be reasonable, though with the site being so close to sea level, this will need to be confirmed by a full ground investigation to confirm.
Rockhead	Morar Group	Consisting of Psammite, depth unknown.

5 OPTIONS APPRAISAL

5.1 Option 1: 60m x 25m Synthetic MUGA.

5.2 Option 2: 30m x 20m Synthetic MUGA

OPTION	POSTIVES	NEGATIVES
1	- Makes full use of the available space - Would be capable of accommodating more users at a given time, should weather not permit use of adjacent natural grass areas.	- Non-standard size. - Does not leave any remaining space. - Would deem the far (North) side of the school grounds inaccessible.
2	- Standard size for five-a-side football. - Very commonly constructed within similar school settings. - An ideal size for a variety of sports. - Leaves a usable size of space remaining of natural grass.	- Does not maximise the space.

5.3 In review of the above appraisal, it is Sports Labs recommendation that The Highland Council look to pursue Option 2. This is because it offers a standardised layout that is suitable for multiple sports and we have seen similar setups installed in various schools.

5.4 Option 2 would also leave a useful space for the school to continue to utilise for play.

6 PLANNING AND CONSTRUCTION REPORTS

6.1 Planning Reports

6.1.1 As part of the feasibility stage specialist reports will be required throughout the planning and design process, allowances should be made to ensure the following is considered and costed –

- **Ecology Report including Habitat** – to ensure compliance to ecological constraints within the construction phase and minimise disruption to any sensitive species. This would only be needed should

floodlight be required. An Investigation into the mole presence within the site.

- **Noise Impact Assessment** – to ensure compliance to noise pollution levels to neighbouring developments.
- **Drainage Strategy including Sustainable Urban Drainage Design (SUDs)** – to support the drainage design to ensure planning department are full appraised on the pitch storage capabilities. It is unlikely that this would be needed as part of these works.
- **Soil Investigation** – to determine the existing subsoil conditions and confirm infiltration rates.

6.2 Construction Reports

6.2.1 To support the design proposals and reduce the risk at construction phase the following suite of construction reports –

- **Traffic and Construction Management** – Review of the access location in relation to construction traffic to ensure safe access and reduce any traffic risks, this type of report will likely be required as part of the planning conditions placed on the development and may be produced alongside the works contractor in most instances.

7 PLANNING

7.1 Planning Process Overview

7.1.1 It is not anticipated that there would be any objections to the proposed works, however with new floodlighting head testing would be required to ensure that they fall within the current spill and LUX levels.

7.1.2 The full application would be expected to be accompanied as a minimum by the following documents:

- Planning Application
- Design & Access Statement
- Detailed Designs

These would be accompanied, justified, and supported by the instructed suite of specialist reports.

8 CONCLUSIONS AND RECOMMENDATIONS

- 8.1 The location provides clear benefits for the construction of a new MUGA. Sports Labs recommendation is that within the existing footprint. The 30m x 20m) size would be the most appropriate option within the existing footprint of the natural grass area.
- 8.2 Sports Labs would be happy to continue to support the club during this journey to a new top quality playing surface and can provide support to assist with product specification, design work, tendering works, contracts and project management of the delivery alongside our specialist testing and performances assessment.

APPENDIX 1 – SITE PHOTOGRAPHS

END OF REPORT