Clyde Gateway Toryglen MUGA

Feasibility Study

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1. Introduction

1.1 Project Context

The project

LUC was appointed in January 2025 by Clyde Gateway to undertake a Feasibility Study for a Multi Use Game Area (MUGA) within Malls Mire Park in Toryglen area of Glasgow.

Project Context

Clyde Gateway (CG) alongside Glasgow City Council (GCC) is considering implementation of a MUGA within newly completed Malls Mire Park.

The project is driven by the aspirations of local community groups to create a flexible multi game space that will complement existing facilities in the park and area of Toryglen.

The Feasibility Study carried out by LUC covers the following RIBA Stages:

0/1: Project Brief &

2: Concept Design.

The key Project Aims are as follows:

- Select the most appropriate MUGA within available budget
- Select the preferred use for the MUGA (based on feedback from local community) which in turn will influence final finishes and specification.
- Consider site constraints and site context to inform micro-siting of MUGA location
- · Undertake high level cost estimate.
- Identify next steps and provides recommendations on how to proceed.
- Support CG with pre-application consultation with GCC.

2. Site Survey and Analysis

2.1 Existing Site

 The site under consideration for the proposed MUGA was selected by the CG / GCC. It is located between Prospecthill Circus, Toryglen Community Centre and an existing Active Travel Route associated with the park.

The site has uneven topography with highest levels to the southeast falling towards Prospecthill Circus to the northwest, with a steep embankment on the north side of the site that separates it from the community centre. The approximate level difference across the site is 2.5m.

- It is anticipated that the area within the site boundary is 'made ground' arising from historic developments.
 The ground condition is therefore unknown and there is a possibility that the ground may contain contaminants. The site percolation is also unknown.
- The site contains several large mature goat willows (Salix caprea) with bramble in the undergrowth. A row of amenity shrubs has been planted in the past along the North boundary adjacent to the community centre and provides additional screening to the centre.
- Based on the above preliminary appraisal it is assumed that the existing site vegetation is of limited ecological value.
- Nearby street lighting, associated with the adjacent active travel route and Prospecthill Circus, offers some after dark lighting.
- A desire path running along the Prospecthill Circus connects the active travel route and the discontinued pavement to the North of the site.

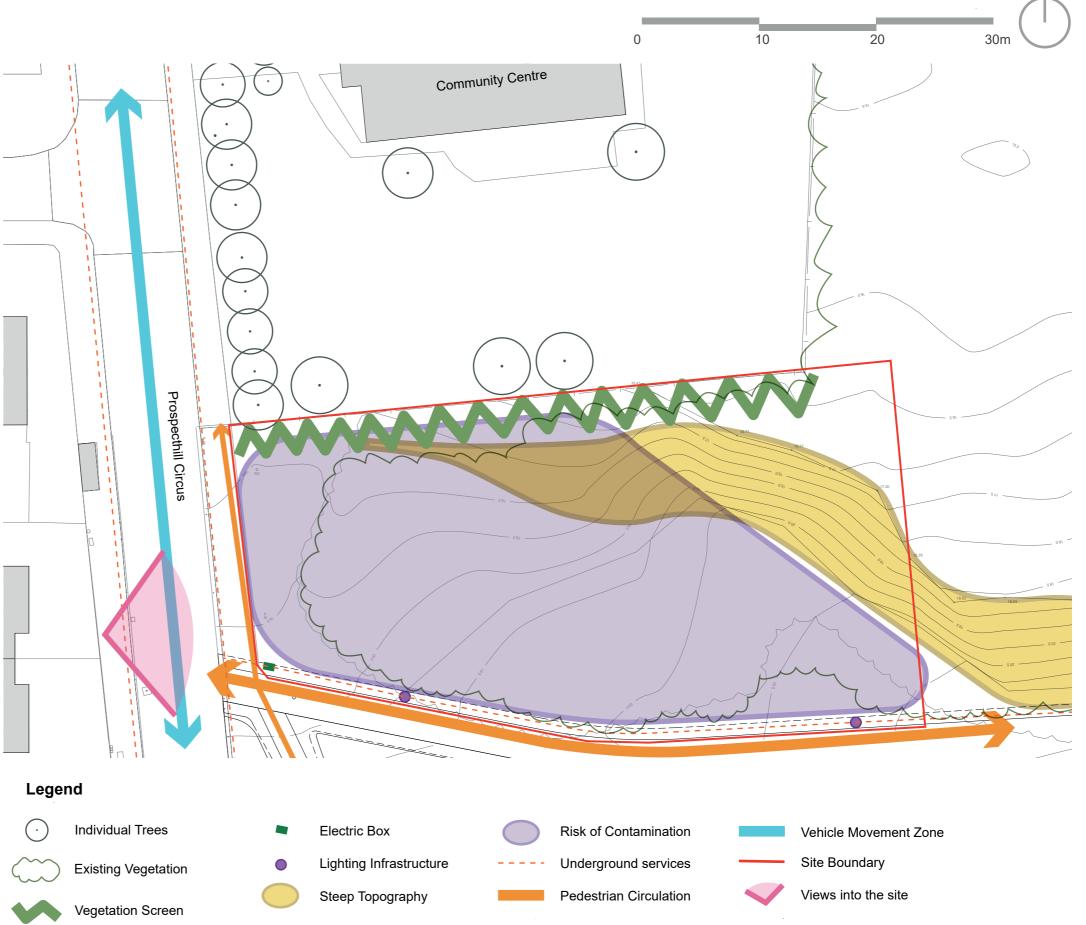


2. Site Survey and Analysis

2.2 Landscape Analysis

The site analysis is illustrated beside. The key points of the analysis are as follows:

- The site is largely screened from views due to existing vegetation especially between the site and adjacent community centre. Clearer views into the site are evident from adjacent properties on the Western side of Prospecthill Circus.
- As noted in the section 2: Existing Site, the area proposed for the MUGA has the potential for ground contamination. As such further Site Investigations and / or a detail soil testing is recommended to inform the detail design proposals.
- A steep embankment between the site and the community centre that merges into a larger embankment to the east creates a spatial constraint for the MUGA within the site (without the need for overengineered retaining walls to overcome the potential level change).
- The primary pedestrian movement zones are associated with park's footpath network and desire path running along Prospecthill Circus.
- It is assummed that the underground services associated with street lighting are located within the paths / road verge.



3. Optioneering

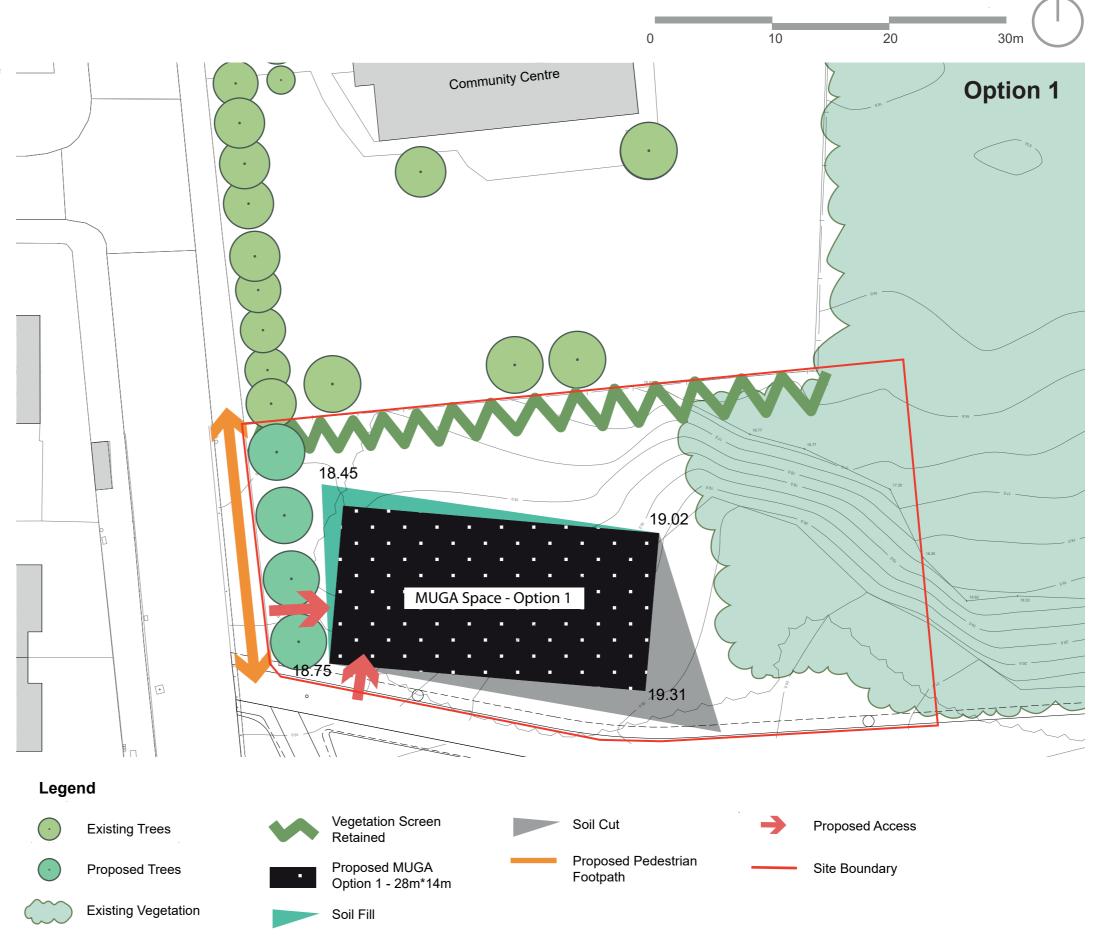
3.1 Option 1

LUC has carried out an optioneering exercise to determine size and location of the proposed MUGA taking into consideration the site constraints.

LUC has recognised two spatial options for the future MUGA:

- Option 1 based on an intermediate intervention; and
- Option 2 based on a maximised intervention.

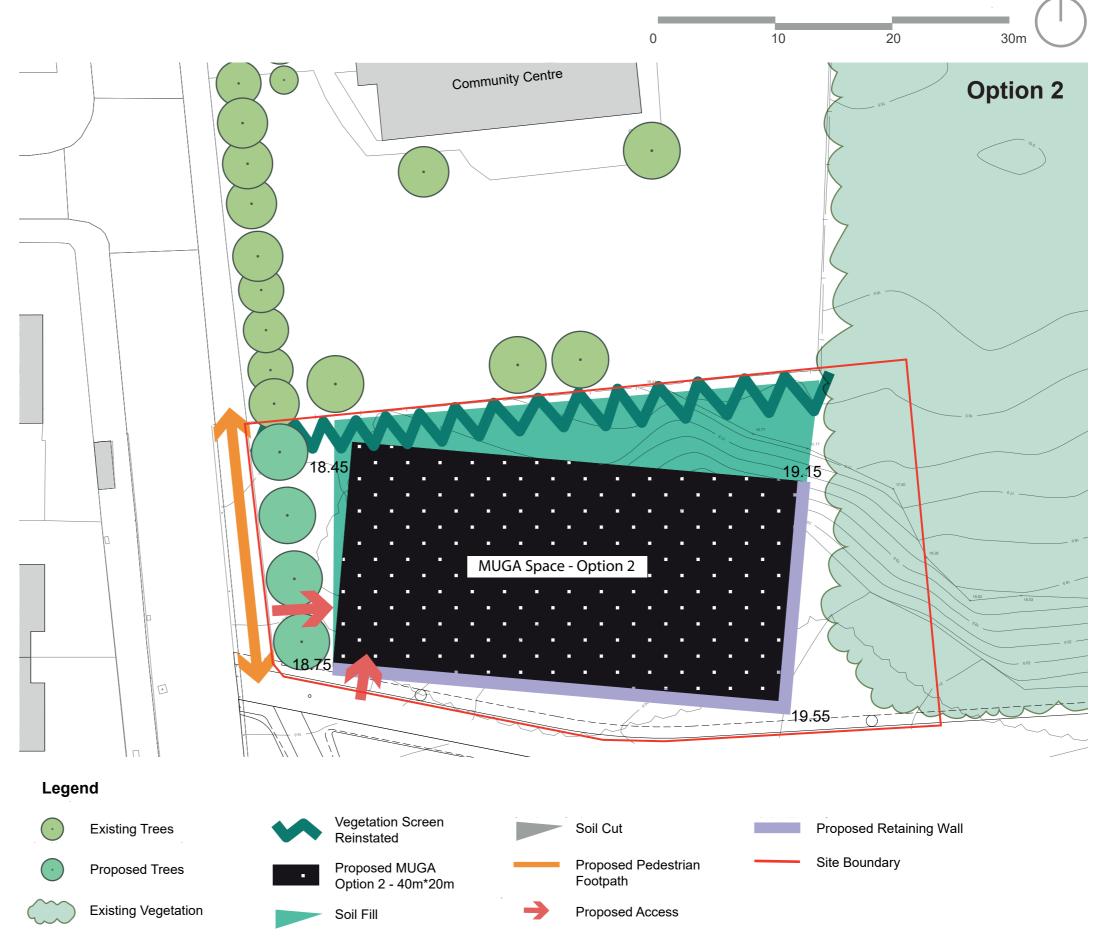
Option 1 proposes a 28m x 14m MUGA footprint. This option will require earthworks to re-profile the area to achieve favourable grades. It is anticipated that a cut of less than 1m will be required on the eastern side of the site. This option also recognises the retention of the existing vegetational screen between the site and community centre, reinstatement of side path to Prospecthill Circus and additional screen planting in the form of a tree row (continuation of street planting associated with community centre). It is proposed that the access to the MUGA can be provided on the southwest corner branching from the adjacent path network and / or an upgrade to the desire path running along the Prospecthill Circus.



3. Optioneering

3.2 Option 2

Option 2 proposed a larger 40m x 20m MUGA footprint. This option will also require earthworks to re-profile the area and some form of retention to overcome the level difference of over 1m. Extensive ground works will be required along the boundary with community centre which will lead to loss of screen planting. The access provision will be same as in Option 1.



3. Optioneering

3.3 Cost

A high level cost estimates reflecting both options are presented below.

Option 1

MUGA OPTION 2 : 28 x 14m	Quanity	Unit	Rate	Sum	
Site Clearance and Earthworks	500	m2	£5.00	£2,500.00	
Kerbs / Edging	84	lm	£40.00	£3,360.00	
Surface	392	m2	£75.00	£29,400.00	
Fencing	84	lm	£250.00	£21,000.00	
Access improvements	1	sum	£5,000.00	£5,000.00	
Soft Landscape	1	sum	£5,000.00	£5,000.00	
Tree Planting	4	nr	£250.00	£1,000.00	
To Collection			_	£67,260.00	
Prelims (12.5%)				£8,407.50	
Sub Total				£75,667.50	
Contingency (10%)			_	£7,566.75	
Estimate				£83,234.25	

Option 2

MUGA OPTION 3 : 40 * 20m	Quanity	Unit	Rate	Sum
Site Clearance and Earthworks	1000	m2	£5.00	£5,000.00
Kerbs / Edging	120	lm	£40.00	£4,800.00
Surface	800	m2	£75.00	£60,000.00
Fencing	120	lm	£250.00	£30,000.00
Retaining Wall	60	lm	£500.00	£30,000.00
Access improvements	1	sum	£5,000.00	£5,000.00
Soft Landscape	1	sum	£5,000.00	£5,000.00
Tree Planting	4	nr	£250.00	£1,000.00
To Collection			_	£140,800.00
Prelims (12.5%)				£17,600.00
Sub Total				£158,400.00
Contingency (10%)				£15,840.00
Estimate				£174,240.00

4. Types and MUGA uses

4.1 Types of MUGA

- MUGA (Multi Use Game Areas) are small sports pitches associated with schools, leisure, sports centres or parks. They can be used to provide variety of sports like: football, netball, tennis or basketball.
- Typically the surface areas of MUGA are contained within a secure fence
 of a height suitable to dedicated use and surrounding area. Often the
 fencing infrastructure incorporates integrated sports elements like goal
 posts or basketball nets.
- The surfacing of a MUGA pitch is typically dictated by the anticipated sport that will be played. The most commonly used surfaces for MUGA's are:
 - o asphalt (Macadam),
 - o Polymeric,
 - o artificial turf,
 - o concrete.

The application of lining to these surfaces enhances and stipulates anticipated sporting use. The suitability of each surfacing type against the anticipated use is shown in the table contained in Chapter 4.2 and classifies MUGA by a numbered Type.



Standard Large MUGA (multi use)



Standard Large MUGA (multi use)

4. Types and MUGA uses

4.1 Types of MUGA

- The sizing of MUGA depends on anticipated use / sport, the available space and the budget.
- Due to lack of national guidance on MUGA's LUC has reviewed the available online data from various manufacturers and assumed the following sizes are required per use.

Basketball half court - a size of 15 m x 10m is required.

Full basketball court - a size of 28m x 14m is required

Tennis court - a size of 24m x 11m is required.

Netball court - a size of 30.5m x 15.5m is required.

5 versus 5 football pitch - a size between 26m x 17m and $\,$ 30m x 20m is required.

For 7 versus 7 football pitch - a size of 60m x 40m is required.

The online data also suggest a standard size of MUGA for primary schools, which is 26m x 16m.



Sand Dressed Synthetic Turf



Macadam MUGA



Full Basketball Court with Goal Recess



Polymeric Surfacing



Basketball Court



Half Basketball Court

4. Types and MUGA uses

4.2 Surfacing and Uses

Multi-use games areas (MUGAs) - suitability of surface types for different sports.

Sports Surface/ MUGA Types	5-a-side Football	Tennis	Mini Tennis	Netball	Basketball	Modified Hockey	Rugby Training	Athletics Training	Football Training
Macadam (Type 1)	4	1	1	2	1	4	4	4	4
Macadam (Type 2)	4	2	2	1	2	4	4	4	4
Polymeric (Type 3)	3	2	2	1	2	3	4	3	3
Polymeric (Type 4)	2	3	3	3	2	3	3	1	2
Sand dressed synthetic turf (Type 5a)	1	2	2	3	3	1	2	3 (excluding spikes)	1
Sand dressed synthetic turf (Type 5b)	2	2	2	3	3	1	3	3 (excluding spikes)	2
Needle-punch synthetic turf (Type 5c)	3	3	3	3	3	2	4	3 (excluding spikes)	3

Key:

- 1 = Preferred surface
- 2 = Suitable surface
- 3 = Possible surface though less suitable
- 4 = Unsuitable surface

5. Preferred Proposal

5.1 Plan

- Through a consultation with the CG and a representative from GCC a preferred option has been selected for development of the Stage 2 concept proposal. The preferred option for development was Option 2 but with a slightly reduced size of 36m x 17m.
- The selected size for MUGA based on findings as in previous report section could accommodate 5v5 football pitch or a basketball court.
- The preferred surfacing has been agreed to be synthetic turf which stipulates football or tennis use for the MUGA. The selection of this material has been agreed via Community Consultations event organized and overseen by the Client.
- The final proposal incorporates further comments from CG and a direct access from the community centre has been added. This requires a new path link from the centre and stepped access to overcome the level difference.
- Due to the required earthworks and the formation of the MUGA platform the existing vegetative screening along North boundary will be lost. It is suggested that this is replanted with appropriate shrub and tree species.
- The proposal stipulates the use of enclosure fencing that will incorporate integrated sport features like goal posts or basketball nets.
- For the loss of mature trees and undergrowth compensatory planting it is proposed to seed any disturbed areas of the site with biodiverse rich meadows, whilst continuation of tree planting along Prospecthill Circus will contribute to the loss of mature willows.
- It is proposed that an additional solar powered flood lighting will be installed with a 'kill switch' to prolong use of the MUGA during darker months. For security reasons and to deter anti-social behavior it is considered to install modest CCTV system.



5. Preferred Proposal

5.2 Cost

A high level cost estimates reflecting both options are presented below.

MUGA Preferred Proposal : 36 * 17m	Quanity	Unit	Rate	Sum
Site Clearance and Earthworks	800	m2	£5.00	£4,000.00
Kerbs / Edging	168	lm	£40.00	£6,720.00
Surface	740	m2	£75.00	£55,500.00
Fencing	112	lm	£250.00	£28,000.00
Retaining Wall	54	lm	£500.00	£27,000.00
Access improvements	1	sum	£5,000.00	£5,000.00
Steps	14	sum	£500.00	£7,000.00
Soft Landscape	1	sum	£6,000.00	£6,000.00
Tree Planting	4	nr	£250.00	£1,000.00
Solar lighting and CCTV	2	nr	£5,000.00	£10,000.00
To Collection				£150,220.00
Prelims (12.5%)				£18,777.50
Sub Total			_	£168,997.50
Contingency (10%)				£16,899.75
Estimate				£185,897.25

6. Recommendations

The conclusion of RIBA Stage 2 recommends the following next steps which consist of various surveys and consultations.

- As it is anticipated to fell existing trees and change the use of the land from general amenity greenspace to MUGA, it is recommended that Glasgow City Council planning department is consulted to determine if a planning application is required.
- Due to the site being covered with trees and other vegetation it is recommended that CG commission an Ecological survey (in form of Preliminary Ecological Appraisal) and a Tree survey to BS 5837 to inform the next stage of design and also to support a potential planning application.
- It is recommended that Site Investigations are undertaken to determine ground percolation and to confirm if the ground contains contaminants, and whether additional specialist measures are required e.g a capping layer.
- For development of RIBA Stage 3 & 4 modest inputs from a Civil, Structural and M&E Engineer.