



Cambridge City Council

To: Executive Councillor for City Centre and Public Places
Report by: DIRECTOR OF ENVIRONMENT
Scrutiny committee: ENVIRONMENT
Wards affected: MARKET

Project Appraisal and Scrutiny Committee Recommendation

Project Name: **Jesus Green Drainage**
To: Executive Councillor for City Centre and Public Places
Report by: DIRECTOR OF ENVIRONMENT
Scrutiny committee: Community Services
Wards affected: MARKET

Project Appraisal and Scrutiny Committee Recommendation

Project Name: **Jesus Green Drainage**

Recommendation/s

Financial recommendations –

The Executive Councillor, in consultation with the Chair and Spokes is asked to approve the delivery and completion of this scheme, which is already included in the Council's Capital & Revenue Project Plan (PR034C - 38226).

- The total cost of the project is £ 105,000 funded from developer contributions
- The on-going revenue costs of the project are £ 1,500 per annum over a 30 year period, funded from Streets and Open Spaces Repairs and Renewals fund.

Procurement recommendations:

The Executive Council is asked to approve formal contractual appointment, delivery and completion of the project.

- Subject to:
 - The permission of the Director of Resources being sought prior to proceeding if the quotation or tender sum exceeds the estimated contract value.
 - The permission from the Executive Councillor being sought before proceeding if the value exceeds the estimated contract by more than 15%.

Project Name: Jesus Green Drainage improvements

1 Summary

1.1 The project

To undertake drainage works to alleviate problems with seasonal standing surface water, further to a feasibility study as instructed at scrutiny committee June 2013, and identification of preferred contractor and construction method.

The Project is seasonally/weather dependent and the below dates for delivery and completion of project should be treated as provisional.

Target Dates:

Start of procurement	July 2013
Award of Contract	June 201
Start of project delivery	July 2014
Completion of project	July/August 2014
Date that project output is expected to become operational (if not same as above)	July/August 2014

1.2 Anticipated Cost

Total Project Cost	£ 105,000
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Cost Funded from:

Funding:	Amount:	Details:
Reserves	£ 0.00	
Repairs & Renewals	£ 0.00	
Developer Contributions	£ 105,000	Paragraph 2.5 in report
Climate Change Fund	£ 0.00	
Other	£ 0.00	

1.3 Procurement process

A preferred contractor has been identified, and will be appointed subject to the approval of this out of cycle decision. The preferred contractor was identified using a competitive tender process, inviting six organisations to bid for the works. The contractual appointment is also dependent on consent for the works to be granted under section 38 of the Commons Act. This decision is anticipated shortly, as no objections have been maintained during statutory consultation process.

2 Project Appraisal & Procurement Report

2.1 Project Background

The drainage of Jesus Green is identified as a strategic priority for the use of city-wide developer contributions funding for the delivery of short to medium term projects by the Executive Councillor for Arts, Sport and Public Places in January 2013, having been put forward by the West/Central Area Workshop in September 2012.

To alleviate problems of standing surface water (caused mostly by rainfall and a potentially high Groundwater level) on selected areas of Jesus Green, drainage improvements are proposed to remove surface water from a specific area of the Common most frequently used for events.

Officers undertook a feasibility study that informed the chosen design. This process included:

- Topographical survey to determine ground levels and drainage falls.
- Soil testing and permeability testing, accompanied by independent drainage recommendations on different drainage options.
- Ground Penetrating Radar surveys to establish hidden obstacles, features or existing drainage.
- Various design solutions drafted and considered.
- Legal permissions, including Section 38 under the Commons Act and Environment Agency Flood defence consent, identified and applications for works consent made.
- Several rounds of consultation with local groups and stakeholders
- Market testing on supply and installation rates with preferred contractor identified
- Contractor and specialist input on detailed design

Design Statement

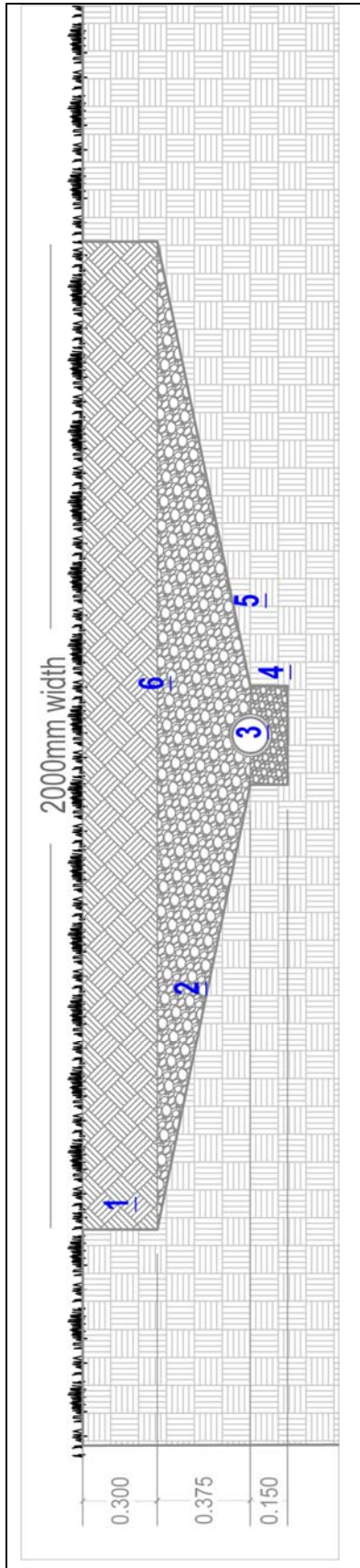
Soils on Jesus Green are very fine, and prone to becoming very desiccated throughout the year. During rainfall events, soil saturates very quickly, preventing water from permeating into the ground. Groundwater also rises, increasing the likelihood for surface water to puddle and remain in situ.

In response, officers have designed a 'bio-filtration' drain that will both drain down and clean storm water before discharging into the Cam. The drain will be located in the lowest lying area of the common, using existing natural gradients to capture storm water. Bio filtration is an established 'Sustainable Urban Drainage System (SuDS) method, which brings multiple benefits over traditional drainage systems.

A dual pump system is required due to a foul sewer adjacent to the River Cam, which prevents a purely gravity led system being used.

Conservative officer calculations suggest that as designed, the 250m² bio filtration drain has a capacity to remove between 65 to 75 m³ of water per day (65 to 75 tonnes). However, it is difficult to undertake a completely accurate assessment because of the large number of variables including intensity and duration of rainfall, preceding and following weather conditions as evapotranspiration will also play a large part in the drainage of the area. This calculation is based on the removal of 250-300mm depth of water over the area of the device per 24 hours.

Officers believe that this bio-filtration solution is the most suitable solution for this site, as it represents a visually non-intrusive solution which works with the sites topography, as well as having significant benefits in cleaning water through the drainage process.



Sectional view and description of bio-filtration drain

A Bio-filtration drain (device) is an excavation to a depth of approximately 1 metre, backfilled with free draining soils, membranes and aggregates (1, 2, 4 and 6), topped with a specialised mix of free draining topsoil (1). These areas will be seeded with an amenity grass mix.

The sides and the base will be lined with an impermeable membrane (5), preventing any ground water from rising or moving into these areas other from the surface, from where it can freely drain/trickle down through the top soils and into the pipe (3) to the river. Most silt and sediment is caught in the top 50mm of soil, thus removing solids (which carry pollutants) from the storm water. The aggregates will further clean and filter the water.

This main aim is to free up Jesus Green for longer periods of time and increase the range of activities and the period available for a range of activities such as informal games, events, picnics and opportunities for exercise.

Jesus Green has also been suggested as a location for more formalised recreation in the long term, in association with a scheme to replace Rouse Ball Pavilion, also identified as a longer term strategic priority for city wide developer contributions.



Image 1

Image 1 shows the area of Jesus Green subject to this scheme from the project appraisal of June 2013.

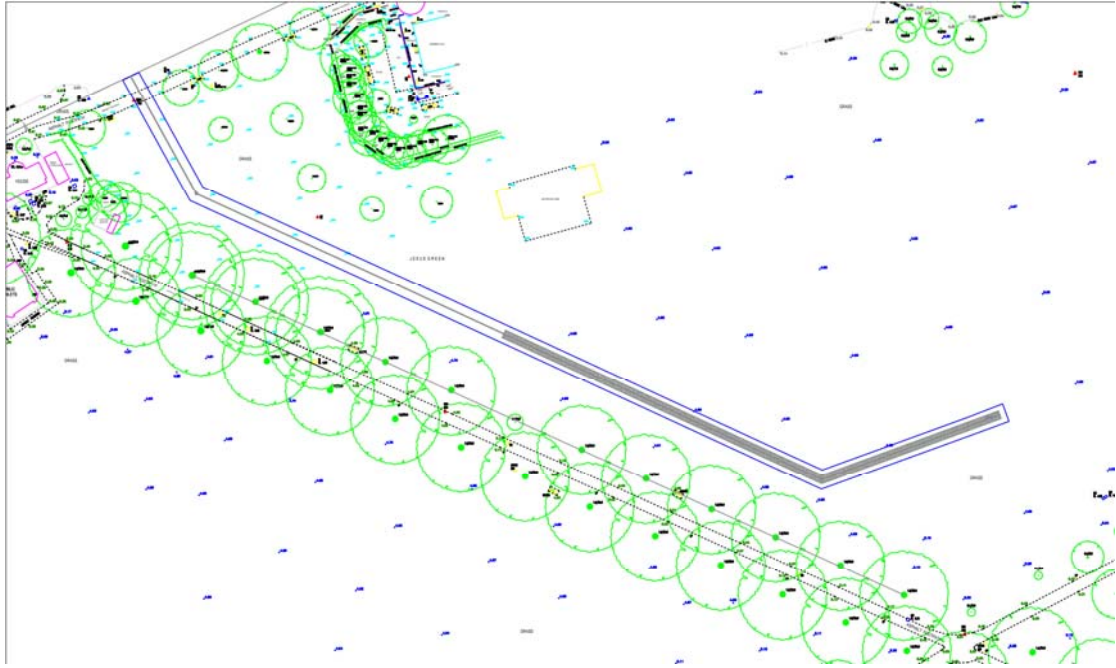


Image 2

Image 2 shows the location of the proposed drain, following the low lying and wettest area of the Common.



Image 3

Highlights the drainage problem at Jesus Green.



Image 4

Shows the annual beer festival location

2.2 Aims & objectives

To increase the area of available Open Space and therefore alleviate pressure on the other parts of the Green following wet weather

To increase the speed of surface water removal from areas of higher use

To increase the period of time recreational space is available

To increase the period of time for events on Jesus Green,

To provide a potential space for the creation of a formalised sport area.

2.3 Major issues for stakeholders & other departments

Consultation undertaken:

- Public

The audience development exercise produced for the Heritage Lottery Fund Bid in identified the benefits of using this area of Jesus Green to be used for more recreational activities. Drainage was included in the master planning undertaken on 2007, when it was developed for the 2008 bid as part of a detailed consultation process.

This HLF project was discussed at Community Services Scrutiny Committee board and a project approved. The drainage scheme has been discussed at length with Jesus Green Association through the Jesus Green working group.

Jesus Green drainage has been included on the ten prioritised projects for city wide S106 allocations, as available from Cambridge Council City website.

As part of the feasibility study, officers have attended various meetings of Jesus Green Association and residents associations, presenting options and findings to ensure key stakeholders are engaged and informed.

The consultation process has also included consultation with County Council Public Right of Way Officers, the Environment Agency, Planning Inspectorate, Open Spaces Society, Ramblers Association, Natural England, English Heritage and the Cam Conservators.

- Members

West and Central S106 workshop, held in October 2012. The project is included within the ten prioritised projects for city wide S106 allocations, as discussed at scrutiny panel for Community Services on the 17th January 2013.

Both Cambridge City and County Council ward members have been included in various update e-mails throughout the feasibility process to highlight new information or major design decisions. Authority to proceed with various design or projects stages has also been sought through this process.

2.4 Summarise key risks associated with the project

Consent under section 38 of the Commons Act 2006 is required. There have been no objection raised through the consultation process. A decision is expected imminently by the 23rd of June.

Public reaction to the appearance of Jesus Green post installation of the drainage, where there will be a period of recovery, prior to grass seed mixtures establishing. The period of establishment will depend on the level of rainfall and flooding over the winter period.

Vandalism to works is also a risk. The area will be fenced off with appropriate signage to mitigate this risk.

This scheme has been identified as a recipient of S106 developer funds in the short to medium term, and will alleviate pressures on the Council that would be caused by non-allocation of contributions.

As a publically identified project, included within the ten city wide prioritised projects, there is a public risk of 'non-delivery' on the part of the Council should this scheme not go ahead.

The risk of adverse public reaction to the inconvenience of works during implementation and the following re-establishment of grass on the Common.

Decline of the asset value of drainage if not corrected, resulting in a loss of usable space for recreation.

Project overlap. Jesus Green footpath and cycle way improvements, as part of the shared cycle way improvement scheme, cannot commence until this work is complete. Cycle way improvements are programmed for commencement in late July, through August.

Event organisers will be supplied with the location of drainage highlighted to them.

2.5 Financial implications

- a. Appraisal prepared on the following price base: 2013/14
- b. Specific grant funding conditions are:
 - See below
- c. Other comments
 - "This project was identified as a strategic priority for the use of city-wide developer contributions funding by the Executive Councillor for Arts, Sport and Public Places in January 2013. It is included on the Council's 2013/14 Capital Plan (ref. (PR034C - 38226)).

Officers are minded to allocate city-wide developer contributions funding for this project: £105,000 of informal open space contributions. Specific contributions have already assigned to the Strategic Developer Contributions in line with the Council's agreed

approach to devolved decision-making: if, in due course, it transpires that there are other specific and appropriate contributions that need to be used instead, these arrangements may be revised.

If the project appraisal is approved, it is envisaged that a contract for the works could be entered into by mid Summer 2014. On this basis, this would present no issues for developer contributions expiry dates - the earliest being September 2014.

2.6 Net revenue implications (costs or savings)

Revenue	£	Comments
Maintenance		
R&R Contribution	£ 1,500	Annual contribution over 30 years for maintenance
Developer Contributions		
Energy savings	()	See below
Income / Savings	()	
Net Revenue effect	£ 1,500	Cost

Un-quantified considerations:

There is an increased capacity for revenue generation from this site, following the flood impact reduction measures.

Jesus Green is currently subject to a fortnightly cut, undertaken by the Streets and Open Spaces service delivery team. By reducing periods of standing water time grass cutting frequency will need to be increased. The Streets and Open Spaces team are able to accommodate this slight increase in cutting within their existing grass cutting programme.

2.7 VAT implications

"The VAT incurred on this project will need to be incorporated within the Council's annual Partial Exemption (PE) calculation, of around £21,000. This VAT is known as 'exempt input tax' as the Council hires this venue for various VAT exempt supplies (e.g. the hiring of land). There is a risk to the Council, dependent on other capital schemes corporately, that it's 5% de minimis limit could be exceeded. An option to mitigate this risk would be to consider 'opting to tax' this site.

However, this option is not being considered at this stage, due to the above amount being relatively immaterial in VAT terms. This Council is therefore confident that the above amount can be contained within the above PE limit. Careful monitoring by the Accountant (VAT & Treasury) is being instigated and any divergence from the planned capital expenditure will be advised to the Director of Resources for appropriate action to be taken."

2.8 Energy and Fuel Savings

(a) Is this project listed in the Carbon Management Plan?	No
	If 'No', move to Section 2.9.

(b) Estimated Annual Energy Cost Savings

Year 1	£ 0.00
Ongoing (£ per year)	£ 0.00
Anticipated project lifetime (years)	N/A
On what basis have you specified this project lifetime?	N/A

(c) Which cost centre energy budget should these savings be retrieved from?

Cost Centre Name	Cost Centre Number	Account code	Cost Centre Manager
N/A			
N/A			

(d) Monitoring of Savings

2.9 Climate Change Impact

Positive Impact			No effect	Negative Impact		
			Nil			

2.10 Other implications

The proposal makes a net improvement to access across Jesus Green by decreasing the period of time storm waters are able to preclude access to the green space. This will affect all users of the Common.

There will be reduced/restricted impact during the works phase. This will also affect all users of the Common for a duration of up to 8 weeks post completion. Consideration will be given to users of specific assets such as the Lido and playground, as well as general access and events provision.

2.11 Staff required to deliver the project

Service	Skills	Total Hours
<i>Streets and Open Spaces, Project Delivery</i>	<i>Procurement Planning permission</i>	<i>Approximately 150</i>

<i>and Asset team</i>	<i>Environmental control</i> <i>Contract administration</i> <i>Project quality control</i>	
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2.12 Dependency on other work or projects

It is not advised that Jesus Green footpath and cyclepath improvements commence until drainage works have been completed. Works will be programmed so as not to interfere with playground improvements on Jesus Green, also being delivered by Streets and Open Spaces this financial year, permissions allowing.

2.13 Background Papers

Scrutiny decision notice:
Options for the use of City Wide developer contributions
Community Services Scrutiny: 17th January 2013
Environment Scrutiny report: June 2013

2.14 Inspection of papers

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Date prepared:	23 rd May 2014

Capital Project Appraisal - Capital costs & funding - Profiling

Appendix A

	2013/14	2014/15	2015/16	2016/17	2017/18	Comments
	£	£	£	£	£	
Capital Costs						
Building contractor / works	0	85,000				
Purchase of vehicles, plant & equipment						
Professional / Consultants fees	11,000	5,000				
Other capital expenditure:	4,000					Officer time
Total Capital cost	15,000	90,000	0 0 0			
Capital Income / Funding						
Government Grant						
Developer Contributions	105,000					(See Appendix B)
R&R funding						
Earmarked Funds						
Existing capital programme funding						
Revenue contributions						
Total Income		0	0 0 0			
Net Capital Bid	15,000	90,000	0 0 0			Must agree to 1.2 above