



To: Executive Councillor for Planning and Sustainable Transport: Councillor Tim Ward
Report by: Head of Specialist Services
Relevant scrutiny committee: Environment Scrutiny Committee 4/10/2011
Wards affected: All Wards

Replacement of Grand Arcade Car Park Management System

Key Decision

1. Executive summary

- 1.1. The Grand Arcade car park management system is now more than 7 years old and needs to be replaced to sustain and protect the council's income stream. A decision needs to be made to commit the capital expenditure to procure a suitable solution that addresses customer needs and expectations.
- 1.2. A new system will need to comply with new rules relating to processing cashless parking payments. It will need to be capable of delivering key objectives that will enhance access to the car park and enable emissions-based charging and customer-focused initiatives and promotions that can influence parking demand. The new system will include Pay on Foot technology to control access to and facilitate payment for parking across one or more multi-storey car parks, and enable web-based payment and pre-booking of parking at the Grand Arcade car park.

2. Recommendations

The Executive Councillor is recommended:

- 2.1 To delegate authority to the Director of Environment and, in consultation with the Director of Resources and the Head of Legal to procure and award a contract to implement a new car park management system, to be installed in the Grand Arcade

car park. The total capital cost of the project is approximately £400,000, and this is to be funded from the car parks' equipment R&R budget.

3. Background

- 3.1 The current Grand Arcade car park management system was installed in the former Lion Yard Annex to manage the reduction from 1000 spaces to 330 spaces during the construction of the Grand Arcade and the new car park. The system is now over seven years old and nearing the end of its useful life. Rising maintenance costs and decreasing reliability present real operational and financial risks to the city's busiest car park. Developments in technology and growing customer expectations also call into question the suitability of the present system to satisfactorily meet the needs of today's stakeholders.
- 3.2 Given the developmental nature of the project, it is proposed that specialist advice be procured to help with the detailed definition and technical specifications of the project tender documentation and with the management and implementation of the specific solution and costing.

4. Implications

(a) Financial Implications

Capital costs are estimated to be in the region of £400,000, consisting of the costs of the equipment (£370,000), civil works (£10,000) and specialist advice in specifying and procuring a suitable solution (£20,000). These costs will be incurred in the 2012/13 financial year.

Additional Revenue costs of £1,500 per annum are anticipated, to fund costs associated with operating internet-based pre-booking facilities.

(b) Staffing Implications

Support will be required from the Council's Procurement team (10 hours), while the Parking Service's management team will project manage this scheme (700 hours).

Finance and legal services will be required to prepare and administer the contract (25 hours).

External consultancy will be procured to provide detailed specification and evaluate tender (100 hours).

(c) Equal Opportunities Implications

The new system will improve accessibility of the car park for disabled customers.

An Equality Impact Assessment been conducted for this proposal

(d) Environmental Implications

Climate Change Impact: +L:

This project will seek to reduce ticket-based transactions, reduce cash handling, and procure energy efficient technology.

(e) Consultation

The Parking Service will be commissioning a survey of disabled users of car parking and ShopMobility services prior to the procurement of this new system, in order to better understand how accessibility might be improved through this investment.

(f) Community Safety

The system will help to reduce the amount of cash transactions that need to take place in the car park, and link into help points to communicate with customers in difficulty.

5. Background papers

These background papers were used in the preparation of this report:

Equalities Impact Assessment

6. Appendices

Appendix 1- Capital Project Appraisal

7. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name:	Paul Necus
Author's Phone Number:	01223-458510
Author's Email:	Paul.necus@cambridge.gov.uk

APPENDIX 1

Project Appraisal and Scrutiny Committee Recommendation

Project Name	Replacement of Grand Arcade Car Park Management System
Committee	Environment Scrutiny
Portfolio	Climate Change and Transport
Committee Date	4th October 2011
Executive Councillor	Tim Ward
Lead Officer	Sean Cleary

1. Recommendations

Financial recommendations –

- 1.1 The Executive Councillor is asked to approve the commencement of this scheme, which is already included in the Council's Capital & Revenue Project Plan (SC506).
- 1.2 The total capital cost of the project is estimated to be £400,000 and it is proposed that this is funded from the car parks equipment R&R fund.

Procurement recommendations:

- 1.3 The Executive Councillor is asked to approve the carrying out and completion of the procurement of a new car park management system and its installation.
- 1.4 If the quotation or tender sum exceeds the estimated contract value by more than 15% the permission of the Executive Councillor and Director of Finance will be sought prior to proceeding.

Summary

2. The project

- 2.1. To procure a suitable Pay on Foot car park management system to replace the present system at the Grand Arcade Car Park.
- 2.2. A car park management system includes front line car park equipment such as entries, exits, barriers and paystations. It also includes computer equipment so the car park attendants can view and operate the equipment from the control room in the Grand Arcade car park. Equipment may also be needed so the management team can remotely operate equipment and run reports of car park operations from their centralised business office.
- 2.3. The control equipment must also be able to act as a central hub to view and control the function of the other multi storey car parks after their car parking equipment is replaced.

Target Start date	<i>April 2012</i>
Target completion date	<i>March 2013</i>

The Cost

Total Capital Cost	£400,000
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Capital Cost Funded from:

Funding:	Amount:	Details:
Reserves	£0	
Repairs & Renewals	£400,000	Car park Equipment R&R23545. Capital project ref. SC506
Section 106	£0	
Other	£0	

Revenue Cost

Year 1	£1,500	Fees for external management of pre booked parking payments made on website
Ongoing	This will be reviewed as new service introduction	

3. The Procurement

- 3.1. The car park management system at the Grand Arcade car park will be competitively tendered.
- 3.2. The tender will be for replacement of the car parking equipment at the Grand Arcade, It will also ask for an option price on the same parking equipment to be installed in the other multi storey car parks in the future. This option price will enable us to use this one procurement exercise to install equipment in all of our car parks some years apart and ensure competitive purchase prices. Advice will be sought from the procurement team regarding this matter.
- 3.3. Committee approval will be sought as expected before purchasing car parking equipment for installation in the other multi storey car parks.
- 3.4. Given the developmental nature of the project, it is recommended that specialist advice be procured from a parking consultant to help with the detailed definition and technical specifications of the project tender documentation and with the management and implementation of the specific solution and costing.

Capital Project Appraisal & Procurement Report

4. What is the project?

- 4.1 The project is to replace the car park management system at the Grand Arcade Car Park. The existing car park equipment is now seven years old having been installed during the initial

phase of the Lion Yard demolition in 2004/05.

- 4.2 The equipment is nearing the end of its useful life with rising maintenance costs and decreasing reliability, which present a real operational and financial risk to the city's busiest car park.
- 4.3 Developments in technology and growing customer expectations also call into question the suitability of the present system to satisfactorily meet the needs of today's stakeholders.
- 4.4 Emerging innovations in the way parking is purchased and paid for, including 'Wave and Pay' contactless technology, and new opportunities for pre-payment and cashless payment are available to customers through the Internet. Pre-payment for parking and advanced booking of parking space through on-line and telephone-based technology including Near Field Communications (NFC) and Automatic Number Plate Recognition (ANPR), are becoming a common feature of large car parking operations, particularly at airports and shopping centres.
- 4.5 Some of the most popular examples of NFC applications in mobile devices initially focussed on contactless ticketing. For car park customers, the convenience of using their mobile phone to pay for the train or bus fare is proving increasingly popular. Cambridgeshire's Park and Ride Service is trialing NFC technology for ticketing and payment of this service.
- 4.6 ANPR has operated successfully in Cambridge for nearly three years for blue badge holders and season ticket holders as a means of enhancing access and control in and out of car parks.
- 4.7 A new car park management system will need to:
 - Strictly control customer access including paper tickets, pass cards, credit/debit cards, bar codes, pin pad, licence plate, Radio Frequency Identification (RFID) tags
 - Be able to remotely provide a discount to blue badge holding customers

- Provide multiple payment options including coins, notes, credit/debit cards, online pre-booking and prepayment, Near Field Communications (NFC), and promotional/marketing options
- Include transaction tracking for strict accountability and audit
- Meet all key operating and financial needs of the Council now and in the foreseeable future including capacity availability/utilisation, in a complete, accurate, and timely manner. This includes demand management, including emissions-based charging, Vehicle Message Systems (VMS) integration, integrated management information systems, web reporting (standard and customised) and 'dashboard' presentation.
- Be Payment Card Industry (PCI) compliant to accommodate extension to multiple additional large scale multi-storey car parks
- Integrate with the Councils IT systems including financial, security, web site, on-line authorisation and other systems
- Provide centralised remote control of all car parks on the system
- Operate as a 100% cashier-free car park solution to eliminate traffic flow issues

5. What are the aims & objectives of the project?

5.1 The objectives of the new management system is to:

- Provide a fully integrated car park management system with centralised control, capable of operating all the Council's car parks.
- Equip the Grand Arcade car park with a modern Pay on Foot management system capable of meeting all of the foreseeable needs of the car park stakeholders.
- Provide a solution to be able to remotely discount the parking of Blue Badge holders. This will fulfil an important aim to improve the safety of our customers. Currently Blue Badge holders park alongside the customer service kiosk next to the exit of the car park to claim their parking discount, often causing a dangerous level of congestion in a

very busy area. It is felt that there will soon be an accident as cars emerging from the exit spiral, often travelling too quickly, find the road to the exit barriers blocked by parked cars.

- Provide car park customers with new services including ticketless credit/debit card at entry and exit, replacement ticket issue at pay stations, web based prebooking and prepayment, NFC payment at pay stations and eliminate the need for cashiers at car park exits.
- Integrate financial systems and on-line card authorisation, improve financial and management control and enable car park tariffs and statistical reports with minimal dependency on the system provider
- Minimise the scope for fraud through the application of technology such as ANPR, event driven CCTV & intercom file retrieval functions.
- Increase commercial opportunities by linking into events and retail initiatives
- Improve car park security and control including the integration of ANPR to capture, record and print vehicle registration numbers onto uniquely numbered and encoded car park entry tickets.

5.2 The project contributes to the Council's vision of a city:

- in the forefront of low carbon living and minimising its impact on the environment from waste and pollution through reduced ticket and paper use and reduced cash collections through the promotion of non cash methods of payment.

6. The major issues for stakeholders & other departments

6.1 General public

- More options for payment reducing the requirement for cash
- Improved efficiency of access & egress
- Improved security with licence plate linked ticketing
- Improved information via web and VMS systems
- Improved customer services eg replacement tickets at pay stations
- Improve access for disabled drivers

6.2 Retailers

- More ways to use and promote car parks to go shopping
- Council
- More ways to improve cost/benefits
- Increased scope to refine and increase car park revenue
- Improved financial control
- Improved management information
- Enhanced demand management toolkit

6.3 Environment

- More ways to encourage greener parking

7. Summary of key risks associated with the project

7.1 Installation of new equipment could:

- Disrupt operations during installation period
- Cause loss of income due to closure of parking spaces

Both of these can be mitigated through a phased installation during off-peak or closed car park periods

7.2 To do nothing will:

- Result in increased maintenance
- Increased disruption due to break down
- Loss of reputation
- Loss of revenue.

8. Financial implications

8.1 Appraisal prepared on the following price base: 2011/12

Capital & Revenue costs

(a) Capital	£	Comments
Building contractor / works		
Purchase of vehicles, plant & equipment	370,000	
Professional / Consultants fees	20,000	Estimate cost for 2012/13 budget period
IT Hardware/Software		
Other capital expenditure	10,000	Civil works/cabling
Total Capital Cost	400,000	

(b) Revenue	£	Comments
	1,500	Fees for external management of pre booked parking payments made on website. Bid for funding would be made through annual budget review
Total Revenue Cost	1,500	

9. VAT implications

This project has no adverse VAT implications.

10. Equal Opportunities Implications

The new entry, exit and pay machines procured in this project will be suitable for use by disabled customers. The new equipment will enable us to remotely provide a parking discount to blue badge holders meaning that they will no longer have to park next to the exit and get out of their cars to visit the customers services kiosk.

The Grand Arcade has an equalities impact assessment but this will be updated in the near future for the two proposed new projects at this car park.

11. Environmental Implications

Climate Change impact	+L
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- 11.1 This project will have a positive climate change impact.
- 11.2 We are anticipating having less pay machines, which handle cash, and therefore fewer cash collections will be required. Payment machines will have the ability to switch off after prolonged periods of inactivity. They will automatically switch back on when customers approach the machine these requirements will be shown in the specification when procuring the project. However, details have not yet been finalised.
- 11.3 The new management system will handle pre booking with a ticket less system so saving on paper tickets being used. We expect this process to become popular. However, we are unable to quantify the usage of pre booking at this time.

12. Other implications

None

13. Estimate of staffing resource required to deliver the project

- Procurement team – 10 hours
- Parking Service management team will project manage – 700 hours
- Finance and legal services required to prepare and administer the contract - 25 hours
- External consultancy to provide detailed specification and evaluate tender – 100 hours

14. Dependencies upon other work or projects

The new car park management system is reliant on the new integrated car park and ShopMobility control room being completed

on time, which will need to be suitable for the installation of the parking management equipment.

15. Background Papers

N/A.

16. Inspection of papers

Author's Name	Sean Cleary
Author's phone No.	01223 458287
Author's e-mail:	Sean.cleary@cambridge.gov.uk
Date prepared:	27/10/10

Capital Project Appraisal - Capital costs & funding - Profiling

Appendix A

	2010/11	2011/12	2012/13	2013/14	2014/15	Comments
	£	£	£	£	£	
Capital Costs						
Building contractor / works	0					
Purchase of vehicles, plant & equipment			370,000			estimated
Professional / Consultants fees	0		20,000			estimated
Other capital expenditure:	0		10,000			cabling/civils (estimated)
	0					
Total Capital cost	0	0	400,000	0	0	
Capital Income / Funding						
Government Grant	0					
S106 funding	0					
R&R funding			400,000	0		Car park Equipment R&R 23545 Capital project SC506 already set up
Earmarked Funds	0					
Existing capital programme funding	0					
Revenue contributions	0					
Total Income	0	0	400,000	0	0	
Net Capital Bid	0	0	0	0	0	