Committees:	**Dates:**
Corporate Projects Board Projects Sub-Committee Planning & Transportation Committee	25 November 2019 16 December 2019 12 December 2019
Subject: Baynard House Car Park – Ventilation & Smoke Clearance System. **Unique Project Identifier:** *PV Project ID 12195*	**Gateway 1-4 Project Proposal & Options Appraisal** Regular
Joint Report of: Director of the Built Environment And City Surveyor **Report Author:** Samantha Tharme	**For Decision**
PUBLIC	

Recommendations

1. Approval track, next steps and requested decisions	**Project Description:** Ventilation system for Baynard House Car Park, to meet Fire Risk Strategy requirements and provide adequate ventilation for current operation. **Next Gateway:** Gateway 5 - Regular **Next Steps:** Specification and drawings for tender for work on Baynard House to include ventilation system and all ancillary work. Issue tender under Intermediate Framework Contract. Assess tenders and recommend contract award. **Requested Decisions:** **Projects Sub-Committee; Planning & Transportation Committee**

<table>
<tr><td></td><td>
1. That budget of £37,000 is approved for Baynard House car park ventilation system to reach the next Gateway 5;
2. Note the total estimated cost of the project at £647,000 (excluding risk); which has been included as part of the annual capital bid for Department of Built Environment 2020/21; funding requested from On-Street Parking Revenue account.
3. Note the risk register in appendix 2.
4. That Option 1A to install a new ventilation system to Baynard House car park, is approved
</td></tr>
<tr><td>2. Resource requirements to reach next Gateway</td><td>
<table>
<tr><th>Item</th><th>Reason</th><th>Funds/ Source of Funding</th><th>Cost (£)</th></tr>
<tr><td>Staff costs</td><td>To prepare tender specification and manage project</td><td>Local risk</td><td>5,000</td></tr>
<tr><td>Asbestos survey</td><td>To identify whether any asbestos in tunnel and carpark</td><td>Local risk</td><td>10,000</td></tr>
<tr><td>Asbestos removal</td><td></td><td>Local risk</td><td>10,000</td></tr>
<tr><td>Approvals and CDM</td><td>Sign off on designs - building control officers and CDM.</td><td>Local risk</td><td>12,000</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Total</td><td></td><td></td><td>37,000</td></tr>
</table>
Costed Risk Provision requested for this Gateway: none
</td></tr>
<tr><td>3. Governance arrangements</td><td>
• Projects Sub-Committee
• Planning and Transportation Committee
• Senior Responsible Officer Zahur Khan as Director of Transportation and Public Realm sponsor to complete health and safety requirements for the car park.
• Project Manager – Richard Low-Foon City Surveyors
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	• No project board required as straightforward upgrade of ventilation system in Baynard House car park to ensure fire risk strategy is adequate to maintain use of the car park.

Project Summary

4. Context	4.1 This project is to provide a new ventilation system for Baynard House Car Park, to meet Fire Risk Strategy requirements and provide adequate ventilation for current operation. A separate project fully funded by TfL will deliver Electric Vehicle charge points, this EV charge points is dependent on the ventilation system being fit for operational purpose. 4.2 Gateway 1-4 approach has been taken as the work can be procured through the Intermediate Framework and some initial concept design requirements have been completed to provide an indicative cost. It is recommended that the most expedient process is used to procure the works. 4.3 The review of ventilation systems on all car parks had been proceeding at a pace to inform the 2020/21 budget bids for the capital programme. Transport for London (TfL) reached a detailed design stage in their work on the EV charge points that exposed the need to have a fully compliant ventilation system in place before the charge points can be switched on. 4.4 The Fire Safety strategy and the ventilation system in Baynard House car park is currently inadequate, as identified in a recent review. Additionally, the City of London has a statutory obligation under the H&S at Work Act to manage noxious gases 4.5 TfL are keen to install charge points by the end of March 2020. CoL are working in partnership with TfL, and support installation at this location. The CoL works are programmed to follow after TfL's subject to Committee approval. Given this programme we are asking members to consider a Gateway 1-4 approval. An amount of concept design and modelling has already been completed sufficient to understand that the recommended option will meet requirements. If approved officers are in position to write the specification for tender (through the Intermediate Framework Contract). 4.6 This report and request for funding is running ahead of the capital bid process for 2020/21, which should be determined in February 2020. We are therefore asking for this GW approval to prepare specification for tender, to be

	considered ahead of that process, to minimise delay for the new ventilation system. This commitment is necessary to allow the TfL works to go ahead as agreed. Member support for new EV infrastructure has been expressed and we wish to take advantage of TfL funding for the charge points. 4.7 Baynard House has been identified as an ideal location for installing rapid 50kw EV charge points. Primarily to support the taxi trade switch to electric vehicles. This will be the first hub of rapid charge points in London. This location has been selected as it has the space to deliver a hub of 6 or more charge points; it keeps charge points off the footway and carriageway as space is limited in the City; it is close to existing support facilities for taxi drivers opposite the Piccolo Café, and adjacent to taxi rest bays. 4.8 CoL are working in parallel on the design for the ventilation system to manage fire risk in Baynard House car park. All CoL car parks have been reviewed, particularly in light of the recent car park fire in Liverpool and Grenfell flats. CoL has a Statutory Obligation under the Health & Safety at Work Act to address inadequate ventilation for normal operational use of the car park for employees and all users of the building 4.9 It is recommended that the CoL programme for Baynard House is brought forward to enable the TfL implementation of the EV charge points as agreed. The CoL ventilation work can be installed after the TfL work is completed in terms of managing the work, but the charge points are dependent on the ventilation being installed for normal operation.
5. Brief description of project	5.1 To provide a compliant ventilation system in Baynard House Car Park. This is necessary to bring the ventilation up to standard particularly in light of recent fires in car parks and ensure we meet statutory obligations under the H&S at Work Act for continued future use of the car park. 5.2 We propose to twin track delivery of the projects, for managing building works and timescale, but the EV charge points are dependent on the ventilation being completed to become fully operational.
6. Consequences if project not approved	6.1 The Fire Safety strategy and the ventilation system in Baynard House car park is currently inadequate, as identified in a recent review. Additionally, the City of London has a statutory obligation under the H&S at Work Act to manage noxious gases. A risk managed approach

	to investigation and installation has been taken to manage requirements to upgrade the system and maintain car park to remain open and continue in use. 6.2 Ventilation of car parks is recommended in order to limit concentrations of carbon monoxide (CO) and other vehicle emissions in the day-to-day use of car parks and to remove smoke and heat in the event of a fire. 6.3 The existing ventilation system is no longer operational, the fans are obsolete, it is critical that ventilation is reinstated to control the amount of potentially harmful airborne pollutants present in the car park. 6.4 There is no means to dissipate heat and smoke and the current state of the carpark facilities could potentially be in contravention of Building Regulations B (Fire safety) and F (ventilation) and the Health &Safety at work act 6.5 The Fire Risk Assessment of 2017 raised issues regarding the existing un-operational ventilation system of the car park, as it was unclear if it was required to comply with the Building Regulations in addition to the existing natural ventilation system. Currently a managed risk approach is being used to keep the building in use, which includes mitigation factors of, surveillance cameras, staff in the car park which would alert users to a fire, upgraded sprinkler and alarm systems. Given, however that the ventilation system is not operable we need to be planning to bring it up to an acceptable standard for continued longer term use of the building. As we are now planning changes (the EV charge points) within the building which increases the fire risk, this triggers an obligation to address the ventilation system before these are switched on 6.6 The current capital bid for 2020/21 for all car parks includes Baynard House, however we are recommending commencing work on the design and tender process in the current financial year, to meet the earliest timetable possible. 6.7 We are in partnership with TfL to fund delivery of the rapid charge points in Baynard House; at present TfL are committed to funding the enabling work for the charge points, (circa £200k), including a new electricity substation. There is a risk that if we do not commit to delivering this ventilation project TfL will direct this funding to other sites outside the Square Mile. The cost of a hub is high to implement because an electricity substation is required. Quotes and a deliverable design have been agreed with

	UKPN, and a draft lease for the substation has been prepared.
7. SMART project objectives	7.1 Fire Risk addressed adequately within Baynard House car park, signed off and approved by Fire Safety officer. 7.2 Statutory obligations and compliance with H&S at work Act and Building Regulations to address noxious gases. Modelling has been carried out which demonstrates compliance with the necessary air change rate per hour. 7.3 Work commenced on the design and tender stage within 2019/20 to allow the introduction of electric vehicle charge points in Baynard House.
8. Key benefits	8.1 Fire Risk and ventilation for normal requirements addressed adequately within Baynard House car park allowing safe operation of the car park, and ensure compliance with statutory obligations for maintaining the car park for continued future use. 8.2 Electric Vehicle charging infrastructure implemented within current financial year and therefore supporting the transition to electric vehicles in the City and improving air quality as a consequence. Air Quality is recognised as a Corporate Risk CR21. 8.3 The long term improvement in air quality is seen as critical in addressing health concerns and making the City a safe and pleasant environment, as a modern city should be.
9. Project category	1. Health and safety
10. Project priority	A. Essential
11. Notable exclusions	The installation of the charge points is being funded and delivered by TfL.

Options Appraisal

12. Overview of options	12.1 Option 1A: A single option, to provide a full ventilation system to the entirety of Baynard House car park, has been proposed to ensure we meet the requirements for adequate ventilation for daily operational purposes and have a fire risk strategy that meets our statutory obligations. A modelling assessment is in progress to test the whether the proposed

	number of fans and ventilation system will provide necessary airflow. Proceeding with this option now, allowing the tender process to go ahead in February 2020, allows CoL to maintain TfL funding for the dependent EV charge points. Option 1B: A single option, to provide a full ventilation system to the entirety of Baynard House car park, ensuring we meet the requirements for adequate ventilation for daily operational purposes and have a fire risk strategy that meets our statutory obligations; the option could wait for the capital bid process to conclude in February 2020/21, before commencing the GW approval but the opportunity for TfL to fund the EV charge points would be lost, due to further delays to overall programme. 12.2 Option 2: We have looked at a phased approach of installing a new ventilation system only on the level 4 in time to install EV charge points; however this is found to not be possible due to the adverse impact on the building fire strategy, affecting all floors of the car park and the occupiers above. There also remains a risk of not being compliant with H&S at Work Act for daily operational use, affecting employees and users of the building. 12.3 Do nothing: City of London would risk not being compliant with Health & Safety at work Act and would not have an adequate Fire Risk Strategy therefore not considered an acceptable option, for maintaining car park.
13. Risk	**Overall project risk:** Medium R1. Continuing to operate the car park without a new ventilation system could potentially be considered a Health and Safety at Work Act contravention. Mitigation - concept design assessed and tested for sufficient air flow change to meet guidelines and statutory obligations. A risk managed approach to investigation and installation has been taken to manage requirements to upgrade the system and maintain car park to remain open and continue in use. R2. Ensuring new system adequate to be compliant with Fire Risk Strategy. Mitigation - concept design assessed and tested for sufficient air flow change to meet guidelines and to be adequate for Fire Risk Strategy. A risk managed approach to investigation and installation has been taken to manage requirements to upgrade the system and maintain car park to remain open and continue in use.

	R3. Scheme costs going over budget estimate. Mitigation - An amount of design work and modelling has been carried out already to determine a robust cost estimate. R4. Planning permission for any element of project/scheme. Mitigation – secured confirmation from Planning office that scheme within permitted development rights. R5. The design is compliant with Building Control regulations. Mitigation - early engagement with Building Control officers on concept, and detailed design of scheme. R6. delivery of ventilation system dependent on new electricity substation connections being provided by UKPN and TfL. Mitigation – project team engaged with TfL and UKPN to understand their programme and current level of commitment Further information available within the Risk Register (Appendix 2) and Options Appraisal.

Resource Implications

14. Total estimated cost

For recommended option 1

Total estimated cost (excluding risk): *Anticipated lifetime cost to deliver this project (excluding risk).*

Item	**Funds/ Source of Funding**	**Cost (£)**
Installation of Cyclone fans throughout the carpark to provide smoke clearance and general air circulation:	OSPR	£300,000
Main Contractor attendance, including preliminaries, Builders work, Containment System, Removal of existing plants, Electrical installation works, etc	OSPR	£250,000
Additional works in the tunnel	OSPR	£65,000
Asbestos survey and removal	Local Risk	£15,000
Staff costs and approvals and CDM	Local Risk	£7,000
CDM advisor	Local Risk	£10,000

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<tr><td>Total</td><td></td><td>£647,000</td></tr>
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<tr><td>15. Funding strategy</td><td>
<table>
<tr><td>Is funding confirmed:
No funding confirmed</td><td>Who is providing funding:
Internal - Funded wholly by City's own resource</td></tr>
</table>
Recommended option
<table>
<tr><th>Funds/Sources of Funding</th><th>Cost (£)</th></tr>
<tr><td>Local Risk</td><td>37,000</td></tr>
<tr><td>On Street Parking Reserves</td><td>610,000</td></tr>
<tr><td>Total</td><td>647,000</td></tr>
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Funding is sought from ‘On Street Parking Reserves’, on which the provision and maintenance of off-street parking, is a primary call.
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Appendices

Appendix 1	Project Briefing
Appendix 2	Risk Register
Appendix 3	PT2 Procurement Form

Contact

Report Author	Samantha Tharme
Email Address	Samantha.Tharme@cityoflondon.gov.uk
Telephone Number	020 7332 3160

Options appraisal table.
Delete option numbers as appropriate

	Option 1	***Option 2***	***Option 3***
1. Brief description	Ventilation system throughout the car park	Ventilation system level 4 only.	Do nothing.
2. Scope and exclusions	Ventilation system to cover all car park floors, providing necessary air flow for compliant operational standards and for Fire Risk Strategy. The electricity substation and Electric Vehicle charge points are being delivered as a separate project in partnership with TfL.	Ventilation system to manage air flow on level 4 of car park where new Electric Vehicle charge points are being installed. The risk of non-compliance and H&S issues would remain in the longer term, and the carpark would continue to potentially operate in breach of Regulations.	Car park ventilation will remain substandard. The existing plant is life expired and obsolete. It would not be possible e to overhaul and reinstate all parts of the existing M&E installations to a working order as spares are no longer available. The risk of non-compliance and H&S issues would remain in the longer term, and the carpark would continue to potentially operate in breach of Regulations.
Project Planning			

	Option 1	***Option 2***	***Option 3***
3. Programme and key dates	Design - December 19 – January 2020 Produce specification - January/February 2020 Tender project - February 2020 Tender return - March 2020 Tender analysis - 2 weeks Gateway 5 approval - April/May 2020 Lead in period (fans) - 8 weeks Start on site - June 2020 Completion August 2020	Not programmed as would not meet minimum standard for Fire Risk Strategy	N/A
4. Risk implications	Overall project option risk*:* Medium Further information available within the Risk Register (Appendix 2). • Continuing to operate the car park without a new ventilation system could potentially be	Overall project option risk*:* High • Continuing to operate the car park without a new ventilation system could potentially be considered a Health and Safety at Work Act contravention.	Overall project option risk*:* High • Continuing to operate the car park without a new ventilation system could potentially be considered a Health and Safety at Work Act contravention.

	Option 1	***Option 2***	***Option 3***
	considered a Health and Safety at Work Act contravention. Mitigation - concept design assessed and tested for sufficient air flow change to meet guidelines and statutory obligations. A risk managed approach to investigation and installation has been taken to manage requirements to upgrade the system. • R2. Ensuring new system adequate to be compliant with Fire Risk Strategy. Mitigation - concept design assessed and tested for sufficient air flow change to meet guidelines and to be adequate for Fire Risk Strategy. A risk managed approach to investigation and	• High Risk as would not meet minimum standards for Fire Risk Strategy and could potentially be considered a Health and Safety at Work Act contravention.	

	Option 1	***Option 2***	***Option 3***
	installation has been taken to manage requirements to upgrade the system. • R3. Scheme costs going over budget estimate. Mitigation - An amount of design work and modelling has been carried out already to determine a robust cost estimate. • R6. delivery of ventilation system dependent on new electricity substation connections being provided by UKPN and TfL. Mitigation – project team engaged with TfL and UKPN to understand their programme and current level of commitment		

	Option 1	***Option 2***	***Option 3***
5. Benefits	• Not completing the works will prevent installation of the new Electric Vehicle charge points, and fail to support the shift to EVs within the taxi trade in particular. • Baynard house is an ideal location for taxi charge points being centrally located, whilst no other points in the vicinity. • Supporting the transition to electric vehicles will help address levels of air pollution in the City. • Installation of the ventilation system will ensure compliance with Health & Safety at work obligations • Installation of ventilation will ensure that an effective fire risk strategy is in place.	• Cost savings; (not fully costed as fails to meet project objective).	• Cost savings.

	Option 1	***Option 2***	***Option 3***
6. Disbenefits	• Cost to capital budget	• failure to meet compliance with Health and Safety at Work Act requirements • failure to adequately address Fire Risk.	• failure to meet compliance with Health and Safety at Work Act requirements • failure to adequately address Fire Risk.
7. Stakeholders and consultees	• Building Control – District Surveyors; • Fire Safety advisor City Surveyors – Terence Short • UKPN as District Network Operator No Equality Impact Assessment will be undertaken.	N/A	N/A
Resource Implications			
8. Total estimated cost	Total estimated cost (excluding risk): *£647,000.* A sufficient amount of design work and modelling has been	Not costed	N/A

	Option 1	***Option 2***	***Option 3***
	carried out already to determine a robust cost estimate, by ventilation specialists.		
9. Funding strategy	Funding is sought from Local Risk and 'On Street Parking Reserves', On street parking reserve account to be utilised to maintaining and operating car parks.		
10. Estimated capital value/return	N/A	N/A	N/A
11. Ongoing revenue implications	None	N/A	N/A
12. Investment appraisal	The option selected is that which will meet the objective of this project. We have looked at phasing of implementation, but this will not deal with fire		

	Option 1	***Option 2***	***Option 3***
	safety strategy adequately. We are therefore not comparing options in this manner.		
13. Affordability	The current capital bid for 2020/21 for all car parks includes Baynard House car park. Funding is sought from 'On Street Parking Reserves', On street parking reserve account should be directed to maintaining and operating car parks in the first instance.	Although cost could be phased this option would not address the project objective.	Lack of investment in upgrading the ventilation system risks higher costs and inability to use the car park in the longer term.
14. Procurement strategy/Route to Market	The contract to deliver the ventilation system will be tendered under the Intermediate Framework Contract. A preferred contractor for the fan system will be nominated in the tender documents	Not applicable	Not applicable

	Option 1	***Option 2***	***Option 3***
	as they have already been a trusted supplier in the past, to meet this timetable there was a need to get a concept design agreed and to test it would adequately address the ventilation to bring it within compliance of regulations.		
15. Legal implications	This project will ensure future compliance in the car park, with the Health and Safety at Work Act and provide an adequate Fire Risk Strategy. Legal issues with respect to the Electricity Substation and the installation of the Electric Vehicle charge points have been dealt with through the City Solicitor and are outside the scope of this project.	There is no means to dissipate heat and smoke and the current state of the carpark facilities could potentially be considered a Health and Safety at Work Act contravention. This option would not ensure future compliance in the building	There is no means to dissipate heat and smoke and the current state of the carpark facilities could potentially be considered a Health and Safety at Work Act contravention. This option would not ensure future compliance in the building .

	Option 1	***Option 2***	***Option 3***
16. Corporate property implications	16.1 This project is being designed to address inadequate ventilation in Baynard House Car Park. The existing ventilation system is no longer operational, the fans are obsolete, it is critical that ventilation is reinstated to control the amount of potentially harmful airborne pollutants present in the car park. The project aligns with a key objective of the Corporate Property Asset Management Strategy to ensure that operational assets remain in good, safe and statutory compliant condition. 16.2 City Surveyors commissioned the assessment of all car parks on behalf of Department for the Built Environment.	Would not address inadequate ventilation on all floors of car park and does not ensure that operational assets remain in good, safe and statutory compliant condition for longer term continued operation.	Would not address inadequate ventilation within car park and does not ensure that operational assets remain in good, safe and statutory compliant condition for longer term continued operation.

	Option 1	***Option 2***	***Option 3***
	16.3 TfL are funding a substantial upgrade to the building by providing an additional electricity substation.		
17. Traffic implications	The project supports a wider objective of the City to reduce air pollution in the city by the transition to electric vehicles. This project will enable the introduction of Electric Vehicle charge points in Baynard House car park.	Would not enable introduction of Electric Vehicle charge points in Baynard House car park.	Would not enable introduction of Electric Vehicle charge points in Baynard House car park
18. Sustainability and energy implications	Control strategy needs to be employed for operating the ventilation. Confirmation on when and how the CO system is to be managed and operated is required, in detailed design. *(City Surveyor's Energy team)* *Energy.Team@cityoflondon.gov.uk*	N/A	N/A

	Option 1	***Option 2***	***Option 3***
19. IS implications	***NONE***	None	None
20. Equality Impact Assessment	*Select one of the following options:* • *An equality impact assessment will not be undertaken* The project is not relevant to equality issues.		
21. Data Protection Impact Assessment	The risk to personal data is less than high or non-applicable and a data protection impact assessment will not be undertaken	The risk to personal data is less than high or non-applicable and a data protection impact assessment will not be undertaken	The risk to personal data is less than high or non-applicable and a data protection impact assessment will not be undertaken
22. Recommendation	Recommended	Not recommended	Not recommended