

Committees:	Dates:
Corporate Projects Board for decision. <u>Operational Property and Projects Sub Committee</u> Barbican Residents Consultation Committee for information Barbican Residential Committee	11 May 2022 30 May 2022 6 June 2022 17 June 2022
Subject: Barbican Estate Tower Lift Refurbishment Unique Project Identifier: TBC	Gateway 1-4 Project Proposal & Options Appraisal Regular
Report of: Director of Community & Children's Services Report Author: Neil Clutterbuck	For Decision
<h1>PUBLIC</h1>	

Recommendations

<p>1. Approval track, next steps and requested decisions</p>	<p>Project Description: This project proposes a programme of works to replace all lifts in Shakespeare, Cromwell, and Lauderdale Towers on the Barbican Estate. There are nine lifts in total, three serving each Tower. It is intended to procure a contractor that will deliver the project to the high standards required and ensure resident satisfaction.</p> <p>Next Gateway: 5 Authority to start work</p> <p>Next Steps:</p> <ol style="list-style-type: none"> 1. Appoint design team. 2. Resident Consultation 3. Prepare Procurement Package 4. Pre-tender S20 consultation <p>Requested Decisions:</p> <ol style="list-style-type: none"> 1. That budget of £50,000 is approved to engage a specialist lift consultant to undertake liaison with internal and external stakeholders, to formulate a specification to tender and cover staff costs. 2. Note the project budget of £50,000 (excluding risk) 3. Note the total estimated cost of the project at £4,600,000(excluding risk);
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	4. That Option 1 is approved to fully refurbish all nine lifts in the three Barbican Estate Towers.																
2. Resource requirements to reach next Gateway	<i>For recommended option 1:</i>																
	<table border="1"> <thead> <tr> <th>Item</th> <th>Reason</th> <th>Funds/ Source of Funding</th> <th>Cost (£)</th> </tr> </thead> <tbody> <tr> <td>Consultant Fees</td> <td>Resident consultation and specification preparation.</td> <td>Long lessee contributions 95%/ Barbican Res.Local Risk Budget 5%</td> <td>£30,000</td> </tr> <tr> <td>Staff Costs</td> <td>Project Management</td> <td>Long lessee contributions 95%/ Barbican Res.Local Risk Budget 5%.</td> <td>£20,000</td> </tr> <tr> <td>Total</td> <td></td> <td></td> <td>£50,000</td> </tr> </tbody> </table>	Item	Reason	Funds/ Source of Funding	Cost (£)	Consultant Fees	Resident consultation and specification preparation.	Long lessee contributions 95%/ Barbican Res.Local Risk Budget 5%	£30,000	Staff Costs	Project Management	Long lessee contributions 95%/ Barbican Res.Local Risk Budget 5%.	£20,000	Total			£50,000
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Total			£50,000														
Costed Risk Provision requested for this Gateway: £0 (as detailed in the Risk Register – Appendix 2)																	
3. Governance arrangements	<ul style="list-style-type: none"> • Service Committee: Barbican Residential Committee • Senior Responsible Officer: Paul Murtagh, Assistant Director Barbican Estate & Property Services • The Project will be monitored by the Housing Programme Board 																

Project Summary

4. Context	<p>Following a feasibility study, completed by Butler and Young Lift Consultants, it has been determined that the nine lifts that service the three tower blocks on the Barbican Estate, are now past their life cycle. Equipment utilised during the lift installation in the 1960's, and then updated in 1997, and then again in 2002, is now obsolete and parts are no longer readily available. Each tower has a designated firefighting lift which complied with the regulations at the time of installation, however, these</p>
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	<p>firefighting features should be fully updated in compliance with the latest regulations and standards.</p>
<p>5. Brief description of project</p>	<p>The modernisation of entire lift installations, with the replacement of obsolete lift components. Provide a compliant lift installation with a minimum twenty-year lifecycle to current codes and standards, whilst incorporating the current recommendations with regards to providing improved accessibility to lifts for persons with disabilities, and firefighting and evacuation provision in existing lifts.</p>
<p>6. Consequences if project not approved</p>	<p>A major failure of any of this equipment would mean timescales to source an equivalent or compatible part would be excessive, expensive and result in a long period of lift down time. Periods of four to six weeks are not uncommon for these types of component failure</p>
<p>7. SMART project objectives</p>	<p>The nine Tower block lifts are refurbished to the current regulatory standards and updated compliancy codes. They will also meet the requirements of the London Fire Brigade and City of London's Fire Safety Advisor. The refurbished lifts to have a life span of twenty years.</p> <p>Works are managed to minimise disruption to residents.</p>
<p>8. Key benefits</p>	<p>Benefits deriving for the new refurbishment of all of the towers' lifts are as follows:</p> <p>1. Reliability- the lift control panel, traction drive system, shaft switching/positioning system, door operating systems and running gear will be replaced with compliant and state of the art components that will provide reliability and third-party serviceability not currently available.</p> <p>2. Performance- It is the intention to replace the existing Gearless DC machines, with new AC gearless machines, which operate with an increased efficiency of 25 -35%, dependent on the loading of the lift, which would increase the speed for the Towers' lifts and reduce overall average waiting times and also time to travel to the destination floor. Provisional theoretical studies indicate that for the towers, during the high demand morning peak, the average waiting time would reduce from 137 seconds to 44 seconds, and the time to destination reduced from 218 seconds to 93 seconds.</p> <p>With the additional use of "ECO" modules that would dim down car lighting, including indicator dimming feature, these would both utilise less power and aid the lowering of the carbon footprint, as outlined in the Climate Action Strategy. Working with the COL Energy Team, we are also exploring the</p>

	<p>use of a regenerative drive on each lift that generates power during use and feeds this back into the national grid. To implement this would cost approximately £6,000 per lift, but it is unsure, at this time, whether this would be redeemed over the life span of the new lifts.</p> <p>The new push buttons will conform to height, identification and colour as required for Disability Discrimination Act compliance.</p> <p>3. Firefighting- the lifts would be equipped with the functions and features necessary to provide adequate protection for the fire service to access any given level in an emergency situation.</p>
9. Project category	7a. Asset enhancement/improvement (capital)
10. Project priority	A. Essential
11. Notable exclusions	All other residential lifts on the Barbican Estate.

Options Appraisal

12. Overview of options	<ol style="list-style-type: none"> 1. Procure a single contractor to complete the Tower lift refurbishment project via a compliant open tender process. 2. Undertake major repairs to all lifts, would be cheaper in the short term again, however, as highlighted earlier this would certainly lead to lengthy lift outages, causing severe disruption to residents and possible firefighting services, and would most definitely be less cost effective in the long run. 3. Doing nothing is not an option. Failure to undertake full lift refurbishment would cause severe disruption to residents and possibly firefighting services due to issues highlighted earlier.
13. Risk	<p>Overall project risk: Low</p> <p>Further information available within the Risk Register (Appendix 2) and Options Appraisal</p> <p>Key risks:</p> <ul style="list-style-type: none"> • Any delay to project start will increase the risk of significant failure of existing lift installations. • S20 challenge could undermine project funding. • Economic uncertainty raises the risk of cost inflation running above current estimates.

Resource Implications

14. Total estimated cost	For recommended option 1 Total estimated cost (excluding risk): £4,600,000 Total estimated cost (including risk): N/A									
15. Funding strategy	Is funding confirmed: No funding confirmed	Who is providing funding: Mixture - some internal and some external funding								
<i>Recommended option</i>										
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Appendices

Appendix 1	Project Briefing
Appendix 2	Risk Register
Appendix 3	PT4 Procurement Form

Contact

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Options appraisal table.

	<i>Option 1</i>	<i>Option 2</i>
1. Brief description	Procure a single contractor to complete the Tower lift refurbishment project via a compliant open tender process.	Undertake major repairs to all lifts again, would be cheaper in the short term, however, as highlighted earlier this would certainly lead to lengthy lift outages, causing severe disruption to residents and possible firefighting services, and would most definitely be less cost effective in the long run. In addition, some specialist parts will become obsolete or may not be fully compatible with existing older technology.
2. Scope and exclusions	Full refurbishment, replacement of obsolete equipment to all nine Barbican Tower lifts. The lifts would be equipped with the functions and features necessary to provide adequate protection for the fire service to access any given level in an emergency situation.	Existing lift installations will remain and be repaired to extend service as far as is practically possible.
<i>Project Planning</i>		
3. Programme and key dates	Tender process to start winter 2022. Works to commence spring 2023 with a duration of approximately three years.	Tender process to start winter 2022. Works would commence spring 2023 and continue as required.

	<i>Option 1</i>	<i>Option 2</i>
4. Risk implications	<p>Low</p> <p>Further information available within the Risk Register (Appendix 2).</p>	High significant risk of major component failure and inability to obtain obsolete materials and parts.
5. Benefits	<p>1. Reliability- the lift control panel, traction drive system, shaft switching/positioning system, door operating systems and running gear will be replaced with compliant and state of the art components that will provide reliability and third-party serviceability not currently available.</p> <p>2. Performance- It is the intention to replace the existing Gearless DC machines, with new AC gearless machines, which operate with an increased efficiency of 25 -35%, dependent on the loading of the lift, which would increase the speed for the Towers' lifts and reduce overall average waiting times and also time to travel to the destination floor. Provisional theoretical studies indicate that for the towers, during the high demand morning peak, the average waiting time would reduce from 137 seconds to 44 seconds, and the time to destination reduced from 218 seconds to 93 seconds.</p> <p>With the additional use of "ECO" modules that would dim down car lighting, including indicator dimming feature, these would both utilise less power and aid</p>	In the short term there would be less capital expenditure required.

	<i>Option 1</i>	<i>Option 2</i>
	<p>the lowering of the carbon footprint, as outlined in the Climate Action Strategy. Working with the COL Energy Team, we are also exploring the use of a regenerative drive on each lift that generates power during use and feeds this back into the national grid. To implement this would cost approximately £6,000 per lift, but it is unsure, at this time, whether this would be redeemed over the life span of the new lifts.</p> <p>The new push buttons will conform to height, identification and colour as required for Disability Discrimination Act compliance.</p> <p>3. Firefighting- the lifts would be equipped with the functions and features necessary to provide adequate protection for the fire service to access any given level in an emergency situation</p>	
6. Disbenefits	This would be a large capital expenditure.	<p>A major failure of any of this equipment would mean timescales to source an equivalent or compatible part would be excessive, expensive and result in a long period of lift down time. Periods of four to six weeks are not uncommon for these types of component failure.</p> <p>This could also be catastrophic in the event of a fire, as access for firefighters would be severely restricted/limited.</p>

	<i>Option 1</i>	<i>Option 2</i>
7. Stakeholders and consultees	Residents, including leaseholders through Section 20 consultation where they stand to incur service charges. Departments of Town Clerks, Planning and Chamberlain's (including CityProc) & City Solicitors. Members and Ward Members.	
Resource Implications		
8. Total estimated cost	Total estimated cost (excluding risk): £4,600,000 Total estimated cost: (including risk): £5,060,000	This cannot be quantified as the lifts are now at the end of their expected life span, and key components are now obsolete and not replaceable.
9. Funding strategy	The project is funded by the City Fund, the majority (circa 95%) of the cost is recoverable by way of service charges from leaseholders, the remainder (circa 5%) is funded from ongoing annual Barbican Residential local risk revenue budgets.	
10. Estimated capital value/return	N/A	
11. Ongoing revenue implications	Regular cyclical service requirements, and repairs outside existing warranties.	
12. Investment appraisal	N/A	
13. Affordability	Approximately 95% is recoverable from Long Lessees(approximately £13,000 each, subject to terms of the lease).	

	<i>Option 1</i>	<i>Option 2</i>
14. Procurement strategy/Route to Market	Traditional Approach. Sub OJEU.	
15. Legal implications	Maintaining the assets in a compliant way discharges the City's legal and statutory legal obligations.	Not maintain expired equipment could put City in legal jeopardy.
16. Corporate property implications	None	
17. Traffic implications	To be agreed with nominated contractors where the works have any impact on highways. Implications are expected to be virtually nil.	None
18. Sustainability and energy implications	Replacement lifts would be "ECO" modules that would dim down car lighting, including indicator dimming feature. They would also be fitted with alternating current gearless machines with a variable voltage, variable frequency control which would make lifts 30 to 40% more efficient.	None
19. IS implications	None	
20. Equality Impact Assessment	An equality impact assessment will not be undertaken.	N/A

	<i>Option 1</i>	<i>Option 2</i>
	The replacement lift specification will have a positive impact only on those with protected characteristics and will be fully compliant with all up to date regulations and guidelines.	
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	N/A
22. Recommendation	Recommended	Not recommended