

5 Year Planned Preventative Maintenance Condition Survey













Property Name	Whitby West Cliff Lift
Address	West Cliff, Whitby, North Yorkshire, YO21 3JX
Property Reference Number	
Description of Building/Structure	brick gabled timber and tiled roof supported by concrete beams and brick piers covers a 50m deep pit shaft that offers access via an electrically operated unmaned lift to a 6.7 m pedestrian concrete tunnel leading to the beach below. Lifting gear, motor and electrical control unit is located in the roofspace. Originally there were two lift cars running in parallel, but since 2003 only one of the cars has been in use and an evacuation staircase has been installed. The lift is unmanned and open to the general public when in operation.
Age of Building/Structure	Circa 1931
Maintenance Responsibility	Full
Footprint Area (m2)	50m2
Name of Surveyor	Joe Poismans
Date of Survey	
Weather Conditions at Time of Survey	Overcast and rain
Exclusions	Lighting was limited in the shaft and there was none in the tunnel.
Additional Information	The building and shaft is in very poor condition and represents a high risk of fire and structural collapse in its current state of repair.




Financial Summary						
Element	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Foundations	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Underground Services	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Superstructure	£3,181,123.00	£0.00	£0.00	£0.00	£0.00	£3,181,123.00
Structure	£60,676.59	£0.00	£0.00	£0.00	£0.00	£60,676.59
Walls External	£3,581.94	£0.00	£0.00	£0.00	£0.00	£3,581.94
Walls Internal	£579.08	£0.00	£0.00	£0.00	£0.00	£579.08
Rainscreen and Cladding	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Internal Linings, Ceilings and Partitions	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Vertical and Horizontal Circulation, e.g. Lifts, Stairs, Barriers, Signage	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Internal Joinery	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Windows	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Doors, Shutters, Gates.	£1,321.81	£0.00	£0.00	£0.00	£0.00	£1,321.81
Lintels	£8,700.00	£0.00	£0.00	£0.00	£0.00	£8,700.00
Soffits, Fascias, Undercloaks.	£1,361.25	£0.00	£0.00	£0.00	£0.00	£1,361.25
Rainwater Goods	£450.00	£0.00	£0.00	£0.00	£0.00	£450.00
Roof	£14,090.00	£0.00	£0.00	£0.00	£0.00	£14,090.00
Insulation, Lagging.	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Floors, Steps, inc Floorfinishes.	£3,583.30	£0.00	£0.00	£0.00	£0.00	£3,583.30
Fixtures	£90.00	£0.00	£0.00	£0.00	£0.00	£90.00
Sanitary Equipment, Fittings.	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Furniture, inc Window Treatment.	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Decorative Finishes	£550.00	£0.00	£550.00	£0.00	£550.00	£1,650.00
Water Services	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Heating	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Cooling, Extract and Air Handling	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Power	£8,904.02	£0.00	£0.00	£0.00	£0.00	£8,904.02
Lighting	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Telecomms	£4,880.00	£0.00	£0.00	£0.00	£0.00	£4,880.00
Alarms	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Lightening Protection	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Works of Art, Sculptures, Plaques etc	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Landscaping and External Works	£162.00	£0.00	£0.00	£0.00	£0.00	£162.00
Other	£680.00	£0.00	£0.00	£0.00	£0.00	£680.00
Sub Total	£3,290,732.99	£0.00	£550.00	£0.00	£550.00	£3,291,832.99
Prelims @ 10%	£329,073.30	£0.00	£55.00	£0.00	£55.00	£329,183.30
Sub Total	£3,619,806.29	£0.00	£605.00	£0.00	£605.00	£3,621,016.29
Fees @ 15%	£542,970.94	£0.00	£90.75	£0.00	£90.75	£543,152.44
Sub Total	£4,162,777.23	£0.00	£695.75	£0.00	£695.75	£4,164,168.73
Contingency @ 10%	£416,277.72	£0.00	£69.58	£0.00	£69.58	£416,416.87
Total (exc VAT)	£4,579,054.96	£0.00	£765.33	£0.00	£765.33	£4,580,585.61

Section 1: Defect Identification

Element	Defect Description	Condition Rating			Photographs of Defect
Condition Ratings: A = as new, B = satisfactory, C = poor, D = risk of significant further deterioration/inoperable/unsafe Categories A and B require routine planned maintenance. Categories C & D may require earlier remedial work to raise them to level B, i.e. a satisfactory, safe for use/occupation					
Superstructure- Lift Shaft	There is a severe ingress of water entering the shaft near to the top causing corrosion to the ring beams and bolts that form the main structural support of the lift shaft as it runs down. The water ingress is causing salt deposits to form on the structural support beams, evacuation staircase and electrical components and collects in the pit at the bottom, creating an unsafe environment for workers and passengers. Waterproofing the shaft is a very specialist undertaking and further guidance and investigations will need to be commissioned. There are a number of stainless steel bolts missing from the cast iron rings.	✓			
	Ingress of water is corroding the switch gear, vertical guide rails, counterweight, buffers, suspension ropes and cables as well as the lift car. The effects of this is causing very high and unsustainable annual maintenance costs.	✓			
Structure - shaft internal staircase	The evacuation staircase of the shaft is not fit for purpose due to the position of beams restricting access. The structure is suffering from corrosion of the fixing bolts, (some are missing) to the treads and bracings and the emergency gate bolts are rusting (one bolt is completely seized). The vertical bars have been fabricated from an inadequately sized 6mm bar diameter. All bars can be easily deformed with light hand pressure and some have been previously impacted and bent out of shape. The baseplate to the column is obscured by moist debris at the base of the lift shaft. The staircase currently represents a significant	✓			
	The exit and entrance tunnel from the beach as a door installed at the end significantly reducing the airflow of the lift shaft and building. The tunnel is currently used for the storage of flammable liquids and materials representing a significant fire risk hazard. There are no fire safety measures deployed within the tunnel.	✓			

Walls External	There is structural cracking within the brick columns. The RWP'S are concealed within the brick columns at each corner and are probably leaking. Pointing is missing generally in isolated areas of the brick piers and the side gables have fractures within the brickwork	✓			
Walls Internal	There are structural cracks and stepped fractures evident on the internal brickwork. Loading is transmitted to the structure from the lifting beam and a structural engineer will need to determine the safety of these additional loadings on the structure	✓			
Rain Screen and Cladding					
Internal Linings, Ceilings and Partitions.					
Internal Joinery					
Windows					
Doors, Shutters and Gates	The fire exit door to the rear entrance is in poor condition.	✓			
Lintels/Beams	The RC beams supporting the roof and gable externally are showing signs of rust through the concrete beams and will require specialist repair to the concrete and I beams	✓			
	The main lifting beam within the control room has not been adequately load tested. Load testing will ensure that the lifting equipment has been installed correctly and is adequately supported and strong enough to resist the bending and shear forces generated with lifting operations. Internal beams are showing signs of rust	✓			

Soffits, Fascias and Undercloaks.	Fascia and under cloaking has decayed and in poor condition due to water ingress	✓				
Rainwater Goods	Rainwater goods will need replacing and resiting in conjunction with the renewal of the roof and rebuild of the brick columns	✓				
Roof	There is evidence roof sagging on both sides of the roof. A structural engineers report will need to be commissioned but probable causation is by the existing poor condition of the, RC beams, timber rafters and or ridge beam (see below). Additional exhaust venting within the roof space and removing the tunnel door to improve air intake through the shaft will be required to prevent future issues of condensation poor air circulation and timber decay		✓			
	The roof timbers are wet and in poor condition. The roof is gabled with a ridge board and common rafters with a covering of t&g boards that collectively are showing significant signs of deflection, mould and decay caused by the high moisture content in the air and lack of ventilation within the structure. Left in this condition; the timbers will inevitably further deteriorate leading to dry rot and the potential structural collapse of the roof.		✓			
Floors, Steps inc Floorfinishes	The t&g floor in the control room is wet and in poor condition with missing/damaged floorboards. Joist ends are showing signs of water saturation and may fail under loading.		✓			
Fixtures	The signage is damaged and will need to be replaced in conjunction with repairs to the brickwork on the gables		✓			
Sanitary Equipment and Furniture, inc Window						
Decorative Finishes	There are areas of flaking paintwork and decaying timbers externally. The location of the structure will mean that regular protective coatings are applied to all exposed timbers		✓			

Water Services						
Heating						
Cooling, Extract and Air Handling						
Power	The installation, generally, is in poor condition due to the damp environment, water ingress and corrosion of metal parts the supply is 3 phase in the control room. There are unsheathed cables and a consumer unit in the tunnel in very poor condition. There is a power cable leading from the tunnel to the beach for public use which should be checked for safety. The water ingress and high moisture levels represent a high risk of electrocution and or fire to the public and workers. An electrical safety check to all installations of the motor room /lift shaft and tunnel has been undertaken and the whole installation is need of repair and complete upgrade. See electrical condition report (Appendix 4C)	✓				
Lighting	Lighting is generally in very poor condition including that of the motor room lift shaft and pedestrian tunnel. Cables are face fixed with no conduit.	✓				
Telcomms	At the bottom of the lift shaft there is an intercom used by the engineers for communication. The intercom is broken, The CCTV camera and system at the end of the tunnel is not functioning compromising the security and safety of the users of the tunnel and lift	✓				
Alarms						
Lightening Protection						
Works of Art, Sculptures,						
Landscaping and External Works	The concrete perimeter path is cracking in isolated areas	✓				
Other	An asbestos management survey and condition report will be required before any works commence	✓				

Element	Recommended Remedial Action	Unit of measurement (m2, lin m etc)	Year (1 - 5)	Unit Cost	Qty	Total Cost (to bring the defect to grade A/B condition)
Superstructure- Lift shaft	Commission specialist surveys and investigations to identify the cause and location of water ingress and provide detailed recommendations for waterproofing the lift shaft. Carry out specialist survey of the lift shaft in conjunction with the waterproofing survey and provide a detailed report of recommendations. Quotation sought to remedy the ingress of water. Volkerlaser have estimated costs depending on the chosen solution but would require an in depth feasibility study before accurate costings could be compiled.	Item-Quotation	1	3,000,000.00	1	3,000,000.00
	Replace inadequately sized stainless steel bolts fitted to rings in 2013 and replace left over original bolts with new as per the structural engineers recommendation	Item	1	40,000.00	1	40,000.00
	Complete remedial works to lift equipment in conjunction with LOLER report and the 5 year maintenance plan provided by the competent maintenance engineers-Boro Lifts.	Item-Quotation	1,2,3,4,5	141,123.00	1	141,123.00
Structure-shaft internal spiral staircase	Commission a structural survey of the internal evacuation staircase with a view to redesigning a safe escape route and repairing the existing fixtures and fittings. Quotation sought but provisional sums are provided for the survey and the recommended remedial works suggested by the structural engineer.	Item	1	55,000.00	1	55,000.00

Structure-tunnel	Carry out fire safety inspection to the building ,lift shaft and tunnel. Remove all flammable liquids and materials .Provisional sums have been allowed for the fire safety remedial works such as installation of emergency lighting, smoke alarms, sprinkler systems and signage	item	1	3,830.00	1	3,830.00
	Remove the door and door frame from the beach exit/entrance of the tunnel and make good as required	Nr	1	66.59	1	66.59
	Complete a specialist concrete survey of the tunnel to identify any immediate maintenance to the structure. Provisional sums have been allowed for the survey and minor repairs to surface spalling/ cracks only	item	1	1,780.00	1.00	1,780.00
Walls External	Temporary prop and take down defective brick columns & expose downpipes. Remove downpipes & rebuild the brick columns with brickwork to match existing	m2	1	197.08	15	2,956.20
	Grind out defective mortar and repoint the remaining brick columns	m2	1	33.33	6	199.98
	Chop out defective and fractured brickwork and replace with brickwork to match existing to E/W side gables in isolated areas	m2	1	53.22	8	425.76
Walls Internal	Chop out defective and fractured brickwork and replace with brickwork to match existing	m2	1	53.22	8	425.76
	Slate wedge and point stepped fractures in mortar of internal walls	lm	1	38.33	4	153.32
Rain Screen and Cladding						
Internal Linings, Ceilings and Partitions						
Vertical and Horizontal Circulation						
Internal Joinery						
Windows						

Doors, Shutters and Gates	Replace the rear fire door and frame with a new fire door set	Nr	1	1,236.36	1	1,236.36
	Provide LED illuminated fire door exit signage	Nr	1	85.45	1	85.45
Lintels	Carry out specialist concrete repairs to the external RC and steel beams around the whole perimeter. Provide support to the roof structure and remove the damaged concrete from the RC beams and until the corroded steel i beams are visible. Make repairs as per the agreed specification	Item	1	6,500.00	1	6,500.00
	Load test the lifting beam and provide certification The lifting equipment, including accessories, must be clearly marked to indicate their 'safe working loads' (SWL) - the maximum load the equipment can safely lift. Provisional sums have been allowed but a quotation will be required by a specialist	Nr	1	1,950.00	1	1,950.00
	Remove corrosion and paint the steel beams supporting the lift gear directly below lift house floor and the lifting beam within the roof space to the agreed specification	Item	1	250.00	1	250.00
Soffits, Fascias, Undercloaks, Framework	Replace t&g under cloaking with low maintenance UPVc t&g boards	m2	1	54.45	25	1,361.25
Rainwater Goods	Re-route and replace external downpipes to surface mount on new brick columns discharging into surface gullies	Item	1	450.00	1	450.00
	Inset timber needles and props to provide temporary support to the roof and prevent structural collapse	Item	1	600.00	1	600.00
	Strip back and remove all existing roof tiles to the whole roof covering. Strip off the t&g under boarding to expose structural timbers. A timber specialist decay survey/ report will be commissioned to establish the condition of roof timbers .Provisional sums include tubes and fitting scaffolding	item	1	2,820.00	1	2,820.00

Roof	Replace the structural roof timbers including timber roof ridge board , defective common rafters and repair the wall plate in line with the specification of works and detailed drawings showing timber dimensions and spacings. Quotation required but provisional sums have been included for estimating purposes.	item	1	4,800.00	1	4,800.00
	Remove and replace all existing ridge tiles to the whole roof covering ;Install a dry ridge system to the roof to improve exhaust ventilation of the roof space. Replace tiles in a similar ridge tile to match existing finish, colour and size. Replace the two swan neck ridge tiles either end of the ridge to match existing. Quotation required but provisional sums have been included for estimating	lm	1	185.00	8	1,480.00
	Install new breathable underlay and battens .Replace the roof covering with new roof tiles to match the finish, colour and size of the existing. Install x8 Ubbink modern tile vents or similar to match the finish, colour and size of new roof tiles. Remove and replace all bedded cloak verge details to the gable-ends with new cloak verge to match existing. Quotation required but provisional sums have been included for estimating purposes	item	1	4,390.00	1	4,390.00
Floors and Steps, inc Floorfinishes	In conjunction with the renewal of the roof timbers, take up the existing T&G floor to expose the wet floor joists. Replace defective joists.with new	m	1	18.47	40	738.80
	Replace all the T&G floorboards with new 25mm timber T&G boards include for new entrance hatch	Nr	1	113.78	25	2,844.50
Fixtures	Replace signage to gable following completion of brickwork repairs to match existing	item	1	90.00	1	90.00
Sanitary Equipment and Fittings						
Furniture inc Window Treatments						

Decorative Finishes	Allowance made to repaint external exposed timber doors and frames and retendered walls in years 1,3,5. Quotation required but provisional sums have been included for estimating purposes	item	1,3,5	550.00	3	1,650.00
Water Services						
Heating						
Cooling, Extract and Air Handling						
Power/lighting	Rewire the motor room/lift shaft and tunnel as per EMCE quotation of works (See appendix 4 & 4a)	Quotation	1	8,904.02	1	8,904.02
Telecomms/ CCTV	Replace the intercom at the bottom of the lift shaft	item	1	1,580.00	1	1,580.00
	Install hard wired CCTV camera and system to the pedestrian tunnel. Quotation required but provisional sums included for estimating	item	1	3,300.00	1	3,300.00
Lightening Protection						
Works of Art, Sculptures, Plaques, Monuments, Memorials etc						
Landscaping and External Works	Hack up defective sections of the concrete perimeter path and relay 150mm of concrete to existing levels	m2	1	40.50	4	162.00
Other	Remove weed growth in isolated areas around the building Complete an asbestos management survey and provide	item	1	680.00	1	680.00
Sub total						3,291,832.99
Preliminaries @ 10%						329,183.30
Sub total						3,621,016.29
Fees @ 15%						543,152.44
Sub total						4,164,168.73

Contingency @ 10%	416,416.87
Total (exc VAT)	4,580,585.61

Further Recommended Surveys and Investigations		
	Yes	No
Structural Investigation	✓	
Drainage Survey/Investigation		
Fire Risk Assessment	✓	
Legionella Risk Assessment		
Asbestos Management Survey	✓	
Fixed Electrical Wiring Condition Report	✓	
Lifting Equipment Condition Report	✓	
Gas and Flue Safety Report		
P.A.T. Testing		
Automatic Door Condition Report		
Moveable Doors and Sliding Partition Condition Report		
Radon Survey		
Access Survey		
EPC		
Timber Decay Report	✓	
Damp Survey		
Specialist Concrete Survey	✓	
Buried Services Investigation		
Tree Survey		
Pest Control, including invasive plant species		
Other - specialist report for remedial works to eliminate the water ingress of the shaft	✓	