

Corporate Property Storm Damage Assessment

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LOCATION	ID REFERENCE	DETAILS OF DAMAGE	EXTENT OF DAMAGE	OFFICER RECOMMENDED PRIORITY	RATIONALE	ESTIMATED OR ACTUAL COST (£)	FUNDING AVAILABLE	CONTRACTOR & DATE OF INSTRUCTION	NOTES
JENNYCLIFF									
Steps and pathway leading to beach	313	Collapse of footpath to beach at mid and lower levels	Collapse of steps to lower section, further land slippage and failure has occurred; collapse of concrete steps sections and hand railing failure at lower level; further deterioration to cliff side and bank likely as a result with ongoing erosion likely		Significant health and safety risk, well used beach; pathway eroded away and requires land stabilisation and an alternative path/steps reinstatement design; civil/structural engineer's appraisal obtained	£200,000			Area currently closed, Advice required on priority. Permanent fencing could be put in place if we are not in a position to repair in the medium term.
<b>MOUNT BATTEN BEACH / LAWRENCE ROAD</b>								AMEY 04/04/2014	Package of works with all works in Mount Batten area
Gabion basket walling to lower retained section on beach side	506	Gabion walling exposed, evidence of numerous broken baskets at lower level. Corrosion to wire longer term possible additional loss of stone during storms but not confirmed	Whole section of gabion wall affected to lesser and greater degrees, with burst baskets at set intervals; no immediate risk of failure or evidence of adverse stress to main structure and roadway (Lawrence Road) above		Front row of gabions, exposed metal work on site creating a danger, beneficial to be undertaken along with steps to beach adjacent to reduce contractors preliminary and set up costs		£40,000 Grant from Environment Agency		More substantial repair extending the life of the asset can now be completed.
Timber beach access steps & fencing to concrete retaining structure	102	Tread damage and foundation exposure to timber steps; section of steel fencing missing at upper section above concrete retaining structure	Damage limited to steps mainly with some decay evident due to exposure of foundations		The single access to a frequently used beach and therefore requires more urgent attention to reinstate				
<b>MOUNT BATTEN BREAKWATER</b>								AMEY 04/04/2014	Will enable opening of the breakwater for events and public use
South side sea wall and capping	296	General spalling of render to wall top along length in numerous areas; vertical cracking in south side sea wall top section near viewing tower; areas of cracking and damage to the structure just above rock bed level	New cracking and damage and exacerbation of pre-existing cracking; joints opened up with areas of loose/blown masonry in numerous areas along the south side sea wall			Phase one works complete £45,000. Phase 2 costs £420,000			
Breakwater promenade surface	295	Pavior blocks forming the walkway surface removed in three main sections exposing the concrete base; seating damaged/lifted off bases, bins and lighting destroyed/damaged	Three main large sections of paviers (concrete bricks) lifted by sea water and washed off the pier leaving areas of compromised surfacing. Localised damage to wall sections in a number of locations along the length of sea wall; seats removed off the bases with some damaged; SW costal path obelisk removed from its base, requiring refitting		Breakwater is a critical for flood defence structure protecting a significant number of properties and assets. Key public space for events including those such as "La Solitaire du Figaro" in June and the "British Fireworks Championship" in August.		£420,000 Grant awarded 21st April from the Environment Agency to repairs to this structure		Developing full scope and specification with Marine experts now we have received funding this week from the Environment Agency
Breakwater promenade structure	315	Longitudinal cracking on north side concrete surface / opening up of expansion joint - evidence of possible ongoing movement	Opening up of expansion joints on both side of the promenade but only considered a possible trip hazard on inward side; structural/civil engineer inspection not overly concerned but recommended suitable filling and monitoring						
Raked lower south facing breakwater wall		Hole in masonry at lower section at mid point	Newly formed hole adjacent to previous repair on concrete wall above rock armour sea defence. Risk of further deterioration.						
Upper section of breakwater south facing wall		Crack through upper wall section close to end of pier on south side	Vertical crack running down from top of wall down through to base of structure (close to previous concrete repairs) exacerbated by recent storms; spalling around cracking which						
<b>MOUNT BATTEN QUAYSIDE AND FRONTAGE</b>								AMEY 04/04/2014	
Quayside walkway from breakwater to Spinnaker Quay	104, 105, 108, 109, 111, 386, 387	Paving slabs and steps damaged and missing; damage to dwarf wall copings, mortar missing in pavior edging blocks	Damage in localised areas along full extent of path - not structural but aesthetically affecting		Affects the enjoyment of the area due to fencing around affected areas				

<b>MOUNT BATTERN LANDING STAGE</b>								MARINE SERVICES	Further capital may be required to extend the life of this asset in the Autumn and these works will now be
Damage to structure		Damage to walkway and pontoon structure	Users could not safely access the structure and the pontoon was unsafe		Urgent action completed to reopen this operational asset	£35,000	Insurance works completed		
<b>ORESTON QUAY</b>	135	Damage to quay wall along promenade	Failure of flood defence structure/ damage to quay wall			£140,000	£140,000 grant from Environment Agency to repair		
<b>BARBICAN WEST PIER</b>		Displacement of steps at lower level	Steps dislodged and require refixing on Sutton Quay side of the pier		Steps receive limited use but in higher profile location	£12,000			
		Damage to Quay wall	Localised damage to quayside wall			£50,000	£50,000 grant from Environment Agency		
<b>MAYFLOWER STEPS (West Pier)</b>		Minor damage, opportunity to provide flood boards/gates to prevent flooding during high tide storm events			Flood boards/gates would reduce revenue costs during an event	tbc			
<b>PHOENIX WHARF</b>		Deterioration and decay of redundant timber wharf structure	Timber structure attached to concrete "horseshoe" structure which can remain in place; grade II Listed building above		Pre-existing deterioration - would benefit from removal as it restricts access to the newer Commercial Wharf adjacent	£75,000			Structural inspection and further advice will be sort
<b>BALTIC WHARF</b>		Void formed at base of structure (underneath access ladder)	Localised area of deterioration at low tide level - hidden at high tide - void requires filling		Pre-existing damage likely to exacerbate with erosion - subject to further advisement by civil / marine engineers	£7,500			Monitor and manage
<b>TINSIDE PAVILION FRONTAGE (EAST FORESHORE)</b>	246, 248, 249, 251, 252, 253, 254, 255, 256							JNE CONSTRUCTION 04/04/14	
Retaining masonry walling to R/H side of Pavilions		Exposure of soft cliff face behind - loss of mortar capping	General storm damage to loose cliffside masonry - localised area of removed mortar capping		Highly likely to deteriorate further if unrepaired - possible structural and health and safety issues			Revenue Budget	
Steps in front of changing rooms		Damaged steps	A section of deteriorated railings have been removed - weakened by longer term deterioration		Health and safety risk				
Railing areas to walkway		Section of railing and masonry removed	A section of path and railings lifted and deposited onto the beach - localised replacement required		Health and safety and enjoyment of bathing area			Package of work complete £20,000	
Pink concrete walkway fronting Pavilions		Damaged concrete slab	Collapsed sections of concrete slab to right hand curved seating section and railings		As above				
Steps leading to Lions Den and walling		Side of steps and walling collapsed	Section of steps and walling collapsed on left hand side - generally localised		Grade II Listed and likely to deteriorate further - highly visible damage - possible health and safety implications due to loss of supporting wall to steps				
Lions Den		Damage to floor slab and steps, missing seating internally, damaged semi-circular colonnade soffit, cracking to rear semi-circular wall	One particular section of seating damaged requiring removal of remaining base sections		Health and safety issue				
<b>TINSIDE LIDO</b>									
Poolside and changing block		Damage to pool fountains and paving slabs, scum channels, flooding to the main changing block (main building) and damage to block B changing rooms; flooding of pumps and dosing equipment; some decorative damage to paint finishes	The Lido survived reasonably well with damage restricted to the surrounding weaker structures; possible further cracking and engineers report awaited on extend of further repairs required in due course for longer term repair/maintenance; pumps required removal and refurbishment		Highly visible and popular Plymouth landmark, past investment to restore historic lido required urgent attention and repair - privately run by leisure company in liaison with PCC	£145,000		JNE CONSTRUCTION 04/04/2014 SSI ELECTRICAL 06/02/214 STERLING HYDROTECH	

<b>HOE FORESHORE WEST (Pebblestone Beach)</b>	169, 241						Revenue Budget	JNE CONSTRUCTION 16/04/2014	Works should enable reopening of these areas
Entrance steps to beach		Missing granite steps (in vicinity on beach) and broken concrete walkway sections; missing railing sections	Damage to numerous areas of the shorefront at beach level and above involving numerous granite steps lifted and set down in nearby areas (allowing them to be replaced) along with weaker sections of concrete path sections and railings above the high water line (i.e. those not usually under water)			Mainly appearance rather than a health and safety issue to the steps, but broken concrete sections a clear health and safety issue			
Jetty		Broken slab at upper section of jetty to shore front; missing railing section	Large section of missing masonry at the top of the jetty along with railings to both sides of the jetty and to the jetty itself destroyed			Lack of railings a health and safety issue; removal of concrete sections less affecting	£20,500		
Seating area		Missing paving slabs to seating areas	Numerous paving slabs removed, use of seating area remains			Less urgent but forms part of other neighbouring repairs			
Plymouth Leander SA building		Foundation damage - washing out of support	The building sits on rock mainly and therefore not considered to be seriously compromised, but a large void formed from both the destruction of the path and steps fronting the location, exposing the base of the building			Likely deterioration / risk of subsidence if left unrepaired - health and safety and structural issue			
Foreshore railing areas		Missing, bent and damaged railings in numerous locations	Railings along shorefront a mixture of different types and ages - the main ones affected/destroyed were older and more deteriorated; newer railings have survived in places						
<b>HOE PROMENADE SHELTERS</b>		Damage to roof slates and lead work, damage to fascias	Damage to all three shelters to lesser or greater degrees, with all three requiring repairs to the roofs and fascias including replacement slates and new lead work			Highly visible to Hoe users; risk of further slate loss creating a health and safety risk	£3,600	JNE	
<b>MOUNT WISE SWIMMING POOL</b>								SSI ELECTRICAL 06/02/2014	
<b>Redecoration and cleanig of pools and pump room doors</b>		Discolouration, impact damage	Mainly flooding from the sea causing damage				£20,000		
Bathing pools and pumps		Decorative damage to pools, flooding of pumps	Mainly flooding from the sea causing damage to the pumps, difficulty in removing for refurbishment			Popular pool for the area with free access - social requirements and privately run by leisure company in liaison with PCC			
<b>WEST HOE PIER</b>	60, 61, 346		Replacement of timber strakes, railings and masonry repairs			Capital funding for refurbishment project - Grade II Listed structure requires specific and sympathetic repair - important historic Plymouth landmark			
Footpath entrance to pier and Wet Wok restaurant		Damage to stone walling alongside footpath	Damage fairly localised with specific areas of damage visible, mainly on the landward side						
Pier walls/jetties		Hole adjacent to strake support on left hand jetty (viewed from The Parade)	The timber strake and supporting rod were pushed inwards, punching a section of masonry out on the harbour side			Urgent repair required which may get worse if not quickly repaired	£285,000	£285,000 grant from Environment Agency to repair	Works have not yet been instructed as awaiting specialist advice
Walking surfaces		Damaged / loose topping	General deterioration to the tarmac surface in a number of locations - not extensive						
Railings		Damaged loose railings along outside edge of jetties	Damage to railings on seaward side mainly above landing steps						
<b>DEVIL'S POINT</b>							Revenue Budget	JNE CONSTRUCTION 16/04/14	Works should enable reopening of these areas
Steps on western side of Devil's Point near main battery emplacement and dwarf wall above steps entrance; quay wall	502, 355	Damaged and missing railings and step nosings damaged at beach level; dislodged stone section to dwarf wall; cracking of past repairs to quay surface with railing damage	Damage isolated to lower section of steps with a relatively short section of railings removed. Some erosion of soil above rock face due to particularly high waves. Minimal damage to quayside - mainly cracking of inadequate more recent repairs with some dislodged railing bases			Less frequented beach (mainly by dog walkers) but health and safety implications and lack of restraint and step evenness at lower level	£20,000		
Western Kings - granite step leading down from Artillery Tower to pool, wall section at base of steps leading down from promenade fronting Nazareth house	352, 497	Dislodged granite step at lower level. Collapsed wall at base of steps	Localised to steps and adjacent walling at lower level opposite			Popular area for bathers, users of the restaurant and café and dog walkers - regular concern from local residents and businesses highlighted public pressures			
New cliff face movement and collapse at Devils point identified 21st May 2014.		coast path has been undercut. Area currently cornered off to public	structural assessments required				£100,000		

<b>FREEMANS WHARF STONEHOUSE</b>	393	Stonework damage to quay, blown paving slabs to walkway areas	Generally localised damage to walkway areas and to quay front in a number of locations		Not owned by PCC according to PCC records	n/a			
<b>STRAND STREET STONEHOUSE</b>	35,43	Damage to quay wall near Strand Street	Damage to quay wall - flood defence structure		Lower profile area but repairs will need to be undertaken in the short term to protect properties	£250,000	£250,000 grant from Environment Agency to repair		
<b>MUTTON COVE</b>	17								
Mutton Cove quayside and harbour	4, 3, 16	Cracking to left hand side of quayside behind Mutton Cove pier; general deterioration and spalling to stonework sand concrete surfaces around slipway and walling	Aggravated pre-existing damage; joints further exposed in sea wall stonework; localised dislodged pathway stonework		Requires attention but less urgent as limited health and safety and structural implications less evident, - damage mainly pre-existing and may not be directly related to storm damage	£5,000			
<b>POTTERY QUAY DEVONPORT</b>	520, 527	Blown areas of stonework to quay front	Missing sections of stonework leaving a void in the quay face - infill repairs required		Tamar Bridge and Torpoint Ferry Joint Committee responsibility. Title deed responsibility of Cornwall Council	£250,000	£250,000 grant from Environment Agency to repair		
		Not instructed - indicative dates							
<b>Horizontal</b>		Under repair / subject to final engineers inspection prior to specification			<b>Cost of works completed to date</b>	<b>£326,100</b>			
		Complete - facility open (may be subject to snagging/minor finishing)							
		not PCC obligation			<b>approx. cost of further and capital works required (linked to funding)</b>	<b>£1,782,500</b>			
					<b>TOTAL COST OF WORKS</b>	<b>£2,108,600</b>			
					<b>Grant funding approved</b>		<b>£1,435,000</b>		
<b>Vertical</b>		Urgently required repairs (health & safety, loss of amenity)			<b>Insurance monies</b>		<b>£165,000</b>		
		Repairs required in short to medium term			<b>TOTAL EXTERNAL FUNDING AVAILABLE</b>		<b>£1,600,000</b>		