STRIDE TREGLOWN
BUILDING SURVEYING

HOARE LEA

Isles of Scilly Condition Survey

Council of the Isles of Scilly
St. Marys

Condition Survey Report

Bryher Fire and Emergency Station
Revision P02

Revisions

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
P01	09 Oct 2020	Preliminary Issue	NK/RH	SL	SL
P01	09 Oct 2020	Preliminary Issue	AS	AH	AH
P02	02 Nov 2020	Updated Figures / IOS Uplift	AS	AH	AH

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Contents

1. Scope of Survey

The condition survey of this property comprised an assessment of the building structure, fabric, finishes, fixed furniture and fittings, mechanical services, electrical services and external areas for the purpose of establishing current and future maintenance requirements for a period of 5 years from date of survey. The survey was a non-intrusive visual inspection. If the surveyor suspects defects which cannot be assessed with limited access, further tests or investigations will be suggested. Roof areas have been inspected from vantage points and with the use of a pole camera.

Stride Treglown are therefore unable to report on the condition, within voids, of items that are covered or unexposed, of items that are inaccessible, or confirm that such areas are free from defect.

It has been noted where structural elements could not be inspected without causing material damage to the building.

No testing was carried out to determine the presence of deleterious materials. Stride Treglown are aware of the asbestos register and asbestos management plan for the property and the presence of deleterious materials has been recorded only where visible.

No tests on the services or below ground drainage have been undertaken.

We have not undertaken any opening up, dismantling, testing, disconnection or reconnection of plant and systems.

The survey does not and is not intended to guarantee the present or future operational and/or safety status of any installation or equipment or that it necessarily complies with current standards.

Inadequate workmanship or failure to adhere to a specified maintenance schedule can lead to accelerated wear, overheating and corrosion. Plant items are highly dependent upon the effective design of the system in which they operate. Components, which are dynamic in nature, are dependent on timely and appropriate maintenance and the way in which they are used.

Economic Life Expectancy Factors have been developed by The Chartered Institution of Building Services Engineers (CIBSE) as a methodology to assist property owners establish a plant asset management programme whereby equipment and components are replaced at intervals based on a broadly-based survey of generic plant and equipment.

The standards developed by the CIBSE make a number of key assumptions including that the plant and equipment has been subjected to a good standard of maintenance. Plant operational hours are another key factor in establishing the benchmark life factors for the plan.

All costs are calculated estimates and not quoted prices and include an allowance for contractors' preliminaries. There is no allowance for VAT, professional fees or in-house management costs within the rates.

Programmed repairs are, in most instances, costed on a 'like for like' replacement basis with no allowance for improvement except where it is necessary to upgrade an element at time of replacement to comply with current regulations

2. Introduction

2.1.1 Stride Treglown and Hoare lea have been commissioned to carry out a non-intrusive survey, record and provide a commentary on the key considerations of the building fabric, fixed-furniture, Mechanical, Electrical and Public Health (MEP) infrastructure condition of Bryher Fire & Emergency Service Station in the Isles of Scilly.

2.1.2 The report utilises the CIBSE priority and condition of service/ equipment grading system to determine the condition of the item of plant at the time of survey and when any remedial work identified is required to be done.

2.2. Grading System

2.2.1 Priority Codes

The following priority grades are recommended in the context of a 5-year planning period:

Priority 1: Urgent work that will:

Prevent immediate closure of premises; and/or address an immediate high risk to the health and safety of the occupants; and/or remedy a serious breach of legislation.

Priority 2: Essential work required with 2 years that will:

Prevent serious deterioration of the fabric or services; and/or address a medium risk to the health and safety of occupants; and/or remedy a less serious breach of legislation.

Priority 3: Desirable work required within 3 to 5 years that will:

Prevent deterioration of the fabric or services; and/or address a low risk to the health and safety of the occupants; and/or remedy a minor breach of legislation.

Priority 4: Long-term work required outside the 5-year planning period that will:
Prevent deterioration of the fabric or services.

2.2.2 Condition Grading Codes

The condition of each element is assessed using the following grades.

Grade A - Good: Performing as intended and operating efficiently.

Grade B - Satisfactory: Performing as intended but exhibiting minor deterioration.

Grade C - Poor: Exhibits major defects and/or not operating as intended.

Grade D - Bad: Life expired and/or serious risk of imminent failure.

2.2.3 Abbreviations

BS	British Standards
EMI	Electromagnetic Interference
ELV	Extra Low Voltage
LV	Low Voltage
MCB	Miniature Circuit Breaker
MCCB	Moulded Case Miniature Circuit Breaker
PIR	Presence Infra-Red
PVC	Polymerizing Vinyl Chloride
RCBO	Residual Current Breaker with Overload
RCD	Residual Current Device
SWA	Steel Wire Armor
WPD	Western Power Distribution

3. Building Survey

3.1. General summary

3.1.1 The single storey structure comprises rendered masonry external walls which, with the exception of some cracking, is generally in fair condition. The pitched roofs over are of varying finish natural slate; corrugated profile cement sheet; and artificial slate. Generally this appears to be is satisfactory condition, however the roof over the crew room has poorly detailed verges which should be addressed.

3.1.2 The corrugated sheet roofing is in poor condition and should be replaced as it is likely to contain asbestos.

3.1.3 The roof above the WC requires attention as a damaged section of corrugated sheeting has exposed the top of the gable wall, which is a potential route of water ingress. A number of slipped slates were noted together with dislodged lead flashings which require replacing and re-dressing respectively. Internally a limited survey of the roof space found signs of insect decay to the roof timbers which should be investigated further as a matter of priority. No loft insulation is present above the main hall space.

3.1.4 Timber fascia's are generally in serviceable condition, but there are certain rotten sections that are in need of repair, and works are required to the uPVC rainwater goods to ensure water is discharged away from the building.

3.1.5 Part of the building has a suspended timber floor, and whilst the construction felt solid underfoot, a number of the external subfloor vents where blocked by vegetation which corresponded with condensation found on the floor internally. The vegetation should be removed to ensure the void is adequately ventilated at all times. External windows and doors are timber framed double glazed units which are in working order but are in need of minor repairs/decorations.

3.2. Internally

3.2.1 Internal areas are in a serviceable condition, however it is considered that certain works are undertaken to prevent further deterioration. Ceilings and partition walls generally consist of decorated plaster / plasterboard with a decorated slated timber ceiling in the crew room.

3.2.2 Redecorations should be undertaken internally as part of a cyclical redecoration programme. Flooring comprises either timber floor boards, sheet vinyl or a coated ground bearing concrete slab. Generally these are in a poor condition replacement/repairs are recommended.

3.2.3 Sanitaryware and fixtures/fittings are in a poor condition, consideration should be given to their replacement in the short term, as they are dated.

3.3. External areas

3.3.1 An inspection of the existing underground drainage systems was not undertaken, therefore no comment is made regarding the existing drainage arrangement or their condition. Existing surface water gullies are blocked and need to be cleared as a matter of priority. The level of the grassed areas surrounding the property should be reduced to ensure that the timber floor sub-void is adequately ventilated at all times. The building is surrounded by a concrete hardstanding areas, which are in a fair condition.

3.4. Outbuildings

3.4.1 The ambulance station building consists of a timber framed structure, which appears to be generally in sound structural condition. The exterior of the building should be treated with wood stain and Vegetation adjacent to the building should be removed as necessary to prevent potential future damage to the fabric of the building.

4. Mechanical Survey

4.1. Heating

4.1.1 Heating is provided via electric radiators and tubular heaters on the walls.

4.1.2 There are signs of corrosion on the electric panel heater within the office heaters, they appear to be working and but are in poor condition. Replace.

4.1.3 Tubular heaters appear to be past the economic lifespan. To be replaced.

4.2. Ventilation

4.2.1 Local wall mounted extract fans are provided to the WC but is not operational. Replace.

4.2.2 No ventilation is provided to the galley, Install a small extract fan to comply with building regulations.

4.2.3 Make up air is by natural means to each space.

4.3. Hot Water Services

4.3.1 Hot water is provided by an over the sink local electric instant heaters. The unit is not working and is under sized for the application. Replace with a more suitable unit.

4.4. Cold Water Services

4.4.1 The water main is distributed around the building via a blue MDPE pipe. The cold water main serves the galley, WC and a hose connection has been provided to fill the bowser. The hose connection has not been provide with a means of back flow prevention and could cause contamination to the drink water supply.

4.4.2 Blue MDPE pipework is suitable for underground mains and is not designed for above ground distribution due to the effects of ultra-violate sunlight degrading the pipework over time. Replace with insulated copper pipework.

4.4.3 Taps to gally sink showing signs of corrosion. Replace

4.5. Incoming Mains Water Service

4.5.1 The Bryher fire and emergency station is supplied from a local well.

4.6. Oil/Gas Services

4.6.1 There are no oil/gas services associated with this building.

5. Electrical Survey

5.1. LV Distribution

5.1.1 The Fire and Emergency Station is served from a WPD electrical supply system. The supply terminates in a GRP enclosure external to the building.

5.1.2 Incoming SWA electrical cable exposed. Recommend boxing the cable to protect against mechanical damage.

5.1.3 GRP enclosure housing the utility meter and Cut out fuses, to be sealed to prevent vermin access.

5.1.4 Main distribution boards appear to be in working condition. It is recommended that the boards are changed to a metal fireproof board in line with the current regulations.

5.1.5 Distribution boards missing blanking plates. Boards need to be fitted with blanks to prevent exposure to electrical shock.

5.1.6 The electrical services are distributed throughout the rest of the building via a network of SWA cables and PVC cables. A combination of MCBs and RCBO protection devices are installed to provide protection to the final small power and lighting circuits.

5.1.7 Final circuit cables not supported. Cables to be supported using metal clips/ containment system.

5.1.8 Generally, the electrical installation is in a useable condition, however due redesign and upgrades to the latest BS7671 wiring regulations.

5.1.9 LV cable supplying the ambulance station not fit for purpose. Replace cable.

5.1.10 The distribution system should be tested regularly to BS7671.

5.2. Containment

5.2.1 Incoming electrical services clipped direct.

5.2.2 The majority of cable runs are clipped direct with no EMI segregation between fire alarm, ELV/ Data and LV cables.

5.2.3 PVC trunking has been used to support and protect cables to some of the final circuits. PVC trunking appears old and incomplete in some places.

5.2.4 High level final circuit cables not supported. Cables to be supported using metal clips/ containment systems.

5.3. Internal and External Lighting

5.3.1 General lighting in working but poor condition.

5.3.2 Internal lighting to the station is provided via surface mounted linear and compact circular florescent lighting.

5.3.3 Internal lighting to vehicle storage requires IK rated diffuser protection. Lighting past economic life; recommend replacing with energy efficient Led linear fittings.

5.3.4 Wall mounted external lighting is provided to the entrance and the building surrounds. External lighting diffusers are degraded with signs of water ingress and algae growth.

5.4. Fire Alarm and Detection System

5.4.1 The fire alarm system panel is located in the vehicle store entrance. This supports all the detectors, break glasses and sounder beacons throughout the fire and ambulance buildings. The overall condition of the fire alarm panel appears to be good.

5.4.2 There appears to be fire alarm detector heads that are not compatible with the fire alarm panel.

5.4.3 Detector heads appear to be past their economic life.

5.5. Small Power

5.5.1 Majority of socket outlets in the station appear to be past their economic life.

5.5.2 Ambulance station fed from an extension cable from the fire station. Consider redesign to provide adequate socket outlets.

5.5.3 Fixed equipment FCU appears to be supported in red tape. The FCU should be replaced,

5.5.4 A Periodic Test & Inspection should be carried out in line with BS7671.

5.6. Lightning Protection System

5.6.1 There appears to be no lightning or surge protection system to the building. Consideration may be given to completing a risk assessment to determine the need for surge protection and lightning protection system in-line with the BS EN 52306 and BS7671.

5.7. Data

5.7.1 Incoming data via BT Openreach is terminated in a BT master socket within the main vehicle store.

5.7.2 Data sockets and cables appear old and past their economic life.

5.8. Security

5.8.1 The security panel is located at the entrance of the vehicle storage area.

5.8.2 The security panel appears to be in good working order.

6. Recommendations for further inspections and specialist surveys.

6.1.1 Lightning protection specialist to perform a risk assessment in line with BS EN 52306 and BS7671 to determine the need for a lightning protection system and surge protection.

7. Appendices

Appendix 1: Details of Prioritised Works and Cost schedule

IOS Condition Survey Report.

Detail of Prioritised Works Schedule.

Fire & Emergency Service Station

The tabulated priority costing figures have been derived from the SPON'S Mechanical and Electrical services price book, 51st edition 2020. The cost detailed in this schedule are indicative estimates based on the time of survey, Hoare Lea cannot be held accountable. The cost estimates are in most cases costed on a like to like replacement, with no allowance for improvement except where it is necessary to upgrade an element at a time of replacement to comply with current regulations. The cost estimates take into account the geographical location of the sites.

IMAGE REFERENCE	LOCATION / ELEMENT	OBSERVATIONS	CONDITION GRADING	PRIORITY GRADING	STATUTORY COMPLIANCE	PRIORITY COSTINGS			
						P1	P2	P3	P4
BUILDING CONDITION									
B101	Vehicle shed doors	Heavily weathered timber double doors to the vehicle shed - redecorate	C	2			£ 2,700.00		
B102	Render	Minor hairline cracking to the front and rear of the building - fill and redecorate	B	2			£ 330.00		
B103	Rear Extension	Stepped crack to RH side of the rear extension, suggesting possible subsidence - Investigate / monitor for further movement / repair	D	1		£ 1,500.00			
B104	Externals Walls	Damp staining and weathering to painted render finish - redecorate	C	2			£ 4,110.00		
B105	Fascia's	Paint peeling and weathering to all external timber fascia's - redecorate	C	2			£ 1,920.00		

B106	External Windows and Doors	Heavily weathered, minor rot, corrosion staining and peeling paintwork to all windows and doors, rear window blown - refurbish and overhaul all	C	2			£ 6,435.00		
B107	Roof	Flashing to RH side of the vehicle shed curled up with a section approx 1m also missing, slipped slates and verge coverings also missing - repair flashing, re-fix slates, repair verge, replace corrugated sheet roof.	D	1		£ 4,080.00			
B108	Flooring - Entrance area, rear exit, tractor shed	Concrete flooring to entrance area and rear exit worn, marked and scuffed - reseal all concrete floors	C	2			£ 2,325.00		
B109	Flooring - crew room	Timber floorboards - condensation staining and worn - investigate ventilation to sub-floor and restain	C	3				£ 630.00	
B110	Flooring - WC's and Offices	Heavily worn, soiled and ruckled vinyl flooring - replace	D	1		£ 975.00			
B111	Ceiling	Numerous signs of previous water ingress and damp to the painted ceiling throughout the building - Investigate further sources of water ingress and redecorate, replace rotten timber panelling where required Approx 10%	D	1		£ 1,470.00			
B112	Internal Walls	Damp staining, peeling paintwork, minor cracking and condensation to the painted surfaces - redecorate	D	1		£ 5,325.00			
B113	Sanitaryware	Sanitaryware soiled and worn - replace	C	2			£ 2,835.00		
B114	Guttering	Missing downpipe to rear extension, guttering not connected up in places - overhaul guttering throughout	B	1		£ 180.00			
IMAGE REFERENCE	**SERVICE TYPE & LOCATION**	**OBSERVATIONS**	**CONDITION GRADING**	**PRIORITY GRADING**	**STATUTORY COMPLIANCE**	**PRIORITY COSTINGS**			
						P1	**P2**	**P3**	**P4**
ELECTRICAL ENGINEERING									

E201	Main Incoming LV	Incoming LV ducts require sealing to prevent vermin access	C	1		£ 300.00			
E202, E203, E204	Distribution boards	PVC Distribution board, recommend replacing with metal fireproof in line with BS7671	B	4					£1,800.00
E207, E208, E210	Internal Lighting	Internal lighting missing diffusers. No Emergency lighting.	C	1		£3,000.00			
M101	Hot Water Services	Over sink hot electric hot water heater not working. Replace with a more suitable unit.	D	1		£ 3,000.00			
M102	Cold Water Services	Blue MDPE pipework not suitable for above ground distribution. Replace with copper pipework.	C	3				£ 4,500.00	
M103	Cold Water Services	Provide suitable back flow protection to hose connection	D	1	£ 450.00				
M104	Cold Water Services	Taps corroded, replace	D	1	£ 150.00				
M105	Heating	Replace electric Heaters	C	2			£ 3,000.00		
M106	Ventilation	Replace WC extract fan	D	1	£ 300.00				
M107	Ventilation	Install Gally extract fan	C	1	£ 300.00				
Total Costs					**£ 2,400.00**	**£20,480.00**	**£16,515.00**	**£ 5,130.00**	**£2,700.00**
Mean Professional Fees @ 8.7% (QS - 2.2%, Arch - 4.5%, M&E - 2.0%) inclusive of Structural Engineers Fees 2.5%)					(Not £ 208.80	£ 1,781.76	£ 1,436.81	£ 446.31	**£ 234.90**
Total Costs (Inc of Professional Fees)					**£ 2,608.80**	**£22,261.76**	**£17,951.81**	**£ 5,576.31**	**£2,934.90**

Key	Condition Grading		Priority Grading	
	A - Good Condition	C - Poor Condition	P1 - Urgent Work required	P3 - Desirable Work 3 -5 Years
	B - Satisfactory Condition	D - Very Poor Condition	P2 - Essential Work Within 2 Years	P4 - Long Term Work Outside 5 Years

8. Photographic Schedule

8.1. Mechanical Survey Photos

M101: Water heater not working. To be replaced.

M102: MDPE pipework not suitable for above ground distribution.

M103: Provide back flow protection to hose connection

M104: Taps showing signs of corrosion, need replacing.

M105: Replace Electric Heaters.

M106: WC extract fan not functioning. Replace.

8.2. Electrical Survey Photos

 E201: Incoming LV services terminating within GRP enclosure.	 E202: PVC Distribution board recommend replacing with a metal fireproof board.	 E203: PVC Distribution board recommend replacing with a metal fireproof board.
 E204: PVC Distribution board recommend replacing with a metal fireproof board.	 E205: Final circuit cables not supported. Cable not suitable for external elements.	 E206: Final circuit cables not supported.
 E207: Internal lighting missing diffuser and not working.	 E208: Internal lighting missing diffuser. IK rated diffuser/ fitting required.	 E209: Internal lighting diffuser degraded and has insects.

 E210: Internal lighting working. IK rated diffusers required.	 E211: External lighting, past economic life, signs of water ingress.	 E212: External lighting, past economic life, signs of water ingress.
 E213: Fire alarm panel appears to be in good condition.	 E214: detector not compatible/ connected to fire alarm panel.	 E215: Detector heads too close to wall, deviating from BS5839.
 E216: Socket outlets in working but poor condition.	 E217: FCUs requiret to protect flex cable and fixed equipment.	

8.3. Building Survey Photos

B101: Heavily weathered timber double doors to the vehicle shed - redecorate

B102: Minor hairline cracking to the front and rear of the building - fill and redecorate

B103: Stepped crack to RH side of the rear extension, suggesting possible subsidence

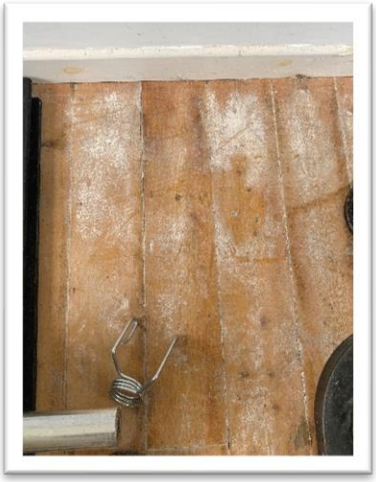
B104: Damp staining and weathering to painted render finish - redecorate

B105: Paint peeling and weathering to all external timber fascia's - redecorate

B106: Heavily weathered, minor rot, corrosion staining and peeling paintwork to all windows and doors, rear window blown

B107: Flashing to RH side of the vehicle shed curled up with a section Approx 1m also missing, slipped slates and verge coverings also missing

B108: Concrete flooring to entrance area and rear exit worn, marked and scuffed - reseal all concrete floors

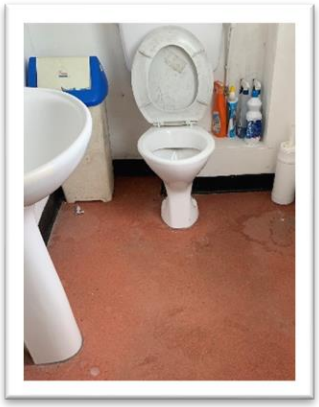


B109: Timber floorboards - condensation staining and worn

B110: Heavily worn, soiled and ruckled vinyl flooring - replace

B111: Numerous signs of previous water ingress and damp to the painted ceiling throughout the building

B112: Damp staining, peeling paintwork, minor cracking and condensation to the painted surfaces - redecorate



B113: Sanitaryware soiled and worn - replace

B114: Missing downpipe to rear extension, guttering not connected up in places - overhaul guttering throughout

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