

STRIDE TREGLOWN
BUILDING SURVEYING

HOARE LEA 



Isles of Scilly Condition Survey
Council of the Isles of Scilly
St. Marys

Condition Survey Report

St Marys 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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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 the St. Marys Fire & Emergency Service Station on the Isles of Scilly.
- 2.1.2 The St Marys Fire and Emergency Station was first commissioned in 1984.
- 2.1.3 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

Executive Summary

3. Building Survey

3.1. General summary

- 3.1.1 The structure comprises a steel portal frame clad with powder coated profile metal sheeting, uPVC internal cladding with Insulation sandwiched between. Generally the frame and visible external finish is in fair condition, however corrosion of the principal structural steel members is evident internally.
- 3.1.2 The pitched roof covering, has a coated profile metal sheet finish, powder coated pre-formed metal verges and powder coated box profile gutters with square downpipes. An inspection of the roof covering showed a high degree of cut edge corrosion throughout the roof and should be treated as a priority to prevent the corrosion getting to a stage where panels will have to be replaced rather than repaired.
- 3.1.3 There is high level damage to one corner of the box gutter that ties-in with signs of water ingress internally on the first floor. The 2no. downpipes discharge onto the ground adjacent to the building.
- 3.1.4 Windows are uPVC framed double glazed units, which are in a functional condition. External uPVC pedestrian doors are in working order, however showing signs of corrosion and require renewing. The sliding galvanised vehicular doors appear in a functional condition, however high level corrosion is apparent therefore it is suggested that the doors are subject to a periodic inspection, servicing and maintenance regime.

3.2. Internally

- 3.2.1 Internal areas are in a serviceable condition, however it is considered that certain works are required to ensure the building fabric doesn't deteriorate any further. Ceilings and partition walls consist of decorated plasterboard in the administrative areas, with the exposed uPVC roof and wall cladding being visible elsewhere with the exception of minor damage these finishes are in a fair condition. Redecorations should be undertaken internally as part of a cyclical redecoration programme.
- 3.2.2 Flooring comprises either contract carpet, sheet vinyl, ceramic tiles or exposed ground bearing concrete slab. Generally these are in a poor condition and replacement is recommended in short term. Internal timber doors are in a functional condition, however a number are in need of replacement and renewal.

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.
- 3.3.2 Existing surface water gullies are blocked and need to be cleared. The building is surrounded by concrete hardstanding areas and a tarmac carpark, which are in a poor condition. Consideration should be given to resurfacing the carpark in the short to medium term.
- 3.3.3 Vegetation adjacent to the building should be removed/sprayed with herbicide as necessary to prevent potential future damage to the fabric of the building and external areas.

4. Mechanical Survey

4.1. Heating

- 4.1.1 Permanent fixed heating is only provided to the conference room. Provided heating to the remainder of the building. Evidence of mould growth and building fabric can be seen within the building.

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 a local electric storage heater.
- 4.3.2 All appear in good condition and working order.

4.4. Cold Water Services

- 4.4.1 The water main is distributed around the building via plastic pipework. 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 Insulate cold water main to avoid condensation on pipework and the build-up of mould.
- 4.4.3 Minor leaks to pipework under sink.

4.5. Incoming Mains Water Service

- 4.5.1 The fire and emergency station is supplied from a local well and rainwater harvesting system.
- 4.5.2 The condition of the external pipework insulation is poor and should be replaced.

4.6. Oil/Gas Services

- 4.6.1 There are no oil/gas services associated with these business units.

5. Electrical Survey

5.1. LV Distribution

- 5.1.1 The Fire and Emergency Station is served from a WPD electrical supply and a grid connected PV system. The supply enters the building via SWA cable and terminates within the main vehicle store area.
- 5.1.2 Incoming SWA electrical cable exposed. Recommend boxing the cable to protect against mechanical damage.

- 5.1.3 The installation has a mixture relatively old and new distribution boards. The majority of the distribution boards are past their economic life with no replacement parts and should be replaced.
- 5.1.4 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.
- 5.1.5 The distribution system should be tested regularly to BS7671.

5.2. Containment

- 5.2.1 Incoming electrical services into station are via PVC ducts
- 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 Metal conduit has been used to protect the cables to some of the final circuits.

5.3. Internal and External Lighting

- 5.3.1 General lighting in poor condition
- 5.3.2 Internal lighting to the station is provided by surface suspended linear florescent light fittings. Lighting
- 5.3.3 The lighting is providing acceptable levels of light output; however, diffusers are missing/ broken.
- 5.3.4 Lighting within fire station stores and changing rooms not working – consider replacing.
- 5.3.5 Lighting controls for offices appear to be controlling circulation areas – recommend redesigning to ensure spaces have individual controls.
- 5.3.6 Ambulance bay lighting controlled within fire station – recommend redesigning lighting controls to allow control of lighting within ambulance bay.
- 5.3.7 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. The condition of the external luminaires is poor, consider testing system to BS7671 and replacing all luminaires.

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 system is good. The following services/ equipment require attention:
- 5.4.2 Recommend fire alarm detectors too close to the wall to be moved or a risk assessment/ variation certificate from BS5839 -1 2017 issued.
- 5.4.3 Recommend that the conference room detector to be relocated away from equipment.
- 5.4.4 External sounder appears to be disconnected, consider reconnecting as soon as possible...

5.5. Small Power

- 5.5.1 Majority of socket outlets in the station appear to be past their economic life.
- 5.5.2 Surface mounted sockets in vehicle store and charging areas appear to have been installed recently and are in satisfactory condition.
- 5.5.3 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 display unit appears to have malfunctioned and should be replaced. A test and inspection of the security system is required to determine cause of the malfunction.

6. Recommendations for further inspections and specialist surveys.

- 6.1.1 Fire alarm specialist to perform risk assessment to determine the need for moving detector heads away from wall to comply with BS5839 - 1.
- 6.1.2 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.

St.Marys - 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	External Doors	Corroded and bent locking door plates, worn internal handles - replace to both doors	C	2			£ 720.00		
B102	Entrance Area / Offices - Flooring	Heavily worn vinyl and carpet coverings - replace throughout	D	1		£ 7,200.00			
B103	Internal Doors	Broken ironmongery, worn and marked surface finishes - redecorate all doors and overhaul	C	1		£ 1,425.00			
B104	Walls / Joinery, GF & 1st FL	Marked, scuffed walls and joinery throughout, minor making good - allow for redecoration throughout the ground and 1st floor	C	2			£ 5,475.00		

B105	Windows	Generally in good condition however would benefit from being eased throughout	B	2			£ 360.00		
B106	Flooring	Concrete flooring pitted, worn and marked / Vinyl flooring worn and stained / markings faded - Replace all Vinyl flooring and re-seal floor to the vehicle garages and stores, renew markings	C	2			£11,550.00		
B107	Sliding Shutter doors	Corrosion to the top and bottom of all 3No. Shutters / Corrosion to the door frames and reveal - replace corroded sections / remove corrosion and treat areas - Overhaul and ease	D	1		£ 9,750.00			
B108	Mezzanine stair	Worn painted finish - renew	C	2			£ 315.00		
B109	External Area	Tarmacadam to the front and sides of the building are worn and breaking up - remove tarmacadam surface and replace with new	D	1		£33,000.00			
B110	Vegetation	Vegetation to the front of the building at ground level, rear box gutter, beneath rear exit grate, drains - remove	C	2			£ 307.50		
B111	Cladding	Impact damage to 2No. Panel, Corroded rivets to cladding sheets - repair panels and cover rivets with caps	B	3				£ 870.00	
B112	Roofing	Cut edge corrosion to the corrugated panel roof - Repair panels with cut edge corrosion treatment	D	1		£11,700.00			
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 cables to be protected from damage.	D	1		£1,800.00			
E202, E204, E206,	Main distribution	Main LV cables to be supported in cable containment.	B	2			£600.00		

E203	Distribution boards	Distribution boards past economic life	C	2		£1,200.00			
E204, E205, E206	Containment	Containment required to support cables and for EMI segregation.	C	2			£1,950.00		
E208, E209, E210	Fire alarm detection	Fire alarm detector heads to be relocated in line with BS5839	D	1		£450.00			
E211, E212	Lighting controls	Lighting control appear past economic life, taped. Recommend testing/ replacing.	C	1		£825.00			
E213, E214, E215, E216, E218	Internal lighting	Internal lighting missing diffusers. No Emergency lighting. Reduced light output. Light fittings not working. Replace	C	1		£3,000.00			
E217, E219, E220, E221	External lighting	External lighting degraded diffuser and PIR detectors.	C	1		£1,650.00			
E222, E223, E224	Socket outlets	Exposed socket outlets.Socket outlets past economic life .	C	1		£1,800.00			
E225	Intruder alarm	Intruder alarm specialist required to ascertain cause of fault.	-	1	£1,800.00				
-	Lightning protection risk assessment	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.	-	1	£1,800.00				
MECHANICAL ENGINEERING									
M101	Cold Water Services	Insulate cold water service	C	3					
M102	Cold Water Services	Provide suitable back flow protection to hose connection	D	1	£450.00				
M103	Cold Water Services	Repair insulation to external incoming pipework	C	1		£450.00			
M104	Heating	Install electric heating	C	2			3000.00		
M105	Ventilation	Replace WC extract fan	D	1	£300.00				
M106	Ventilation	Install Gally extract fan	C	1	£300.00				
Total Costs					£ 4,650.00	£62,550.00	£23,557.50	£ 870.00	£ -


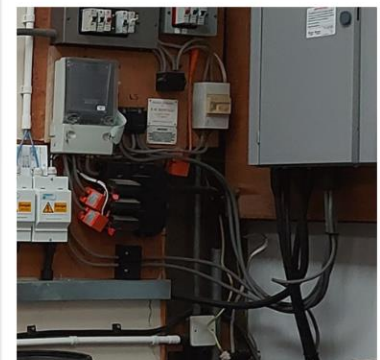

Mean Professional Fees @ 8.7% (QS - 2.2%, Arch - 4.5%, M&E - 2.0%) (Not inclusive of Structural Engineers Fees 2.5%)		£ 404.55	£ 5,441.85	£ 2,049.50	£ 75.69	£ -
Total Costs (Inc of Professional Fees)		£ 5,054.55	£67,991.85	£25,607.00	£ 945.69	£ -
Key	Condition Grading	Priority Grading				
	A - Good Condition B - Satisfactory Condition	C - Poor Condition D - Very Poor Condition	P1 - Urgent Work required P2 - Essential Work Within 2 Years	P3 - Desirable Work 3 -5 Years P4 - Long Term Work Outside 5 Years		

8. Photographic Schedule

8.1. Mechanical Survey Photos

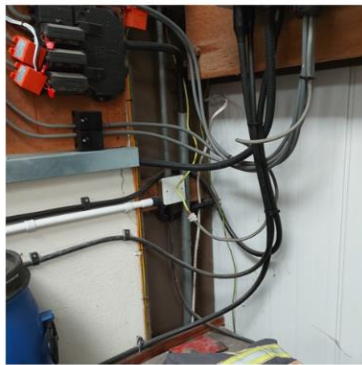
		
<p>M101, M102: Insulate cold water main & provide back flow protection</p>	<p>M103: Repair insulation to external incoming pipework</p>	<p>M104: Install electric heating</p>
		
<p>M105: Replace WC extract fan</p>	<p>M106: Install gally extract fan</p>	

8.2. Electrical Survey Photos

		
<p>E201: Incoming cable not protected from mechanical damage.</p>	<p>E202: Incoming supply terminated in vehicle store. Cables to be supported.</p>	<p>E203: Distribution boards, past economic life.</p>



E204: Cables not segregated.



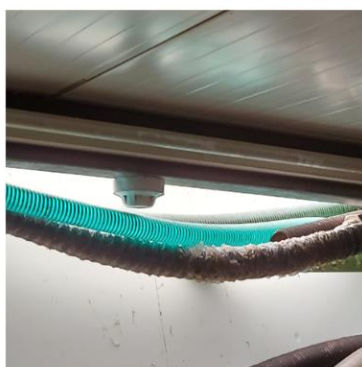
E205: Cable segregation required.



E206: External cables to be supported



E207: Fire alarm panel in good condition.



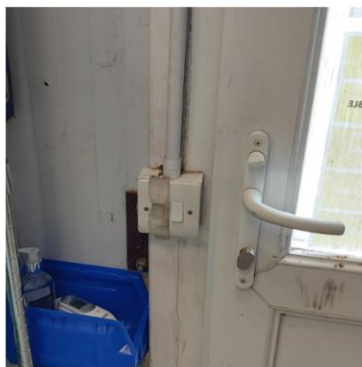
E208: Fire alarm detector heads – recommend repositioning.



E209: Fire alarm detector heads – recommend repositioning.



E210: Fire alarm detector heads – recommend repositioning.



E211: Lighting control appears old and taped. Recommend testing/ replacing.



E212: Lighting controls appear to be past economic life.



E213: Lighting appears reduced light output, diffuser missing.



E214: Light fitting diffuser missing.



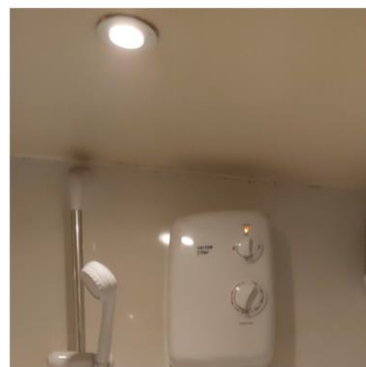
E215: Circular surface downlight, reduced light output.



E216: Bulkhead fitting not working.



E217: External lighting degraded diffuser and PIR detector.



E218: Shower room light fitting - wrong IP rating, luminaire detaching from ceiling.




E219: External lighting with signs of water ingress.



E220: External lighting degraded diffuser and internal algae growth.



E221: External lighting degraded diffuser.

		
<p>E222: Exposed socket outlets. Protective blanking plate required.</p>	<p>E223: Socket outlets past economic life – replace.</p>	<p>E224: Socket outlets past economic life – replace.</p>
		
<p>E225: Security panel display malfunction. Replace unit.</p>		

8.3. Building Survey Photos

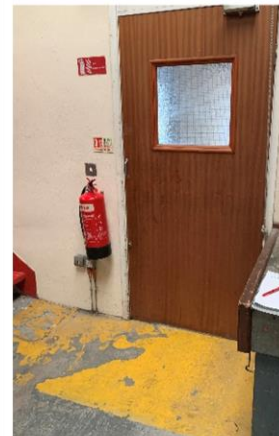
		
<p>B101: Corroded and bent locking door plates, worn internal handles</p>	<p>B102: Heavily worn vinyl and carpet coverings</p>	<p>B103: Broken ironmongery, worn and marked surface finishes</p>



B104: Marked, scuffed walls and joinery throughout, minor making good



B105: Generally in good condition however would benefit from being eased throughout



B106: Concrete flooring pitted, worn and marked / Vinyl flooring worn and stained / markings faded



B107: Corrosion to the top and bottom of all 3No. Shutters / Corrosion to the door frames and reveal



B108: Worn painted finish



B109: Tarmacadam to the front and sides of the building are worn and breaking up



B110: Vegetation to the front of the building at ground level, rear box gutter, beneath rear exit grate, drains - remove



B111: Impact damage to 2No. Panel, Corroded rivets to cladding sheets



B112: Cut edge corrosion to the corrugated panel roof

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