

Design and Access Statement

Fire Precautionary Works
at St. Mary's Community Hospital, Isles of Scilly
for NHS Property Services



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Job No. 180395-610



Document Control Record

Version	Date	Prepared By	Checked By
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1.00 INTRODUCTION

St Mary's Community Hospital is a purpose built hospital constructed in 1938, which has been subject to extensions in the 1970's and 1980's.

The external envelope had been built with traditional brick and block cavity construction with a render finish. The building is predominantly single storey with localised first floor area over the centre of the building. Roof coverings comprising a variety of flat roofs and central pitched roofs and flat roof dormers to the first floor area.

2.00 PROPOSED WORKS

The proposal is to undertake some fire precautionary and backlog maintenance works to St. Mary's Hospital on the Isles of Scilly, following a recent fire engineering review of the premises and condition survey updates.

The works comprise of flat roof replacement including thermal upgrading, fascia and soffit replacement, PVCu cladding to a raised north light lantern detail and the installation of an external medical gas cylinder combi-store.

3.00 RATIONALE FOR THE WORKS

Flat Roof Recovering Works

The hospital suffers from rainwater ingress due to failure of existing coverings and poor detailing at the abutments between pitched and flat roofs.

The existing roof coverings have been considered to be coming towards the end of their practical life. Whilst partial patching may provide temporary solution to the leaking, a more extensive approach is required to ensure that the building remains useable for many years to come and provide resilience for clinical services.

Fascias and Soffits

As part of these works, defective timber fascias and soffits are proposed for replacement and will be finished with a white PVCu horizontal shiplap style over-cladding board.

The decorative condition of the building is poor, and existing fixings are corroding and showing premature failure due to the extreme marine environment.

Raised North-Light Lantern Details

The hospital suffers from rainwater ingress due to failure of existing raised north-light lantern and poor detailing to the flat roof abutment.

As part of these works, the blocked fiberglass panels are proposed to be recovered with a white PVCu horizontal shiplap style over-cladding board.

Medical Gas Store

The hospital does not have a mains medical gas supply and as such requires a number of gas cylinder to be supplied and stored at the hospital. The existing store for the medical gas cylinders is currently too small for the desired gas cylinder capacity and does not allow for easy storage and accessibility. It is also attached to the main building and therefore poses a fire risk to the hospital.

It is for these reasons that it is proposed to install a purpose built medical gas cylinder store that is detached from the main hospital.

4.00 KEY DESIGN CONSIDERATIONS

4.01 Levels

Due to the Building Regulations requirements to install significant thicknesses of thermal insulation, and the fact that the proposed roofing solution is to be applied above the existing roof covering, the proposals would result in an increase of height to the flat roof.

It is expected that the flat roof height increase would approximately be 130mm, although the new flat roof level would still be significantly lower than the surrounding pitched roofs which are to remain unaltered by the works. Images of the existing roof arrangement have been supplied to drawing no. 180395 AP(2)02 Roof Plan, where it also indicates which roofs are proposed for replacement.

The size of the medical gas cylinder combi-store is 1985mm(h) x 1280mm(w) x 1000mm(d). A data sheet of the store has been included to appendix A and the product reference code is 19326476.

4.02 Materials

Whilst other roofing materials have been considered, it has been proposed that the new flat roof covering will be a Carlisle single layer polymeric sheet roof covering, fascias/soffits and cladding is proposed in PVCu.

These materials have been selected for the following reasons:

- Clinical resilience – the program for installing these materials offers minimal disruption to clinical services on the island. The proposed materials provide good long-term weathering protection to provide maximum building resilience and protect clinical services from disruption in the medium to long term.
- Appearance – to maintain appearance of single ply membrane that have been applied to the other areas of the building and appearance of painted timber fascias and soffits.
- Relative lightweight – it would be necessary to utilise the existing building's structure, which prevents the use of heavier building materials. It will also be more economical to freight the materials from the mainland.
- Speed of construction – these can be applied directly on to the existing roof covering fabric without the need to strip.
- Good thermal insulation – to the requirements of the Building Regulations and improve the future energy efficiency of the building.

The proposed medical gas cylinder combi-store is of steel construction.

4.03 Finishes

It is proposed that a 'partial bond' waterproof membrane type system is installed to the flat roof. The external roof coverings would be of a dark grey colour, slightly textured coating. It is considered that the new flat roof system would give an improved appearance over the existing flat roof.

The replacement fascias and soffits will be finished in white PVCu horizontal shiplap style over-cladding board.

The new steel construction medical gas cylinder combi-store has a powder coated finish – colour dark green. A data sheet of the store has been included to appendix A and the product reference code is 19326476.

5.00 ACCESS

The proposed works would not result in changes to access to or around the building.

The proposed medical gas cylinder combi-store will be detached from the main building positioned adjacent to an external bin store. Access to the medical store will be via the car park, however the unit will be set back on a purpose built concrete base to allow an operative to stand off the car park when using the store. Protective bollards shall also be installed to protect the user and unit from vehicle impact. The position of the store has been indicated to drawing 180395 AP(2)06 Proposed Part Site Plan.

Appendix A: BOC – Gas Cylinder Combi-Store

Gas cylinder Combi-Stores

Safe, strong and secure

BOC Healthcare offer a wide range of Combi-Store sizes, ideal for high volume cylinder storage, which is safe, strong and secure.

The BOC range helps manage your cylinders safely and securely. A flexible range of items designed with the entire range of cylinder size in mind, it allows you to make the best use of your available space to help with easier and safer handling, stock rotation, and stock checking.

BOC can also provide the appropriate safety signage; provide a store design service and installation in many areas.

Features and benefits

- Powder coated steel construction
- Secure fixing plates to floor
- Secure lockable unit

Products

Order code	Description
19326468	Cabinet med 3 shlvs size CD rack size ZX
19326469	Cabinet med 5 shlvs size CD rack size ZX
19326470	Cabinet med 3 shlvs size CD rack size G
19326471	Cabinet med 10 shlvs size CD
19326472	Cabinet med 3 x 3 sh size CD rack size ZX
19326473	Cabinet med 5 x 3 sh size CD rack size ZX
19326474	Cabinet med 10 x 3 sh size CD rack size ZX
19326475	Cabinet med 10 x 5 sh size CD rack size ZX
19326476	Cabinet med 5 x 5 sh size CD rack size ZX
19326477	Cabinet med 3 x 3 sh size CD rack size G
19326478	Cabinet med 10 x 3 sh size CD rack size G
19326479	Cabinet med 3 x 3 sh size CD rack G & ZX
19326480	Cabinet med 3 x 5 sh size CD rack G & ZX
19326481	Cabinet med 10 x 10 shlvs size CD
19325500	Cabinet med 1 shelf + liquid nitrogen store



For more information

Call: 0161 930 6010

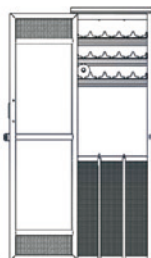
Email: bohealthcare-uk@boc.com

Visit: www.bohealthcare.co.uk

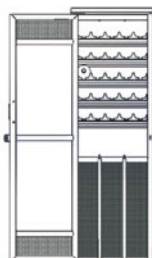
Order online: www.boonline.co.uk/shop

Combi-Store configurations

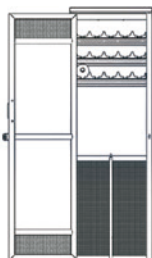
The BOC range allows you to evaluate your cylinder capacity requirement and the area in which you wish to locate this storage unit to determine the most suitable unit for you.



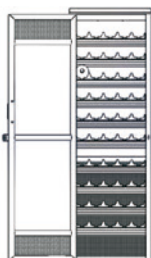
19326468
3S + ZX
H: 1985mm
W: 640mm
D: 1000mm



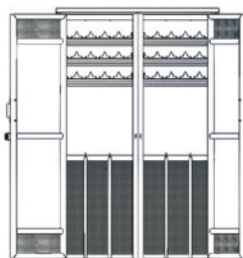
19326469
5S + ZX
H: 1985mm
W: 640mm
D: 1000mm



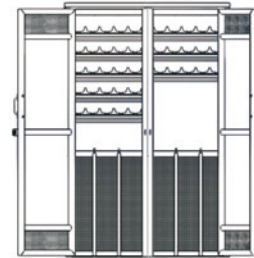
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3S + G
H: 1985mm
W: 640mm
D: 1000mm



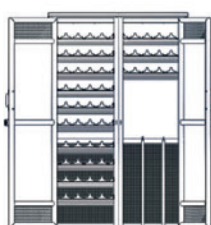
19326471
10S
H: 1985mm
W: 640mm
D: 1000mm



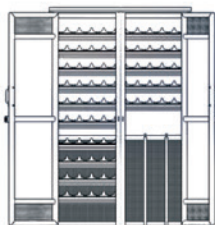
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3S+ZX - 3S+ZX
H: 1985mm
W: 1280mm
D: 1000mm



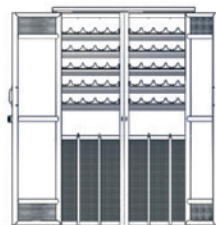
19326473
5S+ZX - 3S+ZX
H: 1985mm
W: 1280mm
D: 1000mm



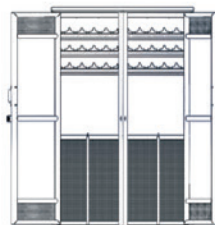
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10S - 3S+ZX
H: 1985mm
W: 1280mm
D: 1000mm



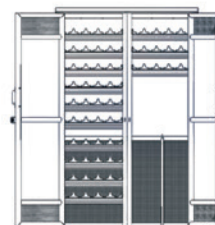
19326475
10S - 5S+ZX
H: 1985mm
W: 1280mm
D: 1000mm



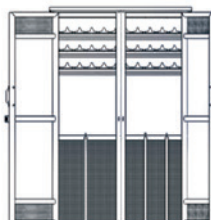
19326476
5S+ZX - 5S+ZX
H: 1985mm
W: 1280mm
D: 1000mm



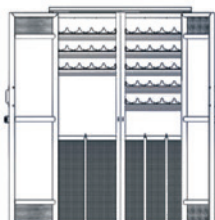
19326477
3S+G - 3S+G
H: 1985mm
W: 1280mm
D: 1000mm



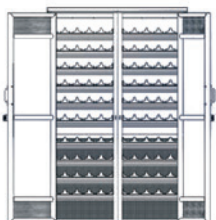
19326478
10S - 3S+G
H: 1985mm
W: 1280mm
D: 1000mm



19326479
3S+G - 3S+ZX
H: 1985mm
W: 1280mm
D: 1000mm



19326480
3S+G - 5S+ZX
H: 1985mm
W: 1280mm
D: 1000mm



19326481
10S - 10S
H: 1985mm
W: 1280mm
D: 1000mm



19325500
1S + LN Store
H: 1988mm
W: 840mm
D: 1040mm

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