



GeoShield Verification Report



PROJECT REFERENCE: GEO102875

PROJECT: Neath Port Talbot Hospital (Orthopaedic Unit).

PROJECT ADDRESS: Neath Port Talbot Hospital,

Baglan Way, Port Talbot,

SA12 7BX

SPECIFICATION: Verified in accordance CIRIA 735.

Design in accordance with BS8485 2015 + 2019 for Methane and Carbon Dioxide.

Substrate prepared in-accordance with manufactures instructions.

FC6 Cuspate Geocomposite

JUTA GP1 Gas Membrane

JUTA GP1 SAM

Telescopic Vents



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VERIFICATION OFFICER: Kavanagh Palmer-Fletcher

VERIFICATION COMPANY: GeoShield Limited

Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER: 07470012812

EMAIL ADDRESS: Kpalmer-fletcher@geoshield.co.uk

ORDER NUMBER:

PER VISIT: YES:

☐

NO:



PROJECT: YES:



NO:

☐



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MEMBRANE SPECIFICATION:

DESIGN DETAILS:

Geotechnical and Geoenvironmental Report

>Front Page

>Site Location

>Radon (No Radon)

>Characteristic Site Classification (CS2)

>Borehole Locations

Site Built Ground Floor Areas Layouts, Drawing No: 2325-PHG-V1-00-DR-S...

...-0404 Rev C03.

Foundations Sections and Details, Drawing No: 2325-PHG-V1-BG-DR...

...-S-0403 Rev C03.

Foundation Layout, Drawing No: 2325-PHG-V1-BG- DR-S-0402 Rev C05.

Piling Layout, Drawing No: 2325-PHG-V1-BG- DR-S-0401 Rev C04.

Site Built Ground Floor Areas Sections and Details, Drawing No: 2325-PHG...

...V1-BG- DR-S-0405 Rev C03.



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MEMBRANE SPECIFICATION:

DESIGN DETAILS:

Module Gable - Base, Midband and Verge, Drawing No: H2201-MCO-01-...

...XX-DR-A-060003 Rev C01.

Non Standard Base and Midband, Drawing No: H2201-MCO-01-XX-DR...

...-A-060004 Rev C01.

Pressure Relief System Layout.

Perimeter Section.

FC6 Cuspate Geocomposite - Technical Data Sheet.

JUTA GP1 Gas Barrier - Technical Data Sheet.

JUTA GP SAM - Technical Data Sheet.



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CLIENT DETAILS

CLIENT CONTACT:	Jon Taylor
CONTACTS ROLE:	
MOBILE PHONE:	01269591103
EMAIL ADDRESS:	JonTaylor@trjltd.co.uk

CLIENT CONTACT:	Josh
CONTACTS ROLE:	Site Contact
MOBILE PHONE:	
EMAIL ADDRESS	
NOTES:	



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APPLICATOR'S DETAILS

APPLICATOR NAME:

COMPANY:

APPLICATOR TEL:

APPLICATOR EMAIL:

APPLICATOR NAME:

COMPANY:

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES:



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AREA SURVEYED: Perimeter vents.

SITE CONDITIONS:

WEATHER: Sunny/cold

TEMPERATURE: 8c

MEMBRANE TEMPERATURE: N/a

RELATIVE HUMIDITY: N/a

TIME: 08:00-10:00

REPORT NUMBER: 004

DATE: 21/12/2022

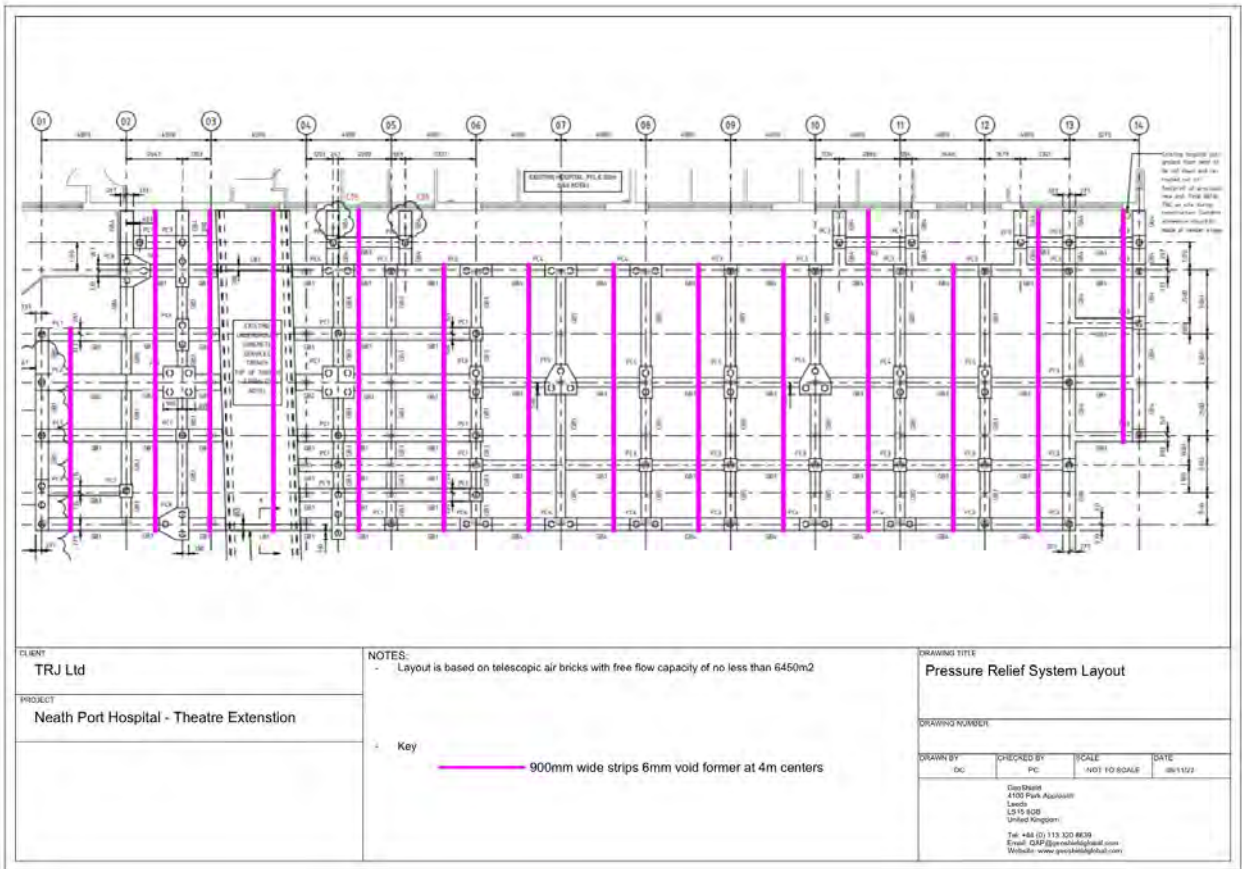
ACCOMPANIED Chris - MB Membranes



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VERIFICATION LAYOUT



The layout above shows the site layout where the ground floor modules have been installed. Vents on opposite ends of pressure relief were verified during this visit.



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OVERVIEW PHOTOGRAPHS



Overview photograph one elevation.

Periscope vents sealed around perimeter upon pressure relief venting.



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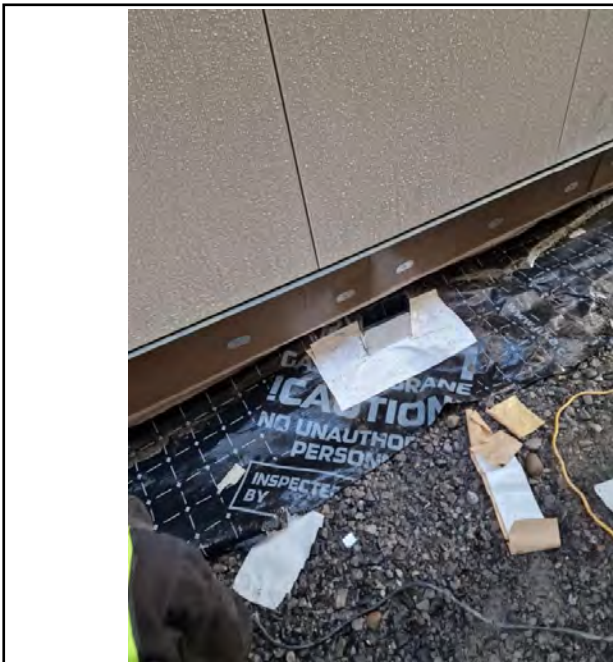


VERIFICATION ITEM ONE

LOCATION/GRID LINE: Modular building perimeter.

NOTES: Installation-

The periscope vents have been placed and sealed around the perimeter of the modular building. All vents have been placed on opposite ends of the FC6 Cuspate Geocomposite as per the design detail. The existing Juta GP1 gas membrane has been cut tightly...



...around each periscope vent prior to being sealed. The photograph on the left displays a sealed periscope vent and on the right displays evidence of the vent upon the vent mat.

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VERIFICATION ITEM ONE



The above photograph displays an overview photograph of a successfully sealed periscope vent. All vents have been successfully sealed using Juta GP SAM which is a gas resistant self adhesive. All periscope vents have been sealed in accordance to manufactures specification and to a good NVQ standard.

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VERIFICATION ITEM ONE



The above photograph displays evidence of the installer from MB Membranes applying adequate heat and rolled pressure using a hot air tool and silicone roller. This ensures the bituminous backing of the Juta GP SAM is suitably activated, followed by firm rolled pressure ensuring a consistent seal has been achieved upon the Juta GP1 & vent mat.



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VERIFICATION ITEM TWO

LOCATION/GRID LINE: Modular building perimeter.

NOTES: Testing procedures-

Throughout this verification visit a thorough visual inspection was conducted alongside thorough mechanical point stress tests which are also known as pick and probe testing.

This testing procedure ensured and helped identify any areas where an inconsistent...



...seal was present. The testing procedure was conducted upon all periscope vents sealed around the perimeter of the building. The photograph above on the right shows evidence of the Juta GP SAM successfully sealed upon the Juta GP1 gas membrane. The photograph above on the right displays evidence of the Juta GP SAM successfully sealed upon a periscope vent. Verified in accordance with CIRIA 735.

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BGA
British Geotechnical Association



VERIFICATION ITEM THREE



During this verification visit a number of inconsistently sealed overlaps were

identified. These were remediated on-site in the presence of Geoshield as shown

in the photograph above. A strip of Juta GP SAM applied upon the welded

overlap reinforcing the lap joint ensuring a continuous seal is achieved.



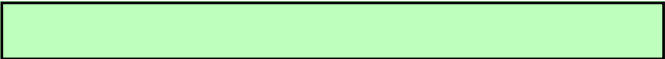
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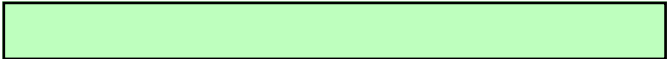
ADDITIONAL PHOTOGRAPHS



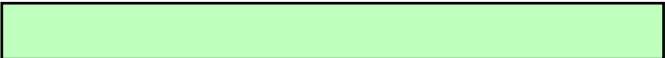
Alternate overview.



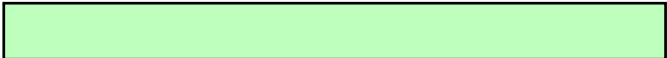
Successfully sealed periscope vent.



Successfully sealed periscope vent.



Identifying pressure relief vent mat.





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GAS MEMBRANE TESTING

VISUAL /PICK & PROBE: 

SMOKE TEST: 

AIR LANCING: 

DIELECTRIC: 

DESTRUCTIVE: 

OTHER: ☒

INERT GAS TEST: 

SPECIFY: Mechanical point stress tests.

Testing checklist attached:

YES ☒ NO ☐

Gridline/Plot Sign off

Gridline/Plot Sign off

Main modular building (not including bays).

Gridline/Plot Sign off

Modules dropped into place.

Gridline/Plot Sign off

Gridline/Plot Sign off

Gridline/Plot Sign off

Gridline/Plot Sign off

Gridline/Plot Sign off

Gridline/Plot Sign off

Gridline/Plot Sign off

Gridline/Plot Sign off

Gridline/Plot Sign off



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REMEDIATION LOG

Date	Nr	Remediation Description	Y/N
05/12/2022	001	1. Two patch repairs carried out to miss welds identified when	✓
		carrying out air lance testing.	✓
06/12/2022	002	1. One lap was,not welded past the edge of the modules being	✓
		dropped into place, this was rectified using a patch or GP1 SAM	✓
		as shown in verification item 1 of Report 002.	✓
		2. Additional ground floor modules to be dropped into place.	
07/12/2022	003	1. One corner and lap needed to be sealed as the module being	✓
		dropped into place was close to these details and would've been	✓
		much harder to seal and a sufficient lap could not have been	✓
		achieved.	✓
		2. One patch repair was carried out using JUTA GP1 SAM.	✓
		3. Some ground floor modules are still to be dropped into place.	
21/12/2022	004	Several patch repairs and edge of overlaps to be sealed.	✓
		^remediated onsite.	✓



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VERIFICATION SUMMARY

This was the fourth visit to site where verification was required for the installation of the periscope vents around the modular building. The present Juta GP1 has been cut tightly around each individual periscope vent installed upon the opposite ends of the pressure relief vent mat installed as per the design detail. All vents have been successfully sealed using Juta GP SAM which is a gas resistant self adhesive membrane. All have been sealed in accordance to manufactures spec & to a good NVQ standard. The installers have ensured adequate heat and rolled pressure has been applied to ensure complete adherence has been achieved. Visual pick & probe testing identified several small holes and inconsistent welds which were remediated on-site in the presence of Geoshield. Verified to CIRIA 735.

GEOSHIELD SIGNATURE:

DATE: 21/12/2022