



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



GeoShield Verification Report



NAME OF SURVEYOR:

John Cornish

VERIFICATION COMPANY:

GeoShield Limited

Icon Business Centre

4100 Park Approach

Thorpe Park

Leeds, LS15 8GB

CONTACT NUMBER:

07493769477

EMAIL ADDRESS:

Jcornish@geoshield.co.uk

ORDER NUMBER:

To be confirmed

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: Gridlines A-F/01-13.

SITE CONDITIONS:

WEATHER: Sunny/cloudy

TEMPERATURE: 6c.

MEMBRANE TEMPERATURE: N/a

RELATIVE HUMIDITY: N/a

TIME: 14:00-16:00

REPORT NUMBER: 001

DATE: 05/12/2022

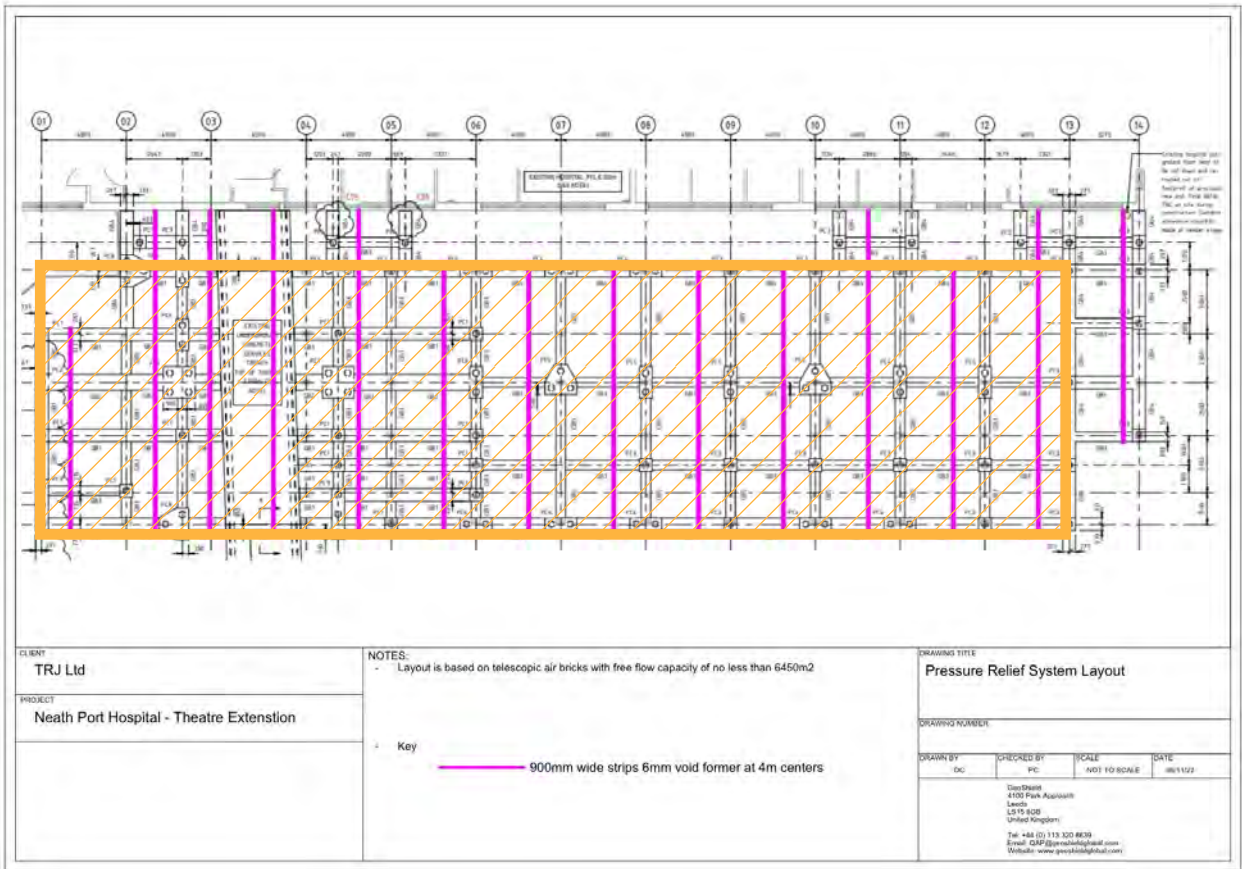
ACCOMPANIED Josh - TRJ and Rich - MB Membranes



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VERIFICATION LAYOUT



The area highlighted in orange above shows where the installers have installed the JUTA GP1 Gas Membrane and verification took place during this visit.

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OVERVIEW PHOTOGRAPHS



The photograph above shows an overview photograph of the installed

JUTA GP1 Gas Membrane to the majority of the main building.



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OVERVIEW PHOTOGRAPHS



The photograph above shows an additional overview photograph. Three bays

still need to be installed after the modules have been installed.



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VERIFICATION ITEM ONE

LOCATION/GRID LINE: Gridlines A-F/01-13.

NOTES: Vent mat installed (pressure relief system).

The first photograph below shows the vent mat installed under the JUTA GP1 Gas

Membrane as part of the pressure relief system. As shown in the second photograph

below Geotextile fleeced side of the vent mat has been installed face down as per the...



... manufacturers specification. The vent mat has been installed the complete width of

the modular building where the gas membrane has been installed so the can limit to vents.



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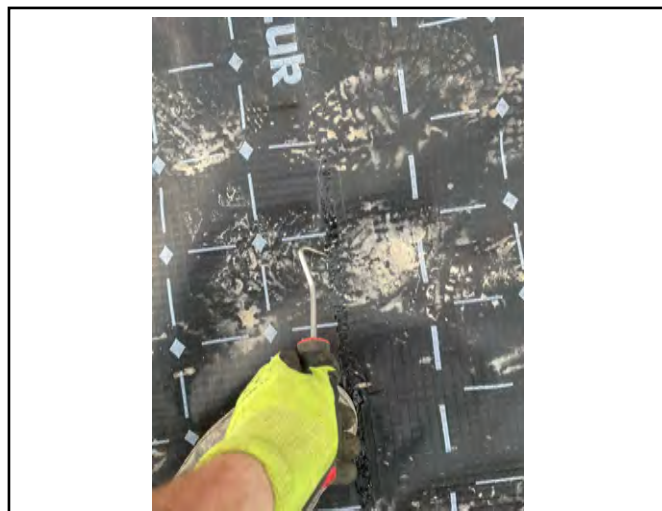


VERIFICATION ITEM TWO

LOCATION/GRID LINE: Gridlines A-F/01-13.

NOTES: Installation of the JUTA GP1 Gas Membrane.

The first photograph below shows an overview of a welded lap of the JUTA GP1 Gas Membrane. The installers have first lapped the gas membrane at least 100mm before using a hot air leister and roller to weld each lap.



The installers have achieved a strong and consistent 40mm weld. A couple miss welds were identified when carrying out air lance testing. All these faults have been patch repaired using JUTA GP1 SAM. The second photograph above shows a pick and probe test carried out to a welded lap. No faults or defects remained after this visit. Verified in accordance with CIRIA 735.

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VERIFICATION ITEM TWO



The photograph above shows the installers have installed the Geotextile fleece

in between the steel plates and membrane, there is also Geotextile fleece under the

gas membrane to protect the membrane from any small bumps in the concrete under

the membrane.

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VERIFICATION ITEM TWO



The photograph above shows a pick and probe test carried out to a patch repair.

Air lance testing identified two miss welds, both have

been patch repaired as shown above. A hot air leister and roller has been used to

aid in the adherence of the JUTA GP1 SAM.



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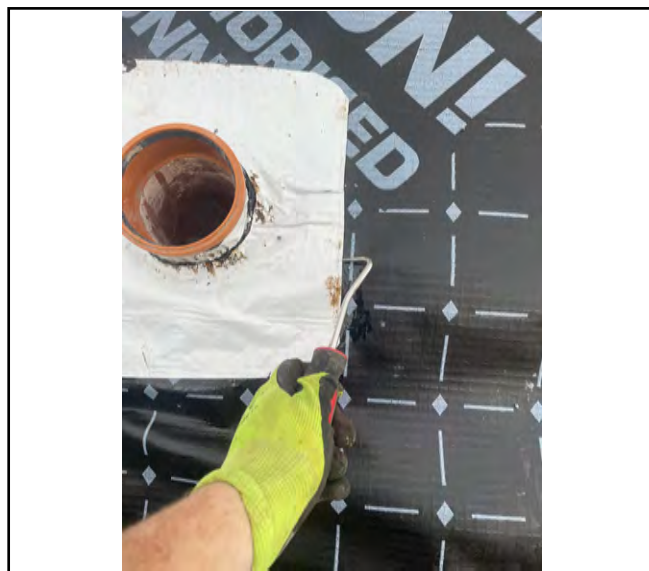


VERIFICATION ITEM THREE

LOCATION/GRID LINE: Gridlines A-F/01-13.

NOTES: Pipe penetration and steel plates sealed.

The first photograph below shows an example of a sealed pipe penetration which was verified during this visit. The installers have first cut the JUTA GP1 Gas Membrane tight around each pipe to minimise any gaps.



Next JUTA GP1 SAM has been used to seal each pipe the JUTA GP1 Gas Membrane.

Heat has been applied to aid in the adherence of the JUTA GP1 SAM. The second photograph shows a pick and probe test carried out to a sealed pipe penetration.

A strong seal has been achieved. Verified in accordance with CIRIA 735.



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ADDITIONAL PHOTOGRAPHS



Overview photograph of area where
three bays are still to be installed.



Additional overview of one of the
bays to be sealed.



Additional sealed details using JUTA

GP1 SAM.



Additional sealed details.

[illegible]

AIR LANCE INTEGRITY TESTING

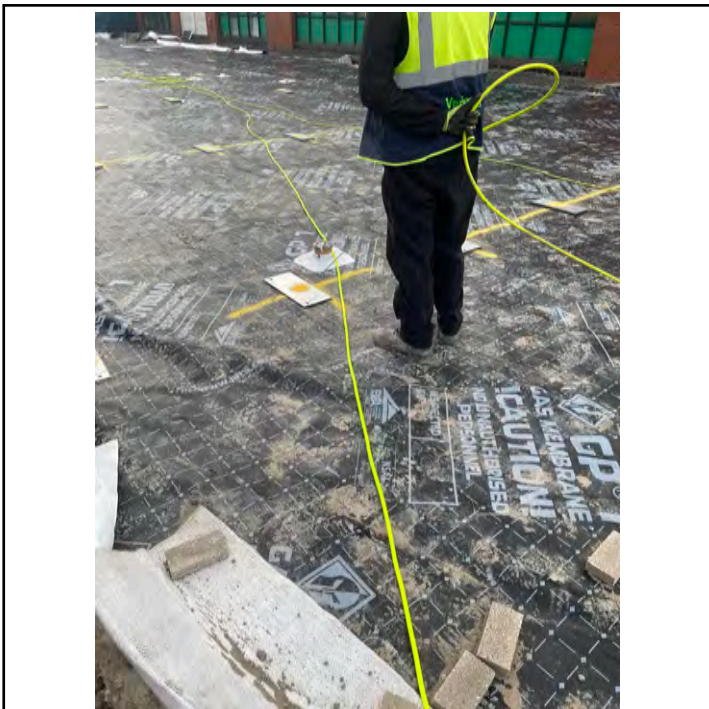
AIR LANCE TEST: ASTM D4437-08:2013 Inspects all seams for unbonded areas using a 4.8mm air nozzle held not more than 51mm away from the seam. 50 Psi is the minimum requirement. The air nozzle is directed on the upper edge seam, ripples indicate a unbonded seam. Each seam is numbered and failure marked with a F/1 F/2 classification and a description given



Air lance test to welded lap.



Air lance test to welded lap.



Air lance test to sealed pipe penetration.



Air lance test to sealed pipe penetration.



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TANKING, GAS AND HYDROCARBON BARRIER SYSTEMS
QUALITY ASSURANCE PROGRAMS AND INSPECTION SERVICES



INTEGRITY TESTING RECORD

AIR LANCE INTEGRITY TESTING (cont)

Detail of the Gas Membrane JUTA GP1 Gas Barrier

Detail of Tapes JUTA GP1 SAM

Joints and lap design Welded

TEST NUMBER:	FAILED OR PASSED	DETAIL, COMMENT AND RECOMMENDATIONS
Line 1	Passed	No faults or defects were identified during this visit.
Line 2	Passed	One fault identified, this was patch repaired.
Line 3	Passed	One fault identified, this was patch repaired.
Line 4	Passed	No faults or defects were identified during this visit.

NOTES:

Application of Membrane to specification and conforming to manufacturing technical data



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VERIFICATION SUMMARY

This was the first visit to site where verification of the installation of the JUTA GP1

Gas membrane to the majority of the main building was required. All laps of the

JUTA GP1 Gas Membrane have been lapped 100mm and a 40mm strong and

consistent 40mm weld has been achieved using a hot air leister and roller. All

pipe penetrations have been sealed using JUTA GP1 SAM, heat has been applied

to aid in the adherence of the GP1 SAM. Air lance testing was carried out to the

details and welded laps. Two miss welds were identified when carrying out testing.

These were both patch repaired using JUTA GP1 SAM.

Installed in accordance with BS 8485:2019.

Verified in accordance with CIRIA 735.

GEOSHIELD SIGNATURE:

DATE: 05/12/2022