GeoShield Verification Report 1

PROJECT REFERENCE: GEO104995

PROJECT: Reservoir Street

PROJECT ADDRESS: Reservoir Street,

Dewsbury, West Yorkshire

WF13 4LW

SPECIFICATION: Verified in accordance with CIRIA 735.

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

Substrate prepared in accordance with manufacturer's instructions.

Cordek Tri-Gas Membrane

Cordek Gas Resistant DPC

Cordek GRSAM

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NAME OF SURVEYOR: Liam England

VERIFICATION COMPANY: GeoShield Limited

Icon Business Centre

4100 Park Approach

Thorpe Park

Leeds

CONTACT NUMBER:

EMAIL ADDRESS:

ORDER NUMBER: To be confirmed

PER VISIT: YES: ✔ NO: ☐ PROJECT: YES: ✔ NO: ☐

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CLIENT DETAILS

CLIENT CONTACT:

CONTACTS ROLE:

MOBILE PHONE:

EMAIL ADDRESS:

CLIENT CONTACT:

CONTACTS ROLE:

MOBILE PHONE:

EMAIL ADDRESS

NOTES:

GeoShield Verification Report

APPLICATOR'S DETAILS

APPLICATOR NAME: Mike

COMPANY: PAGeo Contracting Ltd

APPLICATOR TEL:

APPLICATOR EMAIL:

APPLICATOR NAME:

COMPANY: PAGeo Contracting Ltd

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES: At least one member of each team group will have a NVQ Level 2 qualification in the gas membrane installation.

All installers are competent and skilled to complete gas membrane installation.

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AREA SURVEYED:

Apartment Block - Perimeter DPC & Infills

SITE CONDITIONS:

WEATHER:

Sunny

TEMPERATURE:

5ºc

RELATIVE HUMIDITY:

N/A

MEMBRANE TEMPERATURE:

N/A

TIME: 14:30 - 16:00

DATE: 29.11.2024

REPORT NUMBER: 001

ACCOMPANIED BY:

Mike - PAGeo Contracting Ltd

GeoShield Verification Report

Verification Layout

The photograph above shows a plan layout of the site. The area highlighted in red shows the section of Apartment Block where the verification inspection took place on site today.

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OVERVIEW

The photograph above displays an overview of the area where today's verification inspection took place on site.

GeoShield Verification Report

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LIMITATIONS

SURVEYED AREA: Apartment Block - Perimeter DPC & Infills

RESTRICTIONS AND LIMITATIONS:

Verification could not be carried out upon any of the internal party walls due the brickwork being built on top of the Cordek DPC, which was installed by the main contractors prior to this visit.

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VERIFICATION ITEM ONE

LOCATION/GRID LINE: Apartment Block - Perimeter DPC & Infills

Installation of Cordek GRDPC & Cordek Tri-Gas Membrane

NOTES:

A line out to the perimeter of Cordek GRDPC and an infill installation of Cordek Tri-Gas Membrane has been carried out within a section of the Apartment Block. The installation has been carried out upon a block and beam sub floor ventilated void. The Cordek GRDPC has been taken up and over all external cavity walls. The

NOTES:

Cordek Tri-Gas Membrane has been infilled across the entirety of the area, lapping onto the Cordek GRDPC installed around the perimeter. All overlaps between the adjacent sheets of Cordek GRDPC & Cordek Tri-Gas Membrane have been overlapped a minimum of 80mm and welded using a hot air leister and a silicone

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VERIFICATION ITEM ONE

roller with adequate pressure applied to ensure continuous welds are achieved throughout. Thorough visual inspections, supported by mechanical point stress testing and non destructive air lance integrity testing were conducted upon all overlaps. One misweld was identified, which was successfully remediated in the presence of GeoShield.

VERIFICATION ITEM ONE

REMEDIATIONS:

Fault Identified & Remediated

NOTES:

As mentioned, one misweld was identified during the testing procedures conducted upon all lap joints. The fault was highlighted for ease of identification and remediated on site in the presence of GeoShield. The dedicated applicators from PAGeo Contracting Ltd opted

NOTES:

to remediate the misweld using strips of Cordek GRSAM, heat and firm rolled pressure were applied to ensure the Cordek GRSAM had fully bonded. Further testing of the remedial works identified no faults or defects.

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VERIFICATION ITEM TWO

LOCATION/GRID LINE: Apartment Block - Perimeter DPC & Infills

Corners & Thresholds

NOTES:

A number of corners and thresholds throughout the referenced area have also been sealed as per manufacturer's specifications and design guidelines. This has been achieved using Cordek GRSAM. Where the Cordek GRDPC has been cut to minimise voided areas and gaps across the footprint of the area, each corner and

NOTES:

threshold junction has been reinforced by heating strips of Cordek GRSAM and placing into position around each corner and threshold, onto the Cordek GRDPC. Firm rolled pressure is applied with a silicone roller to aid in the adhesion, ensuring the Cordek GRSAM has fully bonded.

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VERIFICATION ITEM TWO

A probe was run along all edges of the Cordek GRSAM within the corner & threshold detailing to validate that a continuous gas resistant seal had been achieved throughout. No faults or defects were identified during the testing of the corners and thresholds. Tested and verified in accordance with CIRIA 735.

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VERIFICATION ITEM THREE

LOCATION/GRID LINE: Apartment Block - Perimeter DPC & Infills

Pipe Penetrations

NOTES:

Throughout the installation of the Cordek GRDPC & Cordek Tri-Gas Membrane to the referenced area, there were a number of pipe penetrations that required sealing. The pipe penetrations have again been sealed using Cordek GRSAM. The installers have first cut the Cordek GRDPC/Cordek Tri-Gas Membrane tight

NOTES:

around the base of each pipe penetration to minimise voided areas. Next, patches of Cordek GRSAM are intricately placed around the base of the pipe penetration in a petal formation, onto the Cordek GRDPC/Cordek Tri-Gas Membrane, as shown in the photographs above.

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VERIFICATION ITEM THREE

Heat and rolled pressure is applied to activate the bitumen backing, creating a secure bond between the pipe penetration and the return onto the Cordek GRDPC/Cordek Ti-Gas Membrane. Visual inspections, supported by mechanical point stress testing conducted upon all sealed pipe penetrations identified no faults or defects. A complete adhesion has been achieved throughout.

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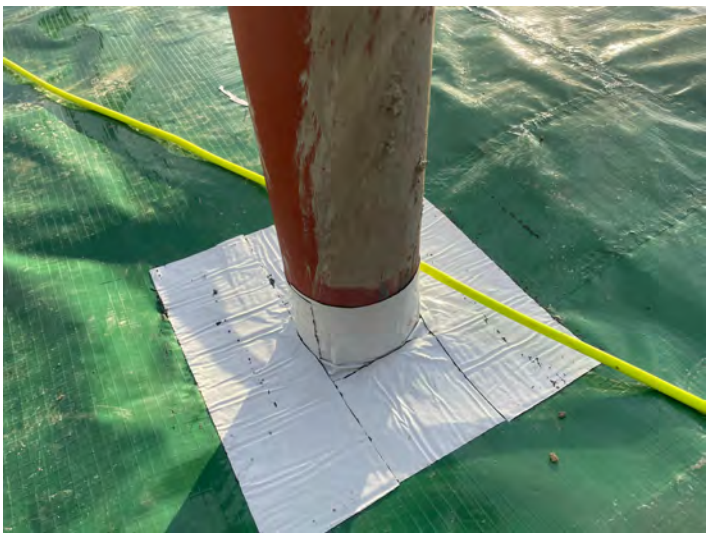
VERIFICATION ITEM FOUR

LOCATION/GRID LINE: Apartment Block - Perimeter DPC & Infills

Stanchion Detailing



NOTES:

A number of stanchions also required detailing throughout the installation of the Cordek GRDPC/Cordek Ti-Gas Membrane. These too, have been sealed using Cordek GRSAM in accordance with manufacturer's specifications and guidelines. This has been achieved by cutting the Cordek GRDPC/Cordek Ti-Gas

NOTES:

Membrane tightly around the base of each individual stanchion. Strips of Cordek GRSAM are cut and formed around each stanchion, creating a tight seal. A top hat formation is then created using further strips of Cordek GRSAM to reinforce the robust seal. A gas torch was used to heat the backing of the Cordek GRSAM to

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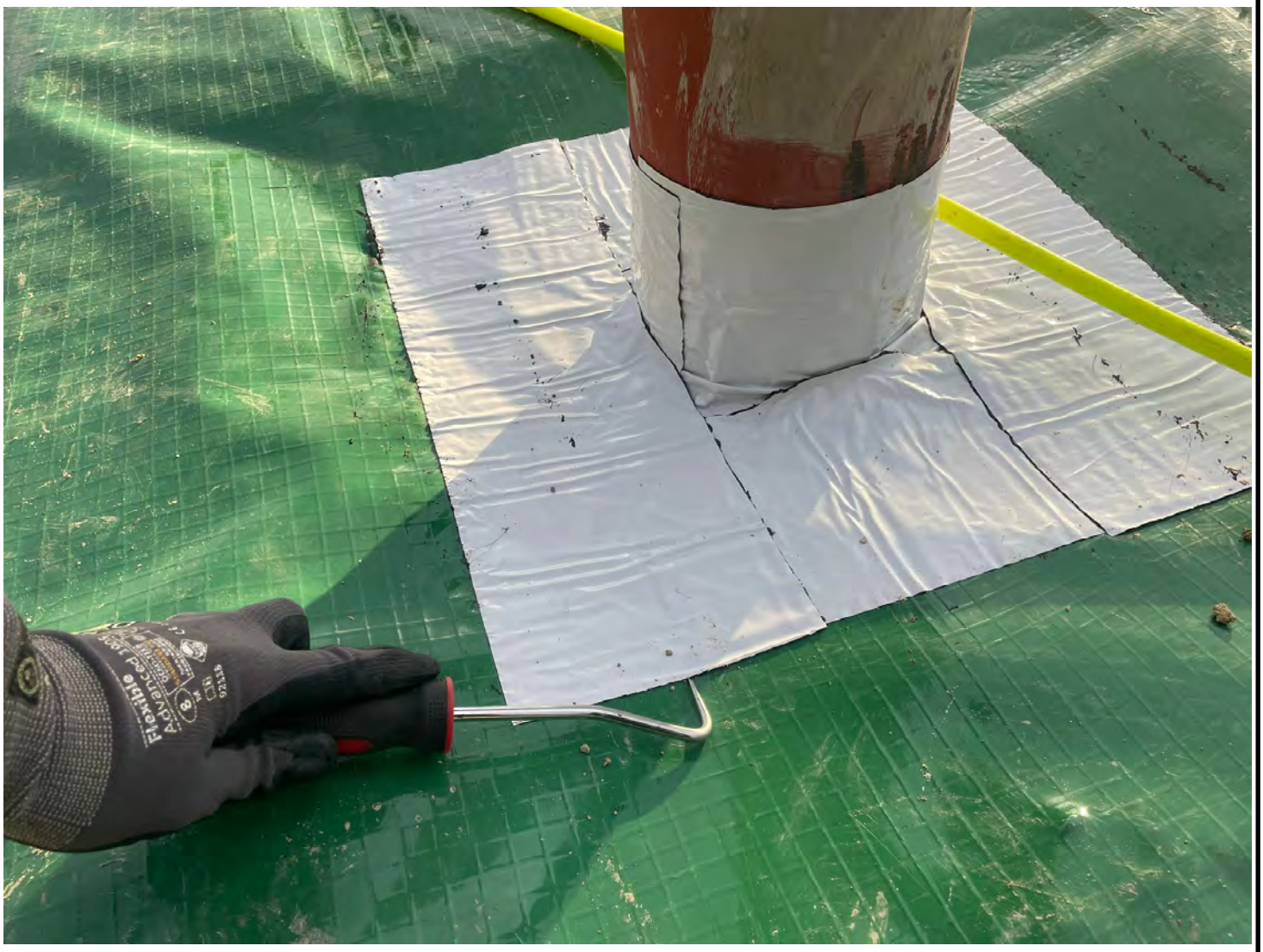
VERIFICATION ITEM FOUR



aid in the adhesion and to ensure a correct bond was achieved. Thorough visual inspections, supported by mechanical point stress testing conducted upon all sealed stanchions identified no faults or defects.
Tested and verified in accordance with CIRIA 735.

ADDITIONAL PHOTOGRAPHS

A mechanical point stress test being conducted upon a sealed corner.

A mechanical point stress test being conducted upon a sealed corner.

A mechanical point stress test being conducted upon a sealed corner.

A successfully sealed pipe penetration.

ADDITIONAL PHOTOGRAPHS

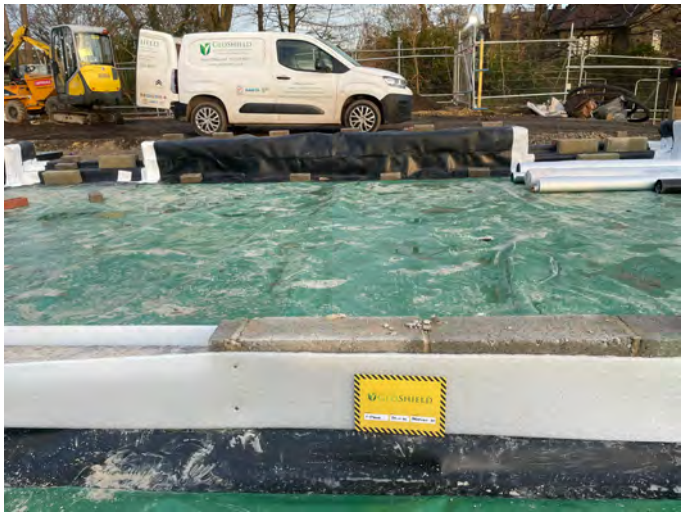
Air bricks installed throughout the perimeter of the apartment block.

Periscope vents installed throughout the perimeter of the apartment block.

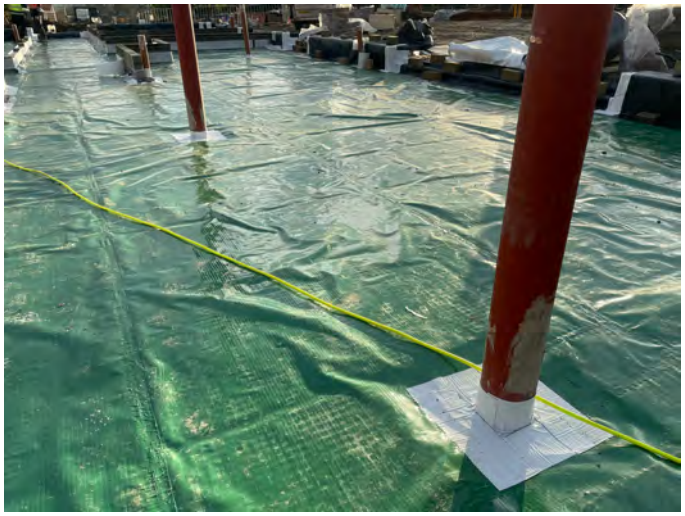
Evidence of the material used throughout the perimeter install.

Evidence of the gas barrier used throughout the infill install.

ADDITIONAL PHOTOGRAPHS



GeoShield verification sticker.



Successfully detailed stanchions.

A non destructive air lance integrity test being conducted upon a sealed overlap of the Cordek Tri-Gas Membrane.

A non destructive air lance integrity test being conducted upon a sealed overlap of the Cordek Tri-Gas Membrane.

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, riffles 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 on a lap joint.

Air lance test on a lap joint.

Air lance test on a lap joint.

Air lance testing equipment set up.

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GAS MEMBRANE TESTING

VISUAL /PICK & PROBE:	✔	SMOKE TEST:	
AIR LANCING:	✔	DILECTIC:	
DESTRUCTIVE:		OTHER:	
INERT GAS TEST:		SPECIFY:	

Testing checklist attached: YES ✔ NO

Gridline/Plot Sign off

Gridline/Plot Sign off	Apartment Block - Perimeter DPC & Infills	✔
Gridline/Plot Sign off		
Gridline/Plot Sign off		
Gridline/Plot Sign off		
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Gridline/Plot Sign off		

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REMEDIATION LOG

Date	Nr	Remediation Description	Y/N
29/11/2024	001	One misweld was identified, this was remediated whilst on site.	✔

GeoShield Verification Report

VERIFICATION SUMMARY

This was the first visit to the site where verification was required for the installation of Cordek GRDPC to the perimeter and the infill installation of Cordek Tri-Gas Membrane to a section of the Apartment Block.

All overlaps between the adjacent sheets of Cordek GRDPC and Cordek Tri-Gas Membrane have been successfully heat welded using a hot air tool and silicone roller creating continuous seals throughout.
All detailing throughout the installation, such as internal / external corners, pipe penetrations and stanchions have been successfully sealed using Cordek GRSAM.
Thorough visual inspections, supported by mechanical point stress testing and non destructive air lance integrity testing conducted upon all aspects of the installation identified one miswelded lap joint. This was successfully remediated on site by the installers in the presence of GeoShield.

Verification could not be carried out upon any of the internal party walls due the brickwork being built on top of the Cordek DPC, which was installed by the main contractors prior to this visit.

This was passed and verified in accordance with CIRIA 735 and installed to BS8485:2015+2019.

GEOSHIELD SIGNATURE:	
DATE:	29-Nov-2024