GeoShield Verification Report 16

PROJECT REFERENCE:	GEO102862 R016
PROJECT:	Persimmon Homes Site
PROJECT ADDRESS:	150-158 High Road

Weston, Spalding

PE12 6WA

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

Visqueen Standard Gas Barrier

Visqueen GRSAM

Visqueen Preformed Top Hats.

GEOSHIELD Verification Report

VERIFICATION OFFICER: Kavanagh Palmer-Fletcher

VERIFICATION COMPANY: GeoShield Limited

Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER: 07470 012813

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

ORDER NUMBER:

PER VISIT: YES: ☐ NO: ☐ PROJECT: YES: ☑ NO: ☐

GEOSHIELD Verification Report

CLIENT DETAILS

CLIENT CONTACT:	Andy Collins
CONTACTS ROLE:	Prestige Air Director
MOBILE PHONE:	07780 223 116
EMAIL ADDRESS:	Andy@prestigeair.com

CLIENT CONTACT:	
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS	
NOTES:	
NOTES:	
NOTES:	

GeoShield Verification Report

APPLICATOR'S DETAILS

APPLICATOR NAME:	Darryl
COMPANY:	Prestige Air
APPLICATOR TEL:	
APPLICATOR EMAIL:	

APPLICATOR NAME:	
COMPANY:	Prestige Air
APPLICATOR TEL:	
APPLICATOR EMAIL:	

NOTES: The installers from Prestige Air are competent & experienced installers in the installation of ground gas and waterproofing systems. At least 1 person holds the NVQ level 2 qualifications in the installation of gas membranes.

GeoShield Verification Report

AREA SURVEYED:

Plots 93 & 94 - Full Line Out

SITE CONDITIONS:

WEATHER:

Rain

TEMPERATURE:

9c

RELATIVE HUMIDITY:

N/A

MEMBRANE TEMPERATURE:

N/A

TIME: 12:45 - 14:00

DATE: 12.12.2023

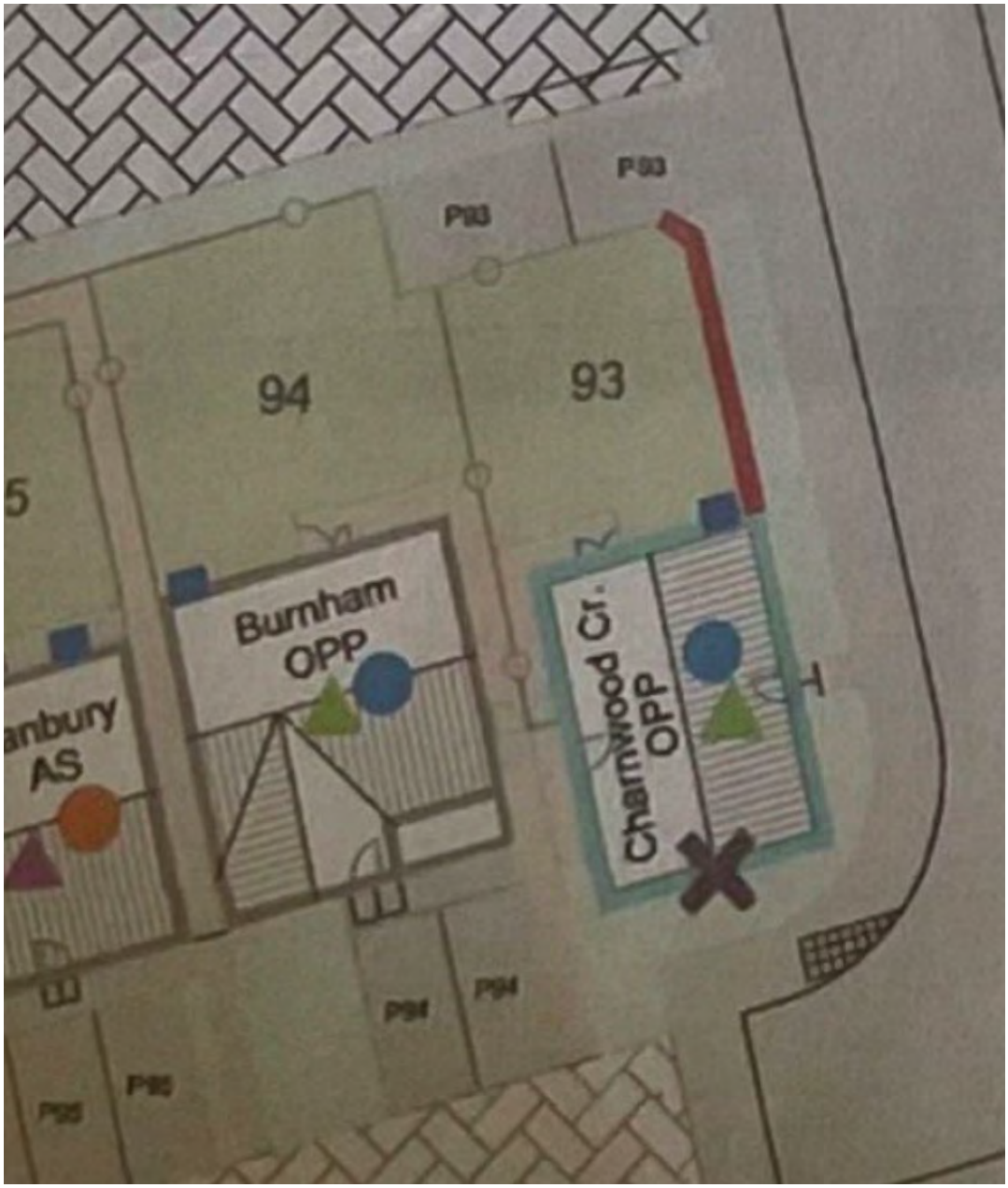
REPORT NUMBER: 016

ACCOMPANIED BY:

Prestige Air

GeoShield Verification Report

Verification Layout



The photograph above shows a plan layout of the site. The area shows Plots 93 & 94, where the verification inspection took place on site today.

GeoShield Verification Report

OVERVIEW



The photograph above displays an overview of the area where today's verification inspection took place on site.
Plots 93 & 94

GeoShield Verification Report

OVERVIEW



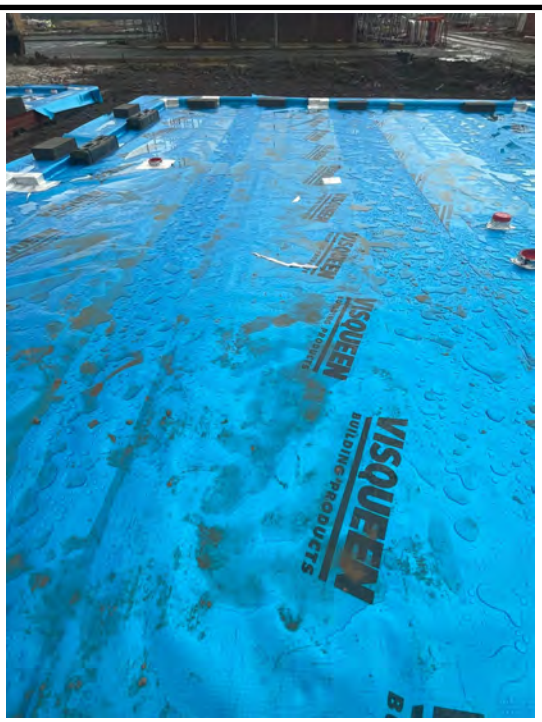
An alternate overview photograph of where the verification inspection took place on site today.
Plots 93 & 94

GeoShield Verification Report

VERIFICATION ITEM ONE

LOCATION/GRID LINE: Plots 93 & 94 - Full Line Out

Installation of Visqueen Standard Gas Barrier





NOTES:

A complete line out of the Visqueen Standard Gas Barrier has been installed across a block and beam floor, above the ventilated sub floor voids to the plots referenced. All lap joints between adjacent sheets of membrane have been overlapped a sufficient amount and heat welded using a hot air leister and a silicone

NOTES:

roller with adequate pressure applied to ensure a continuous weld is achieved. The membrane has been taken over the internal cavities to the perimeter of the plots to ensure a continuous gas resistant seal is achieved throughout. Installed in accordance with manufacturer's specifications.

GeoShield Verification Report

VERIFICATION ITEM ONE



The above photograph displays a mechanical point stress test, also known as a pick and probe test, being conducted upon a welded lap joint of the Visqueen Standard Gas Barrier. All lap joints were subjected to mechanical point stress testing throughout the installation. One small misweld was identified, this was remediated on site in the presence of GeoShield.

GeoShield Verification Report

VERIFICATION ITEM TWO

LOCATION/GRID LINE: Plots 93 & 94 - Full Line Out

Sealed Corners & Thresholds





NOTES:

Throughout the complete line out installation of the Visqueen Standard Gas Barrier to the referenced plots, there were several details that required sealing. All details, such as corners and thresholds have been sealed using Visqueen GR SAM, a self adhesive membrane. The installers have first cut the Visqueen

NOTES:

Standard Gas Barrier tight up against each corner to eliminate voided areas. Next, patches of Visqueen GR SAM are placed intricately around each corner detail onto the Visqueen Standard Gas Barrier, heat and rolled pressure is applied to ensure a continuous gas tight seal is achieved.

GeoShield Verification Report

VERIFICATION ITEM TWO



All sealed corner and threshold details were subjected to pick and probe testing, as shown in the photograph above. No faults were identified to the corner and threshold details during these testing procedures.
Tested and verified in accordance with CIRIA 735.

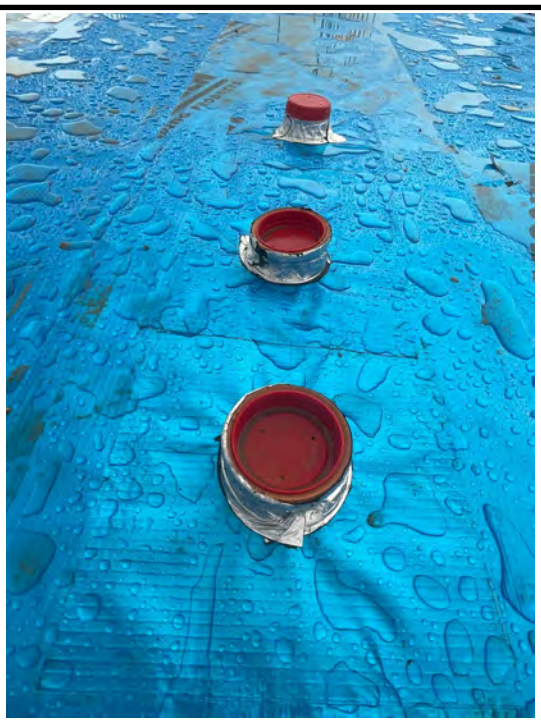
GeoShield Verification Report

VERIFICATION ITEM THREE

LOCATION/GRID LINE: Plots 93 & 94 - Full Line Out

Sealed Pipe Penetrations





NOTES:

Throughout the complete line out installation of the Visqueen Standard Gas Barrier to the referenced plots, there were several pipe penetrations that required sealing. Some pipe penetrations have been sealed using pre-formed top hats welded onto the Visqueen Standard Gas Barrier and a strip of Visqueen GRSAM,

NOTES:

which is a gas resistant self adhesive membrane, placed intricately around the cloak of the pipe penetration. Alternatively, pipe penetrations have been completely sealed to an NVQ standard with patches of Visqueen GRSAM. The above images show examples of pipe penetrations sealed using the different methods.

GeoShield Verification Report

VERIFICATION ITEM THREE



As with the lap joints, all pipe penetrations throughout the installation were subjected to thorough mechanical point stress testing where no faults or defects were identified. A complete adherence has been achieved upon the pipe penetrations and the return onto the Visqueen Standard Gas Barrier.
Tested and verified in accordance with CIRIA 735.

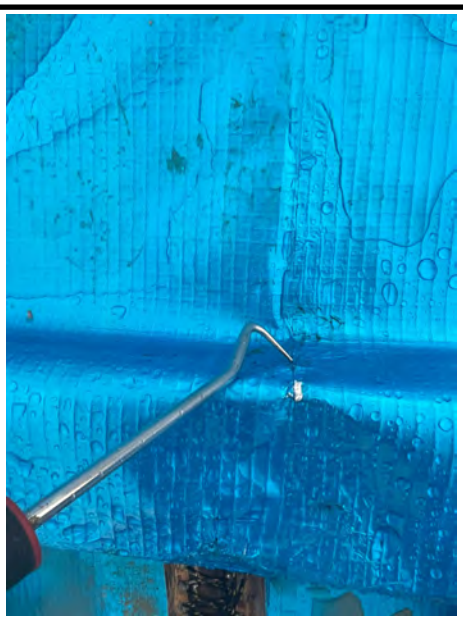
ADDITIONAL PHOTOGRAPHS



A pick and probe test being conducted upon a sealed corner detail.



A pick and probe test being conducted upon a pipe penetration.



A pick and probe test being conducted upon a welded lap joint.



A pick and probe test being conducted upon a welded lap joint.

ADDITIONAL PHOTOGRAPHS



An alternate overview of the installation.



A pick and probe test being conducted upon a welded lap joint.



Sealed corner details.



A sealed threshold detail.

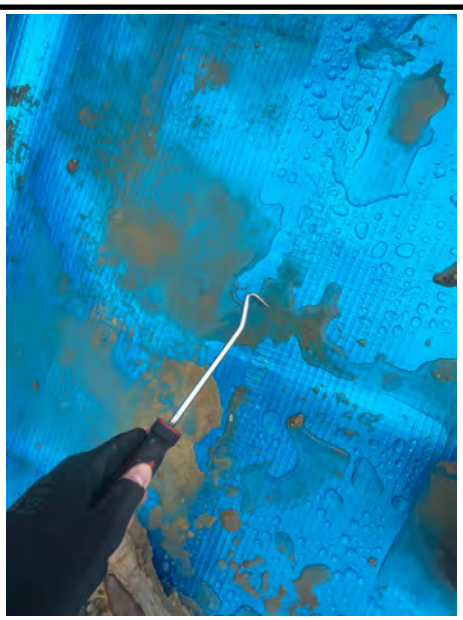
ADDITIONAL PHOTOGRAPHS



Sealed corners.



A pick and probe test being conducted upon a welded lap joint.



A pick and probe test being conducted upon a welded lap joint.



An overview of sealed pipe penetrations.

GEOSHIELD Verification Report

REMEDIATION LOG

Date	Nr	Remediation Description	Y/N
23/07/2022	001	No faults or defects identified during today's verification inspection.	✔
03/08/2022	002	Two punctures to plot 12 - remediated during verification visit.	✔
		One small mis-weld to lap joint at plot 9 - remediated during	✔
		verification visit.	✔
02/09/2022	003	No faults or defects identified	✔
21/09/2022	004	No faults or defects identified during today's verification inspection.	✔
04/10/2022	005	Several holes identified. Remediated on-site.	✔
26/10/2922	006	No faults identified during this verification visit.	✔
01/11/2022	007	No faults identified during this verification visit.	✔
12/12/2022	008	One fault located to a welded lap, this was remediated on site.	✔
07/02/2023	009	X3 faults identified. Remediated on-site.	✔
24/04/2023	010	Two punctures/damage identified and remediated during the	✔
		verification visit.	✔
		Two mis-welded Lap Joints identified but remediated during the	✔
		verification visit.	✔

GEOSHIELD Verification Report

REMEDIATION LOG

Date	Nr	Remediation Description	Y/N
17/05/2023	011	No faults were identified during the verification process.	✔
15/09/2023	012	Seven miswelded lap joints identified and remediated on-site	✔
05/10/2023	013	No faults or defects identified during this visit.	✔
17/10/2023	014	A total of nine miswelded lap joints were identified, all were	✔
		successfully remediated on site.	✔
29/11/2023	015	There were no issues identified during the verification process	✔
12/12/2023	016	One small misweld identified which was remediated on site.	✔

GEOSHIELD Verification Report

GAS MEMBRANE TESTING

VISUAL:	YES	✔	NO		SMOKE TEST:	YES		NO	✔
COMPRESSED AIR:	YES	✔	NO	✔	DILECTIC	YES		NO	✔
DESTRUCTIVE:	YES		NO	✔	OTHER:	YES	✔	NO	
Testing checklist attached:				YES	✔	NO			

Gridline/Plot Sign off

Gridline/Plot Sign off	Full line outs to Plots: 2-3-4-5-6.	✔
Gridline/Plot Sign off	Plots 7,8,9,10,11,12 &13	✔
Gridline/Plot Sign off	Full line outs to Plots: 14,15,16 and 17.	✔
Gridline/Plot Sign off	Full line outs to Plots: 18-19-20-21-22-23.	✔
Gridline/Plot Sign off	Full line out to Plot 24	✔
Gridline/Plot Sign off	Plot 24 integral garage	✔
Gridline/Plot Sign off	Plots 25, 26, 27, 28 & 29.	✔
Gridline/Plot Sign off	Plots 30 &. 31	✔
Gridline/Plot Sign off	Plots 48, 49, 50, 51, 52 & 53.	✔
Gridline/Plot Sign off	Full line outs to Plots: 32,33,42,43,44 & 45.	✔
Gridline/Plot Sign off	Plots: 34,35,36,37,38 & 39 full line outs	✔
Gridline/Plot Sign off	Plots: 40, 41, 46 & 47 full line outs	✔

GeoShield Verification Report

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	Plots 125, 126, 127, 128, 129 & 130 Full Line Out	✔
Gridline/Plot Sign off	Plots 89, 90, 91, 92, 99, 100, 101 & 102 Full Line Out	✔
Gridline/Plot Sign off	Plots 103, 104, 105 & 106 Full Line Out	✔
Gridline/Plot Sign off	Plots - 95,96,97 & 98 Full Line Out	✔
Gridline/Plot Sign off	Plots 93 & 94 Full Line Out	✔
Gridline/Plot Sign off		
Gridline/Plot Sign off		
Gridline/Plot Sign off		
Gridline/Plot Sign off		
Gridline/Plot Sign off		
Gridline/Plot Sign off		

GeoShield Verification Report

VERIFICATION SUMMARY

This was the 16th visit to the site where verification was required for the complete line out installation of the Visqueen Standard Gas Barrier to Plots 93 & 94.

All overlaps between the adjacent sheets of Visqueen Standard Gas Barrier have been successfully welded using a hot air leister and silicone roller creating continuous welded joints throughout.

All details throughout the installation, such as pipe penetrations, internal and external corners and thresholds have been successfully sealed using Visqueen GRSAM, a self adhesive membrane which has been heated down to aid in the adherence.

Thorough mechanical point stress testing was conducted throughout the inspection today. One small misweld was identified in the lap joints, this was successfully remediated on site in the presence of GeoShield.

The installation has been carried out to a very good standard.

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

GEOSHIELD SIGNATURE:



DATE: 12-Dec-2023