

GAS MEMBRANE VALIDATION

Site: Boothroyden Road, Middleton

Date: 12-10-2021	Project Number: 13-500
Company Name: Elan Holmes	Date of Validation: 05-10-2021
Project Manager: N. Sellars	E3P Engineer: J. Newall
PM Qualifications: Msci (Hons) FGS	Engineer Qualifications: Verification of Gas Protection Systems July 18

Ground Gas Risk Assessment: **Amber 2**

Overview:

The membrane comprised the Visqueen Ultimate HC Blok resistant to radon, carbon dioxide and low levels of methane. E3P can confirm there were no holes or rips at the time of inspection.

All external joints were inspected and E3P can confirm that the membrane was welded, with the membrane spanning the floor and cavity.

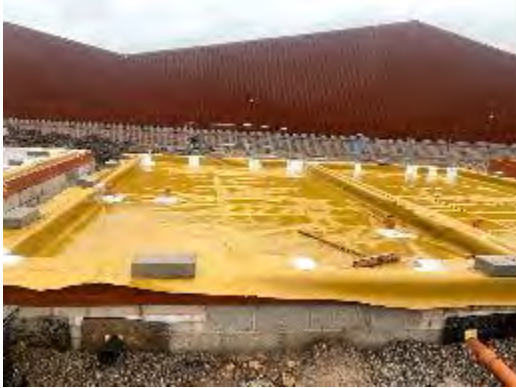
Each unit has a service duct located to the front and outer edge of the property. E3P inspected each one and can confirm that the top-hats have been adequately sealed against the membrane.

Based on the information provided within this report, the site inspections and validation checklists, E3P can confirm that **Plots 26-27** have been installed with gas protection measures in accordance with Amber 2 to an acceptable level of workmanship.



Plot – 26

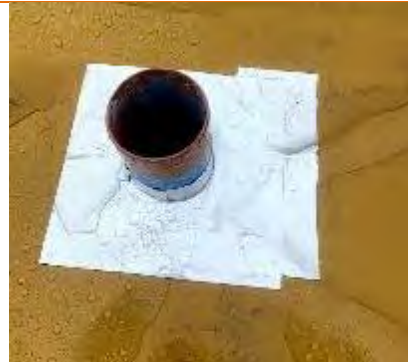
General Condition of Membrane-Good Condition



Verification of Joints and Seals-Good Condition



Verification of Service Penetrations-Good Condition



Verification of Ventilation-Good Condition



Plot - 27

General Condition of Membrane-Good Condition



Verification of Joints and Seals-Good Condition



Verification of Service Penetrations-Good Condition



Verification of Ventilation-Good Condition





Gas Protection Validation Site Record

Bob Thompson

Inspection date/time:	05/10/21	Inspected by:	J Neall	Photographed:	Gyx
Type of development:		Plot number:	26	Developer:	

Notes/recommendations	Comments
Membrane Type	gold Vitiqreen
Extent of Coverage	Full coverage
Underside of Membrane	Clear
Slab / membrane condition (is membrane clear of debris or insulation)	Clear
Type of joints	☐ Tape Joint ☒ Welded Joint ☐ Other (please state)
Service entries – Jubilee clips, Top hats installed correctly	yes
External Wall Air bricks Present?	yes
Corners inspected?	yes
Membrane joints inspected has Double –sided butyl tape been used?	yes
Folds in membrane inspected?	yes
Has the membrane been installed as per the design detail drawing?	yes

This Plot has PASSED ~~FAILED~~ inspection. (Any proposed remedial works will be noted in the "Remarks" column on this form). An additional inspection visit IS/IS NOT* required for this Plot. Inspection by: J Neall Signed: [Signature]



Gas Protection Validation Site Record

Boothroyde

Inspection date/time:	05/10/21	Inspected by:	J Newall	Photographed:	G/x
Type of development:		Plot number:	22	Developer:	

Notes/recommendations	Comments
Membrane Type	gold v Silver
Extent of Coverage	Full coverage
Underside of Membrane	clear
Slab / membrane condition (is membrane clear of debris or insulation)	clear
Type of joints	☐ Tape Joint ☒ Welded Joint ☐ Other (please state)
Service entries - Jubilee clips, Top hats installed correctly	yes
External Wall Air bricks Present?	yes
Corners inspected?	yes
Membrane joints inspected has Double-sided butyl tape been used?	yes
Folds in membrane inspected?	yes
Has the membrane been installed as per the design detail drawing?	yes

This Plot has PASSED ~~FAILED~~ inspection. (Any proposed remedial works will be noted in the "Remarks" column on this form). An additional inspection visit IS/IS NOT* required for this Plot. Inspection by: J Newall Signed: [Signature]