Haigh Huddleston & Associates
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Firth Buildings, 99 -101 Leeds Road, Dewsbury, WF12 7BU

HHA Gas Membrane Installation and Validation Procedure

FOR

PROPOSED DEVELOPMENT

AT

LANESIDE FARM, MORLEY

FOR

PERSIMMON HOMES, LEEDS

DECEMBER 2022

E16/6043/R001

Prepared by

M.Huddleston MEng

Validation Procedure

Prior to works commencing on site it will be agreed between all parties that Haigh Huddleston Associates will inspect the first 10 properties to ensure a suitable level of workmanship can be achieved.

Once all parties are familiar with the procedures and a good level of workmanship established, Haigh Huddleston Associates will inspect every 5th plot for the remainder of the development. The developer should photograph interim plots as evidence of the membrane installation.

In the event that the membrane installers change, or the level of workmanship is noted to drop then further inspections may be required until a level of confidence is regained.

For Partial Coverage:

Inspection of the membrane will be undertaken in a two-stage process to suit the installation of the membrane.
Stage 1 –Inspect the property at DPC level once the membrane had been laid across the cavity/ party walls. Air brick spacing and sub-floor void are also to be inspected.
Stage 2 –Inspect the property once the full floor membrane has been laid and sealed prior to the insulation being laid.

For Full Coverage:

Inspection will be carried out in a single stage. This will be the inspection of the properties at DPC level, once the membrane has been laid across the entire building footprint. Air brick spacing and sub-floor void will also be inspected.

A detailed diagram of the inspection and validation procedure for partial and full coverage is attached in the appendix.

Each plot will be inspected against the 'Visual Inspection Checklist' in the appendix.

Professional installers

If gas membrane installation is carried out by professional installers, the following should be noted.

- The installers may use heat welded joints instead of bituminous tape, in order to seal the joints between membranes. If this method is used, heat guns should be warmed up in accordance with manufacturer's specification, in order to ensure sufficient joint strength.
- On sites deemed to be at low risk from gas in accordance with BS 8485:2015, and CL:AIRE RB17, inspections may be increased to every 10th plot, based on the discretion of the HHA inspector, and the level of workmanship on site.

Site Inspection Procedure

The HHA inspector is to be given 48 hours notice of when installation is taking place. Inspection will include visual inspection, and pick testing of joints. Where joints are sealed using heat welding, HHA may request a joint sample for destructive testing. In sites where gas risk is deemed high enough (according to with BS 8485:2015), specialist testing by third party companies may be required, for

example tracer gas, or joint integrity testing. Any requirement for specialist testing will be agreed between all parties prior to works commencing.

It is recommended that 24 hours is allowed between inspection and the laying of screed to allow sufficient time for any remedial works that may be required.

Weather Conditions

Installation of gas membranes should not be carried out during adverse weather conditions, such as rain and high winds, as these are likely to compromise the integrity of the seals between membranes.

Inspections of gas membranes may not take place during, or following periods of wet weather.

Interim Plots

On interim plots which are not subject to inspection, the client should provide photographic evidence of the gas membrane installation before the floor is insulated.

Where professional installers are used, sign off sheets should be provided for each plot for inclusion in the validation report.

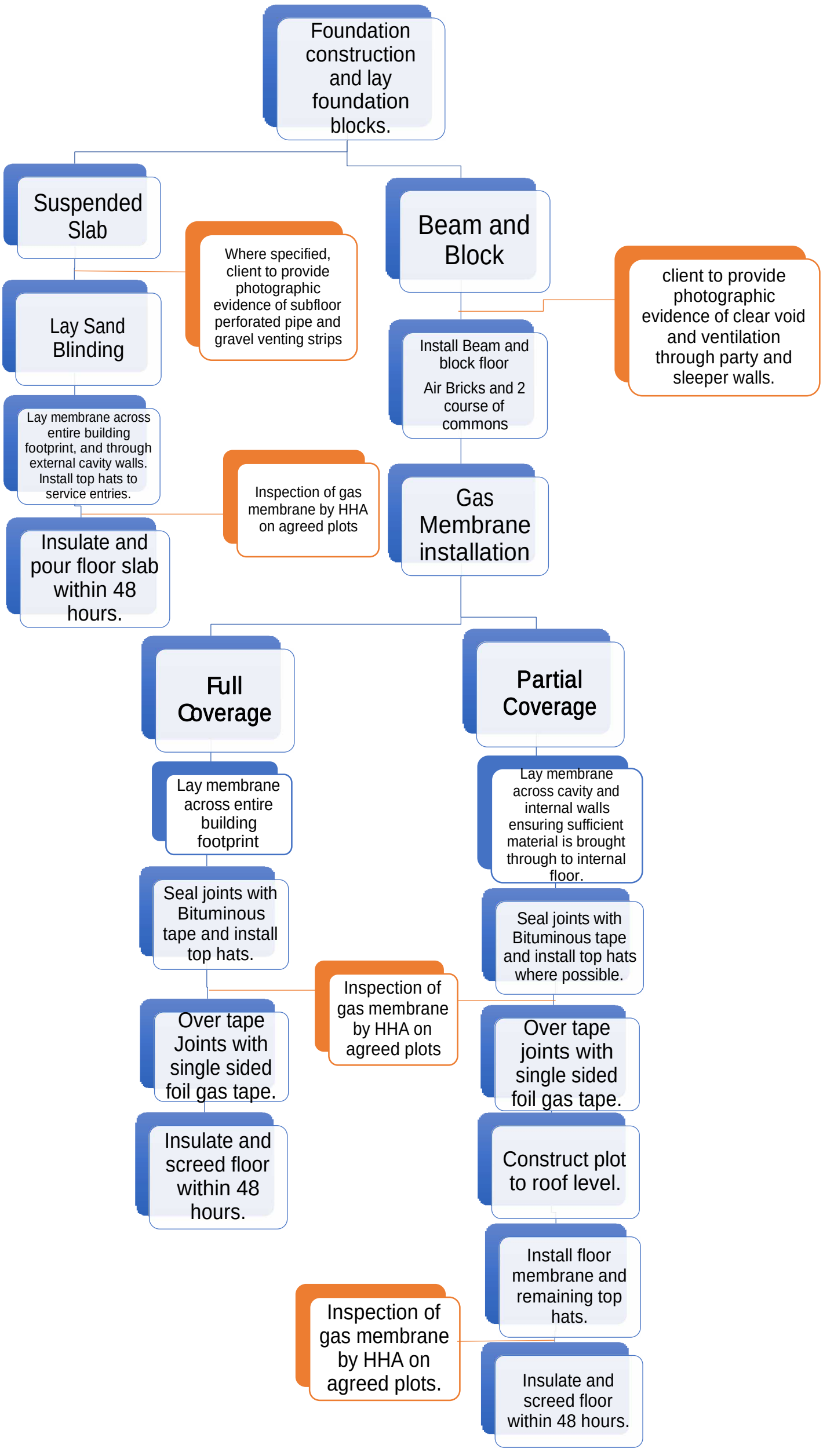
Prepared by

Checked by

M. Huddleston. MEng

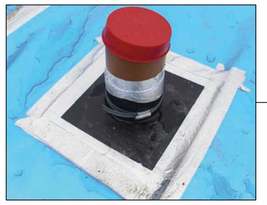
December 2022

Installation and validation procedure



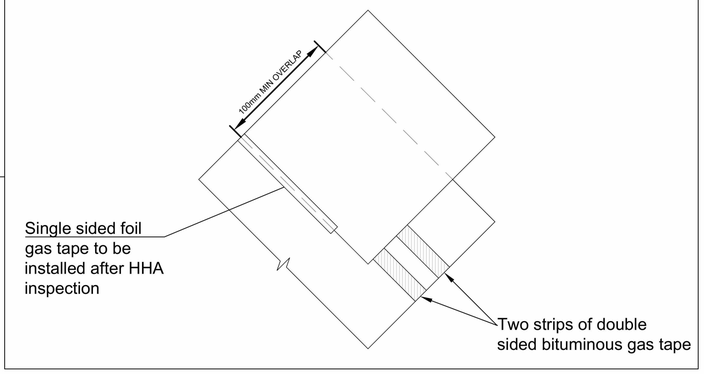
NOTE
A suitably resistant gas membrane is to be laid on top of the precast concrete beam and block floor, beneath the screed layer, and is to be continuous across the floor to the external walls.

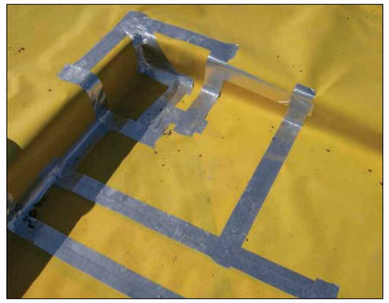
All joints between sections of membrane should be lapped over the adjacent section by a minimum of 150 mm, and sealed using gas resistant double sided tape with girthing tape applied to the top edge.



All service pipe penetrations should be sealed using a preformed gas proof top-hat, lapped beneath the membrane by a minimum of 150 mm and sealed around the top of the penetration using double sided tape and secured with a jubilee clip, if recommended by the manufacturer.

GAS MEMBRANE JOINTING DETAIL

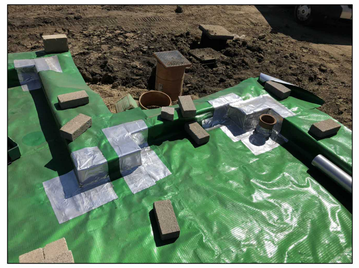




Example of well tapped corner

Note:

Ensure door openings are correctly constructed prior to laying membrane to allow correct sealing around doors/ thresholds

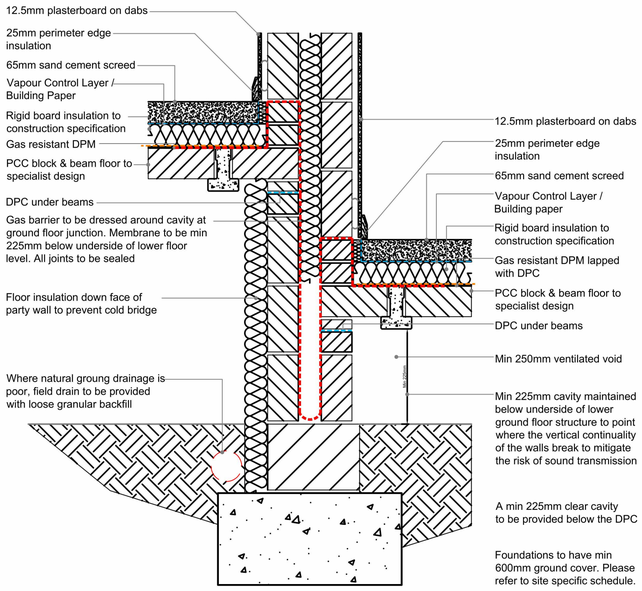


Example of inner block leaf removed to door opening and well tapped membrane.

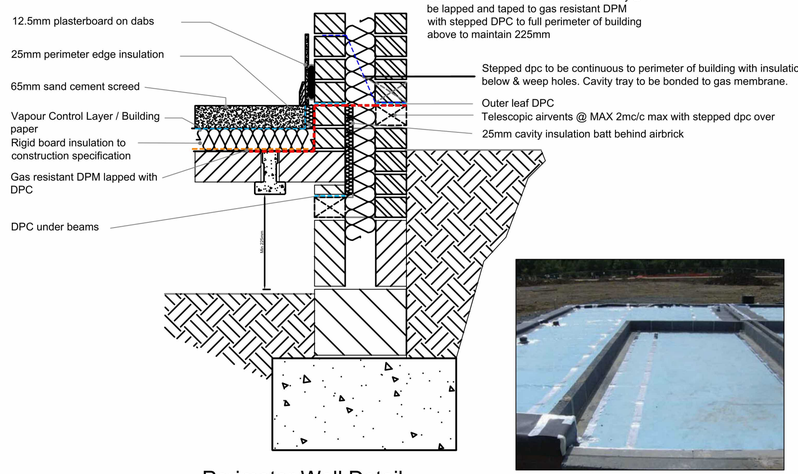
Note:

Ventilation gaps to be included to internal sleeper walls to aid ventilation as per picture above.

Gas precautions are site specific and should meet recommendations in BS8485:2015
Gas membrane BBA certificate to be provided and should be adequate in terms of loading from walls.



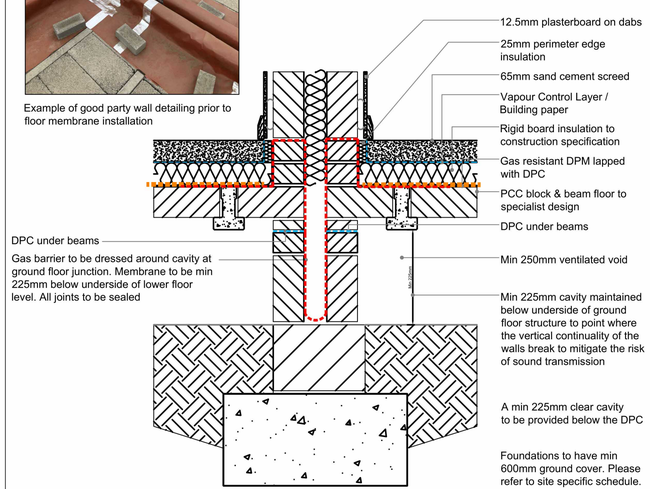
Stepped Party Wall Detail



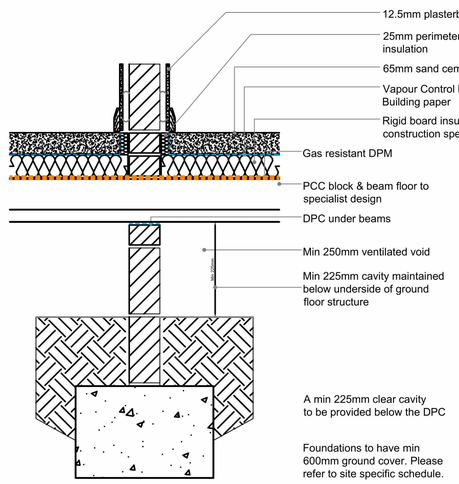
Perimeter Wall Detail

Example of perimeter gas resistant DPM being installed

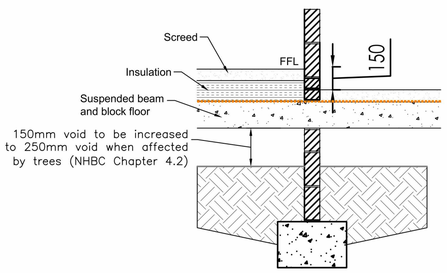
Example of good party wall detailing prior to floor membrane installation



Party Wall (Level Floor) Detail



Internal Garage Wall Thresh Hold Detail



TYPICAL SECTION THROUGH INTERNAL GARAGE WALL
BEAM & BLOCK CONSTRUCTION
SCALE 1:20

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[redacted]

Client
PERSIMMON HOMES

Project
LANESIDE FARM, MORLEY

Detail
Standard Beam and Block Gas Membrane Details

Dwn	Chkd	Date	Scale	Dwg No.
JF	JM	DEC'22	1:10@A1	E16/6043/204