

GAS MEMBRANE VALIDATION – BELLE VUE

Project Name: Belle Bue Stadium

Project Number: 12-123

Client: Countryside Properties

Date: 19-07-2023

Project Manager; S. Ellis – FGS, CEnv

E3P Engineer: P. Lavelle

Gas Membrane Installers Chandos Civils

Ground Gas Risk Assessment: Amber 1

Plots: 157-160 & 228-229

OVERVIEW

The membrane comprised a Visqueen low permeability gas membrane (Yellow) resistant to radon, carbon dioxide and low methane levels. E3P can confirm there were no holes or rips at the inspection time. Upon being laid, the membrane is to be covered with a Celotex (closed Cell) floor insulation material which is considered to provide a high degree of protection.

E3P inspected all external joints, and E3P can confirm that the membrane was overlapped and double-taped. The membrane was taped using double-sided jointing tape. All the overlaps were then additionally taped using foil-backed girth tape.

Each unit has a service duct located at 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 157-160 & 228-229 have been installed with gas protection measures following C Amber 1 to an acceptable level of workmanship.

A list of plots requiring validation and their associated validation letters is presented in Table 1.



Geo-Environmental



Acoustics



Remediation and
Enabling Earthworks
Design



Arboriculture



Compliance
& Due Diligence



Ecology



Industrial Permitting



Geotechnical

MEMBRANE SPECIFICATION: VISQUEEN GAS MEMBRANE (YELLOW)

Technical Datasheet - Product Overview



Technical support: +44 (0) 333 202 6800

Date Published: 18/10/2021

Visqueen Low Permeability Gas Membrane

Features and benefits

- BBA certified - third party accreditation
- Complies with NHBC Amber 1 - suitable for low gas risk NHBC housing sites
- Flexible - easy to detail and install on site
- Supplied centre folded - reduces the risk of cracks in screed and limits creases
- Multi functional - also acts as a radon and damp proof membrane
- Dual jointing methods - lap joints can be taped or heat welded

Product description

Visqueen Low Permeability Gas Membrane is a robust co-polymer thermoplastic gas membrane, 0.5mm thick, yellow in colour and supplied 4m x 12.5m in a center folded roll.

Approvals and standards

- Third party accreditation (BBA 13/5069)
- Conforms to the specification requirements of NHBC Amber 1 applications
- Conforms to the specification requirements of BR 211:2015
- CE Mark EN 13967:2017
- Quality Management System ISO 9001:2015
- Occupational Health and Safety System ISO 45001:2018
- Environmental Management System ISO 14001:2015

Usage

Visqueen Low Permeability Gas Membrane is suitable to prevent the ingress of harmful levels of ground gases for housing applications where NHBC are the warranty provider and the site has been classified as Amber 1. In this application, the membrane is used above a precast suspended segmental ground floor system, for example a beam and block floor.

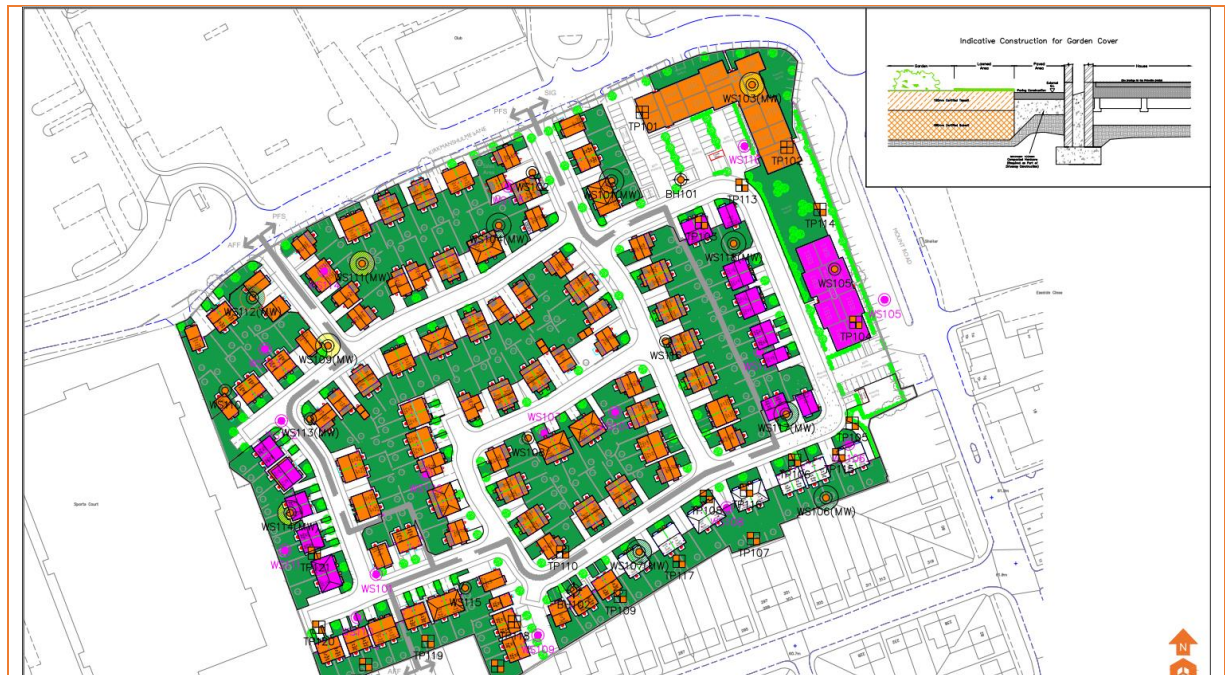
The membrane can also be used as a high performance radon membrane and/or damp proof membrane positioned within the ground floor construction either above or below the structural floor.

The product is not intended for use where there is a risk of hydrostatic pressure.

System components

- VisqueenPro Double Sided Jointing Tape, 50mm x 10m
- Visqueen Gas Resistant Foil Lap Tape, 75mm x 50m
- Visqueen Top Hat Units

GAS MITIGATION MEASURES PLAN



The gas membrane validation photographs are enclosed within this letter. For information, Table 1 includes references and validation dates of previously validated plots.

TABLE 1 – VALIDATION LETTER REFERENCE

PLOT NUMBER	DATE	REPORT NUMBER
1	3 rd March 2022	V4
2	3 rd March 2022	V4
3	3 rd March 2022	V4
4	29 th March 2022	V5
5	29 th March 2022	V5
6		
7		
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84		
85		
86	27 th May 2022	V9
87	27 th May 2022	V9
88	27 th May 2022	V9
89	25 th May 2022	V8

90	25 th May 2022	V8
91	25 th May 2022	V8
92	8 th June 2022	V12
93	8 th June 2022	V12
94	28 th June 2022	V15
95	28 th June 2022	V15
96		
97		
98		
99	30 th May 2022	V10
100	31 st May 2022	V11
101	31 st May 2022	V11
102	15 th June 2022	V13
103	15 th June 2022	V13
104	22 nd June 2022	V14
105	22 nd June 2022	V14
106		
107		
108	4 th July 2022	V15
109	4 th July 2022	V15
110	19 th July 2022	V18
111		
112		

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124		
125	8 th September 2022	V23
126	8 th September 2022	V23
127	8 th September 2022	V23
128	8 th September 2022	V23
129	8 th September 2022	V23
130	23 rd August 2022	V20
131	23 rd August 2022	V20
132	23 rd August 2022	V20
133	23 rd August 2022	V20
134	5 th September 2022	V21
135	15 th September 2022	V25

136	23 rd August 2022	V20
137	23 rd August 2022	V20
138	23 rd August 2022	V20
139	23 rd August 2022	V20
140	4 th August 2022	V19
141	15 th July 2022	V17
142	15 th July 2022	V17
143	11 th July 2022	V16
144	11 th July 2022	V16
145	11 th July 2022	V16
146	9 th May 2022	V6
147	9 th May 2022	V6
148	9 th May 2022	V6
149	9 th May 2022	V6
150	13 th May 2022	V7
151	9 th May 2023	V43
152	9 th May 2023	V43
153	2 nd June 2023	V44
154	2 nd June 2023	V44
155	8 th June 2023	V46
156	8 th June 2023	V46
157		
158		

159	19 th July 2023	V48
160	19 th July 2023	V48
161		
162		
163	7 th February 2023	V40
164	7 th February 2023	V40
165	7 th February 2023	V40
166	7 th February 2023	V40
167	4 th November 2022	V31
168	24 th September 2022	V26
168	24 th September 2022	V26
169		
170	5 th October 2022	V27
171	21 st November 2022	V33
172	21 st November 2022	V33
173	23 rd November 2022	V34
174	12 th December 2022	V35
175	12 th December 2022	V35
176	15 th December 2022	V36
177	15 th December 2022	V36
178	4 th November 2022 10 th November 2022	V31 V32
179	4 th November 2022	V31
180	4 th November 2022	V31

181	27 th October 2022	V30
182	27 th October 2022	V30
183	27 th October 2022	V30
184	24 th October 2022	V29
185	24 th October 2022	V29
186	24 th October 2022	V29
187	24 th October 2022	V29
188		
189	21 st November 2022	V33
190	21 st November 2022	V33
191	1 st September 2022	V22
192	1 st September 2022	V22
193	1 st September 2022	V22
194	22 nd September 2022	V24
195	22 nd September 2022	V24
196	24 th September 2022	V26
197	24 th September 2022	V26
198	12 th October 2022	V28
199	12 th October 2022	V28
200	24 th October 2022	V29
201	24 th October 2022	V29
202	24 th October 2022	V29
203	24 th October 2022	V29

204	23 rd February 2023	V40
205	23 rd February 2023	V40
206	23 rd February 2023	V40
207	23 rd February 2023	V40
208	1 st March 2023	V41
209	1 st March 2023	V41
210		
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220	27 th April 2023	V42
221	27 th April 2023	V42
222	27 th April 2023	V42
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227		
228	19 th July 2023	V48
229	19 th July 2023	V48
230	7 th July 2023	V47
231	7 th July 2023	V47
232		
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234		
235		
236	24 th Jan 2022	V1
237	24 th Jan 2022	V1
238	24 th Jan 2022	V1
239	24 th Jan 2022	V1
240	18 th May 2023	V44
241	18 th May 2023	V44
242	15 th February 2022	V3
243	15 th February 2022	V3
244		
245		
246	24 th January 2022	V2
247	24 th January 2022	V2
248		
249		

Belle Vue
Gas Validation
July 2023

250		
Apartment Block 1	15 th September 2022 5 th October 2022	V25 V27
Apartment Block 1 Stairwell	19 th January 2023 20 th January 2023	V38 V39
Apartment Block 2	23 rd August 2022	V20

GAS MEMBRANE VALIDATION

Complete

Site Name	Belle vue
Location	178 Kirkmanshulme Lane, Longsight Manchester England M18 United Kingdom (53.46183582342332, - 2.1852433489840326)
Project Manager	Stuart Ellis
Project number	12123
Developer	Countryside
Site representative Signature	Paul 19 Jul 2023 8:36 AM BST lewis
Conducted on	19 Jul 2023 8:35 AM BST
Prepared by	Patrick Lavelle

Inspection Gas Membrane

Plot Inspection

Plot Inspection 1

Plot Number

229

Type of Development: Other add note

House



Photo 1



Photo 2

Foundation Type: Other add note

Suspended Floor

Gas Membrane Type: Manufacturer, gauge, and colour.

Yellow visqueen

Gas Membrane Condition: Open punctures, tears, rips, stretching, Presence of debris, Repairs, Signs of weakness such as raised or sunken indentations, Protection plan in place to restrict access to lain gas membrane? IF FAIL DESCRIPTION IN ACTIONS AND PHOTOS REQUIRED

Pass



Photo 3



Photo 4



Photo 5



Photo 6

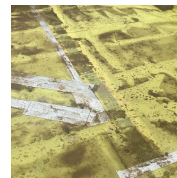


Photo 7

Laps, welds, and joints seals: Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice? Are welds complete? Appropriate joining/double-sided tape used, Folds running in line with joints? (no joints cutting across folds)

Pass



Photo 8

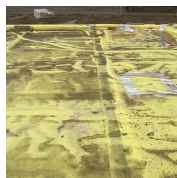


Photo 9

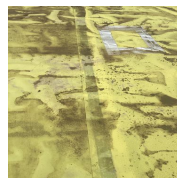


Photo 10



Photo 11

Service entries seals: Top hats seal arrangements fixed around service entries? Use of Jubilee clips?

Yes



Photo 12

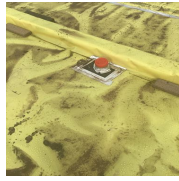


Photo 13

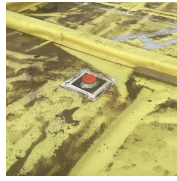


Photo 14



Photo 15



Photo 16

Type of joints/ Lapping

Taped

Corners / Internal joints: Check all corners are correctly formed or contractor has used preformed corners.

Pass



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28

Extent of Coverage: Is the membrane covering the entire plot? Does membrane span over outside walls?

Yes



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33

Condition of sub-grade and underside of gas membrane: Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.

Pass



Photo 34

Slab / membrane condition (is membrane clear of debris or insulation): Can membrane be fully seen and photographed – ask contractor to remove an debris so membrane can be fully seen and inspected – this is a requirement of NHBC and local authorities.

Pass



Photo 35

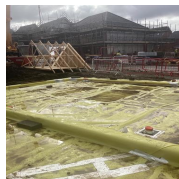


Photo 36

External Wall Air bricks: Numbers, size. positions as design drawing? (Minimum of 3 walls)

Pass



Photo 37



Photo 38

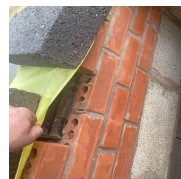


Photo 39

Plot Inspection 2

Plot Number

228

Type of Development: Other add note

House



Photo 40



Photo 41

Foundation Type: Other add note

Suspended Floor

Gas Membrane Type: Manufacturer, gauge, and colour.

Yellow visqueen

Gas Membrane Condition: Open punctures, tears, rips, stretching, Presence of debris, Repairs, Signs of weakness such as raised or sunken indentations, Protection plan in place to restrict access to lain gas membrane? IF FAIL DESCRIPTION IN ACTIONS AND PHOTOS REQUIRED

Pass

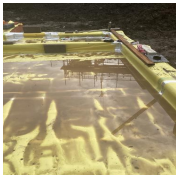


Photo 42



Photo 43



Photo 44



Photo 45

Laps, welds, and joints seals: Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice? Are welds complete? Appropriate joining/double-sided tape used, Folds running in line with joints? (no joints cutting across folds)

Pass

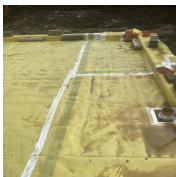


Photo 46



Photo 47



Photo 48

Service entries seals: Top hats seal arrangements fixed around service entries? Use of Jubilee clips?

Yes

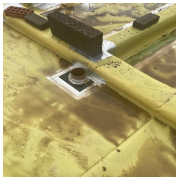


Photo 49



Photo 50



Photo 51



Photo 52



Photo 53

Type of joints/ Lapping

Taped

Corners / Internal joints: Check all corners are correctly formed or contractor has used preformed corners.

Pass

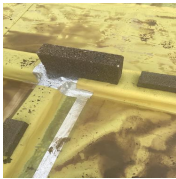


Photo 54



Photo 55



Photo 56



Photo 57



Photo 58



Photo 59



Photo 60



Photo 61



Photo 62



Photo 63



Photo 64

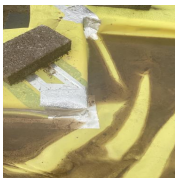


Photo 65



Photo 66

Extent of Coverage: Is the membrane covering the entire plot? Does membrane span over outside walls?

Yes



Photo 67



Photo 68



Photo 69

Condition of sub-grade and underside of gas membrane: Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.

Pass



Photo 70

Slab / membrane condition (is membrane clear of debris or insulation): Can membrane be fully seen and photographed – ask contractor to remove an debris so membrane can be fully seen and inspected – this is a requirement of NHBC and local authorities.

Pass



Photo 71

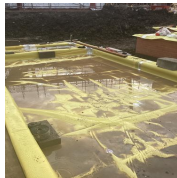


Photo 72



Photo 73

External Wall Air bricks: Numbers, size. positions as design drawing? (Minimum of 3 walls)

Pass



Photo 74



Photo 75

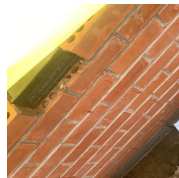


Photo 76

Plot Inspection 3

Plot Number

157

Type of Development: Other add note

House



Photo 77

Foundation Type: Other add note

Suspended Floor

Gas Membrane Type: Manufacturer, gauge, and colour.

Yellow visqueen

Gas Membrane Condition: Open punctures, tears, rips, stretching, Presence of debris, Repairs, Signs of weakness such as raised or sunken indentations, Protection plan in place to restrict access to lain gas membrane? IF FAIL DESCRIPTION IN ACTIONS AND PHOTOS REQUIRED

Pass

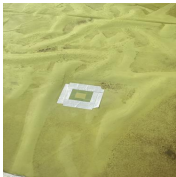


Photo 78



Photo 79

Laps, welds, and joints seals: Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice? Are welds complete? Appropriate joining/double-sided tape used, Folds running in line with joints? (no joints cutting across folds)

Pass

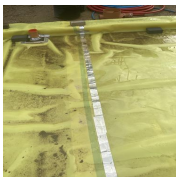


Photo 80



Photo 81

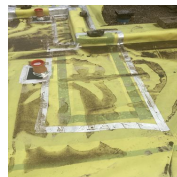


Photo 82

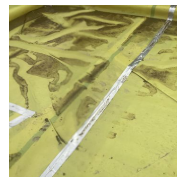


Photo 83

Service entries seals: Top hats seal arrangements fixed around service entries? Use of Jubilee clips?

Yes

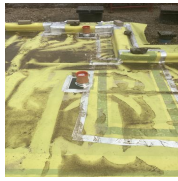


Photo 84



Photo 85

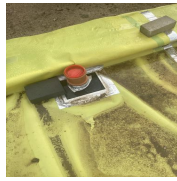


Photo 86



Photo 87

Type of joints/ Lapping

Taped

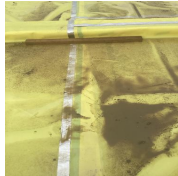


Photo 88

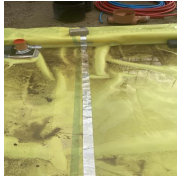


Photo 89

Corners / Internal joints: Check all corners are correctly formed or contractor has used preformed corners.

Pass



Photo 90



Photo 91



Photo 92



Photo 93



Photo 94



Photo 95

Extent of Coverage: Is the membrane covering the entire plot? Does membrane span over outside walls?

Yes



Photo 96

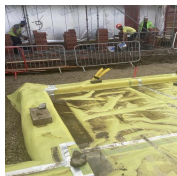


Photo 97



Photo 98

Condition of sub-grade and underside of gas membrane: Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.

Pass



Photo 99

Slab / membrane condition (is membrane clear of debris or insulation): Can membrane be fully seen and photographed – ask contractor to remove an debris so membrane can be fully seen and inspected – this is a requirement of NHBC and local authorities.

Pass



Photo 100



Photo 101

External Wall Air bricks: Numbers, size. positions as design drawing? (Minimum of 3 walls)

Pass

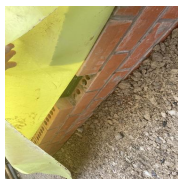


Photo 102



Photo 103



Photo 104

Plot Inspection 4

Plot Number

158

Type of Development: Other add note

House



Photo 105

Foundation Type: Other add note

Suspended Floor

Gas Membrane Type: Manufacturer, gauge, and colour.

Yellow visqueen

Gas Membrane Condition: Open punctures, tears, rips, stretching, Presence of debris, Repairs, Signs of weakness such as raised or sunken indentations, Protection plan in place to restrict access to lain gas membrane? IF FAIL DESCRIPTION IN ACTIONS AND PHOTOS REQUIRED

Pass



Photo 106

Laps, welds, and joints seals: Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice? Are welds complete? Appropriate joining/double-sided tape used, Folds running in line with joints? (no joints cutting across folds)

Pass

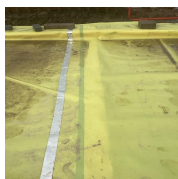


Photo 107

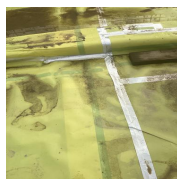


Photo 108

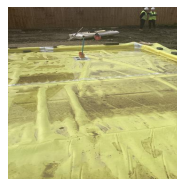


Photo 109



Photo 110

Service entries seals: Top hats seal arrangements fixed around service entries? Use of Jubilee clips?

Yes



Photo 111

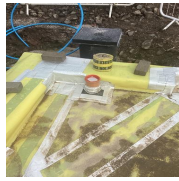


Photo 112



Photo 113

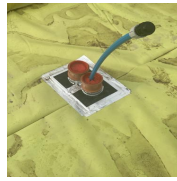


Photo 114

Type of joints/ Lapping

Taped

Corners / Internal joints: Check all corners are correctly formed or contractor has used preformed corners.

Pass

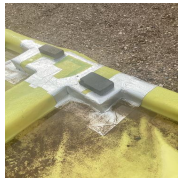


Photo 115



Photo 116



Photo 117



Photo 118

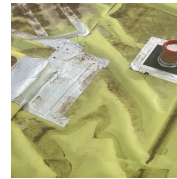


Photo 119

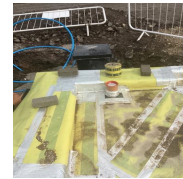


Photo 120

Extent of Coverage: Is the membrane covering the entire plot?
Does membrane span over outside walls?

Yes



Photo 121



Photo 122



Photo 123



Photo 124

Condition of sub-grade and underside of gas membrane: Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.

Pass



Photo 125

Slab / membrane condition (is membrane clear of debris or insulation): Can membrane be fully seen and photographed – ask contractor to remove an debris so membrane can be fully seen and inspected – this is a requirement of NHBC and local authorities.

Pass

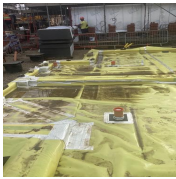


Photo 126



Photo 127

External Wall Air bricks: Numbers, size. positions as design drawing? (Minimum of 3 walls)

Pass



Photo 128



Photo 129



Photo 130

Plot Inspection 5

Plot Number

159

Type of Development: Other add note

House



Photo 131

Foundation Type: Other add note

Suspended Floor

Gas Membrane Type: Manufacturer, gauge, and colour.

Yellow visqueen

Gas Membrane Condition: Open punctures, tears, rips, stretching, Presence of debris, Repairs, Signs of weakness such as raised or sunken indentations, Protection plan in place to restrict access to lain gas membrane? IF FAIL DESCRIPTION IN ACTIONS AND PHOTOS REQUIRED

Pass

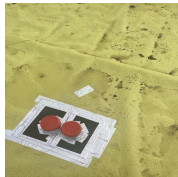


Photo 132



Photo 133



Photo 134

Laps, welds, and joints seals: Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice? Are welds complete? Appropriate joining/double-sided tape used, Folds running in line with joints? (no joints cutting across folds)

Pass

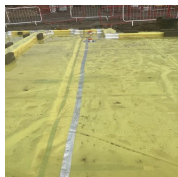


Photo 135



Photo 136



Photo 137

Service entries seals: Top hats seal arrangements fixed around service entries? Use of Jubilee clips?

Yes



Photo 138

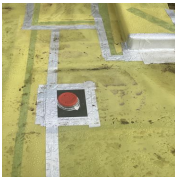


Photo 139



Photo 140

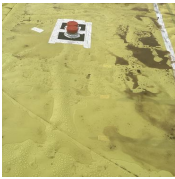


Photo 141

Type of joints/ Lapping

Taped

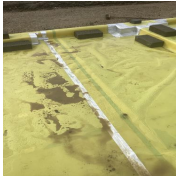


Photo 142

Corners / Internal joints: Check all corners are correctly formed or contractor has used preformed corners.

Pass



Photo 143



Photo 144



Photo 145



Photo 146



Photo 147



Photo 148



Photo 149



Photo 150

Extent of Coverage: Is the membrane covering the entire plot? Does membrane span over outside walls?

Yes



Photo 151



Photo 152

Condition of sub-grade and underside of gas membrane: Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.

Pass



Photo 153

Slab / membrane condition (is membrane clear of debris or insulation): Can membrane be fully seen and photographed – ask contractor to remove an debris so membrane can be fully seen and inspected – this is a requirement of NHBC and local authorities.

Pass



Photo 154



Photo 155

External Wall Air bricks: Numbers, size. positions as design drawing? (Minimum of 3 walls)

Pass



Photo 156

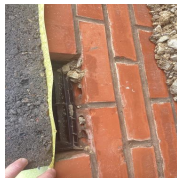


Photo 157



Photo 158

Plot Inspection 6

Plot Number

160

Type of Development: Other add note

House



Photo 159

Foundation Type: Other add note

Suspended Floor

Gas Membrane Type: Manufacturer, gauge, and colour.

Yellow visqueen

Gas Membrane Condition: Open punctures, tears, rips, stretching, Presence of debris, Repairs, Signs of weakness such as raised or sunken indentations, Protection plan in place to restrict access to lain gas membrane? IF FAIL DESCRIPTION IN ACTIONS AND PHOTOS REQUIRED

Pass

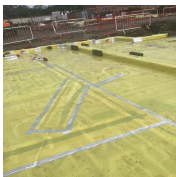


Photo 160

Laps, welds, and joints seals: Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice? Are welds complete? Appropriate joining/double-sided tape used, Folds running in line with joints? (no joints cutting across folds)

Pass

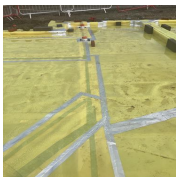


Photo 161



Photo 162



Photo 163

Service entries seals: Top hats seal arrangements fixed around service entries? Use of Jubilee clips?

Yes



Photo 164



Photo 165

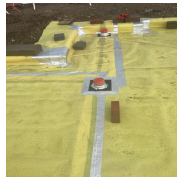


Photo 166



Photo 167

Type of joints/ Lapping

Taped

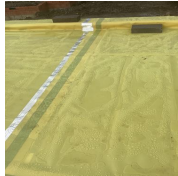


Photo 168



Photo 169

Corners / Internal joints: Check all corners are correctly formed or contractor has used preformed corners.

Pass



Photo 170

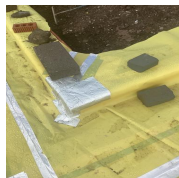


Photo 171



Photo 172



Photo 173



Photo 174



Photo 175



Photo 176

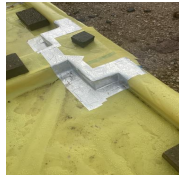


Photo 177

Extent of Coverage: Is the membrane covering the entire plot? Does membrane span over outside walls?

Yes



Photo 178



Photo 179

Condition of sub-grade and underside of gas membrane: Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.

Pass



Photo 180

Slab / membrane condition (is membrane clear of debris or insulation): Can membrane be fully seen and photographed – ask contractor to remove an debris so membrane can be fully seen and inspected – this is a requirement of NHBC and local authorities.

Pass



Photo 181



Photo 182

External Wall Air bricks: Numbers, size. positions as design drawing? (Minimum of 3 walls)

Pass



Photo 183



Photo 184



Photo 185

Passive Venting

Sub-floor Void: Is a check possible on future plots (insert Plot number or NO in text box)

No

Media summary



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9

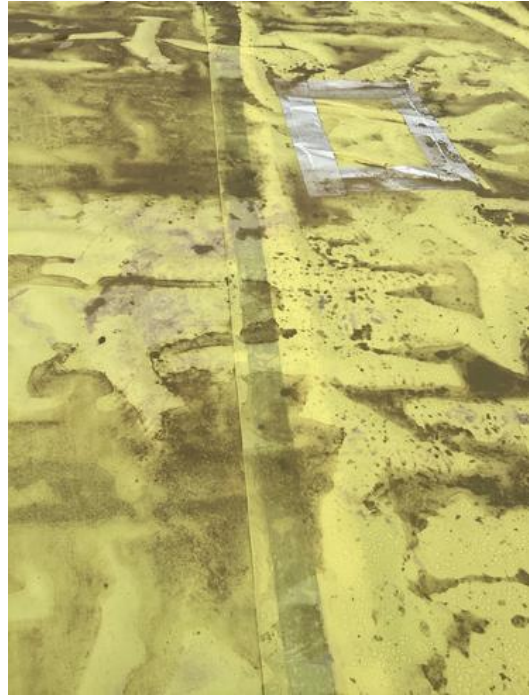


Photo 10

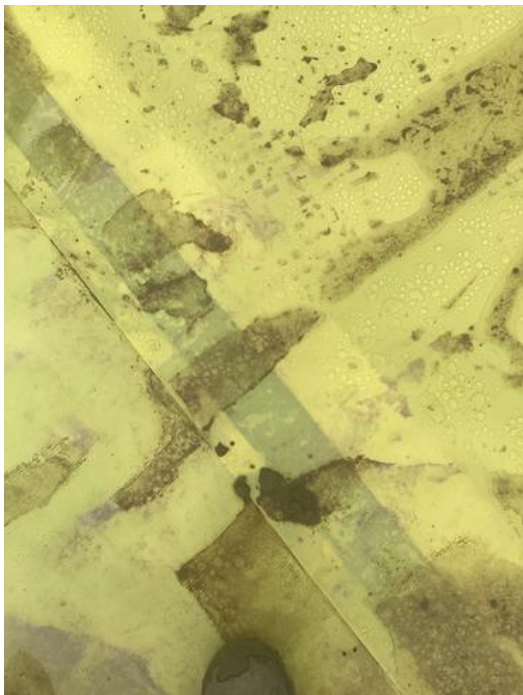


Photo 11



Photo 12

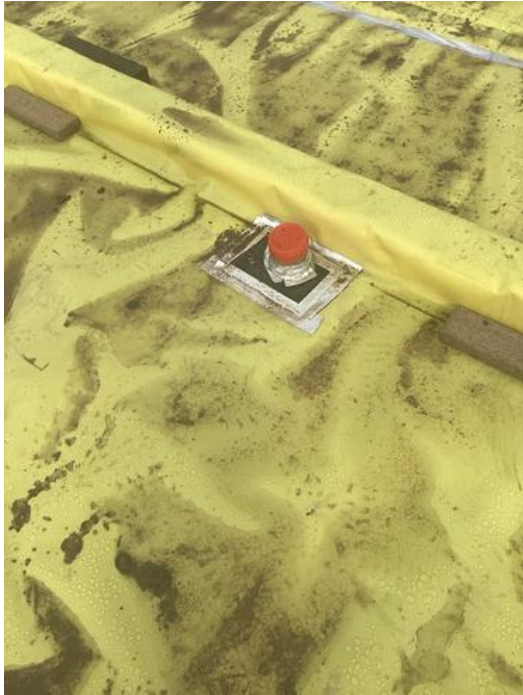


Photo 13



Photo 14

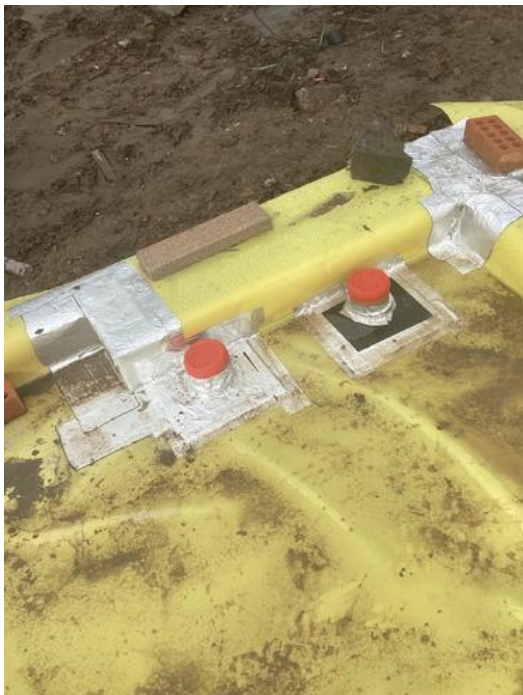


Photo 15



Photo 16



Photo 17

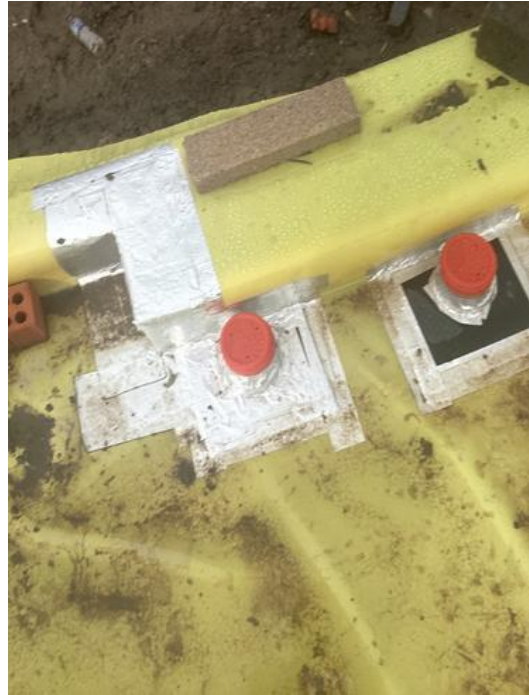


Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33



Photo 34



Photo 35



Photo 36



Photo 37



Photo 38



Photo 39



Photo 40



Photo 41



Photo 42



Photo 43



Photo 44



Photo 45

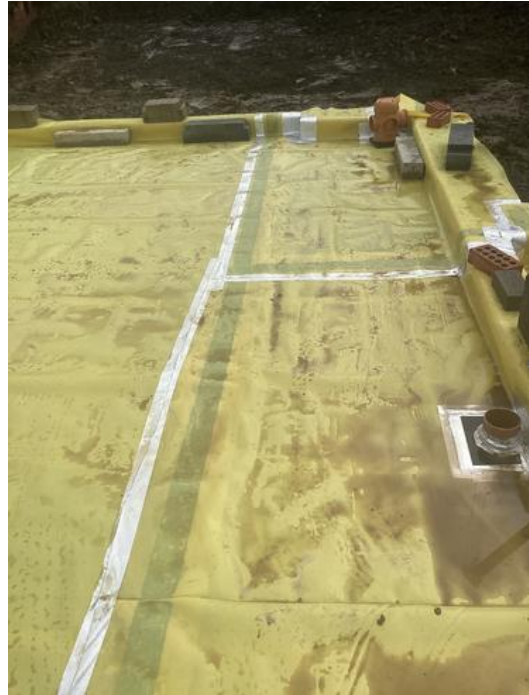


Photo 46



Photo 47



Photo 48



Photo 49



Photo 50



Photo 51



Photo 52



Photo 53

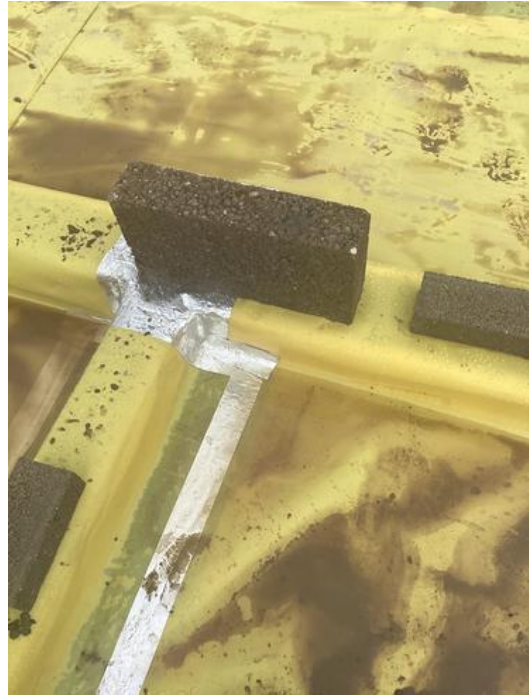


Photo 54



Photo 55



Photo 56



Photo 57



Photo 58



Photo 59



Photo 60



Photo 61



Photo 62



Photo 63



Photo 64



Photo 65



Photo 66



Photo 67



Photo 68



Photo 69



Photo 70



Photo 71



Photo 72



Photo 73



Photo 74



Photo 75



Photo 76



Photo 77



Photo 78



Photo 79

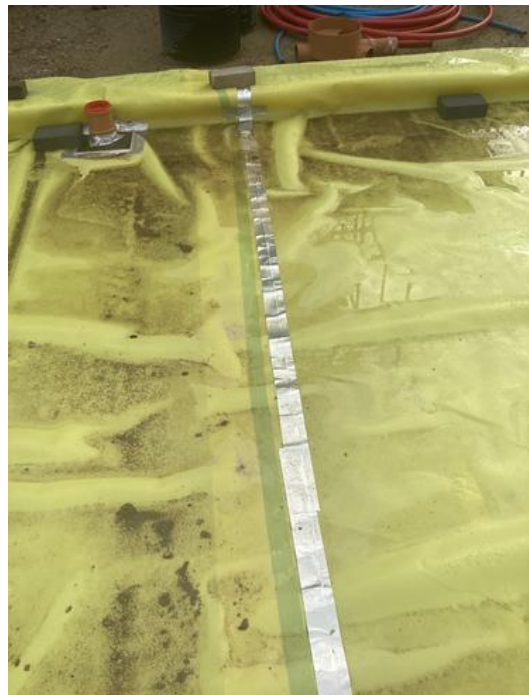


Photo 80



Photo 81



Photo 82

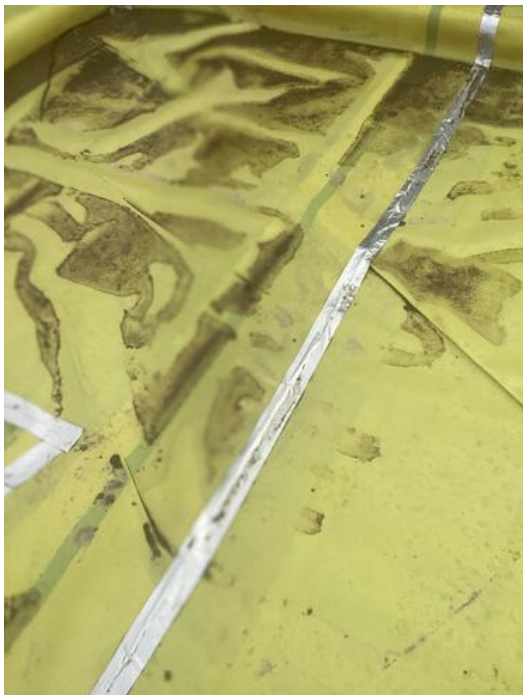


Photo 83



Photo 84



Photo 85



Photo 86



Photo 87

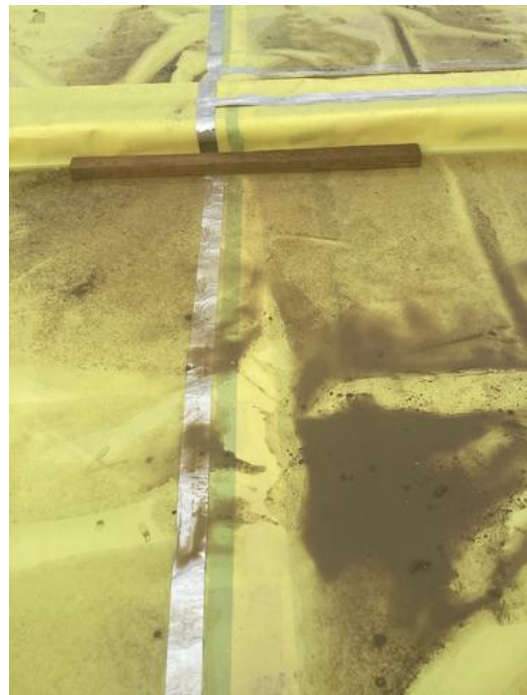


Photo 88

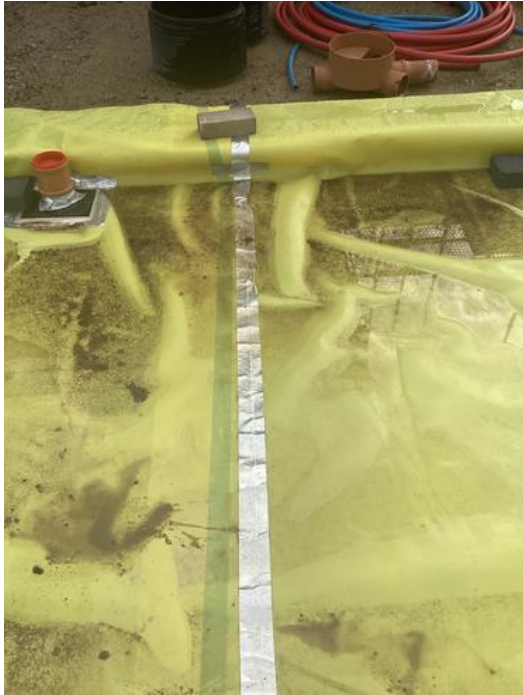


Photo 89



Photo 90



Photo 91



Photo 92



Photo 93



Photo 94



Photo 95

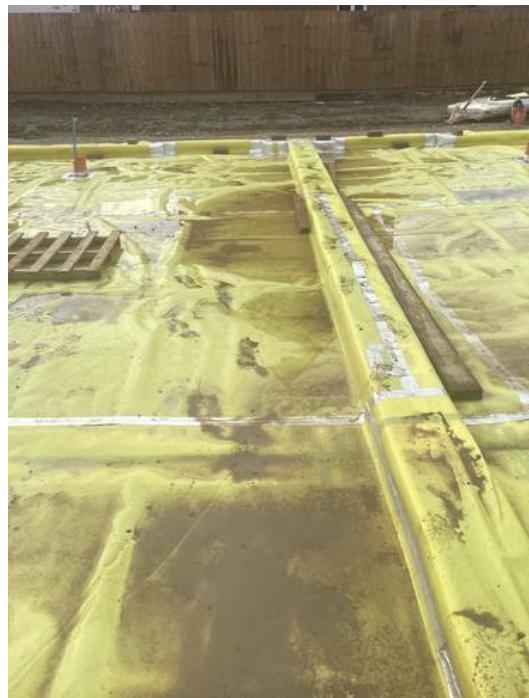


Photo 96



Photo 97



Photo 98



Photo 99



Photo 100



Photo 101



Photo 102



Photo 103



Photo 104



Photo 105



Photo 106



Photo 107

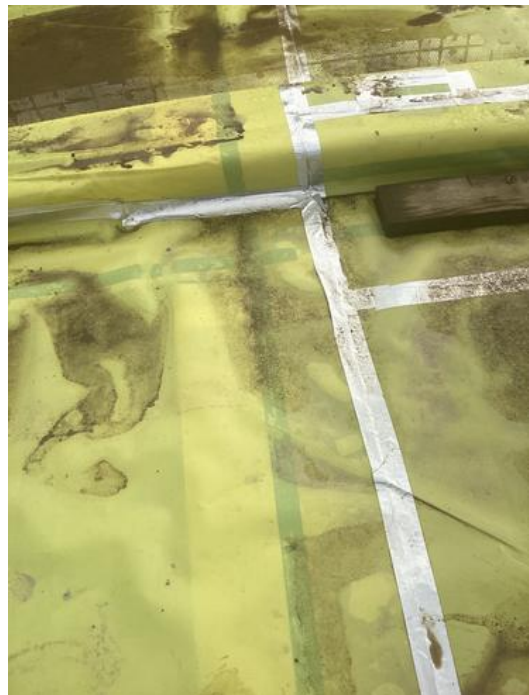


Photo 108

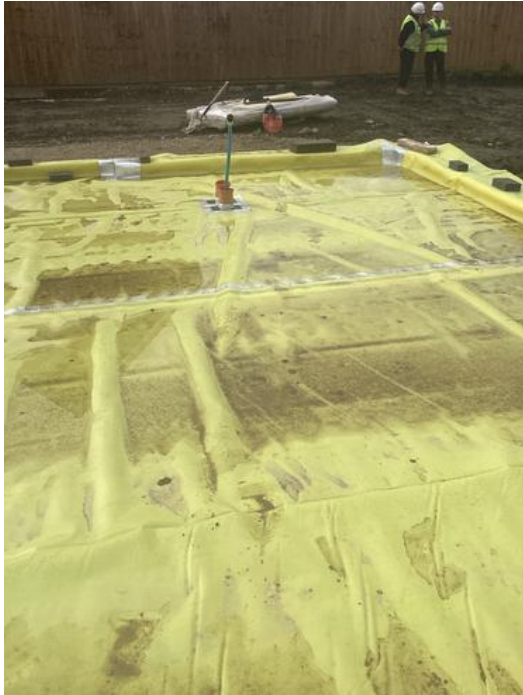


Photo 109



Photo 110

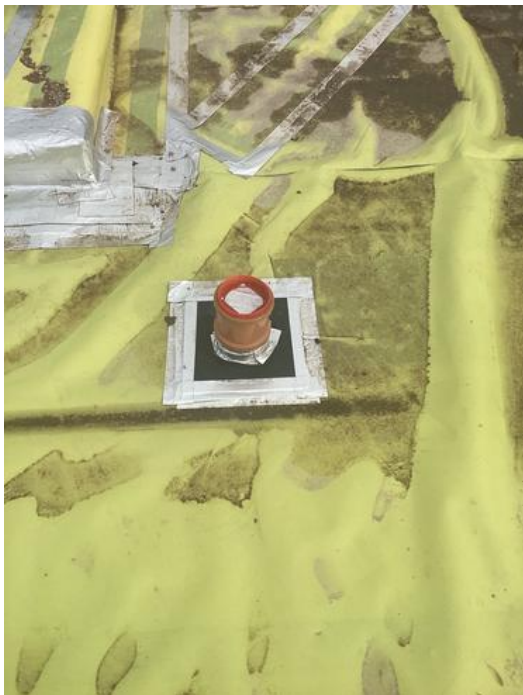


Photo 111



Photo 112



Photo 113



Photo 114



Photo 115



Photo 116



Photo 117



Photo 118



Photo 119



Photo 120



Photo 121



Photo 122



Photo 123

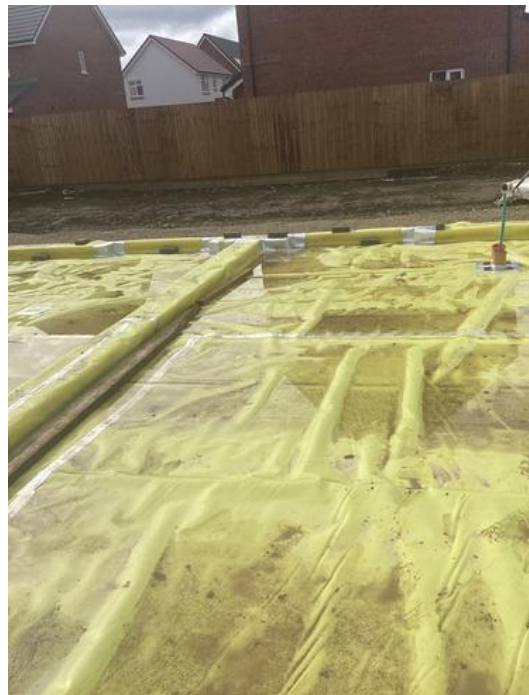


Photo 124



Photo 125

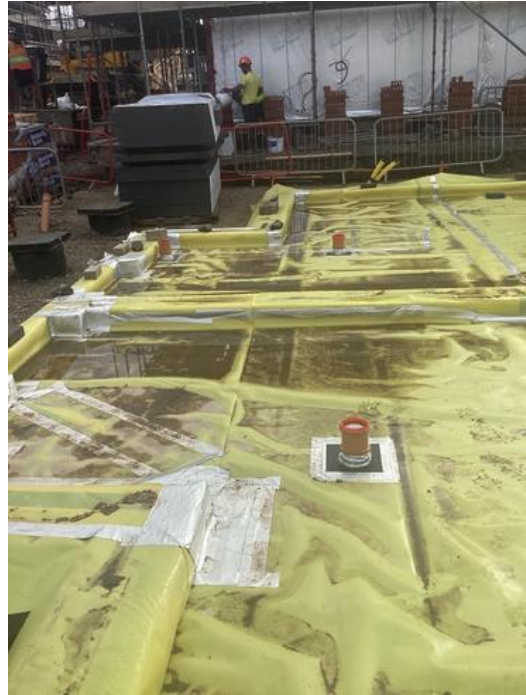


Photo 126



Photo 127



Photo 128



Photo 129



Photo 130



Photo 131



Photo 132



Photo 133



Photo 134



Photo 135



Photo 136



Photo 137



Photo 138

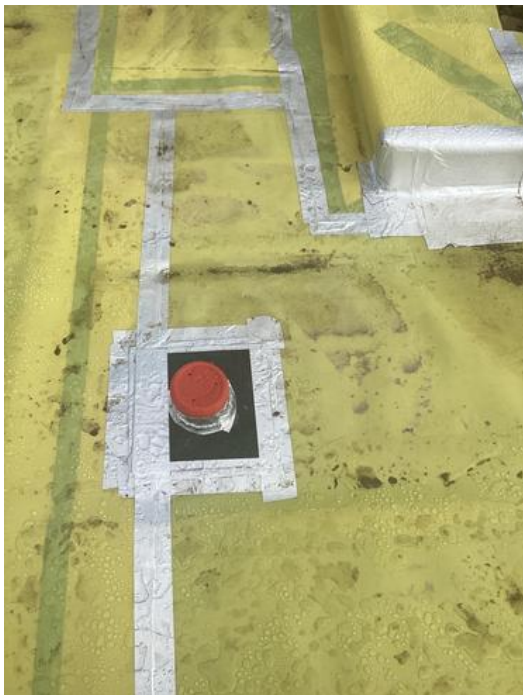


Photo 139



Photo 140



Photo 141

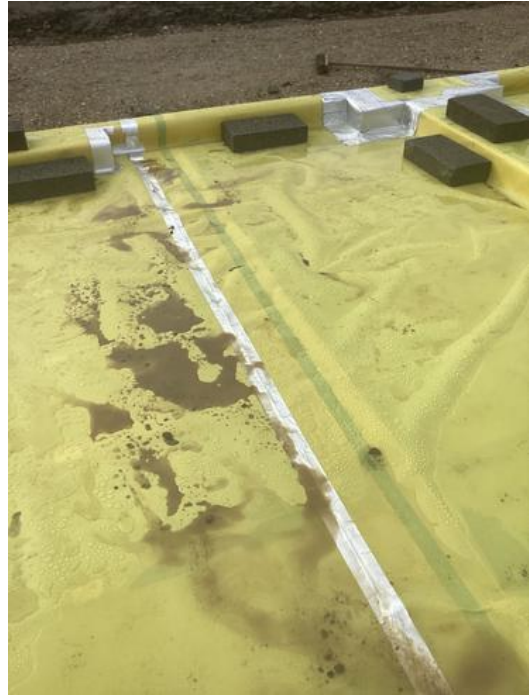


Photo 142



Photo 143



Photo 144



Photo 145



Photo 146



Photo 147



Photo 148



Photo 149



Photo 150



Photo 151



Photo 152



Photo 153



Photo 154



Photo 155



Photo 156



Photo 157



Photo 158



Photo 159



Photo 160



Photo 161



Photo 162



Photo 163



Photo 164



Photo 165



Photo 166



Photo 167

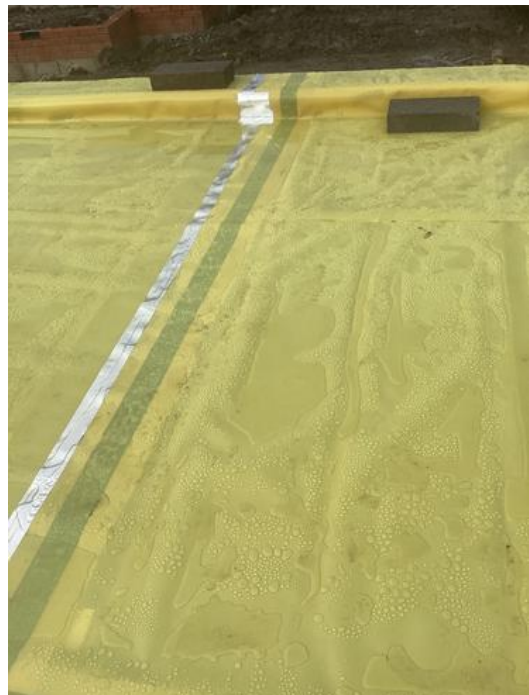


Photo 168

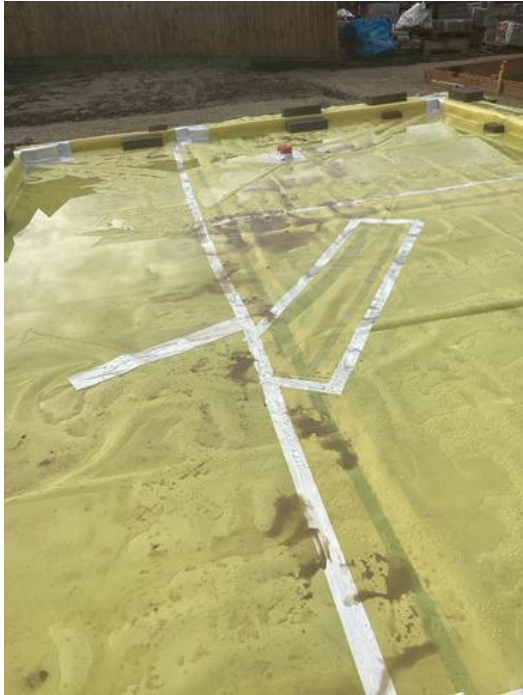


Photo 169



Photo 170

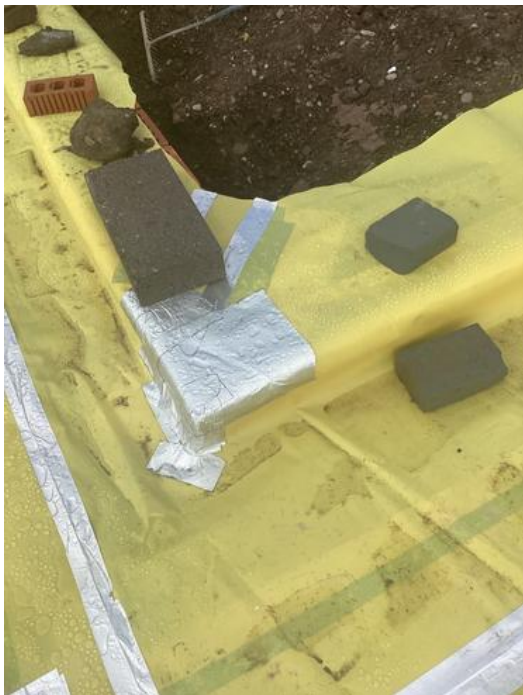


Photo 171



Photo 172



Photo 173



Photo 174



Photo 175



Photo 176



Photo 177



Photo 178



Photo 179



Photo 180



Photo 181



Photo 182



Photo 183



Photo 184



Photo 185