

Our Ref C337/19/E/R
13th of January 2022

**Environmental
Geotechnical
Specialists**



Adrian Mosley
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West Yorkshire
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For the attention of Adrian Mosley C/O Farrar Bamforth Associates Ltd

Dear Adrian,

Ref: Gas Protection Measures - Application no. 2021/92427 Stile Common Road

It is understood that further to consultation with Natalie Heaney of Kirklees Council, dated 22nd of December 2021, gas protection measures installed in accordance with Characteristic Situation Level 3 (CSL3) are deemed appropriate for the proposed development.

With reference to BS8485, accepting that the development conforms to a 'Type A' building, if adopting CSL3, a score of 4.5 would need to be achieved. In view of this, the following is proposed:

- The building comprises a sub-basement. As such sub-basement floor and walls should confirm to BS8102:2009, Grade 2 waterproofing; Score of **2**.
- A suitable gas resistant membrane, installed in accordance with BS8485; Score of **2**.
- Installation of a pressure relief pathway beneath the concrete slab, comprising a >150mm thick layer of low fine gravel; Score of **0.5**.

It is considered that the above is sufficient to satisfy the requirements stated in the appropriate guidance and reduces the risk to the end user as low.

References

- British Standards Institution (2013), BS 8576 Guidance on Investigations for Ground Gas – Permanent Gases and Volatile Organic Compounds.
- British Standards Institution (2015 +A1:2019) BS8485: *Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*, B.S.I., London.
- CIRIA Report C665, *Assessing risks posed by ground gasses to building*.

We trust that this information is of interest and should you have any other requirements do not hesitate to contact us.

For Rogers Geotechnical Services Ltd,

Yours Faithfully

Rob Palmer MSc FGS ACIEH
Senior Geo-environmental Engineer

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