GeoEnginSeer

FREELANCE DILETTANTE GEOLOGIST

Moss Side Fire Station
Denhill Rd, Hulme,
Manchester M15 5NR

Verification Completion Report for Ground Gas Protection Systems

Date / Time:	13.02.23 0900hrs

Project Title	Moss Side Fire Station and Boxing Club
Date	13.02.23
Client	LCM Group
Weather	cloudy 10oc light wind 5 kmh
Development Type	Commercial
Foundation Type	Suspended
Plot Numbers	Building Extension
Visit By	Paul Carter- Jones and Duncan Hetherington

Report By	**Checked/Approved By**
Signature 	*Signature* 
Name: Paul Carter – Jones	*Name: Ben Crowther*

Company Contact Details

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Manchester M15 5NR

Ben Crowther B.Sc, M.Sc, PGCE, FGS, CIEH, PCA QT, SGPV
For and on behalf of geoenginseer.
geoenginseer@gmail.com 07817 108921

1. GAS MEMBRANE

1.1 Condition Of Subgrade 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.

Retro test of built property.

1.2 Gas Membrane Type

Manufacturer and product specification, gauge, colour, brand/name, material batch/roll numbers.

Retro test of built property, membrane not visible.
(Evidence of gas membrane installs to be provided)

1.3 Laps, Welds and Joint Seals

Joints lapped and sealed in accordance with manufacturers requirements/specification. Minimum overlap insured? Welds complete? Appropriate joining/double sided tape used?

Retro test of built property, sealing not visible.

1.4 Service Entries Seals

How many pipe penetrations? Top hats seal arrangements fixed around service entries? Use of jubilee clips? Etc.

Retro test of built property, sealing not visible

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2. VENTILATION SYSTEMS

2.1 Subfloor Void

Is a check possible? Void former? Gravel (type/specification)? Height of void space? Is it clear?

Unable to check.

2.2 External Wall Airbricks

How many? Size? Positioning? Spacing? Etc.

Perma vents (plastic) along the front of the property x 5 and x 1 on the side. Square hole brick vents on the rear of the property x 4

2.3 Active Venting

Type of air supply: mechanical, natural, combined? Location/condition/number of fans/vents? Location and size of inlets? Provision of air cleaning devices and air heaters? Supply and exhaust duct work? Alarm provision/installation? Gas monitoring system in under-floor void?

Natural air flow under foundation via vents and air bricks.

2.4 Testing Of Air Flow

Is the air flowing sufficiently through ventilation? Anemometer reading? Smoke test? Tracer gas?

Tracer gas performed through air vents.

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3. INSPECTION AND INTEGRITY DETAILS

Tracer gas test carried out on the extension block at Denhill Road Moss Side Fire Station for LCM Group.

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With the property being built it wasn't possible to check the gas membrane, but lines of evidence of the gas membrane installation is to be provided.

A base line reading of background gasses was taken on the handheld gas detector (PS500) both outside and inside the property.

The air vents were then sealed, and a tracer gas (carbon dioxide, nitrogen) was pumped in through selected air vents (that were opened then re-sealed) so that the foundation of the property was filled sufficiently with the tracer gas.

A test reading was carried out with the PS500 to show the tracer gas was present under the foundation.

A thorough internal walk around with the PS500 was then carried out, along the corridor, in the toilets / shower areas, viewing room and office / kitchenette area.

BACKGROUND READING (External): BNZ 0.0% O2 20.9% CO2 0.0% LEL 0.0%

BACKGROUND READING (Internal): BNZ 0.0% O2 20.7% CO2 0.0% LEL 0.0%

TEST READING (To show tracer gas was present): BNZ 0.0% O2 20.9% CO2 3.58% LEL 0.0%

INTERNAL WALK AROUD READING: BNZ 0.0% O2 20.7% CO2 0.0% LEL 0.0%

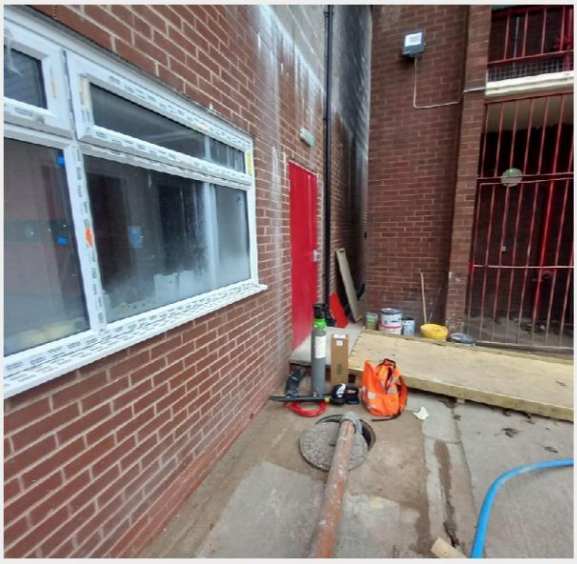
The test shown the tracer gas that was pumped in was present under the foundation but wasn't migrating up into the property.

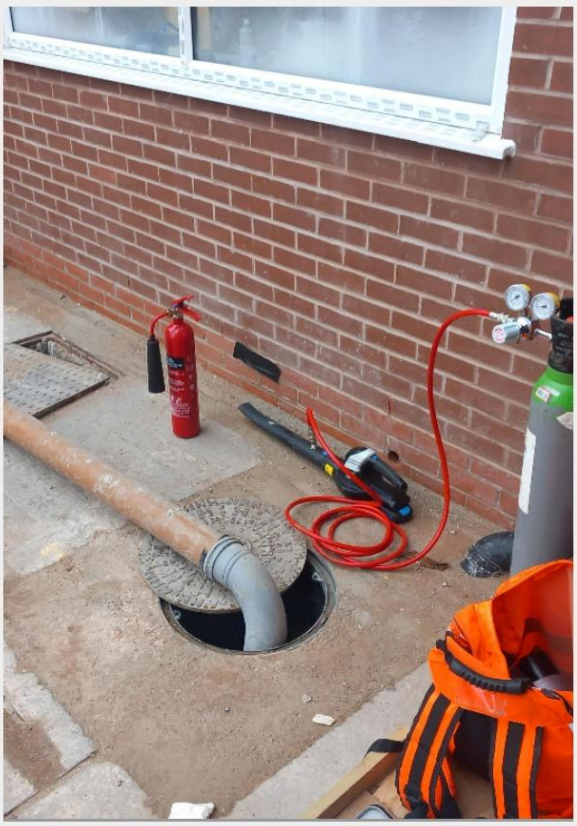
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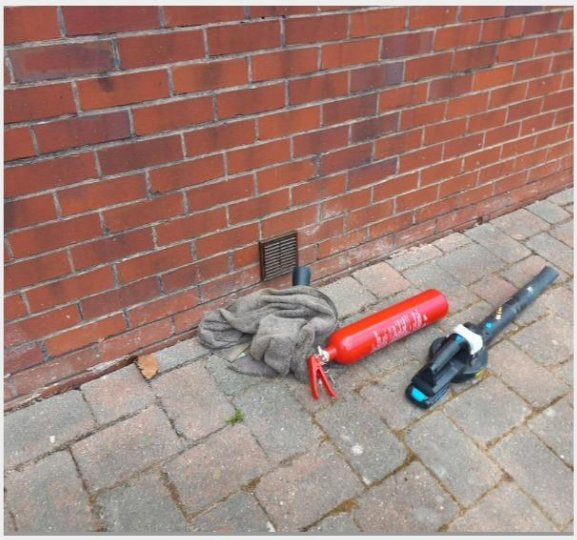
4. PHOTOGRAPHIC RECORDS











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5. CONCLUSION OF SITE VISIT

5.1 Details Of Installers

Are the installers suitably qualified / trained? Names of installers / company details?

PRS.

5.2 Pass / Fail?

Are the measures inspected acceptable / NOT acceptable? Do they comply with the specifications? Is attention required to specific issues?

PASS

5.3 Additional notes

Remedial actions to be taken? Re-visit to be arranged?

N/A

NAME	SIGNATURE	DATE
Ben Crowther		14.2.23

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6.0 Limitations and Challenges of Verification Reporting

This report is based on the information that has been made available to us from the client, contractor and architect regarding the site. The conclusions drawn in the report are considered correct although any subsequent additional information or actions may allow refinement of the conclusions. It should be noted that: The report has been prepared under the express instructions and solely for the use of the Client.

The findings of this report represent the professional opinion of experienced Ground Gas System Surveyors. GeoEnginSeerLtd does not provide legal advice and the advice of lawyers may also be required.

All work carried out in preparing this report has utilised and is based upon understanding of current relevant UK standards and codes, technology, and legislation. (BS8485:2015+A1:2019 & CIRIA 735).

Changes in this legislation and guidance may occur at any time in the future and cause any conclusions to become inappropriate or incorrect.

The report is limited to the boundaries identified by the Client. on this site and confirmed within this document.

Should additional services be introduced, or service conduits are not sealed or have services provided through them at a later date that are not sealed to the conduit and or gas protection system, a retrospective fit may be required. If a site is left open for prolonged periods following verification or works are conducted that may damage the integrity of the installation by follow on trades repairs may be needed, the standards observed in a positive verification report may be compromised. Intellectual rights to this document may be rescinded.

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