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OVER ARCHING VERIFICATION REPORT FOR GAS PROTECTION MEASURES AT 211196 – SCHOOL STREET, RADCLIFFE

Prepared for:

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Revision	Date	Description	Prepared by	Checked by	Approved by
01	28/09/26	Gas Membrane Verification Report	JC	AJB	AJB

INTRODUCTION

Background

Alliance Design UK Ltd t/a EDGE Consulting Engineers ("EDGE") has been appointed by Seddon Construction Ltd to validate the installation of gas mitigation measures at a new residential development located at School Street, Radcliffe, Lancashire, M26 3BW.

Seddon Construction Ltd are currently redeveloping the site on behalf of Hive Homes. Planning permission (Ref: 69233) has been granted for Hive Homes to redevelop the site with 90 residential properties with gardens and access roads as shown on MCK Associates Limited Drawing No 21-039 PL01 Rev Z presented in Annex I.

Seddon Construction Ltd are undertaking the construction phase remediation works at the site in accordance with the following approved remediation strategy:

- EDGE Construction Phase Remediation Strategy Report, 211196-EDGE-XX-XX-RP-G-0006_DET_REM_STRAT [P04] dated October 2024.

Gas monitoring undertaken during the site investigation recorded methane concentrations of up to 3.6 % meaning that gas protection measures in line with CS2 / Amber 1 will be required to be installed in new structures at the site.

EDGE has been appointed by Seddon Construction Ltd to act as the third-party geo-environmental consultant overseeing the construction phase of the remediation works.

Upon completion of the required mitigation measures, proof of verification will be presented in a standalone verification report or plot specific reports. This overarching report presents proof of verification for the plots completed to date, in accordance with the requirements of the remediation strategy.

GAS MITIGATION MEASURES

According to CIRIA C665, an NHBC Amber 1 classification requires low level gas protection measures, comprising a membrane and ventilated sub-floor void.

BS8485 (2015) Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings uses a points based system for the installation of gas protection measures. For Type A private residential buildings with Amber 1 / CS2 protection a score of 3.5 is required.

The following measures will achieve the required score of 3.5:

For plots with beam and block flooring:

- (a) Good performance sub-floor ventilation ie block and beam floor (1.5 points);
- (b) A gas resistant membrane with validation in accordance with CIRIA C735 (2 points);

Gas protection measures should be installed as shown on MCK Associates Limited House Type Standard Details for block and beam floors with a suspended ventilated floor slab and gas membrane, as presented in Annex I and in accordance with the manufacturer's specification as presented in Annex IV.

Upon completion of the required mitigation measures, proof of verification will be presented in a standalone verification report or plot specific reports.

GAS MITIGATION VERIFICATION

The appointed groundworks contractor (DXI) constructed the substructure in accordance with the required specification with the gas membranes installed by a qualified and experienced installer (SPS Substructure Protection Ltd).

EDGE attended site on the 21st of May 2025 to verify plots 87 to 90 (which were the first plots installed with mitigation measures), the 16th of June 2025 to verify Plots 1,2, 60 to 64 and 80 to 85 and the 16th of July 2025 to verify Plots 69 to 75.

EDGE were satisfied with the quality of the membrane installation by SPS in these plots and were therefore satisfied that SPS could self-verify the remaining plots, as per Annex 1 of CIRIA 735 (2014) which states that for Situation B (low rise housing with ventilated void) with Low Risk / Amber 1 protection measures:

'Verifier (consultant or third party qualified and experienced installer) to conduct thorough verification (visual) inspection of first plot and after placement of reinforcement if no protection provided. Subsequent inspections carried out at approx. frequency of 1 in 20 plots. Contractor to supply sign off sheets (verification evidence) including photographs for all other plots. Consideration given to need for/scope of integrity testing if concerns identified by visual inspections.'

A copy of the gas membrane specification utilised is presented in Appendix IV with the required sub structure and gas protection measures for the standard house type presented as MCK Associates Drawing No SD-125 Rev B in Appendix I.

EDGE's gas protection validation record sheets and validation certificates are presented in Appendix II. The gas membranes in Plots 3 to 59, 65 to 68, 76 to 79 and 86 were validated by SpS Substructure Protection Ltd whose certificates of installation / sign off sheets are presented in Appendix III.

CONCLUSIONS

In accordance with the requirements set out in the remediation strategy, EDGE has undertaken the inspection and validation of the gas mitigation measures at the new Hive Homes development located at School Street, Radcliffe.

EDGE are satisfied that the gas mitigation measures have been installed with the requirements of the remediation strategy.

EDGE accept no liability for the accuracy or content within the supplied third-party reports.

We trust the above is to your satisfaction. Should you require any further information, please do not hesitate to contact the undersigned.



On behalf of EDGE Consulting Engineers

28/09/26

Date

Annex I	Drawings
Annex II	EDGE Gas Protection Validation Record Sheets and Validation Certificates
Annex III	SPS Validation Record Sheets
Annex IV	Gas Barrier Membrane Datasheet