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Our Ref: E22/7944/MD/006

Date: 3 July 2025

FAO Helen Davies
HDavies@Branchwater-Developments.com

Dear Madam,

Re: Proposed development off Moor Lane, Gomersal for Binks Executive Homes

Further to the initial site investigation works, as detailed in report "Geo-Environmental Ground Investigation Report on Proposed Residential Development at Land off Moor Lane, Gomersal Ref E22/7944/R001 dated August 2023", further rotary borehole investigation works were requested by the client to better determine the extent of underlying historical shallow mine workings requiring treatment at the above development. Please find below and attached our findings in relation to these additional investigation works.

1. FIELDWORK

1.1 The fieldwork comprised of three boreholes located in the east of the site at locations agreed with Rogers Geotechnical Services. The locations of the boreholes are indicated on Drawing E22/7944/03/04 attached to the rear of this letter.

1.2 Due to the proximity of the existing residential properties to the proposed boreholes, they were undertaken using water flush methods as agreed with the Mining Remediation Authority. Materials encountered within the boreholes were examined and categorised and the logs are attached to the rear of this letter.

2. RESULTS OF THE INVESTIGATION

2.1 All three boreholes proved 0.3m of topsoil overlying 3.3-3.9m of brown clay with a mudstone bedrock encountered at 3.6-4.2m below existing ground levels. In only the westernmost borehole B3, a layer of siltstone was encountered at 25.8m below existing ground levels.

2.2 In the easternmost borehole B1, a 0.2m thick intact coal seam was encountered within the clay strata at 1.7-1.9m. In B2 and B3, two intact 0.2-0.3m thick coal seams were recorded within the mudstone strata at 5.6-6.3m and 8.9-9.7m below existing ground levels. The upper coal seam was deeper towards the west, while the lower coal seam was deeper towards the east. These coal seams showed no sign of workings, and it is considered unlikely they would have been worked beneath the site due to the thin nature of the seam and the depths they were encountered.

2.3 In all three boreholes, 2.1-3.2m of broken ground was recorded at depths of 25.5-29.8m below existing ground levels, indicating that historic extraction of a coal seam had been undertaken at this depth. There was 21.1-22.6 of competent rock cover recorded above the workings, discounting the shallow coal seams.

3. CONCLUSIONS

3.1 In the original site investigation works, an intact 2m thick coal seam was proved in the east of the site at a depth of 21.0-23.0m below existing ground levels. The additional boreholes undertaken on site as part of this investigation have proven over ten times the seam thickness of competent rock cover over the workings from plot 3 westwards.

3.2 It is therefore recommended that stabilisation works in the form of drilling and grouting on a 3x3m grid beneath the easternmost two properties is undertaken, where the coal seam/workings were shallowest. The stabilisation works should be undertaken from east to west, with a review of the drill logs and grout takes undertaken as each property is completed to confirm if the stabilisation works need to extend beneath properties further westwards.

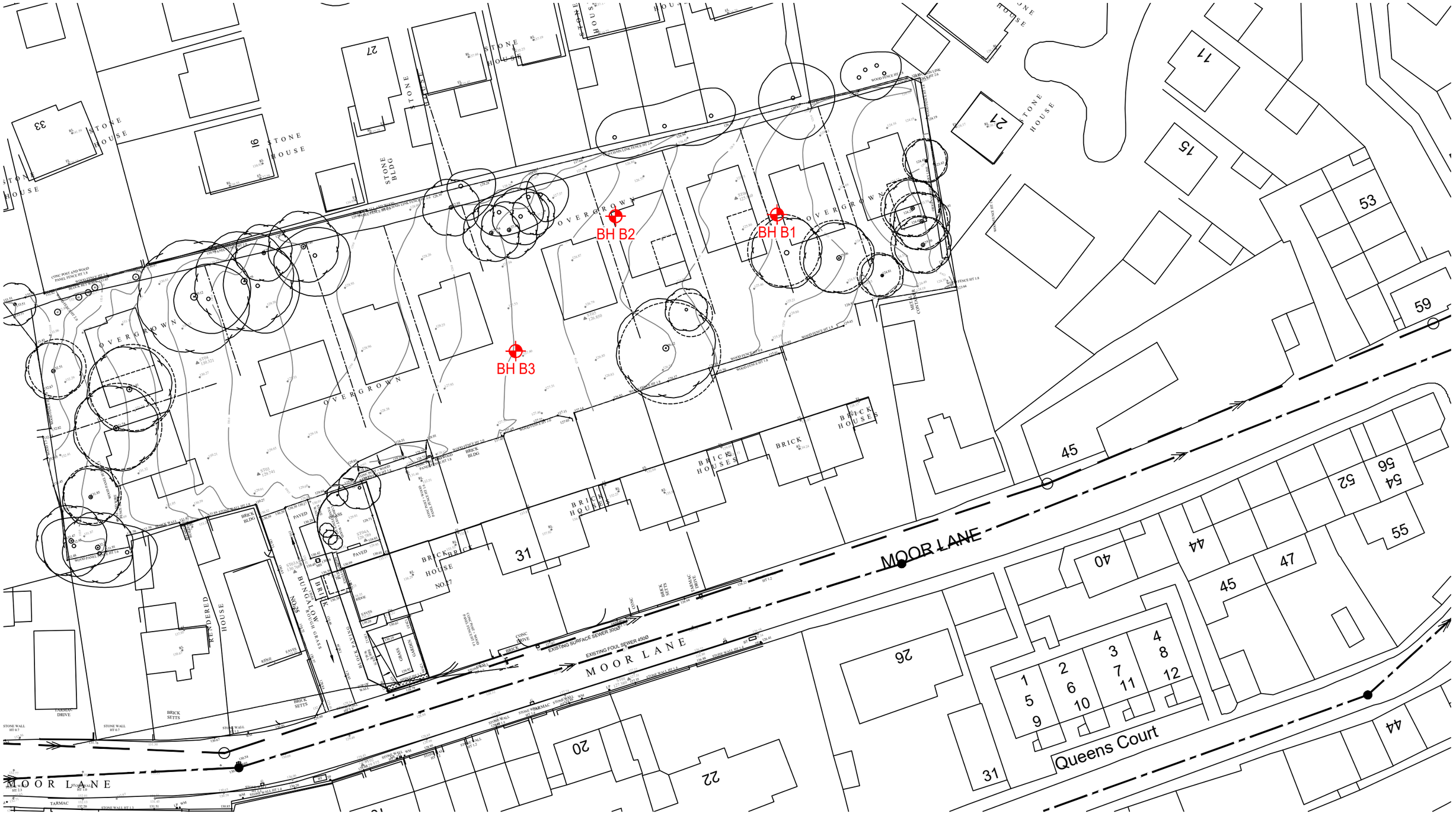
3.3 Following completion of the stabilisation works, a validation report should be prepared confirming that the treatment works have been completed satisfactorily. As the treatment works will intercept/disturb Mining Remediation Authority interests a permit will need to be applied for to undertake the works.

We trust that the above is sufficient for your current requirements, however should you need any further information please do not hesitate to contact me direct.

Yours faithfully,

MICHAEL DEAN

Enclosure.



Rev B Borehole names amended 03.07.25 MD
Rev A Amended to suit RGS comments 09.06.25 MD

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Client: Binks Executive Homes

Project: Moor Lane, Gomersal

Detail: Additional Proposed Borehole Plan

Scale	Dwn	Chkd	Date	Dwg No.
1:500@A3	MD		May'25	E22/7944/03/04B

Firth Buildings,
99-101 Leeds Road,
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Equipment & Methods	**Client: BINKS EXECUTIVE HOMES** **Site: MOOR LANE, GOMERSAL**
BOREHOLE No. B1 **Co-ordinates:**	**Ground Level** **Date: 19.06.2025**

Description	Reduced Level	Legend	Depth (thick)	Sample/Tests				
				Depth	Sample Type	Sample No.	Test	
Top Soil			0.3 (0.3)					
Brown Clay			1.7 (1.4)					
Coal			1.9 (0.2)					
Brown Clay			4.2 (2.3)					
Grey mudstone			23.9 (19.7)					
Solid – No flush (Assumed mudstone)			25.5 (1.4)					
Broken Ground			28.7 (3.2)					
Solid (Assumed mudstone)			31.0 (2.3)					

Remarks	Logged by
	Scale
	FIG

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Equipment & Methods	**Client: BINKS EXECUTIVE HOMES** **Site: MOOR LANE, GOMERSAL**
BOREHOLE No. B2 **Co-ordinates:**	**Ground Level** **Date: 18-19.06.2025**

Description	Reduced Level	Legend	Depth (thick)	Sample/Tests				
				Depth	Sample Type	Sample No.	Test	
Top Soil			0.3 (0.3)					
Brown Clay			3.6 (3.3)					
Grey Mudstone			5.6 (2.0)					
Coal			5.8 (0.2)					
Grey Mudstone			9.4 (3.6)					
Coal			9.7 (0.3)					
Grey Mudstone			25.1 (15.4)					
Grey Mudstone Kept losing flush			26.4 (1.3)					
Broken Ground			29.0 (2.6)					
Solid (Assumed mudstone)			31.5 (2.5)					

Remarks	Logged by
	Scale
	FIG

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Equipment & Methods	**Client: BINKS EXECUTIVE HOMES** **Site: MOOR LANE, GOMERSAL**
BOREHOLE No. B3 **Co-ordinates:**	**Ground Level** **Date: 18.06.2025**

Description	Reduced Level	Legend	Depth (thick)	Sample/Tests				
				Depth	Sample Type	Sample No.	Test	
Top Soil			0.3 (0.3)					
Brown Clay			4.2 (3.9)					
Grey Mudstone			6.0 (1.8)					
Coal			6.3 (0.3)					
Grey Mudstone			8.9 (2.6)					
Coal			9.2 (0.3)					
Grey Mudstone			25.8 (16.6)					
Siltstone			26.7 (0.9)					
Broken Ground Lost flush			29.8 (2.1)					
Solid			31.5 (1.7)					

Remarks	Logged by
	Scale
	FIG