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316/318 Middle Road

Intrusive Coal Mining Assessment

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Project: 316/318 Middle Road Intrusive Coal Mining Assessment

Client: Paul Wiper

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Appendix A Proposed Development Plan and Exploratory Hole Plan

Appendix B Rotary Open Hole Logs

Disclaimer

This report was produced by RB Geotechnical for Paul Wiper (The client), for the specific purpose of an Intrusive Coal Mining Assessment for the proposed residential re-development at 316/318 Middle Road in Dewsbury, West Yorkshire. This report may not be used by anyone else other than the client without their express permission. In any event, RB Geotechnical accepts no liability for any costs, liabilities or losses arising from the use of reliance upon the contents of this report by anyone other than the client

1.0 Introduction

RB Geotechnical was commissioned by the client to carry out an Intrusive Investigation for the proposed development at 316/318 Middle Road in Dewsbury, West Yorkshire. The purpose of this assessment is to identify whether any risks of unrecorded mine workings exist beneath the site.

1.1 Aims and Scope

The principal aims of this Intrusive Coal Mining Assessment is to interpret the information obtained from an intrusive ground investigation carried out on the site on 6th August 2024.

Upon assessing the above information, this report will give recommendations as to whether any form of remedial works will be required to alleviate the risk posed by any (if encountered) mine workings or evidence of mine workings.

1.2 Terms and Conditions

This report has been prepared for Paul Wiper to allow for an assessment of potential mine workings beneath the site of 316/318 Middle Road in Dewsbury, West Yorkshire.

1.3 Constraints and Limitations

This report is intended for Paul Wiper for the purpose of assisting them in assessing the site for possible coal mine workings.

RB Geotechnical has endeavoured to assess all information provided to them. The report includes summaries of information from external sources and cannot offer any guarantees or warranties for the completeness or accuracy of information relied upon. The recommendations summarised in this report

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relate to the re-development proposal on site for new apartments. Any substantial changes to the intended use of the site may require a reassessment of the implications of the risks identified and a review of the findings.

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

It should be noted that although every effort has been made to ensure the accuracy of the data obtained from the investigation, the possibility exists for variations in ground conditions between and around the borehole locations.

1.4 Sources of information

The following sources were used for this assessment:

- Rotary Open Hole Borehole Logs, August 2022 – Appendix B
- MDJA Coal Mining Risk Assessment, for 316/318 Middle Road, Dewsbury, Report Number 3891, February 2019.

Although every effort has been made to ensure the accuracy of any of the third-party information contained herein, no checks have been carried out to ensure the accuracy of information obtained from third parties and no liability can be accepted for any errors or misinterpretation of the third party information where it has been incorporated into this report.

2.0 Site Details

2.1 Site Location and Description

The site is situated to the rear of 316/318 Middle Road in Dewsbury, West Yorkshire. It currently comprises a pair of semi-detached houses with a lawned garden behind. The gardens are at a lower elevation to the houses and Middle Road. The National Grid Reference for the centre of the site is 425370, 421170.

2.2 Proposed Development

The proposed development comprises the construction of new apartments in place of 316/318 Middle Road, and an additional apartment in the current gardens of 316/318 Middle Road. Proposed development plan is shown in Appendix A.

3.0 Existing Information

3.1 Desk Based Coal Mining Risk Assessment

MDJA carried out a Coal Mining Risk Assessment for the site in February 2019. This Risk Assessment identified the site as being underlain by bedrock of the Pennine Middle Coal Measures, Mudstone, Siltstone. It states that the Joan Coal outcrops along the line of Middle Road and the Flockton Thick Coal outcrops to the West of the site.

No former adits or shafts are mapped within 20m of the site boundary. The Coal Mining Risk Assessment concluded that the Flockton Thick Coal may be present at depths of around 15m to 18m beneath the site. This seam is known to have been widely worked in the local area and it was deemed necessary to carry out an intrusive investigation to assess for the potential presence of this coal and/or any workings beneath the site.

4.0 Intrusive Coal Mining Ground Investigation

An Intrusive Investigation was carried out on the site on 2nd August 2024, comprising two Rotary Open Hole Boreholes, labelled RO1, and RO2 (undertaken by Cape Site Services Ltd). The exploratory hole location plan is shown in Appendix A and full Rotary Open Hole Borehole Logs are included as Appendix B.

4.1 Rotary Open Holes

Two Rotary Open Hole boreholes were carried out across the proposed development site. Upon using this drilling method, whereby a water flush is utilised, it ensures that there is no danger should mine gas be encountered. This drilling method is used to identify a void or mine working, whereby a sudden loss of water flush is encountered during drilling. Where voids or mine workings are not encountered, the water flush would continue to flow into the borehole at a generally consistent rate. Table 4.1 shows a summary of the findings of the Rotary Open Hole Drilling.

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Note *: CIRIA (Construction over abandoned mine workings, 1989), suggests a thickness of solid rock through which a void can migrate is 7h to 10h above the roof of the workings, where h is the height of the workings (generally assumed to be similar to the seam thickness). The lower end of this range (7h) is generally only applicable where the overlying strata are predominantly thickly bedded sandstones, which are not typical of this site. Therefore the 10h rule should be used.

Table 4.1 shows in both Rotary Open Hole borehole R01 and R02, bedrock was encountered at depths of 2.70mbgl (metres below ground level) and 2.50mbgl respectively, with the shallowest coal seams encountered at 7.20mbgl and 7.0mbgl. This Coal was found to be solid and intact, as was the deeper coal seam encountered at 8.30mbgl and 8.20mbgl respectively. There was no evidence of loss of flush or workings within these coal seam nor throughout the remainder of the boreholes to the full depth of 30.0mbgl. No remedial measures will therefore be necessary.

Table 4.1 Summary of Rotary Open Hole Findings

Borehole ID		R01	R02
Final Depth (mbgl)		30.00	30.00
Depth to Rockhead (mbgl)		2.70	2.50
Coal Seams	Depth (mbgl)	7.20	7.00
		8.30	8.20
	Thickness (m)	0.50	0.50
		0.20	0.20
10 x Competent Cover (CIRIA 1989)*		YES	YES
Evidence of Ground Gases		NO	NO
Loss of flush	Depth (mbgl)	NOT ENCOUNTERED	NOT ENCOUNTERED
	Thickness (m)	NOT ENCOUNTERED	NOT ENCOUNTERED

VOID	NOT ENCOUNTERED	NOT ENCOUNTERED
Other Information	No loss of flush encountered during drilling. No evidence of mine workings	No loss of flush encountered during drilling. No evidence of mine workings.

Full Rotary Open Hole borehole logs are presented in Appendix B.

5.0 Foundations Recommended

The absence of voids or evidence of mine workings beneath the site indicates that no remedial measures will be necessary related to mine workings or voids.

Due to the nature of the site at the crest of a slope, and the adjacent slopes, it is likely that piled foundations will be required into the underlying bedrock in order to prevent any potential stability hazards. It is recommended that a suitably qualified structural engineer design any foundations for the proposed development, taking into account the potential hazards posed by its location and the surrounding topography.

All foundations must be inspected to ensure that no footings are placed upon any existing weak Made Ground, softer soils or any other weak materials that would be incapable of safely sustain the applied foundation loads. This is particularly important wherever any appreciable amounts of Made Ground occur. Additionally, all foundation excavations should be inspected to confirm that the proposed bearing stratum is rid of any largely clayey spots and is uniformly compacted.

6.0 Conclusions and Recommendations

The exploratory holes undertaken across the site identified bedrock at depths from 2.50mbgl, with the shallowest coal seam at depths from 7.0mbgl with a thickness of 0.50m. An additional coal seam was encountered at around 8.0mbgl with a thickness of 0.20m. The coal seam was not found to be worked and there was no other evidence of workings throughout the boreholes.

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RB Geotechnical can therefore confirm that the risk of possible unrecorded mine workings beneath the site that could affect the proposed development is deemed to be Low. No further soil or ground remedial measures are deemed necessary related to possible past mining activity.



**Rotary Open Hole
Boreholes**



