

Appendix F. Geotechnical Risk Register

This geotechnical risk assessment is based on a qualitative assessment of the likelihood that a hazard may occur factored by the resulting effect in terms of programme and cost. The findings are presented in Table F.4, and are summarised in the text of this report. It should be noted that the potential hazards and mitigation measures are generic with the risk scoring being site specific.

The likelihood that a given hazard will occur and the relative effect are judged on qualitative scales given in Tables F.1 and F.2 respectively:

Table F.1: Hazard Probability Scales

Scale	Likelihood	Chance
5	Almost certain	> 75%
4	Probable	50-75%
3	Likely	25-50%
2	Unlikely	1-25%
1	Negligible	< 1%

Table F.2: Hazard Consequence (Effect) Scales

Scale	Relative Effect (Increase of cost or time)
5	Very High
4	High
3	Medium
2	Low
1	Very Low

To obtain a degree of risk for a particular ground hazard, the results of Table F.1 are multiplied by Table F.2 to obtain a risk level given in Table F.3.

Table F.3: Risk Level

Risk Score	Risk Level
1 – 3	Negligible
4 – 7	Low
8 – 11	Medium
12 – 15	High
> 16	Very High

In Table F.4, the various ground risk features identified in the desk study have been assessed and assigned a risk score and risk level, in accordance with the above scale. Recommended actions have then been identified for those features falling into the Medium, High or Very High risk level categories. This is considered appropriate for a feasibility level study.

Table F.4: Risk Levels for Site-Specific Features

Geotechnical Risk	Risk Level	Action
Poor ground conditions – potentially deep made ground	6 (Low)	Ground investigation
Underground Services/ Buried Structures	12 (High)	Obtain services plans/ services survey
Shallow Groundwater	6 (Low)	Provide adequate drainage / ground investigation
Dissolution cavities within the white chalk	6 (Low)	None
Unexploded Ordnance (UXO)	8 (Medium)	Further UXO Desk Study/ Undertake UXO survey/ Toolbox talk/ UXO specialist
Past Mining Activities	3 (Negligible)	None