

General Note:

During the design stages of a project, designers are required to maintain a “**Hazard Elimination Checklist**” (part B of this document). The ‘checklist’ records the various significant (high risk) hazards identified by the designer(s) and, where they have been able, details of how they have been eliminated.

It is recognised that not every hazard can be ‘designed out’ and therefore the checklist will also be used to record the residual risks of which the designer(s) are aware.

The checklist provides an audit trail of the design process and may also be used as evidence in the event that a designer is required to defend his or her actions in any HSE investigation.

Copies of parts A and B should be passed to all members of the project team, especially the Principal Designer.

Reference must also be made to [GG104 Standard for Safety Risk Assessment](#)

Part A: Designer's Hazard Checklist

Project Title:	A303 Cheshays Hill WB MP224.0 Geo	Kier Highways Job No.:	570127
Project Description:	Ground investigation comprising trial pits in the lower batter of the cutting		
Design Discipline:	Geotechnical		
Project Type as determined by GG104 (if applicable)	N/A	Prepared By:	[REDACTED]

Notes:

1. This section of the document includes a list of potential hazards pertaining to a wide range of situations which may occur across Kier Highways' activities. *Where particular categories do not ordinarily affect the scheme,*
2. An individual item or a whole section (by ticking the heading) can be noted as not applicable showing you have considered the hazard area and judged it to be not applicable.
3. The list of potential hazards is not exhaustive, and all sections can be added to, or additional sections added, as required. Reference to the Approved Code of Practice may be helpful.
4. All items considered by the designer as having a potential high risk must be addressed on the 'Hazard Elimination Management Schedule'. Low risk activities can also be included if considered appropriate.
5. Consideration must be given to all populations that may be affected as follows -

Population 1 – People directly employed by the Client and who work on the site e.g. Traffic Officers.	'Workers'
Population 2 – People in a contractual relationship with the client.	
Population 3 – Other parties, including road users, the police and emergency services and non-motorised 'Users' such as equestrians, cyclists and pedestrians, as well as those others not in a contractual relationship with the client, such as privately contracted vehicle recovery and vehicle repair providers.	'Users'
Population 4 – Third parties includes any person or persons who could be affected by the works, but who are neither using it, nor working on it, i.e. living or working adjacent to the site.	'Other Parties'

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
1.	Existing Environment				
1.1	Existing buildings	✓			No buildings on site
1.2	Previous/existing land/ structures		✓		Originally greenfield site; now engineered cut slope
1.3	Roadways			✓	Three lane section of trunk road in bottom of cut
1.4	Railways	✓			
1.5	Water course	✓			
1.6	Ground conditions:				
	• Contamination		✓		Greenfield site
	• Ground water		✓		Seepage from berm drain and groundwater strikes may be encountered
	• Instability			✓	Shallow instability recorded on slope – tracked machine to access up batter
	• Mineral / mine workings	✓			
1.7	Access restrictions			✓	Access from trunk road at toe
1.8	Adjacent properties		✓		
1.9	Concurrent site activities	✓			
1.10	Interface with the public			✓	Only in relation to working from trunk road and interface with TM
1.11	Structural instability	✓			
1.12	Fragile materials	✓			
1.13	Hazardous materials	✓			
2.	Existing Services				
2.1	Underground				
	• Electrical	✓			
	• Gas	✓			
	• Water (Asbestos pipes?)	✓			
	• Telecommunications	✓			
	• Motorway comms	✓			
	• Highway drainage			✓	Tracking over filter drain
2.2	Overhead Services	✓			
3.	Ground Investigation				
3.1	Access			✓	Access from three lane trunk road

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
3.2	Slope / ground stability			✓	See 1.6
3.3	Protected species/soft estate			✓	Bird nest and Dormouse potential
3.4	Confined spaces	✓			
3.5	Noisy operations		✓		
3.6	Night working			✓	Night working may be required on trunk road so shift working requires control
3.7	Working on slope/Trips and falls			✓	Trial pits to be undertaken on 1:2.5(v;h) batter and requires personnel to access batter
3.8	All weather working			✓	Welfare to be made available on site
3.9	Manual handling			✓	Soil sampling
4.	Foundations	✓			
5.	Services Installation	✓			
6.	Drainage Works	✓			
7.	Highways	✓			
8.	Steelwork Construction	✓			
9.	Concrete Construction	✓			
10.	Masonry Construction	✓			
11.	Timber Construction	✓			
12.	Cladding	✓			
13.	Glazing	✓			
14.	Mechanical/Electrical Systems	✓			
15.	Railway Activities	✓			
16.	Demolition of Existing Structures	✓			
17.	Future Demolition / decommissioning of new structure/installation	✓			
18.	Maintenance and Operation of Facility / Structure etc.	✓			
19.	Use of the structure as a workplace				
19.1	Does the proposed use of the structure / premises include the intention for it to be made available to any person as a place of work	✓			
19.2	If yes; the design and materials used must take in to account the provisions of the Workplace (Health, Safety and Welfare) Regulations 1992	✓			

Part B: Hazard Elimination Checklist

Project Title:	A303 Cheshays Hill WB MP224.0 Geo	Kier Highways Job No.:	570127
Project Description:	Ground investigation comprising trial pits in the lower batter of the cutting		
Design Discipline:	Geotechnical	Prepared By:	Simon Chown
		Checked By:	Damien Le Gal

Note: If GD04 applies to your contract, the checklist must be approved by an appropriate person: For a Type A project the Scheme PD must approve, for a Type B projects the Senior Manager must approve and for a Type C project the Kier Highways Service Director must approve.

Reviewed and approved by:

Name	
Signature	
Position	

* **Persons at Risk:** (1) Workers (2) Users (3) Other parties

** **Action by:**
 Principal Designer – Include within the H&S file
 Designer – include in the pre-construction information
 Principal Contractor – manage risk during the construction phase
 Other designer – take into consideration when preparing their designs
 Client – pass information to designers / Principal designer

Ref.	Activity	Hazard	Persons at Risk *	Design Measures taken, or being taken to eliminate or reduce the hazard	Information on the Residual Risk	Principal Designer Review	Action Req'd by: **
1.3, 1.7, 1.10 3.1	GI fieldwork	Working adjacent to live traffic	1, 2	None - only feasible access is from trunk road and appropriate TM will be required	Decision on TM layout to be provided is responsibility of Highways England TM constraints may result in night working (see below)	No further comment	HE survey Team/ Principal Contractor
1.6, 3.2, 3.7, 3.8	GI fieldwork	Unstable cutting slope	1	Trial pit locations have been set so that tracked excavator will access from toe of slope where the risk of instability is lower. Overall slope is 1:2.5 which is relatively flat	Selection of plant with long reach may impact on the TM required.	No further comment	Principal Contractor



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Ref.	Activity	Hazard	Persons at Risk *	Design Measures taken, or being taken to eliminate or reduce the hazard	Information on the Residual Risk	Principal Designer Review	Action Req'd by: **
2.1	GI fieldwork	Damage or stone scatter as a result of tracking over filter drain	1,2	Specification will require contractor to use track mats	ALARP	No further comment	Principal Contractor
3.3	GI fieldwork	Damage to protected species/soft estate	3	Trial pits located away from trees/shrubs Areas of trial pits to be strimmed under supervision of ecologist. Geotextile matting or similar to be used to minimise impact of temporary stockpiling of arisings	ALARP	No further comment	Principal Contractor
3.6	GI fieldwork	Night working as a result of TM constraints	1	None - only feasible access is from trunk road and appropriate TM will be required	Lighting casting shadows and hiding slip/trip hazards. Swapping from day to night shift and vice versa	No further comment	Principal Contractor
3.8	GI fieldwork	Working in winter	1	None – timing of works dictated by programme and other surveys	Cold/wet – welfare required	No further comment	Principal Contractor
3.7, 3.9	GI fieldwork	Handling of bulk soil samples on slope	1	None – soil samples are required for design of remedial works	Injury to personnel from slips/trips	No further comment	Principal Contractor
		Trial pitting and logging of material/pit	1	None -trial pits have been chosen over boreholes as cost of mobilising a slope climbing rig with the need for temporary anchors was too high and the trial pits will provide a better understanding of the ground conditions	Injury form personnel as a result of collapse of trial pits	No further comment	Principal Contractor