

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 Requirements for safety risk assessment.

Part A: Designer's Hazard Checklist

Project Title:	A36 St Pauls to Skew Bridge Lighting	Kier Highways Job No.:	570129C
Project Description:	150mm Diameter cores, trial pits and DCP testing within carriageway and footway		
Design Discipline:	Kier Highways		
Project Type as determined by GG104 (if applicable)	A	Prepared By:	██████████

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, **Part A should be edited/sections deleted to more accurately reflect the work carried out.***
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		✓		Existing residential and Industrial properties present adjacent to the survey throughout entire scheme extents.
1.2	Previous/existing land/ structures		✓		
1.3	Roadways		✓		
1.4	Railways		✓		Over bridge and underbridge railway tracks within scheme extent unaffected by works
1.5	Water course	✓			
1.6	Ground conditions:				
	• Contamination	✓			Not known currently
	• Ground water	✓			Not known currently
	• Instability	✓			Not known currently
	• Mineral / mine workings	✓			Not known currently
1.7	Access restrictions		✓		Access to residential properties needs to be maintained
1.8	Adjacent properties		✓		Residential properties within scheme extents
1.9	Concurrent site activities	✓			
1.10	Interface with the public			✓	Working on public highway. Survey will be carried out on a live footpath, Communication may be required to keep public aware of works.
1.11	Occupied premises		✓		
1.12	Structural instability	✓			Not known currently
1.13	Fragile materials	✓			Not known currently
1.14	Hazardous materials	✓			Not known currently
1.15	Land use		✓		Mix of urban and rural
1.16	Traffic			✓	Working adjacent to carriageway – TM required
1.17	Others (insert as necessary)				
2.	Existing Services				
2.1	Underground		✓		Works are non-intrusive and will not affect underground cables.

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
	<ul style="list-style-type: none"> Electrical 		✓		Within scheme extent survey to locate services
	<ul style="list-style-type: none"> Gas 		✓		Within scheme extent survey to locate services
	<ul style="list-style-type: none"> Water (Asbestos pipes?) 		✓		Within scheme extent survey to locate services
	<ul style="list-style-type: none"> Telecommunications 		✓		Within scheme extent survey to locate services
	<ul style="list-style-type: none"> Others (Street lighting cables) 		✓		Within scheme extent survey to locate services
2.2	Overhead Services				
	<ul style="list-style-type: none"> Electrical 		✓		Overhead electric cables present within area of works.
	<ul style="list-style-type: none"> Telecommunications 		✓		Overhead telecom cables present within area of works
	<ul style="list-style-type: none"> Others (insert as necessary) 				
3.	Earthworks	✓			
3.1	Deep excavations		✓		Deep excavations not anticipated. Excavation to be assessed by competent persons
3.2	Slope / ground stability		✓		Slope / ground stability to be assessed by competent person
3.3	Ground water / water courses		✓		Ground water not anticipated
3.4	Plant movements	✓			
3.5	Interface with services (refer 2)			✓	Multiple services in works area. Excavations to be hand dug with insulated tools
3.6	Contamination (ground / water) (refer 1.6)	✓			
3.7	Adjacent structures (refer 1.8)		✓		Depth of excavations considered to not impact upon adjacent structures, to be assessed by competent person
3.8	Others (insert as necessary)	✓			

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
4.	Foundations	✓			
5.	Services Installation	✓			
6.	Drainage Works	✓			
7.	Highways				
7.1	Traffic management			✓	TM to Chapter 8
7.2	Adjacent traffic			✓	Adjacent to live carriageway
7.3	Construction materials	✓			
7.4	Structural works		✓		Backfill
7.5	Adjacent structures		✓		CDM risk on drawing
7.6	Noise	✓			
7.7	Vibration	✓			
7.8	Coal TAR in pavement	✓			
7.9	Others (insert as necessary)				
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				

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
18.	Maintenance and Operation of Facility / Structure etc.	✓			
19.	Use of the structure as a workplace	✓			

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As part of our systems review, this document is valid until: April 2020		



Part B: Hazard Elimination Checklist

Project Title:	A36 St Pauls to Skew Bridge Lighting	Kier Highways Job No.:	570129C
Project Description:	150mm Diameter cores, trial pits and DCP testing within carriageway and footway		
Design Discipline:	Kier Highways	Prepared By:	██████████
		Checked By:	██████████

Note: If GG104 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:



* Persons at Risk: (

- ** 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	Working adjacent to live traffic	Operatives/ plant being struck by moving vehicle using the carriageway	(1),(2), (3), (4)	Possible use of traffic management when operative is next to/on the highway, decision to be made by TM contractor/specialist.	Risk will still remain after measures taken, but likelihood will be reduced.	No further comment.	PC



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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	Pedestrians/cyclists moving through sites	Conflict between operative and non motorised users on the footway/verge	(1),(2), (3), (4)	Separate and secure paths to be designated to provide pedestrians with a safe path around works.	Likelihood will be reduced	No further comment.	PC
3	Excavation trial pits	Collapse	1	Excavation to be assessed by competent person and supports to be used as required	Risk reduced	No further comment.	PC
4	Drilling / Excavating trial pits	Service Strike	1, 2, 3	Locate services prior to drilling	Risk reduced	No further comment.	PC
5	Noise from works	Danger of exceeding acceptable noise levels, damage to hearing, inability to hear warnings	(1)	Hazard cannot be designed out, due to type of works but noise limits and actions required included in Specification. CWF Contractor to ensure proper monitoring of noise levels throughout the works.	CWF Contractor to ensure that operatives are informed and trained. Monitoring of noise levels on site. PPE is the last resort.	No further comment.	PC
6	Walking over the footway/verges	Working on an uneven surface - slips, trips and falls	(1),(2), (3)	Surveyors to be made aware of the site conditions and appropriate PPE should be worn. Risk Assessments to be carried out prior to works by survey company.	Risk remains, but likelihood reduced	No further comment.	PC
7	Crossing of the carriageway	Getting struck by live traffic	(1),(2)	Make sure operatives are properly trained and competent, use existing crossing wherever applicable. Ensure the operatives carry out the risk assessment prior to works, especially working next to high speed roads.	Risk remains, but likelihood reduced	No further comment.	PC