	Potential Hazards Arising From:		t designer's e gement meas		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
18.3	Testing / inspection				
18.4	Procedure				
18.5	Contamination during usage of demolition material.				
18.6	Others (insert as necessary)				
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				
					~

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Part B: Hazard Elimination Checklist

Project Title:	570131D Priority VRS VM Development Batch 1 – 607 – M5 J25-26 BD MP 207.5 – 217.5 VRS Ki	er Highways Job No.:	570131D-607
Project Description:	This DHIRRS is specifically prepared for the proposed survey works within the central reserve, includ within the site extents. The survey works will include; - Topographical Survey - Topographical Survey - Drainage surveys including, manholes surveys and CCTV surveys of pipework. - Duct Survey - Trial Pits - Cores (including Dynamic Cone Penetrometer) - Asbestos management / refurbishment survey Refer to survey drawings; HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010001 to 010011 This scheme stretches across the following chart sections; - 3300M5/510 SB Ch47m - Ch585m (538m) - 3300M5/515 SB Ch0m - Ch1000m - 3300M5/530 SB Ch0m - Ch1000m - 3300M5/540 SB Ch0m - Ch1000m - 3300M5/558 SB Ch0m - Ch1340m - 3300M5/590 SB Ch0m - Ch170m - 3300M5/590 SB Ch0m - Ch1340m - 3300M5/590 SB Ch0m - Ch335m	ling lane 3 in both dire	ections of the M5
Design Discipline:	Highways – Renewal of Roads Prepared By: Jose Brito	Checked By:	Gavin Reed

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.



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Business Stream Form:		High	Highways Designer's Hazard Checklist and Risk		isk Reduction Schedule		
Reviewed and a	approved by:						
* **		Principal Designer – Ir Designer – ir Principal Contractor – n Other designer – ta	nanage risk durin ake into conside	(3) Other parties = H&S file construction information ng the construction phase ration when preparing their designs 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: **

			*	hazard	Residual Risk	Designer Review	by: **
1.3 1.16 7.1 7.2	Roadways Traffic Traffic Management Adjacent Traffic	Working adjacent to live carriageway. Harm to operatives from public ignoring signage/TM.	1,2	Traffic management proposed to create a safety zone between work force and users. All work is to be undertaken using night time part route closures. TM design/set up is to ensure cone spacing prevents public access. An 'airlock' system should be in place to prevent unauthorised access.	The risk is reduced but still a residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack.	No further comment.	PC
1.2 7.5	Structures Adjacent Structures	Overbridges within works area. Height restrictions.	1	Location of overbridges are highlighted on the construction drawings. Refer to Appendix C in PCI for details. Contractor to obtain safe working heights prior to the start of the works.	The risk is reduced but still a residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	PC
2.1 2.2	Existing services underground. Existing services overground.	Operatives/ plant/ equipment striking existing underground and overground services.	1	Refer to STATS information for further details. Work to be carried out in accordance with HSG 47. Note the presence of all Statutory Undertakers services and mark	The risk is reduced but still a residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	D/PC



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Designer's Hazard Checklist and Risk Reduction Schedule

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: **
		~		them on ground prior to the start of the works.			
1.17 1.19 7.9 6.14	Night-time working Plant Movement Night-work Lighting	Poor visibility increasing risk of slips, trips and falls. Collision of site vehicles and site staff in darkness hours.		Suitable task or temporary lighting to be provided at all stages of the scheme works. Suitable PPE is to be worn at all times, including appropriate footwear/clothing for the tasks being carried out.	The use of temporary lighting reduces the risk to an acceptable level. Banksmen to be used for reversing vehicles where appropriate. All staff to wear appropriate PPE	No further comment.	PC
1.18	Asbestos	Exposure to ACMs	1	Previous AAP's show ACM's are presumed present in nearside verges within electrical boxes. However, asbestos materials are unlikely to be encountered as part of these works. A type 2 Asbestos management survey is due to be undertaken as part of these works. Suitable PPE is to be worn at all times.	A residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	PC
1.9	Concurrent site activities	Interface between contractors during different survey works activities.	1	Principal contractor to ensure different survey activities do not take place in the same areas at the same time to reduce the likelihood of accidents to workers in the works areas.	A residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	PC
6.5	Leptosirosis / Weils Disease	Workers exposed to Leptosirosis / Weils Disease during drainage survey works.	1	Suitable PPE is to be worn at all times.	A residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	PC



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Designer's Hazard Checklist and Risk Reduction Schedule

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: **
6.4	Confined spaces	Working in confined spaces during drainage survey works.	1	Suitable PPE is to be worn at all times. Contractor to look into possibility of avoiding the need for workers to enter into confined spacing in order to carry out the survey works. However if the works in confined spaced cannot be avoided then a risk assessment shall be carried out to ensure a safe system of working.	A residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	PC
N/A	All activities	Covid 19	AI	Contractors RAMS to incorporate government guidance on social/physical distancing	Risk remains however likelihood reduced	No further comment.	Principal Contract or & Contract ors

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Kier Highways Project No: 570131D Client Reference No: 570131D M5 J26 to J27 MP 225.6– 230.5

Pre-Construction Information

		Yes	No
Are	Works to be carried out under the Commission / Contract Health and Safety Plan?		
Not	applicable to Design Services Contracts, delete row if required		
Is th	e Scheme notifiable under the CDM Regulations 2015?		
1.	Last longer than 30 working days and have more than 20 workers simultaneously at any point in the project;		
2.	Exceed 500 person days	\checkmark	

 Project type as categorised by GG104 (if applicable to contract / delete in not required)
 A

 * If applicable GG104 will determine the Kier Highways minimum Scheme Principal Designer (Scheme PD) level.
 Refer to SHEMS-FOR-HIG-S-055 for GG104 type categorisation and minimum Scheme PD level.

 Type A projects the Design Team Lead, Type B projects the Senior Manager, Type C projects the Service Director.
 A

This document has been produced in accordance with the recommendations and requirements of the Construction (Design and Management) Regulations 2015.

Prepared by:		
Designer		
Reviewed by;		
Design Team Lead		
Beelgin realin Lead		
Accepted by:		
Scheme PD		

'Reviewed by' & 'Accepted by' can be the same person for GG104 type A projects (where the Design Team Lead is the Scheme PD)



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Site Specific Hazards Identified in Design					
<u>ONLY</u> include significant and unusual hazards that a competent contractor would need to know, could not reasonably foresee, or are likely to be difficult to manage effectively.					
Activity	Residual Hazard	Comments			
Trial Hole/ Core Survey Works	Conflict / risk of striking with STATS equipment. Working adjacent to live Services.	Indicative location of Statutory Undertakers Services (C2 Information) are shown on the Proposed Survey drawings for information only. No guarantee is given for its accuracy. Contractor should refer to Statutory Undertakers plans in the design information pack and undertake investigations prior to start of works to satisfy			
		themselves of the location of services.			
Traffic Management	Overhead Eletric Cables	There are overhead electric cables present within the area of the works. Location of overhead services are shown on the statutory undertakers and survey drawings.			
		Refer to Appendix E for more details.			
Night-time working	Poor illumination of work area. Reduced visibility of hazards and site operatives	Adequate lighting for nighttime working to be provided by the contractor. Banksman should be present to ensure safe movement of plant within the works.			
Drainage / manhole surveys	Working in confined spaces Potential asbestos presence	Suitable PPE is to be worn at all times. Contractor to investigate possibility of avoiding the need for workers to enter confined spacing in order to carry out the survey works. However, if the works in confined spaced cannot be avoided then a risk assessment shall be carried out to ensure a			
		Operatives should be mindful of the potential for asbestos to be present, and should keep disturbance of materials within the chambers to a minimum.			
All activities	Covid 19	Government guidelines on social / physical distancing to be incorporated into RAMS			



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1 Project Descr	Project Description						
Scope of Works							
225.6 - 230.5. Numer	The works comprise various testing of pavement, drainage and VRS systems along the M5 J26 to J27 MP 225.6 – 230.5. Numerous Surveys by various disciplines including but not limited to, pavement, drainage, structures, environmental, asbestos and highways will be carried out and are to be covered by this						
See Scheme Drawings	listed in curre	nt Document Issu	e Sheet or /	Арреі	ndix B		
Location							
See Location Plan liste	d in current Do	ocument Issue Sh	eet or Appe	endix .	Α.		
Drawing no. HE570137	ID-KIER-HRR-	M5_225.6_230.5	_CR-DE-CH	H-010	0- 01 to 05.		
Site Address	M5 J26 to J2	7 MP 225.6 – 230	.5				
Site Photographs							
56 No. VRS condition	photographs ha	ave been collated	within the d	deskto	op review packag	e, taken as	
screenshots from sour	ces such as A	/IS and Google Ea	arth.				
					1		
DSGR, MP or From 225.6 To 230.5							
Traffic Management							
Traffic Management arrangements: TBC							
Traffic Flows:							
· · · ·	2020 (WebTris) AADT NB = 23,078 (17.7%)						
2020 (WebTris) AADT							
Speed Limits: The exi (70mph).	sting speed lin	nit within the sche	me extents	is Na	itional Speed Lim	it for Motorways	
Cycle / bus Routes: T							
Traffic Management: Works will be undertaken with a night-time part carriageway/road closure.							
Emergency access: Access will be always required by emergency services through Traffic Management.							
Anticipated Working Hours, subject to Traffic Counts 20:00 – 06:00							
Mobilisation Period	Mobilisation Period TBC Anticipated TBC Anticipated TBC Anticipated TBC Start Date Start Date TBC End Date TBC TBC						



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3. Scheme Specific Requirements			
	Yes	No	Comments
A pre-start meeting will b	be mar	datory	,
Does an H&S file exist?		\checkmark	Vehicle Restraint System information is available in the project file together with vehicle restraint system condition survey
Site Welfare	\checkmark		Contractor will supply
Security / Segregation			Works are to be undertaken within Chapter 8 compliant traffic management. TM closures, no plant/equipment to be left on site overnight
Are there any other projects taking place in the vicinity?		\checkmark	Not at the time of compiling this pack
Are there any restrictions on vehicle			All site vehicles (incl. delivery vehicles) must abide by the TM requirements and regulations
movements?			1. enter and exit site from the dedicated points;
			2. Comply with the designated site safety speed limits;
			All vehicles within Traffic Management shall comply with the conspicuity requirements of Chapter 8.
Are there any			No deliveries to take place unless Traffic Management is in place.
restrictions on deliveries, waste			No waste shall be stored on site.
collection, or storage?			Waste Carriers Licence required
Are there any parking restrictions?			All vehicles and plant within the works area shall be parked in a safe area clear of access and egress points. All vehicles and plant shall be removed from the carriageway prior
			to removal of traffic management. No Private vehicles are allowed on site
Height Restrictions			Contractor to check C2 returns with apparatus present on site are present and correct, contractor to agree safe systems of work following consultation with all statutory undertakers and asset owners
Overhead Cables			The Principal Contractor shall measure and record the heights of any overhead power lines present before works commence. The legal minimum height of the overhead cable is 5.2m and 5.8m above roads in accordance with HSE Guidance Note GS6. The Principal Contractor shall develop appropriate method statement for undertaking works in the areas of any identified height restrictions
Structures			Contractor to consult affected structures listed in appendix C and check information supplied within package handover regarding height clearances required
Will fire precautions be required?	\checkmark		Suitable fire precautions shall be in place and in accordance with the Contractors hot works permit.
Are emergency procedures and means	1		The Contractor shall ensure that emergency procedure plans are in place and all staff have been inducted.
of escape required?	V		Nearest A & E hospital: Musgrove Park Hospital, Parkfield Drive, Taunton, Somerset, TA1 5DA. Tel No: 01823 333444

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K n	Health Environment
	It's in our hands

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3. Scheme Specific	3. Scheme Specific Requirements			
	Yes	No	Comments	
Are there any areas in or around the site classified as no-go areas?			No site personnel shall enter the safety zones or tapers within the extents of the traffic management unless trained and competent for installation/removal/maintenance of TM. Provision of minimum 20m Pedestrian worker Exclusion zone, behind and in front of Operating Road Sweeper to be in place. Sub-Contractor's Method Statements and Risk Statements shall contain suitable risk control to protect pedestrian workers and plant operators.	
Are there any noise restrictions?	V		Guidance and the Code of practice for Noise and Vibration control and be found clearly outlined in PPG 24 and BS5228:2014. If contractor feels the scope of the works will fall outside of the guidance offered within these documents, he is advised to apply for a Section 61 prior to the commencement of works.	
Are temporary works required?			N/A	
Are there any vibration restrictions?	\checkmark		Contractor to ensure limits for human response to vibration and cosmetic damage comply with guidance as clearly defined in BS5228:2014 Part 2. Contractor to ensure risk assessments and tool box talks are delivered to all staff and fully understood prior to work commencing.	
Are there any poor or hazardous ground conditions		V	N/A	
Are there any unstable structures?			N/A	
Are there any areas classed (existing or designed) classed as confined spaces?			Drainage surverys will be taking place.	
Are there any smoking restrictions?	V		No smoking is allowed on site. Designated smoking areas to be confirmed during site inductions.	
Any environmental constraints identified?			An assessment of impacts of concrete barriers will be required during detailed design	
			K,	



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Materials and Substances with Health and/or Safety Hazards

Asbestos

If Asbestos Containing Materials are found during construction, all works shall stop immediately and the area is to be isolated from the workforce. The Contractor must inform the Principal Contractor, who will then implement the necessary emergency response procedures in line with the Company policy.

Under no circumstances will the Contractor attempt to remove any Asbestos Containing Materials without prior consent from the overseeing organisation.

Lead

Scope of Works are unlikely to encounter lead. Consider existing paint coatings to bridge beams.

Tar based pavement/surfacing

Presence of tar is unknown in this location due to the lack of historic core data.

Leptospirosis/Weil's disease / Psittacosis Contact with highway drainage during works presents potential risk of Weil's disease. The Contractor is to ensure sufficient welfare facilities are in place at all times. All appropriate PPE must be worn at all times.

Any instances of illness / sickness on site should be reported to the Site Manager/Principal Contractor Representative immediately and the persons affected should seek medical advice.

Covid-19 pandemic

The Contractor is to ensure they are protecting their workforce and minimising the risk of spread of infection. They must comply with the latest Government advice on working safely during coronavirus covid-19 which is currently available at https://www.gov.uk/guidance/working-safely-during-coronaviruscovid-

19/construction-and-other-outdoor-work. Further guidance is given in the Construction Leadership Council's "Construction Sector – Site Operating Procedures". The latest version may be found at http://cic.org.uk/important-documents.php

The health and safety requirements of any construction activity must not be compromised. If an activity cannot be undertaken in line with social distancing being implemented, or by exception, safely, without risk and mitigating measures then it shall not take place.

Nr,



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4. Existing Services	Refer to STATS plans listed in Document Issue Sheet or Appendix C			
Statutory Undertaker	Not	Over	Under	Comments
-	Present	head	ground	
	s are ident	ified they s	noula be c	clearly marked on the scheme drawings
400/132kV [pylons]	N			
66kV	√			C2 Returns and drawings listed in
33kV		ν 		Appendix C
11kV		N	√	
240/415Volts				
Water (Foul and Potable)	1			
Public Foul	V			
Pressurised Foul	√			
Public Combined Gravity				C2 Deturns and drawings listed in
Pressurised Combined				C2 Returns and drawings listed in Appendix C
Culverted Watercourse			\checkmark	
Water Main	\checkmark			
Aqueduct		-		
Communications				
Communications			\checkmark	C2 Returns and drawings listed in
-			•	Appendix C
British Telecom If overheads of	ables are id	dentified the	ey should b	e clearly marked on the scheme drawings
British Telecom	(\checkmark	\checkmark	C2 Returns and drawings listed in Appendix C
National Grid				
National Grid				C2 Returns and drawings listed in Appendix C
Transco				
LP Mains		4	YX	
MP Mains			V	P
IP Mains	\checkmark			C2 Returns and drawings listed in Appendix C
LHP Mains				Appendix C
NHP Mains				
Government Pipelines	,			
Government Pipelines				
Fisher German Pipelines				
Fisher German Pipelines	\checkmark			
Energis				
Energis	\checkmark			
Motorway Communication				
Motorway Comms			\checkmark	C2 Returns and drawings listed in Appendix C
Street Lighting				
Street lighting			\checkmark	
Highway Drainage				
			\checkmark	C2 Returns and drawings listed in Appendix C
Other				

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5. Health and Safety file requirements

All information will be produced in an electronic format. The format of the electronic data issued is to be as follows: All documents and product data sheets are to be in PDF format, drawings are to be in PDF and AutoCAD DWG format.

The Principal Contractor shall collate all appropriate information as it becomes available, and this shall subsequently be collated in the File. The Principal Contractor is to implement an early procedure that advises contractors and materials suppliers of the detailed requirements for this record information. The health and safety file will be created and/or updated in accordance with the requirements of the IAN105/08.

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Appendix A - Location Plan

Refer to drawing no. HE570131D-KIER-HRR-M5_225.6-230.5_CR-DE-CH-0100-01-05.

Appendix B - Construction Drawings

See Document Issue Sheet for list of current scheme drawings, alternately list below.

Reference	Rev	Title
HE570131D-KIER-HRR-M5_225.6-230.5_CR- DE-CH-0100-01	C2	Central Reservation Surveys (Sheet 1 of 5)
HE570131D-KIER-HRR-M5_225.6-230.5_CR- DE-CH-0100-02	C2	Central Reservation Surveys (Sheet 2 of 5)
HE570131D-KIER-HRR-M5_225.6-230.5_CR- DE-CH-0100-03	C2	Central Reservation Surveys (Sheet 3 of 5)
HE570131D-KIER-HRR-M5_225.6-230.5_CR- DE-CH-0100-04	C2	Central Reservation Surveys (Sheet 4 of 5)
HE570131D-KIER-HRR-M5_225.6-230.5_CR- DE-CH-0100-05	C2	Central Reservation Surveys (Sheet 5 of 5)

Appendix C – Existing Records and As-Built Drawings

See Document Issue Sheet for list of existing records and as-built drawings, alternately list below.

Reference	Rev	Title	Company
Structures	-	Appendix E – Scheme 6 listo of all structures throughout scheme extents	Kier Highways
HE570131-KIER-HDG-M5_225.6_230.5- DE-CH-500-01	C2	Existing Drainage (Sheet 1 of 5)	Various
HE570131-KIER-HDG-M5_225.6_230.5- DE-CH-500-02	C2	Existing Drainage (Sheet 2 of 5)	Various
HE570131-KIER-HDG-M5_225.6_230.5- DE-CH-500-03	C2	Existing Drainage (Sheet 3 of 5)	Various
HE570131-KIER-HDG-M5_225.6_230.5- DE-CH-500-04	C2	Existing Drainage (Sheet 4 of 5)	Various
HE570131-KIER-HDG-M5_225.6_230.5- DE-CH-500-05	C2	Existing Drainage (Sheet 5 of 5)	Various



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Appendix D - Statutory Undertaker Drawings

Reference	Rev	Title	Company
HE570131-KIER-GEN-M5_225.6_230.5-DE-CH-0000-01	C2	Statutory Undertakers Plan (Sheet 1 of 5)	Various
HE570131-KIER-GEN-M5_225.6_230.5-DE-CH-0000-02	C2	Statutory Undertakers Plan (Sheet 2 of 5)	Various
HE570131-KIER-GEN-M5_225.6_230.5-DE-CH-0000-03	C2	Statutory Undertakers Plan (Sheet 3 of 5)	Various
HE570131-KIER-GEN-M5_225.6_230.5-DE-CH-0000-04	C2	Statutory Undertakers Plan (Sheet 4 of 5)	Various
HE570131-KIER-GEN-M5_225.6_230.5-DE-CH-0000-05	C2	Statutory Undertakers Plan (Sheet 5 of 5)	Various

See Document Issue Sheet for list of statutory undertaker drawings, alternately list below.

Appendix E – Overhead cables

See GS6 Measurements and Essential Safety Data, or alternately list below.

If overheads cables are identified they should be clearly marked on the contract drawings.

Appendix F - List of Structures Affected

Structure	Туре	Location Ref	Str key	OSGR
Culmstock Road	Overbridge	M5/226.10//	1887	308957, 116348
Maidendown	Overbridge	M5/226.60//	1888	308471, 116182
Bedbrook Lane	Overbridge	M5/228.00//	1889	307149, 115760
Pugham mill Lane	Overbridge	M5/229.70//	1890	305681, 115760
Appendix G - Asbestos Actio		uments)	N	L



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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, were 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:	M5 J26 to J27 MP 225.6 – 230.5	Kier Highways Job No.:	570131D
Project Description:	This DHIRRS is specifically prepared for the proposed survey works within the central reserve, including lane 3 in both directions of the M5 within the site extents. Refer to survey drawings; HE570131D-KIER-HRR-M5_225.6_230.5-DE-CH-0100-01 to 0100-05		
Design Discipline:	Highways – Renewal of Roads		
Project Type as deter (if applicable)	mined by GG104 A	Prepared By:	

Notes:

- This section of the document includes a list of potential hazards pertaining to a wide range of situations 1. 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.
- All items considered by the designer as having a potential high risk must be addressed on the 'Hazard 4. 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. Population 2 – People in a contractual relationship with the client. 	'Workers'
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'



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	Potential Hazards Arising From:		t designer's e gement meas		Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
1.	Existing Environment				
1.1	Existing buildings	x			
1.2	Previous/existing land/ structures		X		Existing highway structures throughout the scheme; Structure number 1887 – Culmstock Road, 1888 – Maidendown, 1889 – Bedrook Lane, 1890 Pugham Mill Lane
1.3	Roadways		X		Scheme has Local Authority Network highways passing underneath it. Risk assessment to be carried out prior to any works, all practicable precautions and measure put in place, HE/Principal Contractor to liaise frequently with relevant LA to ensure they are aware of any potential risks posed by the works so as they maybe part of the risk assessment process
1.4	Railways	x	6		
1.5	Water course	x			
1.6	Ground conditions:	X			
	Contamination	X			
	Ground water	X			
	Instability	X			
	Mineral / mine workings	X			
1.7	Access restrictions	X			
1.8	Adjacent properties		X		Refer to 1.2
1.9	Concurrent site activities		X		There will be different types of survey works taking place throughout the duration of the works within the site extents.
1.10	Interface with the public		X	<u></u>	Live traffic will be present on the M5.
1.11	Occupied premises	X			
1.12	Structural instability	X		L	
1.13	Fragile materials	x			



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Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
1.14	Hazardous materials		x		Construction materials to be used in accordance with method statements, Risk Assessments & COSHH assessments
1.15	Land use	X			
1.16	Traffic		x		Works undertaken will require lane possessions to be applied for. TM will be installed in accordance with TSM Chapter 8.
1.17	Others (insert as necessary)				
2.	Existing Services				
2.1	Underground		X		
	• Electrical	MAX		x	Apparatus have been identified within the scheme boundaries. Contractor to check C2's (if older than 6 months reapply) and ensure area is CAT and GENIE scanned prior to commencing coring. Contractor to following guidance within HSG 47
	• Gas		X	2,	Medium pressure apparatus present within the scheme. Contractor to ensure apparatus have been clearly located and have liaised with owner regarding any/all exclusion zones to be complied with.
	Water (Asbestos pipes?)	X			
	Telecommunications			x	There are BT underground cables present within the works area. Refer to Statutory Undertakers Plans and Appendix E for more details.
	• Loops			x	Motorway communications / loops are present within the works area.
~ ~					
2.2	Overhead Services		X X		There are overhead
	Electrical		•		electric cables (11kV



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	Potential Hazards Arising From:	Risk (without	t designer's e jement meas		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
					voltage) present within the area of works. Contractor is to obtain the safe working height prior to the start of the works. (Refer to Statutory undertakers records within the Survey Documentation)
	Telecommunications		X		There are overhead BT cables present within the area of works. Contractor is to obtain the safe working height prior to the start of the works. (Refer to Statutory undertakers records within the Survey Documentation)
	Others (insert as necessary)				
		v			
3. 3.1	Earthworks	X			
3.1	Deep excavations Slope / ground stability				
3.3	Ground water / water courses				
3.4	Plant movements				
3.5	Interface with services (refer 2)		\frown		
3.6	Contamination (ground / water) (refer 1.6)				
3.7	Adjacent structures (refer 1.8)				
3.8	Others (insert as necessary)		(
4.	Foundations				
4.1	Adjacent buildings/structures				
4.2	Deep excavations				
4.3	Plant movements				
4.4	Interface with services				
4.5	Contamination (ground / water)				
4.6	Ground water				
4.7	Confined spaces	(
4.8	Piling:				
	Noise				
	Vibration				
	Contamination				



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	Potential Hazards Arising From:	Risk (without manac	t designer's e jement meas		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
	Plant				
4.9	Grouting:				
	Drilling work				
	• Dust				
	Pollution				
4.10	Stability of structure				
4.11	Others (insert as necessary)				
5.	Services Installation	X			
5.1	Excavations	X			
5.2	Ground water	X			
5.3	Ground conditions	X			
5.4	Existing services	X			
5.5	Testing operations	X			
5.6	Lifting operations	X			
5.7	Adjacent structures / activities	X			
5.8	Maintenance	X			
5.9	Contamination	X			
5.10	Others (insert as necessary)	X			
6.	Drainage Works		$\mathbf{D}_{\mathbf{r}}$		
6.1	Excavations	X			
6.2	Ground water	X			
6.3	Ground conditions	X			
6.4	Confined spaces			x	Drainage survey works will be taking place including manhole and pipework CCTV surveys.
6.5	Leptospirosis / Weils disease			X	Drainage survey works will be taking place including manhole and pipework CCTV surveys. Contractor to ensure sufficient welfare facilities are in place at all times. All appropriate PPE must be worn at all times.
6.6	Existing services (asbestos pipes?)	X			
6.7	Manual handling	X			
6.8	Lifting operations			x	Drainage survey works will be taking place



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Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
					including manhole and pipework CCTV surveys.
6.9	Maintenance	X			
6.10	Sewage	X			
6.11	Traffic			x	Live traffic present on M5 during TM setup / removal and during the works under traffic management with a restricted speed limit.
6.12	Contamination (ground / water)		x		Contractor to ensure sufficient welfare facilities are in place at all times. All appropriate PPE must be worn at all times.
6.13	Hepatitis B / Tetanus		x		Contractor to ensure sufficient welfare facilities are in place at all times. All appropriate PPE must be worn at all times.
6.14	Lighting	MAX		x	Survey works are to be completed at night, leading to increased risk of slips, trips and falls. Contractor to ensure adequate lighting is provided for safety of operations.
7.	Highways		X		
7.1	Traffic management		×	N,	All works to be undertaken by applying lane closures. TM will be installed in accordance with TSM Chapter 8
7.2	Adjacent traffic		X		TM will be installed in accordance with TSM Chapter 8
7.3	Construction materials		x		Construction materials to be used in accordance with Method Statements, Risk Assessments, Tool box talks and COSHH guidelines
7.4	Structural works	X			
7.5	Adjacent structures		X		Location of overbridges are highlighted on the construction drawings. Refer to Appendix B in PCI for details.



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	Potential Hazards Arising From:	Risk (withou manad	t designer's e gement meas		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
7.6	Noise		X		All site operatives to be provided with suitable and sufficient PPE and appropriate control measures are to be adopted to minimise duration of exposure to upper noise limits.
7.7	Vibration		X		Vibrating equipment to be used only by trained and competent personnel. Equipment to only be used for the minimum amount of time necessary. Operator to ensure all LOLER and PPE HSE regulations are complied with whilst operating said equipment. Equipment to be visually checked prior to each use and maintenance records checked
7.8	Coal TAR in pavement	MAX.	X		Operatives to test each location prior to core with PAK Marker spray. If spray turns brown/yellowish colour indicates to operative's PAH compounds down to a level of 150ppm are present. Operatives should then carry out a dynamic risk assessment regarding PPE required as well as location and potential for contamination via leaching arisings that may be a by-product of the core taking operation.
7.9	Night work			X	Works are to be completed at night leading to increased risks of slips, trips and falls. Task lighting to be provided by Contractors as appropriate.
8.	Steelwork Construction	X			
-		X			
8.1	Working at height	X			
8.2 8.3	Lifting operations Temporary stability	X			



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	Potential Hazards Arising From:		t designer's e jement measi		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
8.4	Connections	X	•		
8.5	Unusual sequence	X			
8.6	Materials, e.g. paints	X			
8.7	Consideration of future maintenance	X			
8.8	Others (insert as necessary)	X			
9.	Concrete Construction	X			
9.1	Working at height	X			
9.2	Plant restrictions	X			
9.3	Lifting operations	X			
9.4	Noise	X			
9.5	Vibration	X			
9.6	Temporary instability	X			
9.7	Pre/post tensioning	X			
9.8	Materials	X			
9.9	Maintenance	X			
9.10	Joints (scabbling should not be undertaken)	X			
9.11	Others (insert as necessary)	X			
10.	Masonry Construction	X	6		
10.1	Manual handling	X			
10.2	Lifting operations	X			
10.3	Materials	X			
10.4	Temporary stability	X			
10.5	Working at height	X			
10.6	Dust	X			
10.7	Durability	X			
10.8	Catastrophic collapse	X			
10.9	Others (insert as necessary)	X			
11.	Timber Construction	X			
11.1	Materials	X			
11.2	Working at height	X			
11.3	Temporary stability	X			
11.4	Lifting operations	X			
11.5	Manual handling	X			



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	Potential Hazards Arising From:	Risk (without manag	t designer's e jement measi		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
11.6	Fire	Х			
11.7	Dust	X			
11.8	Others (insert as necessary)	X			
12.	Cladding	X			
12.1	Lifting operations	X			
12.2	Manual handling	X			
12.3	Maintenance / cleaning	X			
12.4	Others (insert as necessary)	X			
13.	Glazing	X			
13.1	Manual handling	X			
13.2	Lifting operations	X			
13.3	Cleaning / maintenance	X			
13.4	Others (insert as necessary)	X			
14.	Mechanical/Electrical Systems	X			
14.1	Access	X			
14.2	Existing services (asbestos?)	X			
14.3	Manual handling	X			
14.4	Materials / substances	X			
14.5	Confined spaces	X			
14.6	Pressure systems	X			
14.7	Testing operations	X			
14.8	Fixings	X			
14.9	Working at height	X			
14.10	Maintenance	X			
14.11	Others (insert as necessary)	X			
15.	Railway Activities	X			
15.1	Train movements	X			
15.2	Overhead lines	X			1
15.3	Electrified track	X			
15.4	Underground services	X			
15.5	Adjacent structures			X	Refer to 1.4
15.6	Ground stability	X			



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	Potential Hazards Arising From:	Risk (without	t designer's e jement measi		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
15.7	Contamination	X			
15.8	Others (insert as necessary)	X			
16.	Demolition of Existing Structures	X			
16.1	Services	X			
16.2	Adjacent / adjoining structures	X			
16.3	Materials:	X			
	 Hazardous i.e. asbestos in permanent shuttering, waterproofing to bridge decks, joints etc. fragile 	X X			
16.4	Working at height	X			
16.5	Temporary stability	X			
16.6	Pre/post tensioning	X			
16.7	Noise	X			
16.8	Vibration	X			
16.9	Dust	X			
16.10	Effect on usage of demolition materials	X			
16.11	Others (insert as necessary)	X			
17.	Future Demolition / decommissioning of new structure/installation	x			
17.1	Unusual sequence	X			
17.2	Pre/post tensioned element	X			
17.3	Materials	X			
17.4	Adjacent/adjoining structure	X			
17.5	Temporary stability	X			
17.6	Contamination during usage of demolition material.	X			
17.7	Others (insert as necessary)	X			
18.	Maintenance and Operation of Facility / Structure etc.	X			
18.1	Access	X			
18.2	Safety equipment	X			
18.3	Testing / inspection	X			
18.4	Procedure	X			
18.5	Contamination during usage of demolition material.	X			
18.6	Others (insert as necessary)	X			





	Potential Hazards Arising From:		t designer's e gement meas		
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	Comments
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	X			
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	X			

TRINGORMATION ONLY



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Highways

Part B: Hazard Elimination Checklist

Project Title:	M5 J26 TO J27 MP 225.6 – 230.5 Kier Highways Job No.: 570	70131D
Project Description:	This DHIRRS is specifically prepared for the proposed survey works within the central reserve, including lane 3 in both directions of the M5 within the site extents. Refer to survey drawings; HE570131D-KIER-HRR-M5_225.6_230.5-DE-CH-0100-01 to 0100-05	
Design Discipline:	Highways – Renewal of Roads Prepared 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 Ris	sk Principal Designer	– Include within the H&S file
	-	Designer Principal Contractor Other designer Client	 include in the pre-construction information manage risk during the construction phase take into consideration when preparing their designs 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, 1.16, 7.1, 7.2	Site access. Access restrictions Traffic. Traffic management. Adjacent traffic	Collisions between site traffic and road users, vehicular and non-vehicular. Unauthorised access	1,2	Site access must be strictly through designated access and egress points from the main carriageway marked by green cones. Footways to be stopped up and diversion routes clearly marked. Traffic management to be assessed	Risk remains reduced to lowest possible. Principal contractor to check TM daily for compliance to TSM Chapter 8 and ensure it is	No further comment.	PC



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Highways

Designer's Hazard Checklist and Risk Reduction Schedule

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: **
		~		daily for compliance with TSM Chapter 8 regulations	suitable and sufficient for the proposed works.		
2.1, 2.2	Services	Service strike causing injury, death, burns, explosions	1, 2, 3	Location of underground services within the extents of the works to be identified and protected in accordance with HSG47 and GS6 Contractor to use Statutory Undertakers information in addition to CAT scanning. Contractor to indicate Overhead apparatus with blue cones	Risk remains – details to be provided in PCIP. Principal contractor to employ safe system of work when encountering utility service apparatus	No further comment.	PC
1.2 7.5	Structures Adjacent Structures	Overbridges within works area. Height restrictions.		Location of overbridges are highlighted on the construction drawings. Refer to Appendix C in PCI for details. Contractor to obtain safe working heights prior to the start of the works.	The risk is reduced but still a residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	PC
7.3	Construction Material	Working with concrete and bituminous reinstatement materials	1, 2	Not possible to design out working with reinstatement materials. Appropriate control measures are to be implemented and materials are to be used in accordance with Method Statements, Risk Assessments, COSH and PPE guidelines	The Principal Contractor to employ safe system of work. Trained and competent operatives to wear appropriate PPE for tasks carried out.	No further comment.	PC
1.17 1.19 7.9 6.14	Night-time working Plant Movement Night-work Lighting	Poor visibility increasing risk of slips, trips and falls. Collision of site vehicles and site staff in darkness hours.	1	Suitable task or temporary lighting to be provided at all stages of the scheme works. Suitable PPE is to be worn at all times, including appropriate footwear/clothing for the tasks being carried out.	The use of temporary lighting reduces the risk to an acceptable level. Banksmen to be used for reversing vehicles where appropriate. All staff to wear appropriate PPE	No further comment.	PC
6.4	Confined spaces	Working in confined spaces during drainage survey works.	1	Suitable PPE is to be worn at all times. Contractor to investigate possibility of avoiding the need for workers to enter into confined spacing in order to carry out the survey works. However, if the works in confined spaced cannot be	A residual risk remains and shall be conveyed to contractor(s) via the construction drawings and design information pack	No further comment.	PC



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Highways

Designer's Hazard Checklist and Risk Reduction Schedule

Ref.	Activity	Hazard	Persons at Risk *	Design Measures taken, or bein taken to eliminate or reduce th hazard	ng Information on the e Residual Risk	Principal Designer Review	Action Req'd by: **
				avoided then a risk assessment shall be carried out to ensure a safe system of working.			
N/A	All activities	Covid 19	All	Contractors RAMS to incorporate government guidance on social/physical distancing	Risk remains however likelihood reduced	No further comment.	PC
				MAXION C	N/L		
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Kier Highways Project No: 1040304 Client Reference No: HE570131D

570131D Priority VRS VM Development Batch 1 622 Site 19 – M5 J22-23 SB MP 183.493 – 184.57 VRS Designers Pre-Construction Information

	Yes	No
Are Works to be carried out under the Commission / Contract Health and Safety Plan?		Х
Is the Scheme notifiable under the CDM Regulations 2015?		
1. Last longer than 30 working days and have more than 20 workers simultaneously at any point in the project;		Х
2. Exceed 500 person days		Х
Project type as categorised by GG104		A
* If applicable GG104 will determine the Kier Highways minimum Scheme Principal Designer (Scheme PD) level. Refer to SHEMS-FOR-HIG-S-055 for GG104 type categorisation and minimum Scheme PD level. Type A projects the Design Team Lead, Type B projects the Senior Manager, Type C projects the Service Director.	·	

This document has been produced in accordance with the recommendations and requirements of the Construction (Design and Management) Regulations 2015.

Prepared by: Designer		
Reviewed by; Design Team Lead		
Accepted by: Scheme PD		

'Reviewed by' & 'Accepted by' can be the same person for GG104 type A projects (where the Design Team Lead is the Scheme PD)

Site Specific Hazards Identified in Design

<u>ONLY</u> include significant and unusual hazards that a competent contractor would need to know, could not reasonably foresee, or are likely to be difficult to manage effectively.

Note – Consideration to be given to all 'populations' affected, Workers, Users, Other Parties.

Activity	Residual Hazard	Comments
Works in general.	Coming into contact with live traffic.	The Client (Highways England) have elected to be responsible for and to arrange for temporary traffic management (anticipated to be hardshoulder and lane 1 closures) to be provided.
Excavation of trial holes.	Coming into contact with underground services.	Statutory undertakers and other service drawings have been obtained indicating the anticipated locations of services. These locations have been included on the scheme drawings. The Client is to arrange for the motorway communications services to be marked out on site. Identification and control methods outlined in HSG47 'Avoiding Danger from Underground Services' should be followed.
Works in general.	Coming into contact with overhead electricity services.	Statutory undertakers drawings have been obtained. There are two overhead electricity crossings within or close to the works area. the location of which is shown on the scheme drawings and included in Appendix E. Identification and control measures outlined in GS6 'Avoiding Danger from Overhead Power Lines' should be followed.
Works in general.	Coming into contact with overhead structures	There are two overbridges within or close to the works areas. These have been indicated on the scheme drawings and included in Appendix F.



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Business Stream Form	n Highways	Designers Pre-Construction Information
Drainage / Working in con manhole spaces surveys	the need for workers to works. However if the w	orn at all times. Contractor to look into possibility of avoiding enter into confined spacing in order to carry out the survey orks in confined spaced cannot be avoided then a risk rried out to ensure a safe system of working.
All activities Covid 19 virus	Government and Industr	ry guidelines should be followed.



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1 **Project Description**

Scope of Works

The works are located in the hardshoulder and southbound verge of the M5 motorway between junctions 22 and 23 (chart sections 3300M5/240 Ch491m – Ch1009m and 3300M5/260 Ch0m – Ch580m) and consist of the following survey works which are required in connection with the design of a nearside verge vehicle restraint system (VRS) replacement scheme.

- Topographical survey.
- Trial Holes to determine service locations, soil sampling and dynamic cone penetrometer testing.
- Drainage survey, including manhole surveys and CCTV surveys of pipework
- Asbestos refurbishment survey

The extents of the topographical survey and the locations of the trial holes are shown on drawings numbers HE570131D-KIER-VGN-M5_J22_J23_ML_A-DR-CH-010001 and 010002.

Location



See also drawing number HE570131D-KIER-HGN-M5_J22_J23_ML_A-DR-CH-000001.

Site Address	M5 J22 J23 southbound verge MP 183/5 to 184/6 from approximately the overbridge carrying New Road to the overbridge carrying Withy Road.
	[To the east of the Huntspill, Post code of a nearby property at the north of the site is TA9 3PZ and at the south of the site is TA9 3NW].



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Highways

1 Project Description								
Site Photographs								
N/A								
OSGR	From	From 332660, 145790 To 332376, 144707						
Mark Posts	From	183/4+80m	n .	То	18	4/6m		
Traffic Management								
Traffic Flows: <u>Southbound</u> 42,484 (AADT, 1 way), Northbound 44,113 (AADT, 1 way),								
 Speed Limits: National Speed Limit (70mph) applies. Cycle/Bus Routes: Cycles are prohibited and bus routes will not be affected by the anticipated traffic management arrangements. 								
Traffic Management: This is to be arranged by the Client (Highways England) and is anticipated to be hardshoulder and lane 1 closures. Emergency access:								
Works may need to be suspended to allow the passage of emergency services vehicles, or where general traffic needs to be diverted to within the works area in the event of an emergency.								
Anticipated Working Hours, subject to Traffic CountsTraffic management:Overnight from 2200 to 0600 hours.Site working hours:TBC by HE.								
Mobilisation Period	TBC by Highways England	Anticipated Start Date	TBC by Highways England		Anticipated End Date	TBC by Highways England		



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3. Scheme Specific Requirements				
	Yes	No	Comments	
A pre-start meeting will b	be man	datory	,	
Does an H&S file exist?		\checkmark		
Site Welfare	~		Site Welfare is to be provided by the Principal Contractor.	
Security / Segregation		\checkmark	The Principal Contractor shall provide adequate security to the site.	
Are there any other projects taking place in the vicinity?		\checkmark		
Are there any restrictions on vehicle movements?			All site vehicles (including delivery vehicles) must abide by the TM requirements and regulations	
movemento	\checkmark		 Enter and exit site from the dedicated points; Comply with the designated site safety speed limits; 	
			All vehicles within Traffic Management shall comply with the conspicuity requirements of Chapter 8.	
Are there any restrictions on deliveries, waste	~		No deliveries to take place unless Traffic Management is in place. No waste shall be stored on site.	
collection, or storage?			Waste Carriers Licences will be required	
Are there any parking restrictions?			All vehicles and plant within the works area shall be parked in a safe area clear of access and egress points.	
	~		All vehicles and plant shall be removed from the carriageway prior to removal of traffic management.	
			No Private vehicles are allowed on site	
Height Restrictions	\checkmark		See details of 'Overhead Cables' and 'Structures' below.	
Overhead Cables	~		There are two overhead electricity crossings with or close to the works area.	
			See Appendix E for details.	
Structures	\checkmark		There are two overbridges within or close to the works area. See Appendix F for details.	
Will fire precautions be required?	\checkmark		Suitable fire precautions shall be in place.	



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3. Scheme Specific Requirements						
	Yes	No	Comments			
Are emergency procedures and means of escape required?			The Contractor shall ensure that emergency procedure plans are in place, all staff have been inducted, and access for emergency vehicles is to be maintained at all times.			
			The nearest Accident and Er	nergency (A & E) hospitals are:		
	\checkmark		24 hour opening (15.5 miles from M5 J23)	0800 to 2200 hours opening (13 miles from M5 J23)		
			Musgrove Park Hospital Parkfield Drive Taunton Somerset TA1 5DA	Weston General Hospital Grange Road, Uphill Weston-Super-Mare Avon BS23 4TQ		
			Tel: 01823 333 444	Tel: 01943 636 363		
Are there any areas in or around the site classified as no-go areas?	\checkmark		No site personnel shall enter the safety zones or tapers within the extents of the traffic management unless trained and competent for installation/removal/maintenance of TM. Sub-Contractor's Method Statements and Risk Statements shall contain suitable risk control to protect pedestrian workers and plant operators.			
Are there any noise restrictions?	~		It is expected that construction noise will not significantly exceed the ambient road noise levels. Any increases in noise will be temporary and limited to the construction phase.			
Are temporary works required?		\checkmark	None are anticipated.			
Are there any vibration restrictions?	~		The Contractor shall comply with BS 6427:2008 Evaluations of human Exposure to Vibration in Buildings (1Hz-80Hz). Any vibration monitoring carried out shall also be in compliance with BS 6427: 2008.			
Are there any poor or hazardous ground conditions		\checkmark	None are anticipated.	None are anticipated.		
Are there any unstable structures?		\checkmark	None.			
Are there any areas classed (existing or designed) classed as confined spaces?		\checkmark	None are anticipated.			
Are there any smoking restrictions?	\checkmark		No smoking is allowed on site. Designated smoking areas to be confirmed during site inductions.			
Any environmental constraints identified?		\checkmark	None.			



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Materials and Substances with Health and/or Safety Hazards

Asbestos

Please see Appendix G for details of the existing Asbestos Action Plans, and Asbestos Surveys for the extent of the works.

It is not anticipated that asbestos or asbestos containing materials (ACM's) will be encountered during the trial hole excavations or survey works, however, there are several electrical cabinets within the southbound verge where ACM's are presumed to be present.

Lead

Due to the scope of the works it is unlikely that lead will be encountered.

Tar based pavement/surfacing

No excavation of bituminous surfacing is anticipated as part of the works.

Leptospirosis/Weil's disease / Psittacosis

As works are partly within the soft verge there is a potential risk of Weil's disease. The Principal Contractor is to ensure sufficient welfare facilities are in place at all times. All appropriate PPE must be worn at all times.

Any instances of illness / sickness on site should be reported to the Principal Contractor immediately and the persons affected should seek medical advice. Information regarding Weil's disease should be included in the Site Induction.

Covid-19 pandemic

The Principal Contractor is to ensure the site workforce are protected and minimising the risk of spread of infection. They must comply with the latest Government advice on working safely during coronavirus covid-19 which is currently available at https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19/construction-and-other-outdoor-work and the latest Kier Site Operating Procedures that are current at the time of the works. The health and safety requirements of any construction activity must not be compromised. If an activity cannot be undertaken in line with social distancing being implemented, or by exception, safely, without risk and mitigating measures then it shall not take place.



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4. Existing Services	Refer to S	TATS plan		Appendix C	
Statutory Undertaker	Not Present	Over head	Under ground	Comments	
Electricity			J		
400/132kV [pylons]	X			Two overhead 11 kV electricity cable	
66kV	X			crossings are within, or close to, the	
33kV	X			works area. The locations of these are	
11kV		Х		indicated on the scheme drawings.	
240/415Volts	X			Please also see Appendix E for further details.	
Low Voltage	X				
Water (Foul and Potable)				·	
Public Foul	X				
Pressurised Foul	X				
Public Combined Gravity	X			There are two locations where water	
Pressurised Combined	X			mains cross beneath the carriageway.	
Culverted Watercourse	X			The locations of these are indicated on the scheme drawings.	
Water Main			X		
Aqueduct	X				
Communications				·	
Communications	X				
British Telecom				·	
British Telecom			x	There is an underground British Telecom crossing, the location of which is indicated on the scheme drawings.	
National Grid				-	
National Grid	X				
Transco				·	
LP Mains	Х				
MP Mains	X				
IP Mains	X				
LHP Mains	X				
NHP Mains	X				
Government Pipelines				·	
Government Pipelines	X				
Fisher German Pipelines			•	•	
Fisher German Pipelines	X				
Energis				·	
Energis	X				
Motorway Communication				·	
Motorway Comms			x	Motorway communications services are present within the works area. The locations of these are indicated on the scheme drawings. Highways England will arrange for these to be marked out on site where appropriate.	
Street Lighting					
Street lighting	X				
Highway Drainage	<u> </u>			•	
			x	Highway drainage including gullies are present within the works area. The location of this is indicated on the scheme drawings.	
Other			1		
	X				



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