

KEY

- |          |                                |   |   |
|----------|--------------------------------|---|---|
| BT BT    | BRITISH TELECOM - UNDERGROUND  | ⊕ | GULLIES / INLETS TO BE SURVEYED   |
| HD HD    | HIGHWAY DRAIN                  | ● | MANHOLE / CATCHPIT / INSPECTION CHAMBER TO BE SURVEYED                      |
| HD HD    | FILTER DRAIN                   | ⬜ | SURVEY AREA (TOPOGRAPHICAL, DRAINAGE AND ASBESTOS REFURBISHMENT (64,383m²)) |
| HD HD    | HIGHWAY DITCH                  | ⬜ | APPROXIMATE AREAS OF DENSE TREES (26,155m²)(SEE NOTE 8)                     |
| E UG     | ELECTRICITY LINE - UNDERGROUND | ⬜ | CARRIAGEWAY LOOPS LOCATION  |
| 11KV O/H | ELECTRICITY 11KV - OVERHEAD    | ⬜ | TRIAL HOLE SURVEY (STATS DEPTHS AND SOIL SAMPLING) (21No)                   |
| 33KV O/H | ELECTRICITY 33KV - OVERHEAD    | ⬜ | TRIAL HOLE SURVEY (STRUCTURES, STATS DEPTH AND SOIL SAMPLING) (2No)         |
| GAS MP   | GAS MAIN MP                    | ⬜ | TRIAL HOLE SURVEY (SOIL SAMPLING) (3No)                                     |
| W W      | WATER MAIN                     | ⬜ | MARKER POST REFERENCE   |
| MC       | MOTORWAY COMMUNICATIONS        | ⬜ |   |
| FS FS FS | FOUL WATER SEWER               | ⬜ |   |

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RESIDUAL DESIGN HAZARDS

THE FOLLOWING HAS BEEN COLLECTED FROM THE PRE-CONSTRUCTION INFORMATION AND HIGHLIGHTS KNOWN RESIDUAL HAZARDS.

KEY HS-# = HEALTH AND SAFETY RISK REFERENCE NUMBER  
E-# = ENVIRONMENT RISK REFERENCE NUMBER

HS-01 - EXISTING OVERHEAD ELECTRICITY CABLES  
HS-02 - EXISTING OVERHEAD STRUCTURES  
HS-03 - UNDERBRIDGE STRUCTURES  
HS-04 - TRAFFIC LOOPS  
HS-05 - STATUTORY UNDERTAKERS (UNDERGROUND)  
HS-06 - GANTRY  
HS-07 - EXISTING CULVERT  
HS-08 - POTENTIAL ASBESTOS-CONTAMINATED MATERIALS (ACM)  
E-01 - INVASIVE SPECIES  
E-02 - PROTECTED SPECIES  
E-03 - DITCHES/WATERCOURSE

NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS WITHIN THE SERIES.
- CROSS CARRIAGEWAY INDICATIVE LOCATIONS OF STATUTORY UNDERTAKERS SERVICES HAVE BEEN PROVIDED ON THIS DRAWING FOR TRIAL HOLE SURVEY PURPOSES. FOR STATUTORY UNDERTAKERS SERVICES INFORMATION REFER TO DRAWING NO. HE570131D-KIER-HGN-M4\_J17-J16\_CR-DR-CH-010005 @ 00. NO GUARANTEE IS GIVEN TO ITS ACCURACY.
- MARKER POSTS ARE SHOWN FOR INDICATIVE PURPOSE ONLY. CHAINAGES SHOWN ON THIS DRAWING HAVE BEEN SET OUT AT LEAST EVERY 50m ALONG THE CHART SECTIONS INDICATED THROUGHOUT THE EXTENTS OF THE WORKS.
- THE OVERHEAD CABLES HAVE BEEN IDENTIFIED ON THE SCHEME DRAWINGS, HOWEVER INFORMATION REGARDING SAFE WORKING HEIGHTS IN ACCORDANCE WITH GS6 HAS NOT BEEN INDICATED. PRIOR TO THE COMMENCEMENT OF WORKS ON SITE, OVERHEAD CABLE HEIGHTS TO BE CONFIRMED AND RECORDED BY WAY OF SIGNATURE AND DATE BY A TRAINED AND COMPETENT PERSON.
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- THE CCTV DRAINAGE SURVEY IS A DRAINAGE CONNECTIVITY SURVEY AND IS FOR ALL ASSETS IN THE DRAINAGE SYSTEM WHICH MAY ALSO INCLUDED INFRASTRUCTURE OUTSIDE OF THE SURVEY AREA E.G. OUTFALLS
- FOR THE TOPOGRAPHICAL SURVEY FOR DENSE AREAS OF TREES IT IS ONLY NECESSARY TO SURVEY THE TRUNKS (AT A HEIGHT OF 0.3m ABOVE GROUND LEVEL) AT THE PERIMETER OF THESE AREAS. THE APPROXIMATE AREAS HAVE BEEN INDICATED ON THE DRAWINGS BUT SHOULD BE ACCURATELY ESTABLISHED ON SITE DURING THE TOPOGRAPHICAL SURVEY.

C2	AMENDMENTS TO SURVEYS	LP	PP	08.06.2021
C1	FIRST ISSUE	SR	SR	26.02.2021
REV	DETAILS	CHKD	APPD	DATE

DRAWN : TW	DRAWING STATUS
DESIGN : TW	WORK IN PROGRESS
CHKD : LP	PRELIMINARY DRAWING
APPD : PP	EXTERNAL ISSUE
DATE : 08.06.2021	AS-BUILT
SUITABILITY : S2	FOR INFORMATION

CLIENT



AGENT



SCHEME NAME

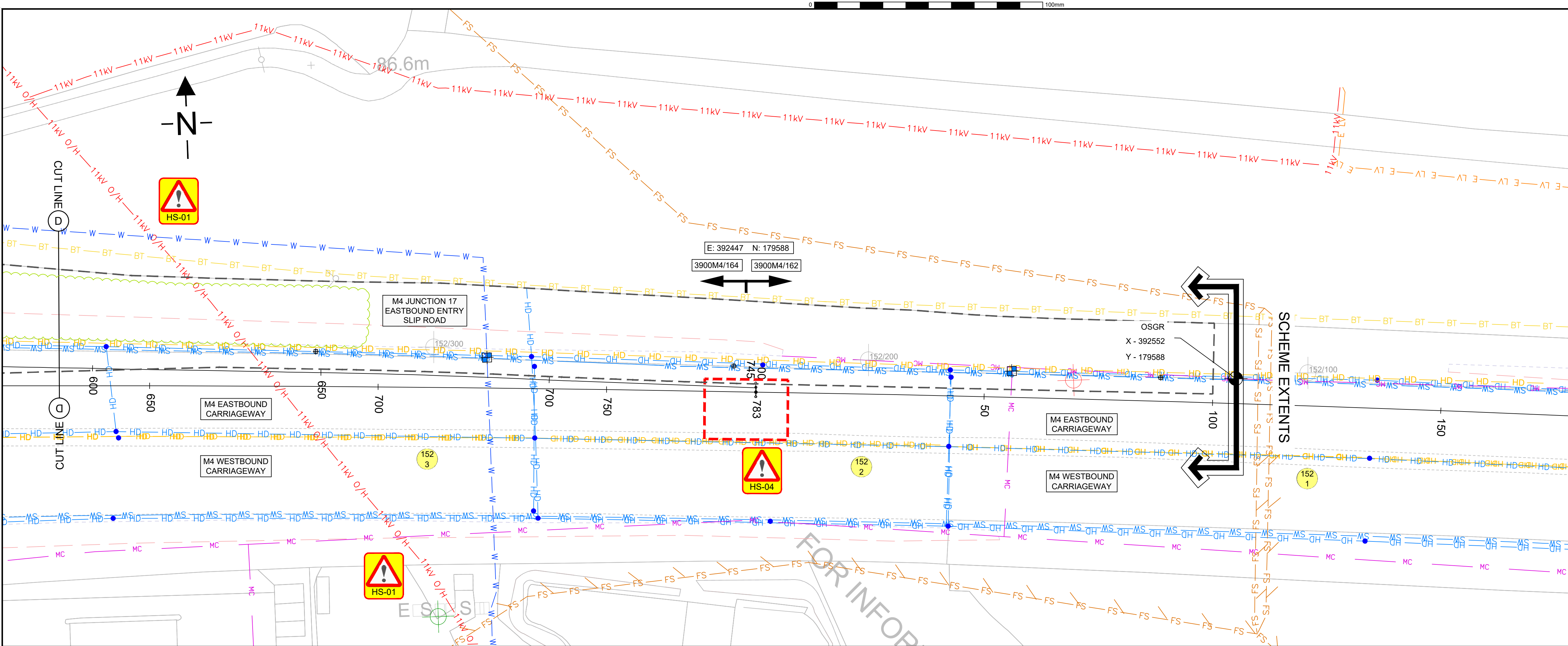
570131D PRIORITY VRS VM  
DEVELOPMENT BATCH 1

DRAWING TITLE

SITE 20 - M4 J17-16 EASTBOUND  
SURVEY LOCATION PLAN  
SHEET 2 OF 3

ORIG DRAWING SIZE : A1	DIMENSIONS : m	SCHEME REFERENCE No. 1040304
COPYRIGHT © KIER	SCALE : 1:500	REVISION C 2
DRAWING NUMBER PROJECT   ORIGINATOR   VOLUME HE570131D - KIER - VGN	LOCATION   TYPE   ROLE   NUMBER M4_J17-J16_B - DR - CH - 010002	





RESIDUAL DESIGN HAZARDS

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KEY

!

HS-#

Health and Safety Risk

= HEALTH AND SAFETY RISK REFERENCE NUMBER

E-#

Environment Risk

= ENVIRONMENT RISK REFERENCE NUMBER

HS-01 - EXISTING OVERHEAD ELECTRICITY CABLES

HS-02 - EXISTING OVERHEAD STRUCTURES

HS-03 - UNDERBRIDGE STRUCTURES

HS-04 - TRAFFIC LOOPS

HS-05 - STATUTORY UNDERTAKERS (UNDERGROUND)

HS-06 - GANTRY

HS-07 - EXISTING CULVERT

HS-08 - POTENTIAL ASBESTOS-CONTAMINATED MATERIALS (AGM)

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C2	AMENDMENTS TO SURVEYS	LP	PP	08.06.2021
C1	FIRST ISSUE	SR	SR	26.02.2021
REV	DETAILS	CHKD	APPD	DATE

DRAWN : TW	DRAWING STATUS
DESIGN : TW	WORK IN PROGRESS
CHKD : LP	PRELIMINARY DRAWING
APPD : PP	EXTERNAL ISSUE
DATE : 08.06.2021	AS-BUILT
SUITABILITY : S2	FOR INFORMATION

CIENT

AGENT

SCHEME NAME

570131D PRIORITY VRS VM DEVELOPMENT BATCH 1

DRAWING TITLE

SITE 20 - M4 J17-16 EASTBOUND SURVEY LOCATION PLAN SHEET 3 OF 3

ORIG DRAWING SIZE : A1	DIMENSIONS : m	SCHEME REFERENCE No. 1040304
COPYRIGHT © KIER	SCALE : 1:500	
DRAWING NUMBER PROJECT   ORIGINATOR   VOLUME HE570131D - KIER - VGN		
M4_J17-16_B - DR - CH - 010003		
LOCATION   TYPE   ROLE   NUMBER		REVISION C 2

KEY

BT BT

BRITISH TELECOM - UNDERGROUND

HD HD

HIGHWAY DRAIN

HD HD

FILTER DRAIN

HD HD

HIGHWAY DITCH

E UG

ELECTRICITY LINE - UNDERGROUND

11kV O/H

ELECTRICITY 11kV - OVERHEAD

33kV O/H

ELECTRICITY 33kV - OVERHEAD

GAS MP

GAS MAIN MP

W W

WATER MAIN

MC

MOTORWAY COMMUNICATIONS

FS FS FS

FOUL WATER SEWER

GULLIES / INLETS TO BE SURVEYED

MANHOLE / CATCHPIT / INSPECTION CHAMBER TO BE SURVEYED

SURVEY AREA (TOPOGRAPHICAL, DRAINAGE AND ASBESTOS REFURBISHMENT (64,383m²))

APPROXIMATE AREAS OF DENSE TREES (26,155m²)(SEE NOTE 8)

CARRIAGEWAY LOOPS LOCATION

TRIAL HOLE SURVEY (STATS DEPTHS AND SOIL SAMPLING) (21No)

TRIAL HOLE SURVEY (STRUCTURES, STATS DEPTH AND SOIL SAMPLING) (2No)

TRIAL HOLE SURVEY (SOIL SAMPLING) (3No)

152 4

MARKER POST REFERENCE

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File ref - c:\users\twall\work\kier\project north-manchester - 570131d priority vrs vm development batch 1\3. des\cad\01 - live drawing\595 site 20 - m4 j17 slip roads eb mp 152.3-153.6 vrs\he570131d-kier-vgn-m4\_j17\_16\_b-dr-ch-010001 to 03.dwg Plotted 10.06.2021 by TWallwor

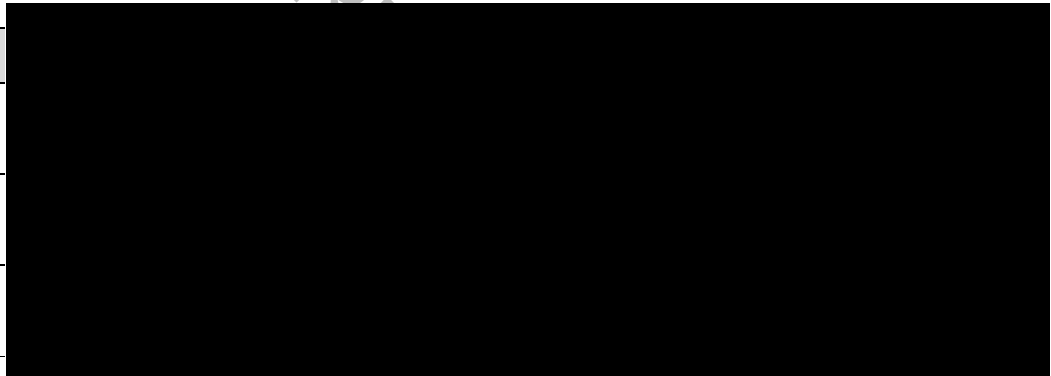
**Kier Highways Project No:**  
**Client Reference No:**  
**570131D Priority VRS VM Development Batch 1**  
**Scheme 607 – M5 J25-26 BD MP 207.5 – 217.5 VRS**  
**Pre-Construction Information**

	Yes	No
Are Works to be carried out under the Commission / Contract Health and Safety Plan?		X
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;	X	
2. Exceed 500 person days	X	

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



Authorised By: [Redacted]	Page 1 of 16	SHEMS-FOR-HIG-051
Author: Highways CDM Team	Date: October 2019	Version: 1.0
As part of our system review, this document is valid until April 2021		



Site Specific Hazards Identified in Design		
<p><b><i>ONLY 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.</i></b></p> <p><b>Note – Consideration to be given to all ‘populations’ affected, Workers, Users, Other Parties.</b></p>		
Activity	Residual Hazard	Comments
Trial Hole / Core Survey Works	Conflict / risk of striking with STATS equipment or structures. 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 Electric 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 night time 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	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.
All activities	Covid 19	Government guidelines on social / physical distancing to be incorporated into RAMS



1 Project Description			
<b>Scope of Works</b>			
<p>This PCI 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. The survey works will include;</p> <ul style="list-style-type: none"> <li>• Topographical Survey</li> <li>• Drainage surveys including, manholes surveys and CCTV surveys of pipework.</li> <li>• Trial Pits (including Dynamic Cone Penetrometer)</li> <li>• Cores</li> <li>• Asbestos management / refurbishment survey</li> </ul> <p>Refer to survey drawings; HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010001 to 010011</p> <p>This scheme stretches across the following chart sections;</p> <ul style="list-style-type: none"> <li>• 3300M5/510 SB Ch47m – Ch585m (538m)</li> <li>• 3300M5/515 SB Ch0m – Ch1000m</li> <li>• 3300M5/520 SB Ch0m – Ch1000m</li> <li>• 3300M5/530 SB Ch0m – Ch1000m</li> <li>• 3300M5/540 SB Ch0m – Ch1000m</li> <li>• 3300M5/550 SB Ch0m – Ch1000m</li> <li>• 3300M5/558 SB Ch0m – Ch900m</li> <li>• 3300M5/566 SB Ch0m – Ch1340m</li> <li>• 3300M5/582 SB Ch0m – Ch760m</li> <li>• 3300M5/590 SB Ch0m – Ch1170m</li> <li>• 3300M5/594 SB Ch0m – Ch335m</li> </ul>			
<b>Location</b>			
<p>See Location Plan listed in current Document Issue Sheet or Appendix A. Drawing no. HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-0001- 01 to 11.</p>			
Site Address		M5 J25-26 CR BD MP 207.5 – 217.5 Taunton, Somerset	
<b>Site Photographs</b>			
<p>No.165 VRS condition photographs have been collated within the desktop review package, taken as screenshots from sources such as AVIS and Google Earth.</p>			
<b>OSGR, MP or</b>	From	325168, 124107	To 316645, 120001
<b>Str Key / Name</b>	Str Key	Structure Name	
<p>Broughton Brook Southbound Inlet Weir – Structure Key: 28472, MP 208.0+67m          Holway Road Overbridge – Structure Key: 1859, MP 208.1+59m          Stoke Road Overbridge – Structure Key: 1860, MP 208.8+73m          MS3 Cantilever Gantry – Structure Key: 27740, MP 209.2+30m          Shoreditch Road Overbridge – Structure Key: 1861, MP 209.4+07m          Killams Avenue Culvert – Structure Key: 34292, MP 210.3          Killams Lane Overbridge – Structure Key: 1862, MP 210.3          Unnamed Culvert – Structure Key: 1863, MP 210.6+36m          Brown's Elm Overbridge – Structure Key: 1864, MP 211.6+21m          Unnamed Culvert – Structure Key: 1865, MP 212.0+34m          Poundisford Park Footbridge – Structure Key: 1866, MP 212.1+21m</p>			

1 Project Description					
<p>Unnamed Culvert – Structure Key: 1867, MP 212.9</p> <p>Fulwood Road Overbridge – Structure Key: 1868, MP 213.0+52m</p> <p>Wrexon Road Underbridge – Structure Key: 1869, MP 213.8+82m</p> <p>Cutsey Service Area Footbridge – Structure Key: 1870, MP 214.5+26m</p> <p>Cutsey Farm Overbridge – Structure Key: 1871, MP 215.0+86m</p> <p>Unnamed Culvert – Structure Key: 1872, MP 215.3+50m</p> <p>Unnamed Culvert – Structure Key: 1873, MP 215.8+77m</p> <p>Unnamed Culvert – Structure Key: 1874, MP 216.2</p> <p>Morrish's Farm Overbridge – Structure Key: 1875, MP 216.5</p> <p>Unnamed Culvert – Structure Key: 1876, MP 217.3+08m</p>					
Traffic Management					
<p><b>Traffic Management arrangements:</b> TBC</p> <p><b>Traffic Flows:</b></p> <p>2020 (WebTris) AADT NB = 34,601 (15.7%)</p> <p>2020 (WebTris) AADT SB = 26,908 (16.5%)</p> <p><b>Speed Limits:</b> The existing speed limit within the scheme extents is National Speed Limit for Motorways (70mph).</p> <p><b>Cycle / bus Routes:</b> There are no bus or cycle routes through the works area.</p> <p><b>Traffic Management:</b> Works will be undertaken with a night-time part carriageway/road closures.</p> <p><b>Emergency access:</b> Access will be required by emergency services through Traffic Management at all times.</p>					
Anticipated Working Hours, subject to Traffic Counts				21:00 – 05:00	
<b>Mobilisation Period</b>	TBC	Anticipated Start Date	TBC	Anticipated End Date	TBC



3. Scheme Specific Requirements			
	Yes	No	Comments
A pre-start meeting will be mandatory			
Does an H&S file exist?		✓	
Site Welfare	✓		Site Welfare provisions to be provided.
Security / Segregation		✓	The Principal Contractor shall provide adequate security to the site.
Are there any other projects taking place in the vicinity?		✓	
Are there any restrictions on vehicle movements?	✓		All site vehicles (incl. delivery vehicles) must abide by the TM requirements and regulations 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 restrictions on deliveries, waste collection, or storage?	✓		No deliveries to take place unless Traffic Management is in place. No waste shall be stored on site. 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	✓		There are overhead electric services and 9no overbridges within the works area. Refer to Appendix D and Appendix F for more details.
Overhead Cables	✓		There are overhead electric services within the works area. Refer to Appendix D for more details.
Structures	✓		There are 21no structures identified in total within the works area. Refer to Appendix F for list of structures.
Will fire precautions be required?	✓		Suitable fire precautions shall be in place and in accordance with the Contractors hot works permit.
Are emergency procedures and means of escape required?	✓		The Contractor shall ensure that emergency procedure plans are in place, all staff has been inducted, and access for emergency vehicles to be maintained at all times. The nearest A&E hospital is; Musgrove Park Hospital Parkfield Drive Taunton Somerset TA1 5DA Tel: 01823 333 444 24hr A&E Service



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?	✓		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?		✓	None
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		✓	None are anticipated – All works will be carried out within carriageway and central reservation area.
Are there any unstable structures?		✓	None
Are there any areas classed (existing or designed) classed as confined spaces?	✓		Drainage surveys will be taking place.
Are there any smoking restrictions?	✓		No smoking is allowed on site. Designated smoking areas to be confirmed during site inductions.
Any environmental constraints identified?	✓		A recent EAF highlights the requirement for an assessment of impacts due to concrete barriers to ecology and nature conservation. This is required during detailed design stage. A materials assessment will also be required due to potentially exceeding £300,000 construction cost.

## Materials and Substances with Health and/or Safety Hazards

### Asbestos

The following asbestos documents have been located for this scheme;

- 021 AAP M5 J24-J27 – Asbestos Action Plan M5 J24 to J27 S/B & N/B – Initial AAP – June 2008
- 1860 M5 MP 208.90 Stoke Road – Asbestos Action Plan – March 2008
- 1861 M5 MP 209.40 Shoreditch Road – Asbestos Action Plan – March 2010
- 1862 M5 MP 210.30 Killams Lane – Asbestos Action Plan – March 2010
- 1863 M5 MP 210.60 Box Culvert – Asbestos Action Plan – March 2010
- 1864 M5 MP 211.60 Brown Elms – Asbestos Action Plan – May 2007
- 1865 M5 MP 212.00 Box Culvert – Asbestos Action Plan – July 2008
- 1866 M5 MP 212.10 Poundisford Park Footbridge – Asbestos Action Plan – August 2008
- 1867 M5 MP 212.90 Box Culvert – Asbestos Action Plan – August 2008
- 1868 M5 MP 213.10 Fulwood Road – Asbestos Action Plan – May 2007
- 1869 M5 MP 213.90 Wrexon Road – Asbestos Action Plan – July 2008
- 1870 M5 MP 214.50 Cutsey Service Area Footbridge – Asbestos Action Plan – July 2008
- 1871 M5 MP 215.10 Cutsey House – Asbestos Action Plan – May 2007

Vinyl floor tile debris containing chrysotile asbestos has been identified within the hardshoulder at marker post 210.5 northbound. Increased care should be taken near to this location. Any electrical cabinets within the works extents should also be assumed to include Asbestos Containing Materials.

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. Be aware of existing paint coatings to bridge beams.

### Tar based pavement/surfacing

Testing for tar-based materials is required as part of the survey works.

### Leptospirosis/Weil's disease / Psittacosis

The drainage contractor will come into contact with highway drainage and has the potential risk of encountering 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-coronavirus-covid-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.*

4. Existing Services Refer to STATS plans listed in Appendix D				
Statutory Undertaker	Not Present	Over head	Under ground	Comments
<b>Electricity</b>				
400/132kV [pylons]	✓			
66kV	✓			
33kV	✓			
11kV		✓	✓	
240/415Volts	✓			
<b>Water (Foul and Potable)</b>				
Public Foul			✓	
Pressurised Foul	✓			
Public Combined Gravity	✓			
Pressurised Combined	✓			
Culverted Watercourse			✓	
Water Main			✓	
Aqueduct	✓			
<b>Communications</b>				
Communications			✓	
<b>British Telecom</b>				
British Telecom			✓	
<b>National Grid</b>				
National Grid	✓			
<b>Transco</b>				
LP Mains	✓			
MP Mains	✓			
IP Mains	✓			
LHP Mains	✓			
NHP Mains	✓			
<b>Government Pipelines</b>				
Government Pipelines	✓			
<b>Fisher German Pipelines</b>				
Fisher German Pipelines	✓			
<b>Energis</b>				
Energis	✓			
<b>Motorway Communication</b>				
Motorway Comms			✓	
<b>Street Lighting</b>				
Street lighting	✓			
<b>Highway Drainage</b>				
			✓	
<b>Other</b>				
	✓			



**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-VGN-M5\_J25-J26\_CR-DR-CH-0001-01 to 0001-11.

## Appendix B - Construction Drawings

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

Reference	Rev	Title
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010001	P1	Central Reservation Surveys (Sheet 1 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010002	P1	Central Reservation Surveys (Sheet 2 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010003	P1	Central Reservation Surveys (Sheet 3 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010004	P1	Central Reservation Surveys (Sheet 4 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010005	P1	Central Reservation Surveys (Sheet 5 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010006	P1	Central Reservation Surveys (Sheet 6 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010007	P1	Central Reservation Surveys (Sheet 7 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010008	P1	Central Reservation Surveys (Sheet 8 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010009	P1	Central Reservation Surveys (Sheet 9 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010010	P1	Central Reservation Surveys (Sheet 10 of 11)
HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010011	P1	Central Reservation Surveys (Sheet 11 of 11)

## 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
405/204/B03/4	C	Holway Road Bridge: Column Details and Reinforcement	Somerset County Council
405/204/B03/10	C	Holway Road Bridge: Deck Reinforcement 2	Somerset County Council
405/204/B03/2	C	Holway Road Bridge: General Arrangement	Somerset County Council
405/204/B04/3	A	Stoke Road Overbridge: Foundation Plan and Column Details	Somerset County Council



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Reference	Rev	Title	Company
405/204/B04/10	C	Stoke Road Overbridge: Deck Reinforcement 2	Somerset County Council
405/204/B04/2	B	Stoke Road Overbridge: General Arrangement	Somerset County Council
002244.MNV.STR .007	AB	Stoke Road Overbridge: General Arrangement (MP 208.90)	Balfour Beatty / Mott MacDonald
405/204/B05/3	B	Shoreditch Road Bridge: Foundation Plan and Column Details	Somerset County Council
405/204/B05/10	D	Shoreditch Road Bridge: Deck Reinforcement Plan	Somerset County Council
405/204/B05/2	C	Shoreditch Road Bridge: General Arrangement	Somerset County Council
405/204/B06/3	B	Killams Lane Overbridge: Foundation Plan and Column Details	Somerset County Council
405/204/B06/12	A	Killams Lane Overbridge: Deck Layout	Somerset County Council
405/204/B06/2	B	Killams Lane Overbridge: General Arrangement	Somerset County Council
405/204/B07/3	A	Browns Elm Overbridge: Foundation Plan and Column Details	Somerset County Council
405/204/B07/10	C	Browns Elm Overbridge: Deck Reinforcement 2	Somerset County Council
405/204/B07/2	C	Browns Elm Overbridge: General Arrangement	Somerset County Council
405/204/B08/4	D	Poundisford Park Footbridge: Leg Frame Base Layout & Reinforcement	Somerset County Council
7072/13	A	Poundisford Park Footbridge: Deck Surface Details	Somerset County Council
405/204/B08/2	B	Poundisford Park Footbridge: General Arrangement	Somerset County Council
405/204/B09/3	A	Fulwood Overbridge: Foundation Plan and Column Details	Somerset County Council
405/204/B09/10	B	Fulwood Overbridge: Deck Reinforcement	Somerset County Council
405/204/B09/2	C	Fulwood Overbridge: General Arrangement	Somerset County Council
405/204/B16/2	D	Taunton Deane Service Area Footbridge: Reinforcement Details	Somerset County Council
7076/04	A	Taunton Deane Services Footbridge: New Wearing Surface Details	Somerset County Council
405/204/B16/1	F	Taunton Deane Service Area Footbridge: General Arrangement	Somerset County Council
405/204/B11/3	B	Cutsey House Overbridge: Foundation Plan and Column Details	Somerset County Council
405/204/B11/10	C	Cutsey House Overbridge: Deck Reinforcement 2	Somerset County Council



Reference	Rev	Title	Company
405/204/B11/2	C	Cutsey House Overbridge: General Arrangement	Somerset County Council
405/204/B12/3	A	Morrishs Farm Overbridge: Foundation Plan and Column Details	Somerset County Council
405/204/B12/10	B	Morrishs Farm Overbridge: Deck Reinforcement 2	Somerset County Council
405/204/B12/2	C	Morrishs Farm Overbridge: General Arrangement	Somerset County Council
405/204/C10/2	A	Culvert No10 (ID 1863) Reinforcement Details	Somerset County Council
405/204/C10/1	A	Culvert No10 (ID 1863) Plan & General Arrangement	Somerset County Council
405/204/C11/2	B	Culvert No11 (ID 1865) R.C. Details	Somerset County Council
405/204/C11/1	A	Culvert No11 (ID 1865) Site Plan & General Arrangement	Somerset County Council
405/204/C12/2	A	Culvert No12 (ID 1867) Reinforcement Details	Somerset County Council
405/204/C12/1	A	Culvert No12 (ID 1867) Plan & General Arrangement	Somerset County Council
405/204/B10/3	D	Wrexon Underbridge: Setting-Out and Frame Details	Somerset County Council
405/204/B10/2	C	Wrexon Underbridge: General Arrangement	Somerset County Council
405/204/C15/2	B	Culvert No15 (ID 1872) R.C. Details	Somerset County Council
405/204/C15/1	A	Culvert No15 (ID 1872) Plan and General Arrangement	Somerset County Council
405/204/C16/2	A	Culvert No16 (ID 1873) Reinforcement Detail	Somerset County Council
405/204/C16/1	A	Culvert No16 (ID 1873) Plan & General Arrangement	Somerset County Council
405/204/C17/2	A	Culvert No17 (ID 1874) Reinforcement Details	Somerset County Council
405/204/C17/1	A	Culvert No17 (ID 1874) Plan & General Arrangement	Somerset County Council
405/204/C20/2	C	Culvert No20 (ID 1876) R.C. Details	Somerset County Council
405/204/C20/1	B	Culvert No20 (ID 1876) Site Plan & General Arrangement	Somerset County Council

## Appendix D - Statutory Undertaker Drawings

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

Reference	Rev	Title	Company
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-01	P1	Statutory Undertakers (Sheet 1 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-02	P1	Statutory Undertakers (Sheet 2 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-03	P1	Statutory Undertakers (Sheet 3 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-04	P1	Statutory Undertakers (Sheet 4 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-05	P1	Statutory Undertakers (Sheet 5 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-06	P1	Statutory Undertakers (Sheet 6 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-07	P1	Statutory Undertakers (Sheet 7 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-08	P1	Statutory Undertakers (Sheet 8 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-09	P1	Statutory Undertakers (Sheet 9 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-10	P1	Statutory Undertakers (Sheet 10 of 11)	All stats combined.
HE570131-KIER-HRR-M5_207.5_217.5-DE-CH-0000-11	P1	Statutory Undertakers (Sheet 11 of 11)	All stats combined.

## Appendix E – Overhead cables

See GS6 Measurements and Essential Safety Data and Appendix B and D for locations of overhead services.

## Appendix F - List of Structures

Structure	Type	Location Ref	Str key	OSGR
Broughton Brook Southbound Inlet Weir	Small span structure	MP 208.0+67	28472	324949, 123588
Holway Road Overbridge	Overbridge	MP 208.1+59	1859	324888, 123520
Stoke Road Overbridge	Overbridge	MP 208.8+73	1860	324443, 122952
MS3 Cantilever Gantry	Small span structure	MP 209.2+30	27740	324162, 122740



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Structure	Type	Location Ref	Str key	OSGR
Shoreditch Road Overbridge	Overbridge	MP 209.4+07	1861	324034, 122615
Killams Avenue Culvert	Small span structure	MP 210.3	34292	323349, 122043
Killams Lane Overbridge	Overbridge	MP 210.3	1862	323329, 122066
Unnamed Culvert	Small span structure	MP 210.6+36	1863	323063, 121859
Brown's Elm Overbridge	Overbridge	MP 211.6+21	1864	322287, 121255
Unnamed Culvert	Small span structure	MP 212.0+34	1865	321960, 121004
Poundisford Park Footbridge	Overbridge	MP 212.1+21	1866	321894, 120957
Unnamed Culvert	Small span structure	MP 212.9	1867	321193, 120613
Fulwood Road Overbridge	Overbridge	MP 213.0+52	1868	321039, 120572
Wrexon Road Underbridge	Underbridge	MP 213.8+82	1869	320224, 120466
Cutsey Service Area Footbridge	Overbridge	MP 214.5+26	1870	319590, 120350
Cutsey Farm Overbridge	Overbridge	MP 215.0+86	1871	319050, 120214
Unnamed Culvert	Small span structure	MP 215.3+50	1872	318799, 120157
Unnamed Culvert	Small span structure	MP 215.8+77	1873	318269, 120071
Unnamed Culvert	Small span structure	MP 216.2	1874	317955, 120042
Morrish's Farm Overbridge	Overbridge	MP 216.5	1875	317645, 120030
Unnamed Culvert	Small span structure	MP 217.3+08	1876	316838, 120021



## Appendix G - Asbestos Action Plans

The following asbestos documents have been located for this scheme;

- 021 AAP M5 J24-J27 – Asbestos Action Plan M5 J24 to J27 S/B & N/B – Initial AAP – June 2008
- 1860 M5 MP 208.90 Stoke Road – Asbestos Action Plan – March 2008
- 1861 M5 MP 209.40 Shoreditch Road – Asbestos Action Plan – March 2010
- 1862 M5 MP 210.30 Killams Lane – Asbestos Action Plan – March 2010
- 1863 M5 MP 210.60 Box Culvert – Asbestos Action Plan – March 2010
- 1864 M5 MP 211.60 Brown Elms – Asbestos Action Plan – May 2007
- 1865 M5 MP 212.00 Box Culvert – Asbestos Action Plan – July 2008
- 1866 M5 MP 212.10 Poundisford Park Footbridge – Asbestos Action Plan – August 2008
- 1867 M5 MP 212.90 Box Culvert – Asbestos Action Plan – August 2008
- 1868 M5 MP 213.10 Fulwood Road – Asbestos Action Plan – May 2007
- 1869 M5 MP 213.90 Wrexon Road – Asbestos Action Plan – July 2008
- 1870 M5 MP 214.50 Cutsey Service Area Footbridge – Asbestos Action Plan – July 2008
- 1871 M5 MP 215.10 Cutsey House – Asbestos Action Plan – May 2007



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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, 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**

<b>Project Title:</b>	<b>570131D Priority VRS VM Development Batch 1 – 607 – M5 J25-26 BD MP 207.5 – 217.5 VRS</b>	<b>Kier Highways Job No.:</b>	<b>570131D-607</b>
<b>Project Description:</b>	<p>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. The survey works will include;</p> <ul style="list-style-type: none"> <li>- Topographical Survey</li> <li>- Drainage surveys including, manholes surveys and CCTV surveys of pipework.</li> <li>- Duct Survey</li> <li>- Trial Pits</li> <li>- Cores (including Dynamic Cone Penetrometer)</li> <li>- Asbestos management / refurbishment survey</li> </ul> <p>Refer to survey drawings; HE570131D-KIER-VGN-M5_J25-J26_CR-DR-CH-010001 to 010011</p> <p>This scheme stretches across the following chart sections;</p> <ul style="list-style-type: none"> <li>- 3300M5/510 SB Ch47m – Ch585m (538m)</li> <li>- 3300M5/515 SB Ch0m – Ch1000m</li> <li>- 3300M5/520 SB Ch0m – Ch1000m</li> <li>- 3300M5/530 SB Ch0m – Ch1000m</li> <li>- 3300M5/540 SB Ch0m – Ch1000m</li> <li>- 3300M5/550 SB Ch0m – Ch1000m</li> <li>- 3300M5/558 SB Ch0m – Ch900m</li> <li>- 3300M5/566 SB Ch0m – Ch1340m</li> <li>- 3300M5/582 SB Ch0m – Ch760m</li> <li>- 3300M5/590 SB Ch0m – Ch1170m</li> <li>- 3300M5/594 SB Ch0m – Ch335m</li> </ul>		
<b>Design Discipline:</b>	<b>Highways – Renewal of Roads</b>		
<b>Project Type as determined by GG104 (if applicable)</b>	<b>B</b>	<b>Prepared By:</b>	<b>[REDACTED]</b>

**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 -

<b>Population 1</b> – People directly employed by the Client and who work on the site e.g. Traffic Officers.	<b>'Workers'</b>
<b>Population 2</b> – People in a contractual relationship with the client.	
<b>Population 3</b> – 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.	<b>'Users'</b>
<b>Population 4</b> – 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.	<b>'Other Parties'</b>

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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	✓			Works are entirely within the highway boundary therefore no effect is anticipated.
1.2	Previous/existing land/ structures			✓	Location of underbridge and overbridge are highlighted on the construction drawings. Refer to Appendix B, C and F in PCI for details.
1.3	Roadways			✓	Works will be undertaken with a night time part carriageway / road closures. TM operatives will be working adjacent to live traffic during installation, maintenance and removal of TM. An 'airlock' system and gatesman should be in place to prevent unauthorised access.
1.4	Railways	✓			There are no railway underbridges within the scheme extents.
1.5	Water course			✓	There are 9no culverted watercourses which flow beneath the M5 carriageway within the scheme extents. All working near water precautions must be taken.
1.6	Ground conditions:	✓			
	• Contamination	✓			
	• Ground water	✓			
	• Instability	✓			
	• Mineral / mine workings	✓			
1.7	Access restrictions		✓		Live traffic will be present on the M5 under traffic management with a restricted speed limit.
1.8	Adjacent properties	✓			There are no properties adjacent to the carriageway along the works area.
1.9	Concurrent site activities			✓	There will be different types of survey works taking place throughout the duration of the works within the site extents.

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
1.10	Interface with the public			✓	Live traffic will be present on the M5. There is pedestrian route by footbridge over the works at MP 212.1 within the works area.
1.11	Occupied premises	✓			
1.12	Structural instability	✓			
1.13	Fragile materials	✓			
1.14	Hazardous materials		✓		Hot works permits will be required for all work involving bituminous products.
1.15	Land use	✓			
1.16	Traffic			✓	Live traffic present on M5 during TM setup / removal and during the works under traffic management with a restricted speed limit.
1.17	Night Time Working			✓	Works are to be completed at night leading to increased risks of slips, trips and falls.
1.18	Asbestos			✓	Previous AAP's show ACM's are presumed present in nearside verges within electrical boxes. Chrysotile has been identified in NB H/S at MP 210.5. However, asbestos materials are unlikely to be encountered as part of these works.
1.19	Plant Movement			✓	Plant movement in areas of site near to staff during darkness hours. A banksman should be present to ensure safe movement of the plant.
2.	<b>Existing Services</b>				
2.1	Underground				
	• Electrical			✓	Low voltage underground electric cables present within the works area. Refer to Statutory Undertakers Plans and Appendix E for more details.
	• Gas		✓		There are gas services present within the Shoreditch Road OB



Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
					and Stoke Road OB, MP 209.4 and 208.9.
	<ul style="list-style-type: none"> <li>Water (Asbestos pipes?)</li> </ul>		✓		There are water mains services which cross the carriageway and present within the works area.
	<ul style="list-style-type: none"> <li>Telecommunications</li> </ul>			✓	There are BT underground cables present within the works area. Refer to Statutory Undertakers Plans and Appendix E for more details.
	<ul style="list-style-type: none"> <li>Loops</li> </ul>			✓	Motorway communications / loops are present within the works area.
2.2	Overhead Services				
	<ul style="list-style-type: none"> <li>Electrical</li> </ul>			✓	There are overhead electric cables (11kV voltage) present within the area of works and cross the site in 6 locations.  Contractor is to obtain the safe working height prior to the start of the works. (Refer to Statutory undertakers records within the Survey Documentation)
	<ul style="list-style-type: none"> <li>Telecommunications</li> </ul>	✓			
	<ul style="list-style-type: none"> <li>Others (insert as necessary)</li> </ul>	✓			
3.	<b>Earthworks</b>	✓			
3.1	Deep excavations				
3.2	Slope / ground stability				
3.3	Ground water / water courses				
3.4	Plant movements				
3.5	Interface with services (refer 2)				
3.6	Contamination (ground / water) (refer 1.6)				
3.7	Adjacent structures (refer 1.8)				
3.8	Others (insert as necessary)				
4.	<b>Foundations</b>	✓			
4.1	Adjacent buildings/structures				

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
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				
	• Plant				
4.9	Grouting:				
	• Drilling work				
	• Dust				
	• Pollution				
4.10	Stability of structure				
4.11	Others (insert as necessary)				
<b>5.</b>	<b>Services Installation</b>	✓			
5.1	Excavations				
5.2	Ground water				
5.3	Ground conditions				
5.4	Existing services				
5.5	Testing operations				
5.6	Lifting operations				
5.7	Adjacent structures / activities				
5.8	Maintenance				
5.9	Contamination				
5.10	Others (insert as necessary)				
<b>6.</b>	<b>Drainage Works</b>				
6.1	Excavations				
6.2	Ground water				
6.3	Ground conditions				
6.4	Confined spaces			✓	Drainage survey works will be taking place including manhole and

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
					pipework CCTV surveys.
6.5	Leptospirosis / Weils disease			✓	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?)	✓			
6.7	Manual handling	✓			
6.8	Lifting operations		✓		Drainage survey works will be taking place including manhole and pipework CCTV surveys.
6.9	Maintenance	✓			
6.10	Sewage		✓		Public sewer crosses the works at MP 208.2.
6.11	Traffic			✓	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)		✓		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		✓		Contractor to ensure sufficient welfare facilities are in place at all times. All appropriate PPE must be worn at all times.
6.14	Lighting			✓	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				
7.1	Traffic management			✓	Temporary traffic management will be required to part close the M5 in both directions within the scheme extents and to

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
					prevent unauthorised access.
7.2	Adjacent traffic			✓	Live traffic present on M5 during TM setup / removal and during the works under traffic management with a restricted speed limit.
7.3	Construction materials		✓		Access to the site will be provided within the TM setup for all deliveries / waste removal. All materials to be installed and handled by competently trained operatives only. Refer to Control of Substances Hazardous to Health (COSHH) assessments.
7.4	Structural works			✓	Push and pull test to be carried out by competent person.
7.5	Adjacent structures			✓	Location of overbridges are highlighted on the construction drawings. Refer to Appendix B in PCI for details.
7.6	Noise		✓		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		✓		Suitable control measures are to be adopted to avoid Hand Arm Vibration (HAV) or reduce the duration of exposure.
7.8	Coal TAR in pavement		✓		Pavement investigations including trial holes and cores will be undertaken across the scheme extents, which will be subject to PAK testing to determine whether TBM's are present.
7.9	Night work			✓	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.

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
<b>8.</b>	<b>Steelwork Construction</b>	✓			
8.1	Working at height				
8.2	Lifting operations				
8.3	Temporary stability				
8.4	Connections				
8.5	Unusual sequence				
8.6	Materials, e.g. paints				
8.7	Consideration of future maintenance				
8.8	Others (insert as necessary)				
<b>9.</b>	<b>Concrete Construction</b>	✓			
9.1	Working at height				
9.2	Plant restrictions				
9.3	Lifting operations				
9.4	Noise				
9.5	Vibration				
9.6	Temporary instability				
9.7	Pre/post tensioning				
9.8	Materials				
9.9	Maintenance				
9.10	Joints (scabbling should not be undertaken)				
9.11	Others (insert as necessary)				
<b>10.</b>	<b>Masonry Construction</b>	✓			
10.1	Manual handling				
10.2	Lifting operations				
10.3	Materials				
10.4	Temporary stability				
10.5	Working at height				
10.6	Dust				
10.7	Durability				
10.8	Catastrophic collapse				
10.9	Others (insert as necessary)				
<b>11.</b>	<b>Timber Construction</b>	✓			
11.1	Materials				



Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
11.2	Working at height				
11.3	Temporary stability				
11.4	Lifting operations				
11.5	Manual handling				
11.6	Fire				
11.7	Dust				
11.8	Others (insert as necessary)				
<b>12.</b>	<b>Cladding</b>	✓			
12.1	Lifting operations				
12.2	Manual handling				
12.3	Maintenance / cleaning				
12.4	Others (insert as necessary)				
<b>13.</b>	<b>Glazing</b>	✓			
13.1	Manual handling				
13.2	Lifting operations				
13.3	Cleaning / maintenance				
13.4	Others (insert as necessary)				
<b>14.</b>	<b>Mechanical/Electrical Systems</b>	✓			
14.1	Access				
14.2	Existing services (asbestos?)				
14.3	Manual handling				
14.4	Materials / substances				
14.5	Confined spaces				
14.6	Pressure systems				
14.7	Testing operations				
14.8	Fixings				
14.9	Working at height				
14.10	Maintenance				
14.11	Others (insert as necessary)				
<b>15.</b>	<b>Railway Activities</b>	✓			
15.1	Train movements				
15.2	Overhead lines				

Potential Hazards Arising From:		Risk (without designer's elimination / management measures)			Comments
Ref:		Not Applicable	Low- NO Action Required	High – Action NEEDED	
15.3	Electrified track				
15.4	Underground services				
15.5	Adjacent structures				
15.6	Ground stability				
15.7	Contamination				
15.8	Others (insert as necessary)				
<b>16.</b>	<b>Demolition of Existing Structures</b>	✓			
16.1	Services				
16.2	Adjacent / adjoining structures				
16.3	Materials:				
	<ul style="list-style-type: none"> <li>Hazardous i.e. asbestos in permanent shuttering, waterproofing to bridge decks, joints etc.</li> <li>fragile</li> </ul>				
16.4	Working at height				
16.5	Temporary stability				
16.6	Pre/post tensioning				
16.7	Noise				
16.8	Vibration				
16.9	Dust				
16.10	Effect on usage of demolition materials				
16.11	Others (insert as necessary)				
<b>17.</b>	<b>Future Demolition / decommissioning of new structure/installation</b>	✓			
17.1	Unusual sequence				
17.2	Pre/post tensioned element				
17.3	Materials				
17.4	Adjacent/adjoining structure				
17.5	Temporary stability				
17.6	Contamination during usage of demolition material.				
17.7	Others (insert as necessary)				
<b>18.</b>	<b>Maintenance and Operation of Facility / Structure etc.</b>	✓			
18.1	Access				
18.2	Safety equipment				