A303 67.0 B3092 Underbridge
PIN: 570135
Construction (Design and Management) Regulations

DESIGNER HAZARD IDENTIFICATION AND RISK ASSESSMENT									
Ref:	**Hazard**	**P**	**S**	**R**	**Response/Control Measure**	**P**	**S**	**R**	**Details**
	Note to assessor: Refer to Note on Risk Classification attached to this pro forma to determine appropriate P/S value and R rating. Complete header and footer - delete/add assessment rows as necessary.								
1	Drainage Inspection Leptospirosis/Weill's disease Hepatitis B / Tetanus	3	3	9	Operatives to be briefed Inspection shall be carried out by specialist RAMS agreed with Overseeing Organisation. Full PPE shall be provided but risk remains	1	3	3	M
2	Damage to known and potential unchartered existing services: Contact with known and unchartered services would result in serious injury or death	5	5	25	C2 Stats enquiry confirmed that Virgin Media, INSTALCOM and BT ducts running in the verge of the A303 westbound. C2 STATS Service Locations are provided as part of the construction pack. Contractor shall carry out investigation to confirm depth and location of buried services (scan, trail holes, GPR) and shall be clearly marked out on a drawing. Suitable control measures shall be used with hand dug excavations.	3	4	12	M/S
3	Working on/adjacent to the carriageway: Risks of vehicles reaching the construction site. Death or serious injury caused by interface between plant/machinery/vehicles and personnel.	5	4	20	Temporary traffic management shall be designed by specialist TM contractor in accordance with Chapter 8 and shall aim at protecting both workers and members of public. Use of temporary safety barriers, temporary speed limit, speed cameras and recovery vehicles shall be considered in conjunction with lane/carriageway closures.	3	4	12	M

Verification: Project design stage – Feasibility		***Details (Typical examples identifying control measures resulting from risk classification)**								Sheet 1 of 5
Prepared by: Peng He Date: 24/05/2019	Checked by: MZ Date: 24/05/2019	D	Drawing	M	Method Statement	S	Specification, scope of work			
		R	Report	F	H&S File	H	H&S Plan		N/A	

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4	Access restrictions to/from working area onto A303 and the verges of the unnamed road below the bridge. Risks associated with transporting material & plant to site.	4	4	16	Safe site access and egress arrangements to be identified during TM design. Contractors to only use designated route through the closure to the works area. Principal Contractor to liaise with all other contractors regarding acceptable supply routes. All method statements shall adopt agreed supply routes.	2	4	8	M
5	Asbestos – Encountering or damaging asbestos containing materials. Development of asbestos-related and life limiting illness/disease. Tar – tar bound material in the existing carriageway can be encountered.	3	4	12	Asbestos survey conducted in 2017 found no ACMs were present in samples of waterproofing, joints and parapet paint on EB bridge. However, no sample was taken in the sub-surface drainage and WB structure. In addition, the 2018 AAP stated that it is presumed that the existing waterproofing (bituminous sheet) may contain chrysotile (white) asbestos. Asbestos Refurbishment Survey to verify this discrepancy between the two reports. Suspect material encountered shall be tested by the Asbestos Contractor. When asbestos containing materials are identified, the Principal Contractor is to review risk based on type of asbestos and the condition of the product found.	2	4	8	S/M
6	Hand Arm Vibration Syndrome	3	3	9	Work utilizing small mechanical breakers is necessary. It will be the responsibility of the Principal Contractor to ensure that any plant/tools used are fit for purpose.	2	3	6	M

Verification: Project design stage – Feasibility		***Details (Typical examples identifying control measures resulting from risk classification)**						Sheet 2 of 5
Prepared by: Peng He	Checked by: MZ	D	Drawing	M	Method Statement	S	Specification, scope of work	
Date: 24/05/2019	Date: 24/05/2019	R	Report	F	H&S File	H	H&S Plan	N/A

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Ref:	**Hazard**	**P**	**S**	**R**	**Response/Control Measure**	**P**	**S**	**R**	**Details**
					Hand protection shall be worn in accordance with the Principal Contractor's Safe System of Work. Personal exposure to vibration shall be monitored and where necessary, the use of vibratory equipment shall be rotated between site operatives.				
7	Working near the public, including on private land. There is a risk of injury or death to the public.	4	5	20	The public are to be segregated from the works with suitable control measures including site supervision and barriers when unoccupied. A safe route for pedestrians to continue their joinery around the works shall be provided.	1	5	5	M/S
8	Injury due to slips, trips and falls due to uneven ground caused by fallen concrete/rubble	3	3	9	The site is restricted in size, the Principal Contractor is to ensure the site is tidy and excavations have a suitable barrier in place when left unattended. All personnel are to avoid standing on manhole covers within the private property until their condition full condition is understood, upon which the Principal Contractor shall review the risk.	2	3	6	M
9	The noise and vibrations from the site may have an impact on the workers, road users and the adjacent properties. Hearing loss, eye injury, fatigue and vibration (HAVS)	3	3	9	Ensure that the local authority noise and vibration regulations are followed to limit the effect on the local properties/residents. Construction methods will have to fulfil the requirement of DMRB Volume 11 Part 3 such that the sound and vibration levels are not in excess of limit set by the local authority.	2	3	6	M

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					Noise and vibration monitoring and control need to be carried out on site.				
10	Working at night with accidents (i.e. slips, trips and falls) due to poor lighting or fatigue	4	5	20	Adequate task lighting to be provided, and adequate resources and welfare are available on site. The level of lighting must be agreed with the overseeing organisation.	2	4	8	M

EXPLANATORY NOTE ON RISK CLASSIFICATION

Risk is the likelihood of potential harm from a hazard being realised. The extent of risk will depend on:

- The likelihood/probability of that harm occurring
- The potential severity of that harm, i.e. of any resultant injury or adverse health effect
- The population which might be affected by the hazard, i.e. the number of people who might be exposed.

The risk assessments should be reviewed if there is reason to suspect that they are no longer valid or there has been a significant change in the matters to which they relate. (Ref: Management Regulations – Regulation 3).

Risk classification and required action:

Probability (P) *		**Severity (S) ***					
		0	**1**	**2**	**3**	**4**	**5**
		No harm	**Minor harm**	**Moderate harm**	**Serious harm**	**Major harm**	**Catastrophic harm**
0	**Almost impossible**	**-**	**-**	**-**	**-**	**-**	**-**
1	**Extremely unlikely**	-	1	2	3	4	5
2	**Unlikely**	-	2	4	6	8	10
3	**Likely**	-	3	6	9	12	15
4	**Extremely likely**	-	4	8	12	16	20
5	**Almost certain**	-	5	10	15	20	25

Risk rating/classification (R)	
0 – 1 / Low	**No action required**
2 -6 /Low	**Ensure control measures are maintained and reviewed as necessary to ensure so far as is reasonably practicable the appropriate control of residual risk**
8 – 16 /Medium	**Control measures to reduce risk rating to a level which is as low as is reasonably practicable**
20 – 25 /High	**Activity not permitted – hazard to be avoided or risk to be considerably reduced**

*** Probability that harm will occur:**

0	Almost impossible	Probability close to zero
1	Extremely unlikely	Highly improbable, never known to occur
2	Unlikely	Improbable, remote chance
3	Likely	Possible, has happened occasionally
4	Extremely likely	Probable, commonly occurs
5	Almost certain	Inevitable, definite, continually occurs

*** Potential severity of harm: e.g.**

0	No harm	No injury, damage, sickness or other loss
1	Minor harm	Minor injury with short term effect, minor damage or loss
2	Moderate harm	Lost time injury or illness, moderate damage or loss
3	Serious harm	Over 3 day injury or illness, substantial damage or loss
4	Major harm	Major injury, major damage or loss
5	Catastrophic harm	Fatality (inc. to the public) or disabling illness, catastrophic damage or loss