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Scheme Delivery Framework 28/09/23



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Area 12 Broughton Resurfacing Scheme SDF-NE-W245 Designer's Environmental Risk Assessment F12

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Jacobs U.K. Limited

2nd Floor, Cottons Centre Cottons Lane London SE1 2QG United Kingdom T +44 (0)203 980 2000 www.jacobs.com

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Project:	Area 12 Broughton Resurfacing	HighStone	(1700)
Design Stage:	Detailed Design	Code:	617900
Prepared By:	Harrison O'Connor	Approved By:	Amy Rhodes / Tim Jones
Title:	Design Team	Title:	Environment Team
Date:	August 2023	Date:	September 2023

DESIGNI	ER'S ENVIRONMEN	ITAL RISK ASSESSME	NT	
	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
Site Spe	cific Actions			
1	Temporary increase in noise levels during proposed works at the Broughton Depot	<u>Construction Stage:</u> Resurfacing works at the Broughton Depot	 Traffic management for the proposed works will comprise sectioned off area of the Broughton Depot to ensure no users of the depot will be able to access the proposed works and no diversion route will be required. As a result, this will not lead to any exceedances in the DMRB LA 111 thresholds potential significant effects for the use of for diversion routes (i.e. 10 or more days or nights in any 15 consecutive days or nights; or a total number of days exceeding 40 in any 6 consecutive months)). Therefore, further noise assessment is not deemed to be required for this scheme. As a precautionary measure, any potential noise and vibration effects during construction will be mitigated through the following best practice to be implemented by the appointed Contractor: Specific mitigation for construction noise will be controlled by the implementation of best practice under BS 5228 Part 1: Noise and BS 5228 Part 2: Vibration. The appointed Contractors' Communications Team to provide North Lincolnshire Council's Environmental Health Officer (EHO) with notification letter and contact number for a site operative to contact in the event of complaints. This should be undertaken at least two weeks prior to the start of the works. 	Site supervisor to be made aware of the mitigation measures and information will be included in the Pre- construction Information (PCI) plan.

	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
1 (Cont.)			 As night-time working is required (20:00 to 06:00hrs), wherever possible, ensure that the noisiest operations are undertaken during the earlier part of night-time working to minimise nuisance to sensitive receptors, such as nearby residential properties. Appropriate use of plant and machinery i.e., appropriate to size of works, modern machinery, main connected machinery where possible. Any generators or diesel-powered site lighting or equipment to be situated away from the site boundary/public view or screened and attenuated through the use of acoustic barriers. Toolbox talks to be given to site operatives at the start of shift for general noise awareness i.e., shouting, music, movement of materials and idling machinery. Currently, the Design Team has confirmed that a site compound will be required for this scheme. As the works are taking place inside of a National Highways Depot there is potential for the compound to be located within the boundaries of the depot (to be confirmed by National Highways). If located at the depot there will be a need for the site compound to be maintained to existing hardstand areas, where feasible to do so, and located away from identified sensitive noise and vibration receptors (i.e. residential and community receptors) to mitigate any potential adverse impacts occurring during the use of the compound. 	
2	Temporary impacts to local air quality during proposed works	<u>Construction</u> Resurfacing works at the Broughton Depot	 The Design Team have confirmed that the Traffic Management for the scheme will comprise a sectioned off area inside the Broughton Depot, adjacent to the proposed works. No users of the depot will be able to access the works taking place. This Traffic Management solution will not last over a significant period of time (i.e. in excess of two years), or pass through a sensitive air quality location (i.e. AQMA or Clean Air Zone) and no diversionary measures are needed for this scheme, which are all confined to within the depot boundary only. In addition, as a precautionary measure, the following air quality best practice mitigation measures will be followed during the works by the appointed Contractor: Modern machinery and/or machinery with diesel particle filters (DPFs) can limit pollutants released into locality and static plant i.e. lighting towers will be connected to mains where practicable to avoid the use of diesel-powered machinery. 	Site supervisor to be made aware of the mitigation measures and information will be included in the PCI plan.

	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
2 (Cont.)			 Damping down will be used to mitigate any dust created by the works, i.e. for any breakout, excavation or cutting works. The emission credentials must be considered during the procurement of machinery, plant, vehicles and equipment. The use of electric equipment should be given priority in the procurement process. All plant must be properly maintained and throttled down or switched off when not in use. If used, fuel storage tanks must be located away from the site boundary and vented at a point remote from sensitive receptors (e.g. schools, hospitals or residential properties). Currently, the Design Team has confirmed that a site compound will be required for this scheme. As the works are taking place inside of a National Highways Depot there is potential for the compound to be located at the depot there will be a need for the site compound to be maintained to existing hardstand areas, where feasible to do so, and located away from identified sensitive air quality receptors (i.e. residential and community receptors) to mitigate any potential adverse impacts occurring during the use of the compound. 	
3	Temporary increase in odour levels	Construction Laying of new road surface as part of resurfacing works at the Broughton Depot	 No action required as odour levels will dissipate quickly to normal levels. Works on site to follow best management practices (BMPs) to reduce and effectively manage any temporary increases in odour levels. 	None
4	Spillage of oil/chemicals affecting nearby watercourses and drainage ditches	<u>Construction and</u> general activities	 Any potential effects on the drainage and water environment shall be mitigated through the appointed Contractor implementing the following best practice measures described below during the works: The appointed Contractor to implement appropriate best practice pollution control measures during the works, such as that contained in the Guidance for Pollution Prevention (GPPs) (<u>http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-andreplacement-series/guidance-for-pollution-prevention-gpps-full-list/</u>). Of relevance are GPP 5: Works and maintenance in or near water; GPP 21: Pollution incident response planning; and GPP 22: Dealing with spills. 	Information to be provided in PCI plan. Site supervisor to be made aware of all watercourses and drainage ditches within the works area.

	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
4 (Cont.)			 Implementation of standard spill/leak control measures (e.g., bunded fuel storage area, spill kits, interceptors) to prevent spillages into nearby sensitive watercourses and drains. Neoprene drain covers may be used to cover gullies in the works area. Booms, pads, absorbent sheets and spill kits must be made available on site to deal with any accidental spillage with operatives trained in its use. The appointed Contactor shall have a plan for storage and re-fueling of all plant and equipment that contains/ uses fuel or other harmful substances (predominantly liquids), to minimise risk of release to the water environment. The Construction Phase Plan (CPP) (or equivalent document) to show who to contact in the event of a spillage or emergency. In the event of an uncontrolled spillage the Regional Operations Centre and the National Highways North-East Environment Team must be contacted, and the Environment Agency will be informed of all pollution incidents and action taken. Prevention of soil erosion through restricting plant on unvegetated ground with no parking of plant, vehicles, or storage of materials on the roadside verges adjacent to the carriageway areas subject to the works, and the avoidance of repeated tracking from vehicles. Should any damage occur to the soft estate this must be fully reinstated, where necessary, upon completion. This is likely to be with species of local provenance. Where water is used for dust suppression following excavations on-site, the wastewater generated cannot be discharged to ground or surface water (including all nearby drainage). 	

DESIGN	ER'S ENVIRONMEN	ITAL RISK ASSESSME	NT	
	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
4 (Cont.)			 Appropriate emergency evacuation procedures will be put in place, to be implemented in the event of a flood occurring. Currently, the Design Team has confirmed that a site compound will be required for this scheme. As the works are taking place inside of a National Highways Depot there is potential for the compound to be located within the boundaries of the depot (to be confirmed by National Highways). If located at the depot there will be a need for the site compound to be maintained to existing hardstand areas, where feasible to do so, and located away from identified sensitive road drainage and water resource receptors to mitigate any potential adverse impacts occurring during the use of the compound. In using such areas, standard good practice for pollution prevention, as outlined in this table, must be implemented during works. Spill kits need to be available at the site compound and all staff to be trained in how to use emergency response equipment. Drip trays are to be used under vehicles and plant when stationary. Should the works start to produce large amounts of dust, standard dust prevention measures such as dust extraction or dampening must be implemented. 	
5	Material use and generation of waste (including potential hazardous waste)	Construction Excavations / planing of hardstanding areas within Broughton Depot for resurfacing	The Design Team have confirmed that it is not currently anticipated that the proposed works will generate any hazardous waste. For any waste material requiring off-site disposal, Material Testing / WAC testing will be required, and the waste material will need to be removed and disposed of to a suitably licensed waste management facility in accordance with current Defra/EA 'Waste Duty of Care Code of Practice'. Due to the nature of the scheme, the works are to be completed in a standard way although the appointed Contractor will ensure that all materials are disposed of correctly to an appropriate licensed waste management facility. The appointed Contractor will oversee this through the SWMP as the Design Team no longer complete the SWMP. The appointed Contractor will also be in control of the recycling / re-use options for waste produced during the delivery of this scheme.	Information provided at the Pre-Start Meeting and Information will be included in the PCI plan. SWMP to be provided. Waste carrier registration numbers for all carriers and environmental permit/exemption of all the disposal sites must be checked and entered in the SWMP.

Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
5 (Cont.)		 In addition, the following materials and waste mitigation measures shall be followed prior to and during the works by the appointed Contractor: A Site Waste Management Plan (SWMP) must be prepared by the appointed Contractor. The SWMP must include appropriate targets for the reuse, recycling, or recovery of nonhazardous Construction and Demolition waste, either on site or off site in line with the Waste Framework Directive. Any redundant material produced during construction will be managed through the SWMP and taken to the appropriate facilities for beneficial reuse, recycling, or other recovery (e.g. into recycled aggregates). The SWMP must also be kept up to date by the appointed Contractor with correct Waste Carrier Registration Numbers for all carriers, and environmental permit / exemptions of all disposal sites. All project waste must be stored, transported, treated, reprocessed and disposed of safely during the proposed works, in accordance with those requirements specified in the Defra/EA 'Waste Duty of Care Code of Practice'. Waste disposal arrangements information must be provided at the pre-start meeting by the appointed Contractor and must be discussed and agreed with any sub-contractors utilized to deliver the works. This is to ensure the correct provisions are made for all waste streams, and that licensed waste carriers and waste disposal sites are used. For waste requiring off-site disposal, waste transfer notes (non-hazardous waste) or consignment notes (for hazardous waste) must be completed by the appointed contractor before any waste is taken off site. The paperwork will be retained for 2 years for waste transfer notes, and 3 years for consignment notes. The appointed Contractors Site Agent must confirm that licensed waste carriers and disposal sites are used before the works commence. If any waste is temporarily stored on site, the site must be registered for S1 and S2 Waste Exemptions, and therefore it must be placed in	

	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
6	Temporary increase in ambient lighting levels from the proposed use of task lighting during night-time operations	Construction Night-time working	 As night-time working is currently required (20:00 to 06:00hrs), any temporary task lighting used will need to be controlled and directed in accordance with current best practice guidance, such as the Institution of Lighting Professionals (ILP) Guidance Note GN01/21: The Reduction of Obtrusive Light (Institution of Lighting Professionals, 2021), in order to minimise any potential disruption to the local area (residential properties), traffic and any surrounding sensitive receptors. For any night-time working, the minimum number of lighting units shall be used to provide the desirable levels of illumination to allow safe working. 	Information will be included in the PC plan.
7	Potential presence of protected species, habitat, and invasive plant species	<u>Construction</u> Resurfacing works at the Broughton Depot	 No further assessment is recommended from a biodiversity perspective for this scheme; however, the SDF North-East Ecology team noted the following: The proposed works involve the resurfacing a total working area of 3097m², composed of excavation of 2656sqm at a depth of 50mm and excavation of 441sqm at a depth of 100mm, no adjacent vegetation or trees to be lost during the works and no works within the soft estate. It is assumed that any compound will be entirely on hardstanding in the National Highways depot. Although no dates are available, the works are due to take place in the winter of 2023 over 3 days, entirely at night. If there are updates to the scheme and this information is no longer correct, ecology advice should be sought on the updated design. Any task lighting used during the construction phase should be directed away from tree line and surrounding habitat which could support commuting and foraging bats and best practice should be followed to avoid unnecessary light spill as a precaution as per the Institution of Lighting (2023)¹. 	Site supervisor to be made aware of the mitigation measures and information will be included in the PC plan

¹ Institution of Lighting Engineers (ILE) / Bat Conservation Trust Guidance Note 8: Bats and Artificial Lighting (2023): <u>https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/</u>

Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
7		In addition, as a precautionary measure, the following good practice mitigation is proposed:	
(Cont.)		 The broken is a precedularly measure, the rotenting good preceder magations proposed. The proposed works should be undertaken in accordance with the guidelines described in BS 42020:2013 Biodiversity: Code of Practice for Planning and Development. If soft estate works are determined to be required prior to / during the scheme's construction phase, the Environment Team must be contacted before any works occur, in order to ascertain whether any additional measures and / or environmental assessment is required prior to works proceeding. Best practice pollution prevention measures are to be put in place throughout the entire scheme. No works activities are currently scheduled to be undertaken within areas of the soft estate and are to be restricted to the carriageway areas only within the existing Broughton Depot. However, should any damage occur to the soft estate during the works this must be fully reinstated, where necessary, upon completion. This is likely to be with species of local provenance. No parking of plant, vehicles or storage of materials on the roadside verge. Supervisors and operatives are to be made aware of the potential presence of protected species / habitat within the immediate and wider surrounding area. Any damage that does occur to the soft estate must be fully reinstated, where necessary, upon completion of the works. This is likely to be with species of local provenance. All measures detailed in the <i>Point 1</i> ('Noise and Vibration'), Point 2 ('Air Quality') and Point 4 ('Road Drainage and the Water Environment') of this table are to be followed by the appointed Contractor. Site operatives to be briefed before the start of shifts through a Protected Species Toolbox Talk. Supervisors and operatives are to be made aware of the potential presence of protected species, INNS (i.e. Japanese knotweed, Himalayan Balsam, Giant Hogweed) and injurious 	

Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
7 (Cont.)		 As such, in relation to INNS it is recommended that: Good biosecurity protocols must be observed at all times, including ensuring that all plant, vehicles, equipment, footwear etc. arriving on site are clean and free from contamination. If any INNS are observed within or adjacent to the site at any stage, works in that area must cease immediately, all plant vehicles and equipment used in that area must be thoroughly cleaned and checked for contamination before leaving the area and an INNS Control Plan put in place to prevent the spread of INNS and where applicable remove them from the site. Contractors to receive a protected species / INNS Toolbox Talk prior to the commencement of works. If at any point during the construction, protected species are identified then all works should cease immediately and a suitably experienced ecologist consulted with for guidance and further advice. Standard good practice for pollution prevention must be implemented during works. All vehicles are to carry spill kits and all staff to be trained in how to use emergency response equipment. Drip trays are to be used under vehicles and plant when stationary. Should the works start to produce large amounts of dust, standard dust prevention measures such as dust extraction or dampening must be implemented. Plant, equipment and machinery with the lowest possible decibel levels must be used for undertaking the works in order to minimise noise disturbance. Plant, vehicles and machinery must he soft estate and no storage of plant, machinery, equipment, or materials within the soft estate is permitted. All vehicles, plant and machinery must be parked and tracked along areas of existing hardstanding (not within the soft estate) during works. Any new roadkill records must be forwarded to the Regional Operations Centre or the National Highways North-East Environment Team / SDF North-East Region Environment	

	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
7 (Cont.)			 All leftover materials and equipment are to be removed from site following completion of all construction operations. Should any protected species be discovered during works the following emergency procedures must be followed by the appointed Contractor: Stop works immediately and notify the Site Agent and Environment Team as soon as it is safe to do so. The Environment Team will determine whether further assessment / measures are required prior to works restarting. Do not handle animals unless under the direction of a suitably qualified and licensed ecologist. Currently, the Design Team has confirmed that a site compound will be required for this scheme. As the works are taking place inside of a National Highways Depot there is potential for the compound to be located within the boundaries of the depot (to be confirmed by National Highways). If located at the depot there will be a need for the site compound to be maintained to existing hardstand areas, where feasible to do so, and located away from identified sensitive ecological receptors to mitigate any potential adverse impacts occurring during the use of the compound. 	
8	Greenhouse gas (GHG) emissions and the vulnerability of the scheme design to changes in future climatic conditions	<u>Scheme Design</u>	 Although it is anticipated that construction phase GHG emissions associated with the proposed scheme will not have a material impact on the ability of the UK government to meet its carbon reduction targets (and therefore will not be significant in accordance with the criteria set out in DMRB LA 114), carbon saving options have been considered as part of the scheme design; looking to minimise the amount of plant used to complete the scheme (refer to Section A of the Designer's Environmental Assessment Proforma (F11)). In addition, the requirement to report the actual GHG emissions released as a result of the construction process to the Overseeing Organisation will be included in the Construction Phase Plan (CPP) (or equivalent document). The reports shall be produced until the completion of the project and using an industry acceptable tool (e.g., National Highways Carbon Tool). The Design Team have looked to identify sustainable and innovative options as part of the scheme design through aiming to use ; the exact amount of asphalt material and aiming to make the material last as long as possible (refer to Section A of the Designer's Environmental Assessment Proforma (F11)). 	Information will be included in the PC plan for handover to the appointed Contractor.

DESIGN	ESIGNER'S ENVIRONMENTAL RISK ASSESSMENT			
	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
Genera	Actions			
9	Potential cumulative impacts on road users and surrounding local communities	Scheme Design	 The appointed Contractor to ensure that the proposed works are not planned to be undertaken during the same period as any other significant highway works along this section of the M180 or surrounding local authority roads, such as Ermine Street. This is to mitigate any potential cumulative impacts from arising. If any significant highway works are identified, then the appointed Contractor to investigate whether the works can be captured within already planned traffic management to mitigate any potential cumulative impacts arising on existing road users on the network and surrounding local authority roads and neighbouring local communities. 	Refer to Point 1 and Point 2 relating to further noise and air quality considerations. Information will be included in the PCI plan for handover to the appointed Contractor.
10	Interference with the road users and pedestrians	<u>Construction and</u> general activities	 As a precautionary measure, any potential indirect effects on surrounding receptors during the works will be mitigated through the following best practice to be implemented by the appointed Contractor: To carry out the works safely, the appointed Contractor to implement adequate Traffic Management to facilitate the works within the Broughton Depot. Users of the Broughton Depot to be notified of the works and any restrictions in place in the delivery of the resurfacing works. A Communication Plan to be drafted for handover to the appointed Contractor. If deemed necessary, the appointed Contractor to inform the occupants of Forest Pines Hotel, Spa & Golf Resort and Forest Pines Golf Club of the works and traffic management arrangements in advance via leaflet drop. Currently, the Design Team has confirmed that a site compound will be required for this scheme. As the works are taking place inside of a National Highways Depot there is potential for the compound to be located within the boundaries of the depot (to be confirmed by National Highways). If located at the depot there will be a need for the site compound to be maintained to existing hardstand areas, where feasible to do so, and located away from identified sensitive receptors (i.e. residential and community receptors) to mitigate any potential adverse impacts occurring during the use of the compound. 	Information will be included in the PCI plan for handover to the appointed Contractor.
11	Wildlife in the road	Construction and general activities	Any new road kill records should be forwarded to the Area Environment Team. Be vigilant in accessing and moving plant and vehicles around the site.	None

	Hazard/Risk	Operation/Task	Actions or Mitigation Measures	Environmental Information to be Provided
12	Risk of fly-tipping containing ACM's	Construction and general activities	Workforce to be aware of all hazards associated to the site. If fly tipping occurs notify National Highways via the NH Website	Site supervisor to be made aware of the mitigation measures and Information will be included in the PCI plan.
13	site environmental issues	Construction and general activities	Site supervisor to inform sub-contractors / supply chain partners of issues raised in Designer's Environmental Impact Checklist as part of the induction process.	Site supervisor to be made aware of the mitigation measures and information will be included in the PCI plan.
14	In the event there is a change in works to include (or additional) working near protected species, vegetation clearance or works outside of the boundary of the Broughton Depot	<u>Construction and</u> general activities	Contact the National Highways Environment Team as further assessment may be required depending on the scope and scale of the works.	Site supervisor to be made aware of the mitigation measures and Information will be included in the PCI plan.