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National Highways 617900

Scheme Delivery Framework 28/09/23



Jacobs

Area 12 Broughton Resurfacing Scheme SDF-NE-W245 Designer's Environmental Assessment Proforma F11

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SECTION A: ENVIRONMENTAL ALERT FORM (to be completed by Design Team)

This Environmental Assessment shall be used to identify the likely environmental requirements associated with any proposed scheme work. The Project Manager for the associated scheme shall have responsibility for ensuring an Environmental Assessment is completed and submitted to the Environment Team for assessment in a timely manner (a minimum of 30 days before requested date of return), failure to do so may result in delays to the programme. A completed Environmental Assessment and Environmental Risk Assessment are required for ALL schemes (including preliminary site investigations and surveys). The Environmental Assessment is to be updated as required through scheme development and used to inform the SDF designer at Detailed Design stage.

Scheme Information					
Scheme Name	Area 12 Broughton Resurfacing Scheme		PIN		617900
Scheme location (incl. marker posts)	Ermine Stre	et	Start & End Coordinate	95	495663,406980
Start & End Coordinates	495617,40	7050	Asset Type		Pavement renewal
Design Team Lead	Karl Bell		Project Manager		Mohamed Abdikadir
Date Form Submitted	15/08/202	3	Return Completed For	m to	Harrison O'Connor
Anticipated Scheme Cost (£)			Hours of Works		20:00 to 06:00hrs
Construction Start Date (if known)	Before winte this year	er months of	nths of Construction Duration (if known)		ТВС
Diversion Route Required?	No		Scheme Area Including Traffic Management & Storage (ha)		3097sqm
Scheme Type (maintenar	nce, improvei	ment or constru	iction)		
Maintenance 🛛		Improvement		Constru	ction 🗆
Mandatory Information a	it Investigatio	on/Survey, Preli	iminary, or Detailed Desi	ign Stage	?
Investigation/Survey Stag	е 🗆	Preliminary De	esign Stage 🗆	Detailed	Design Stage 🛛
Required Information for I	nvestigations	/Surveys:			
Broughton Depo	t Located just	off Ermine Stre	et		
No Additional Su	irveys should	be required.			
There should be	no vegetatior	n works due to th	ne nature of the scheme.	The schen	ne is a pavement renewal.
Dates yet to be c year	onfirmed, how	wever, the schen	ne is looking to be compl	eted befo	re the winter months of this
Required Information for F	Preliminary De	esign:			
All available information/	drawings				
All drawings and scheme	documents ar	e located in the	scheme folder link - <mark>04 [</mark>	Documer	<u>nts</u>

Required Information for Detailed Design:

- Vegetation clearance drawings N/A
- Due to works taking place inside of a National Highways depot a TTRO and TMOR should not be needed as all works are taking place on a property where access will be required, and no public will be near to the works.
- All available information/drawings this is located in the scheme folder link below.

W245-617900-Area 12 Broughton Resurfacing

Briefly describe the nature and size of the scheme including purpose of works, details of works, total working area (m2), vegetation clearance (m2), excavations, construction duration and proposed traffic management (please provide drawings/maps etc.)

Purpose of works:

The surfacing in Broughton depot is showing signs of deterioration due to the age of the surfacing and because of winter maintenance activities. Surfacing defects are evident around the depot which are becoming hazardous. These could lead to slips, trips and/or falls. Maintenance costs will increase if improvements are not carried out.

It is proposed to resurface the affected areas with a suitable material to ensure the longevity of the surfacing.

Details of works: Describe any new or replaced permanent features or changes including work to existing structures.

Total working area (m2)

- Working Area: 3097m²
- Traffic Management: TM will consist of sectioned off areas inside the depot so no users of the depot will be able to get too close to the works taking place.
- Apparatus, Equipment, Machinery, Plant: All standard equipment for a resurfacing scheme will be used for example a plainer and roller.
- Compound: This will more than likely be located inside the depot
- Spoil Heaps: Any waste should be sent to the correct waste management facility.

Vegetation clearance m2:

N/A

Excavation works (width x length x depth):

Different Lengths and widths will be used for different depths.

50mm depth treatments = 2656 sqm

100mm depth treatments = 441 sqm

Traffic management: Minimal due to location of the works

Will the works be entirely restricted to National Highways estate? (incl. compound)	Yes
If NO, how much and what type of land is being acquired/leased?	
How will the site be accessed? (attach plan if appropriate)	

Site will be accessed through the main Gate of the National Highways depot located just off Ermine Street

Where will the site compound be located? (Attach plan if appropriate)

This is not 100% confirmed with National Highways yet however due to the works taking place inside of a National Highways Depot there is potential for the compound to be located within the boundaries of the depot.

1. Site Investigation

Site investigations and whether they have been undertaken or are planned:

Due to the nature of the works these should be minimal

2. Type of Environmental Assessment

Is the area of the scheme 1 hectare or more (include compounds, storage, tipping areas etc.)?

[Note, if the scheme is 1 ha or more or affects/adjoins a designated site, the Record of Determination / Notice of Determination (RoD/NoD) process may be triggered. This is a National Highways mandatory process and will normally take 3 months to complete.]

3. Environmental Considerations (to be completed by the designer)

Does the scheme involve any vegetation loss? If yes, provide details below (e.g., trees, hedgerow etc.):

	Y	N			
Habitat loss		\boxtimes	Approx. area (m ²):	n/a	
If hedgerow, length to be removed: (if more than 20m Local Authority or National Highways approval may be required)			Length (m):	n/a	
Tree Removal		\boxtimes	Approx. area (m2)	n/a	
Is there any anticipated environmental mitigation included? e.g. replanting of trees, grass n/a seeding etc.					
If yes, provide details:					

NH aim to achieve no net biodiversity loss across all activities. Please consult with the Ecology Lead to assess Biodiversity Metric requirements and use the below resources:

Biodiversity - Highways England (nationalhighways.co.uk)

Υ

Ν

 \boxtimes

https://nationalhighways.co.uk/media/vh0byhfl/5-year-delivery-plan-2020-2025-final.pdf									
Please list Biodivers agreed with the Env	-		nities (e.g	. habit	at cre	eation /	enhancements)	that are p	part of the scheme or as
If answered yes to a	ny of the o	pportunitie	es above,	pleas	e pro	vide a d	escription:		
Are hazardous wast produced as part of			n material	l, asbe	stos,	paints)	anticipated to be	5	n/a
If answered YES to any of the above or if other relevant information is available, please provide details:									
What types of waste	are anticip	oated as pa	art of this	scher	ne? F	Refer to	DMRB LA 110 'N	Material A	ssets and Waste'.
Planings 🛛 Conc	rete 🛛	Soils 🗆	Metals		Woo	od 🗆	Electrical 🗆	Paper 8	Cardboard Packaging 🗆
Other:									
If any of the above t	ypes of wa	iste will be	generate	d, ple	ase st	ate the	type(s) and the a	approxim	ate quantity of each waste:
Waste Type						Quant	ity		
Plainings						2293 sqm			
Concrete						804 sqm			
What options or me	asures are	in place to	avoid or	minin	nize w	vaste pr	oduced and avoi	d disposa	al?
	rials are di	isposed of	correctly	to an	appro	opriate l	icensed waste m	nanageme	e appointed Contractor will ent facility. The appointed VMP
What recycling/reus	e options a	are in place	e for any	waste	prod	uced?			
The appointed Cont this scheme.	ractor will	be in conti	rol of the	recyc	ling /	re-use	options for waste	e produce	ed during the delivery of
Material	Quantity	(approxim	nate)	Can	alterr	native re	ecycled materials	s be used	? Describe.
Dense Binder Asphalt Concrete 60mm thick	1821m ²	2		N/A					
Thin Surface 2751m ² N/A Course N/A									
Tack Coat	2751m ²	2		N/A					
White Road Markings and Yellow Road Markings	182m			N/A					

Will there be any discharge of water from operational areas? (e.g. hydro-demolition, dewatering)	n/a
Will there be any change to the drainage system?	n/a
Will the works occur within 8m of the top of the bank of a watercourse or utilize temporary structures in or over a watercourse?	n/a
If answered YES to any of the above or if other relevant information is available, please provide	e details:
n/a	
Have carbon saving options been considered for this scheme (e.g., use of less materials, low carbon materials, approach to construction activity planning that reduces vehicle / plant use & emissions)? Refer to DMRB LA 114 for further information relating to sources of GHG emissions.	Yes
If answered YES to any of the above or if other relevant information is available, please provide	e details:
Minimise the amount of plant used to complete the scheme. Due to this being a small scheme	e not too much plant should

4. Sustainability and Innovation

be needed.

What sustainability and / or innovation options have you considered in your design and construction?

Using the exact amount of asphalt material and trying to make the material last as long as possible

5. Consultation			
	Y	N	N/A
Have relevant local authorities, Environment Agency, or other statutory bodies been consulted?		\boxtimes	
To be Completed			
Have any necessary licence/consent applications been made (discharge consents, hazardous waste registration etc.)?			
To be Completed			

Date Received:	18/08/23	Desk Study Date Produced:	04/09/23	
Completed by (name and date):	Amy Rhodes 04/0	9/23		1
Qualifying Criteria for Annex II Rele	evant Projects		Y	N
Is the project for improving a high	vay (i.e. not a mainte	enance scheme)?		
Is the area of the scheme 1 hectard (Record of Determination / Notice	.)			
Is the project situated in whole or i	n part in a sensitive a	area?		
Generally taken to include:				
1) Sites of special scientific i				
 any land adjacent to such an area that is notified to the local planning authority in accordance with [England legislation]; 				
3) National parks;				
4) Areas of outstanding natural beauty (AONB);				
5) World heritage sites;				
6) Scheduled monuments; a	ind			
7) European sites (Natura 200				
Is the scheme a 'relevant' Annex II				
Is the scheme an Annex III project?				\boxtimes
		? (If yes, add information below)		

SECTION B: ENVIRONMENTAL SCREENING ASSESSMENT (to be completed by Environment Team)

The proposed scheme is not considered an improvement under Part V of the Highways Act (1980). The Design Team have confirmed that the scheme comprises routine maintenance works with the footprint of the proposed scheme less than 1ha. The scheme however does not trigger any of the relevant Annex I or Annex II thresholds nor does it trigger any of the Annex III criteria required to determine if the project is likely to generate any significant effects. Therefore, on this basis, a Record of Determination (RoD)/Notice of Determination (NoD) is not deemed to be required (refer to the scoping assessment table in Appendix A for further details).

Review of Environmental Alert Form: No Environmental Information Pack (EIP) was provided at handover for this scheme; however, an Environmental Alert Form (EAF) was prepared for the scheme in April 2023. This document did not identify any significant environmental constraints / risks. In the absence of the EIP and to account for potential changes in baseline data since the EAF was produced, together with any associated assessment of impacts and mitigation, a full assessment has been undertaken for the purposes of the Designer's Environmental Assessment reported here based on the detailed design information and liaison with the Jacobs SDF Ecology Team.

Based on the details in Section A by the Design Team, no further environmental / ecological assessment is proposed for this scheme, although a series of good practice mitigation measures and methods of working are outlined in the scoping assessment table in Appendix A).

Is any of the following documentation required during design?	Y	Ν
Habitat Regulations Assessment (HRA) or HRA screening matrix required?		

The proposed scheme does not trigger any of the screening criteria outlined in the DMRB LA115 'Habitats Regulations Assessment (HRA)' standard or impact any European Sites. Therefore, a HRA screening matrix is not required for this scheme.

7. Environment Consents and Permits							
Consent / Permit	Responsibility	Minimum Application Period (working days)	Required				
Appropriate Assessment	Environment Team	14					
European Protected Species Licence	Environment Team	30					
Section 61	Environment Team The appointed Contractors' Communication Team to provide North Lincolnshire Council's Environmental Health Officer (EHO) with a notification letter to residents and contact number for a site operative to contact in the event of complaints.	28					
EA Consents	Design Team	28					
Local Authority Consents	Design Team	90					
Waste Exemptions / Licences	SHE Team	28					
Other Consents							

NON-STATUTORY ENVIRONMENTAL SCOPING ASSESSMENT REPORT (IN ACCORDANCE WITH DMRB LA 103 – 114) (AS OF MARCH 2022)

Appendix A Scopin	g Assessment			
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
Air Quality (LA 105)	 The proposed scheme is located in a rural setting with the settlements of Broughton and Scawby located to the north and southeast of the scheme extents respectively (see the environmental constraints plan in Appendix B). As a result, there are no residential properties within 200 m of the proposed works. There are two sensitive air quality receptors within 200 m of the proposed works, namely Forest Pines Hotel, Spa & Golf Resort and Forest Pines Golf Club are located approximately 200 m to the south of the southern extents of the scheme (see the environmental constraints plan in Appendix B). In terms of sensitive ecological receptors, there are no nationally or locally designated ecological sites located within 200 m of the 'Biodiversity' input for further details and see the environmental constraints B). There are no areas of Ancient Woodland habitat located within 200 m of the proposed works; however, there are two areas of 	DMRB LA 105 indicates that the impact of construction activities on vehicle movements shall be assessed where construction activities are programmed to last for more than 2 years, and notes that if the construction activities are less than 2 years it is unlikely that the construction activities would constitute a significant air quality effect or impinge on the UK's reported ability to comply with the Air Quality Directive, given the short-term duration of the construction activities as opposed to the long-term operation of a proposed scheme. In this case, the proposed scheme will be localised, short- term in duration (approximately 3 days only) and involves the renewal of existing assets only (i.e. resurfacing scheme at the Broughton depot accessed off Ermine Street, north of the M180 Junction 4) (refer to Section A for further details). 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	 Based on the details provided in Section A and the baseline details gathered for the proposed works location, no further air quality assessment is currently proposed for this scheme. 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. 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). 	SCOPED OUT of further assessment

Appendix A Scopir	ng Assessment			
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
	 Priority Woodland Habitat (broadleaved deciduous woodland) located within 200m of the proposed works. These areas are located approximately 180 m to the west of the proposed works. Such areas of woodland habitat may contain veteran tree species (refer to the 'Biodiversity' input for further details and see the environmental constraints plan in Appendix B). The scheme extents are not located within 200m of an Air Quality Management Area (AQMA) (see the environmental constraints plan in Appendix B). 	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, the proposed works are not expected to exceed the stated DMRB air quality scoping thresholds nor affect the UK's reported ability to comply with the Air Quality Directive given the temporary and short-term nature of the works. In terms of sensitive local air quality receptors including neighbouring residential / human / ecological receptors, given the localised nature of the proposed works, it is not currently anticipated that the works would lead to any significant dust generation or atmospheric pollution / deposition effects during construction that would impact such receptors. Appropriate best management practices are to be put in place to control the potential effects of dust and odour generation from the works. The scheme extents are not located within an AQMA therefore no significant impacts are currently anticipated.	 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 air quality receptors (i.e. residential and community receptors) to mitigate any potential adverse impacts occurring during the use of the compound. 	
Cultural Heritage (LA 106)	There are no World Heritage Sites, Schediled Monuments, Listed Buildings, Registered Battlefields, Registered Parks and Gardens or historical Conservation Areas within the	 In relation to the scoping criteria outlined in DMRB LA 106 the following is noted: There are no designated or other cultural heritage resources in the footprint of the 	Based on the baseline details gathered for the proposed scheme and the details provided in Section A, no further assessment is recommended from a cultural heritage perspective for this scheme.	SCOPED OUT of further assessment

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
	footprint of the scheme or within 300m of the proposed works (see the environmental constraints plan in Appendix B). There are also non-designated cultural heritage assets located within 300m of the proposed works, comprising one Cultural Heritage Asset Management Plan (CHAMP) Level 2 polyline of a former Roman Road (see the environmental constraints plan in Appendix B).	 work locations or immediately outside the footprint that could potentially be physically affected by the proposed works. Due to the localised nature of the works involving the maintenance of existing assets on a like for like basis only within the boundaries of an existing depot facility, no impact on any designated or other cultural heritage resource in the footprint or immediate vicinity of the scheme are anticipated. There is no new land take required to facilitate the proposed works. Due to the temporary nature of the works and their location within the boundaries of an existing depot facility, no notable effect is anticipated to any heritage features. No impacts are anticipated on buried archaeological remains as the proposed works will take place within a previously disturbed during the construction of the Broughton Depot and neighbouring road infrastructure) and do not involve significant excavation requirements confined to existing assets only. 	 In addition, the following good practice mitigation measures to be implemented during the works by the appointed Contractor: If soft estate works or works in the terrestrial environment 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. Works must be undertaken with extreme care and not result in any disruption or detrimental impacts to the soft estate. No storage of plant, machinery, equipment, or materials within the soft estate is permitted. Any accidental damages to the soft estate must be restored immediately following safe completion of works in the local area. All leftover materials and equipment are to be removed from site following completion of all construction operations. 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, 	

Appendix A Scopir	ng Assessment			
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out o further assessment
			 where feasible to do so, and located away from identified sensitive cultural heritage receptors to mitigate any potential adverse impacts occurring during the use of the compound. The mitigation measures described in the 'noise and vibration' input of this table shall be followed to ensure no indirect impacts on surrounding heritage features. Measures to mitigate impacts on the soft estate and surrounding vegetation noted in the 'Landscape and Visual Effects' and 'Biodiversity' inputs of this table to also be followed. 	
Landscape and Visual Effects (LA 107)	 The proposed works are not situated in or within 1 km of an Area of Outstanding Natural Beauty (AONB) or a National Park. The proposed works are situated within National Character Area (NCA) 45: Northern Lincolnshire Edge with Coversands (see the environmental constraints plan in Appendix B). There are no Public Rights of Way (PRoW) (including footpaths and bridleways) located in the immediate and wider vicinity of the proposed works (see the environmental constraints B). There is a footway running parallel to Ermine Street running in a north-south direction for pedestrian use. 	In relation to the landscape and visual scoping criteria set out in DMRB LA 107, given the localised nature of the works, it is not anticipated that the proposed works will result in significant adverse impacts on the following: any statutory or locally designated landscapes; the distinctiveness of the landscape character / type of the area; any national, regional or local characteristics or distinctive features; the condition / quality of the surrounding landscape or the sense of place of the area (i.e. the intrinsic character, qualities and local identity of the urban environment). The proposed works may be temporarily visible to road users travelling along Ermine Street and nearby receptors including occupants of the Forest Pines Hotel, Spa & Golf Resort and Forest Pines Golf Club. The	 Any impacts upon landscape and visual receptors are not considered significant as the duration of the works are short-term and temporary in nature, and, as such, further landscape and visual assessment is not currently proposed for this scheme. However, as a precautionary measure, the following good practice mitigation measures shall be followed during construction by the appointed Contractor: The Design Team have currently confirmed that there will be no impact to the soft estate or terrestrial environment as a result of the proposed works. However, should any damage occur to the soft estate / terrestrial environment during the works this must be fully reinstated, where necessary, upon completion. This is likely to be with species of local provenance. 	SCOPED OUT of further assessment

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
	The proposed works may be temporarily visible to road users travelling along Ermine Street and for users of the Forest Pines Hotel, Spa & Golf Resort and Forest Pines Golf Club. Based on publicly available data sources, there are no Tree Preservation Orders (TPOs) located within the scheme extent or within 200m of the proposed works.	scheme consists of localised maintenance works confined to the Broughton Depot only and will be short-term in duration. Mitigation measures will also be in place to reduce the impact on the surrounding landscape. Additionally, the works are short-term and temporary in nature; therefore, any potential impact is deemed to be negligible in the context of being situated within an active highway depot. In addition, there is no habitat loss anticipated within the soft estate or any tree removal required around the boundaries of the depot, with all proposed works confined to the highway depot only to undertake the required resurfacing works. Based on the details provided by the Design Team in Section A, as works involve the replacement of existing life expired assets only (i.e. resurfacing scheme at the Broughton depot accessed off Ermine Street, north of the M180 Junction 4) and will be designed to modern engineering standards and will not be out of scale with the surrounding local environment no significant visual impact to surrounding receptors is currently anticipated.	 No vegetation clearance is required to facilitate the proposed resurfacing works. If soft estate works or works in the terrestrial environment 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. Ensure works minimise impacts on surrounding land use, neighbouring receptors and users of nearby PRoW and informal footpaths. As night-time working is currently proposed, any temporary task lighting used will need to be controlled and directed in accordance with current best practice guidance¹, in order to minimise any potential disruption to the local area (surrounding properties), traffic and any sensitive landscape 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. 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 	

¹ Institution of Lighting Professionals (ILP) Guidance Note GN01/21: The Reduction of Obtrusive Light (Institution of Lighting Professionals, 2021: <u>https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021/</u>

Appendix A Scopir	Appendix A Scoping Assessment				
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment	
			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 landscape and visual receptors to mitigate any potential adverse impacts occurring during the use of the compound.		
Biodiversity (LA 108)	 There are no designated Ramsar sites, Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) within 2km of the proposed works, or any SAC sites within 30km where bats are a qualifying feature; or are hydrologically connected to the scheme extents for the works. There is one area of ancient woodland habitat located within 2km of the proposed works location, namely Gadbury and Lundimore Woods located approximately 450 m to the north of the proposed works (see the environmental constraints plans in Appendix B). Additionally, there are several areas of designated Priority Habitat (broadleaved deciduous woodland) located within 1km of the proposed works location. There is the 	 In relation to the scoping criteria set out in DMRB LA 108, and through liaison with the SDF North-East Jacobs Ecology team, the following is noted the following is noted: The works will not result in any impacts on designated statutory / non-statutory ecological sites. The works proposed are not likely to impact on protected or priority habitats with no records within the works footprint and with works confined to a restricted work footprint only within the existing highway boundary. The works proposed will also not impact on the function or quality of habitats and no vegetation clearance is required to facilitate the proposed scheme, with all works confined to restricted work footprint only within the existing highway boundary. Consequently, the National Highways target of no net loss of 	 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 	SCOPED OUT of further assessment	

Environmental Baseline Conditions Aspect	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
potential that such areas of Priority Woodland habitat may contain veteran tree species.The verge either side of Ermine Street within the scheme extents is lined with habitat which has potential to support nesting birds.The habitat surrounding the scheme extents also has potential to support commuting and foraging bats. There are however no EnvIS records for bat (<i>Chiroptera</i>) located within 1km of the proposed works (see 	 biodiversity does not need to be considered for this scheme. The proposed works will also not likely impact the conservation status of habitats or species based on the details provided by the Design Team. All publicly available records for bats, Great Crested Newts and badgers are greater than 300 m from the proposed works. Therefore, it is determined that the scheme will present no impact to such species and such species will not present a constraint to the works. Vegetation clearance is not required to facilitate the proposed works. Therefore, no impacts on nesting birds within the habitat lining the Broughton Depot is anticipated and it is considered that the proposed works are likely to be of the same disturbance level as the preexisting traffic / general use of the depot and adjacent Ermine Street. As the habitat surrounding the scheme extents has potential support commuting and foraging bats, there is potential for temporary impacts on bats from construction lighting during the works (refer to the 'Further Assessment & Mitigation' column). 	 commuting and foraging bats and best practice should be followed to avoid unnecessary light spill as a precaution as per the Institution of Lighting Engineers (ILE) / Bat Conservation Trust Guidance Note 8: Bats and Artificial Lighting (2023)². In addition, as a precautionary measure, the following good practice mitigation is 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. 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 	

² 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>

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
	Survey Licence Returns within 1km of the proposed works. There are three records of GCN to the south of the M180, however, the road presents a barrier to any dispersion of such species. There are also no EnvIS records of riparian mammals (otter (<i>Lutra lutra</i>) and water vole (<i>Arvicola amphibious</i>)) within 1km of the proposed works (see the environmental constraints plan in Appendix B). There are EnvIS records of rabbit located within 1km of the proposed works. These records show rabbit adjacent to Junction 4 of the M180, approximately 800 m from the scheme extent (see environmental constraints plan in Appendix B).	 Whilst there are records of injurious / Invasive Non-Native Species (INNS) within the vicinity of the scheme extents, no impacts are anticipated as the proposed works are confined to existing hardstand areas only within the Broughton Depot. Further assessment and recommended good practice mitigation has been outlined in the 'Further Assessment & Mitigation' column of this table. 	 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 'Noise and Vibration', 'Landscape and Visual', 'Air Quality' and 'Road Drainage and the Water Environment' inputs 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 plant species (i.e. Ragwort) within the immediate and wider surrounding area. 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 	

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Appendix A Scopi	Appendix A Scoping Assessment				
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment	
			 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 not be left idling next to retained habitats. Works must be undertaken with extreme care and not result in any disruption or detrimental impacts to the soft estate and no storage of plant, machinery, equipment, or materials within the soft estate is permitted. All vehicles, 		

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation Scoped In or Out of further assessment
			 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 Team. Be vigilant in accessing and moving plant and vehicles around the site. 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 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.

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

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out o further assessment
			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.	
Geology and Soils (LA 109)	Based on publicly available data sources, no, Regionally Important Geological Sites (RIGS); Geological SSSIs; Local Geological / Geodiversity Sites (LGS); Geological Conservation Review (GCR) sites; and Earth Science Conservation Review sites (ESCR) were identified within the footprint or within 500m of the proposed works. The British Geological Survey (BGS) Geology Viewer ³ indicates a bedrock in this locality comprised of Kirton Cementstone Beds (mudstone, and limestone interbedded sedimentary bedrock) and Kirton Cementstone Beds (knoll-reef) (limestone sedimentary bedrock). No superficial deposits have been recorded at this location on the BGS Geology of Britain Viewer. According to the Soil Scape classification on the MAGIC website ⁴ the soils at the proposed works location comprise 'slowly	In relation to the scoping criteria outlined in DMRB LA 109 and given the localised nature of the proposed works, the scheme is unlikely to affect designated geological sites (statutory or non-statutory); it is unlikely to affect the function or quality of soil as a resource at the proposed scheme extents at the Broughton Depot; unlikely to affect agricultural land classified as best and most versatile (BMV) or prime land; it is unlikely to disturb historical contamination within the soft estate; and is unlikely to introduce any significant sources of contamination at the Broughton Depot, where the resurfacing works will take place.	No further assessment is currently proposed for geology and soils resource for this scheme. 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 / Waste Acceptance Criteria (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'. As detailed in Section A, no further testing or extensive site investigation is currently proposed for this scheme, given the nature of the works involved.	SCOPED OUT of further assessmen

³ British Geological Survey (BGS) Geology Viewer: <u>https://mapapps.bgs.ac.uk/geologyofbritain/home.html</u> (Accessed: September 2023).

⁴ MAGIC website, SoilScape Classification: <u>http://magic.defra.gov.uk/MagicMap.aspx</u> (Accessed: September 2023).

Appendix A Scopir	ng Assessment			
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
	 permeable seasonally wet slightly acid but base-rich loamy and clayey soils'. The 1:250 000 Series Agricultural Land Classification Mapping for Yorkshire and the Humber Region⁵ produced by Natural England notes that the land in the locality of the proposed works is classified as Grade 2 (Very Good quality) and land primarily in non-agricultural use. Based on publicly available data sources, there are no pollution incidents have been recorded within 1km of the proposed works, (see the environmental constraints plan in Appendix B). There are no historical landfill sites located within 1km of the proposed works (see the 			
	environmental constraints plan in Appendix B). The material assets and waste national and	The main materials to be used for the	No further material assets and waste assessment is	
Material Assets and Waste (LA 110)	 The recovery rate for non-hazardous construction and demolition waste is 	proposed works include dense binder asphalt, thick surface course, tack coat and white and yellow paint for road markings (approximate quantities are outlined in Section A).	The Design Team have confirmed that it is not currently anticipated that the proposed works will generate any hazardous waste. For any waste	SCOPED OUT of further assessment
	approximately 94% (above the Waste	The waste streams to be generated during the proposed works comprise road planings and	material requiring off-site disposal, Material Testing / WAC testing will be required, and the waste	

⁵ Natural England: 1:250 000 Series Agricultural Land Classification Mapping for Yorkshire and the Humber Region: <u>http://publications.naturalengland.org.uk/publication/130043?category=5954148537204736</u> (Accessed: September 2023).

Area 12 Broughton Resurfacing Scheme SDF-NE-W245 Designer's Environmental Assessment Profo	orma F11

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessmen
	 Framework Directive 2020 target of 70%)⁶. Use of recycled aggregate on infrastructure projects typically exceeds 10%, and that the recycled content as a percentage of the total material cost for an infrastructure project was typically found to be in the region of 8-36% using standard practice products, with this rising to 25-49% when applying cost-neutral good practice⁷. In 2020 the share of recycled and secondary aggregate materials as a proportion of total Great Britain aggregates sales was approximately 30%⁸. Waste management/landfill capacity in Yorkshire (Region) and South Yorkshire (Sub-Region) had sufficient remaining merchant landfill capacity at the end of 2021 (i.e. Yorkshire and the Humber: 73,887,000m³ and sub-region (South Yorkshire: 12,175,000m³)⁹. 	concrete (approximate quantities to be generated during the works are outlined in Section A). 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. In relation to the scoping criteria outlined in DMRB LA 110, the proposed scheme has the potential to generate relatively small quantities of waste in the context of the available waste management infrastructure, and, therefore, a > 1% reduction or alteration in regional (Yorkshire and the Humber) or sub-regional (South Yorkshire) landfill	 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'. 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 non-hazardous Construction and Demolition waste, either on site or off site in line with the Waste Framework Directive. Any redundant material produced during 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, 	

⁶ Department for Environment, Farming and Rural Affairs (Defra, 2021), UK statistics on waste: <u>https://www.gov.uk/government/statistics/uk-waste-data</u>.

⁷ Waste and Resources Action Programme (WRAP, 2009), Construction Procurement Guidance: Delivering Higher Recycled Content in Construction Projects: <u>https://www.cewales.org.uk/files/3314/4369/9241/Delivering_higher_recycled_content_in_construction_projects.pdf</u>

⁸ Mineral Products Association (2021), Profile of the UK Mineral Products Industry 2020 Edition: <u>https://www.mineralproducts.org/MPA/media/root/Publications/2021/Profile_of_the_UK_Mineral_Products_I</u> ndustry_2021.pdf

⁹ Environment Agency (2021) Waste Management in Yorkshire and the Humber: Data Tables: <u>https://data.gov.uk/dataset/d409b2ba-796c-4436-82c7-eb1831a9ef25/2019-waste-data-interrogator</u>

Environmental Baseline Condition Aspect	5	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
Local Developmen Strategy Key Map ¹⁴ works are not locat Mineral Safeguardi The BGS 'Geology 'Geo-index Onshor there are no signifi	⁾ confirms the proposed ed within the limits of a	capacity is unlikely to occur given that the proposed scheme would need to dispose of >738,870m ³ or >121,750m ³ of construction and demolition waste to landfill respectively for this to be realized. Based on professional judgement, and the nature and scale of the scheme, this is considered unlikely. In terms of MSAs, the proposed works are confined to within the existing highway boundary and, therefore, no sterilisation of safeguarded mineral resources is likely to occur as a consequence of completing the resurfacing scheme. The BGS 'Geology of Britain Viewer' and 'Geo- index Onshore Viewer' confirm that there are no superficial peat deposits present within the scheme extents that would be disturbed / removed by the maintenance works. Therefore, no existing or potential peat extraction sites are likely to be sterilized as a result of the works proposed.	 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 	

¹⁰ North Lincolnshire Council (2011) Planning Policy – Local Development Framework: Core Strategy Key Diagram: https://www.northlincs.gov.uk/planning-and-environment/planning-policy-local-developmentframework/#1591178700859-b856fc83-069c (Accessed August 2023)

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out o further assessment
			segregated and secure skips (clearly labelled) or other appropriate container(s) prior to removal.	
Noise and Vibration (LA 111)	There are commercial and community receptors within 300m of the proposed works (refer to 'Air Quality' input above for further detail and see the environmental constraints plan in Appendix B). The proposed works are not located within or adjacent to the buffer zone for a Noise Important Area (NIA). The nearest NIA is located approximately 900 m to the south- east of the proposed works (see the environmental constraints plan in Appendix B). Based on publicly available data sources, there are no 'First Priority Noise Locations' within the 300 m of the proposed works locations.	In relation to the noise scoping criteria outlined in DMRB LA 111, the proposed works are located in close proximity (within 300m) of sensitive receptors, namely commercial / community properties, and there is the potential that there will be temporary localised noise generating activities undertaken as part of the works. However, it is not anticipated that the construction noise generated during the works will have the potential to result in significant adverse effects on any noise [or vibration] sensitive receptors. It is also anticipated that there are no noise [or vibration] receptors where there would be a reasonable stakeholder expectation that a construction noise assessment would be required. 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	 Based on the details provided in Section A and the baseline details gathered for the proposed works location, no further noise and vibration assessment is currently proposed for this scheme. Furthermore, 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 practicable means under Section 72 of the Control of Pollution Act (CoPA) 1974 and good practice under BS 5228 Part 1: Noise and BS 5228 Part 2: Vibration. The appointed Contractors' Communications Team to provide North Lincolnshire Council's 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. 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 	SCOPED OUT of further assessmen

Area 12 Broughton Resurfa	acing Scheme SDF-NE-W245	5 Designer's Environmental	Assessment Proforma F11
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Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
		 6 consecutive months)). Therefore, further noise assessment is not deemed to be required for this scheme. On completion of the proposed works and based on the information provided in Sections A and B of this form, it is considered that none of the DMRB LA 111 operational noise scoping questions will be triggered. Noise levels are not expected to change at any of the noise sensitive receptor locations identified in the immediate vicinity to the proposed works. Resultant noise and vibration effects during the operational phase at the noise sensitive receptors are therefore considered to be 'not significant' based on the scoping assessment undertaken and the current details provided by the Design Team. 	 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. 	
Population and Human Health	There are commercial and community receptors within 300m of the proposed works (refer to 'Air Quality' input above for	Temporary traffic management will be required during the construction phase in order to undertake the proposed works. The	No further assessment on population and human health receptors is currently proposed for this scheme.	SCOPED OUT of further assessment

Environmental Baseline Conditions Aspect	Impacts	Further Assessment and Mitigation	Scoped In or Out o further assessment
(LA 112)further detail and see the environmental constraints plan in Appendix B).The proposed works are not located within or adjacent to the buffer zone for an NIA. The nearest NIA is located approximately 900 m to the south-east of the proposed works (see the environmental constraints plan in Appendix B).The proposed works are not located within 200m of an AQMA.Public Health England11 notes that the health of people in North Lincolnshire is 	private property and housing; (2) community land and assets; (3) development land and businesses; (4) agricultural land holdings; (5) PRoW. In relation to human health and health	 In addition, 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 	

¹¹ Public Health England: Local Authority Health Profiles – North Lincolnshire. Available at: <u>https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/gid/1938132701/pat/6/par/E12000003/ati/302/are/E06000013/yrr/1/cid/4/tbm/1</u> (Accessed: August 2023).

Appendix A Scoping Assessment				
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
		sensitive to noise (e.g. NIAs, noise management areas (NMA)); (4) sources of pollution (e.g. light, odour, contamination etc.); (5) landscape amenity; and (6) severance/accessibility and the ability of communities to access community land, assets and employment. The human health aspects in relation to air quality, noise, landscape / amenity and road drainage and water environment are discussed within their respective sections of this table. No in-combination issues have been identified associated with the proposed scheme in relation to air quality, noise and road drainage and the water environment.	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.	
Road Drainage and Water Environment (LA 113)	There are no designated Main Rivers or watercourses/waterbodies located within the vicinity of the proposed works. The proposed works are wholly located within a Flood Zone 1 (area of low probability of flooding) as shown on the Environment Agency's Flood Risk for Planning mapping (see the environmental constraints plan in Appendix B). In terms of groundwater considerations, the following is noted:	In relation to the scoping criteria in DMRB LA 113, in the absence of mitigation, there is the potential for the proposed maintenance works during the construction phase to result in temporary, localised impacts on water quality through routine runoff during the planing and resurfacing operations confined to within the Broughton Depot only (refer to the measures outlined in the 'Further Assessment and Mitigation' column of this table). Given the localised nature of the works, no	 No further road drainage and water environment assessment is currently proposed for this scheme. In addition, 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 	SCOPED OUT of further assessment

¹² <u>http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-andreplacement-series/guidance-for-pollution-prevention-gpps-full-list/</u>

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
	 The proposed works are not situated within the boundaries of a Source Protection Zone (SPZ). The bedrock in this locality is designated as a Principal aquifer. The groundwater vulnerability in this locality has been classified as Medium-High. The proposed works are situated within a Drinking Water Protected Area There are no Drinking Water Safeguarded Zones (surface water or groundwater) located in the immediate vicinity of the proposed works locations. 	 levels / flows, local hydromorphology, on groundwater dependent terrestrial ecosystems (GWDTE) or on the identified aquifer and groundwater vulnerability status at the proposed works location. In terms of flood risk and drainage impacts, the proposed works will not change either the road drainage or natural land drainage catchments, it will not alter the groundwater flow regime and will not result in significant earthworks that could result in sediment runoff effecting nearby watercourses. The proposed works will also not result in drainage discharges to the ground. The proposed works do not involve any changes to the drainage system at Broughton Depot. As a result, no significant effects are anticipated from a flood risk and drainage perspective. 	 Works and maintenance in or near water; GPP 21: Pollution incident response planning; and GPP 22: Dealing with spills. Ensure all relevant personnel are aware of the good practice pollution prevention and control requirements and responsibilities set out in CIRIA C532 Control of water pollution from construction sites: Guidance for consultants and contractors and their responsibility to comply with Pollution Prevention Guidance. 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 	

Area 12 Broughton Resurfacing	Scheme SDF-NE-W245 Designer'	s Environmental Assessment Proforma F11

Appendix A Scopi	ng Assessment			
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
			 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). 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. 	

Appendix A Scoping Assessment					
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment	
			 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. 		
Climate (LA 114)	 Greenhouse gases (GHG) will be released through direct fuel consumption (e.g., generators) and/or consumption of supplied electricity during the supply chain of materials, and the construction and operational phase of the proposed scheme. In terms of GHG emission baseline data, the scheme is located in the North Lincolnshire local authority area of East Midlands. Data obtained from the Department for Energy Security and Net Zero¹³ indicates that that mean CO₂ emissions per capita in 2021 were 40.3 tonnes for North Lincolnshire. In terms of climate baseline, at Robin Hood Doncaster, Sheffield, Airport¹⁴ (the closest 	In relation to the scoping criteria in DMRB LA 114 it is noted that the proposed works are localised and no change to GHG emissions are anticipated once the maintenance works have been completed. Therefore, it is not anticipated to have significant impacts upon climate and the ability of National Highways to meet its carbon reduction plan targets. The proposed works are not likely to be vulnerable to climate change effects e.g. increased temperatures, rain or extreme weather events in the short to medium term, particularly as none of these factors have been identified within the baseline review.	No further climate / climate vulnerability assessment is currently proposed for this scheme. 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 this form). In addition, the requirement to report the actual GHG emissions released as a result of the construction process to the Overseeing	SCOPED OUT of further assessment	

¹³ LG Inform. (2022). 'CO2 emissions estimates – Total per capita in North Lincolnshire'. Available at: <u>https://lginform.local.gov.uk/reports/lgastandard?mod-area=E06000013&mod-group=AllUnitaryLaInCountry_England&mod-metric=53&mod-period=1&mod-type=namedComparisonGroup&mod-groupType=area</u> (Accessed: September 2023)

¹⁴ Met Office. (2023). 'UK Climate Averages'. Available at: <u>https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gcx21p9fr</u> (Accessed: September 2023)

Appendix A Scoping Assessment					
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment	
	climate station to the proposed works) July is the hottest month, with an average maximum temperature of 22.3°C. The coldest month is typically January with an average minimum temperature of 1.43°C. In terms of precipitation, the wettest month is typically June with an average 64.62mm of rainfall. In terms of potential climate vulnerability, the proposed works are wholly located within a Flood Zone 1 (area of low probability of flooding) as shown on the Environment Agency's Flood Risk for Planning mapping (see the environmental constraints plan in Appendix B). There are no records of major subsidence, landslides, erosion or adverse climatic conditions at this location.	The proposed works also do not propose any changes to the drainage arrangements and, as such, the scheme will not alter the drainage catchment or increase the flood risk potential of the area. In addition to this, given the nature of the works proposed, the traffic flow related scoping criteria outlined in DMRB LA 114 are not predicted to be exceeded due to the proposed resurfacing works at the Broughton Depot. As a result, this is not considered to have the potential to result in impacts on GHG emissions through fuel consumption by road vehicles. Although there is the potential that construction phase emissions will be greater than 1% of the GHG emissions associated with existing maintenance activities, construction phase GHG emissions are highly unlikely to exceed the threshold of significance criteria defined in the DMRB LA 114 standard (i.e. have a material impact on the ability of the UK government to meet its carbon budgets) due to the localised nature of the proposed works and are deemed to be 'not significant'. This is in line with para 3.20 of the DMRB LA 114 standard.	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 this form).		
Heat and Radiation	Temporary task lighting and associated machinery required for construction	Due to the nature of the scheme (resurfacing scheme at the Broughton depot accessed off Ermine Street, north of the M180 Junction 4)	No further assessment / mitigation is currently proposed. The effects of heat and radiation in	SCOPED OUT of further assessment	

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
(LA 104)	operations will generate highly localised levels of heat.	there will be no significant emissions of heat and radiation during the construction and operation of the proposed scheme.	relation to the proposed works are not deemed to be relevant to the scope of this project.	
Major Accidents and Disasters (LA 104)	For the purposes of this scheme, a major event is defined as a major fire, explosion, or release of oil or chemicals or a potential naturally occurring event, such as flooding or subsistence. Outside of the active Broughton Highway Depot and live traffic along Ermine Street and M180 route corridor to the south and its associated highway assets, there are community / commercial facilities located in the immediate vicinity of the M180 that have the potential to be prone to a major incident including Forest Pines Hotel, Spa & Golf Resort and Forest Pines Golf Club. In terms of naturally occurring events, the proposed works are located outside any areas of subsistence and within Flood Zone 1 (area of low probability of flooding) as shown on the Environment Agency's Flood Risk for Planning mapping (see the environmental constraints plan in Appendix B). There are no records of major subsidence, landslides, erosion or adverse climatic conditions at this location.	The potential routes / facilities likely to be prone to a major incident are the active Broughton Highway Depot, Ermine Steet, the M180 eastbound and westbound carriageways to the south, together with the associated highway assets along this route and subsidiary local authority roads and several of the community / commercial facilities including the Forest Pines Hotel, Spa & Golf Resort and Forest Pines Golf Club. Although there is potential for such routes / facilities to be vulnerable to a major event, the proposed works are confined to the Broughton Depot only and will be localised and short-term in duration. Should an occurrence take place in the vicinity of the proposed scheme extents resulting in a major incident, this would have wider implications on Ermine Street or the M180 as a whole, the subsidiary roads and surrounding communities, requiring a strategic intervention to minimise disruption to the area and surrounding road network and local communities. Due to the nature of the works, there will be no changes to fluvial flood risk. The proposed scheme will also not change the flood risk elsewhere as there will not be an increase in	No further assessment / mitigation for major accidents and disasters is currently proposed for this scheme.	SCOPED OUT of further assessment

Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
		impermeable areas contributing to drainage catchments.		
Cumulative Impacts (LA 104)	 The start date for the proposed works is anticipated to be Winter 2023, with an estimated 3-day maximum construction programme. There is therefore potential for other maintenance / renewal / improvement works to be proposed during this period along this section of the M180 or Ermine Street that have the potential to overlap with the delivery timescales for the proposed works, although works are confined to the Broughton Highway Depot only. In terms of submitted applications, North Lincolnshire Council¹⁵ planning search tools were accessed and reviewed in September 2023 and highlighted no significant development / EIA planning applications submitted within a 1km study area. A review of review of the North Lincolnshire Local Development Framework Key Diagram (adopted June 2011)¹⁶ and associated documents did not identify any significant development proposals / allocations that had a clear identified programme for delivery in the immediate vicinity of the 	Given the baseline information gathered on other potential development projects and development allocations and the localised nature and short-term duration of the proposed maintenance works, it is not considered that there is the potential for any significant cumulative impacts to arise at this stage. The maintenance works are considered routine and confined to the boundaries of the Broughton Depot only. Any minor impacts due to a combination of traffic management as a result of the proposed scheme and the construction works of any other scheme can be adequately addressed through consultation with the developer (if needed) and local authority to minimise disruption to the network and local communities / residential receptors. Given the above and the localised nature and the short-term duration of the maintenance works, it is not currently anticipated that any likely significant inter or intra project	No further assessment of cumulative impacts is currently proposed for this scheme. However, 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.	SCOPED OUT of further assessment

¹⁵ North Lincolnshire Council. (2023). '*Planning Applications, Decision & Appeals*'. Available at: <u>https://apps.northlincs.gov.uk/</u> (Accessed: August 2023)

¹⁶ North Lincolnshire Council (2011) Planning Policy – Local Development Framework: Core Strategy Key Diagram: <u>https://www.northlincs.gov.uk/planning-and-environment/planning-policy-local-development-framework/#1591178700859-b856fc83-069c</u> (Accessed: August 2023)

Area 12 Broughton Resurfaci	ng Scheme SDF-NE-W245	Designer's Environmental	Assessment Proforma F11
J	5	5	

Appendix A Scoping Assessment				
Environmental Aspect	Baseline Conditions	Impacts	Further Assessment and Mitigation	Scoped In or Out of further assessment
	proposed works at are likely to overlap / interact with the timescales for the proposed works.	cumulative effects would arise during the delivery of the maintenance works at the Broughton Depot. As a result, based on the current baseline, no significant cumulative effects are deemed likely to arise during either construction or operation.		

Appendix B: Environmental Management Plan

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Appendix C: Assumptions

A Scoping Assessment has been carried out as per the requirements set out in the relevant DMRB standards and is based upon information provided by the Design Team. The purpose of this assessment is to identify potential environmental risks / constraints to the delivery of the scheme. The assessment is based on risks identified without mitigation when the desktop study was completed (August / September 2023).

Environment risks change (for example, new legislation and policies are introduced, new designated sites are introduced, and distributions of protected species change). On this basis it is critical that this assessment is updated on a regular basis.

It is the Design Team Lead's responsibility to ensure the SDF North-East Environment Team is kept up to date with all changes to the scope of the scheme as this may result in the need for further environmental input.

NB: The timescales for any surveys and assessments recommended are indicative only, and do not include assumptions for mitigation or protected species licensing as these shall be determined on completion of any required survey work to be undertaken during the design phase. It is also assumed that the recommended further assessment is undertaken ahead of the works and the mitigation and associated best practice measures outlined in Appendix A above and in the Designer's Environmental Risk Assessment (F12) document for the scheme are implemented and adhered to by the appointed Contractor to deliver the proposed scheme within the specified extents at the Broughton Depot to the north of Junction 4 of the M180.