



Cottam Parkway Railway Station

Environmental Statement

Volume 2: Main Statement

Chapter 19: Environmental Action Plan

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19 Environmental Action Plan

19.1 Introduction

19.1.1 The environmental assessment has identified impacts that would require mitigation. The actions, necessary steps, and responsibilities for implementing this mitigation are outlined in Table 19.1 - The Environmental Action Plan (EAP).

19.1.2 The environmental assessment also identified a number of methods and processes which are normally associated with good construction site practice that would need to be undertaken in order to minimise the impacts of the Scheme. These have also been included in the EAP.

19.1.3 The EAP provides a starting point for the consideration of the environmental management of construction activities required by the contractor in a Construction Environmental Management Plan (CEMP). The CEMP would need to consider the management and re-use of materials and waste associated with the development. It would also include a Site Waste Management Plan (SWMP) and Materials Management Plan (MMP) to confirm adherence to legislation and best practice standards stated within this ES.

The EAP also identifies a number of issues that would need to be included in the Environmental Management Plan for the operation phase of the Scheme.

Table 19.1 - The Environmental Action Plan

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
Actions during Pre-Construction (Post Planning Permission)						
A1: Landscape and Visual Impact						
A1.a	Retain existing vegetation and seasonal water body where possible, particularly if identified as high value (landscape, visual or ecological)	Incorporate existing vegetation into the Environmental Masterplan where possible	Designer	None required	Existing vegetation to be incorporated into the detailed design	Current Environmental Masterplan (Appendix 18.1) updated for detailed design
A1.b	Protect existing trees and woodland	Arboricultural Method Statement (AMS) to be produced and approved	LCC / Contractor	Arboricultural specialist	Approved AMS	AMS should detail the methodology for any aspect of the Scheme within a root protection area or has the potential to result in loss of or damage to a tree to be retained
A1.c	Minimise the impact of the Scheme on landscape character and visual receptors	As part of detailed design produce detailed landscape plans and specifications in accordance with the Environmental Masterplan	Designer / Infrastructure Delivery Team – LCC	None required	Production of construction landscape mitigation drawings and landscape specification	Detailed design to be in accordance with salient recommendations, i.e. DMRB, Environment Agency and National Grid requirements and mitigation measures as provided in Chapter 5 of this ES

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
A1.e	Minimise spread of disease in trees	Review latest guidance from the Forestry Commission regarding ash die back and/or other tree disease; add to clearance drawings.	Designer / Infrastructure Delivery Team- LCC	None required	Identify on site clearance plans	None
A1.f	Minimise impact on landscape character and visual amenity	Provide details of all facing materials for the railway station building to planning authority for approval	Designer / Infrastructure Delivery Team - LCC	None required	Incorporate into design	None
A2: Ecology						
A2.a	Comply with current legislation Minimise the impacts of the Scheme on protected and notable species and habitats Comply with possible planning conditions	Where necessary, update the baseline ecological conditions if the Scheme construction has not begun within 2 years of the surveys being undertaken. A suitably-qualified ecologist would provide advice on the validity of the survey results for each receptor, with respect to time elapsed, and determine the need to update specific protected species surveys	Designer/ Contractor/ Ecological Clerk of Works (ECoW)	Agreement with LCC Ecologist Approval from Natural England (NE)	Production of updated baseline conditions set out in the ES. Memo report confirming current status and recommendations for any revisions to the committed mitigation as set out in the ES	Sufficient time would be allowed in the programme to undertake pre-construction surveys in accordance with species specific requirements
A2.c	Comply with pre-construction mitigation requirements	Implement any pre-construction mitigation/compensation habitat creation prior to the loss of habitats (e.g. installation of bat and bird boxes)	Designer / Contractor / ECoW	Agreement with LCC Ecologist. Potential for third party agreement	Memo report confirming the completion of pre-construction requirements. ECoW to propose precise location of bat and bird boxes based on location of nesting and roosting features	Indicative locations provided in Appendix 18.1 Environmental Masterplan (EMP)/

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
A2.d	Minimise the impacts of the Scheme on protected and notable species and habitats Comply with current legislation Comply with potential planning conditions	Prepare Precautionary Method of Working (PMW) for works in sensitive ecological areas throughout the Scheme i.e. works close to tress and buildings with bat roost potential or confirmed roosts as well as other commitments specified in the ES	Designer / Contractor / ECoW	Agreement with LCC Ecologist	Production of PMW Memo report confirming current status and implementation of PMW Discharge of potential planning conditions	None
A2.e	Comply with pre-construction mitigation requirements	Appoint a suitably qualified (or team of suitably qualified) ECoW(s) for implementation of the Ecological Management Plan	Designer / Contractor	Agreement with LCC Ecologist	Agreement with LCC Ecologist	None
A2.f	To protect birds and their nests	Should active nests be found during pre-construction checks/surveys in habitats which are to be cleared, the nesting birds are to be left in situ for their entire nesting period until the young birds have fledged. Alternative approaches to the work to be followed, e.g. leaving an exclusion zone around the nest to avoid disturbance	Designer / Contractor / ECoW	Agreement with LCC Ecologist	ECoW to propose alternative approaches for agreement with LCC Ecologist	None
A2.g	Protect hedgehogs and enhance opportunities for nesting and hibernation	Woodcrete (or other long-lasting material) hedgehog domes/ shelters to be placed in suitable habitats (such as woodland edges) on LCC owned land Pre-clearance checks of suitable habitats (such as log piles and coppice stools) to be undertaken by hand, outside the hedgehog	Designer/ Contractor/ECoW	Agreement with LCC Ecologist	ECoW to propose precise location of hedgehog shelters	Indicative locations provided in Environmental Masterplan (Appendix 18.1)

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
		hibernation period wherever possible Hedgehogs found sheltering in cleared habitats to be re-located to the aforementioned hedgehog shelters under the supervision of the ECoW				
A2.h	To protect hedgerows	Complete pre-translocation survey of hedgerows to be translocated Develop a Hedgerow Translocation Method Statement	Infrastructure Delivery Team - LCC	None	Agreed and approved Hedgerow Translocation Method Statement	Third party contract may be used to complete the survey if required
A2.i	Protect bats and barn owls	Planting to be designed to encourage bats and barn owls to fly at a safe height over the proposed access road / Sidgreaves Lane or to avoid crossing these carriageways and to maintain / enhance bat foraging and crossing locations and reduce mortality of bats and barn owls from road traffic accidents	Designer / Contractor	Agreement with LCC Ecologist	Environmental Masterplan to include locations of prescribed planting design	None
A2.j	Protect all habitats from unnecessary loss or degradation	Minimise the extent of construction working area as much as practicable to reduce habitat loss Prepare a Habitat Management Plan to include specific requirements to protect habitat loss or degradation such as root protection zones around woodland, trees and hedgerows	Designer / Contractor	Agreement with LCC Ecologist	Production of Habitat Management Plan Agreement with LCC Ecologist	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
A3: Cultural Heritage						
A3.a	Reduce potential impact on known and unknown archaeological assets	Determine the programme of archaeological evaluation required	Infrastructure Delivery Team – LCC / Contractor	Agreement with LCC Archaeological Advisors	Evaluation and mitigation included in the programme of construction works	None
		Complete agreed programme of archaeological evaluation	Infrastructure Delivery Team – LCC / Contractor	Agreement with LCC Archaeological Advisors	Agreed evaluation completed with any findings reported and necessary mitigation identified	Mitigation as identified in Chapter 7 of this ES would likely be implemented pre-construction
A4: Air Quality						
A4.a	Prevent and control dust emissions during construction works	Determine working practices and environmental controls for effective dust management during construction. This would include the provision of monitoring during construction works, where appropriate	Contractor	Agree with Preston City Council (PCC) Environmental Health Officer for Air Quality	A code of practice for dust management, to be included in the CEMP	For more details regarding the controls to be included see Chapter 8 and Appendix 8 of this ES.
A5: Noise and Vibration						
A5.a	Control noise and vibration controls for construction works	Determine controls through liaison with local Environmental Health Officer to agree working practice and management of noise and vibration during construction	Contractor	Agree with PCC Environmental Health Officer for noise	A code of practice for management and monitoring of noise and vibration during construction, included in a CEMP	None
A6: Soils, Geology and Hydrogeology						
A6.a	Obtain chemical information for the soil in identified areas of potential contamination	Further ground investigation	Infrastructure Delivery Team - LCC	Subcontractor	Information to be available to inform the development of MMP	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
A6.b	Mitigate the potential impact to future site users (humans) and controlled waters	Development of soil re-use criteria protective of human health and controlled waters This would include methods of dealing with areas of contamination identified in the ground investigation	Contractor	Agree with PCC Environmental Health Officer for Contaminated Land	To be completed before the start of earthworks, and included in a and CEMP	None
A7: The Water Environment						
A7.a	To not increase the amount of water runoff from the additional areas of highway more than the greenfield rate	Design drainage system to capture and release runoff at greenfield rate	Designer	None required	Detailed Design should demonstrate no additional run off	None
A7 b	Ensure impact on water quality is not significant on Scheme completion	Use mitigation measures to ensure water quality impact is not significant Adhere to HEWRAT	Designer	None required	Measure water quality at main outfalls.	None
A7.c	Protect the water environment	Produce a CEMP which incorporates details specified in the ES including: <ul style="list-style-type: none"> a detailed water feature survey a construction drainage strategy a sediment management strategy method statements for works in water courses MMP control of polluting substances 	Contractor	Measures to be agreed with LCC designers, Lead Local Flood Authority (LLFA) and the Environment Agency	Approved CEMP	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
A7.d	To mitigate the impact of road and Railway Station building drainage on watercourses	Obtain relevant discharge consents for outfalls	Designer/ Contractor	Agreement with Environment Agency and LCC Designers	Consents in place before construction	None
A7.e	Protect groundwater from contamination	Conduct a piling risk assessment at the access road bridge (in line with Environment Agency guidance, 2006) to confirm that preferential flow paths would not be created that lead to unacceptable impacts to controlled waters.	Contractor	Agreement with Environment Agency	A site walkover should be conducted by the Contractor to determine groundwater dependency. In conjunction with reviewing the detailed design for the Scheme and any ground investigation information The Contractor should undertake a hydrogeological risk assessment to determine whether any further additional mitigation is required.	None
A7.f	Protect ground water features	Conduct a Dewatering risk assessment at proposed attenuation ponds and underground storage areas and areas of cuttings	Contractor	Agreement with Environment Agency		None
		Conduct a site walkover to determine the nature of any groundwater features and undertake a geological risk assessment	Contractor	Agreement with Environment Agency		None
A8: Climate Change						
A8.a	To mitigate the impact of potential Green House Gas emissions.	Conduct a Green House Gas (GHG) assessment covering all direct GHG emissions. Additional assessment at detailed design stage to capture potential operational impacts on GHG emissions.	Contractor	Agreement with LCC-Infrastructure Delivery Team	Approved GHG assessment.	None.

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
A8.b	To mitigate the impact of Climate Change, by securing the resilience of the scheme against future changes.	Produce a Climate Change Resilience (CCR) assessment for both the construction and operation phase of the development.	Contractor	Agreement to be agreed with LCC Infrastructure Delivery Team	Approved CCR	None.
A9: Human Health						
A9.1	To mitigate the impact on human health and the neighbouring amenity.	Produce a CEMP which incorporates details specified in the ES including: <ul style="list-style-type: none"> Noise and vibration from machinery and movements; Dust generated during construction; Exhaust emissions from machinery; Flood risk potential; and, Accidental spillage. 	Contractor	Measures to be agreed with LCC designers and PCC Environmental Health Officer	Approved CEMP	None
A10: Traffic and Transport						
A10.a	To mitigate the impact on local road users caused by construction vehicles, HGVs deliveries and diversions	Produce Construction Traffic Management Plan (CTMP) Ensure traffic management measures avoid sensitive receptors	Designer / Contractor	LCC Highways Authority to agree measures outlined in CTMP	Approved CTMP to be in place before construction commences Details to be incorporated into the CEMP	CTMP should include details of haul roads and prohibited routes
A10.b	To mitigate the impact on the users of Public Rights of Way	Obtain a temporary footpath diversion orders for the construction works	Designer	LCC Highways Authority	Orders to be in place before construction	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
A10.c	To mitigate the impact on public transport during construction	Notify bus companies of planned diversions	Designer / Contractor	LCC Highway Authority to agree diversion routes	Diversions to be agreed and incorporated into the CEMP	None
A11: Land Use and Accessibility						
A10.a	Mitigate impact on agricultural businesses as a result of severance of accesses to fields	Discuss and agree accommodation works to limit impact of the Scheme and maintain access to severed parcels. Provide new accesses to fields where necessary	Designer	Agreement with landowners	To be included in road / structures design	None
A10.b	Mitigate impact on non-agricultural businesses and community facilities	Design of compensatory measures to mitigate the impact of the Scheme. Consideration will specifically be given to issues of access	Designer	Agreement with landowners	To be included in road /structures design	None
A11: Materials and Waste						
A11.a	To reduce the impact of site clearance, and to reduce the need to dispose of demolition waste.	MMP to be produced. Re-use and/or recycle materials onsite where feasible. Recycling and recovery of materials offsite at recycling facilities.	Contractor	Agreement with LCC Planning Authority.	Compliance with MMP. To reduce need for waste disposal.	None.
A11.b	To mitigate against disposal of primary resources through earthworks.	MMP to be produced. Design to maximise the earthworks balance. Re-use of excavated materials onsite where feasible.	Contractor	Agreement with LCC Planning Authority.	Compliance with MMP.	None.

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
Actions during Construction						
B1: Landscape and Visual Impact						
B1.a	To minimise impacts to nearby residential receptors	Actions identified in this ES to be implemented through a CEMP	Contractor	Agreement from LCC Planning Authority	Approved CEMP implemented on site Completed regular compliance inspections	Specific mitigation measures to be implemented during construction are stated in Chapter 5 of this ES
B1.b	To retain existing vegetation adjacent to the area of works	Measures identified within the Arboricultural Impact Assessment (AIA) (Appendix 5.5), including tree protection fencing, to be implemented Implement preliminary management recommendations from the AIA	Designer / Contractor	Landscape Clerk of Works	Valued trees and hedgerows retained Tree protection measures to be installed prior to works commencing	Refer to the Arboricultural Schedule and Preliminary Tree protection plan
B1.c	To minimise the loss of woodland, hedgerows and trees	Preference to retain vegetation to be considered when finalising construction compound details. Measures to minimise damage to retained trees, such as root pruning to be implemented	Contractor	Landscape Clerk of Works	Current vegetation loss refined with further vegetation retained where possible No impact to retained/existing trees	None
B1.d	To protect soil quality for the purposes of landscape planting	Suitable topsoil and subsoil should be stripped before plant trafficking and stored in uncompacted mounds no more than 2m in height. Suitable soils to be reused in order to establish proposed vegetation types shown in the EMP.	Contractor	Agreement from LCC Planning Authority through an approved CEMP	Top soil quality maintained. Soil management measures should be included within CEMP	See Appendix 18.3 Designers Risk Assessment – Environmental Masterplan

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
		Production of a Materials Management Plan pre-construction.				
B1.e	To minimise visual impacts on receptors	<p>Construction programme duration to be kept to minimum</p> <p>Vegetation clearance completed as close as possible to works commencing (noting nesting bird season)</p> <p>Construction site to be tidy with plant and materials storage areas sited to minimise views</p> <p>Lighting Scheme to be considerate to local receptors</p>	Designer / Contractor	None required	<p>Successful implementation of the CEMP</p> <p>Works delivered on programme</p>	None
B1.f	To mitigate change in landscape character and visual impacts as a result of the Scheme	<p>Implement planting design shown on the Environmental Masterplan and subsequent detailed planting designs</p> <p>Where possible, areas to be replanted as soon as works are completed for screening</p> <p>Implement a Sedum Roof to north pitch of the railway station to integrate the Scheme into the surrounding landscape</p> <p>Develop a colour scheme of building finishes and surfacing to complement existing building materials and surfacing materials within the local area</p>	Designer / Contractor	Landscape Clerk of Works	Successful implantation of landscape design	Benefits of this will largely be during operation

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
		The proposed Lancaster Canal Bridge to complement the existing Quaker's Bridge				
B2: Ecology						
B2.a	Minimise the impacts of the Scheme on ecological features, protected and notable species and habitats	Ecological supervision during construction works	Contractor	Agreement with LCC ecologist	Compliance with planning conditions	None
B2.b		Habitat creation as specified in landscape design	Contractor	Agreement with LCC ecologist	Compliance with planning conditions	None
B2.c	To protect sensitive wildlife habitats and commuting corridors from illumination	Sensitive working methodology during construction including no night time where feasible The use of construction lighting would be in accordance with BS5489 Code of Practice for the Design of Road Lighting and follow good practice guidance on lighting with regards to protected species (e.g. Bat Conservation Trust (2009), Guidance Note 8 Bats and Artificial Lighting and Institute of Lighting Engineers (2007))	Contractor	Agreement with LCC ecologist Any exceptions to working hours to be agreed with LCC as Local Planning Authority	Compliance with planning conditions	None
B2.d	To comply with conservation legislation and to protect fauna	Appropriate exclusion zones around sensitive ecological receptors, in line with good practice guidelines relevant to that receptor, would be maintained	Contractor / ECoW	Agreement with LCC ecologists	EcoW to ensure appropriate exclusion zones are provided	None
B2.e		Erection of temporary protective fencing. Ecological supervision during construction works around	Contractor/ECoW	Agreement with LCC ecologist	EcoW to ensure appropriate fencing is provided	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
		sensitive habitats, ecological features and on any other protected or notable species				
B2.h	To protect brown hare	Habitat manipulation (strimming) to be undertaken for key sensitive areas to create a buffer from working areas	Contractor	Agreement with LCC ecologist Potential for third party agreement for mitigation	Authorisation from ECoW required to proceed with works	None
B2.i	To ensure species rich hedgerows are retained where possible and to avoid the spread of invasive species and disease	Hedgerow translocation in defined locations Translocate hedgerows in line with the agreed methodology	Contractor	Agreement with LCC ecologist Potential for third party agreement for mitigation areas	Agreement with LCC Ecologist/ ECoW Removal in line with agreed Hedgerow Translocation Method Statement	Timing of vegetation removal would take seasonal timing restrictions into consideration (e.g. restrictions on night time working, heavy construction works outside of the bat maternity season near known or suspected bat roosts)

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
B2.j	Comply with conservation legislation and protection of roosting bats	<p>Ecological supervision required during works</p> <p>Bat boxes prescribed in this ES would be erected prior to the commencement of clearance or construction works under the supervision of the ECoW</p> <p>Suitable works buffers (defined by ECoW) to be established around known bat roosts</p> <p>No working within 30m of known roost locations during the night time to prevent disturbance to bats leaving/entering roosts</p> <p>Pre-felling endoscope surveys of trees with roosting bat potential during vegetation clearance and/or construction works</p> <p>Should a previously undiscovered bat roost be discovered during felling works, the ECoW would be contacted to advise on the appropriate action</p> <p>EPS licence(s) to be applied for where necessary (in the case of a bat roost being detected in a tree where felling or disturbance to an extent that would constitute an offence cannot be avoided)</p>	Contractor / ECoW	<p>Agreement with LCC ecologist and Licence application from Natural England 9if required)</p> <p>Potential for third party agreement for mitigation areas</p>	<p>Discharge of any potential planning conditions</p> <p>Adherence to licence conditions/licence reporting (if required)</p>	<p>Timing of vegetation removal would take seasonal timing restrictions into consideration (e.g. restrictions on night time working, heavy construction works outside of the bat maternity season near known or suspected bat roosts where possible)</p>
B2.k	To maintain/enhance habitat for species including amphibians and invertebrates	Retention and/or re-use of felled material and dead wood for use in amphibian hibernacula/refugia	Contractor	Agreement with LCC ecologist	Compliance with planning conditions	Timing of vegetation removal would take seasonal timing

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
						restrictions into consideration
B2.m	To prevent disturbance to otters	Access would be maintained for otter through the Lancaster Canal during any works in or near the culvert and these works would not occur at night	Contractor	Working times/deviations to be agreed with the ECoW	Authorisation from ECoW to proceed with works	None
B2.n	To protect flora, fauna and habitats from pollution of surface waters	Adherence to Guidance for Pollution Prevention (GPP) and CIRIA guidance during construction, and appropriate road drainage and runoff treatment	Contractor	None required	No pollution of surface waters	None
B2.q	To protect birds and their nests during bird nesting season	Tree felling and vegetation clearance to be minimised as far as practicable and undertaken outside the core bird nesting season (nesting season is 1st March to 31st August) to avoid damage or destruction of occupied nests or harm to breeding birds. If this cannot be achieved, works within the core bird nesting season would require an inspection of vegetation to be cleared for nesting birds by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken	Contractor/ECoW	Agreement with LCC ecologist	Compliance with planning conditions Authorisation from ECoW to proceed with any works during bird nesting season	Timing of vegetation removal would take seasonal restrictions into consideration

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
B2.r	To avoid mammals becoming trapped in excavations during construction	Trenches, holes and pits would be kept covered or filled at night or provide a means of escape for mammals, amphibians and other wildlife that may become entrapped	Contractor	None required	Measures for ensuring any open holes/spaces would be covered overnight to be included in CEMP	None
B2.s	To maintain and enhance biodiversity	All areas of habitat loss due to the Scheme would be enhanced and a net gain of up to 10% in the nearby area would be created as soon as practicable	Contractor	Third party agreement may be required	Surveys to be undertaken post construction to ensure up to 10% net gain has been achieved	Refer to Appendix 6.17 for further information
B2.t	To protect retained trees and other areas of vegetation	Replace any trees which have been identified to require felling or die as a result of construction which were not previously identified for removal	ECoW/ Designer/ Contractor	LCC Planning Authority	Replacement of trees with an appropriate size and species trees	Any changes to the extent of tree removal from that assessed within the ES would be subject to assessment using the same methods as detailed within the ES to determine the appropriate mitigation requirements
B2.u	To protect slow worm and Common Toad	The construction and erection of the temporary site compound area located immediately adjacent to a confirmed breeding pond (P24) is to be completed outside of the spring migration period (typically February to April) to avoid potential barriers to movement.	ECoW / Designer / Contractor	None required	Authorisation from ECoW to proceed with any works	None
B3: Cultural Heritage						

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
B3.a	Mitigate impacts to potential archaeological remains	Carry out agreed archaeological evaluation	Infrastructure Delivery Team - LCC / Contractor	Agree with Archaeological advisor at LCC	Evaluation completed with any impacts on findings mitigated	Mitigation may include preservation in situ, sensitive construction techniques or excavation and recording of findings
B4: Air Quality						
B4.a	Mitigate potential human health and dust soiling impacts on local residents during construction	Implement dust protection measures identified in the code of practice, including monitoring where appropriate	Contractor	Agreement with PCC Environmental Health Officer for Air Quality	Dust protection measures to be included within CEMP No complaints from local receptors related to construction dust	None
B5: Noise and Vibration						
B5.a	Mitigate noise and vibration impacts to sensitive receptors	Implement Best Practicable Means (BPM) and any other specified measures identified within the CEMP	Contractor	None required	No complaints from local residents related to noise and vibration during construction	None
B5.b	Mitigate noise impacts to sensitive receptors caused by construction traffic	Specified delivery and haul routes to be used. CTMP to be implemented	Contractor	All parties involved in the construction of the Scheme	Traffic Management implemented during construction. No complaints from local residents related to construction traffic noise	None
B6: Soils, Geology and Hydrogeology						
B6.a	Mitigate potential impact on soil and groundwater at the site	Adopt good site practice controls, and correct storage of chemicals and fuels, storage of soil, and waste materials	Contractor	Agree with PCC Environmental Health Officer	Measures to be employed to be included in CEMP	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
				for Contaminated Land	and implemented on site	
B7: The Water Environment						
B7.a	Minimise the risk of impacts on water environment during construction	<p>Implement and adhere to the approved CEMP</p> <p>Take all mitigation measures necessary to reduce impact which incorporates measures such as:</p> <ul style="list-style-type: none"> • Best practice guidance (including Guidance for Pollution Prevention and CIRIA) • Formation of bunds for any activities which may cause contaminated water • Sustainable drainage control implemented as required • Authorisation from ECoW to proceed with any works during bird nesting season 	Contractor	None required	<p>CEMP implemented on site</p> <p>Regular compliance inspections to be completed</p> <p>Measure water quality at main outfalls</p>	None
B8: Climate Change						
B8.a	Reducing energy consumption and generation of waste materials, and reduction of transportation-related emissions.	Produce a CEMP and a CCR assessment.	Contractor	Agreement with LCC Infrastructure Delivery Team	Approved GHG Plan	None.
B9: Human Health						

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
B9.a	Minimise risks to Human health	Produce a health and safety plan to ensure employees / nearby residents are not significantly affected (in line with any air quality or noise mitigation measures)	Contractor	Not required.	Regular compliance inspections to be undertaken	None
B10: Traffic and Transport						
B8.a	To mitigate the impact on local road users caused during construction	<p>Ensure CTMP is adhered to. Set out disciplinary action within the CTMP if suppliers are not compliant to the document CEMP which includes the below measures, to be implemented:</p> <ul style="list-style-type: none"> • Wheel washing facilities • HGV load levels • Signage • Construction staff travel plan • HGV monitoring routes 	Contractor	Agreement with LCC Highways Authority required	Compliance with CTMP and CEMP	None
B10: Land Use and Accessibility						
B10.a	Mitigate the impact on the users of footways and cycle routes	Construct diversions. Inform users of disruption or closures and diversion routes	Contractor and Designer	Agreement with LCC Highways authority	Reduced complaints	None
B10.b	Mitigate impact on agricultural businesses as a result of severance of accesses to fields	<p>Implementation of measures in CEMP</p> <p>Maintain access to properties with realignment of access where required and reasonable</p>	Contractor	Agreement with landowners	Compensatory measures and accommodation works carried out during construction	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
		Erection of Scheme fencing at start of construction; site security maintained throughout works Maintenance of service supplies and implementation of a Soil Management Plan Implementation of a Construction Access Strategy with phasing of construction work to take into account sensitive activities and use designated routes				
B10.c	Mitigate impact on non-agricultural businesses and community facilities	Implement measures in CEMP Maintenance of service supplies and implementation of a Soil Management Plan Maintain access to properties with realignment of access where required and reasonable Erection of Scheme fencing at start of construction and security maintained on site during works Implement a Construction Access Strategy with phasing of construction work to take into account sensitive activities and use designated routes	Contractor	Agreement with landowners	Compensatory measures and accommodation works carried out during construction	None
B11: Materials and Waste						
B11.a	To reduce disposal of construction waste	MMP to be produced. Re-use pavement planings in sub-base in footpaths. Re-use existing planings in pavement construction.	Contractor	Agreement with LCC Planning Authority.	Compliance with MMP.	None.

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
Post Construction Actions						
C1: Landscape and Visual Impact						
C1.a	Ensure successful establishment and development of landscape planted areas to mitigate landscape character and visual amenity impacts	Long term maintenance and management regime to be implemented in order to achieve long term vegetation structure and composition as set out in the Environmental Masterplan	Infrastructure Delivery Team – LCC/ Highways Operations – LCC Network Rail	Landscape Architect	Maintenance of landscape planting for the operational lifetime of the Scheme	None
C2: Ecology						
C2.a	Comply with relevant planning conditions for protected and notable species	Post-construction monitoring of mitigation for any relevant notable or protected species Take account of any incidents / issues identified during the monitoring of mitigation and amend protocols as required	Infrastructure Delivery Team - LCC	Agreement with LCC Ecologist	Agreement with LCC Ecologist and/or Landscape Architect	None
C2.b	Comply with current legislation Minimise the impacts of the Scheme on protected and notable species and habitats Comply with specific post-construction planning conditions	Habitat management to be maintained in accordance with prescribed landscape management regimes. Habitat management to prevent suitable barn owl foraging habitat from establishing near the road (e.g. grassland immediately adjacent to the road would need to retain a short sward) Replacement of damaged/missing bat, bird, hedgehog habitat boxes	Contractor	Agreement with LCC Ecologist	Agreement with LCC Ecologist and/or Landscape Architect	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
C2.c	Replacement of trees lost that are to be retained during construction	Planting to be undertaken to replace any trees that were intended to be retained which are felled or die as a result of construction works	Infrastructure Delivery Team - LCC/- Highways Operations - LCC/ Contractor	Agreement with LCC Landscape Architect	Approval of planting plan from LCC Ecologist including the size, species and location of the plants	The size, species and location of replacement trees will be approved by LCC and other relevant stakeholders
C2.d	Comply with relevant planning conditions or legislation for Biodiversity net gain	Post-construction monitoring of biodiversity net gain to ensure up to 10% of net gain has been achieved	Infrastructure Delivery Team / Contractor	Agreement with LCC Ecologist / Third Party agreement	Agreement with LCC Ecologist	None
C3: Cultural Heritage						
C3.a	None required	-	-	-	-	-
C4: Air Quality						
C4.a	None required	-	-	-	-	-
C5: Noise and Vibration						
C5.a	To comply with the Noise Insulation Regulations 1975 (as amended 1988)	Complete noise insulation regulations assessment Offer noise insulation or make a grant to eligible residents within 6 months of the project being open to the public	Infrastructure Delivery Team – LCC Estates - LCC	None required	Completion of assessment, with residents offered insulation or grant where appropriate	No formal offers of noise insulation can be made until after the completion of the statutory processes and the finalisation of the detailed engineering design of the Scheme
C6: Soils, Geology and Hydrogeology						
C6.a	None required	-	-	-	-	-
C7: The Water Environment						

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
C7.a	Reduce risk of flooding and protection of the water environment	Regular inspection and maintenance of SuDS and watercourse structures	Highways Team - LCC		Drainage features and structures remain in good working condition	Network Rail or the Train operating Company would be responsible for car park drainage/inspections. (depending on conditions of lease)
C8: Climate Change						
C8.a	Protect the scheme against future climate change	Produce a CCR assessment which will consider the potential impacts that climate change could have on the construction and operation of the Scheme over its lifetime.	Contractor	Agreement with LCC Infrastructure Delivery Team	Completion of assessment and any mitigation details agreed.	None.
C9: Human Health						
C9.a	To comply with measures set out in the Noise mitigation measures	As per No. C5.a & A9.a				
C10: Traffic and Transport						
C8.a	To mitigate the impact on the users of Public Rights of Way	Obtain permanent diversion for footpath to be relocated during operation	Designer	LCC Highways Authority	Orders to be in place before construction	None
C11: Land Use and Accessibility						
C10.a	To prevent long term impact on agricultural activities of retained land	Full restoration of working areas to agricultural use with as recorded in a Record of Condition	Designer Estates - LCC	Agreement with Landowner	Compliance with Record of Condition	None
C12: Materials and Waste						
C12.a	To reduce the production of waste	Responsibility of Network Rail to ensure litter bins etc are	Network Rail	None	None	None

No.	Objective	Action	Responsibility	Third Party Contract required	Achievement Criteria	Notes
	post construction and during the life of the development.	monitored and emptied to keep the site clear of waste.				