THE DROVES
SOLAR FARM

The Droves Solar Farm

Chapter 9: Transport and Access (Tracked)

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9 Transport and Access

9.1 Introduction

9.1.1 This chapter of the Environmental Statement (ES) presents the findings of the Environmental Impact Assessment (EIA) of effects on Transport and Access as a result of the Scheme.

9.1.2 This chapter identifies and proposes measures to address the potential impacts and likely significant effects in relation to Transport and Access, during the construction and decommissioning phases.

9.1.3 The chapter does not include an assessment of the impacts during the operational phase which are scoped out of this chapter on the basis that the effects are unlikely to be significant when compared to the construction and decommissioning phases, as presented later within this chapter and agreed with the Planning Inspectorate (PINS) during the scoping opinion at **ES Appendix 2.2: Scoping Opinion [APP/6.4]**.

9.1.4 The information presented within this chapter has been informed by the information provided in **ES Chapter 5: The Scheme [APP/6.1]**.

9.1.5 The Transport and Access assessment has considered the potential effects created by the traffic generated during the construction and decommissioning phases of the Scheme on both non-motorised users (NMUs) and motorised vehicles.

9.1.6 The effects to be assessed during the construction phase and decommissioning phases of the Scheme are as required by the Environmental Assessment of Traffic and Movement (EATM, 2023) Guidance produced by the Institute of Environmental Management and Assessment (IEMA), now known as the Institute of Sustainable and Environmental Professionals (ISEP) (hereafter referred to as the 'IEMA EATM Guidance') (Ref 9-1), which are as follows:

- Severance
- Driver Delay
- Pedestrian Delay
- Non-motorised User Amenity
- Fear and Intimidation; and
- Road Safety.

9.1.7 This Transport and Access ES chapter has been prepared by Velocity Transport Planning (**ES Appendix 1.1: Statement of Competence [APP/6.1]**).

9.1.8 This document has been updated at Deadline 6 to consider the Longmarsh Green Energy project, for which the EIA Scoping Report was submitted to PINS in October 2026, in relation

to the cumulative assessment of the Scheme. This demonstrates the proactive and robust nature of the Applicant's cumulative assessment, even though the information for Longmarsh Green Energy has been received at a late stage of the Examination.~~1 to include references to assess vehicles accessing the Site from the A1065 only and to include a sensitivity test for water being tankered to the Site during the construction phase.~~ The document references have not been updated from the original submission. Please refer to the **Guide to the Application [APP/1.3.8~~APP/1.3.2~~]** for the list of current versions of documents.

9.2 Consultation

Scoping Opinion

9.2.1 On 8 November 2024, the Applicant submitted a Scoping Opinion Request to PINS (see **ES Appendix 2.1: EIA Scoping Opinion Request [APP/6.4]**) in support of a request for a Scoping Opinion from the Planning Inspectorate on behalf of the Secretary of State pursuant to Regulation 10 of the EIA Regulations.

9.2.2 A Scoping Opinion (see **ES Appendix 2.2: Scoping Opinion [APP/6.4]**) was issued by the Planning Inspectorate on 18 December 2024.

9.2.3 The issues raised in the Scoping Opinion relating to Transport and Access are summarised and responded to within **ES Appendix 9.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**, which demonstrates how the matters raised in the Scoping Opinion are addressed in this ES.

Statutory Consultation and Preliminary Environmental Information Report (PEIR)

9.2.4 Statutory consultation was held between 21 May 2025 and 9 July 2025. Relevant statutory responses to the PEIR relating to Transport and Access and how these have been addressed through the ES are set out within **ES Appendix 9.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**.

9.2.5 Further engagement has been undertaken as part of stakeholder engagement specific to Transport and Access; this is detailed within **ES Appendix 9.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**.

9.2.6 A further round of targeted consultation was undertaken between 3 September 2025 and 1 October 2025 following changes to the development boundary area of the Scheme presented in the PEIR and during Stage Two Statutory Consultation. Further detail regarding the targeted consultation is provided in **ES Chapter 1: Introduction [APP/6.1]**.

9.3 Legislation, Planning Policy and Guidance

9.3.1 A summary of applicable legislation, planning policy and other guidance documents against which the Scheme will be considered relating to Transport and Access is set out in **ES Appendix 9.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**.

9.4 Assessment Assumptions and Limitations

9.4.1 The Transport and Access assessment has considered the following assumptions:

Construction Trip Generation

9.4.2 For the purposes of the ES and in order to assess a reasonable worst-case, the peak construction vehicle movements for the Scheme is estimated to be 628 two-way movements per day, comprising 532 two-way LGVs (associated with staff and smaller deliveries) and 96 two-way HGVs, which would capture both construction staff trips and deliveries. Further details on the assumptions and methodology used to generate construction trips are provided within **ES Appendix 9.2: Traffic Assessment [APP/6.4]**.

9.4.3 This is based on the likely construction requirements for the peak in construction of the Scheme being assumed to be required across the entirety of the programme rather than the true peak, which based on indicative construction programme planning is likely to only take place over approximately one month. In reality, there is likely to be phasing and thus the typical peak in vehicle numbers would be reduced, thus the assessment approach forms a reasonable worst-case scenario.

9.4.4 The impact of the vehicle trips generated has been discussed and agreed with NH and NCC as local highway authorities, with further details provided within **ES Appendix 9.2: Traffic Assessment [APP/6.4]**. The assessment has been based on a 24-month construction schedule.

9.4.5 A future year assessment of 2031 has been undertaken, as this is expected to be the year when construction commences. Details on the methodology to develop the future baseline is shown in section 9.6.

Decommissioning

9.4.6 With respect to the decommissioning phase, the traffic movements are anticipated to be equivalent to, or less than, the construction phase peak of 628 two-way vehicle movements per day (532 two-way LGVs and 96 two-way HGVs).

9.4.7 Decommissioning activities will utilise the same access points and routes as construction, but will generally require fewer vehicle movements since existing infrastructure such as Access Tracks will already be in place and less specialist equipment will be needed for dismantling compared to construction and installation. Equipment can also be compressed

or consolidated upon the decommissioning phase as there is less of a need to coordinate the supply chain and logistics when compared to during the construction phase.

9.4.8 Therefore, it is considered that the construction phase assessment represents a robust, reasonable worst-case scenario for the decommissioning phase as well, as the construction phase assessment provides an appropriate upper limit for potential traffic impacts.

Operation and Maintenance

9.4.9 During the operational phase of the Scheme, both routine operational maintenance and programmed replacements of key infrastructure will be undertaken. This section distinguishes between the minimal, day-to-day maintenance activities associated with ongoing operations and the periodic replacement of PV Panels and Battery Energy Storage System (BESS) components, which is anticipated to involve increased, but still lower, traffic movements relative to the construction phase.

9.4.10 Further details regarding the replacement of PV Panel components during the operational phase are provided in **ES Chapter 5: The Scheme [APP/6.1],** with the management of these activities secured through a requirement in the DCO and submitted with the DCO Application, with an OTMP and Operational Environmental Management Plan (OEMP) that must be substantially in accordance with the **oOTMP [APP/7.9]** and **oOEMP [APP/7.5]** submitted with the DCO Application.

9.4.11 During the operational phase, ad-hoc replacement of defective PV Panels will occur due to routine wear and tear or unforeseen damage. These replacements will be carried out on a small scale typically by using light servicing vehicles (e.g., 4x4 or Panel Vans), resulting in a non-material increase in heavy goods vehicle (HGV) movements. Given the low volume and negligible impact of these maintenance activities, they are not expected to give rise to significant environmental effects, and no specific mitigation measures beyond those outlined in the **oOEMP [APP/7.8]** and **oOTMP [APP/7.9]** are required.

9.4.12 Throughout the operational phase, programmed replacements will be required to upgrade key components as they approach the end of their design life. The expected replacement frequency is as follows:

- It is expected that the operational life of PV Panels is 40 years or more, and that all the PV Panels will be replaced once during the operational phase. The PV Panels are anticipated to be replaced over a maximum 12 to 24 month period
- It is expected that the BESS Units could be replaced up to five times during the operational phase
- Accesses to the Solar PV Site defined for construction would be used. If any abnormal loads are required for the replacement of equipment, consultation will be carried out, and approvals will be sought from the relevant local planning and highways authorities
- Components such as Mounting Structures, Cabling and the Customer Substation, National Grid Substation, and BESS compound buildings are not anticipated to be

replaced during the operational phase. No intrusive ground works are anticipated to replace the PV Panels or BESS Units. Transformers are assumed to have a design life of 30 years; transformers may require replacement once during the lifetime of the Scheme, although replacement will only be carried out if required for performance or health and safety reasons.

9.4.13 The replacement programme is anticipated to be phased, with sequential replacement to allow for replacement works while maintaining energy generation. The access arrangements for PV panel replacement will remain consistent with those used during the construction phase, as shown in **ES Figure 9.1: Vehicle Routing and Constraints [APP/6.3]**.

9.4.14 New panels will be delivered while the old panels are removed in coordinated vehicle movements, ensuring efficient logistics management and minimising the transport impact. While exact vehicle movement numbers cannot be confirmed at this stage, they will be managed in accordance with the **oOTMP [APP/7.9]** and **oOEMP [APP/7.8]** to ensure impacts remain within assessed limits. The **oOTMP [APP/7.9]** and **oOEMP [APP/7.8]** set out the protocol for any future amendments needed to the vehicle requirements, which will be set out for agreement with BC in consultation with NCC and NH.

9.4.15 Any mitigation implemented to ensure that the construction and decommissioning effects remain non-significant during the construction and decommissioning phases will be secured through the **oOTMP [APP/7.9]** and **oOEMP [APP/7.8]** submitted with the DCO Application.

9.4.16 On that basis it is considered that any flows associated with replacement activities do not require further assessment, nor are they significant in EIA terms. Further details as to how the replacement flows will be managed are provided in the **oOTMP [APP/7.9]** and **oOEMP [APP/7.8]**.

Assessment of Effects

9.4.17 It is noted throughout the IEMA EATM Guidance that the assessment of environmental effects arising from road traffic is not an exact science and a degree of professional judgement is required in all instances. This is particularly the case for the assessments of effects on NMUs where local characteristics need to be fully considered.

9.4.18 Notwithstanding the limitations and assumptions referenced, it is considered that the methodology and conclusions to this chapter are robust.

9.5 Assessment Methodology

9.5.1 This section sets out the scope and methodology for the assessment of the impacts of the Scheme on Transport and Access.

Sources of Information

9.5.2 The following sources of information that have been reviewed in the preparation of this chapter:

- Topographical survey and Ordnance Survey (OS) mapping to inform the design of the access junctions and review feasibility for vehicle access
- Site visits to confirm and validate the OS mapping and routing choices for vehicles
- Automatic traffic counter (ATC) surveys (discussed within section 9.6 of this chapter) to capture baseline total vehicle flows; and
- Personal injury accident data.

Potential Impacts

9.5.3 Embedded mitigation measures being incorporated into the design and construction of the Scheme are set out in section 9.7 below.

9.5.4 Prior to the implementation of any mitigation (embedded or additional), the Scheme has the potential to have an effect on Transport and Access receptors (beneficial or adverse), during the construction and decommissioning phases by generating increased traffic throughout the Study Area that will impact both motorised users and NMUs in line with the effects set out within the IEMA EATM Guidance.

Study Area

9.5.5 The review of the baseline conditions relevant to the assessment of Transport and Access impacts has been undertaken based on the Transport and Access Study Area (hereafter the 'Study Area').

9.5.6 The Study Area has been defined as the routes from the SRN via the LRN required to facilitate traffic movements associated with the construction, operational and decommissioning phases of the Scheme, as well as any improvements or changes required to facilitate traffic access. These routes are shown within **ES Figure 9.1: Vehicle Routing and Constraints [APP/6.3]** and are described in further detail within section 9.6.

9.5.7 The Study Area is illustrated in **ES Figure 9.2: Transport and Access Study Area [APP/6.3]** and comprises the 16 links which have been identified based on the likely routing of vehicles to access the Scheme (discussed in more detail below), the extent of which has been agreed with NCC during consultation associated within **ES Appendix 2.2: Scoping Opinion Response [APP/6.4]**. These figures address the request made by PINS in the Scoping Opinion for a plan illustrating the extent of the study area and the expected routes of construction traffic.

9.5.8 The overall Study Area includes a total of 16 links, which includes additional survey locations that were requested by NCC during scoping discussions. However, the additional areas requested by NCC (Links 10-16) are not expected to accommodate any traffic associated with the Scheme so only the relevant nine links (Links 1-9) that will accommodate traffic are considered individually within this chapter.

9.5.9 Whilst not all links will be utilised by the construction vehicles or staff associated with the Scheme, they have been incorporated into the wider Study Area for surveys to allow for

comparison and validation, to ensure that the data collected for the other links is representative.

Assessment Methodology

9.5.10 The Transport and Access assessment follows the general approach to undertaking EIA, explained in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**, albeit it has been modified to align with the industry standard IEMA EATM Guidance.

9.5.11 In summary, the IEMA EATM Guidance sets out thresholds and assessments for the following effects relevant to Transport and Access, which are discussed in further detail below in this chapter of the ES.

- Severance
- Driver Delay
- Pedestrian Delay
- Non-motorised User Amenity
- Fear and Intimidation
- Road Safety
- Hazardous and Large Loads.

9.5.12 The methodology for attributing sensitivity of receptors, magnitude of impacts and the significance of effects in relation to Transport and Access is described further below in this chapter of the ES.

9.5.13 The process that has been utilised for the Transport and Access assessment within this chapter is as follows:

- Consultation with the relevant highway authorities (NH and NCC)
- Procured and processed baseline traffic data, arranging the additional surveys where necessary in collaboration with key stakeholders and consultees
- Undertaken vehicle route feasibility assessments for construction vehicles equipment and staff, including detailed observations of each of the proposed route options and identifying any sensitive receptors or constraints along the length of the routes. The main route assessments will primarily comprise the LRN from the SRN to the Site, however, the impact on the SRN has also been assessed where relevant
- Application of 'Department for Transport' (DfT) Trip End Model Presentation Program (TEMPro) Growth Factors (Ref 9-2) in order to develop and assess future construction years, with an emphasis placed on assessing the peak year, the details of which are discussed further within section 9.6 of this chapter
- In consultation with NCC and NH, route options have been explored and developed further to determine the feasibility of each route and whether they are acceptable or require further refinement

- An assessment has been undertaken of the likely Transport and Access effects. Following the outcomes of the assessments to identify the residual effects, there has been consultation with the key stakeholders and consultees to discuss the outcomes
- Where needed, mitigation in the form of the **oCTMP [APP/7.7]** and its supporting measures has been discussed and agreed with stakeholders prior to submission

9.5.14 As is standard practice, the ES assessment has been undertaken primarily through a desktop-based assessment, supported by a series of site visits utilised to validate the findings of the vehicle routing strategy.

9.5.15 The approach to the sensitivity of receptors, magnitude of impacts and the significance of effect in relation to Transport and Access for the ES assessment is described later within this section.

9.5.16 The ES assessment has been undertaken using a robust interpretation of the likely number of construction vehicles and construction staff that will be required, with further details provided in the supporting **Appendix 9.2: TA [APP/6.4]**.

9.5.17 To provide a robust worst-case assessment of the likely significant environmental effects, it is assumed that the Scheme will be constructed in one phase.

9.5.18 The IEMA EATM Guidance identifies two broad rules which could be used as a scoping process to determine the scale and extent of assessment. These rules are summarised as follows:

- Rule 1 – include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles (HGVs) will increase by more than 30%)
- Rule 2 – include any other specifically sensitive areas where traffic flows may increase by 10% or more (or there is a significant change in the mix of vehicles, such as an increase of more than 10% in the number of HGVs)

9.5.19 With respect to the need for peak hour assessments, whilst there is no guidance set by NCC, reference is made to the DfT 'Guidance on Transport Assessment' (2007) (Ref 9-3) which refers to a threshold of 30 two-way trips during a peak hour to warrant the need to undertake junction capacity assessments.

9.5.20 It is not considered that the level of trip generation for the Scheme during the AM and PM peak hours will be significant enough to warrant detailed junction capacity assessment based on these thresholds. This approach has been discussed and agreed with NCC as set out in **ES Appendix 9.1: Consultation and Legislation, Planning Policy and Guidance**.

9.5.21 The following sub-sections set out the IEMA EATM Guidance effects for consideration in this chapter:

> ***Severance*** *is defined as the "perceived division that can occur within a community when it becomes separated by a major traffic artery". In addition, the assessment has*

considered any effects from traffic flow changes, as well as effects from formal diversions or closures required for network or infrastructure upgrades.

***Driver Delay** is defined as any delay which may occur to motorists. The IEMA EATM Guidance states that any delays due to a Scheme are only likely to be significant when the network is close to or already at capacity. The IEMA EATM Guidance goes on to state "The assessment of driver delay will normally be based on technical work reported within the Transport Assessment, which generally focuses on conditions in the network peak periods, with highway mitigation defined to ensure conditions within the development are not materially worse than would otherwise have been the case without the development and mitigation."*

***Pedestrian Delay** is utilised as a proxy for other NMU delay when crossing a road. In the IEMA EATM Guidance, it is stated "Given the range of local factors and conditions that can influence pedestrian and non-motorised user delay (e.g. a discrete delay may have a lesser impact in an urban environment than a rural setting), it is not considered wise to set down definitive thresholds. Instead, it is recommended that the competent traffic and movement expert use their judgement to determine whether pedestrian delay constitutes a significant effect."*

***NMU Amenity** is defined as "the relative pleasantness of a journey and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic". The guidance suggests that a tentative threshold for judging the significance of changes in NMU amenity would be where the traffic flow is halved or doubled which would lead to a high impact, although that any assessment should pay full regard to the local conditions.*

***Fear and Intimidation** is defined as "a further environmental impact that affects people is the fear and intimidation created by all moving objects. While the traffic and movement assessment has to consider motorcycles, cars, lorries and buses, this scope of consideration is not exclusive – it also has to consider other modes of travel, including horses, cycles, mobility scooters, e-scooters and e-cycles, if appropriate". For the assessment of Fear and Intimidation, the IEMA EATM Guidance refers to an assessment of the 'degree of hazard' (DoH) but acknowledges professional judgement should be used with reference to local conditions.*

***Road Safety** refers to the use of collision rates and identification of collision clusters to assess the implications of a development. The IEMA EATM Guidance recommends consultation with local highway authorities to determine the significance of any Road Safety effects. The guidance also notes "The movement of hazardous/large loads will heighten people's perception of fear and intimidation and, if this is likely to occur, it should be noted."*

Assessment Scenarios

9.5.22 The assessment will consider the following assessment scenarios:

- Baseline (2024) daily flows
- Future baseline (2031) peak construction year; and
- Future baseline (2031) peak construction year – with Scheme traffic.

9.5.23 Further details on the methodology to develop the future baseline is provided within section 9.6 of this chapter.

Sensitivity of Receptor

9.5.24 Categories of receptor sensitivity have been defined based on the principles set out in the IEMA EATM Guidance and include the following through applying professional judgement:

- Particular groups or locations which may be sensitive to changes in traffic conditions
- The list of affected groups and special interests set out in the guidance; and
- The identification of links or locations where it is felt that specific environmental problems may occur noting that such locations "…*would include accident black spots, conservation areas, hospitals, links with high pedestrian flows etc*."

9.5.25 In accordance with the IEMA EATM Guidance, the following sensitive receptors are considered within this chapter

- NMUs
- PRoW users
- Motorists and freight vehicles
- Public transport users; and
- Emergency services.

9.5.26 Any nearby Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA), Local Wildlife Sites (LWS), County Wildlife Sites (CWS) and Roadside Nature Reserves (RNR), where present along the proposed construction routes, are identified as standard sensitive receptors, as these could be impacted by construction vehicles, or any Highway Works required to facilitate the Scheme. This includes, but is not limited to, River Road (ref. U22086 and ref. U33086) RNR, Narborough Railway Embankment SSSI, and the River Nar SSSI situated along the A1065 to the north.

9.5.27 All receptors will exhibit a greater or lesser degree of sensitivity to the changes brought about by the Scheme. The sensitivity of a receptor is a function of its capacity to accommodate change. For example, transport users (receptors) that have a higher sensitivity to changes in traffic are those visiting places such as schools, hospitals and playgrounds.

9.5.28 Further, the sensitivity of a receptor can also be a function of the infrastructure on a highway link. For example, where there is a high concentration of pedestrians, and limited facilities such as crossings and footways, the transport users would have a higher sensitivity to changes in traffic.

9.5.29 Therefore, highway links which have these characteristics are assumed to have a higher concentration of these users and therefore are classified with a higher sensitivity.

9.5.30 For the purpose of the assessment with respect to Transport and Access, it is assumed that 'High Sensitivity' refers to any receptors who are non-motorised or vulnerable road users, such as children, elderly people or disabled people who could be negatively impacted by a change in traffic flows. For example, a change in HGV composition may significantly impact

these users more than other motorised road users who are less sensitive to changes in vehicle composition or flows.

9.5.31 The sensitivity of highway links with regard to infrastructure and the receptors on those links are set out in Table 6.1 which has been prepared with reference to the IEMA EATM Guidelines.

Table 6.1 Sensitivity of Identified Receptor

Sensitivity	Identified Receptor
High	Receptors of greatest sensitivity to traffic flows, such as schools, hospitals, recreational spaces, accident blackspots, retirement/nursing homes, stabled/horse riding schools, emergency services, SSSIs or other wildlife designated areas. Includes areas with no footways with high pedestrian footfall and congested areas.
Medium	Receptors with moderate sensitivity to traffic flow, such as historical buildings, tourist attractions, camping sites and residential areas.
Low	Receptors with low sensitivity to traffic flows, and those distant from affected roads, such as drivers of motorised vehicles.
Negligible	Receptors with no material sensitivity to traffic flows.

9.5.32 The links within the Study Area have then been classified with a sensitivity based on their characteristics and likelihood to be accommodating sensitive receptors through professional judgement.

Magnitude of Impact

9.5.33 The magnitude of impact for the assessment of Transport and Access effects is determined by the magnitude of change experienced by the receptors. To determine the magnitude of change, and to determine the likely significance of the effects resulting from the Scheme, thresholds set out in the IEMA EATM Guidance have been used and interpreted using professional judgement and industry good practice.

9.5.34 The criteria used for determining the magnitude of change are summarised below in Table 6.2.

Table 6.2 Assessment Criteria for Determining the Magnitude of Change

Effect	Assessment Criteria for Determining the Magnitude of Change	Magnitude of Impact
Severance	The IEMA EATM Guidance sets out a range of indicators for determining the magnitude of severance effects. It suggests changes in	Guidance thresholds: • <30% is negligible

	traffic flows and associated magnitude of impacts.	• 30-60% is small • 60-90% is medium • >90% is large
Driver Delay	The IEMA EATM Guidance does not provide set thresholds for determining when a change in driver delay is likely to be significant and instead refer to any junction capacity assessments that may be undertaken, alongside professional judgement. As there will not be any junction modelling undertaken for the DCO Application (given the anticipated levels of trip generation being low during the peak hours), it is proposed to use professional judgement and the overall changes in traffic flows with reference to the typical IEMA EATM to determine whether there is likely to be any significant changes to driver delay.	Proposed thresholds: • <30% is negligible • 30-60% is small • 60-90% is medium • >90% is large
Pedestrian Delay	The IEMA EATM Guidance recommends the use of professional judgement to determine whether pedestrian delay is significant across individual links, taking into consideration the varying characteristics of local conditions within the Study Area.	For the purposes of this assessment, the following thresholds related to changes in total traffic are applied alongside professional judgement and interpretations of the local conditions: • <30% is negligible • 30-60% is small • 60-90% is medium • >90% is large
Non-motorised User Amenity	The IEMA EATM Guidance notes that a tentative threshold for determining significance of changes in non-motorised user amenity is when traffic flows are halved/doubled. However, the guidance notes that any changes should be considered with professional judgement in light of the local conditions. It is proposed to use these thresholds alongside professional judgement taking into consideration the likely demand and provisions for non-motorised users across the links.	Guidance thresholds alongside the use of professional judgement: • <10% is negligible • 10-25% is low • 25-50% is medium • >50% is high
Fear and Intimidation	The IEMA EATM Guidance refers to an assessment for the 'degree of hazard' (DoH) in Table 3-1 of the guidance to assess fear and intimidation. Each road link in the Study Area will be assessed to determine the	Guidance threshold once change from the baseline has been identified: • Negligible – no step change from baseline.

	values of these parameters using traffic data. These values will then be used to determine the degree of hazard score, from 0 up to 30. In determining the degree of hazard, the assessment will apply a score based on three parameters: • Average daily vehicle flows – this covers the total volume of all vehicles across an 18-hour period from a road link. Higher volumes indicate a greater hazard. • Total HGV flows – the total volume of heavy goods vehicles (HGVs) over an 18-hour day. A higher HGV volume represents a greater perceived hazard. • Average speeds – the mean speed of vehicles on the road link. Higher speeds are associated with greater hazard. Once calculated, the total hazard score will be presented to determine the level of fear and intimidation, as follows: • <20 is small • 21-40 is moderate • 41-70 is great • >71 is extreme A comparison of the degree of hazard will be undertaken for the peak construction year with/without the construction flows and against the baseline traffic flows to determine any changes. Step changes are defined as increases in average daily traffic or heavy vehicle flow compared to baseline. A low step change is an increase of <400 vehicles/day or <500 heavy vehicles/day. A medium step change is an increase of >400 vehicles/day or >500 heavy vehicles/day. A high step change is two increases in separate flow thresholds from baseline.	• Low – one step change from baseline (<400 daily vehicle trip increase). • Medium – one step change from baseline (>400 daily vehicle trip increase). • High – two step changes from baseline.
Road Safety	The IEMA EATM Guidance suggests that the magnitude of Road Safety impacts will be related to identifying collision clusters and collision rates through a detailed review of baseline characteristics to determine road safety sensitivity. However, it does not provide any defined thresholds.	The IEMA EATM Guidance advises that professional judgement will be needed to assess the implications of local circumstances, or factors which may elevate or lessen risks of accidents occurring. In addition, the IEMA Guidance refers to the use of a Stage 1 Road Safety Audit to determine the suitability of any

		Transport and Access related works that are proposed.

Categorising the Scale of Effect

9.5.35 The predicted significance of the effect is determined through a standard method of assessment and based on professional judgement, considering both the sensitivity of the receptor and the magnitude of the impact, as shown in Table 6.3.

9.5.36 There are four categories demonstrating the scale of effect:

- Negligible
- Minor
- Moderate
- Major

Table 6.3 Scale of Effects Matrix

Magnitude of Impact	Sensitivity			
	High	Medium	Low	Negligible
High	Major	Major/Moderate	Moderate	Negligible
Medium	Major/Moderate	Moderate	Moderate/Minor	Negligible
Low	Moderate	Moderate/Minor	Minor	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

9.5.37 The nature of effects has been defined as either beneficial or adverse.

9.5.38 In order to provide a consistent and comparable assessment of the degree of significance for each effect, the significance criteria being applied is set out in Table 6.4~~Table 6.4~~.

Table 6.4 Significance of Effect Criteria

Significance Criteria	Description of Criteria
Major Beneficial	A considerable positive effect on the receptor that will have an impact on the wider area and be in major support of standard or legislation.
Moderate Beneficial	A positive effect on the receptor in terms of extent, duration, or magnitude.

Minor Beneficial	A positive effect on the receptor that is small, localised, or short term.
Neutral / Not Significant	No perceivable impact.
Minor Adverse	A negative effect on the receptor that is small, localised, or short term.
Moderate Adverse	A negative effect on the receptor in terms of extent, duration, or magnitude.
Major Adverse	A negative effect on the receptor that will have an impact on the wider area or that may be in breach in standards or legislation.

Determining the Significance of Effect

9.5.39 The IEMA EATM Guidance allows for the use of professional judgement in determining whether an effect is significant. For the assessment of the likely significant environmental effects associated with Transport and Access, only effects that are assessed as 'Major' and 'Moderate' are considered significant in EIA terms.

9.5.40 This is based on professional judgment and that the Transport and Access effects of the Scheme will primarily be limited to the construction and decommissioning phases, so any effects are inherently temporary in nature.

9.6 Baseline Conditions

The Order limits

9.6.1 The Scheme is located within the administrative areas of NCC and BC, who are the host authorities. A full description of the Order limits is provided in **ES Chapter 3: Order limits and Context [APP/6.1]**.

Existing Baseline

Highway Network

9.6.2 The majority of the equipment required to construct, operate, maintain and decommission the Scheme is likely to be imported into the UK from abroad and as such will most likely arrive at an appropriately located port. Although the details of exactly where the equipment will arrive are not yet known, it is assumed that it would be transported from the relevant port via the SRN to the Site.

9.6.3 On that basis, a feasibility exercise has been undertaken to determine potential access routes along the LRN to the Site from the SRN.

9.6.4 To access the Site from the SRN, three routes have been identified as follows:

- Route A: Access to/from the south from the A47, via the A1065
- Route B: Access to/from the north via A1065
- Route C: Access to/from the A47, from the west via Narford Road, Low Road, South Acre Road and A1065.

9.6.5 The available access routes to the Scheme from the SRN alongside the constraints on the LRN are shown at **ES Figure 9.1: Vehicle Routing and Constraints [APP/6.3]**.

9.6.6 Approximately 2km to the south of the Site, the A47 forms part of the SRN, with NH as the Highway Authority. It is a dual carriageway with a speed limit of 70mph, aligned in an east-west orientation to the south of the Site. The A47 provides strategic connections to Norwich approximately 48km to the east and King's Lynn approximately 40km to the west.

9.6.7 The A1065 is a single carriageway road that runs in a north-south alignment along the Site's eastern boundary. It has varying speed limits, with 30mph sections through built-up areas and a national speed limit (60mph) in rural stretches. Where the A1065 runs adjacent to the Site's eastern boundary, it is subject to a 60mph speed limit.

9.6.8 The A1065 connects Swaffham to Fakenham in the north and forms a key junction with the A47 via the Fakenham Road interchange. The A1065 serves as an important link for local and regional traffic movements.

9.6.9 West Acre Road is a single carriageway road running from Swaffham in a north westerly direction before becoming Narford Lane. It forms a priority junction with Lynn Road in the south. It has a varying speed limit, with 30mph restrictions towards the southern end, transitioning to the national speed limit (60mph) as it progresses northward through the Site boundary up to Narford Road further north.

9.6.10 Narford Road is a single carriageway road subject to the national speed limit (60mph). It forms a priority junction with the A47 to the west of the Site and connects north to Low Road and subsequently River Road, before joining back onto the A1065 in the east via South Acre Road.

9.6.11 It is noted that the routing strategy has been informed by feedback received from NCC, consultation discussions as highlighted within **ES Appendix 9.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**.

9.6.12 In line with this feedback, all construction vehicles and staff will be required to access and egress from the Scheme via Route A and Route B, meaning no vehicles from the Scheme will utilise Route C. This routing is secured via the **oCTMP [APP/7.7.1]** and **oOTMP [APP/7.8.1]**, which in turn are secured by way of corresponding Requirements in the **Draft DCO [APP/3.1.1]**.

9.6.13 **Appendix 9.2: Traffic Assessment [APP/6.4]** that accompanies the DCO Application includes a detailed summary of the collision records within the LRN. The review identifies that there are no collision clusters present along the access routes to the Scheme, identified

as being five or more serious / fatal collisions over the latest three-year period reviewed. Further details on this collision review is provided within **Appendix 9.2: Traffic Assessment [APP/6.4]**

9.6.14 To inform the suitability of the identified routes, Ordnance Survey (OS) 'Mastermap' data has been obtained, and topographical survey data has been collected to refine the swept path analysis of the construction vehicle access routes for the anticipated vehicles. The swept path analysis is included within **Appendix 9.2: Traffic Assessment [APP/6.4]**

Non-Motorised Users

9.6.15 Due to the rural nature of the Study Area, there is a limited provision of footways alongside the carriageways of the roads within the Study Area. There is no footway along the A1065 where it passes along the Site's eastern boundary.

9.6.16 There are no designated sections of the National Cycle Network within the Study Area, though there are some recreational cycle routes that include:

- The Peddars Way: A 46-mile route from Knettishall Heath, Suffolk to Holme-Next-The-Sea, Norfolk. It follows an ancient Roman road and is largely cyclable
- The Rebellion Way: A 232-mile cycling adventure around Norfolk, utilising quiet back roads, byways, cycle paths and bridleways

Public Right of Way Users

9.6.17 There are a number of PRoW that pass alongside the boundaries between the fields that make up the Site, described in **ES Chapter 6: Landscape and Visual [APP/6.2]** and shown at **ES Figure 9.3: Public Rights of Way and Cycle Route Overview [APP/6.3]**.

9.6.18 It is noted that given the wide extent of the Study Area there are a number of PRoW in close proximity to the access routes, though there is unlikely to be much interaction between construction vehicles and PRoW users as the construction routes do not pass directly over the PRoW. The implications of any interactions between construction vehicles and PRoW users has been considered within the relevant assessment of likely significant environmental effects later within this chapter and managed through the supporting **oCTMP [APP/7.7]** and **oPROWPPMP [APP/7.14].**

9.6.19 With respect to horse-riders and walkers, it is anticipated that these users may utilise the existing PRoW and bridleway network, as well as some of the local roads within the Study Area, particularly where dedicated footways are limited.

Survey Data

9.6.20 Traffic surveys were undertaken in October 2024 on the nine identified links to understand the existing baseline traffic levels within the Study Area.

9.6.21 Traffic levels were recorded using Automatic Traffic Counters (ATCs), which record traffic data over a continuous 24-hour period for seven consecutive days and include traffic flows, speeds and vehicle classification.

9.6.22 The October traffic surveys were undertaken in a 'traffic neutral' month and outside of any school holiday periods, in accordance with DfT's Transport Analysis Guidance (TAG) Unit M1.2 2020 (Ref 9-4).

9.6.23 In addition to the October 2024 surveys, following feedback from NCC and from statutory consultation with local residents, it was requested that a summer survey was undertaken to reflect any seasonal variations and local peaks within the area.

9.6.24 A second survey was therefore undertaken in August 2025, as agreed with NCC, for the same scope as the October 2024 surveys as well as including some additional links requested by NCC during consultation prior to submission.

9.6.25 It is noted that the additional links requested by NCC are not proposed to be used by construction traffic associated with the Scheme, are not compliant with DfT TAG Unit M1.2 and are thus not included within the ES, as agreed with NCC, and as set out within **ES Appendix 9.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**. A review and comparison of the supporting traffic data that has been collected is included within **ES Appendix 9.2: Traffic Assessment [APP/6.4]**.

9.6.26 It is considered that the current surveys provide a robust basis for assessment that complies with all relevant industry standard guidance including the DfT TAG Unit M1.2.

9.6.27 A summary of the baseline traffic flows is provided in Table 6.5. An overview of the locations at **ES Figure 9.2: Transport and Access Study Area [APP/6.3]**. The associated sensitivity of the links is also identified based on the methodology presented in this chapter.

Table 6.5 Baseline Traffic Flows

Link	Name	Sensitivity	Base 2024 – Daily Two-way AADT			
			Total	HGV	HGV %	Cyclists
1	A1065 South	Low	7937	332	4%	3
2	A1065 (Middle)	Low	7819	371	5%	3
3	South Acre Road North	Low	199	10	5%	3
4	A1065 North	Low	7125	398	6%	3
5	South Acre Road South	Low	240	7	3%	3
6	West Acre Road	Low	329	15	5%	11
7	Narford Lane	Low	234	14	6%	5
8	River Road South	Low	99	2	2%	5
9	River Road North	Low	100	2	2%	3

Future Baseline

9.6.28 This section considers changes to the baseline conditions as far as changes can be established, described above, that might occur in the absence of the Scheme coming forward during the time period over which the Scheme would be in place. The future baseline scenarios are set out in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**.

9.6.29 A future baseline year for the Transport and Access assessment of 2031 has been undertaken as this is expected to be the year when construction of the Scheme commences.

9.6.30 Traffic Growth factors have been extracted from the DfT's Trip End Model Presentation Programme (Ref 9-2), for the area in order to uplift the baseline flows to the 2031 construction year, as agreed with NCC.

9.6.31 The Tempro growth factors that are proposed to be used across the LRN are:

- 2024 to 2031 AADT Factor: 1.0576.

9.6.32 The future baseline 2031 flows across the Study Area are shown in Table 6.6.

Table 6.6 Future Baseline 2031 Traffic Flows

Link	Name	Sensitivity	Base 2031 - Daily Two-way AADT			
			Total	HGV	HGV %	Cyclists
1	A1065 South	Low	8394	351	4%	4
2	A1065 (Middle)	Low	8269	392	5%	4
3	South Acre Road North	Low	210	11	5%	4
4	A1065 North	Low	7535	421	6%	4
5	South Acre Road South	Low	254	7	3%	4
6	West Acre Road	Low	348	16	5%	12
7	Narford Lane	Low	247	15	6%	6
8	River Road South	Low	105	2	2%	6
9	River Road North	Low	106	2	2%	4

9.7 Embedded Mitigation

9.7.1 Likely environmental effects have been or will be avoided, minimised, mitigated or reduced through design measures and/or management of the Scheme, as outlined in this section. Proposed environmental enhancements are also described where relevant.

9.7.2 The following embedded mitigation measures have been incorporated into the Scheme's design.

Embedded Construction Phase Mitigation

9.7.3 The following embedded mitigation measures have been incorporated into the Scheme's design to mitigate the impacts during the construction phase. Where relevant, reference is made to how the embedded mitigation is secured in the DCO:

- **Construction Access Routes:** the routes to the Scheme have been identified through a review of the LRN to identify suitable locations in highway safety terms, including being sufficient to accommodate HGVs and the provision of appropriate visibility splays. The routes to the Scheme will be secured by way of a requirement in the DCO through the **oCTMP [APP/7.7]**. The use of existing access points onto the LRN has been prioritised

to minimise the environmental impacts associated with the creation of new points of vehicular access, such as the removal of hedgerows. Where there is not a reasonable existing vehicle access location within the vicinity of the relevant area of the Scheme, a new vehicle access is proposed that complies with all relevant highway safety requirements, as detailed within the supporting **ES Appendix 9.2: Traffic Assessment [APP/6.4]**. This has been informed by the Access Strategy as part of the Scheme design as set out within **ES Figure 5.2: Construction Masterplan [APP/6.3]** of the ES.

- **Compound Location and Consolidation:** the use of internal Temporary Construction Compounds for the Scheme where deliveries can be made from the SRN, directly from the A1065, is proposed. From the Temporary Construction Compounds, deliveries will be distributed out via smaller, local vehicles to the area of works where possible. The Temporary Construction Compound locations are presented on the **ES Figure 5.2: Construction Masterplan [APP/6.3]** and the strategy for consolidation is detailed in the **oCTMP [APP/7.7]** and will be secured by way of a requirement in the DCO.
- **Internal routing:** internal access routes will be provided within the Site to minimise vehicles needing to use the LRN where possible. The details of this will be secured through the detailed design of the Scheme.
- **Highway improvements within the Site:** permanent improvements will be made to assist with the movement of vehicles within the Site, as outlined within the supporting **ES Appendix 9.2: Traffic Assessment [APP/6.4]**, including the improvements to the geometry of the junctions onto the A1065 and internally where there is a crossing of the droves. These improvements will be secured through the Order limits and **Access and Right of Way Plan [APP/2.6]**; and
- **Staff Shuttle:** the Scheme will seek to employ the use of a shuttle bus service for staff who will park within the relevant Temporary Construction Compound which will contain a designated parking area, to remove staff trips from the LRN. It is also anticipated that a shuttle service will be provided directly from the accommodation of staff to the area of works across the Scheme, which will be subject to phasing of the construction works. Further details of the shuttle bus service will be secured via the Travel Plan (secured through detailed CTMP).

9.7.4 In addition, the following outline management plans have been prepared in support of the DCO Application alongside the ES in relation to the construction phase of the Scheme.

Outline Construction Traffic Management Plan

9.7.5 An **oCTMP [APP/7.7]** has been prepared to support the DCO Application which sets out the management and mitigation and strategy for construction traffic for the Scheme. The oCTMP forms a 'live' document, being updated as necessary with contractor input to set out the strategy to manage construction vehicle access to the Scheme.

9.7.6 A CTMP (to be substantially in accordance with the **oCTMP [APP/7.7]**) will be secured via a requirement in the DCO and approved by BC in consultation with NCC and NH prior to commencement of the construction phase of the Scheme and will include details on the following:

- Required access routes from the LRN
- Scheme entry and exit points, including Temporary Construction Compound locations
- Expected vehicle and staff requirements; and
- Measures to mitigate the impact of construction vehicles.

Outline Travel Plan

9.7.7 An Outline Travel Plan is included as an appendix to the **oCTMP [APP/7.7]**, with a detailed Travel Plan secured as part of the detailed CTMP to be provided prior to commencement of the construction phase of the Scheme.

9.7.8 The Travel Plan sets out the strategy to reduce the vehicular impact of construction staff trips on the highway network, by encouraging the use of sustainable modes, where appropriate.

9.7.9 The Travel Plan includes details on the measures such as the staff shuttle bus service, provision of any staff parking facilities, as well as the other proposed measures to be implemented to encourage mode shift away from private car use.

Outline Public Rights of Way and Permissive Paths Management Plan

9.7.10 A detailed Public Rights of Way and Permissive Paths Management Plan will be prepared in accordance with the **oPROWPPMP [APP/7.12]** which supports this DCO Application and will be secured via a requirement in the DCO and approved by BC prior to construction of the Scheme.

Outline Construction Environmental Management Plan (oCEMP)

9.7.11 An **oCEMP [APP/7.6]** has been provided in support of the DCO Application. The oCEMP places a focus on the wider environmental management and mitigation measures during the construction phase, rather than focusing solely on traffic.

9.7.12 The oCEMP forms a 'live' document, being updated as necessary with contractor input to set out the strategy to manage construction the likely significant environmental effects of the Scheme.

9.7.13 A detailed CEMP (to be in substantially in accordance with the oCEMP) will be secured via a requirement in the DCO and will be approved by BC, in consultation with NCC and NH, prior to the commencement of the construction phase.

Embedded Operational Phase Mitigation

9.7.14 The following embedded mitigation measures have been incorporated into the Scheme's design for the operational phase.

Outline Operational Traffic Management Plan

9.7.15 The detailed OTMP will be prepared in accordance with the **oOTMP [APP/7.8]** which supports the DCO Application and will be secured via a requirement in the DCO and approved by BC, in consultation with NCC and NH, prior to construction of the Scheme.

9.7.16 The detailed OTMP will identify the measures to be implemented during the operational phase to mitigate the effects associated with vehicles linked to replacement activities for the replacement of panels and infrastructure. The detailed OTMP will set out a means to cap the total level of vehicular activity that would be acceptable each day at the Scheme, as well as set out a programme for replacement activity to take place.

Outline Public Rights of Way and Permissive Paths Management Plan

9.7.17 The detailed PROWPPMP will be prepared in accordance with the **oPROWPPMP [APP/7.12],** which supports this DCO Application, and will be secured via a requirement in the DCO and approved by BC prior to construction of the Scheme.

9.7.18 The detailed PROWPPMP will detail the measures to be implemented during the operational phase to mitigate the impacts to PRoW users during the operational, maintenance and replacement activities associated with the Scheme.

Outline Operational Environmental Management Plan (oOEMP)

9.7.19 An **oOEMP [APP/7.8]** has been prepared in support of the DCO Application. The oOEMP places a focus on the maintenance aspects of the Scheme, including the ongoing maintenance and replacement of components during the lifespan of the Scheme.

9.7.20 A detailed OEMP (to be in substantially in accordance with the oOEMP) will be secured via a requirement in the DCO and will be approved by BC, in consultation with NCC and NH, prior to operation of the Scheme.

Embedded Decommissioning Phase Mitigation

9.7.21 The following embedded mitigation measures have been incorporated into the Scheme design for the decommissioning phase.

Decommissioning Traffic Management Plan (DTMP)

9.7.22 A Decommissioning Traffic Management Plan (DTMP) will be secured as part of the decommissioning Strategy and provided once details on the decommissioning phase are available, which will focus on the traffic impacts and traffic management measures to be associated with the decommissioning phase. The DTMP will be approved by BC, in consultation with NCC and NH, prior to the commencement of the decommissioning phase.

9.7.23 The DTMP will include decommissioning measures to mitigate the transport impacts of workers during the decommissioning phase.

Outline Decommissioning Strategy

9.7.24 In advance of the Decommissioning Strategy (DS) being prepared and to set out the principles as to how the decommissioning phase will initially be mitigated and managed, an **outline Decommissioning Strategy (oDS) [APP/7.10]** is submitted with the DCO Application.

9.8 Assessment of Likely Effects

9.8.1 This section of the Transport and Access chapter identifies and characterises potential impacts arising during the construction and decommissioning phases of the Scheme. The likely effects related to Transport and Access during the construction of the Scheme represent the worst-case scenario for decommissioning, as stated earlier in the Assumptions and Limitations section of this ES chapter (section 9.4). As such, construction and decommissioning have been assessed together.

9.8.2 Taking into account the embedded mitigation measures as detailed in section 9.7 of this ES chapter, the potential for the likely effects of the Scheme on Transport and Access receptors was assessed using the methodology as detailed in section 9.5 of this ES chapter. In the sections below, effects during the construction and decommissioning phases of the Scheme are assessed for Transport and Access receptors scoped into the assessment.

9.8.3 Any additional mitigation required to reduce these effects is then set out in section 9.10~~9.9~~ below. Thereafter, an assessment is made of the significance of any residual effects after all mitigation measures have been accounted for.

9.8.4 Table 6.7~~Table 6.7~~ sets out the assignment of the construction traffic associated with the Scheme in accordance with the proposed routing strategy.

9.8.5 It is noted that some vehicles will temporarily travel across Link 8 due to the internal routing strategy proposed; however, vehicles will only go across this link over a short distance and will not access or egress onto it directly to the wider public highway network. As discussed with NCC, the vehicles are therefore not assigned to these links as the vehicles do not fully join the link nor change its operation. The crossing of vehicles will be managed by banksmen and priority will be given to users of the public highway network, as secured via the **oCTMP [APP/7.7.1].**

9.8.6 Table 6.8 sets out the percentage increase of construction traffic associated with the Scheme across all links within the Study Area in the future baseline year of 2031, as the anticipated year of peak construction.

9.8.7 A future baseline year of 2031 is considered to be robust as it is when the future construction phase is expected to commence, rather than choosing a period at the end of the construction phase, as it reduces the amount of background growth from the growth factors, which in turn increases the relative traffic impact of the Scheme and presents a worst-case scenario. The links referred to within this section are as shown in **ES Figure 9.2: Transport and Access Study Area [APP/6.3]**.

Table 6.7 Scheme Construction Traffic Impact per Link

Link	Name	Sensitivity	Scheme Construction Vehicles Two-way AADT	
			Total	HGV
1	A1065 South	Low	464	86
2	A1065 (Middle)	Low	387	10
3	South Acre Road North	Low	0	0
4	A1065 North	Low	164	10
5	South Acre Road South	Low	0	0
6	West Acre Road	Low	0	0
7	Narford Lane	Low	0	0
8	River Road South	Low	0	0
9	River Road North	Low	0	0

Table 6.8 Future Baseline Traffic Flows and Scheme Impact

Link	Name	Sensitivity	Base 2031 Two-way AADT			Base 2031 + Proposed Scheme Traffic Two-way AADT			Percentage Change	
			Total	HGV	HGV %	Total	HGV	HGV %	Total	HGV
1	A1065 South	Low	8394	351	4%	8858	438	5%	6%	25%
2	A1065 (Middle)	Low	8269	392	5%	8657	402	5%	5%	2%
3	South Acre Road North	Low	210	11	5%	210	11	5%	0%	0%
4	A1065 North	Low	7535	421	6%	7699	431	6%	2%	2%
5	South Acre Road South	Low	254	7	3%	254	7	3%	0%	0%
6	West Acre Road	Low	348	16	5%	348	16	5%	0%	0%
7	Narford Lane	Low	247	15	6%	247	15	6%	0%	0%
8	River Road South	Low	105	2	2%	105	2	2%	0%	0%
9	River Road North	Low	106	2	2%	106	2	2%	0%	0%

9.8.8 A summary of the likely significant effects associated with Transport and Access is provided at the end of this section, with an overview of the assessment of each effect provided below.

Severance

9.8.9 NMUs crossing the highway network are identified as high sensitivity receptors. The construction phase of the Scheme would lead to a local, temporary, medium term scale of effect and negligible magnitude of change on the severance of NMUs of the LRN and PRoW network, with an increase of less than 30% of the overall AADT on all links within the Study Area.

9.8.10 There could potentially be changes to the severance of NMUs of the SRN through temporary road closures or temporary traffic management for the Scheme. However, any changes would be temporary in nature and mitigated through appropriate signage and traffic management measures such as banksmen, as detailed in the **oCTMP [APP/7.7]**, upon which the detailed CTMP will be based and secured by way of requirement under the DCO Application.

9.8.11 There would be no permanent closures or diversions in relation to the PRoW network. However, temporary closures and / or diversions may be required across the Order limits, as shown on the **Access and Rights of Way Plan and Public Rights of Way Plan [APP/2.6 and 2.7]** that accompany the DCO Application.

9.8.12 On that basis, effects are considered Negligible Adverse on severance of NMUs and **not significant** in EIA terms.

Driver Delay

9.8.13 Whilst no localised capacity assessments have been undertaken, as agreed with NCC, the majority of vehicle trips associated with the Scheme would take place outside of the typical network peak hours (assumed as 08:00-09:00 and 17:00-18:00), with the exception of any emergencies or exceptional circumstances, and therefore would not meet the former DfT threshold of 30 two-way vehicles during a peak hour noted earlier in this chapter to require localised capacity assessments.

9.8.14 The restrictions on the timings of trips are set out within **oCTMP [APP/7.7]** that accompanies the DCO Application and are relied on as embedded mitigation in the assessment of driver delay.

Based on the traffic flow information included at Table 6.7 Scheme Construction Traffic

Impact per Link

Link	Name	Sensitivity	Scheme Construction Vehicles Two-way AADT	
			Total	HGV
1	A1065 South	Low	464	86
2	A1065 (Middle)	Low	387	10
3	South Acre Road North	Low	0	0
4	A1065 North	Low	164	10
5	South Acre Road South	Low	0	0
6	West Acre Road	Low	0	0
7	Narford Lane	Low	0	0
8	River Road South	Low	0	0
9	River Road North	Low	0	0

9.8.15 Table 6.8~~Table 6.7~~, the AADT uplift across any of the links within the Study Area does not exceed 30%, the threshold recognised within the IEMA EATM Guidance as a typical threshold from which changes in traffic flow may lead to resultant Transport and Access impacts and leading to a negligible magnitude of change.

9.8.16 Driver delay is identified as high sensitivity receptor. It is considered that the Scheme would lead to a local, temporary, medium term scale of effect and negligible magnitude of change on driver delay.

9.8.17 Taking the above into consideration, the effects are considered Negligible Adverse on driver delay and **not significant** in EIA terms.

Pedestrian Delay

9.8.18 Across the Study Area, the construction phase of the Scheme will lead to less than a 10% increase in AADT across all links, which is considered by the IEMA EATM Guidance to fall within the typical levels of daily traffic fluctuations on a link as shown in Table 9-10.

9.8.19 There may be changes in pedestrian delay to NMUs of the local highway network and users of PRoWs through temporary traffic management to facilitate works associated with construction of the Scheme, though this will be managed through the mitigation measures set out within the **oCTMP [APP/7.7]** and **oPROWPPMP [APP/7.12]**. The extent of the traffic management measures that will be implemented are detailed within the supporting **Access and Rights of Way Plan [APP/2.6]** that accompany the DCO Application. However, any changes would be temporary in nature and mitigated through appropriate signage and alternative provisions for NMUs being made.

9.8.20 On that basis, the effects are considered Negligible Adverse on pedestrian delay on NMUs and **not significant** in EIA terms.

Non-motorised User (NMU) Amenity

9.8.21 In relation to NMU Amenity, with NMUs identified as a high sensitivity receptor, all of the links within the Study Area fall within the threshold of a negligible magnitude of change by being less than a quarter change in total AADT.

9.8.22 With respect to changes in HGVs, Link 1 (A1065 South) experiences a respective uplift in daily HGV flows of 25%. The uplift on Link 1 represents a low magnitude of change.

9.8.23 Following discussions on the assignment of routing with NCC and the fact that vehicles will only temporarily go across the link, rather than along it, Link 8 traffic has been adjusted and will be managed via the mitigation measures set out within the **oCTMP [APP/7.7.1]**.

9.8.24 Whilst there may be some associated recreational use of these links by NMUs, it is likely that this would be on an ad-hoc basis only, as well as being influenced by other factors such as time of year and weather. To inform this assumption, reference is made to the baseline flows included at Table 6.5, which includes data on the average number of cyclists using each link.

9.8.25 The baseline data highlights that even if assuming the total numbers of cyclists are all recreational, this equates to on average three cyclists per day using each respective link. When applying professional judgement and assuming the usage would apply similarly to other NMUs, this would not indicate a high level of demand for recreational use.

9.8.26 Therefore, whilst Link 1 (A1065 South) experiences a respective low magnitude of change, by applying professional judgement and given the impacts to NMUs will be limited, as well as the mitigation measures within the **oCTMP [APP/7.7]**, it is considered that all links will experience a negligible magnitude of change from what currently takes place.

9.8.27 As a result, the effects of the construction phase of the Scheme would lead to a local, temporary, medium term scale of effect and negligible magnitude of change on NMU Amenity.

9.8.28 Taking the above into consideration, the effects are considered Negligible Adverse on NMU Amenity and **not significant** in EIA terms.

Fear and Intimidation

9.8.29 Fear and Intimidation relates to NMUs which are identified as high sensitivity receptors. Due to the rural nature of the Scheme, the majority of the LRN does not benefit from any footway or dedicated cycleway provisions, meaning NMUs are not segregated from vehicular traffic.

9.8.30 However, the volume of NMUs using the LRN is also considered to be low based on the baseline flows presented at Table 6.5 which captures AADT cyclist flows – a trend which is assumed to apply similarly to other NMUs, in that they would reflect both recreational use of a link or potential travel to work flows.

9.8.31 A DoH assessment has been undertaken on the identified links based on the IEMA EATM Guidance which is detailed within Table 6.6~~Table 6.9~~, which assigns a DoH score based on vehicle flows and speeds. A DoH score was assigned to links in the future baseline 2031 scenario as well as the future baseline 2031 with Development scenario, to assess the impacts of the Scheme.

Table 6.9 Degree of Hazard Assessment

Link	Name	Base 2031 Score	Base 2031 + Proposed Scheme Score	Change in Level	Magnitude of Impact
1	A1065 South	60 (Great)	60 (Great)	None	Negligible
2	A1065 (Middle)	60 (Great)	60 (Great)	None	Negligible
3	South Acre Road North	30 (Moderate)	30 (Moderate)	None	Negligible
4	A1065 North	60 (Great)	60 (Great)	None	Negligible
5	South Acre Road South	10 (Small)	10 (Small)	None	Negligible
6	West Acre Road	30 (Moderate)	30 (Moderate)	None	Negligible
7	Narford Lane	30 (Moderate)	30 (Moderate)	None	Negligible
8	River Road South	30 (Moderate)	30 (Moderate)	None	Negligible
9	River Road North	30 (Moderate)	30 (Moderate)	None	Negligible

9.8.32 The assessment identifies that there is no change in DoH across any of the links assessed leading to a negligible magnitude of change upon Fear and Intimidation.

9.8.33 On that basis, the effects are considered Negligible Adverse on the Fear and Intimidation on NMUs and **not significant** in EIA terms.

Road Safety

9.8.34 Road safety relates to NMUs which are identified as high sensitivity receptors, as well as other motorised users which are identified as low sensitivity receptors. The construction phase of the Scheme could have an adverse, local, temporary and medium term scale of effect on Road Safety.

9.8.35 The **ES Appendix 9.2: Traffic Assessment [APP/6.4]** includes a Stage 1 Road Safety Audit (RSA) of the proposed Highway Works related to access and improvements within the Study Area, which has identified no safety concerns that cannot be addressed as part of the detailed design.

9.8.36 The scope of the Stage 1 RSA was agreed with NCC prior to it being undertaken and the conclusions have been discussed with NCC prior to the submission of the DCO Application, with it agreed that no further actions are needed at this stage.

9.8.37 In addition to the RSA, the **ES Appendix 9.2: Traffic Assessment [APP/6.4]** includes a review of the online DfT database over the latest three-year period (2022-2024) available to identify any collisions. It is considered that three years' worth of data is appropriate, as five years' worth of data would include years that were subjected to COVID-19 lockdowns and therefore not provide representative data.

9.8.38 This approach has been agreed with NCC during scoping discussions detailed at in **ES Appendix 9.1: Consultation, Legislation, Planning Policy and Guidance [APP/6.4]**.

9.8.39 The review of collision data in the **ES Appendix 9.2: Traffic Assessment [APP/6.4]** along the access routes to the Scheme has identified that no junctions within the Study Area appear to have any collision clusters evident, identified as being five or more serious / fatal collisions over the three-year period. Further details on this review are provided within the supporting **ES Appendix 9.2: Traffic Assessment [APP/6.4]**.

9.8.40 Overall, the effects are considered Negligible Adverse on the Road Safety of NMUs and other motorised users and **not significant** in EIA terms.

9.9 Additional Water Demand Sensitivity Test

9.9.1 There may be a potential scenario where there is a need to transport water into the Scheme to help facilitate construction. A sensitivity test of this scenario has been undertaken to ensure the conclusions noted above remain valid, though the requirement for peak calculated water volume (128.5 m^3 / day as outlined in **ES Chapter 12: Water Resources [APP-061]**) is based on activities requiring water occurring simultaneously, which is unlikely in reality.

9.9.2 Based on the worst-case peak water demand occurring for all activities simultaneously, it is anticipated that this could lead to up to four additional HGVs per day (eight two-way trips), based on a 30,000 litre tanker. There would be no additional demand for construction staff above what has already been considered in the assessment.

9.9.3 For the purposes of the sensitivity test, it will be assumed that there would be a need to transport up to five days of water supply in one go, equivalent to 20 additional HGVs (40 two-way vehicle trips).

9.9.4 In the very unlikely event that the water deliveries coincide with the peak in construction, this means the Scheme could generate a total of 668 two-way movements per day, comprising 532 two-way LGVs (associated with staff and smaller deliveries) and 136 two-way HGVs (including 40 two-way HGVs from the water delivery and 96 from other construction requirements).

9.9.5 A comparison is provided below of the percentage impact of the Scheme, compared to the percentage impact of the Scheme with the additional traffic from the sensitivity test. The distribution and assignment of other trips is otherwise consistent with the methodology presented earlier in this chapter.

Table 6.10 Scheme Impact and Sensitivity Test Comparison

Link	Name	Sensitivity	Scheme Impact		Scheme Impact (Sensitivity Test)	
			Total	HGV	Total	HGV
1	A1065 South	Low	6%	25%	6%	35%
2	A1065 (Middle)	Low	5%	2%	5%	3%
3	South Acre Road North	Low	0%	0%	0%	0%
4	A1065 North	Low	2%	2%	2%	3%
5	South Acre Road South	Low	0%	0%	0%	0%
6	West Acre Road	Low	0%	0%	0%	0%
7	Narford Lane	Low	0%	0%	0%	0%
8	River Road South	Low	0%	0%	0%	0%
9	River Road North	Low	0%	0%	0%	0%

9.9.6 The sensitivity test assessment shows that there may be a nominal change to the proportion of HGVs traffic on Link 1, with an increase from 25% to 35%; however, this is still significantly below the thresholds for any significant effects to occur. Across all other links, there is a negligible change in the change in total vehicles and HGVs.

9.9.7 On that basis, it is concluded that the sensitivity test would lead to no material change to the conclusions of the assessment of effects presented within this chapter, and that the impact of the Scheme on Transport and Access remains not significant.

9.10 Additional Mitigation Measures

9.10.1 As no significant effects have been identified above for receptors during any phase of the Scheme once embedded mitigation is taken into account, no additional mitigation measures for the Scheme are required (and therefore not proposed).

9.11 Residual Effects

9.11.1 As there are no significant effects identified, the effects will remain unchanged as those reported above in the assessment of likely effects.

9.12 Cumulative Effects Assessment

9.12.1 This section presents an assessment of cumulative effects between the Scheme and other existing and/or approved developments.

9.12.2 As set out in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**, a Cumulative Effects Assessment (CEA) has been undertaken as part of the EIA in accordance with PINS Advice on Cumulative Effects Assessment (September 2024) and has considered two types of cumulative effects.

- In combination effects: the combined effect generated by individual effects on a particular receptor (presented within **ES Chapter 17: In-Combination Effects [APP/6.2]**; and
- Cumulative effects: effects generated by the Scheme and other planned or approved developments on the same receptor (presented in **ES Volume 2, Chapter 6 to 16 [APP/6.2]**).

Cumulative Effects

9.12.3 Cumulative effects may arise as a result of effects associated with the Scheme combining with effects associated with other developments. The list of developments has been narrowed down to focus on those developments which are most likely to give rise to cumulative effects. A long-list was generated, which was then refined following consultation with relevant local planning authorities. This short-list forms the basis of this assessment.

9.12.4 The short-list of cumulative developments/allocations can be found in **ES Appendix 2.4: Cumulative Schemes [APP/6.4]**.

9.12.5 The primary project for consideration in Transport and Access terms is the nearby High Grove Solar Farm, another potential DCO Application with potential impacts related to construction traffic on the A1065 corridor if the construction periods should overlap.

9.12.6 Based on information submitted for the High Grove Solar Farm within the associated PEIR for that scheme, and from collaborative discussions with their project team, it is considered unlikely that there will be any interaction between the two schemes given the intended construction programmes which do not overlap.

9.12.7 Construction traffic for the High Grove Solar Farm is understood to peak in 2028, with a 2.5 year programme which is likely to be predominantly complete by 2031 when construction for the Scheme is expected to commence and peak.

9.12.8 At this stage, it is considered in any case (i.e. should the construction periods overlap) that all cumulative traffic flows associated with cumulative schemes, including High Grove, are

already inherently accounted for within the TEMPro growth factors utilised within section 9.6 of this chapter to generate the future baseline 2031 traffic flow scenario which would only utilise the A1065 (Links 1, 2 and 4). This approach was agreed with NCC (see **ES Appendix 9.2: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**).

9.12.9 The TEMPro growth factors would increase the traffic flows along the A1065 to effectively replicate the traffic associated with High Grove and other cumulative schemes, so the assessment is considered to be robust and has taken into consideration any potential cumulative effects.

9.12.10 When allowing for typical daily fluctuations in traffic flow which are identified as being in the order of 10% the total number of daily vehicles by the IEMA EATM Guidance, the daily variation in traffic flows along the A1065 is likely to exceed 753 vehicles based on the future baseline data, with any traffic associated with the Scheme and High Grove likely to fall within these daily fluctuations, making the methodology of using TEMPro a robust approach to capture potential traffic from cumulative schemes.

9.12.11 In respect of the Longmarsh Green Energy project, the published programme anticipates construction commencing in 2029, with the western site, eastern site and connecting infrastructure constructed in parallel and operational by 2032, so there could be a nominal period of overlap for when construction of the Scheme commences in 2031.

The published primary construction routes for the Longmarsh Green Energy project comprise the A17, A47, A10, A134 and A1122 and do not include the A1065. It is unlikely that this position would change, given the geographic location of the Longmarsh Green Energy project in relation to the A1065.

9.12.12 As a result, no additional Longmarsh Green Energy construction traffic is currently anticipated on the A1065, which is the principal corridor considered in the Scheme's cumulative transport assessment. Consequently, no cumulative interaction between the two projects is anticipated on this corridor and thus there are unlikely to be any significant effects.

9.12.13 Although both schemes may utilise the A47, the additional traffic attributable to the Scheme on this route falls below the IEMA EATM Guidance screening thresholds used to establish the assessment study area. The A47 was therefore not taken forward for detailed assessment and NH, as the highway authority for the SRN, have not raised any concerns regarding cumulative effects along the A47. Given the Scheme's limited contribution to traffic flows on the A47, it is not considered that any overlap in construction activity would give rise to significant cumulative transport effects and are likely to be well within typical daily traffic fluctuations on the A47.

~~9.12.10~~9.12.14 Nonetheless, in the event there is overlap between any relevant project's construction traffic and those associated with the Scheme, a commitment to working with any cumulative schemes and the preparation of a joint Construction Traffic Management Plan is secured through the **oCTMP [REP5-064]**.

~~9.12.11~~9.12.15 There are no relevant cumulative schemes for the operational phase, as operational phase impacts have been scoped out of the assessment of Transport and Access impacts. It is assumed that any cumulative schemes relevant to the decommissioning phase will be mitigated through the embedded mitigation and management plans that will support the decommissioning phase, including the **oDS [APP/7.10]**.

9.13 Conclusion

9.13.1 This chapter has set out and assessed the likely effects of the Scheme in relation to Transport and Access. Likely effects have been assessed for the construction and decommissioning phases of the Scheme. Following the implementation of embedded mitigation described in section 9.7, residual effects have not been identified in relation to Transport and Access during the construction and decommissioning phases

9.13.2 Table 6.11~~Table 6.11~~ sets out a summary of the Transport and Access residual environmental effects.

Table 6.11 Summary of Residual Effects for Transport and Access

Receptor	Sensitivity	Description of Impact	Magnitude of Impact	Scale and Nature of Effect	Significant/Not Significant
Construction Phase					
'Severance' of NMUS across LRN	High	Impact on changes to severance of NMUs due to increased vehicles associated with construction.	Negligible	Adverse, local, temporary, medium term	Not Significant
'Driver Delay' of motorised vehicles	Low	Impact on changes to drive delay due to increased vehicles associated with construction.	Negligible	Adverse, local, temporary, medium term	Not Significant
'Pedestrian Delay' of NMUs across LRN	High	Impact on delay of NMUs due to increased vehicular activity associated with construction.	Negligible	Adverse, local, temporary, medium term	Not Significant
'Non-motorised User Amenity' of NMUs across LRN	High	Impact on NMUs due to increased vehicular activity associated with construction.	Negligible	Adverse, local, temporary, medium term	Not Significant

Receptor	Sensitivity	Description of Impact	Magnitude of Impact	Scale and Nature of Effect	Significant/Not Significant
'Fear and Intimidation' of NMUs across LRN	High	Impact on Fear and Intimidation due to increased vehicular activity associated with construction.	Negligible	Adverse, local, temporary, medium term	Not Significant
Road Safety of all receptors	High	Impact on road safety due to increased vehicular activity associated with construction.	Negligible	Adverse, local, temporary, medium term	Not Significant
Decommissioning Phase					
'Severance' of NMUS across LRN	High	Impact on changes to severance of NMUs due to increased vehicles associated with decommissioning.	Negligible	Adverse, local, temporary, medium term	Not Significant
'Driver Delay' of motorised vehicles	Low	Impact on changes to drive delay due to increased vehicles associated with decommissioning.	Negligible	Adverse, local, temporary, medium term	Not Significant

Receptor	Sensitivity	Description of Impact	Magnitude of Impact	Scale and Nature of Effect	Significant/Not Significant
'Pedestrian Delay' of NMUs across LRN	High	Impact on delay of NMUs due to increased vehicular activity associated with decommissioning.	Negligible	Adverse, local, temporary, medium term	Not Significant
'Non-motorised User Amenity' of NMUs across LRN	High	Impact on NMUs due to increased vehicular activity associated with decommissioning.	Negligible	Adverse, local, temporary, medium term	Not Significant
'Fear and Intimidation' of NMUs across LRN	High	Impact on Fear and Intimidation due to increased vehicular activity associated with decommissioning.	Negligible	Adverse, local, temporary, medium term	Not Significant
Road Safety of all receptors	High	Impact on road safety due to increased vehicular activity associated with decommissioning.	Negligible	Adverse, local, temporary, medium term	Not Significant

References

Ref 9-1 Institute of Environmental Management and Assessment (IEMA) (2023). Environmental Assessment of Traffic and Movement (EATM) Guidance.

Ref 9-2 Department for Transport (2023). Trip End Model Presentation Program (TEMPro) Database

Ref 9-3 Department for Transport (DfT) (2007). Guidance on Transport Assessment.

Ref 9-4 Department for Transport (2020). Transport Analysis Guidance (TAG) Unit M1.2 Data Source and Surveys.

THE DROVES

SOLAR FARM