East Midlands Gateway
Phase 2 (EMG2)

Document [6.7]

ENVIRONMENTAL STATEMENT

Volume 1 Main Statement

Chapter 6

Traffic and Transportation

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06

The East Midlands Gateway Phase 2
and Highway Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 202X

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6. Traffic and Transportation

6.1. Introduction

6.1.1. This Chapter of the ES assesses the effects of the **Scheme** on traffic and transportation. It considers any potential effects that could arise on the highway network, which are attributable to changes in predicted traffic flows associated with the **Scheme** during both the construction and operational phases.

6.1.2. Since April 2022, extensive pre-application discussions have been held with the 'Transport Working Group' (TWG) consisting of the following key statutory highway authorities, consultant representatives and project team. The purpose of forming the TWG was to provide continuous engagement and seek agreement on key aspects of the Transport Assessment (TA) and Environmental Impact Assessment (EIA), including the traffic generation, assessment criteria and scope, traffic modelling approach and highway design/mitigation.

- National Highways (NH – managing the strategic road network)
- Leicestershire County Council (LCC – local highway authority)
- Nottinghamshire County Council (NCountyC)
- Derbyshire County Council (DCountyC)
- Leicester City Council (LCityC)
- Nottingham City Council (NCityC)
- Derby City Council (DCityC)
- Jacobs – National Highways representation
- Integrated Transport Planning – Travel Plan Coordinator for EMG1/EMG2
- AECOM – who manage the East Midlands Freeport Model on behalf of LCC
- Representatives from SEGRO (Applicant)

6.1.3. This ES Chapter considers both the impacts of the **Scheme** itself and the cumulative impacts arising from other sites within the East Midlands Freeport, draft Local Plan allocations including the draft Isley Woodhouse settlement and other committed developments, as agreed with the TWG. A full list of the assessed sites is provided in **Appendix 6a** with the key sites of note summarised below:

- EMAGIC Freeport Sites – including various development plots within EMG1 and two other plots within the airport boundary itself.

- Ratcliffe on Soar (Uniper) Freeport Site – 810,000sqm of employment-led development located to the north of the A453, east of M1 Junction 24, which has received permission via a Local Development Order (Rushcliffe Borough Council Application Reference: 22/01339/LDO).

- Isley Woodhouse – a draft Local Plan allocation within North West Leicestershire proposed as a residential-led, comprising approximately 4,500 dwellings, mixed-use development.

6.1.4. The wider East Midlands Freeport designation also includes Land at East Midlands Intermodal Park near Junction 4 of the A50 for approximately 500,000sq.m. of employment development. However, it is understood that the development of this site is in the early stages and plans have not progressed and therefore it was agreed with the TWG that this site is excluded from the assessment work being undertaken in the TA and ES.

6.1.5. This draft ES Chapter has been produced to support the public consultation. At the time of preparation, the traffic modelling was in the process of being undertaken in accordance with the continuing detailed discussions with all relevant highways statutory consultees who comprise the Transport Working Group (TWG). The proposals for the Highways Works are shown on the accompanying supporting plans comprising the Works Plans, Highways General Arrangement Plans, Access and Rights of Way Plans, Traffic Regulation Plan, Speed Limit Plan, Highways Classification Plan and Land Plans. Upon completion of the traffic modelling a full assessment utilising the modelled impacts of the **Scheme** will be concluded ahead of the submission of the applications. This draft chapter, however, sets out the methodology and scope for the transport assessment in line with national policy requirements.

6.1.6. The Chapter will draw and expand on details from the TA which is provided at **Appendix 6b**. The TA contains more detailed operational analysis of the traffic implications of the **Scheme** on junction capacity and highway safety, focusing on the network peak periods. The traffic flow data used in this ES Chapter is based on 24-hour Annual Average Daily Traffic (AADT) flows taken from the Pan Regional Transport Model, which is a strategic transport model operated by AECOM on behalf of LCC. This model has generated AADT flows across the model network area at agreed forecast years of 2022, 2028 (year of opening) and 2038 (future year), taking into account the effects of planned development and infrastructure schemes.

6.2. Scope and Methodology of the Assessment

Methodology

6.2.1. This section sets out the methodology for assessing any potential effects of the **Scheme** on the surrounding highway network and local community. It concentrates on the environmental effects in transport terms along the links that the **Scheme** could have a significant change in conditions on. Receptors along these links are generally considered to be road users (motorised and non-motorised), properties and residents.

6.2.2. The assessments in this ES Chapter have been undertaken against the Institute of Environmental Management and Assessment (IEMA) Guidelines: 'Environmental Assessment of Traffic and Movement' (EATM 2023) which supersedes the former 'Guidance Note Number 1: Guidelines on the Environmental Assessment of Road Traffic' (GEART, 1993). The purpose of the IEMA Guidance is to provide a systematic framework for the appraisal of road traffic effects arising from developments.

Assessment of Significance

6.2.3. Chapter 1 of this ES Chapter sets out the general methodology and format of assessment and the various criteria for assessment. The following provides an overview of the assessment of significance relating specifically to traffic and transport.

6.2.4. The significance or importance of an environmental effect is relative to the sensitivity or quantity of a particular type of receptor and the magnitude of change. Therefore, receptors in this assessment are set out in accordance with their importance. **Table 6.1** categorises the traffic and transport receptors.

Table 6.1: Traffic and Transport Receptors

Sensitivity	Example of Receptor
High	Receptors of greatest sensitivity to traffic flow: e.g. schools, colleges, playgrounds, accident black spots, retirement homes, urban/residential roads without footways that are used by pedestrians
Moderate	Traffic flow sensitive receptors e.g. congested junctions, doctors' surgeries, hospitals, shopping areas with roadside frontage, roads with narrow footways, un-segregated cycleways, community centres, parks, recreation facilities
Low	Receptors with some sensitivity to traffic flow: e.g. places of worship, public open space, nature conservation areas, listed buildings, tourist attractions and residential areas with adequate footway provision
Negligible	Receptors with low sensitivity to traffic flows and those sufficiently distant from affected roads and junctions

6.2.5. The scale of impact on receptors are rated as negligible, slight, moderate and substantial. The definition of the scale of impact is summarised in **Table 6.2**.

Table 6.2: Definition of Impact Scale

Scale of Impact	Increase (or decrease) in Traffic	Definition
Substantial	Over 90%	An effect that will be important at borough, county, or regional level. If adverse, this effect could have implications on the decision-making process, depending upon the relative importance attached to the issue.
Moderate	Over 60% and up to 90%	An effect that will be important at local level upwards but is unlikely to affect the overall decision-making process.
Slight	Over 30% and up to 60%	An effect that may be a local issue but is unlikely to be of importance in the overall decision-making process. This effect would nevertheless be relevant in the detailed design of the project.
Negligible	Less than 30%	An effect that is considered not to be significant or to have no influence. This is applicable where there

		is a neutral effect which is neither positive nor negative.

6.2.6. In summary, the IEMA Guidelines suggest that as a starting point, a 30% change in traffic flow represents a reasonable threshold for including a highway link within an environmental assessment. However, where there is a significant change in the composition of the traffic flow, for example a greater increase in HGVs, a lower threshold may be appropriate. Consideration should however be given to links with low existing base flows, or a low composition of HGVs, as small increases can cause significant percentage growth which may not cause any material effects e.g. one HGV increasing to two HGVs equates to a 100% increase.

6.2.7. The significance of any effect within this assessment is calculated by combining the importance of the receptor (**Table 6.1**) with the scale of impact (Table 6.2), through a matrix table, as shown in **Table 6.3**. Those entries highlighted within **Table 6.3** below denote those which could be defined as significant in EIA terms. The significance of each effect will be considered against the criteria within the IEMA Guidelines, as discussed later in this section. However, for many effects there is a need for interpretation and judgement, particularly where baseline traffic flows are low, meaning small increases result in an exacerbated percentage growth that may not always cause adverse effects.

Table 6.3: Methodology for Determining Sensitivity

Receptor Sensitivity	Scale of Impact			
	Substantial	**Moderate**	**Slight**	**Negligible**
High	Substantial	Substantial	Moderate	Slight
Medium	Substantial	Moderate	Slight	Negligible
Low	Moderate	Slight	Negligible	Negligible
Negligible	Slight	Negligible	Negligible	Negligible

6.2.8. In addition to the impact of significance, this assessment also takes into account whether the environmental effects are:

- Short, medium or long term;
- Direct or indirect; and
- Permanent or temporary.

6.2.9. To assess the environmental effects of the **Scheme** traffic, the initial stages are to determine the baseline and with development traffic flows, the year for assessment and the geographical boundaries for assessment. Once this information is established, the predicted effects are assessed, along with measures to mitigate any negative effects.

6.2.10. Traffic flows have been obtained from the EMFM, which provides output data for a 2022 forecast base year, a 2028 forecast opening year and 2038 forecast future year. Consequently, the 2028 forecast year of opening has been adopted for the purposes of this environmental assessment, as it includes 100% of the development being operational. In reality, buildings will be built in accordance with market demand and likely to be spread over a number of years as per the phasing timescales set out within Chapter 3. This is worst-case for determining the environmental impacts of the **Scheme** because the baseline flows will be lower compared to a

higher 2038 forecast year, meaning the overall percentage increase with the **Scheme** in place would be higher.

6.2.11. To determine the environmental effects of the change in traffic flows, a study area must be defined. In accordance with IEMA Guidelines, the following broad rule of thumb should be used as a screening process to limit the extent and scale of the assessment.

- Rule one – *"include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%)*
- Rule two – *"include highway links of high sensitivity where traffic flows have increased by 10% or more"*

6.2.12. There is no suggestion that a 10% or 30% increase in traffic will cause a detrimental effect on the operation or safety of a road or junction, nor have any moderate to substantial adverse environmental effects. This is because other factors along roads play a part in limiting any effects such as highway geometry, infrastructure, layouts and existing traffic flows. Nevertheless, the 10% or 30% increase are useful points of reference to commence assessment from an ES perspective, noting that an element of judgement is required, particularly for roads with low levels of baseline traffic or HGV compositions.

6.2.13. The IEMA Guideline identifies 'sensitive' links as those which include accident black spots, conservation areas, hospitals, links with high pedestrian flows etc. These characteristics will therefore be used when considering the sensitivity of any links that experience traffic increases of over 10% or 30% with the **Scheme** in place.

6.2.14. Day to day variation in AADT traffic is typically around 10%, meaning that an increase of less than 10% is unlikely to have any discernible environmental effects and would not require assessment. Therefore, any links experiencing less than a 10% increase in traffic have been disregarded.

6.2.15. This assessment will consider the AADT vehicle trip generation associated with both the construction and operational phases of the **Scheme**. It will undertake a two staged approach:

- Stage 1: Understand the percentage change in traffic conditions arising from the introduction of the **Scheme**
- Stage 2: Understand the percentage change in traffic conditions arising during the construction stages of the **Scheme**. It is anticipated that the construction stages will extend for approximately 5 years between 2028 and 2033, albeit the peak year for construction activity has been used to assess the impacts, again at a 2028 forecast year.

Matters to be Assessed

6.2.16. Within the ES study area, the effect of the predicted additional traffic on the following matters will be considered:

- Severance of communities;
- Driver vehicle and passenger delay;

- Non-motorised user delay;
- Non-motorised user amenity;
- Fear and intimidation on and by road users;
- Road user and pedestrian safety; and
- Hazardous/large loads.

6.2.17. The significance of each effect will be considered against the criteria within the IEMA Guidelines, where possible. However, the IEMA Guidelines state that:

> *"…for many effects there are no simple rules or formulae which define the thresholds of significance and there is, therefore, a need for interpretation and judgement on the part of the assessor, backed-up by data or quantified information wherever possible. Such judgements will include the assessment of the numbers of people experiencing a change in environmental impact as well as the assessment of the damage to various natural resources"*

6.2.18. The magnitude of each potentially significant effect has also been considered, and an assessment has been made, as to whether the **Scheme** would result in negligible (i.e. no or barely perceptible changes), slight, moderate or substantial effects and whether they would be adverse or beneficial. The criteria used to determine the significance and magnitude of each of the traffic-related environmental effects is based on the advice given in the IEMA Guidelines, as summarised below.

Severance of Communities

6.2.19. Severance is described as *"the perceived division that can occur within a community when it becomes separated by major transport infrastructure".* For example, severance may be affected by an increase in traffic that could create difficulties for people crossing a road or a physical barrier created by infrastructure.

6.2.20. The effects of severance can be applied to motorists, pedestrians or residents. The Department for Transport (DfT) historically set out a range of indicators for determining the significance of severance. Whilst the thresholds no longer feature in DfT guidance, they have not been superseded by subsequent changes to guidance and are established through planning case law. Consequently, the following thresholds continue to be adopted.

- 90% - "substantial";
- 60% - "moderate";
- 30% - slight; and
- <10% (+/-10%) – "negligible".

6.2.21. Whilst the above thresholds are used as a starting point, attention should be given to links where baseline flows are low and so even small increases in traffic from the **Scheme** result in high percentage increases that may not necessarily have any substantial effects on severance.

6.2.22. Several factors are considered in determining the existing level of severance. These include road width, traffic flow and composition, vehicle speeds and the availability of pedestrian crossing facilities.

Driver Vehicle and Passenger Delay

6.2.23. Delays to existing traffic can occur at several locations within the highway network due to additional traffic generated by a new development. The IEMA Guidelines state that delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system. Therefore, details from the TA will be used to understand the effects of the **Scheme** on driver delay, as that report contains more detailed analysis on junction capacity, queueing and delays using industry standard VISSIM, LinSig and Junctions 10 modelling software.

Non-Motorised User Delay

6.2.24. The assessment of non-motorised user delay serves as a proxy for the delay that other modes of non-motorised users may experience when crossing roads and is closely related to severance. Delays will also depend on the general level of pedestrian activity, visibility and general physical conditions of the **Scheme**. Given the range of local factors and conditions that can influence pedestrian delay, it is often that delays are more significant in rural areas compared to urban areas However, the 'Transport and Road Research Laboratory Supplementary Report 356 (J Goldschmidt, 1977) provides a useful approximation for determining the likely levels of pedestrian delay at different traffic levels and with different types of crossing.

Non-Motorised User Amenity

6.2.25. Non-motorised user amenity is broadly 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 former 1993 IEMA Guidelines suggested that a tentative threshold for judging the significance of changes in pedestrian amenity would be where traffic flows (or HGV component) are halved or doubled. Whilst the 1993 Guidelines have been superseded, the thresholds are established through planning case law and continue to be used as a starting point for assessments on non-motorised user amenity.

Fear and Intimidation

6.2.26. The scale of fear and intimidation experienced by pedestrians is dependent on the volume of traffic, HGV composition, its proximity to people and the lack of protection caused by factors such as narrow pavement widths, as well as the speed and size of vehicles.

6.2.27. Whilst it is recognised as an important environmental impact, there are no commonly agreed thresholds for estimating these levels of impact. Consequently, a level of judgement needs to be exercised in determining the degree of fear and intimidation, giving special attention to areas where there are likely to be problems, such as high-speed sections of road, locations of turning points and inherent lack of protection created by factors such as narrow footways or physical features causing obstructions in the highway. The IEMA Guidelines does however provide a scoring system that can be adopted to reflect local conditions, based on the change in traffic from the baseline scenario, shown in **Table 6.4**.

Table 6.4: Fear and Intimidation Degree of Hazard

Average traffic flow over 18-hour day – all vehicles/hour two-way (a)	**Total 18-hour heavy vehicle flow (b)**	**Average vehicle speed (c)**	**Degree of hazard score**
+1,800	+3,000	->40	30
1,200 – 1,800	2,000 – 3,000	30 – 40	20
60 – 1,200	1,000 – 2,000	20 – 30	10
<600	<1,000	<20	0

6.2.28. The total score from all three elements is combined to provide a 'level' of fear and intimidation shown in Table 6.5

Table 6.5: Levels of Fear and Intimidation

Level of fear and intimidation	Total hazard score (a) + (b) + (c)
Extreme	71+
Great	41 – 70
Moderate	21 – 40
Small	0 – 20

6.2.29. The magnitude of impact is approximated with reference to the changes in the level of fear and intimidation from baseline conditions, shown in **Table 6.6**.

Table 6.6: Fear and Intimidation Magnitude of Impact

Magnitude of impact	Change in step/traffic flows (AADT) from baseline conditions
High	Two step changes in level
Medium	One step change in level, but with - >400 veh. increase in average 18hr AV two-way all vehicle flow; and or - >500 HV increase in total 18hr HV flow
Low	One step change in level, with - <400 veh. increase in average 18hr AV two-way all vehicle flow; and/or - <500 HV increase in total 18hr HV flow
Negligible	No change in step changes

Road User and Pedestrian Safety

6.2.30. The former 1993 IEMA Guidelines advocated the calculation of road accident rates as an approximation of the potential for road safety impacts i.e. by knowing the current accident statistics and increase in vehicle movements associated with a new development, it is possible to calculate the potential increase in collision rates. The TA has reviewed recent accident

collision statistics in detail, which will be referred to within the assessment of road user and pedestrian safety.

Hazardous Loads/Large Loads

6.2.31. Where developments are expected to transport dangerous or hazardous loads by road, then this should be recognised within any traffic and movement assessment. Any movement of large (abnormal) loads is regulated by National Highways and is subject to a separate agreement. However, the **Scheme** is not expected to transport any dangerous, hazardous or abnormal loads and therefore no assessment of hazardous loads/large loads will be undertaken in this ES Chapter.

Geographical Scope

6.2.32. The assessment study area will be identified based on the assessment thresholds set out in the IEMA Guidelines i.e. starting with 10% increases on sensitive links and 30% increases elsewhere. As mentioned, where links carry low levels of baseline traffic, judgement has been made as to whether they require inclusion in the study area.

Temporal Scope

6.2.33. The IEMA Guidelines note that developments may pass through a number of stages, during which the volume and type of traffic may be different, leading to different impacts. For example, traffic generated during the construction phase is likely to be different to the operational phase, meaning an assessment may be required to address different stages of the development.

6.2.34. Traffic flows have been obtained from the EMFM which tested the impacts of the **Scheme** during both its peak construction and operational stages. An opening year of 2028 has been adopted for the assessment year, which tested full completion of the development i.e. 430,000sqm of industrial floorspace. This is worst-case from an environmental impact perspective as it would result in a higher percentage increase in flows compared to baseline conditions.

EIA Scoping

6.2.35. An EIA Scoping Report was produced by Delta Planning in August 2024 seeking confirmation from the Secretary of State on the level of detail to be provided in the Environmental Statement. It confirmed that 'Traffic and Transport' is a key factor that could be an area of potential significance and is therefore to be included in the Environmental Statement. Chapter 1 covers full details on the EIA Scoping, whilst the following section summarises the transport related matters that are to be considered.

6.2.36. Section 8 of the EIA Scoping Report confirms that the DCO application will be supported by a comprehensive Transport Assessment in accordance with national guidance and other relevant background documents seeking to demonstrate how the **Scheme** meets the adopted standards and policy requirements. A Sustainable Transport Strategy and Framework Travel Plan will also be produced by Integrated Transport Planning and form part of the wider mitigation strategy presented in the Transport Assessment.

6.2.37. The Planning Inspectorate, on behalf of the Secretary of State, provided a Scoping Opinion on 24 September 2024. Section 3.3 covers 'Traffic and Transport' and sets out the following requirements:

1. The transportation of hazardous/abnormal loads needs to be considered and how they will be handled at the rail freight terminal.

2. The ES should consider the impacts of the Proposed Development on the capacity and operation of the rail network.

3. The ES should include details of the methodology and guidance which has been followed in undertaking the Transport Assessment.

4. A record of the meetings and outcomes with the Transport Working Group should be appended to the ES.

5. The Applicant should append an outline Construction Traffic Management Plan and demonstrate how this document will be secured.

6. The traffic modelling should be appended to the ES.

7. The ES should provide details on the anticipate number of HGVs which will be required during construction and operation.

8. The scope of mitigation works on the SRN should be discussed where possible, agreed with the relevant consultation bodies.

9. The potential effects of the Proposed Development on the A50 transport corridor should be included within the ES.

6.2.38. Items 1 and 2 will be covered in a separate ES Chapter. Items 3 to 9 are being progressed alongside the relevant consultee bodies with the evidence provided in this Transport Chapter.

6.2.39. LCC raised the following comments:

- Trip generation and distribution will need to be considered, including any associated inter-operational movements between EMG1 and EMG2.

- Any expansion to the Rail Freight Terminal needs to be considered.

- Details about the treatment to Hyam's Lane should be provided.

- The cumulative impacts of the development should be considered in line with the uncertainty log for the PRTM modelling.

- The utilisation of rail and tram should be considered within the Sustainable Transport Strategy.

- Further details on the construction vehicles, types, timings will be welcomed, with the construction traffic forecasts modelled and any necessary mitigation proposed.

6.2.40. The majority of LCC's comments have since been considered and agreed with the relevant consultee bodies and evidence confirming the agreed outcomes is provided in this Transport Chapter.

6.2.41. NH raised the following comments:

- The location of the access onto the A453 is of particular importance in respect of its proximity to Finger Farm roundabout, as queuing at the roundabout could extend past the access and adversely impacts the SRN.

- In terms of mitigation, the Limits of Deviation will need to be sufficiently wide to account for any design risks and uncertainties.

6.2.42. Detailed consideration has been made over the form and location of the proposed site access, with preliminary drawings produced showing a suitable design. The final access design will be dictated by the PRTM modelling and presented in this Transport Chapter.

6.2.43. Nottinghamshire County Council and Warwickshire County Council were also consulted and raised no concerns that require any further consideration.

6.2.44. The Transport Assessment is assessing the entire 430,000sqm of development at 100% of the agreed trip rates, including all mezzanine floorspace. This is because there was no empirical evidence available at the time of scoping to justify a reduction in trip rates for the mezzanines, but nonetheless provides a highly robust assessment of the traffic impacts.

6.2.45. This ES Chapter follows the methodology outlined in the IEMA Guidelines. The TA has been produced based on on-going discussions with the TWG following agreed parameters.

6.3. Policy, Guidance and Legislative Context

6.3.1. The following details set out the relevant policies that are specific to traffic and transport.

National Planning Policy Framework 2024

6.3.2. The NPPF requires that all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Paragraph 115 states:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) "sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;

b) Safe and suitable access to the site can be achieved for all users;

c) The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

d) *Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision led approach."*

6.3.3. Paragraph 116 of the NPPF goes on to state that:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios."

6.3.4. Paragraph 117 of the NPPF examines the transport implications of the development, which should:

a) *"Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

b) *Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c) *Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

d) *Allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

e) *Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

National Policy Statement National Networks (March 2024)

6.3.5. The National Networks National Policy Statement (NPS) sets out the need for, and Government's policies to deliver, development of Nationally Significant Infrastructure projects on the national road and rail networks for England. National networks include the railways and the Strategic Road Network.

6.3.6. The National Network faces a number of challenges in terms of maintaining network performance and meeting customer needs. This is triggered by a growing demand and greater reliance on movements using the National Network, which plays a significant role in supporting economic growth. Paragraphs 3.7 and 3.8 of NPS states:

"The government's Levelling Up the United Kingdom White Paper recognises the role that transport can play in boosting productivity, by connecting people to jobs, and businesses to each other, and sets out an ambition to level up transport connectivity. It recognises the role that specific projects on national networks can play in improving connectivity between towns and cities to boost growth."

"Transport infrastructure is a catalyst and key driver of growth, and it is important that the planning and development of infrastructure fully considers the role it can play in delivering sustainable growth, how it can support local and regional development plans and the growth aspirations of local authority areas. This will include exploring options to unlock sites for housing and employment growth made accessible by sustainable transport and the regenerative impact major infrastructure can play in driving renewal, increasing density, as well as creating new places and communities."

6.3.7. Paragraph 3.17 relates to the Governments environmental and net zero policies and states:

"Any national network Nationally Significant Infrastructure Project (NSIP) should seek to improve and enhance the environment irrespective of the reasons for developing the scheme. However, there may be instances where infrastructure interventions are required to bring about improvements to environmental outcomes. Such outcomes might include contributing to net zero targets through, for example, electric vehicle charging, electrification of rail, improvements to air quality through reductions in congestion, or delivering localised environmental improvements to cultural heritage, landscape, or biodiversity."

6.3.8. Paragraph 3.22 sets out the following concluding statement:

"The government has, therefore, concluded that at a strategic level there is a compelling need for development of the strategic road and strategic rail networks, and strategic rail freight interchanges (SRFIs) – both as individual networks and as a fully integrated system. The Examining Authority and the Secretary of State should, therefore, start their consideration of applications for development consent for the types of infrastructure covered by this National Policy Statement (NPS) on this basis. The Secretary of State should give substantial weight to considerations of need where these align with those set out in this NPS."

6.3.9. The NPS sets out a range of measures to help make the best use of capacity on the National Network. Paragraph 3.42 states:

"There are interdependencies between the efficient operation of the SRN and its impact on the local road network and vice versa. Effective operation and optimisation of both the SRN and the local road network are essential to achieve the outcomes set by the Transport Decarbonisation Plan. There are a range of measures that can be employed to make the best use of all road capacity (not just the SRN) which may impact upon demand for the SRN. These include:

- *Promoting journey choice by enabling more active travel and public transport (including buses, coaches and rail) in urban areas whilst not restricting other transport options. The creation of mobility hubs and improving integration between modes through park-and-ride services, cycle parking provision at rail stations, and the coordination of bus / rail timetables, can all contribute.*
- *Providing genuine choice in transport mode by increasing accessibility to public transport, connecting places and by improving the environment for journeys by active travel, in both urban and rural areas. The government has committed to transforming local transport systems through Bus Back Better strategy and the City Region*

Sustainable Transport Settlements. In addition, Bus Back Better sets out measures enabling buses to be used by all thereby enhancing levels of accessibility.

- *Integrating with spatial planning can support walking, wheeling and cycling or public transport as the natural first choice for journeys. Where developments are located, how they are designed and how well public transport services are integrated has a huge impact on whether people's natural first choice for short journeys is on foot or by cycle, by public transport or by private car. The Strategic Road Network and the delivery of sustainable development Circular 01/2022 establishes how additional spatial considerations in transport decisions can help tackle congestion and support better journeys for all road users.*
- *Greater deployment of technology can support more effective use of the network. Such technological interventions might include greater use of digital signalling, greater provision of route information to drivers, alternative fuels, self-driving vehicles or digital connectivity.*
- *Bringing forward maintenance schemes and small-scale enhancements to ensure that the SRN is operating as effectively as possible."*

6.3.10. Paragraph 3.43 states:

"The Transport Decarbonisation Plan recognises the need to base local transport planning on setting the outcome communities want to achieve and provides the transport solutions to deliver those local transport outcomes (vision-led approaches including 'vision and validate,' 'decide and provide' or 'monitor and manage'). However, there are varying challenges that will be presented by certain sites based on their land use, scale and/or location. In some cases, they will not always offset the need to increase capacity. The competing demands for road space will remain or even increase with diversification in the type and number of users, the vehicle they use or where alternative sustainable modes are prioritised."

"Whilst the majority of journeys on the SRN will continue to be made by private motor vehicle and over long distances, there may be opportunities to consider how the SRN can assist in delivering sustainable transport interventions or outcomes connecting communities and enabling active travel (where road safety considerations allow). Transport corridors created by the SRN can also be used to support public transport by facilitating coach journeys and park-and-ride schemes, providing vital connections to jobs, international gateways and between our towns and cities. In addition, safe links and movements across the SRN can be incredibly valuable to support better accessibility and connectivity and enhance the local active travel and public transport offer, including in rural areas."

6.3.11. Paragraph 4.12 refers to Environmental Statement's and states:

"A key part of environmental assessment is the consideration of cumulative effects. The applicant should provide information on how the effects of the proposal would combine and interact with the effects of other development, where relevant. For most practical purposes this means that the applicant should consider the impact of other existing and committed developments within an appropriate geographical area and assess the additional impact of their own development…"

6.3.12. Paragraphs 4.57 and 4.56 consider 'Road Safety' and state:

> *"Highways developments provide an opportunity to make significant safety improvements and significant incident reduction benefits when they are well designed. Some developments may have safety as a key objective, but even where safety is not the main aim of a development, the opportunity should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate. Consideration should also be given to wider transport objectives, including expanding active travel, and creating safe and pleasant walking, wheeling and cycling environments. In developing roads schemes the applicant should have due regard to the needs of drivers and riders and the imperative to ensure road user safety…"*

> *"The applicant should undertake an objective assessment of the impact of the proposed development on safety including the impact of any mitigation measures. This should use the methodology outlined in the guidance from Department for Transport's Transport Analysis Guidance and from National Highways. They should also put in place arrangements for undertaking the road safety audit process and ensuring their implementation. Road safety audits are a mandatory requirement for highway improvement schemes in the UK (including motorways). Road safety audits are intended to ensure that operational road safety experience is applied during the design and construction process so that the number and severity of collisions is as low as is reasonably practicable."*

North West Leicestershire District Council Local Plan (2021)

6.3.13. The North West Leicestershire Local Plan was adopted in November 2017, and subject to a partial review in 2021, with the following policies being relevant to the site or transport matters.

6.3.14. Of key importance on the Local Plan is Policy Ec2(2) 'New Employment Sites'. This enables employment development to come forward where evidence indicates an immediate need or demand for additional employment land (B1, B2 and B8) in North West Leicestershire that cannot be met from land allocated in the Local Plan. It states that the Council will consider favourably proposals that meet such identified need in appropriate locations subject to the following key criteria:

- The site must be accessible or capable of being made accessible by a choice of means of transport, including sustainable transport modes;
- The site must have good access to the strategic highway network (M1, M42/A42 and A50) and an acceptable impact on the capacity of that network, including any junctions; and
- The site must be shown to be not detrimental to the amenities of any nearby residential properties or the wider environment.

6.3.15. Policy IF1 sets out how new developments will include the provision of new infrastructure. It states:

> *"Development will be supported by, and make contributions to as appropriate, the provision of new physical, social and green infrastructure in order to mitigate its impact upon the environment and communities. Contributions may be secured by means of*

planning obligations and/or a Community Infrastructure Levy charge, in the event that the Council brings a Charging schedule into effect.

The type of infrastructure required to support new development includes, but is not limited to:

(a) Affordable housing; and

(b) Community Infrastructure including education, health, cultural facilities and other public services; and

(c) Transport including highways, footpaths and cycleways, public transport and associated facilities; and

(d) Green infrastructure including open space, sport and recreation, National Forest planting (either new provision or enhancement of existing sites) and provision of or improvements to sites of nature conservation value; and

(e) The provision of superfast broadband communications; and

(f) Utilities and waste; and

(g) Flood prevention and sustainable drainage.

The infrastructure secured (on or off-site) will be provided either as part of the development or through a financial contribution to the appropriate service provider and may include the long-term management and maintenance of the infrastructure.

In negotiating the provision of infrastructure the Council will have due regard to viability issues and where appropriate will require that the applicant provide viability information to the Council which will then be subject to independent verification.

The District Council will work closely with infrastructure providers to ensure inclusion of infrastructure schemes within their programmes, plans and strategies, and delivery of specific infrastructure requirements in conjunction with individual development schemes and the expected timing of development coming forward. The Council will also work with partners and other stakeholders to secure public funding towards infrastructure, where possible."

6.3.16. Policy IF4 relates to 'Transport Infrastructure and New Development'. It states:

"The Council, working with the highway authorities, will ensure that development takes account of the impact upon the highway network and the environment, including climate change, and incorporates safe and accessible connections to the transport network to enable travel choice, including by non-car modes, for residents, businesses and employees. In assessing proposals regard will be had to any Transport Assessment/Statement and Travel Plan prepared to support the application.

New development will be expected to maximise accessibility by sustainable modes of transport, having regard to the nature and location of the development site, and contribute

towards improvement of the following where there is a demonstrable impact as a result of the proposed development:

(a) The provision of cycle links within and beyond sites so as to create a network of cycleways across the district, including linkages to key Green Infrastructure;

(b) The provision of public footpath links within and beyond sites so as to enhance the network of footpaths across the district, including linkages to key Green Infrastructure;

(c) The provision of new public transport services, or the enhancement of existing services, to serve new developments so that accessibility by non-car modes to essential services and facilities, such as shops, schools and employment, is maximised.

Where new development has a demonstrable impact upon the highway network contributions towards improvements will be sought commensurate with the impact. The to following specific highway improvements are identified as priorities."

6.3.17. NWLDC are producing a new Local Plan with the draft Local Plan issued for consultation in February/March 2024. The new Local Plan includes the **EMG2 Main Site** as a potential strategic distribution allocation (EMP90) and the Isley Woodhouse settlement (IW1) as a new standalone village of residential led development.

Leicestershire County Council Local Transport Plan

6.3.18. LCC published its fourth Local Transport Plan in November 2024, which sets out the vision for transport up to 2050. It helps to promote transport as an enabler on economic, environmental and social objectives by planning for infrastructure and initiatives to help people and goods travel around. It sets out the following strategic vision:

"Delivering a safe, connected and integrated transport network which is resilient and well managed to support the ambitions and health of our growing communities, safeguards the environment whilst delivering economic prosperity"

6.3.19. LTP4 consists of a series of documents that are identified below.

- LTP4 Core Document 2025 - 2040**:** The core document will set out the strategic vision for transport across the County Council. It will also identify the core themes, core policies and how these will be implemented. It will provide an action plan for the development, implementation and review of focused strategies, Multi Modal Area Investment Plans, County Strategic Transport Investment Plan and provide detail on how the Local Transport Plan will be monitored.

- Focused Strategies**:** A series of focused strategies will be developed to identify and tackle specific challenges and matters related to the transport network. These will include existing strategies such as the Cycling and Walking Strategy and the Road Safety Strategy. In addition, new focused strategies will be developed for topics including freight and logistics, transport network safety and decarbonising the transport network.

- County Strategic Transport Investment Plan: This document will set out the strategic transport investment needs across the county to support the delivery of strategic development sites. As well as identifying needs for investment and capacity enhancement on the Strategic Road Network (SRN) and the rail network building on the Leicester and Leicestershire Strategic Priorities published in November 2020. This will also set out how we continue to support East Midlands Airport and the East Midlands Freeport.

- Multi Modal Area Investment Plans: These will be focused on the local level and set out strategies and investment plans for integrated transport solutions to meet the needs and requirements of our communities. We will also work in partnership with neighbouring authorities where there are cross-boundary transport matters which can be addressed through the development and implementation of the Multi Modal Area Investment Plans

- Monitoring our Success: This will set out the core Key Performance Indicators (KPIs) and Performance Indicators (PIs) which will be used to assess the success of LTP4 and how these will be reported upon.

6.3.20. The LTP4 will be developed in three overlapping phases and will cover the period between 2025 and 2050.

- Phase 1: 2025-2030 - Phase 1 comprises the LTP4 Core Document which will identify the key challenges faced across the county in terms of transport. It sets out the strategic vision for transport, the core themes and policies and how these will be implemented. The LTP4 Core Document provides the strategic case and narrative to aid the development and implementation of the programme for the LTF, and other funding streams, delivering transport solutions across the county.

- Phase 2: 2050-2040 - Phase 2 will be the development and implementation of a series of focused strategies, including freight and logistics and aviation and the development and implementation of a County Wide Strategic Transport Investment Plan and locally focused Multi Modal Area Investment Plans (MMAIPS). These plans will be developed with communities and partners setting out the transport solutions and the programme for delivery and implementation over a five-year period, which meet their needs and requirements, as well as supporting the delivery of new homes and employment opportunities across the county.

- Phase 3 2025-2050 - Phase 3 will set out the monitoring and review processes and progress based on the LTP to identify success or where greater focus is required. It will also set the County Council's approach to a post-2050 vision for the future and 'horizon scanning' to ensure that the County Council is proactive and can adapt the LTP and transport solutions to accommodate travel behaviour change, innovation, and changes to national policy and guidance.

6.3.21. LTP4 includes a framework for how LCC will manage and develop the transport system within Leicestershire and the actions that will be undertaken to deliver the programme. LTP4 sets out six core policies, which are set out below:

- Core Policy 1: Delivering the Vision – Ensure that all our transport solutions accord with the five core themes to deliver our vision for transport with regard to government policy for the benefit of our communities.
- Core Policy 2: Managing Demand – Delivering a safe, accessible integrated, and resilient transport network that is well managed and enables communities to access jobs, education and all services. The network will also enable efficient movement and delivery of goods to support the local, regional, and international markets.
- Core Policy 3: Enabling Travel Choice – Enabling travel choice in our communities that reflects their unique needs, ensures their safety, actively promotes health & wellbeing, and protects the environment.
- Core Policy 4: Delivering Solutions – Work collaboratively to identify and develop innovative transport related solutions which promote health & wellbeing of our communities, provide betterment to the environment, and provides good value for money while enabling travel choice and improving our transport network users' experiences.
- Core Policy 5: Embracing Innovation – Embrace innovation and collaboration, which enables us to decarbonise transport and adapt to climate change to ensure a resilient transport network, while benefiting the environment and delivering travel choice to promote health and wellbeing within our communities
- Core Policy 6: Evaluating Progress – Utilise data, monitoring and evaluation of our transport solutions to enable evidence-based programmes, provide a flexible approach to policy development, technology, and innovation to address changes and challenges which impact our communities.

6.4. Baseline Conditions

Site/Development Details

6.4.1. Full details of the site and **Scheme** are provided in **Chapter 3: Project Description** of the **ES**. However, brief details are provided below for ease of reference.

6.4.2. SEGRO is proposing a second phase of its East Midlands Gateway Logistics Park (EMG1) which is a Strategic Rail Freight Interchange (SRFI) located to the north of East Midlands Airport.

6.4.3. The proposed second phase to EMG1 (known as EMG2), comprises of three interrelated component parts as follows, and collectively they are referred to in this ES as the **Scheme**:

- **EMG2 Main Site** – A new logistics and advanced manufacturing employment park located south of East Midlands Airport and the A453, and west of the M1 motorway. This part of the site falls within the 'East Midlands Airport and Gateway Industrial Cluster' (EMAGIC) site, which forms part of the East Midlands Freeport designated by the Government in 2022. It comprises 300,000sqm of B2/B8 use, plus an allowance for 100,000sqm of mezzanine floorspace.

- **Highways Works** – Highways works to the strategic road network including improvements at junction 24 of the M1 motorway and the road network interacting with that junction; and
- **EMG1 Works** – Additional warehousing of 26,500sqm plus a mezzanine allowance for 3,500 sq.m (Use Class B8) at Plot 16 together with works to increase the permitted height of the cranes at the rail-freight terminal, improvements to the EMG1 public transport interchange and site management building.

6.4.4. The boundary of these areas is identified on [**Documents 2.1** and **MCO 2.1]** and provided as **Figures [xx and xx]** to this ES.

Local Highway Network

6.4.5. The **EMG2 Main Site** is currently served by a number of field accesses from Hyam's Lane. It is also served by another field access from the A453/Hunter Road roundabout (from the southern side of the circulatory). This field access comprises a dropped kerb with a gate setback from the roundabout circulatory.

6.4.6. The **EMG1 Works** is served by the existing signal-controlled gyratory from the A453 and Wilder's Way, which is the single access point to EMG1**.** Wilder's Way comprises a dual carriageway with two lanes in either direction.

6.4.7. The **Scheme** in general is within a convenient location to access the Strategic Road Network being in close proximity to the M1 at Junctions 23A and 24, which form major intersections connecting to the A42 towards Birmingham, the A50 towards Derby, the A6 towards Loughborough and the A453 towards Nottingham.

Highway Safety

6.4.8. A full assessment of existing Personal Injury Collision (PIC) records has been undertaken as part of the TA for the 5-year period covering 1 January 2019 to 23 October 2024. The assessment included a total of 17 junctions within an agreed study area accepted by NH, LCC and NCountyC. Figure 6.2 shows the locations and severity of all recorded PICs. The TA concluded that there are no on-going safety problems that would be exacerbated by the **Scheme**.

Figure 6.2: Personal Injury Collision Records

6.4.9. [section to be completed]

Baseline Survey Information

6.4.10. The EMFM has been used to test the impacts of the **Scheme** at a strategic level. It has gone through a rigorous validation process and was considered acceptable for testing the forecast year scenarios and impacts of the **Scheme**. The PRTM generates traffic flows across the highway network for each modelled scenario. The scenarios adopted in this ES Chapter are listed below:

- 2028 forecast year 'without development' – baseline scenario

- 2028 forecast year ‘with development’ i.e. operational traffic
- 2028 forecast year ‘with construction traffic’
- 2038 forecast year ‘with development, with mitigation’

6.4.11. Prior to AECOM running the PRTM, the planning data assumptions and uncertainty log details were agreed with the TWG. This ensured that all relevant committed developments and infrastructure schemes were included in the assessments. This also includes draft Local Plan allocations which includes the Isley Woodhouse settlement. It should also be noted that the other East Midlands Freeport sites (excluding EMIP) have been included. The access points for each of these developments and associated traffic generation/loading points were agreed with the TWG.

6.4.12. Figure 6.3 shows the locations of each road names/link ID in the modelled network area. Table 6.7 summarises the baseline 2028 forecast year ‘without development’ traffic flows, which are presented as 24-hour AADT flows. These are the baseline flows to be used to test the environmental impacts of the **Scheme** against.

Figure 6.3: Link ID Locations

6.4.13. [section to be completed]

Table 6.7: 2028 Forecast Year ‘without development’ Flows (Baseline Scenario)

Link ID	Link Name	AADT Flow		
		Total	HGV	HGV%

6.5. Potential Impacts

6.5.1. As noted at Paragraph 6.1.5, this draft ES Chapter has been produced to support the public consultation and at the time of preparation, the traffic modelling was in the process of being undertaken in accordance with the continuing detailed discussions with all relevant highways statutory consultees who comprise the Transport Working Group (TWG). Upon completion of the traffic modelling a full assessment utilising the modelled impacts of the **Scheme** will be concluded ahead of the submission of the applications.

Introduction

6.5.2. This section describes the predicted effects of the **Scheme** against each of the matters set out at Section 6.2, during both the construction and operational phases.

6.5.3. This section provides a description and quantification of any potential effects of the **Scheme** (including beneficial, negligible/neutral and adverse effects), and an explanation of the potential significance of those effects during both the construction and operational phases of the development without mitigation.

Development Traffic Impacts

6.5.4. [section to be completed on receipt of final traffic data]

6.5.5. The construction phase is estimated to take place between 2028 and 2033 (5.75 years). All construction traffic associated with development on the **EMG2 Main Site** would travel to/from the proposed access point(s) on the A453, whilst the development on Plot 16 would travel to/from the existing access via Wilder's Way. The construction traffic assessment in the PRTM also considered traffic associated with the highway mitigation, details of which are presented in Section 6.6. The methodology adopted to calculate construction traffic numbers is presented within a separate Technical Note (EMG2-BWB-GEN-XX-RP-TR-0013 Revision P1) contained at **Appendix 6c**, which has been agreed with the TWG.

6.5.6. The forecast operational traffic flows from the **Scheme** were presented to the TWG within a separate Technical Note (EMG2-BWB-GEN-XX-RP-TR-0012 Revision P1) contained at **Appendix 6d**. The figures were based on peak hour flows (as the EMFM is a peak hour assignment model) but has a methodology to convert the outputs into AADT flows. These figures have been agreed with the TWG.

6.5.7. Traffic flows have been obtained from the EMFM for a 2028 year of opening based on both construction and operational traffic assessment scenarios. **Table 6.8** summarises the AADT flows across the same network study area.

Table 6.8: 2028 Forecast Year 'with development' Flows (construction and operational)

Link ID	Link Name	2028 Forecast Year 'without construction traffic'			2028 Forecast Year 'with development'		
		Total	HGV	HGV%	Total	HGV	HGV%

6.5.8. To establish a study area for the environmental assessment, **Table 6.9** calculates the percentage change in total vehicles and HGVs between the baseline flows (**Table 6.7**) and the with development flows (**Table 6.8**). It highlights where there are expected to be increases of 10% or 30% in flows, aligning with Rules One and Two of the IEMA Guidelines.

Table 6.9: Percentage Change in Traffic Flows (baseline vs with development

Link ID	Link Name	Change with Construction Traffic		Change with Operational Traffic	
		Total	HGV	Total	HGV

6.5.9. The following links/roads have been selected to form the study area for further environmental assessment based on the percentage increases in traffic (both total vehicles and HGVs).

- List link/road names

Operation Effects

6.5.10. [section to be completed]

6.5.11. The following section assesses the environmental effects of the **Scheme** against each of the criteria summarised as Section 6.2.

Severance

6.5.12. [section to be completed]

Pedestrian Delay

6.5.13. [section to be completed]

Pedestrian Delay

6.5.14. [section to be completed]

Pedestrian Delay

6.5.15. [section to be completed]

Non-Motorised User Amenity

6.5.16. [section to be completed]

Fear and Intimidation

6.5.17. [section to be completed]

Road User and Pedestrian Safety

6.5.18. [section to be completed]

6.6. Mitigation Measures

6.6.1. [section to be completed]

6.6.2. The TA is proposing a range of active travel and public transport improvements to maximise sustainable transport opportunities, which are set out in the Transport Assessment and the Sustainable Transport Strategy and Framework Travel Plan contained at **Appendix 6e**. This includes the following:

- A new toucan crossing point for pedestrians and cyclists to safely cross the A453 from **EMG2 Main Site**, unlocking connections to EMG1, Kegworth and beyond.
- A new shared use cycle track (The Active Travel Link) to north of the new toucan crossing alongside the A453 up to EMG1 connecting the two SEGRO developments for pedestrians and cyclists and providing an improved route for cyclists in the wider area such as between Kegworth and the Airport.

- A new shared use cycle track from the **EMG2 Main Site** bus interchange to the proposed A453 toucan crossing.
- A new shared use footway/cycleway along the length of the **EMG2 Main Site** estate road providing pedestrian and cyclist access to each employment unit.
- New Public Footpaths around the western side of the **EMG2 Main Site** connecting Long Holden, Hyam's Lane and the A453 along with an uncontrolled crossing of the A453 at the Airport access junction.
- A new Public Footpath around the eastern side of the **EMG2 Main Site** connecting Long Holden and Hyam's Lane.
- A new shared use path from the end of the **EMG2 Main Site** main estate road to Long Holden.
- Improvement works to PROW L57 to the west of EMG1 between Diseworth Lane and the edge of Castle Donington at Eastway to upgrade this route to cycle track standards.

6.6.3. The TA is proposing significant highway mitigation focussed at M1 Junction 24 to alleviate congestion problems and further impacts generated by the **Scheme** and other planned development in the area. These works are proposed purely from a capacity/operational perspective and not triggered because of environmental impacts but nonetheless have been referenced in this ES Chapter for completeness. The mitigation associated with the **Scheme** forms part of a wider mitigation strategy on the A453 corridor between Finger Farm (M1 Junction 23a) and M1 Junction 24, with other key developments being promoted near East Midlands Airport. The **Highway Works** associated with the **Scheme** are known as the 'Green Package' with a full breakdown of the details set out in Chapter 3.

6.6.4. As set out in Section 6.2, traffic associated with the highway mitigation was included in the assessment of construction traffic.

6.7. Residual Effects

6.7.1. [section to be completed]

6.8. Cumulative Effects

6.8.1. [section to be completed]

6.9. Summary of Effects and Conclusions

6.9.1. [section to be completed]