EAST PARK ENERGY

East Park Energy

EN010141

Environmental Statement
Volume 2 – Technical Appendices

Appendix 9-1: Transport Assessment

Document Reference: EN010141/DR/6.2

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009: Regulation 5(2)(a)

~~April~~ May 2026

Version ~~P02~~P03

EAST PARK ENERGY

Planning Act 2008

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APFP Regulation Reference:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference:	EN010141
Application Document Number:	EN010141/DR/6.2
Author:	Axis PED Ltd

Version	Date	Status
P01	September 2025	DCO Submission
P02	April 2026	Deadline 2
P03	May 2026	Deadline 3

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1.0 INTRODUCTION

1.1 Purpose of this Report

1.1.1 This Transport Assessment (TA) has been prepared on behalf of BSSL Cambsbed 1 Ltd (the 'Applicant') as part of the application for a Development Consent Order (DCO) for the East Park Energy project (the 'Scheme').

1.1.2 The Scheme comprises a new ground-mounted solar photovoltaic energy generating station and an associated on-site battery energy storage system (BESS), with the Order Limits covering an area of 773 ha of land to the north-west of St Neots, Cambridgeshire (the 'Site'). The Scheme also includes the associated infrastructure for connection to the national grid at the Eaton Socon National Grid Substation.

1.1.3 The purpose of this TA is to inform the Examining Authority, Secretary of State and statutory consultees (in particular Bedford Borough Council (BBC) and Cambridgeshire County Council (CCC) as the relevant Local Highway Authorities (LHAs)), of the anticipated highways and transportation matters associated with the Scheme.

1.1.4 This TA has been prepared to accompany the Environmental Statement (ES) for the Scheme and should be read in conjunction with the **ES Volume 1 [EN010141/DR/6.1]**, in particular **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**.

1.2 Pre-Application and Scoping

1.2.1 Scoping of the Environmental Impact Assessment (EIA) for the Scheme was undertaken in October 2023 and set out in **ES Vol 2 Appendix 4-1: EIA Scoping Report [EN010141/DR/6.2]**. A Scoping Opinion was received in December 2023 as presented in **ES Vol 2 Appendix 4-2: EIA Scoping Opinion [EN010141/DR/6.2]**. Consultation responses from the LHAs and National Highways were received as part of the EIA Scoping exercise.

1.2.2 Within the EIA Scoping Report, it was identified that the traffic and transport impacts of the Scheme could have the potential to result in significant environmental effects, and therefore the topic would be scoped in for detailed assessment as a separate chapter within the ES. The EIA Scoping Report identified that consideration of the following matters would be scoped into the ES:

- Severance;
- Driver and Pedestrian Delay;
- Pedestrian and Cyclist Amenity / Fear and Intimidation; and
- Accidents and Safety.

1.2.3 The assessment of hazardous loads was scoped out of the ES, as agreed with PINS. It was also noted within the EIA Scoping Report that a TA would be prepared to accompany the application, in order to appraise the transport impacts of the Scheme with regard to the ability of the highway network to accommodate additional traffic generated by the Scheme.

1.2.4 Statutory consultation on the project took place between September 2024 and October 2024. This included consultation on the Preliminary Environmental Information Report (PEIR) which contained a preliminary assessment of the likely significant effects on traffic and transport. The feedback received from statutory consultees with regard to traffic and transport matters is summarised within Section 9.3 of **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**.

1.2.5 Matters raised by statutory consultees which are addressed specifically within this TA include additional information pertaining to:

- Junction visibility splays and swept path assessments;
- Breakdown of forecast construction trip generation and distribution across the local highway network and across the working day; and
- Appraisal of Scheme impacts on the operation of the local highway network during peak hours.

1.3 Report Structure

1.3.1 The remainder of this report is structured as follows:

- **Section 2** sets out the transport planning policy that is relevant to the proposals;
- **Section 3** describes the existing conditions on and around the Site, including the Site location, the local highway network, and a review of the accident data on the local highway network;
- **Section 4** sets out the development proposals during both the construction and operational phases, including the Site access arrangements, operating hours and construction programme;
- **Section 5** presents a forecast of the likely traffic generating potential of the Scheme and sets out the proposed routeing of construction-related traffic on the local highway network;
- **Section 6** provides an appraisal of the impact of the forecast peak construction traffic generation on the key links and junctions in the local highway network;
- **Section 7** outlines the mitigation measures which would be put in place to manage any adverse effects of construction traffic; and
- **Section 8** summarises and concludes the report.

2.0 NATIONAL AND LOCAL PLANNING POLICIES

2.1 Introduction

2.1.1 Section 9.2 of **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]** provides a review of the transportation planning policy that is relevant to the Scheme, with reference to the following documents:

- Overarching National Policy Statement (NPS) for Energy (NPS EN-1);
- NPS for Renewable Energy Infrastructure (NPS EN-3);
- National Planning Policy Framework;
- Planning Policy Guidance (PPG) for Travel Plans, Transport Assessment and Statements (2014);
- Bedford Local Plan 2030;
- Bedford Allocations and Designations Local Plan;
- Huntingdonshire Local Plan to 2036; and
- Great Staughton Neighbourhood Plan 2021 to 2036.

2.1.2 This section of the TA provides a summary of the transportation planning policy that is of specific relevance to matters covered within the TA.

2.2 Overarching NPS for Energy (NPS EN-1)

2.2.1 The consideration and mitigation of transport impacts is an essential part of Government's wider policy objectives for sustainable development as set out in paragraph 5.14.4 of NPS EN-1.

2.2.2 Paragraph 5.14.5 identifies that if significant transport effects are likely the ES should include a transport appraisal. The paragraph goes on to set out the relevant Department for Transport (DfT) guidance. Likely significant transport-related environmental effects have been appraised within **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**. This TA has been prepared to provide additional information on transport related impacts with regard to highways capacity and safety.

2.2.3 Paragraph 5.14.6 notes that the transport appraisal should be developed in consultation with National Highways and Highways Authorities – this has been done as noted in section 1.2 above.

2.2.4 Paragraph 5.14.14 stipulates that where substantial HGV traffic is likely to occur, requirements to consent to control the movement and parking of HGVs to avoid abnormal disruption during the construction phase may be attached to a consent. It is also stated in paragraph 5.14.20 that development should not be withheld provided the applicant is willing to enter into planning obligations or requirements to adequately mitigate any transport impacts identified. This TA refers to a number of management plans to be produced which will allow the management and mitigation of traffic impacts. Compliance with these plans will be secured by Requirement of the DCO.

2.3 NPS for Renewable Energy Infrastructure (NPS EN-3)

2.3.1 Paragraphs 2.10.120 to 2.10.126 of NPS EN-3 addresses issues to be covered in assessing the transport impacts specific to solar farm construction. Subsequently, paragraphs 2.10.139 to 2.10.144 identify potential mitigation options.

2.4 National Planning Policy Framework

2.4.1 The National Planning Policy Framework (NPPF) was initially published by the Ministry of Housing, Communities and Local Government in 2012 and was most recently revised in December 2024.

2.4.2 At the heart of the NPPF is a presumption in favour of sustainable development. In this context, it is fundamental that sustainable transport is promoted. Section 9 of the NPPF sets out policies for promoting sustainable transport, and the relevant policies for the Scheme are set out below:

2.4.3 Paragraph 109 of the NPPF states:

"Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify

transport solutions that deliver well-designed, sustainable and popular places. This should involve:

a) making transport considerations an important part of early engagement with local communities;

b) ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;

c) understanding and addressing the potential impacts of development on transport networks;

d) realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;

e) identifying and pursuing opportunities to promote walking, cycling and public transport use; and

f) identifying, addressing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains."

2.4.4 The NPPF sets out a key test for the acceptability of planning applications in terms of transport and highways matters at paragraphs 115 and 116. Paragraph 115 of the NPPF states that, when assessing planning applications, 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."

2.4.5 At paragraph 116 of the NPPF it is stated:

"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 local highway network would be severe."

2.5 PPG for Travel Plans, Transport Assessments and Statements (2014)

2.5.1 The National Planning Policy Guidance for Travel Plans, Transport Assessments and Statements was published by the Ministry of Housing, Communities and Local Government in 2014. It provides advice on when Transport Assessments and Transport Statements are required, and what they should contain.

2.5.2 The guidance identifies that the need for, scale, scope and level of detail required of a Transport Assessment or Statement should be established as early in the development management process as possible as this may therefore positively influence the overall nature or the detailed design of the development. Key issues to consider at the start of preparing a Transport Assessment or Statement may include:

- the planning context of the development proposal;
- appropriate study parameters (i.e. area, scope and duration of study);
- assessment of public transport capacity, walking/cycling capacity and road network capacity;

- road trip generation and trip distribution methodologies and/or assumptions about the development proposal;
- measures to promote sustainable travel;
- safety implications of development; and
- mitigation measures (where applicable) – including scope and implementation strategy.

2.6 Huntingdonshire Local Plan to 2036

2.6.1 The Huntingdonshire Local Plan to 2036, adopted in May 2019, is the plan for future sustainable development in the district (known as the development plan). The Local Plan performs two specific roles:

- it identifies key areas of land for development (known as allocations) to deliver the homes, jobs and services needed in the district; and
- includes policies against which all planning applications are considered.

2.6.2 Of most relevance to the Scheme, from a highways perspective, are Policy LP 16 – Sustainable Travel, and Policy LP 17 – Parking Provision and Vehicle Movement.

2.6.3 Policy LP 16 – Sustainable Travel states that new development proposals will be supported "*where it is demonstrated that:*

a. opportunities are maximised for the use of sustainable travel modes;
b. its likely transport impacts have been assessed, and appropriate mitigation measures will be delivered, in accordance with National Planning Practice Guidance;
c. safe physical access from the public highway can be achieved, including the rights of way network where appropriate;
d. any potential impacts on the strategic road network have been addressed in line with the Department for Transport Circular 02/2013 and advice from early engagement with Highways England; and
e. *there are no severe residual cumulative impacts.*"

2.6.4 Policy LP 16 also states that:

"*Where a proposal would affect an existing public right of way or other formal non-motorised users' route, this route should be protected or enhanced within the proposed development. Where this not possible it should be diverted to a safe, clear and convenient alternative route. The stopping up of paths/routes will only be acceptable where all opportunities to provide a safe, clear and convenient alternative have been investigated and proved to be unsuitable.*"

2.6.5 Policy LP 17 – Parking Provision and Vehicle Movement states that:

"*A proposal will be supported where it incorporates appropriate space for vehicle movements, facilitates accessibility for service and emergency vehicles and incorporates adequate parking for vehicles and cycles."*

2.7 Bedford Local Plan 2030

2.7.1 Bedford Borough Council's *Local Plan 2030: Planning for the Future* (adopted in January 2020) sets out the Council's plan for growth to 2030. With specific regard to traffic and transport matters, the Local Plan policies of relevance to this TA are summarised below.

2.7.2 Policy 31 – The impact of development – access impacts states that:

"*Development proposals should not have any significant adverse impact on access to the public highway. Planning applications should give particular attention to all of the following considerations:*

i. Highway capacity, parking provision, safety or general disturbance to the area.

ii. The extent to which the development is served by, and makes provision for, access by public transport, cyclists and pedestrians.

iii. The suitability of access arrangements to and within the development for all members of the community, including: pedestrians, cyclists and people with disabilities.

iv. *The suitability of access arrangements to and within the development for service and emergency vehicles.*

Developers will be required to implement or contribute towards measures to mitigate adverse impacts."

2.7.3 Policy 88 – Impact of development on people, places and environment sets out that:

"*Planning applications shall demonstrate that the social and environmental impact of traffic from their proposals has been considered, in terms of all of the following:*

i. *The impact on the Air Quality Management Area*

ii. *The impact on resilience of the railway and highway networks*

iii. *The impact on air quality generally and the control of noise and pollutants*

iv. *Developing opportunities to enhance sustainable transport facilities*

v. *The impact of freight movements on the local highway network*

vi. *The impact of safety, in terms of site access arrangements and general road safety"*

2.7.4 Policy 91 – Access to the countryside states that:

"*In considering proposals for development all of the following criteria will apply:*

i. *Safeguarding of existing public rights of way and ensuring the existing routes are incorporated into the proposed development or an appropriate diversion is provided.*

ii. *Where diversions to the existing public rights of way are proposed, it should be demonstrated that there are no other alternatives and that the benefits of the diversion outweigh the harm resulting from the proposed diversion.*

iii. *Development should, where possible, provide improvements to the public rights of way network including more river crossings linked to the current Borough of Bedford Rights of Way Improvement Plan.*

iv. *All new routes should be multiuser routes and dedicated as bridleways with a minimum width of 4 metres.*

v. *All new rights of way and gates must be designed to be in compliance with the Disability Discrimination Act or relevant act as amended.*

vi. *Incorporate new routes to extend the existing public rights of way network which are not fragmented by roads, railways and other infrastructure.*

vii. *Ensure that all developments are designed to enable safe crossing of roads, railways and other infrastructure from new and existing public rights of way.*

viii. *Public rights of way should retain their existing surface or an improved surface suitable for all users of the rights of way.*

ix. *There should be no net loss of public rights of way as a result of any particular development.*

New permissive paths are encouraged as they can help to fill in gaps in the public rights of way network."

2.8 Bedford Allocations and Designations Local Plan

2.8.1 The Bedford Allocations and Designations Local Plan was adopted in July 2013 and identifies allocated sites for development within Bedford borough and includes some policies which apply to development throughout the borough. These policies remain relevant and were not replaced following adoption of the Bedford Local Plan 2030.

2.8.2 Of specific relevance to this TA, Policy AD36 – Pedestrian Routes states that:

"The Council will require the protection, enhancement and promotion of pedestrian routes and facilities. The Council will seek the provision of new

pedestrian routes which are safe, convenient, attractive and which link local facilities, particularly in association with major developments and transportation proposals."

2.8.3 Policy AD39 – Cycling states that:

"The Council will require the protection, enhancement and promotion of cycle routes and facilities including those shown on the Policies Map, and seek the provision of new routes and facilities for cyclists which are safe, convenient and attractive, particularly in association with major development and transportation proposals."

2.9 Great Staughton Neighbourhood Plan 2021 to 2036

2.9.1 The Great Staughton Neighbourhood Plan, which was formally made by Huntingdonshire District Council in January 2021, sets out the local vision and objectives for the villages and hamlets in the vicinity of Great Staughton, and the policies which seek to deliver these objectives.

2.9.2 With specific regard to traffic and transport matters, the Policy GNSP 17 of the Neighbourhood Plan sets out that proposals will be assessed for their impact on road safety and should ensure a satisfactory provision of off-street parking. The policy wording also sets out that where proposals are likely to unacceptably impact adversely on road safety including the safety hotspots identified within Great Staughton, they will be expected to mitigate their impact by providing or contributing towards road safety measures.

2.10 Compliance with Policy

2.10.1 The subsequent sections of this TA report will therefore seek to demonstrate that the Scheme would be delivered with due regard to the relevant national and local policies and guidance detailed above.

2.10.2 Additionally, in the context of this application for development consent, this TA seeks to demonstrate that the proposals comply with NPS EN-1 and EN-3, specifically the policy test set out in paragraph 5.14.21 of EN-1 which

identifies that the Secretary of State should only consider refusing development on highway grounds if there would be an unacceptable impact on highway safety or if the residual cumulative impacts on the highway network would be '*severe*', or does not show how consideration has been given to the provision of adequate public or shared transport access and provision.

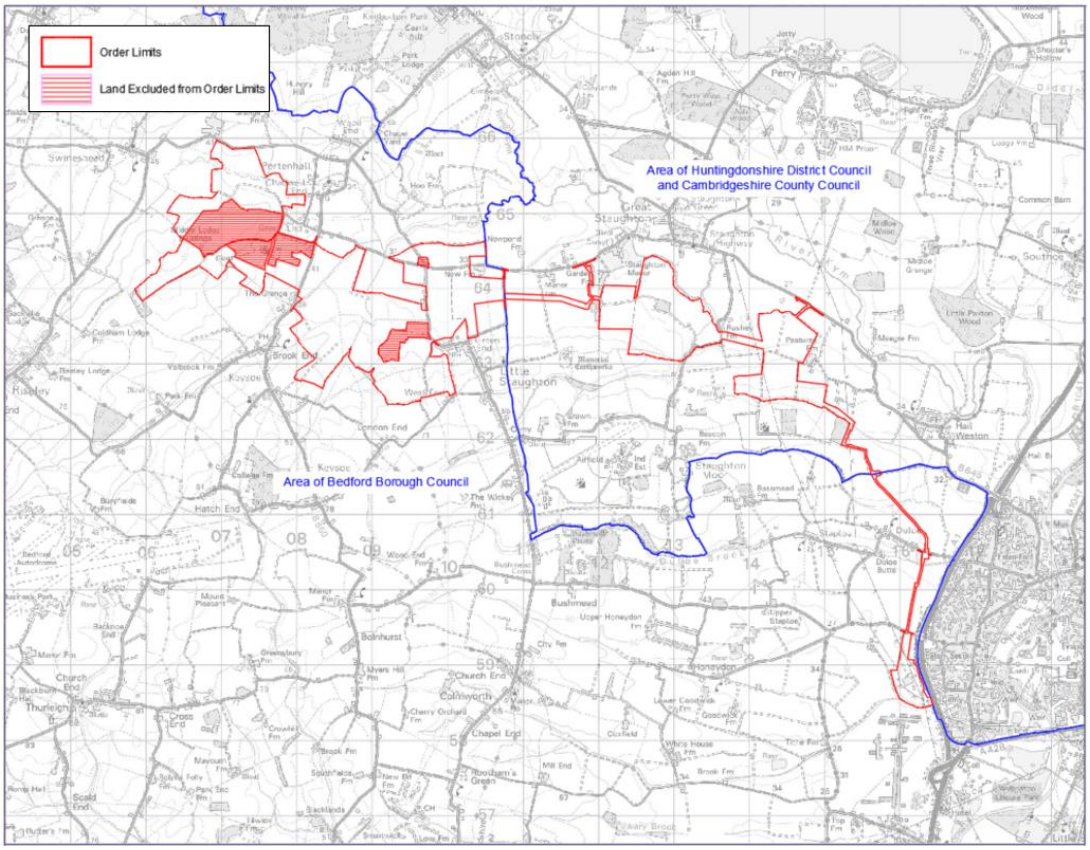
3.0 EXISTING CONDITIONS

3.1 Site Location

3.1.1 The Site is located across approximately 773 ha of land to the north-west of St Neots, Cambridgeshire, with the point of connection to the National Grid at the Eaton Socon Substation.

3.1.2 The Site location and Order Limits are illustrated in **Image 3.1**.

Image 3.1 – Site Location and Order Limits



3.1.3 The extent of the Order Limits illustrated in **Image 3.1** includes all land required for the Scheme, whether short-term for the construction phase, or longer-term for the operational phase.

3.1.4 With reference to **ES Vol 3 Figure 1-2: Site References [EN010141/DR/6.3]**, for ease of reference the Order Limits have been sub-divided into East Park Sites A to D, in which all of the above ground infrastructure proposed as part

of the operational Scheme would be located (excluding works to the Eaton Socon Substation). The Order Limits also covers land outside of East Park Sites A to D which will be required for access, cabling, and the grid connection to the Eaton Socon Substation. East Park Sites A to D can be described as follows:

- **East Park Site A** – covering land west of the B660 between Pertenhall and Swineshead at the western end of the Site. East Park Site A comprises arable fields located to the north, west and east side of a small hill that lies between Pertenhall and Riseley. East Park Site A lies either side of the Pertenhall Brook, with access proposed from the B660 to the east.
- **East Park Site B** – covering land between Pertenhall, Keysoe, and Little Staughton. East Park Site B comprises arable fields located north of an elevated ridgeline which runs between Keysoe and Little Staughton. East Park Site B is crossed by a number of small watercourses, with access proposed from the B660, Great Staughton Road, Little Staughton Road, and an unnamed road between Little Staughton and Great Staughton Road.
- **East Park Site C** – covering land south of Great Staughton. East Park Site C comprises arable fields located south of the River Kym, with access proposed from Moor Road to its south-eastern boundary.
- **East Park Site D** – covering land around Pastures Farm between Great Staughton and Hail Weston. East Park Site D comprises arable fields with access proposed via a new access from the B645.

3.1.5 With reference to **ES Volume 3 Figure 1-2**, there are three linear corridors proposed for underground cabling that connect the different parts of the Site and provide a grid connection to the Eaton Socon Substation. These are also shown on Figure 1-2 and identified as:

- **Cable Corridor – Site B to Site C** – which connects Site B to Site C across an unnamed road and arable fields.

- **Cable Corridor – Site C to Site D** – which connects Site C to Site D across Moor Road and arable fields.
- **Grid Connection** – Site D to Eaton Socon Substation – which connects Site D to the Eaton Socon Substation and crosses open arable fields, the Duloe Brook, Duloe Lane and Bushmead Road.

3.1.6 A further detailed description of the local context of the Site is provided within **ES Vol 1 Chapter 1: Introduction [EN010141/DR/6.1]**.

3.2 Site Access Arrangements

3.2.1 Access to the Site is currently achieved via a series of both gated and ungated field accesses. In total, 9no. existing field accesses will form part of the proposed access strategy, along with the existing access junctions to the Pertenhall Solar Farm, Eaton Socon Substation and Zantra Business Park, and an existing access off Duloe Lane which currently serves a sewage pumping station. A further 7no. new points of access will also be required as part of the proposed site access strategy.

3.2.2 A full description of each of the proposed site access junctions is included in **Table 3.1** below. In total there are 20 permanent or temporary points of access with the public highway. Each access has been identified with a specific Site Access (SA) reference number from SA01 to SA20. The proposed site access locations are illustrated and referenced on **ES Vol 3 Figure 2-4: Proposed Site Access [EN010141/DR/6.3]**

Table 3.1: Proposed Site Access Locations

Ref.	Existing, Proposed or Upgraded Access?	Location	Description	Purpose
SA01	Existing	B660 Kimbolton Road	Existing access to Pertenhall Solar Farm, provides access to Site A	Construction Operation Decommissioning
SA02	Upgraded	B660 Kimbolton Road	Upgrade existing field access,	Construction

Ref.	Existing, Proposed or Upgraded Access?	Location	Description	Purpose
			provides western access to Site B	Operation Decommissioning
SA03	Upgraded	Great Staughton Road	Upgrade existing field access, provides access to single field in Site B	Construction Operation Decommissioning
SA04	Upgraded	Great Staughton Road	Upgrade existing field access, provides access to single field in Site B	Construction Operation Decommissioning
SA05	Upgraded	Great Staughton Road	Upgrade existing field access, provides access to single field in Site B	Construction Operation Decommissioning
SA06	Upgraded	Great Staughton Road	Upgrade existing field access, provides access to north of Site B	Construction Operation Decommissioning
SA07	Upgraded	Little Staughton Road	Upgrade existing field access, provides access to west of Site B	Construction Operation Decommissioning
SA08	Proposed	Little Staughton Road	New access, provides access to east of Site B	Construction Operation Decommissioning
SA09	Upgraded	Little Staughton Road	Upgrade existing field access, provides access to south of Site B	Construction Operation Decommissioning
SA10	Upgraded	Spring Hill Road	Upgrade existing field access, provides eastern access to Site B	Construction Operation Decommissioning

Ref.	Existing, Proposed or Upgraded Access?	Location	Description	Purpose
SA11	Proposed	Spring Hill Road	Temporary access required for laying cable between Site B and Site C	Construction Decommissioning
SA12	Upgraded	Great Staughton Road	Upgrade to existing access to provide access from Site A / B to Site C / D	Construction Operation Decommissioning
SA13	Upgraded	Moor Road	Upgrade existing access to Site C	Operation
SA14	Proposed	Moor Road	Temporary access required during construction and decommissioning to provide access to Site C from Site D, and to lay cable between Site C and Site D	Construction Decommissioning
SA15	Proposed	Moor Road	Temporary access required during construction and decommissioning to provide access to Site C from Site D, and to lay cable between Site C and Site D	Construction Decommissioning
SA16	Proposed	B645	Main Site Access, and access to Site D	Construction (inc. Abnormal Load) Operation Decommissioning
SA17	Proposed	Duloe Lane	Temporary access required to lay grid connection	Construction Decommissioning

Ref.	Existing, Proposed or Upgraded Access?	Location	Description	Purpose
			between Site D and Eaton Socon Substation	
SA18	Existing	Duloe Lane	Existing access from Duloe Lane to provide temporary access to fields south of Duloe Lane for laying grid connection to Eaton Socon Substation	Construction Decommissioning
SA19	Proposed	Bushmead Road	Temporary access required to lay grid connection between Site D and Eaton Socon Substation	Construction Decommissioning
SA20	Existing	Bushmead Road	Existing access from Bushmead Road to the Eaton Socon Substation, required on temporary basis to lay grid connection between Bushmead Road and Eaton Socon Substation	Construction Decommissioning

3.2.3 The main site access will be via a new priority junction to be constructed off the B645, which will provide access into Site D (SA16). This access junction would be reached from the strategic road network (SRN) at the A1 St. Neots junction, via the B645 Kimbolton Road.

3.3 Study Area

3.3.1 The impact from construction activities will largely be experienced on the B645 between the A1 and the main site access junction. There are also some isolated locations where the internal haul route crosses or utilises short sections of the local highway network, primarily along Great Staughton Road between an existing access north-west of Site C and Spring Hill. During the operational phase the impact of maintenance trips will be negligible on the wider highway network.

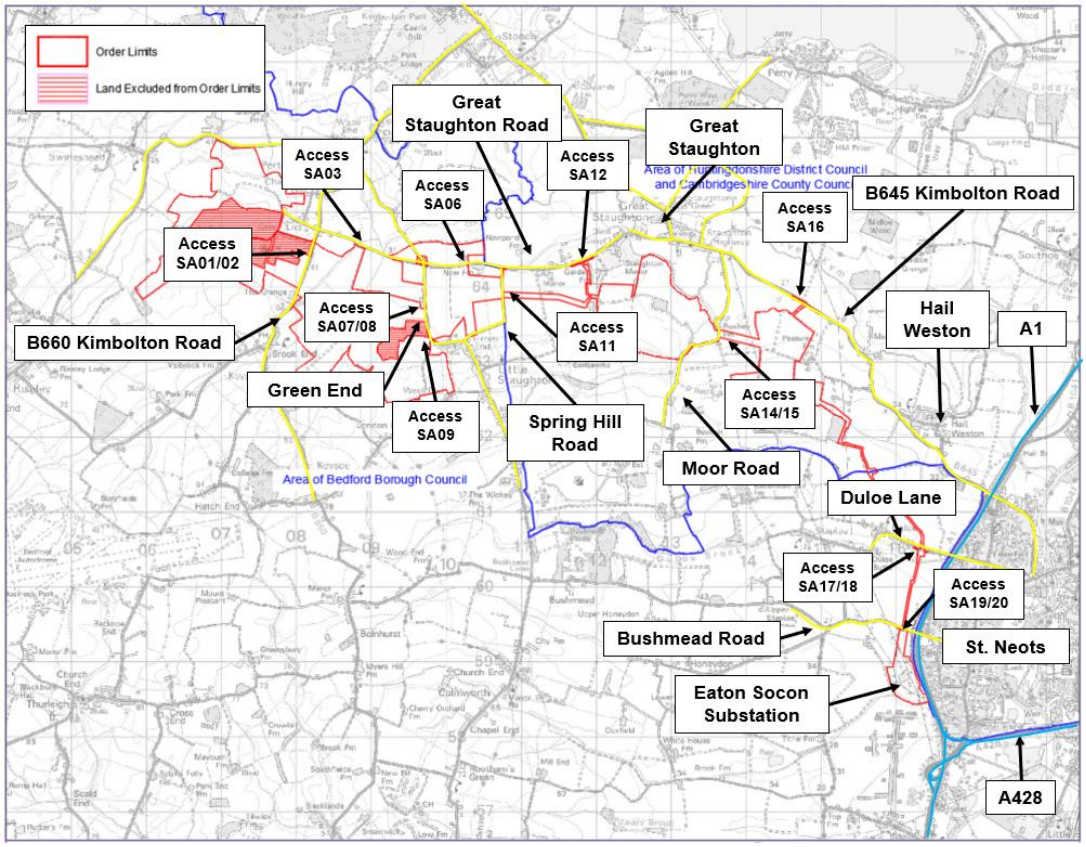
3.3.2 Accordingly, the extent of the local highway network that is relevant to potential traffic and transport impacts is illustrated in Figure 1 in **ES Vol 2 Appendix 9-2 Traffic Flow Diagrams [EN010141/DR/6.2]** and comprises the following road links:

- Link 1: B645 Kimbolton Road between A1 and Hail Weston (High Street);
- Link 2: B645 Kimbolton Road between Hail Weston (High Street) and main site access junction (SA16);
- Link 3: Moor Road at temporary haul road crossing point (SA14 / SA15);
- Link 4: Great Staughton Road between Zantra Business Park (SA12) and Spring Hill Road;
- Link 5: Spring Hill Road between Great Staughton Road and temporary access junction SA11;
- Link 6: Green End between accesses SA07 / SA08 and access SA09;
- Link 7: Green End between accesses SA07 / SA08 and Great Staughton Road;
- Link 8: Great Staughton Road between Green End and access SA03;
- Link 9: Great Staughton Road between Green End and access SA06;
- Link 10: B660 Kimbolton Road between accesses SA01 and SA02;
- Link 11: Duloe Road at grid connection crossing point between temporary accesses SA17 and SA18; and
- Link 12: Bushmead Road at grid connection crossing point between temporary accesses SA19 and SA20.

3.4 Local Highway Network

3.4.1 The location of the Site in the context of the local highway network is shown in **Image 3.2**.

Image 3.2 – Local Highway Network



3.4.2 To the west of its junction with the A1, the B645 Kimbolton Road is a two-way single carriageway road subject to the national speed limit (60mph), which runs in a generally south-east / north-west alignment. Between the A1 and the south-eastern end of Hail Weston High Street the road features a carriageway width of approximately 6.5m, with a shared foot / cycleway present along the north-eastern side of the road as far as the village of Hail Weston. There is no street lighting present, and there are no properties located along this stretch of the B645.

3.4.3 In the vicinity of Hail Weston, Kimbolton Road is subject to a 50mph speed limit, and the carriageway width reduces to approximately 6m. Within Hail

Weston there are a small number of properties (approximately 20-30 in total) located along the B645 to the north-east of the carriageway, although the majority of these are well set back from the road.

3.4.4 To the north-west of Hail Weston as far as the junction with Moor Road, the speed limit reverts to 60mph. An 18-tonne weight limit is in force along Kimbolton Road (except for loading). There are fewer than 10 properties situated along this stretch of the B645.

3.4.5 Moor Road is a two-way single carriageway road which runs in a generally north-south alignment from a priority 'T' junction with Kimbolton Road at the northern end. The road is subject to the national speed limit (60mph) and features a carriageway width of approximately 4m, with passing places present at intervals. No street lighting or footways are present, and there are very few properties (fewer than 5) situated along Moor Road between Kimbolton Road and the proposed main site access junction.

3.4.6 The proposed site access strategy will also require use of a short section of:

- Great Staughton Road to the west of the village of Great Staughton;
- Spring Hill Road and Green End to the north of the village of Little Staughton; and
- the B660 Kimbolton Road to the north of Keysoe village.

3.4.7 Great Staughton Road is a two-way single carriageway road with a carriageway width of approximately 5.5m, subject to the national speed limit (60mph). There are fewer than 5 properties situated along the impacted sections of Great Staughton Road.

3.4.8 Spring Hill Road and Green End are both two-way single carriageway roads with a carriageway width of between 5m and 5.5m along the impacted sections and are both subject to the national speed limit (60mph). There are fewer than 5 properties situated along the impacted section of Green End, and none along Spring Hill Road. Spring Hill Road joins Great Staughton

Road via a priority T-junction, and Green End joins Great Staughton Road via a priority crossroads junction.

3.4.9 The B660 Kimbolton Road is a two-way single carriageway road with a carriageway width of approximately 5.5m, subject to a 40mph speed limit. This reverts to a 60mph speed limit immediately to the south of site access SA01. There are no properties situated along the impacted section of the road.

3.4.10 The grid connection route will cross Duloe Lane and Bushmead Road to the north-west of Eaton Socon. This will require the creation of temporary crossing points for construction traffic access.

3.4.11 The impacted section of Duloe Lane will comprise a length of approximately 50m. Duloe Lane at this point is a two-way single-carriageway road with a carriageway width of approximately 5m, subject to the national speed limit (60mph). There are no properties situated along the impacted section of the road.

3.4.12 The impacted section of Bushmead Road will comprise a straight crossing, with a temporary access to be created on the northern side of the road opposite the existing Eaton Socon substation access road. Bushmead Road at this point is a two-way single-carriageway road with a carriageway width of approximately 6.5m, subject to the national speed limit (60mph). There are no properties situated along the impacted section of the road.

3.5 Highway Safety

3.5.1 The road safety record of the local highway network within the study area has been examined for the most recently available five-year period.

3.5.2 Personal injury accident (PIA) data has been obtained from CCC Road Safety Dashboard, for the period 1st ~~April 2020~~March 2021 – ~~31st March 2025~~28th February 2026 inclusive. The location and severity of the accidents are shown on **Image 3.3**. The full accident data is included as **Annex A**.

Image 3.3 – Road Safety Record Along Local Highway Network in Vicinity of Scheme (2020-2025 Inclusive) (Source: CCC)

3.5.3 A breakdown of the accidents by location and severity is provided in **Table 3.2**.

Table 3.2: Personal Injury Accident Data

Link ID	Highway Link	Incident Severity		
		Slight	Serious	Fatal
1	B645 Kimbolton Road between A1 and Hail Weston	3	~~3~~2	0
2	B645 Kimbolton Road between Hail Weston and Main Site Access junction	~~2~~1	~~1~~2	1
3	Moor Road at temporary crossing point	0	0	0
4	Great Staughton Road between Zantra Business Park and Spring Hill	0	1	0
5	Spring Hill between Great Staughton Road and site access	0	0	0
6/7	Green End between B645 and Green End	0	0	0

Link ID	Highway Link	Incident Severity		
		Slight	Serious	Fatal
8	Great Staughton Road between Green End and site access (east of The Kangaroo)	0	0	0
9	Great Staughton Road between Green End and site access (west of The Kangaroo)	0	0	0
10	B660 Kimbolton Road between site access junctions	0	0	0
11	Duloe Lane at grid connection crossing point	0	0	0
12	Bushmead Road at grid connection crossing point	0	0	0

3.5.4 **Table 3.2** indicates a total of ~~11~~ 10 accidents along the highway links within the study area, of which 5 resulted in serious injury, with ~~5~~ 4 being classified as 'slight'. Regrettably, there was also one accident which resulted in fatal injury. The majority of the accidents occurred along the B645, with ~~10no~~9no. accidents occurring to the east of the proposed main site access junction. Of these, ~~4~~ 5 accidents, comprising 2 serious and ~~2~~ 3 slight severity accidents, occurred along the B645 to the east of Hail Weston. One of the serious-injury accidents along this section of the B645 involved a collision between a car and an HGV. However, this occurred in the early hours of the morning and therefore occurred outside of the proposed hours of construction. The other serious-injury accident along this stretch of the B645 was a single-vehicle accident involving a motorcyclist.

~~3.5.5 There was also a single slight injury accident at the B645 / A1 northbound slip road junction, and a single serious injury accident at the B645 / Great North Road mini-roundabout in Eaton Ford, which provides access to / from the A1 southbound slip roads.~~

~~3.5.6~~3.5.5 A further 4 accidents occurred along the B645 between Hail Weston and the main site access junction. Of these, ~~2~~ only 1 slight injury accident~~s~~ occurred in the immediate vicinity of the proposed main site access junction location. ~~However, one of these~~This accident~~s~~ occurred on a Saturday afternoon, ~~with the other occurring in the early hours of the morning. As~~and as such did not occur~~, neither of these accidents occurred~~ during the proposed hours of construction. There were also 2 accidents which occurred in a similar location on a tight bend approximately 850m north-west of Hail Weston, one resulting in serious injury and one being fatal. The serious-injury accident was a single vehicle accident involving a motorcyclist. The fatal injury accident involved a collision between a car and an HGV, although~~. However,~~ both of these accidents occurred ~~after 6pm, and therefore~~ outside of the proposed construction hours. No other details relating to the circumstances of this accident are available. Another accident involving a car and an HGV, which also resulted in serious injury, occurred approximately 50m north-west of this bend along a straight stretch of carriageway. No other details relating to the circumstances of these accidents are available.

~~3.5.7~~3.5.6 A single accident, which resulted in serious injury, occurred on Great Staughton Road approximately 430m west of the Zantra business park access junction. This also involved a collision between a car and an HGV, although no other details relating to the circumstances of this accident are available.

~~3.5.8~~3.5.7 In addition to the above accidents which occurred on the local highway network, a total of 4 accidents occurred on the A1 in the vicinity of the St. Neots junction. Of these, 2 resulted in slight injury, one of which occurred in the northbound carriageway and one in the southbound carriageway, with 1 resulting in serious injury. This involved a collision between a car and a motorcycle at the point where the northbound on-slip merges with the northbound carriageway. Regrettably, there was also a single fatal accident on the northbound on-slip. This was a single-vehicle accident involving a motorcyclist.

~~3.5.9~~3.5.8 Other than the single accident which occurred on Great Staughton Road, there were no other accidents recorded on any of the highway links which would be used to access Sites A, B and C, or at any of the locations where the proposed grid connection route crosses the public highway.

~~3.5.10~~3.5.9 None of the accidents recorded within the study area constituted a cluster site, based on the CCC definition which considers an accident cluster as being 6 or more accidents, or 3 or more serious or fatal accidents, occurring within 100m or at a junction during the most recent 3-year period. Only two of the accidents which occurred at the tight bend north-west of Hail Weston occurred within the most recent 3-year period.

~~3.5.11~~3.5.10 As such, while it is regrettable that fatal accidents occurred within the study area, it is considered that the PIA data demonstrates that there are no existing highway safety concerns which are likely to be exacerbated by the Scheme.

~~3.5.12~~3.5.11 It should be noted that the PIA data also shows that a total of 3no. accidents occurred along the B645 between the main site access and Moor Road, comprising 1 slight~~, 1 serious~~ and 1 fatal severity accident. A further 4no. accidents, comprising 2 slight and 2 serious injury accidents, occurred on the B645 within ~~Great~~ Staughton Highway, with a further slight injury accident occurring near St Andrew's Church in Great Staughton. However, it is not proposed that any construction traffic would be routed along these sections of the ~~B645~~public highway.

3.6 Existing Public Transport Facilities

3.6.1 There are no bus stops or routes along the impacted sections of Moor Road, Green End, or Great Staughton Road.

3.6.2 The 150 bus service, which provides 4 buses per day between Eynesbury and Tilbrook, runs along the B645 Kimbolton Road, although there are no bus stops located along the impacted section of the road. The nearest served stops are located within the village of Hail Weston, approximately 2km south-

east of the main site access, and in Great Staughton approximately 530m west of the B645 Kimbolton Road / Moor Road junction.

3.6.3 The 28A bus service provides 3 buses per day in the southbound direction along the B660 Kimbolton Road, as part of a circular route between Bedford and Little Staughton. There are no bus stops located along the impacted section of the road. The nearest informal stopping place is located at the B660 Kimbolton Road / Great Staughton Road junction, approximately 130m north of the proposed construction access route, although no formal bus stop infrastructure is provided.

3.7 Non-Motorised User Networks

3.7.1 The Site is accessible on foot via Moor Road, Green End and the B660 Kimbolton Road. As noted above, there is generally limited footway provision along the key highway links within the study area, and the impacted sections of road are entirely unlit.

3.7.2 NCN Route 12 runs along the B645 Kimbolton Road between the A1 and Hail Weston. A shared foot/cycleway is present along the north-eastern side of the road to facilitate cycle travel along this section of the carriageway. This route also runs along Bushmead Road in the vicinity of the grid connection crossing point.

3.7.3 There are a number of PRoW which either cross the Site or pass close to the Order Limits. These include various rights of way which are suitable for equestrian use. The PRoW network within the vicinity of the Site comprises the routes as follows:

- Bedford Pertenhall 2 (Footpath 2);
- Bedford Pertenhall 10 (Footpath 10);
- Bedford Pertenhall 11 (Footpath 11);
- Bedford Pertenhall 17 (Footpath 17);
- Bedford Pertenhall 18 (Footpath 18);
- Bedford Pertenhall 26 (Bridleway 26);

- Bedford Pertenhall 29 (Footpath 29);
- Bedford Bolnhurst and Keysoe 13 (Footpath 13);
- Bedford Bolnhurst and Keysoe 32 (Footpath 32);
- Bedford Bolnhurst and Keysoe 34 (Footpath 34);
- Bedford Bolnhurst and Keysoe 35 (Footpath 35);
- Bedford Bolnhurst and Keysoe 36 (Footpath 36);
- Bedford Bolnhurst and Keysoe 37 (Bridleway 37);
- Bedford Bolnhurst and Keysoe 40 (Bridleway 40);
- Bedford Bolnhurst and Keysoe 47 (Footpath 47);
- Bedford Bolnhurst and Keysoe 50 (Footpath 50);
- Bedford Bolnhurst and Keysoe 112 (Footpath 112);
- Bedford Swineshead 15 (Footpath 15);
- Bedford Little Staughton 1 (Footpath 1);
- Bedford Little Staughton 3 (Footpath 3);
- Bedford Little Staughton 4 (Footpath 4);
- Bedford Little Staughton 8 (Footpath 8);
- Bedford Little Staughton 10 (Footpath 10);
- Bedford Little Staughton 11 (Footpath 11);
- Bedford Little Staughton 26 (Footpath 26);
- Bedford Staploe 16 (Footpath 16);
- Cambridgeshire Great Staughton 1 (Footpath 213/1);
- Cambridgeshire Great Staughton 2 (Footpath 213/2);
- Cambridgeshire Great Staughton 23 (Footpath 213/23);
- Cambridgeshire Great Staughton 28 (Footpath 213/28);
- Cambridgeshire Hail Weston 5 (Footpath 112/5);
- Cambridgeshire Hail Weston 7 (Bridleway 112/7);
- Cambridgeshire Hail Weston 8 (Footpath 112/8);
- Bedford Staploe 4 (Footpath 4);
- Bedford Staploe 8 (Footpath 8);
- Bedford Staploe 8A (Footpath 8A); and
- Bedford Staploe 16 (Footpath 16).

3.7.4 The PRoW network listed above is illustrated within the **Streets, Rights of Way and Access Plans [EN010141/DR/2.4]**.

3.7.5 It is anticipated that access to all PRoW routes will be maintained during the construction phase, with management in place to ensure that all routes can be safely used, including temporary diversion where necessary. The proposed mitigation to manage and limit the impact of the Scheme on the PRoW network is set out within the **outline Public Right of Way Management Plan [EN010141/DR/7.8]** and summarised in **Section 7.6**.

4.0 DEVELOPMENT PROPOSALS

4.1 Overview

4.1.1 The Scheme comprises a new ground-mounted solar photovoltaic energy generating station with an associated BESS and on-site substation, as well as the construction of a 400 kV electrical cable connection between the on-site substation and National Grid's Eaton Socon substation.

4.1.2 The Scheme would allow for the generation and export of 400 megawatts (MW) of electricity to the National Grid from the solar photovoltaic energy generating station and would be capable of exporting and importing up to 100 MW via the BESS.

4.1.3 The construction of the Scheme would be undertaken in different work packages to enable the development to be delivered in the most efficient manner. These work packages are described within **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]**.

4.1.4 The primary construction phases, as illustrated in **ES Vol 2 Appendix 2-1: Indicative Construction Phasing and Resource Schedule [EN010141/DR/6.2]**, are as follows:

i) Enabling Works (Months 1 to 3)

a. Establishment of Main Construction Compound in Site D;
b. Establishment of Main Site Access from B645 into Site D to the Main Construction Compound;
c. Establishment of access tracks and temporary access tracks across Sites A, B, C and D;
d. Establishment of crossing points over drainage ditches and existing utilities; and
e. Establishment of satellite compounds in Sites A, B and C.

ii) Construction of the East Park Substation (Months 2 to 12);

a. Establishment of internal access roads, fencing and surfacing;

b. Establishment of foundations for the transformers, control building and electrical equipment;
c. Construction of the control building;
d. Establishment of metallic structures for the electrical equipment;
e. Delivery and installation of the 400 kV transformers;
f. Installation of switchgear, cabling and other equipment;
g. Establishment of other minor ancillary works.

iii) Construction of the 400 kV Grid Connection (Months 3 to 13);

a. Establishment of temporary access road and crossings;
b. Excavation of trench in sections;
c. Excavation and construction of cable jointing chambers in sections;
d. Laying of cable conduits in the trenches between cable jointing chambers;
e. Pouring of concrete around the conduits and backfilling of trench with soils;
f. Cable pulling between cable jointing chambers;
g. Connecting of cables within cable jointing chambers;
h. Establishment of new generation bay within the Eaton Socon Substation;
i. Testing and commissioning of grid connection;
j. Sealing of cable jointing chambers and backfilling of land above cable jointing chambers; and
k. Removal of temporary access road and reinstatement of all land.

iv) Construction of the East Park BESS (Months 7 to 24);

a. Establishment of internal access roads, fencing and surfacing;
b. Establishment of foundations for the battery storage units, transformers, control building, auxiliary transformer and water storage tanks;
c. Establishment of internal cable trenches between equipment;
d. Installation of cabling;
e. Delivery and installation of battery storage units, transformers, control building, auxiliary transformer and water storage tanks; and
f. Testing and commissioning of BESS.

v) **Construction of East Park Sites A, B C and D (Months 2 to 30).**

a. Establishment of fencing;
b. Marking out locations of solar PV tables, solar transformers, and trenches;
c. Excavation of trenches and laying of conduit for cables;
d. Establishment of surface water drainage infrastructure;
e. Establishment of foundations for solar transformers (and centralised inverters if used);
f. Establishment of solar PV mounting structures;
g. Installation of solar PV modules, inverters, and transformers;
h. Establishment of CCTV and monitoring systems;
i. Construction of storage, operations and maintenance building;
j. Installation of low voltage cabling between solar PV modules, string inverters, transformers and CCTV;
k. Installation of 33 kV high voltage cabling between solar transformers and East Park Substation;
l. Testing and commissioning; and
m. Establishment of soft landscaping in areas of habitat mitigation.

4.2 Construction Programme

4.2.1 The construction phase is expected to last for approximately 30 months, based on experience of constructing other similar-scale installations across Europe. For the purpose of this assessment, it has been assumed that construction would proceed in line with the indicative phasing and resourcing schedule in **ES Vol 2 Appendix 2-1: Indicative Construction Phasing and Resourcing Schedule [EN010141/DR/6.2]**.

4.2.2 In order to present a robust assessment of the potential impacts of the Scheme, the construction phasing and resourcing schedule assumes some overlap between the construction programmes for the main scheme elements. Based on this assumption, construction would commence in early 2028, with completion in mid- to late-2030.

4.2.3 The peak period for construction HGV traffic is forecast to occur in month 2, with construction staff movements peaking in month 12. The assessment will therefore consider a peak construction year of 2028.

4.2.4 Construction activities would take place 5.5 days per week (Monday – Saturday), during the following hours:

- Monday to Friday 08:00-18:00;
- Saturday 08:00-13:00; and
- No construction would occur on Sundays and Bank Holidays.

4.2.5 There may be instances where operations are required outside the above times e.g. delivery of abnormal loads, fit out of internal equipment within the substations, other quiet non-intrusive works such as electrical testing, commissioning and inspection. In such instances it would be necessary to agree a modification to the working hours with the LHA.

4.3 Construction Staff

4.3.1 It is anticipated that the average number of workers on Site across the construction phase would be 496, with a peak workforce of 854 in Month 12. The workforce would be distributed across the Site with work happening in parallel across the substation, BESS, grid connection, and solar areas in Sites A, B, C and D.

4.3.2 An illustrative workforce resource schedule is presented in **ES Vol 2 Appendix 2-1: Indicative Construction Phasing and Resourcing Schedule [EN010141/DR/6.2]**.

4.4 Construction Compounds

4.4.1 The main construction compound will be located in Site D close to the main site access from the B645 to the north-east. The main construction compound would comprise offices and welfare facilities, car parking, materials and equipment storage area, and vehicle manoeuvring and unloading area.

4.4.2 Satellite compounds would also be located across Sites A, B and C in relation to the construction phasing of the solar PV areas. These compounds would be smaller in footprint than the main construction compound but would still provide offices and welfare facilities, car parking, materials and equipment storage area, and vehicle manoeuvring and unloading area.

4.4.3 There would be no dedicated construction compounds located along the grid connection as excavated soils would be stored adjacent to the trench, and materials such as conduit, concrete and cabling would be delivered to the main construction compound and installed along the grid connection as and when required.

4.4.4 The main compound would include the main site offices, site security, employee parking and the main site welfare, together with a fenced laydown area for storing plant, material, equipment and components. Dedicated waste storage, fuel and oil chemical stores, concrete washout areas and refuelling stations would be provided within the main compounds. Temporary buildings, potentially double stacked to reduce footprint, would be installed to provide:

- Site office space
- Toilets and showers
- Canteen facilities
- Drying room
- Storage and security offices

4.4.5 The smaller satellite construction compounds would include areas for storing plant, material, equipment and components. Additionally, it is expected that there would be multiple mobile welfare units (toilets, drying rooms and canteen units) that would move around the Site as work progresses.

4.5 Proposed Site Access Arrangements

4.5.1 The proposed construction access strategy is described in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]**. In summary, it is proposed that construction traffic will approach the Site via the B645 Kimbolton Road from

the SRN at the A1 at St Neots. Alongside utilising sections of the public highway, a temporary access road will be constructed to facilitate vehicle movements between different parts of the Site via a series of temporary and permanent site access junctions. The construction access strategy has been designed to avoid vehicles using the public highway as far as practicable.

4.5.2 The indicative construction access routes are illustrated on **ES Vol 3 Figure 2-5: Illustrative Construction Access and Compounds [EN010141/DR/6.3]**, while the proposed site access locations are illustrated and referenced on **ES Vol 3 Figure 2-4: Proposed Site Access [EN010141/DR/6.3]**. A full description of each of the proposed site access junctions is included in **Table 3.1**. In total there are 20 permanent or temporary points of access with the public highway. Each access has been identified with a specific Site Access (SA) reference number from SA01 to SA20.

4.5.3 The main site access during construction will be created from the B645 into East Park Site D (ref. SA16 in **Table 3.1**), and this will be located approximately 3.7km north-west of the A1 / B645 junction, and 1.4km south-east of a junction between the B645 and Moor Road. All HGVs and construction staff would access the Site via the main site access, arriving into Site D.

4.5.4 Once vehicles arrive in Site D from the main site access off the B645, a temporary access road will connect westward across fields to Site C, avoiding the use of Moor Road aside from a single crossing point. From Site C, access will be taken north-west via a new track to an existing HGV access to Great Staughton Road where vehicles will follow the public highway to access Site B, thus avoiding large volumes of traffic passing through Great Staughton. Vehicles would be routed through Site B crossing Green End close to Lodge Farm before continuing west towards the B660. At the B660 vehicles would follow the public highway for a short section before accessing Site A using an existing access at Manor Farm.

4.5.5 The grid connection route will require the creation of temporary crossing points for construction traffic access across Duloe Lane and Bushmead Road to the north-west of Eaton Socon.

4.5.6 An **outline Construction Traffic Management Plan (oCTMP) [EN010141/DR/7.4]** has also been prepared as part of the application. The oCTMP sets out the proposed measures that would be implemented to minimise the impact of construction traffic on local communities by defining the routes that construction traffic must take, any timing restrictions in relation to the use of certain routes, and the penalties to contractors if the oCTMP is not adhered to. The oCTMP is a control document that will be certified as part of the DCO and implemented via a Requirement in Schedule 2 of the **draft DCO [EN010141/DR/3.1]**. Should the Scheme be consented, the DCO will require that a final Construction Traffic Management Plan (CTMP) in substantial accordance with the oCTMP is prepared prior to commencing the construction phase.

4.6 Site Access Visibility Splays

4.6.1 Visibility splay requirements at the proposed Site access locations which will be required during the operational phase have been designed in accordance with the desirable minimum stopping sight distances as set out in Design Manual for Roads and Bridges (DMRB) CD 109 Highway Link Design, extrapolated from the recorded 85th percentile speeds obtained from the ATC data collected at the approaches to each Site access, other than at the main site access (SA16), which has been designed in accordance with the DMRB desirable minimum stopping sight distance based on the design speed for the B645.

4.6.2 For Site accesses which will be required on a temporary basis during the construction phase only, visibility splay requirements have been extrapolated from stopping sight distances extrapolated from Manual for Streets (MfS), based on the recorded 85th percentile speeds obtained from the ATC data collected at the approaches to each access. It is proposed that temporary

speed restrictions and traffic management will be implemented in these locations to control vehicle speeds in these locations during the construction phase (see **Section 7.4**).

4.6.3 The visibility splays at each Site access are illustrated on Figures 1 to B14 in Appendix D of the **oCTMP [EN010141/DR/7.4]**. These figures illustrate that the required visibility splays are achievable within the public highway, other than at two locations where the required visibility splays cross private land adjacent to the public highway (accesses SA16 and SA19). At each of these accesses points there is no existing vegetation within the private land that obstructs views. However, it is a provision of the DCO that no obstructions are erected within the visibility splay and, if required, existing features will be managed to maintain visibility.

4.7 Swept Path Assessment

4.7.1 In order to demonstrate that the Site can be safely and satisfactorily accessed, swept path assessments have been undertaken using a 16.5m articulated lorry, which is the largest vehicle anticipated to require access to the Site on a regular basis during the construction period.

4.7.2 These swept path assessments are also illustrated within Figures 1 to C14 within Appendix D of the **oCTMP [EN010141/DR/7.4]**. These figures show that the proposed Site accesses and sections of road network leading to them can satisfactorily cater for construction-related vehicles requiring access to the Site for the majority of the access junctions. This includes two-way movement of 16.5m articulated lorries at the main site access (SA16).

4.7.3 The swept path assessment does, however, identify that minor road widening works will be required to facilitate the two-way movement of HGVs along Spring Hill Road between Great Staughton Road and access SA10 during the construction phase.

4.7.4 It should also be noted that any damage that is caused to the highway as a result of large vehicles associated with the construction of the Scheme would

be made good by the Applicant. This is secured by the **outline Construction Environmental Management Plan [EN010141/DR/7.3]** to ensure that the condition of the construction routes ~~are~~ is recorded both before / after the installation period, along with interim inspections during the construction phase, and that nil detriment occurs to the local highway network.

4.7.5 During the operational phase, the largest vehicle to require access to the Site on a regular basis would be a four-wheel drive vehicle or small van for maintenance purposes. A number of turning areas have been provided internally within the Site to cater for maintenance (operational) vehicles requiring access. However, the swept path assessment clearly demonstrates that the access junctions would safely accommodate access for any larger vehicles that are required for maintenance activities during the operational phase.

4.8 Operational Phase

4.8.1 During the operational phase, access to the Site would principally be to the East Park BESS and substation, and to the wider site for routine maintenance operations, replacement of faulty equipment, habitat management, and farming activities. It is expected that there would be up to 20 full time equivalent (FTE) staff on-site at any one time, split between site maintenance, management and administrative roles, and land management tasks. There will also be a small number of visitor trips per week for deliveries and servicing of equipment. Operational access would be via the existing public highway with limited traffic movements expected. The storage, operations and maintenance building would contain spare equipment and tools for routine repairs and maintenance.

4.8.2 As identified within Table 2.33 in **ES Vol 1 Chapter 2: The Scheme [EN01041/DR/6.1]**, several of the proposed access junctions would be temporary, for use during the construction and decommissioning phases. The proposed site access arrangements and internal access tracks that would be

used during the operational phase are illustrated in **ES Vol 3 Figure 2-5: Illustrative Construction Access and Compounds [EN010141/DR/6.3]**.

4.8.3 Maintenance access to the Site would primarily be by four-wheel drive vehicles or vans. The requirement for HGV access to the Site during the operational phase will be rare, for example for exceptional maintenance activities such as the replacement of transformers. Such activities are likely to only occur once every 5-10 years. Further detail on the indicative operational lifespan of key individual components of the Scheme is included within Table 2-35 in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]**. Any HGV movements required during the operational phase would be controlled by the measures set out in the **outline Operational Environmental Management Plan (oOEMP) [EN010153/DR/7.5]**.

4.9 Decommissioning Phase

4.9.1 When the operational phase ends the Scheme would require decommissioning. All solar modules, mounting poles, cabling, inverters, transformers, BESS equipment, the East Park substation, and fencing would be removed from the Site and recycled or disposed of in accordance with applicable regulations, guidelines and good practice at that time. The Site would be returned to a condition suitable for return to its original use after decommissioning.

4.9.2 Decommissioning is expected to take between 12 and 24 months and would be undertaken in phases. The effects of decommissioning are often similar to, or to a lesser magnitude than, the construction effects. An **outline Decommissioning Environmental Management Plan (oDEMP) [EN010141/DR/7.6]** has been prepared to support the DCO application. It will provide a framework for the management of environmental impacts during the decommissioning phase of the Scheme, including transport impacts. The oDEMP will also set out monitoring and auditing activities which would be used to ensure mitigation measures are carried out, recorded and effective. Post-consent, this outline plan will be developed into a final plan which must

be in substantial accordance with the outline, and the Scheme must be decommissioned in accordance with that final plan. A Decommissioning Traffic Management Plan will be prepared as part of the final DEMP. This is secured via a Requirement in Schedule 2 of the **draft DCO [EN010141/DR/3.1]**.

4.9.3 As such, no further detailed assessment of traffic and transport effects during the decommissioning phase has been undertaken at this stage. For the purposes of this TA, it is assumed impacts during construction are representative of reasonable worst case impacts during decommissioning, with the same HGV numbers and routing assumed.

5.0 TRAFFIC GENERATION AND DISTRIBUTION

5.1 Introduction

5.1.1 This section of the TA sets out the methodology used to forecast the trip generating potential of each phase of the Scheme and how these trips would be distributed across the local highway network.

5.1.2 The anticipated trip generation associated with the Scheme has been derived utilising industry knowledge and information supplied by the Applicant.

5.1.3 During the operational phase there would be a nominal number of staff on site at any one time (up to approximately 20 FTE staff per day), primarily undertaking maintenance tasks, along with a small number of visitor trips per week for deliveries and maintenance activities. As agreed at the EIA scoping stage, the transport impacts of the operational phase have therefore been scoped out of further detailed assessment within this TA. Any maintenance or replacement activities that may require periods of traffic generation would not involve the intensity of construction required at the outset of the project and would in any event be controlled by the measures set out in the **outline Operational Environmental Management Plan (oOEMP) [EN010153/DR/7.5]**. As such, any impacts would be less than those assessed for construction below.

5.1.4 The traffic generation forecasts presented in this TA primarily relate to the construction period. For clarity, the trip generation forecasts are described as two-way movements, covering both the arrivals to and departures from the Site; 1 arrival and 1 departure therefore equates to 2 two-way movements.

5.2 Trip Generation during the Construction Period

5.2.1 As identified in **Section 4.2**, the construction of the Scheme is expected to last for approximately 30 months (120 weeks), and this is the assessed period of the purposes of the TA. Construction activities would occur over 5.5 days

per week, between 08:00 – 18:00 Monday to Friday, and 08:00 – 13:00 on Saturday.

5.2.2 Trip rates cannot be obtained from the industry standard Trip Rate Information Computer System (TRICS) database as solar developments are not accounted for within the database. The traffic-generating potential of the Scheme has therefore been calculated utilising industry knowledge and information supplied by the Applicant regarding the Scheme.

5.3 HGV Traffic Generation

5.3.1 As described in **Section 4.1**, the construction programme would be split into a series of phases. The construction deliveries required for the various construction activities within each work package would predominantly require the use of the following vehicle types:

- 26-tonne 16.5m articulated HGV;
- 30-tonne 6- or 8-wheel tipper; and
- 6m^3 concrete mixer truck.

5.3.2 **Table 5.1** summarises the forecast total numbers of each vehicle type that are anticipated to be required for each phase during the 30-month construction period. This includes trips associated with the enabling works phase for each element of the Scheme.

Table 5.1 – Estimated Construction Traffic Generation (for duration of Construction Phase)

Phase	Number of Loads
Construction of PV Solar Arrays	
Site A	
- 16.5m Artic	393
- 30t Tipper	331
- Mixer Truck	0
Total	*724*
Site B	
- 16.5m Artic	1,070
- 30t Tipper	582
- Mixer Truck	0
Total	*1,652*

Site C	
- 16.5m Artic	306
- 30t Tipper	241
- Mixer Truck	0
Total	547
Site D	
- 16.5m Artic	271
- 30t Tipper	225
- Mixer Truck	257
Total	753
Construction of BESS / Substation	
- 16.5m Artic	164
- 30t Tipper	158
- Mixer Truck	758
Total	*1,080*
Grid Connection to Eaton Socon Substation	
- 16.5m Artic	57
- 30t Tipper	0
- Mixer Truck	465
Total	522
Other Misc. Deliveries (Welfare, Fuel, Water, Refuse) (LGVs)	
Total	*790*
Total HGVs	***5,278***
Total LGVs	***790***
TOTAL (one-way deliveries)	**6,068**
TOTAL (two-way vehicle movements)	**12,136**

5.3.3 As summarised in **Table 5.1**, it is anticipated that the total number of one-way delivery trips requiring access to the Scheme would be approximately 6,068 (12,136 two-way movements). This equates to an average of approximately 202 delivery trips (404 two-way movements) per month across the full 30-month construction period.

5.3.4 The majority of delivery trips – 5,278 one-way trips in total (10,556 two-way movements) – would comprise HGV deliveries. The trips associated with welfare provision, fuel and waste – 790 one-way trips in total (1,580 two-way movements) – are anticipated to involve deliveries by light goods vehicle.

5.3.5 It is acknowledged that the HGV delivery schedule is unlikely to follow a 'flat' profile throughout the construction phase and that there are likely to be peaks and troughs of HGV deliveries. However, the construction period would be

structured such that the various work packages would run concurrently where practicable. The indicative resourcing schedule included in **Annex B** sets out the forecast breakdown of construction deliveries across the construction programme.

5.3.6 This indicates that the most intensive phase of activity with regard to HGV movements is anticipated to relate to the delivery of aggregate for the construction of access tracks and compounds. This is likely to occur over a 12-week period between months 1 to 3 of the construction programme, peaking in month 2 at approximately 664 HGV deliveries (1,328 two-way movements).

5.3.7 With regards to the above, **Table 5.2** sets out the assumptions and associated traffic generation forecasts for the forecast number of construction-related deliveries (excluding staff) on a daily basis.

Table 5.2 – Assumptions and Trip Generation Forecasts for Daily HGV Deliveries

Breakdown of Trip Generation Proportions	
There would be 55 operating hours per week (5 x 10-hour weekdays and 1 x 5-hour Saturday)	
As a proportion of the weekly operating hours, weekdays would account for 91% of weekly trips (over 5 weekdays)	
This equates to 18.2% of weekly trips per weekday (i.e. 91% / 5)	
As a proportion of the weekly operating hours, Saturdays would account for 9% of weekly trips	
Traffic Generation	
Deliveries (Months 1-30)	
Across the full 30-month construction period, there would be:	10,556 two-way HGV movements, in total
	1,580 LGV movements, in total
This equates to:	82 two-way HGV movements per week (on average)*
	12 two-way LGV movements per week (on average)*
Based on the proportional breakdown of operational hours above, this equals	16 two-way HGV movements per weekday, on average*
	2 two-way LGV movements per weekday, on average*
And,	8 two-way HGV movements per Saturday, on average*
	1 two-way LGV movement per Saturday, on average*
Deliveries (Peak, Month 2)	

During Month 2 of the construction period, there would be:	1,328 two-way HGV movements, in total
	90 two-way LGV movements, in total
This equates to:	332 two-way HGV movements per week (on average)*
	23 two-way LGV movements per week (on average)*
Based on the proportional breakdown of operational hours above, this equals	60 two-way HGV movement per weekday, on average*
	4 two-way LGV movements per weekday, on average*
And,	30 two-way HGV movements per Saturday, on average*
	2 two-way LGV movement per Saturday, on average*

* Rounded up, for robustness.

5.3.8 As set out in **Table 5.2**, on average across the full 30-month construction period there is expected to be a total of approximately 18 two-way delivery-related movements per day on weekdays (comprising 16 two-way HGV movements and 2 two-way LGV movements), and 9 two-way movements on Saturdays, on average (comprising 8 two-way HGV movements and 1 two-way LGV movement).

5.3.9 Construction HGV movements are forecast to peak during month 2, when there is expected to be up to 64 two-way delivery-related movements per day on weekdays (60 two-way HGV movements and 4 two-way LGV movements), and 32 two-way delivery-related movements on Saturdays, on average (30 two-way HGV movements and 2 two-way LGV movements).

5.3.10 This level of traffic generation is considered to be de minimis in nature, equating to 2 two-way HGV movements per hour, on average, across the full 30-month construction period. During the peak period in month 2 there would be a maximum of approximately 10 two-way HGV movements per hour.

5.4 Construction Staff Trips

5.4.1 In addition to the above HGV and LGV movements associated with deliveries of materials, around 496 construction-related staff would require access to the Site per day, on average, across the full 30-month construction programme. However, the period of peak construction activity in terms of staff

numbers would occur during the 18-month period between months 7 and 24. There would be an average of 705 staff on site each day during this period.

5.4.2 The indicative resourcing schedule in **Annex B** shows that the period of activity requiring the maximum number of staff on site would occur in month 12, when there would be a maximum of approximately 854 staff per weekday, and 427 staff at weekends.

5.4.3 The **outline Construction Traffic Management Plan (oCTMP) [EN010141/DR/7.4]**, to be secured in the DCO, includes an outline Construction Workers Travel Plan, which sets out a number of measures to be implemented which will aim to encourage construction workers to consider ways of travelling to the Site via means other than individual private car.

5.4.4 Specifically, the Applicant would provide a minibus service to transport construction staff between the main construction compound in Site D and the outlying areas of the Site. During the period of peak construction activity there is potential for this internal minibus service to be extended to provide transport for staff to the Site from nearby transport hubs, town centres and/or local accommodation. Although no assumptions have been made with regards to this for the purposes of this assessment, it is nonetheless considered that the forecast construction staff trip generation set out above represents a conservative and robust assumption, as there is potential for this level of traffic to be further reduced through the Applicant's commitment to explore the provision of staff minibuses where appropriate during peak periods of construction activity.

5.4.5 ~~As such, it is~~It is also anticipated that a significant number of staff would participate in a car share, thereby reducing the number of trips to the Site. This has been the case on a number of large schemes, which would likely result in a much-reduced daily staff trip generation.

5.4.6 For the purpose of this assessment, therefore, an average car occupancy of ~~2~~ 1.4 has been assumed for construction staff trips to the main site access. As such, the proposed construction phase is forecast to result in

approximately ~~496~~ 708 two-way staff vehicle movements per day, on average, across the full 30-month construction period, and 1,008 daily two-way staff trips on average between months 7 and 24. During the peak of construction staff activity in month 12, there would be a maximum of around ~~854~~ 1,220 two-way staff vehicle movements per day.

5.4.7 It is forecast that the majority of staff trips would arrive in the hourly period prior to construction activities commencing and would depart in the hourly period at the end of the daily construction hours. As per the anticipated daily hours of construction set out in **Section 4.2** above, staff would therefore arrive at the Site before 08:00 and would depart after 18:00. Staff trips would therefore generally take place outside of the network AM and PM peak hours.

5.5 Total Construction-Related Traffic Generation

5.5.1 Overall, the Scheme is forecast to generate a total of approximately ~~514~~ 726 two-way vehicle movements per weekday on average throughout the full 30-month construction period (inclusive of 16 two-way HGV movements).

5.5.2 During the peak period of maximum HGV trip generation in month 2, the Scheme is forecast to generate a total of ~~110~~ 130 two-way vehicle movements per weekday, on average (inclusive of 60 two-way HGV movements), with approximately ~~60~~ 70 two-way vehicle movements on Saturdays (inclusive of 34 two-way HGV movements).

5.5.3 The maximum number of construction trips is expected to occur in month 12, when there would be approximately ~~878~~ 1,244 two-way trips on weekdays (inclusive of 20 two-way HGV movements), and ~~440~~ 622 two-way trips on Saturdays (inclusive of 10 two-way HGV movements).

5.5.4 It is anticipated that there would be a single shift per day, with all construction staff arriving at the Site in the hour prior to the start of shift at 08:00 and departing in the hour following the end of the working day at 18:00. It is also anticipated that HGV deliveries would be managed so as to be evenly spread throughout the working day, and to avoid highway peak hours where possible.

5.5.5 Accordingly, **Table 5.3**, **Table 5.4** and **Table 5.5** present the forecast weekday trip generation profiles based on the average trip generation for the period of peak HGV trip generation (month 2), the period of peak construction staff trip generation (month 12), and the average across the full 30-month construction period, respectively.

Table 5.3 – Average Weekday Trip Generation Profile (Peak HGVs – Month 2)

Trip Generation Profile (Typical Weekday – Month 2)										
Hour Begin	**Hour End**	**HGVs**			**Staff (One Shift)**			**TOTAL**		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
00:00	01:00			0			0	0	0	0
01:00	02:00			0			0	0	0	0
02:00	03:00			0			0	0	0	0
03:00	04:00			0			0	0	0	0
04:00	05:00			0			0	0	0	0
05:00	06:00			0			0	0	0	0
06:00	07:00			0			0	0	0	0
07:00	08:00			0	~~23~~33	0	~~23~~33	~~23~~33	0	~~23~~33
08:00	09:00	0	0	0			0	0	0	0
09:00	10:00	3	3	6	2	2	4	5	5	10
10:00	11:00	4	4	8			0	4	4	8
11:00	12:00	4	4	8			0	4	4	8
12:00	13:00	4	4	8			0	4	4	8
13:00	14:00	4	4	8			0	4	4	8
14:00	15:00	4	4	8			0	4	4	8
15:00	16:00	4	4	8			0	4	4	8
16:00	17:00	3	3	6			0	3	3	6
17:00	18:00	0	0	0			0	0	0	0
18:00	19:00			0	0	~~23~~33	~~23~~33	0	~~23~~33	~~23~~33
19:00	20:00			0			0	0	0	0
20:00	21:00			0			0	0	0	0
21:00	22:00			0			0	0	0	0
22:00	23:00			0			0	0	0	0
23:00	00:00			0			0	0	0	0
Daily Total		**30**	**30**	**60**	~~25~~35	~~25~~35	~~50~~70	~~55~~65	~~55~~65	~~110~~130

Table 5.4 – Average Weekday Trip Generation Profile (Peak Staff – Month 12)

Trip Generation Profile (Typical Weekday – Month 12)				
Hour Begin	**Hour End**	**HGVs**	**Staff (One Shift)**	**TOTAL**

		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
00:00	01:00			0			0	0	0	0
01:00	02:00			0			0	0	0	0
02:00	03:00			0			0	0	0	0
03:00	04:00			0			0	0	0	0
04:00	05:00			0			0	0	0	0
05:00	06:00			0			0	0	0	0
06:00	07:00			0			0	0	0	0
07:00	08:00			0	~~427~~610	0	~~427~~610	~~427~~610	0	~~427~~610
08:00	09:00	0	0	0			0	0	0	0
09:00	10:00	1	1	2	2	2	4	3	3	6
10:00	11:00	1	1	2			0	1	1	2
11:00	12:00	2	2	4			0	2	2	4
12:00	13:00	2	2	4			0	2	2	4
13:00	14:00	1	1	2			0	1	1	2
14:00	15:00	1	1	2			0	1	1	2
15:00	16:00	1	1	2			0	1	1	2
16:00	17:00	1	1	2			0	1	1	2
17:00	18:00	0	0	0			0	0	0	0
18:00	19:00			0		~~427~~610	~~427~~610	0	0	0
19:00	20:00			0			0	0	0	0
20:00	21:00			0			0	0	0	0
21:00	22:00			0			0	0	0	0
22:00	23:00			0			0	0	0	0
23:00	00:00			0			0	0	0	0
Daily Total		**10**	**10**	**20**	~~429~~612	~~429~~612	~~858~~1224	~~439~~622	~~439~~622	~~878~~1244

Table 5.5 – Average Weekday Trip Generation Profile (Average, Months 1-30)

Trip Generation Profile (Typical Weekday – Months 1-30 Average)										
Hour Begin	**Hour End**	**HGVs**			**Staff (One Shift)**			**TOTAL**		
		Arrive	Depart	Two-Way	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
00:00	01:00			0			0	0	0	0
01:00	02:00			0			0	0	0	0
02:00	03:00			0			0	0	0	0
03:00	04:00			0			0	0	0	0
04:00	05:00			0			0	0	0	0
05:00	06:00			0			0	0	0	0
06:00	07:00			0			0	0	0	0
07:00	08:00			0	~~248~~354	0	~~248~~354	~~248~~354	0	~~248~~354
08:00	09:00	0	0	0			0	0	0	0
09:00	10:00	1	1	2	1	1	2	2	2	4
10:00	11:00	1	1	2			0	1	1	2
11:00	12:00	1	1	2			0	1	1	2

12:00	13:00	1	1	2			0	1	1	2
13:00	14:00	1	1	2			0	1	1	2
14:00	15:00	1	1	2			0	1	1	2
15:00	16:00	1	1	2			0	1	1	2
16:00	17:00	1	1	2			0	1	1	2
17:00	18:00	0	0	0			0	0	0	0
18:00	19:00			0		~~248~~354	~~248~~354	0	~~248~~354	~~248~~354
19:00	20:00			0			0	0	0	0
20:00	21:00			0			0	0	0	0
21:00	22:00			0			0	0	0	0
22:00	23:00			0			0	0	0	0
23:00	00:00			0			0	0	0	0
Daily Total		**8**	**8**	**16**	~~**249**~~**355**	~~**249**~~**355**	~~**498**~~**710**	~~**257**~~**363**	~~**257**~~**363**	~~**514**~~**726**

5.6 Operational Phase

5.6.1 As described in **Section 4.7**, during the operational phase, there would be a nominal number of staff on Site at any one time, primarily undertaking maintenance tasks, along with a small number of visitor trips per week for deliveries and servicing of equipment. It is anticipated that vehicle numbers would not exceed 20 two-way movements per day during periods of routine maintenance, comprising cars and light goods vehicles (LGVs) / vans. There would be no regular HGV movements during the operational phase, only occasional visits.

5.6.2 This level of traffic is low in absolute terms and would not be expected to result in any material impact on highway safety or on the free flow of traffic on the surrounding highway network.

5.6.3 There would be a requirement for ad hoc replacement of components that fail or reach the end of their lifespan. The replacement of components would be periodic throughout the lifetime of the Scheme and would not involve the intensity of construction required at the outset of the project. For example, there would be no requirement for the import of aggregate, installation of cabling, or replacement of solar mounting frames.

5.6.4 As such, the magnitude of effect experienced during the replacement and maintenance works would be less than that assessed for the construction phase. Once operational it is not anticipated that there would be any requirement for below ground works that lie outside the areas impacted by the initial construction works.

5.6.5 Such replacement activities would in any case be phased, and traffic generation related to maintenance and replacement activities will be controlled by the measures set out in the **outline Operational Environmental Management Plan (oOEMP) [EN010141/DR/7.5]**, which will include the requirement for a traffic management plan covering those periods, noting that the impacts to be managed are minimal, as discussed below.

5.7 Decommissioning Phase

5.7.1 At this stage, the number of vehicle movements required during the decommissioning phase is not known, and as such the level of potential significant effects cannot be identified at this time. However, it is predicted to be similar, or less, than the construction phase, since there would be certain elements of the decommissioning works which would be less vehicle-intensive compared to the construction phase, e.g. concrete foundations and access tracks could be left in situ.

5.7.2 An **outline Decommissioning Environmental Management Plan (oDEMP) [EN010141/DR/7.6]** has been prepared, detailing management and mitigation measures and setting out the general principles to be followed in the decommissioning of the Scheme, including in relation to managing traffic impacts. This will be submitted with the DCO application. Post-consent, this outline plan will be developed into a final plan which must be in substantial accordance with the outline, and the Scheme must be decommissioned in accordance with that final plan. This is secured via a requirement in Schedule 2 of the **draft DCO [EN010141/DR/3.1]**. It is expected that the principles agreed to minimise the impact of development-related traffic during the construction phase would be reviewed and applied during decommissioning.

5.8 Development Trip Distribution

5.8.1 The exact origin of development-related HGV trips is uncertain at this stage and would be determined by the sourcing of materials and plant by the appointed contractor. However, HGVs would nonetheless be routed along the SRN as far as possible, to avoid residential areas and any statutory limits on HGV movements (such as weight restrictions).

5.8.2 As such, and as described in **Section 4.6**, the proposed access strategy for the Scheme would entail all construction HGVs and staff trips travelling from the A1 along the B645 as far as the main site access junction, which will provide access to the main construction compound within Site D. From there, construction traffic would access the other areas of the Site via the proposed network of internal temporary access tracks. The volume of construction traffic impacting on the public highway to the west of Site D would be dependent on the construction schedule.

5.8.3 The distribution of construction trips across the Site has been calculated based on the forecast trip generation schedule set out within **Annex B**, which provides an estimated breakdown of the number of staff and construction delivery trips which would be required for each element of the Site during each month of the construction period, including enabling works.

5.8.4 As described in paragraph 5.4.4, for the purpose of this assessment an average car occupancy of ~~2~~ 1.4 has been assumed with regard to construction staff trips to the main construction compound in Site D. It is proposed that a fleet of minibuses will be provided in order to transport construction staff around the Site from the main construction compound. It has been assumed that 75% of staff travelling to Sites A, B and C would be transported by minibus, and that standard sized 15-seat minibuses would be utilised for this purpose.

5.8.5 As noted above, the proposed construction schedule indicates that the maximum number of construction deliveries by HGV will not coincide with the period of peak construction activity requiring the maximum number of staff

trips. As such, the average daily construction trip generation for Sites A to D has been calculated for three scenarios:

- Period of Maximum HGVs (Month 2);
- Period of Maximum Staff (Month 12); and
- Average Across Whole Construction Period (30 months).

5.8.6 The total daily construction trip generation across each area of the Site for each of these scenarios is summarised in **Table 5.5**.

Table 5.5 – Forecast Daily Construction Vehicle Trip Generation (One-Way Trips)

Area	Scenario					
	Max HGVs		Max Staff		Average	
	HGVs	LGVs	HGVs	LGVs	HGVs	LGVs
Site D	30	~~26~~36	12	~~430~~613	8	~~249~~355
Site C	4	~~3~~5	2	~~39~~50	1	~~6~~18
Site B	8	~~2~~3	3	~~75~~97	3	~~16~~54
Site A	5	~~1~~2	2	~~37~~49	1	~~7~~23
Grid Connection	3	0	3	~~5~~6	1	~~0~~1

5.8.7 The distribution of forecast development trips across the Site is illustrated in Figures 14, 15 and 16 in **ES Vol 2 Appendix 9-2 Traffic Flow Diagrams [EN010141/DR/6.2]**.

5.8.8 It should also be noted that Site B also has a number of site access junctions which require construction traffic to use short sections of the public highway along Great Staughton Road (SA03, SA04, SA05, SA06) and Green End (SA09). Accordingly, the forecast total development trips generated by Site B have been distributed to each of these accesses based on the proportion of the overall area of Site B which is served by each of these accesses, as follows:

- Approx. Total Area of Site B = 252 Ha
- Approx. Area South of Green End (Access SA09) = 33 Ha (13%)
- Approx. Area East of Little Staughton Road (Accesses SA03 & SA04) = 20 Ha (8%)
- Approx. Area West of Little Staughton Road (Accesses SA05 & SA06) = 10 Ha (4%)

6.0 TRAFFIC IMPACT

6.1 Introduction

6.1.1 This chapter of the TA provides an appraisal of the impact of the Scheme on the operation of the local highway network, based on the forecast trip generation and distribution estimates presented in **Section 5**. The environmental effects associated with Scheme traffic are assessed within **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**.

6.2 Baseline Traffic Data

6.2.1 To inform the assessment of the Scheme, Automatic Traffic Counts (ATCs) were undertaken at a number of locations in the vicinity of the Scheme in June 2022 and April 2024, to determine the baseline traffic conditions of the local highway network. 24-hour Average Annual Daily Traffic (AADT) and 12-hour Annual Average Weekday Traffic (AAWT) flows (07:00 – 19:00) will be derived from the ATC data to enable the baseline traffic flows to be established at the required design year.

6.2.2 The location of each of the ATC surveys undertaken is shown in **Annex C**. The full ATC survey data is available on request.

6.2.3 Interrogation of the traffic survey data indicates that the network peak hours for the surrounding highway network are 08:00 – 09:00 and 17:00 – 18:00 in the AM and PM, respectively.

6.2.4 The baseline AADT and AAWT flows along each of the highway links identified in paragraph 3.3.2 above are illustrated in **ES Vol 2 Appendix 9-2 Traffic Flow Diagrams [EN010141/DR/6.2]**. The 2022 baseline AM, PM, AADT and AAWT flows are illustrated in Figures 2, 3, 4 and 5, respectively, in **ES Vol 2 Appendix 9-2**. The 2024 baseline AM, PM, AADT and AAWT flows are illustrated in Figures 6, 7, 8 & 9, respectively.

6.2.5 The 2022 and 2024 baseline traffic flows on each highway link within the study area are summarised in **Table 6.1**.

Table 6.1 – Summary of Baseline Traffic Flows (Two-Way Flows)

Link	Description	AM		PM		12hr AAWT		24hr AADT	
		Vehs	HGVs	Vehs	HGVs	Vehs	HGVs	Vehs	HGVs
2022 Baseline Traffic Flows									
1	B645 Kimbolton Road between A1 and Hail Weston	743	10	736	7	6283	102	7929	109
2	B645 Kimbolton Road between Hail Weston and main site access junction	652	8	618	1	5483	70	6742	67
3	Moor Road at temporary crossing point	28	2	19	0	301	35	297	31
6/7	Green End between B645 and Green End	57	0	63	2	500	14	528	11
8	Great Staughton Road between Green End and site access (east of The Kangaroo)	84	1	76	0	700	8	776	8
9	Great Staughton Road between Green End and site access (west of The Kangaroo)	32	0	29	0	311	4	343	2
10	B660 Kimbolton Road between site access junctions	114	2	84	0	892	15	994	13
2024 Baseline Traffic Flows									
4	Great Staughton Road between Zantra Business Park and Spring Hill	134	1	134	0	1297	9	1320	6
5	Spring Hill between Great Staughton Road and site access	57	0	53	0	559	4	555	4
11	Duloe Road at grid connection crossing point	76	0	66	0	687	7	725	4

12	Bushmead Road at grid connection crossing point	330	7	354	1	2937	43	3004	36

6.3 Assessment Time Periods

6.3.1 A review of background daily traffic patterns derived from the June 2022 and April 2024 traffic surveys suggests that maximum background traffic levels over the local highway network are experienced during the following time periods:

- Local highway network AM Peak hour: 08:00 - 09:00; and
- Local highway network PM Peak hour: 17:00 - 18:00.

6.3.2 Additionally, the weekday operational delivery hours (referred to as the 12hr AAWT in this report), and the average daily traffic allowing for Saturday construction trips (referred to as the AADT in this report) have also been considered.

6.4 Future Year Traffic Growth Assumptions

6.4.1 As described in **Section 4.2**, the construction programme is anticipated to commence in early 2028 and last for 30 months. The peak period for construction HGV traffic is forecast to occur in month 2, with construction staff movements peaking in month 12. As such, the peak of construction activity is forecast to occur in late-2028, and this has therefore been taken as the future assessment year for this assessment.

6.4.2 Guidance published by the DfT identifies that future estimates of traffic should be made through the application of regional growth factors derived from the National Transport Model (NTM). NTM forecasts give traffic growth by region, road type and whether the area is built up or not.

6.4.3 Accordingly, the 2022 and 2024 baseline traffic flow data has been factored up to a 2028 future baseline using regional growth factors derived from the NTM using the TEMPRO v8.1 database. The extent of the highway network

within the study area falls within four geographical areas: 'Bedford 001' (E02003616), 'Bedford 004' (E02003619), 'Huntingdonshire 020' (E02003767), and 'Huntingdonshire 015' (E02003772). Growth factors have therefore been obtained for each of these middle super output areas (MSOA) for an average weekday, and for the weekday AM and PM peak periods, using the 2022 NTM Core scenario, as summarised in **Table 6.2**.

Table 6.2 – TEMPRO Adjusted NTM Growth Factors

MSOA	Applicable Links	Period	Factor	
			2022 – 2028	2024 – 2028
Bedford 001 (E02003616)	B660 Kimbolton Road	Weekday AM	1.0478	1.0380
		Weekday PM	1.0485	1.0387
		Average Weekday	1.0521	1.0399
Bedford 004 (E02003619)	Green End, Spring Hill, Great Staughton Road (west of Spring Hill)	Weekday AM	1.0475	1.0379
		Weekday PM	1.0484	1.0386
		Average Weekday	1.0507	1.0401
Huntingdonshire 015 (E02003767)	Great Staughton Road (east of Spring Hill), Moor Road, B645 west of Hail Weston	Weekday AM	1.0376	1.0317
		Weekday PM	1.0356	1.0307
		Average Weekday	1.0351	1.0304
Huntingdonshire 020 (E02003772)	A1 Slip Roads, B645 east of Hail Weston, Duloe Road, Bushmead Road	Weekday AM	1.0425	1.0337
		Weekday PM	1.0378	1.0314
		Average Weekday	1.0378	1.0316

6.4.4 The TEMPRO adjusted NTM growth factors have been applied to the 2022 and 2024 baseline traffic flows presented in Figures 2 to 9 within **ES Vol 2 Appendix 9-2 Traffic Flow Diagrams [EN010141/DR/6.2]**, to produce the 2028 future year baseline traffic flows illustrated at Figures 10 to 13 in **ES Vol 2 Appendix 9-2**.

6.5 Committed Development Traffic

6.5.1 Traffic flows may change slightly as a result of cumulative developments in the area. A description of the approach taken with regard to the appraisal of cumulative developments is included within **ES Vol 1 Chapter 17: Cumulative and Intra Project Effects [EN010141/DR/6.1]**.

6.5.2 Through this process, it was established that the cumulative impact assessment with regard to traffic and transport effects should take account of the following committed developments:

- Land South of High Wood, Solar Farm (application ref. 22/01813/FUL);
- Land to North and South of Bushmead Road, Solar Farm (application ref. 24/00858/MAF); and
- Land South of Bushmead Road, BESS (application ref. 22/01828/MAF).

6.5.3 It was also identified that the following committed infrastructure schemes should also be taken into account:

- A428 Black Cat to Caxton Gibbet; and
- East-West Rail.

6.5.4 As described within Section 9.11 of **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**, only the High Wood Solar Farm development has the potential to result cumulative impacts with regard to the impact of construction traffic. This would only impact on Link 1 within the study area.

6.5.5 As assessed within Section 9.11 of **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**, the impact of additional HGV trips from cumulative development does not result in a significant impact in EIA terms. Nevertheless, for completeness the additional forecast vehicle trip generation associated with the construction of the High Wood Solar Farm has been taken into account for the purpose of this TA.

6.5.6 Vehicle trip generation for the High Wood Solar Farm development site was taken from the Indicative Traffic Management Plan which was submitted as part of the planning application for the development. This identified an anticipated construction programme of 40 weeks, with a peak traffic generation of 40 two-way vehicle movements per day (inclusive of approximately 8 daily two-way HGV movements). This peak was forecast to occur within week 9 and week 33 of the indicative construction programme.

6.6 Traffic Impact Assessment

Percentage Impact Assessment

6.6.1 The traffic impact of the Scheme during the construction phase has been appraised for the 12hr AAWT and AADT time periods within Section 9.8 of **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**. This has been undertaken in accordance with the guidance on critical thresholds for percentage traffic impacts as set out within the Institute of Environmental Management and Assessment (IEMA) publication '*Guidelines for the Environmental Assessment of Traffic and Movement*' (July 2023).

Peak Hour Traffic Impact

6.6.2 The Cambridgeshire County Council document '*Transport Assessment Requirements*' (January 2024) identifies that a junction capacity assessment would be required at any junction where there is forecast to be an increase of greater than 30 vehicle movements in either peak hour.

6.6.3 As per the forecast daily trip generation profiles set out within **Tables 5.3, 5.4** and **5.5** of this TA, the Scheme will not generate any vehicle movements during either of the highway peak hours. This will be controlled by provisions regarding the scheduling of HGV deliveries to the Site, to be set out within the oCTMP, which will be secured by the DCO.

6.6.4 Furthermore, the daily trip profiles indicate that in general across the working day, the Scheme would only generate a maximum of 10 two-way vehicle movements per hour during any hour, other than during the periods when construction staff are arriving and departing.

6.6.5 As set out in **Tables 5.4** and **5.5**, respectively, there would be approximately ~~427~~ 610 staff trips in each direction (i.e. ~~427~~ 610 arrivals in the AM peak and ~~427~~ 610 departures in the PM peak) during month 12 the period of construction activity requiring the maximum workforce, and approximately ~~248~~ 354 staff trips in each direction on average across the full construction

period. These trip generation forecasts are based on the assumption that a significant number of staff would participate in a car share, with an average car occupancy of ~~2~~ 1.4 assumed for construction staff trips to the main site access.

6.6.6 As described, in Section 5.8, it is anticipated that approximately 75% of staff travelling to Sites A, B and C would be transported around the Site from the main construction compound by minibus. As such, the main impact with regard to construction staff trips would occur along links 1 and 2 within the study area (the B645 between the A1 and the main site access).

6.6.7 However, based on the anticipated daily hours of construction, staff would travel to and from the Site outside of the observed highway AM and PM peak hours, arriving at the Site before 08:00 and departing after 18:00. Based on the observed baseline traffic data, baseline traffic flows along the B645 are significantly lower during the 'shoulder' of each peak hour compared to the peak hour itself, as shown in **Table 6.3**.

Table 6.3 – Comparison of Weekday AM and PM 2022 Observed Baseline Traffic Flows – B645

Link	Description	Direction	AM			PM		
			07:00-08:00	08:00-09:00	09:00-10:00	16:00-17:00	17:00-18:00	18:00-19:00
1	B645 Kimbolton Road between A1 and Hail Weston	EB	334	406	261	313	318	227
		WB	261	337	197	406	418	259
2	B645 Kimbolton Road between Hail Weston and main site access junction	EB	283	346	214	288	272	179
		WB	231	305	163	339	346	208

6.6.8 **Table 6.3** demonstrates that baseline traffic flows along the B645 are approximately 20% lower during the period when construction staff will be travelling to the Site compared to the AM peak hour, and approximately 35% lower during the period when construction staff will be departing the Site, compared to the PM peak hour.

6.6.9 **Table 6.4** summarises the anticipated cumulative percentage impact of the construction traffic associated with both the Scheme and the High Wood Solar

development, during the AM and PM time periods during which construction traffic will be arriving and departing, respectively. The 2028 baseline traffic flows have been calculated by applying the relevant TEMPRO growth factors set out in **Table 6.2** to the observed 2022 baseline traffic flows shown in **Table 6.3**.

Table 6.4 – Percentage Impact Assessment Summary (2028 Weekday Construction Staff Arrivals and Departures (Two-Way Traffic Flows))

Link	Description	Time Period	Base Vehs	Development Vehs	Cumulative Dev Vehs	% Impact
2028 – Max Staff (Month 12)						
1	B645 Kimbolton Road between A1 and Hail Weston	07:00-08:00	620	~~427~~610	32	~~74~~103.5%
		18:00-19:00	504	~~427~~610	32	~~91~~127.4%
2	B645 Kimbolton Road between Hail Weston and main site access junction	07:00-08:00	533	~~427~~610	0	~~80~~87.4%
		18:00-19:00	401	~~427~~610	0	~~106~~152.1%
2028 – Average (Months 1-30)						
1	B645 Kimbolton Road between A1 and Hail Weston	07:00-08:00	620	~~248~~354	32	~~45~~62.3%
		18:00-19:00	504	~~248~~354	32	~~56~~76.6%
2	B645 Kimbolton Road between Hail Weston and main site access junction	07:00-08:00	533	~~248~~354	0	~~47~~66.4%
		18:00-19:00	401	~~248~~354	0	~~62~~88.3%

6.6.10 Although this demonstrates that the proposed construction staff trips are forecast to result in a significant percentage increase in the number of vehicles travelling along the B645 in each of the assessed time periods, nevertheless this is primarily a reflection of the relatively low baseline traffic flows along this route.

6.6.11 The B645 is a two-way road with a carriageway width of approximately 6m. Based on guidance within DMRB TA 79/99 (now withdrawn), a two-way single carriageway road with a width of 6.1m would be expected to have a maximum

hourly capacity of up to 1,700 two-way movements[1]. As per the forecast traffic flows set out in **Table 6.4**, even in the peak workforce (month 12) scenario, the total two-way traffic flow along link 1 would only be 1,~~079~~ 262 vehicles in the AM arrivals period (inclusive of baseline traffic flows, Scheme construction traffic and committed development trips). In all other assessed time periods the total two-way flow, inclusive of baseline traffic flows, Scheme construction traffic and committed development trips, would be fewer than 1,~~000~~ 150 vehicles.

6.6.12 As such, it can be seen that the total flows along these links do not come close to exceeding the theoretical link capacities. Furthermore, given the rural nature of the study area, there is no suggestion that the B645 is currently experiencing delay or congestion effects, or that the development-related traffic would change this situation.

~~6.6.12~~6.6.13 ~~Since~~ However, although the Scheme is not forecast to result in an increase of greater than 30 vehicle movements in either peak hour, nevertheless a detailed junction capacity modelling assessment has been undertaken to appraise the impact of the Scheme on the B645 / A1 junction in St Neots. The results of this appraisal are presented in the **Technical Note on Impact on B645 / A1 St Neots Junction [EN010141/DR/8.23]**. This demonstrated that the Proposed Development would have a negligible impact on the operation of the local highway network in the vicinity of the A1 St Neots junction and would not result in any queuing issues which would impact on the A1 ~~it is not considered that that any further detailed junction capacity modelling is necessary~~.

~~6.6.13~~6.6.14 It should also be noted that the percentage impact assessment set out in **Table 6.4** represents a robust appraisal of the potential impacts. As described within Section 7 of this TA, it is proposed that during the periods of maximum construction activity, the number of staff vehicle trips could be

[1] *Table 2 of DMRB TA 79/99 refers – for a 6.1m wide 'UAP1' road, based on a 60/40 directional split with 1,020 as the dominant flow*

further reduced by extending the staff minibus service to provide a collection / drop-off service, to transport staff to the main site compound from pre-arranged collection / drop-off locations, which could include nearby public transport hubs, town centres, and/or local accommodation.

7.0 PROPOSED MITIGATION

7.1 Introduction

7.1.1 This section of the TA provides a summary of the proposed measures which would be put in place to mitigate the transport impacts of the Scheme, as described further within Section 9.7 of **ES Vol 1 Chapter 9: Traffic and Transport [EN010141/DR/6.1]**.

7.2 Construction Staff Sustainable Travel Considerations

7.2.1 As set out in Section 6, the main impact of the Scheme would result from the movement of construction staff to and from the Site during the peak period of construction activity.

7.2.2 To reduce the potential impact of vehicles associated with construction staff, all construction personnel will be encouraged to lift share with colleagues to reduce the number of vehicles travelling to and from the Site each day. Staff will also be instructed to use the strategic road network to travel to and from the main site access along the B645 from the A1(M), in order to minimise, and avoid, if possible, the incidence of construction traffic using local roads through the surrounding villages.

7.2.3 The main car parking area for the Scheme would be located within the main construction compound in Site D. Additional car parking would also be provided within each of the construction compounds which would be situated across the other Site areas, but it is proposed that a fleet of minibuses would be provided for internal transport around the Site. As such, the majority of staff would park within Site D and would be transported to other areas of the Site from there by minibus.

7.2.4 During the periods of maximum construction activity, the number of staff vehicle trips ~~could~~ would be further reduced by extending the staff minibus service to provide a collection / drop-off service, to transport staff to the main site compound from pre-arranged collection / drop-off locations, which could

include nearby public transport hubs, town centres, and/or local accommodation.

7.2.5 Assuming the use of 15-seat minibuses, if used to transport 50% of the peak workforce a total of 29 minibuses would be required, if full. This would in turn reduce the overall number of construction staff trips during the peak period of construction activity by approximately ~~40~~45%, compared to the forecast trip generation based on car sharing alone.

7.2.6 Further details of the proposed management and mitigation of vehicle trips associated with construction staff movements are set out within the **oCTMP [EN010141/DR/7.4]**.

7.3 HGV Access and Routeing

7.3.1 The proposed access route to the Site for HGVs has been identified in order to minimise the impact of construction traffic on the public highway and avoid the need to pass through villages as far as possible. Temporary access roads would therefore be constructed across fields to connect the various areas of the Site.

7.3.2 In order to avoid the need for vehicles to pass through the village of Great Staughton, all construction trips associated with Site B and Site A will route through fields between Site C and a private access track to the north-west of Site C. They would then route along Great Staughton Road between the private access track to the north-west of Site C and the Site B access from Spring Hill Road.

7.3.3 A booking system would be set up to manage arrivals and departures to the Site, so that construction deliveries by HGVs would be co-ordinated to avoid the highway peak hours and would be evenly spaced throughout the working day in order to minimise the impact on the local highway network.

7.3.4 The management of vehicle routeing to, from and around the Site will be managed through the **oCTMP [EN010141/DR/7.4]**, as secured by a requirement of the DCO.

7.4 Traffic Management

7.4.1 Temporary signage would be erected along construction traffic routes on the local highway network to provide directional routeing information for construction vehicles, to ease navigation between the SRN and the main site access, and between each of the Sites.

7.4.2 Temporary signage warning other road users of the likely presence of construction vehicles would also be provided in the vicinity of each construction access location.

7.4.3 In order to manage the safe movement of construction traffic along the temporary access road, particularly at the crossings over Moor Road between accesses SA14 and SA15, Spring Hill Road between accesses SA10 and SA11, and Green End between accesses SA07 and SA08, additional temporary traffic management would be deployed as necessary. This ~~could~~ would include the deployment of banksmen with 'Stop / Go' boards or the use of temporary traffic signals.

7.4.4 The implementation of traffic management measures to control the movement of vehicles in the vicinity of the Site access junctions during the construction phase will be managed through the **oCTMP [EN010141/DR/7.4]**, as secured by a requirement of the DCO.

7.5 Abnormal Loads

7.5.1 The Scheme will require the delivery of certain components which would be classified as Abnormal Indivisible Loads (AILs). These would require transport to the Site to be managed subject to the Road Vehicles Authorisation of Special Types (General) Order 2003.

7.5.2 An AIL Access Report has been undertaken. This route appraisal is appended to the **oCTMP [EN010141/DR/7.4]**. The AIL Access Report identifies that there are no negotiability issues along the immediate approach to the Site from the A1(M) via the B645 that would necessitate any off-site remedial

measures. Further consideration of the necessary arrangements for managing AIL movement to the Site is included in Section 6.4 of the **oCTMP**.

7.6 PRoW Network

7.6.1 Where practicable, the construction works would be designed to minimise disruption to PRoW routes within the Site.

7.6.2 Management of the PRoW network within the Site area is therefore likely to involve the use of mesh fencing or Heras fencing as appropriate in order to clearly demarcate and separate PRoWs from construction traffic and activities. Where necessary, banksmen would be utilised during construction where construction traffic is required to cross a PRoW.

7.6.3 A limited number of temporary, localised PRoW diversions will be required during the construction phase, primarily in relation to the trenching of cables across PRoW. Any diversion will be highly localised and for a limited period of time. Diversions would be in the magnitude of 1-2m buffer from the existing PRoW alignment, and only in place whilst trenches are open across the PRoW. At PRoW crossings the works would be phased to minimise the amount of time that a temporary PRoW diversion is in place. At all times, the definitive PRoW width would be retained as a minimum width for any temporary PRoW diversion.

7.6.4 An **outline Public Right of Way Management Plan [EN010141/DR/7.8]** has been prepared as part of the application. This document sets out the principles by which PRoW will be managed during the construction and operation phases. Should the Scheme be consented, the DCO will require that a final Public Rights of Way Management Plan (PROWMP) is prepared prior to construction, in substantial accordance with this outline document.

7.6.5 Consideration of the management of the PRoW network within the Order Limits during the decommissioning phase is covered within the **outline Decommissioning Environmental Management Plan [EN010414/DR/7.6]**.

7.7 Construction Traffic Management Plan

7.7.1 An **outline Construction Traffic Management Plan (oCTMP) [EN010141/DR/7.4]** has been prepared as part of the application. This provides further detail of the suggested mitigation measures outlined above, along with additional procedures which would be put in place to manage any adverse effects of construction. It covers matters including:

- restrictions on vehicle delivery hours;
- on-site construction vehicle parking & manoeuvring arrangements;
- HGV routing strategy;
- Construction staff sustainable travel considerations;
- staff parking arrangements;
- liaison with developers of other developments to encourage co-ordinated management of HGV movements e.g. via a joint Traffic Management Group;
- management and procedures for access by abnormal loads; and
- local signage strategy.

8.0 SUMMARY AND CONCLUSIONS

8.1.1 This Transport Assessment (TA) has been prepared on behalf of BSSL Cambsbed 1 Limited (the 'Applicant') as part of the application for development consent for the East Park Energy project (the 'Scheme').

8.1.2 The Scheme comprises a new ground-mounted solar photovoltaic energy generating station and an associated on-site BESS on land to the north-west of St Neots, Cambridgeshire. The Scheme also includes the associated infrastructure for connection to the national grid at the Eaton Socon National Grid Substation.

8.1.3 The Site is located across approximately 773 ha of land to the north-west of St Neots. The Order Limits has been sub-divided into East Park Sites A to D, in which all of the above ground infrastructure proposed as part of the operational Scheme would be located (excluding works to the Eaton Socon Substation). The Order Limits also covers land outside of East Park Sites A to D which will be required for access, cabling, and the grid connection to the Eaton Socon Substation.

8.1.4 The Scheme comprises a new solar energy generating station and an associated on-site BESS, including the associated infrastructure for connection to the local electricity distribution network. The Scheme would allow for the generation and export of 400 megawatts (MW) of electricity to the National Grid from the solar photovoltaic energy generating station and would be capable of exporting and importing up to 100 MW via the BESS.

8.1.5 A review of the transport-related planning policy has been reviewed including the overarching National Policy Statement for Energy (EN-1) and the National Policy Statement for Renewable Energy (EN-3), the NPPF, the Huntingdonshire Local Plan to 2036, the Bedford Local Plan 2030 and Great Staughton Neighbourhood Plan 2021 to 2036. This report has been prepared with due regard to the relevant national policies and guidance.

8.1.6 The road safety record of the local highway network has been examined within the most recently available 5-year period (2020 - 2025). The analysis does not indicate that there are any existing highway safety issues that could be worsened by the Scheme.

8.1.7 During both the construction and operation of the Scheme, vehicular access to the Site would be via the B645 Kimbolton Road from the A1 at St Neots. During the operational phase, access to the various Site areas would be via the existing public highway, with limited traffic movements expected. During the construction phase, alongside utilising sections of the public highway, a temporary access road will be constructed through fields, to facilitate vehicle movements between different parts of the Site via a series of temporary and permanent site access junctions. The construction access strategy has been designed to avoid vehicles using the public highway as far as practicable.

8.1.8 This TA assesses the traffic impacts associated with the construction phase of the Scheme, which is scheduled to last for approximately 30 months. The peak period of traffic with regard to HGV movements is anticipated to relate to the delivery of aggregate for the construction of access tracks and compounds. This is likely to occur over a 12-week period between months 1 to 3 of the construction programme, peaking in month 2. Outside of this period the number of daily construction HGV trips would be significantly lower. The peak period for the number of construction staff requiring access to the Site per day would occur between months 6 and 24 of the construction period, peaking in month 12.

8.1.9 Once operational, trips to the Site would comprise a maximum of 20 two-way movements per day during periods of routine maintenance, comprising cars and light goods vehicles / vans. There would be no regular HGV movements during the operational phase, only occasional visits.

8.1.10 The trip generation of the construction period has been forecast using a 'first principles' approach based on experience of promoting other solar farm developments nationally and from information supplied by the Applicant. This

has been calculated based on the forecast number of construction deliveries and vehicle types required for the various construction activities within each work package.

8.1.11 In total, the development is forecast to generate approximately ~~514~~ 726 two-way movements (~~257~~ 363 arrivals and ~~257~~ 363 departures) per weekday on average throughout full 30-month construction period (inclusive of 16 two-way HGV movements). During the peak period of maximum HGV trip generation in month 2, the Scheme is forecast to generate a total of ~~110~~ 130 two-way vehicle movements per weekday, on average (inclusive of 60 two-way HGV movements). The maximum number of construction staff trips is expected to occur in month 12, when there would be approximately ~~878~~ 1,244 two-way trips on weekdays (inclusive of 20 two-way HGV movements).

8.1.12 These trip generation forecasts are based on the assumption that a significant number of staff would participate in a car share, thereby reducing the number of trips to the Site. For the purpose of this assessment, ~~therefore,~~ a conservative assumption of an average car/van occupancy of ~~2~~ 1.4 has been assumed for construction staff trips. There is potential for this level of traffic to be further reduced through the provision of staff minibuses where appropriate during peak periods of construction activity, but the assessment does not rely on this.

8.1.13 An assessment of cumulative impacts has also been undertaken, to take into account a number of committed developments which would potentially create additional traffic on the local highway network within the study area during the construction phase of the Scheme. These include the development of the proposed High Wood Solar, Cobholden Solar and Cobholden BESS development sites. The impact of cumulative development traffic does not result in any significant additional increases in the number of HGV trips on the local highway network.

8.1.14 A percentage impact assessment has been undertaken, which compares the forecast peak traffic-generating potential during the construction phase

against the baseline traffic flows for an assessment year of 2028, which is when the peak period of construction activity is anticipated to occur.

8.1.15 The forecast daily trip generation profiles demonstrate that the Scheme will not generate any vehicle movements during either of the highway peak hours. This will be controlled by provisions regarding the scheduling of HGV deliveries to the Site, as set out within the oCTMP, which will be secured by the DCO.

8.1.16 In general, across the working day the Scheme would only generate a maximum of 10 two-way vehicle movements per hour during any hour, other than during the periods when construction staff are arriving and departing. This is below the threshold of 30 additional vehicle movements in either peak hour at which a junction capacity assessment would be required, as set out in Cambridgeshire County Council document '*Transport Assessment Requirements*' (January 2024).

8.1.17 In terms of construction staff movements, there is forecast to be a maximum of approximately ~~427~~ 610 staff trips in each direction (i.e. ~~427~~ 610 arrivals in the AM peak and ~~427~~ 610 departures in the PM peak) during the period of construction activity in month 12, and approximately ~~248~~ 354 staff trips in each direction on average across the full construction period.

8.1.18 Although the proposed construction staff trips are forecast to result in a significant percentage increase in the number of vehicles travelling along the B645, these journeys would be made outside of the observed highway peak hours. The assessment has demonstrated that baseline traffic flows are significantly lower during the periods when construction staff would be arriving and departing.

8.1.19 The assessment also demonstrates that even with the addition of Scheme trips and trips generated by cumulative developments, the total flows along the B645 do not come close to exceeding the theoretical link capacity of the road. Furthermore, given the rural nature of the study area, there is no suggestion that the B645 is currently experiencing delay or congestion

effects, or that the development-related traffic would change this situation. However, a detailed junction capacity assessment to consider the potential impact on the B645 / A1 junction in St Neots has been undertaken, as presented in the **Technical Note on Impact on B645 / A1 St Neots Junction**. This demonstrated that the Proposed Development would have a negligible impact on the operation of the local highway network in the vicinity of the A1 St Neots junction and would not result in any queuing issues which would impact on the A1~~It is, therefore, not considered that that any further detailed junction capacity modelling is necessary~~.

8.1.20 As noted above, the percentage impact assessment is based on the assumption that all construction staff would travel to and from the site in individual vehicles during the highway peak hours, albeit with the assumed adoption of car sharing practices equating to an average car occupancy of ~~2~~ 1.4 persons per vehicle. ~~During the busiest periods of construction activity, t~~The impact of construction traffic would be mitigated through the implementation of a CTMP. This would include measures aimed at encouraging construction workers to consider ways of travelling to the Site via means other than individual private car.

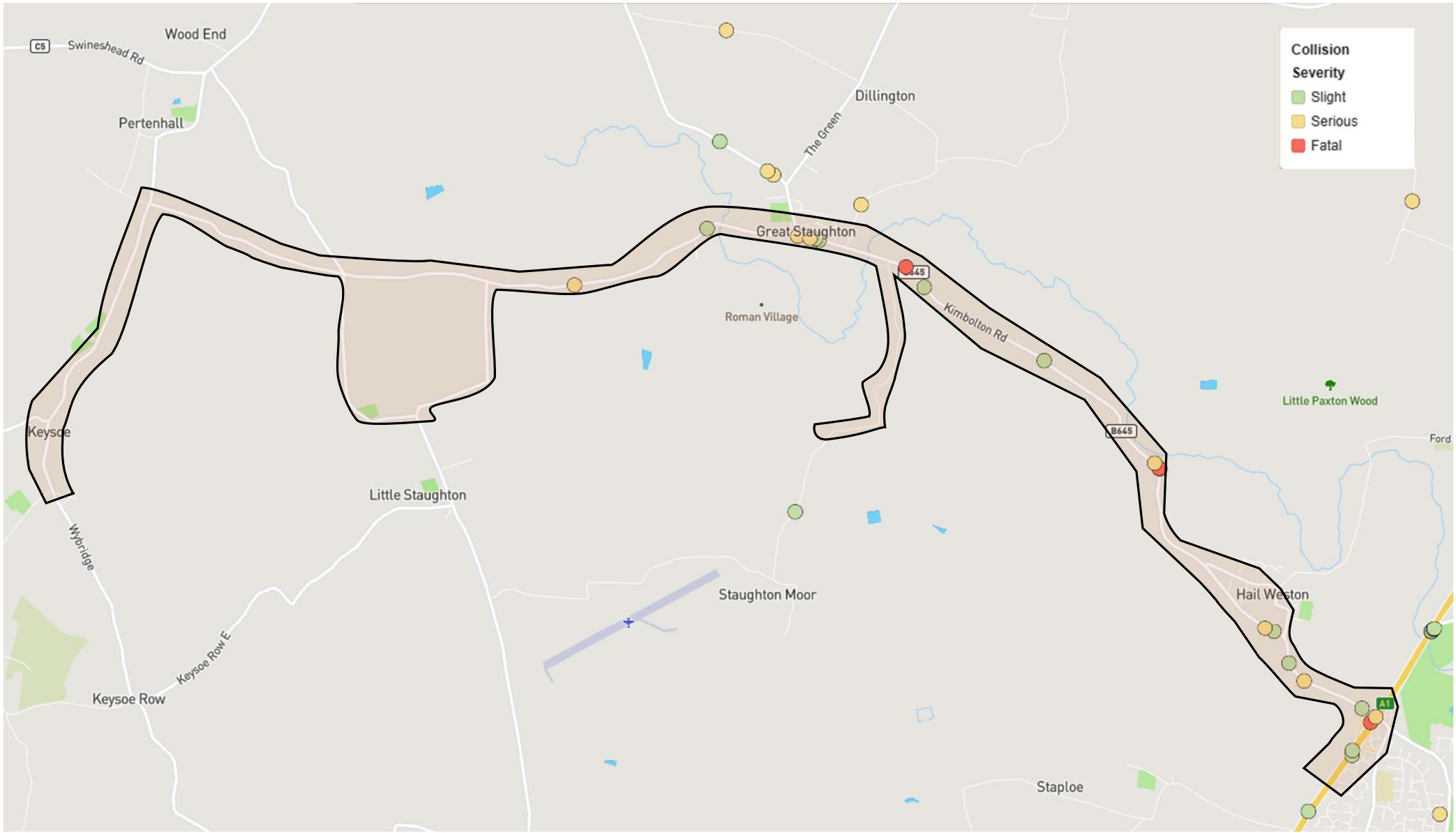
8.1.21 Given the relative lack of sustainable transport connectivity due to the nature of the Site, it is expected that construction personnel would be encouraged to lift share with colleagues to reduce the number of vehicles travelling to and from the Site each day. The impact of development trips would be further mitigated through the use of minibuses to transport staff to and from the Site from nearby transport hubs~~ or facilitating staff trips to and from the site by cycle, where appropriate~~. The daily hours of construction would also mean that staff would largely travel to and from the Site outside of the main highway peak hours.

8.1.22 Paragraph 5.14.21 of the Overarching National Policy Statement for Energy (EN-1) states that:

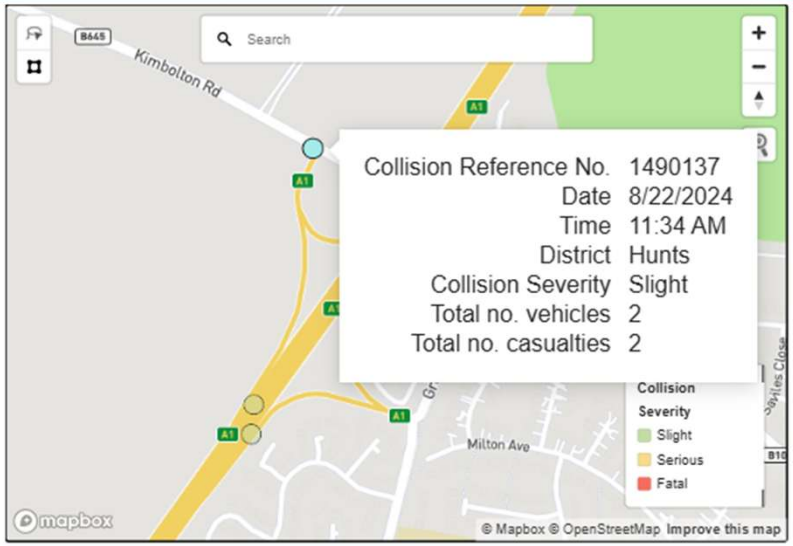
"*The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision*".

8.1.23 Based on the evidence presented in this TA, in the context of NPS EN-1 there would be no unacceptable impact on highway safety, consideration has been given to the provision of adequate access by active, public or shared transport, and no severe residual cumulative impacts on the road network would be created by the Scheme.

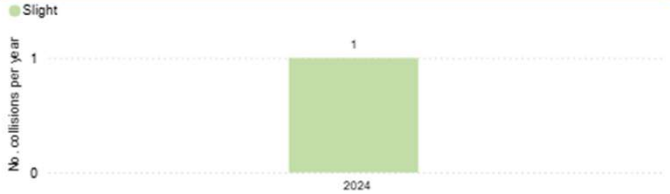
ANNEX A: ROAD SAFETY ACCIDENT DATA


Collision Severity
Slight
Serious
Fatal
Wood End
C5
Swineshead Rd
Pertenhall
Dillington
The Green
Great Staughton
B645
Roman Village
Kimbolton Rd
Little Paxton Wood
Keysoe
Little Staughton
Wybridge
Staughton Moor
Hail Weston
Keysoe Row E
Keysoe Row
A1
Staploe

Map of collisions



Collisions by severity and year

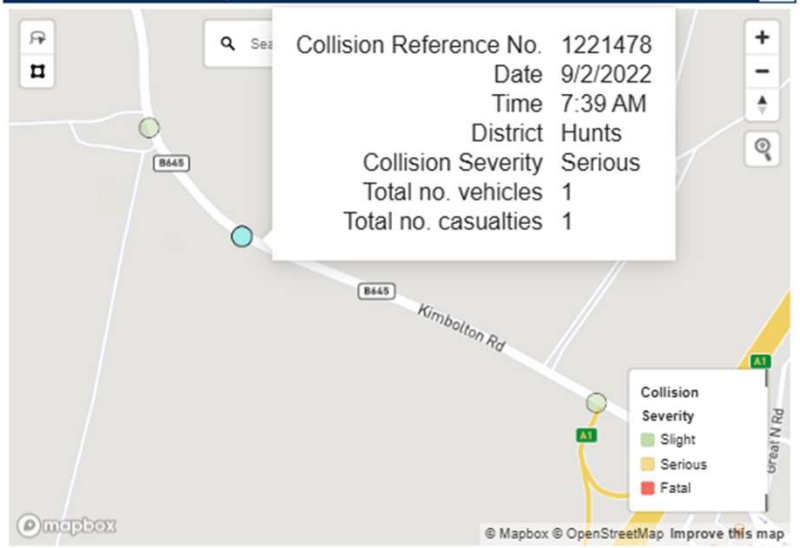


Types of vehicles and casualties

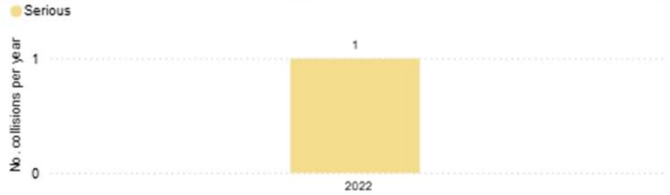
Vehicle type	Count
Car	2
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	2
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

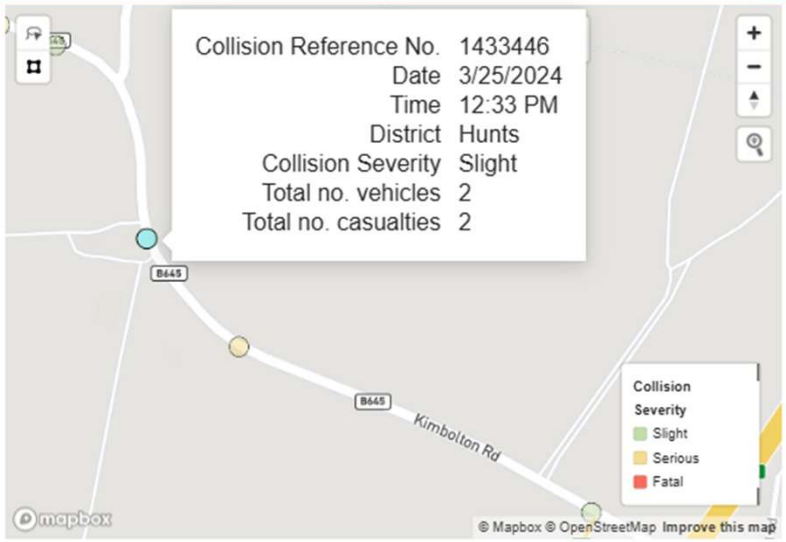


Types of vehicles and casualties

Vehicle type	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



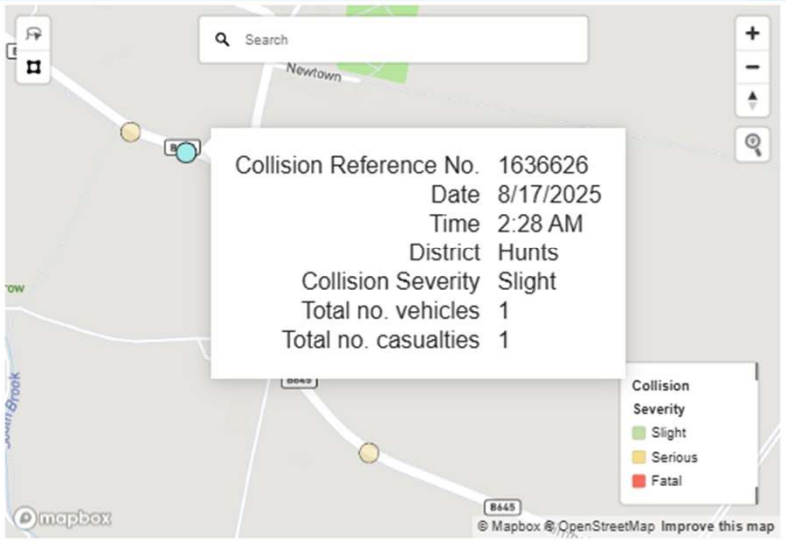
Collisions by severity and year

Types of vehicles and casualties

Vehicle type	Count
Car	1
LGV	1
Electric Bicycle	0
E-scooter	0
HGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	2
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



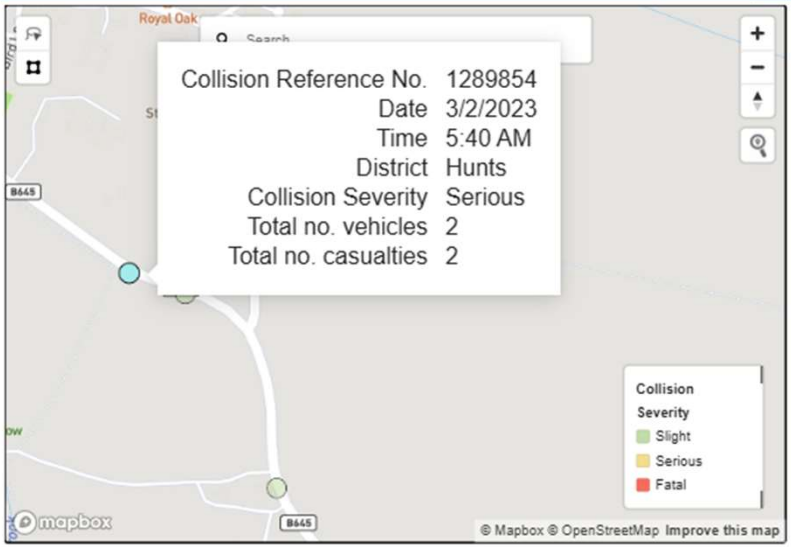
Collisions by severity and year

Types of vehicles and casualties

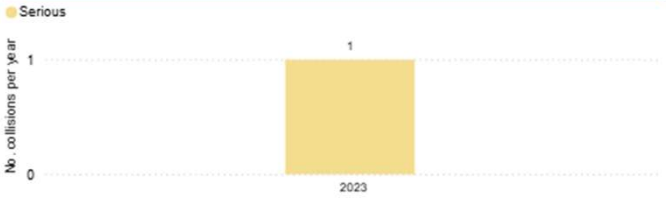
Vehicle type	Count
Car	1
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	1
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

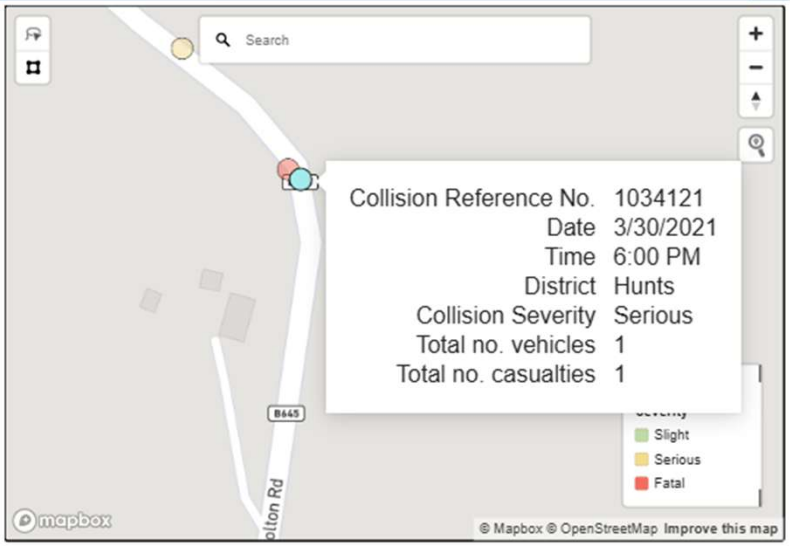


Types of vehicles and casualties

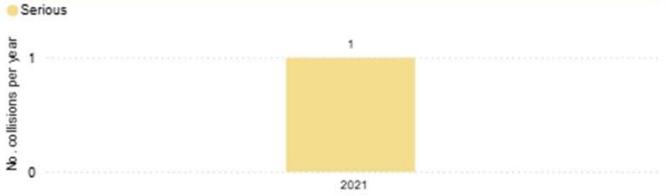
Vehicle type	Count
Car	1
HGV	1
Electric Bicycle	0
E-scooter	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	1
HGV	1
Electric Bicycle	0
E-scooter	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

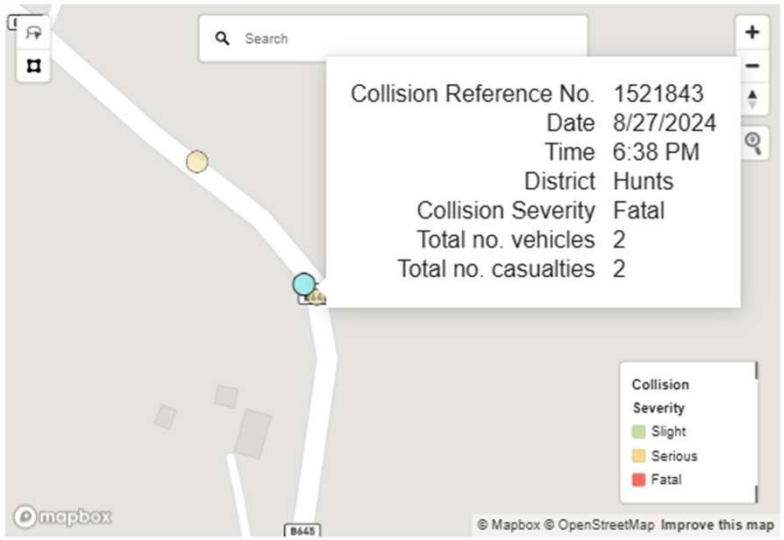


Types of vehicles and casualties

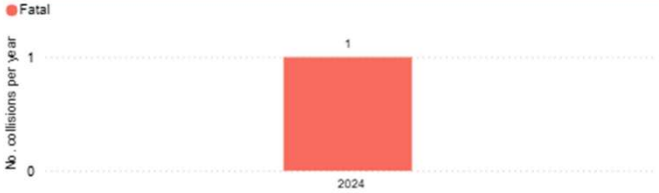
Vehicle type	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

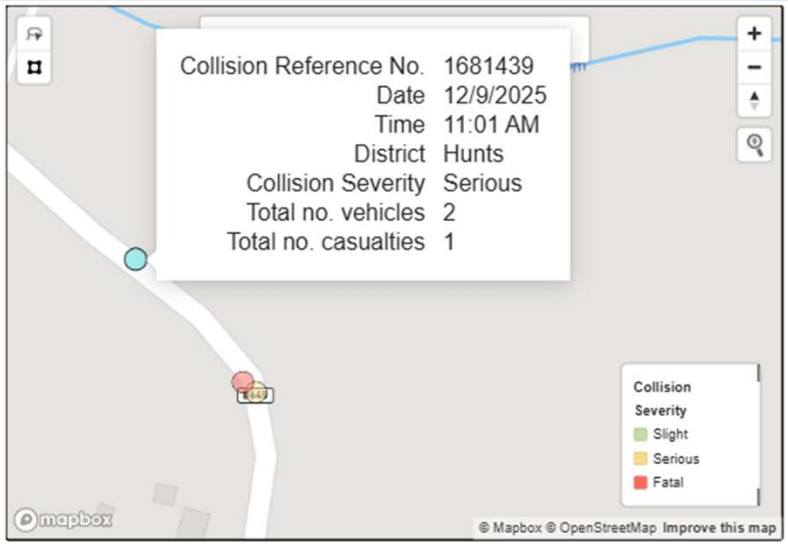


Types of vehicles and casualties

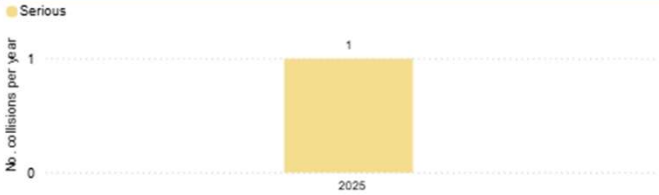
Vehicle type	Count
Car	1
HGV	1
Electric Bicycle	0
E-scooter	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	2
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year



Types of vehicles and casualties

Vehicle type	Count
Car	1
HGV	1
Electric Bicycle	0
E-scooter	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	1
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions

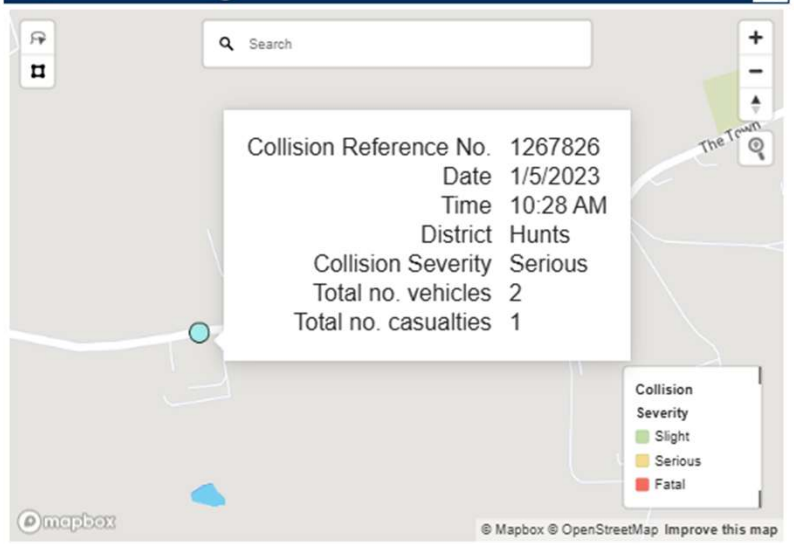
Collisions by severity and year

Types of vehicles and casualties

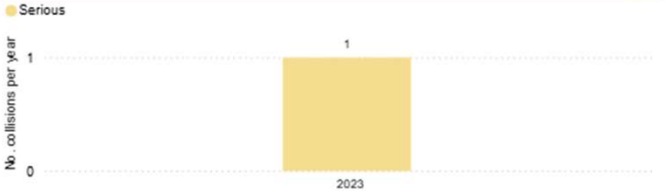
Vehicle type	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

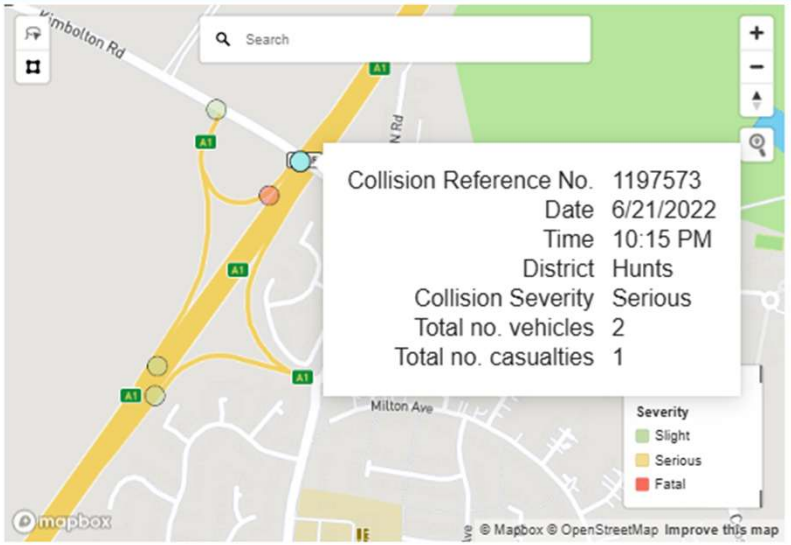


Types of vehicles and casualties

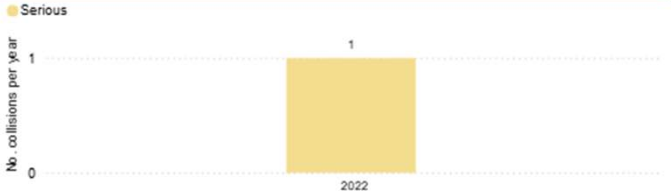
Vehicle type	Count
Car	1
HGV	1
Electric Bicycle	0
E-scooter	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	1
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

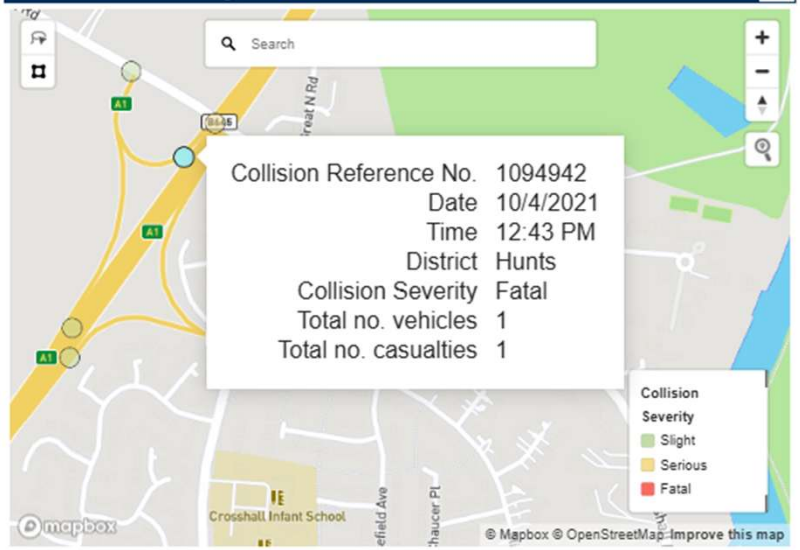


Types of vehicles and casualties

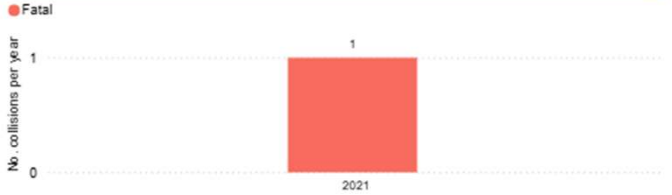
Vehicle type	Count
Car	1
Motorcycle	1
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

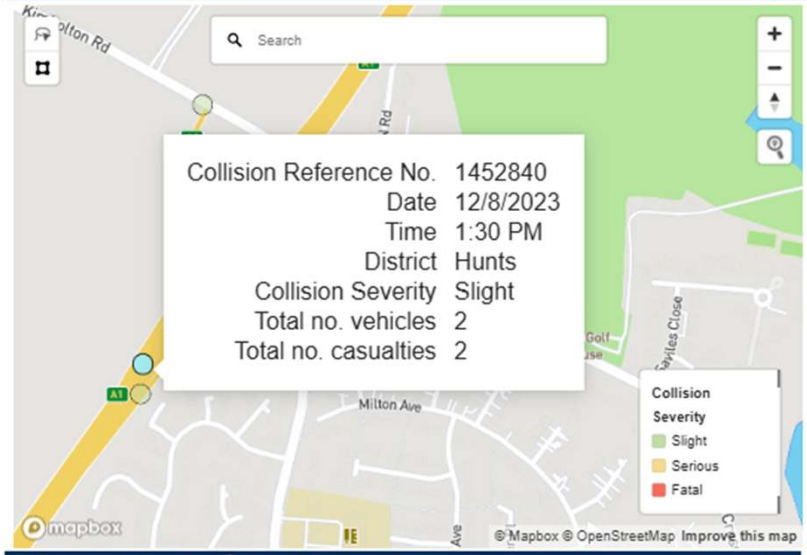


Types of vehicles and casualties

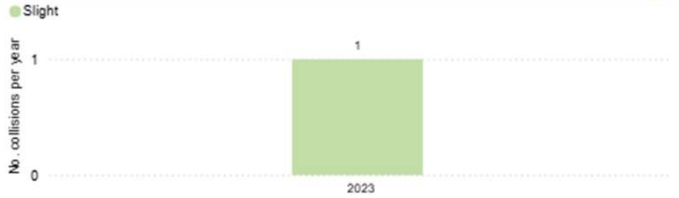
Vehicle type	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Motorcycle	1
Car	0
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year

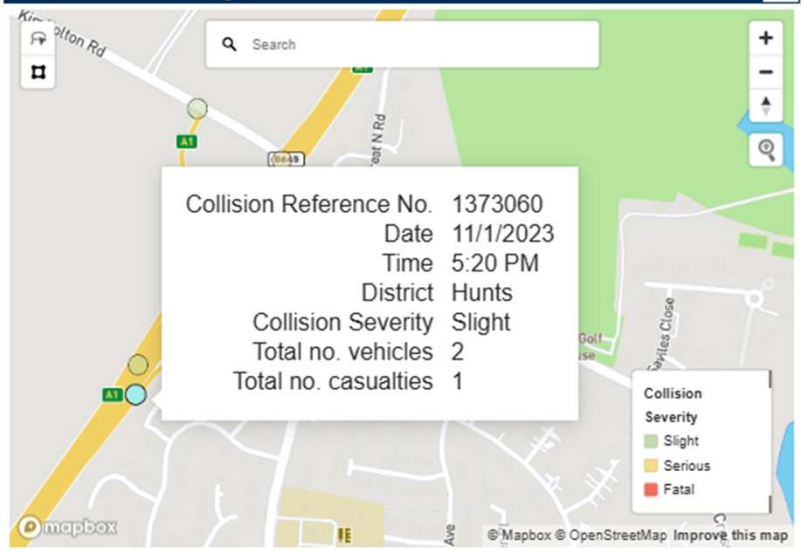


Types of vehicles and casualties

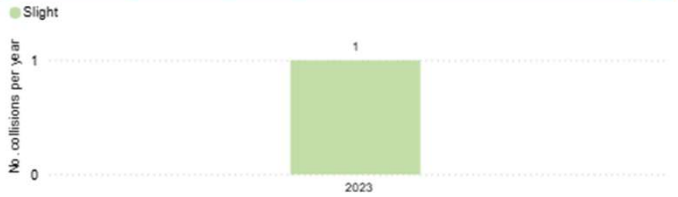
Vehicle type	Count
Car	2
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	2
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

Map of collisions



Collisions by severity and year



Types of vehicles and casualties

Vehicle type	Count
Car	2
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Unknown	0

Casualty type *All casualty severities*	Count
Car	1
Electric Bicycle	0
E-scooter	0
HGV	0
LGV	0
Mini-bus/Bus/Coach	0
Motorcycle	0
Other	0
Pedal Cycle	0
Pedestrian	0
Unknown	0

ANNEX B: FORECAST CONSTRUCTION TRIP GENERATION BY SITE AREA

		Programme by Month																												
	Month	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Site A	**Total HGVs (per month)**	94	94	94						5	25	45	30	30	30	30	35	35	35	30	30	20	20	15	15	7	7				
	26 tonne artic									5	0	20	30	30	30	30	35	35	35	30	30	20	20	15	15	7	7				
	30 tonne tipper	94	94	94							25	25																			
	Mixer Trucks																														
	Personnel (per day)	6	6	5						10	40	160	210	210	210	210	210	210	210	210	200	200	200	170	170	50	50				
Site B	**Total HGVs (per month)**	162	151	151	13	95	95	50	50	50	60	60	60	60	60	60	45	45	45	45	45	45	45	45	45	45	16	7			
	26 tonne artic	14	0	0	13	30	30	50	50	50	60	60	60	60	60	60	45	45	45	45	45	45	45	45	45	45	16	7			
	30 tonne tipper	151	151	151		65	65																								
	Mixer Trucks																														
	Personnel (per day)	6	6	5	10	50	250	420	420	420	420	420	420	420	420	420	410	410	380	380	260	200	200	200	200	80	50	50			
Site C	**Total HGVs (per month)**	87	73	73	11	41	30	30	30	30	30	30	30	25	15	5	5														
	26 tonne artic	14	0	2	0	30	30	30	30	30	30	30	30	25	15	5	5														
	30 tonne tipper	73	73	73	11	11																									
	Mixer Trucks																														
	Personnel (per day)	6	16	45	160	210	210	210	210	200	200	170	170	170	50	50	50														
Site D	**Total HGVs (per month)**	142	142	142	28	28	0	0	0	0	0	0	0				3	10	10	20	20	30	30	30	30	30	30	10	10	4	4
	26 tonne artic																3	10	10	20	20	30	30	30	30	30	30	10	10	4	4
	30 tonne tipper	56	56	56	28	28																									
	Mixer Trucks	86	86	86																											
	Personnel (per day)	6	12	17	12	60	48	59	31	20	40	40	20				10	40	160	210	210	210	200	200	200	170	170	170	50	50	50
400kv Grid Connection	**Total HGVs (per month)**	47	0	45	45	51	51	51	45	45	45	45	45	1																	
	26 tonne artic	47		0	1	1	1	1	1	1	1	1	1	1																	
	30 tonne tipper																														
	Mixer Trucks			45	45	50	50	50	45	45	45	45	45																		
	Personnel (per day)	6		19	14	26	12	8	8	8	8	14	10	10																	
BESS / Substation	**Total HGVs (per month)**		264	104	4	4	4	40	40	40	74	74	74	70	70	70	60	10	25	25	20	15	10	10	5						
	26 tonne artic		4	4	4	4	4	4	4	4	4	4	4					10	25	25	20	15	10	10	5						
	30 tonne tipper		35	17				8	8	8	12	12	12	12	12	12	10														
	Mixer Trucks		165	83				37	37	37	58	58	58	58	58	58	50														
	Personnel (per day)		6	5				6	6	6	30	24	24	24	24	24	30	6	10	4	8	4	8	4	4						
	Welfare (LGVs)	15	10	15	15	15		5			10				10					10		5					5				5
	Fuel (LGVs)	12	12	14	14	14	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	2	
	Water (LGVs)	13	13	15	20	20	10	10	10	10	10	10	20	20	20	20	20	20	20	10	5	5	5	5	5	5	5	5	5	5	3
	Refuse (LGVs)	10	10	13	13	13	5	5	5	5	10	10	10	10	10	10	10	5	5	5	4										
	Total HGVs (per month)	**535**	**664**	**611**	**102**	**219**	**180**	**180**	**175**	**180**	**235**	**255**	**240**	**186**	**175**	**165**	**148**	**100**	**115**	**120**	**115**	**110**	**105**	**100**	**95**	**82**	**53**	**17**	**10**	**4**	**4**
Total One-Way Movements	**Total Other Deliveries (LGVs) (per month)**	**50**	**45**	**57**	**62**	**62**	**19**	**24**	**19**	**19**	**34**	**24**	**34**	**34**	**44**	**34**	**34**	**29**	**29**	**29**	**13**	**14**	**9**	**9**	**9**	**9**	**14**	**9**	**7**	**7**	**8**
	Total Personnel (per day)	**30**	**46**	**96**	**196**	**346**	**520**	**703**	**675**	**664**	**738**	**828**	**854**	**834**	**704**	**704**	**710**	**666**	**760**	**804**	**678**	**614**	**608**	**574**	**574**	**300**	**270**	**220**	**50**	**50**	**50**

axis

Figure: Annex D
Project Name: East Park Energy DCO
Project Number: EN010141/DR/6.2
Description: Forecast Construction Trip Generation by Site Area

ANNEX C: ATC LOCATIONS

Rev	Date	Comment
P01	22/09/2025	DCO Application

Order Limits

Land Excluded from Order Limits

Automatic Traffic Counter Location

N

0 500 1000 1500 2000m

0344 8700 007
axis.co.uk

Client
BSSL Cambsbed 1 Ltd

Project
East Park Energy

Drawing Title
Automatic Traffic Counter (ATC) Locations

Scale
1:10,000 @A1

Status
DCO Application

APFP Reference
Regulation 5(2)(a)

Submission Reference
EN010141/DR/6.2

Dwg no
Annex E

Rev
P01