Chapter G
Transport

East Claydon Greener Grid Park Environmental Statement

Chapter G Traffic and Transport

April 2025

WSP
62-64 Hills Road
Cambridge
CB2 1LA
www.wsp.com

LICHFIELDS

33658838v1

Contents

G1.0 Introduction

G1.1 This Chapter of the Environmental Statement ('ES') has been prepared by WSP UK Limited on behalf of Stratkraft UK Ltd ('the Applicant'). It assesses the Proposed Development described in Chapter C in relation to Traffic and Transport.

G1.2 The baseline situation is considered before the likely environmental effects of the Proposed Development are identified during its construction and operational phases. Mitigation measures to reduce any negative environmental effects are identified as appropriate, before the residual environmental effects are assessed. The assumed baseline includes for the replacement substation to be under construction at the same time as the construction of the Proposed Development.

G1.3 This Chapter is supported by the following technical appendices provided at Volume 2 to this ES:

- Appendix G1: Abnormal Indivisible Loads Assessment, WSP, 2025
- Appendix G2: Construction Traffic Management Plan (CTMP), WSP, 2025
- Appendix G3: Transport Statement (TS), WSP, 2025
- Appendix G4: Email correspondence with Buckinghamshire Council Highways

G1.4 This Chapter is supported by the following technical figures provided at Volume 2 to this ES:

- Figure G1: Site Location Plan
- Figure G2: Proposed Construction Vehicular Access
- Figure G3: Survey Location Plan

About the Author

- Lee Kirby - BSc Geography, MTPS CTPP, is an Associate Director, with 25 years of technical experience
- Hattie Gibbs – BSc Environmental Geography & Climate Change, MTPS, is a Principal Transport Planner, with 6 years of technical experience
- Both authors have experience of working on projects involving Battery Energy Storage Sites (BESS) and solar developments, including other large-scale development encompassing residential, commercial and public realm improvements, throughout the UK. Both authors have produced ES Scoping and ES Chapters for transport and highways projects.

G2.0 Policy Context

National Policy

National Planning Policy Framework (NPPF) December 2024[1]

G2.1 The Government published an update to the planning system in the UK the Revised National Planning Policy Framework (NPPF) in July 2021, which reaffirmed the step change in national planning policy that the original 2012 policy had introduced (a presumption in favour of sustainable development). The most recent update was December 2024 in response to changes to housing delivery, Green Belt planning and local plan collaboration.

G2.2 In Section 9, under the heading 'Promoting Sustainable Transport' the NPPF advises (Paragraph 109) that the following transport issues should be considered from the earliest stages of development proposals so that:

- Transport consideration should be an important part of early engagement with local communities;
- The potential impacts of development on transport networks can be addressed;
- Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage are realised;
- Opportunities to promote walking, cycling and public transport use are identified and pursued;
- The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
- Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.

G2.3 Paragraph 110 notes that the planning system should actively manage patterns of growth in support of the above objectives. Significant developments should therefore be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a choice of transport modes.

G2.4 Paragraph 111 notes that policies should:

- a) support an appropriate blend of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;
- b) be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;
- c) identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;

- d) provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);
- e) provide for any large-scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and

G2.5 Recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs.

G2.6 Paragraph 117 notes that applications for development should:

- Give priority to pedestrian and cycle movements;
- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- Create places that are safe, secure and attractive;
- Allow for the efficient delivery of goods and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

Planning Practice Guidance (PPG, December 2024)[2]

G2.7 The Planning Practice Guidance (PPG) was published in 2014 and states that 'Travel Plans, Transport Assessments and Statements are ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movement'.

G2.8 Transport Assessments are a thorough assessment of the transport implications of a development, and Transport Statements are a 'lighter-touch' evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts).

G2.9 The guidance also recognises that Travel Plans, Transport Assessments and Statements can positively contribute to:

- Encouraging sustainable travel;
- Lessening traffic generation and its detrimental impacts;
- Reducing carbon emissions and climate impacts;
- Creating accessible, connected, inclusive communities;
- Improving health outcomes and quality of life;
- Improving road safety; and
- Reducing the need for new development to increase existing road capacity or provide new roads.

Cycle Infrastructure Design Local Transport Note 1/20 (LTN, July 2020)[3]

G2.10 The Cycle Infrastructure Design LTN provides guidance on design standards for cycle infrastructure based on five core design principles and 22 summary principles. The LTN guidance is in support of the statutory Cycling and Walking Investment Strategy which has the ambition to further encourage the use of active travel modes as the natural choices for short journeys.

G2.11 The five core design principles which represent the necessary requirements to achieve an increase in active travel by cycle or on foot, as specified in the LTN include the following:

- Coherent: cycle networks planned and designed to easily navigate along, such as through connected links;
- Direct: direct cycle routes with fewer stopping instances;
- Safe: perceived safety and actual safety in the design of cycle infrastructure;
- Comfortable: good quality, well-maintained, smooth surfaces, and adequate widths for cycling routes; and
- Attractive: well-designed and attractive cycle infrastructure that guides people towards public places and popular areas.

Gear Change - A Bold Vision for Walking and Cycling (2020)[4]

G2.12 The 'Gear Change – A Bold Vision for Cycling and Walking' was published in July 2020 and sets out a vision for cycling and walking that looks to transform the role that cycling and walking can have on the transport system in England. It also emphasises the benefits of active travel on improving air quality, combatting climate change, improving health and wellbeing, addressing inequalities and tackling congestion. It sets outs out the actions required to make this a reality, grouped under the following four themes:

- Theme 1 – Better streets for cycling and people;
- Theme 2 – Cycling at the heart of decision-making;
- Theme 3 – Empowering and encouraging Local Authorities; and
- Theme 4 – Enabling people to cycle and protecting them when they do.

G2.13 The main focus of Theme 1 is to create cycle, bus and walking corridors, closing a limited number of main roads to through traffic except for buses and access and the improvement of the National Cycle Network. With regard to Theme 2, its main focus is to significantly increase spending, create a long-term cycling and walking programme and budget, and increase cycle parking and ensure that it goes where it is needed. The main focus of Theme 3 is to significantly increase funding to, and provide new powers for Local Authorities. With regard to Theme 4, its main focus is to ensure that every adult and child who wants it can be trained how to ride a cycle safely, and that bike theft is combated.

G2.14 The walking and cycling infrastructure proposed to be provided across the Site has taken into account the four themes of the guidance in order to ensure that more people travel by walking and cycling via streets that are better for cycling and people, where cycling is at the heart of decision-making and where people can cycle safely are protected.

Environmental Assessment and Monitoring LA 104[5]

G2.15 The Design Manual for Roads and Bridges (DMRB) have produced a guidance document that should be followed when assessing, reporting and monitoring the environmental effects of projects, in line with EIA requirements.

G2.16 The documents set out the environmental value (sensitivity), magnitude of impact and assessing significance descriptions, to support the EIA.

Local Policy

Vale of Aylesbury Local Plan 2013 – 2033[6]

G2.17 The Local Plan sets out how the area will manage and direct growth to 2033, with a vision to secure the economic, social and environmental wellbeing of people and business in the area. The strategic objectives of the Local Plan are to:

- Make provision for balanced sustainable growth which will deliver new housing and jobs;
- Make provision for the housing and employment needs of the new and existing population;
- Secure timely and well-located provision of infrastructure, services and facilities needed to sustain and enhance existing and new communities;
- Allocate development in accordance with the settlement hierarchy, taking a capacity-led approach;
- Promote the enhancement of Aylesbury Vale's town, local centres and village facilities;
- Manage development in a way that ensures protection and enhancement of Aylesbury Vale's built, natural and historic environment, landscape and biodiversity;
- Manage development in a way that ensures that climate change is adapted to and mitigated against; and
- Promote provision of, and support for, measures and initiatives that strengthen the quality of life for new and existing residents.

G2.18 The Spatial Vision for the Vale is to see a sustainable amount and distribution of growth to meet needs, which will contribute to a thriving, diverse, safe and vibrant place to live. For this to happen, amongst others, the following are required:

- Growth will be shaped by strong place-shaping and sustainability principles to create safe, well-designed developments that are sensitive to Aylesbury Vale's local character and heritage and well integrated with existing communities, both in terms of scale, land-use and design; and
- Growth will be accompanied by the delivery of infrastructure, services, and facilities in the right places at the right time, to bring maximum benefits to new and existing communities. This includes improving transport (to encourage sustainable transport choices), education, health, green and blue infrastructure, community facilities, leisure facilities, communications technology, water and air quality and flood management measures and policing and emergency services infrastructure.

G2.19 Policy T4 covers the capacity of the transport network to deliver development, where it states that "*new development will be permitted where there is evidence that there is sufficient capacity in the transport network to accommodate the increase in travel demand as a result of the development*." Policy T5 covering the delivery of transport in new development, where "*transport and new development will only be permitted if the necessary mitigation is provided against any unacceptable transport impacts which arise directly from that development*". This includes the production of a Transport Statement/Transport Assessment, ensuring that the scale of traffic generated by the proposal is appropriate for the function and standard of the roads serving the area, and the implementation of necessary works to the highway, amongst others.

Buckinghamshire Local Transport Plan 4[7]

G2.20 The Local Transport Plan covers the period of 2016-2036, with a vision to make Buckinghamshire a great place to live and work, maintaining and enhancing its special environment, helping its people and businesses to thrive and grow and to create a strong and productive economy.

G2.21 The policies include:

- Policy 1 – efficient and effective transport provision – to reduce the need to travel;
- Policy 2 – Travelling in Buckinghamshire and beyond – to improve the connectivity and reliability of Buckinghamshire's transport network, stimulate economic growth and promote safer, more sustainable transport;
- Policy 3 – Managing the impact of new developments – ensure new development meets Buckinghamshire's needs; and
- Policy 7 – Reliable road travel – improve the reliability and connectivity of Buckinghamshire roads.

G2.22 Buckinghamshire Council is also working on the next iteration of their Local Transport Plan (LTP5), which would set out the ambitions, policies and plans for delivering transport improvements for all types of transport across the county until 2040.

Emerging Local Policy

Buckinghamshire Local Plan[8]

G2.23 Buckinghamshire Council is in the process of preparing a Local Plan to 2040, which is due to be published in 2025 and they have carried out engagement with members of the public and stakeholders during the preparation.

G2.24 Draft Objective 8 of the Local Plan includes the aim "*to improve connectivity across and between Buckinghamshire towns and villages with regional and national centres beyond by securing new sustainable transport infrastructure, upgrading existing infrastructure and improving digital connectivity*". To achieve this objective, the following are required, amongst others:

- Maximise the connectivity opportunities presented by large-scale strategic transport schemes such as East West Rail to focus the location of growth and encourage inward investment in Buckinghamshire;

- Direct road freight to the most appropriate routes and plan for facilities that support sustainable freight activity (e.g. consolidation centres and community delivery hubs) and first mile / last mile solutions; and
- Deliver low or zero carbon fuel infrastructure through new development.

G3.0 Assessment Methodology & Significance Criteria

Assessment Methodology

G3.1 Potential transport impacts have been assessed with due regard to existing transport policy and guidance, outlined in Section G2.0.

G3.2 To inform the assessment, traffic surveys have been undertaken on the local road network at locations agreed with Buckinghamshire Council (BC), included in Appendix G5, a survey location plan is included within Figure G3. Consultation with BC officers has been undertaken through pre-application meetings in 2024. These meetings were held to confirm the inputs for the Construction Traffic Management Plan, agree methodology of the assessment and to establish a study area for the Site. The baseline setting establishes potential receptors of transport impacts.

G3.3 The following documents have been used to inform and guide the assessment methodology:

- Institute of Environmental Management and Assessment (IEMA) Guidelines for the Environmental Assessment of Road Traffic 2023[9] (referred to as the 'IEMA Guidelines' hereafter); and
- Design Manual for Roads and Bridges (DMRB) Volume 11 Environmental Assessment[10].

G3.4 The IEMA Guidelines state in paragraph 3.12 that:

"A critical feature of an environmental assessment is determining whether a given impact is significant. Having quantified the magnitude of the impact (i.e. the level of change) there are various ways of interpreting whether or not the resulting outcome is considered significant. […] there is a need for interpretation and judgement on the part of the competent traffic and movement expert, backed-up by data or quantified information wherever possible. Such judgements will include the assessment of the numbers of people experiencing an impact and the sensitivity of those people, as well as the assessment of the damage to various natural or cultural resources. The competent traffic and movement expert will need to make it clear how they have defined whether a change (and the resultant effect) is considered significant or not."

Impacts Assessed

G3.5 This Chapter assesses the potential significant effects on:

- Severance of communities
- Road vehicle driver and passenger delay
- Non-motorised user delay
- Non-motorised amenity
- Fear and intimidation on and by road users
- Road user and pedestrian safety

- Hazardous/large loads

G3.6 The following impacts are informed by this assessment; however, they are not assessed directly as a part of this Chapter:

- Noise and Vibration (Chapter E); and
- Climate Change (Chapter H).

Assessment Criteria

G3.7 The IEMA Guidelines provide two 'rules of thumb' as a screening process to delimit the scale and extent of the assessment and traffic impacts and the determination of which traffic links require assessment. The rules are as follows:

- Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
- Include highway links of high sensitivity where traffic flows have increased by 10% or more.

Sensitivity of Receptors

G3.8 The sensitivity of a receptor to traffic and transport impacts depends upon a combination of its value and susceptibility.

G3.9 The following sensitive receptors have been identified for the Proposed Development:

- Non-motorised users (pedestrians, cyclists and equestrians) of the surrounding highway network, PRoW and non-designated public routes; and
- Motorised users of the surrounding highway network, including vehicle drivers, public transport users and vulnerable groups.

G3.10 The sensitivity of different receptors to traffic and transport effects is outlined in **Table G3.1**. For the purpose of this assessment, different sensitivity values will be assigned to links for non-motorised users, motorised users (in respect of driver delay) and motorised users (in respect of road safety).

G3.11 It is assumed that an increase in delay on a link which experiences a high level of congestion is worse than an increase in delay on a link with a minimal level of congestion. As such a higher ratio of traffic volume/ highway capacity (i.e. V/C ratio) is assumed to relate to a higher sensitivity. It is assumed links with clusters of more serious severity accidents will be more sensitive to change than those with clusters of less serious severity accidents.

Table G3.1 Receptor sensitivity

Receptor Sensitivity	Receptor Type
High	Users who access property via the existing transport network. Users making essential journeys and who do not have any other alternative route available. Users with the greatest susceptibility to traffic flow (e.g. users near schools, colleges, playgrounds, accident clusters, retirement homes, pedestrians walking along roads without footways).
Medium	Users of the transport network who use the affected routes frequently for essential journeys such as education and commuting but also have an existing choice of alternative routes. Users with moderate susceptibility to traffic flow. E.g., at and along congested junctions and links, near doctors' surgeries, recreation facilities, hospitals, shopping areas with roadside frontage, roads with narrow footways (<1.2m).
Low	Users of the transport network who use the affected routes frequently for non-essential journeys such as leisure and recreational purposes and those who use the routes less frequently for essential journeys. Users with low susceptibility to traffic flow. E.g., near places of worship, public open space, tourist attractions and residential areas with adequate footway provision (2.0m to 1.2m).
Very Low	Users of the network who use the routes infrequently for non-essential journeys. Users with little or no susceptibility to traffic flow (e.g., roads with good footway provision (> 2.0m), areas sufficiently distant from affected roads and junctions).

Magnitude of Impact

G3.12 To assist with assigning a magnitude to traffic and transport impacts, the IEMA Guidelines set out considerations, and in some cases thresholds, in respect to changes in the volume and composition of traffic.

G3.13 The assessment methodology for defining the magnitude of traffic and transport impacts has been derived from the IEMA Guidelines. Where no guidance is available, commonly agreed thresholds for judging the magnitude of traffic and transport impacts and professional judgement, backed-up by data / quantified information, has been applied as suggested in paragraph 3.12 of the IEMA Guidelines.

G3.14 Dependent on whether the magnitude of effects is positive or negative, the effect on receptors can be beneficial or adverse. An impact may also be classed as temporary or permanent.

Significance Criteria

G3.15 The approach to determining the sensitivity of receptors, magnitude of impacts and the significance of effects considered for the impacts is identified below and required by the IEMA Guidelines:

Severance of Communities:

- Professional judgement will be applied to determine receptor sensitivity, with reference to **Table G3.1**
- The IEMA Guidelines set out a range of indicators for determining the magnitude of impact on pedestrian and cyclist severance. Changes in traffic flow of 30% are regarded as producing 'slight' (low) impact, 60% as 'moderate' (medium) impact and 90% as 'substantial' (high) impact. These indicators, together with specific local conditions (such as the provision of crossing facilities and traffic signal settings) will be used to determine the magnitude of impact on severance.

Non-Motorised User Delay

- Professional judgement will be applied to determine receptor sensitivity.
- There is no formal or published guidance for the assessment of Non-Motorised User (NMU) delay. However, the IEMA Guidelines recommend assessors use their professional judgement to determine the significance of effect by considering both the sensitivity of the receptor and magnitude of the impact. For the purposes of this assessment, changes in traffic flows of 30%, 60% and 90% will be considered to represent a low, medium, and high magnitude impact on NMU delay, respectively.

Non-Motorised User Amenity

- Professional judgement will be applied to determine receptor sensitivity.
- The IEMA Guidelines suggest a threshold for judging the magnitude of changes in NMU amenity would be where the traffic flow is halved or doubled. In the absence of other criteria, this threshold will be used in the assessment for the Proposed Development. The magnitude would be considered to be 'low' where traffic flows have increased by between 100% and 130%, medium where traffic flows have increased between 130% and 160% and high where traffic have increased by more than 190%.

Fear and Intimidation On and By Road Users

- Professional judgement will be applied to determine receptor sensitivity.
- In the absence of commonly agreed thresholds for judging the significance of likely fear and intimidation effects, IEMA Guidelines recommend the thresholds outlined in Table G3.2. These are used to assess the magnitude of effect on fear and intimidation.
- Considerations key to assessing the impact on fear and intimation include: volume of traffic; percentage of HGVs; and the proximity of pedestrians to traffic. In addition, the speed of traffic, the number of turning movements, the proximity of schools and the level of vulnerable groups will be considered.
- The magnitude of change is based on the step changes in level of fear and intimidation with and without the Proposed Development. One step change in the level of fear and intimidation (an increase in 18-hour average traffic flows of less than 400 and/or less than 500 increase in 18-hour HGV flows) equals a low magnitude. One step change in the level of fear and intimidation (and increase in 18-hour average traffic flows of more than 400 and/or more than 500 increase in 18-hour HGV flows) equals a medium

magnitude of impact. Two step changes in the level of fear and intimidation equals a high magnitude of impact.

Table G3.2 Fear and intimidation assessment

Degree of hazard score	18-hour average flow all vehicles (vehicle / hour) (a)	18-hour total HGV flow (b)	18-hour average speed (mph) (c)
30	1,800+	3,000+	>40
20	1,200-1,800	2,000-3,000	30-40
10	600-1,200	1,000-2,000	20-30
0	<600	<1,000	<20
• The total score from all three elements is combined to provide a 'level' of fear and intimidation for all three elements (a + b + c); • An 'extreme' level of fear and intimidation is classified as a score greater than 71 from the table; • A 'great' level of fear and intimidation is classified as a score of between 41-70; • A 'moderate' level of fear and intimidation is classified as a score of between 21-40; • A 'small' level of fear and intimidation is classified as a score of between 0-10.			

Source: IEMA Guidelines

Road Vehicle Driver and Passenger Delay

G3.16 No junction modelling has been undertaken for the Proposed Development, which would be used to determine the driver delay at junctions on the local and strategic highway network. There the change in vehicle and HGV flows has been used to determine the level of delay.

G3.17 The percentage thresholds for low, medium and high magnitude impact will be based on the IEMA Guidelines thresholds of 30%, 60% and 90% respectively. The receptor sensitivity will be determined using professional judgement.

Hazardous and Large Loads

G3.18 Professional judgement will be applied to determine receptor sensitivity.

G3.19 For the purpose of this scope, we have assumed that abnormal loads are scoped-in to the assessment, as abnormal loads, such as 16.5m articulated vehicles and 26.5m articulated heavy load vehicles, are expected during the construction period of the Proposed Development. A separate Abnormal Indivisible Loads Assessment has been completed and is included in **Appendix G1**.

Road User and Pedestrian Safety

G3.20 The assessment of accident risk and highway safety is based upon existing accident rates and specific local circumstances to identify accident clusters. For example, should a particular link or junction be found to have a high existing accident rate, the addition of substantial traffic volumes generally would be expected to have an adverse impact on highway safety, due to further increased opportunities for conflict.

G3.21 The IEMA Guidelines advise that engagement should be undertaken with local authorities to determine the best approach for determining the significance of road safety effects. This was completed through the production of the ES Scoping Request, with feedback provided included in **Appendix B2**.

G3.22 For the purpose of this assessment, the magnitude of impact will be based on a qualitative assessment that uses professional judgement to considers the likely impact of a change in traffic flows on road user safety.

Assessment of Significance

G3.23 The significance of the traffic and transport effects is a product of the receptors' sensitivity and magnitude of impact. A matrix for determining the significance of traffic and transport effects is provided in **Table G3.3** below.

Table G3.3 Matrix for determining the sensitivity of receptors to environmental effects

		Sensitivity of Receptor to Environmental Effects			
		High	**Medium**	**Low**	**Negligible**
Magnitude of Impact	**High**	Major	Moderate to Major	Minor to Moderate	Negligible
	Medium	Moderate to Major	Moderate	Minor	Negligible
	Low	Minor to Moderate	Minor	Negligible to Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

G3.24 The following terms have been used to define the significance of the effects identified:

- Major effect: where the Proposed Development could be expected to have high / significant effect (either adverse or beneficial) on users of the local transport network
- Moderate effect: where the Proposed Development could be expected to have a medium / noticeable effect (either adverse or beneficial) on users of the local transport network
- Minor effect: where the Proposed Development could be expected to result in a low / small, barely noticeable effect (either adverse or beneficial) on users of the local transport network, and
- Nil / Neutral effect: where no discernible effect is expected as a result of the Proposed Development on users of the local transport network.

G3.25 Following the classification of an effect as detailed in Table G3.3 above, a clear statement is made as to whether the effect is 'significant' or 'not significant'. As a general rule, Major and Moderate effects are considered to be significant and Minor and Negligible effects are considered to be not significant. However, professional judgement is also applied where appropriate.

Approach and Method

Construction Phase

G3.26 The construction phase assessment will be undertaken in line the IEMA Guidelines. The assessment will evaluate the transport and access conditions during a 'peak construction' year of 2029.

G3.27 The construction phase assessment will consider:

- Construction traffic volume (Heavy Goods Vehicles (HGVs) and light vehicles) including movements associated with materials and waste;
- Anticipated vehicle routing during construction; and
- The likely home location of construction workers based on journey to work data (obtained from the latest available Census data).

Operational Phase

G3.28 It has been agreed with Buckinghamshire Council that when the Proposed Development is operational, it will generate minimal traffic flows and there will be minimal impact on the surrounding highway network, and therefore operational phase assessment is scoped out of the EIA. This agreement is documented within the Scoping Opinion from Buckinghamshire Council, included within **Appendix B2**. A separate Transport Statement has been produced detailing the proposals for the operational phase access, this is included in **Appendix G3**.

Decommissioning Phase

G3.29 As included within the ES Scoping Opinion (**Appendix B2**), it is likely that the same number and type of construction vehicles will be used in the decommissioning of the Proposed Development as will be used in the construction of the Proposed Development, and as such it is assumed that the same measures to manage the effects of HGV's and Abnormal Indivisible Loads during the decommissioning phase of the Proposed Development will be implemented in the absence of any other robust dataset.

Consultation

G3.30 An EIA Scoping Request was submitted in respect of the proposed development (Reference 24/02556/SO) and a formal Scoping Opinion was received in October 2024. This ES Chapter has regard to the scope set out within the Scoping Opinion, and feedback supplied by Buckinghamshire Council Highways and Public Rights of Way Officers.

G3.31 In addition to this, engagement has been held with the Highways Development Management Team at Buckinghamshire Council in October 2024 to agree the locations for the traffic surveys and scope of works for the transport and highways workstream (**Appendix G4**).

Assumptions and Limitations

G3.32 The following limitations and assumptions have been identified:

- The assessment of transport conditions will utilise traffic surveys collected by WSP in September 2024, as agreed with Buckinghamshire Council, which provides a snapshot of the traffic conditions within the local area.
- The proposed methodology has utilised available information and conforms to the requirements of local and national guidance and planning policy.
- The assessment has been undertaken with information available at the time of writing, from various sources: documentary sources, cartographic evidence, evidence from traffic surveys and evaluation of results from detailed transport analysis.
- The estimation of construction trips has been informed by the design team as the EIA process progressed.

G4.0 Baseline Conditions

Current Conditions

G4.1 The Proposed Development's baseline conditions have been established through traffic surveys undertaken in September 2024. The following sections summarise the established transport baseline conditions.

G4.2 The aim of the traffic surveys was to capture the existing flows on the local road network, speeds and volumes, in order to understand if any links would require mitigation as a result of the Proposed Development. To inform the assessment, a network flow diagram has been produced, such that the construction traffic of the Proposed Development and cumulative development could be combined. A site visit has also been undertaken in April 2024 to understand the current layout and use of the local road network and Public Rights of Way network, as well as wider off-site connectivity.

G4.3 The baseline conditions are the environmental conditions against which the potential environmental effects of the Proposed Development are assessed. The conditions refer to the present time and with no significant change predicted during the interim period before development works are programmed to commence. The data used for the baseline assessment for the ES is dated 2024.

Extent of Study Area

G4.4 The extent of the study area for assessment of transport conditions encompasses Information on existing transport conditions, within an area defined based on the area where there is likely to be a traffic and transport impact resulting from the construction of the Proposed Development. The location of the Proposed Development is included in **Figure G1**.

G4.5 The study area is focused on the wider East Claydon area, including the key road links of East Claydon Road, Granborough Road, A413 High Street, A143 Buckingham Road and A143 London Road. Sites for cumulative assessment along these routes have been agreed with Buckinghamshire Council during the Pre-Application meetings, so a robust assessment can be carried out on the likely impacts.

Site Accesses

G4.6 Access to the Proposed Development will be via East Claydon Road. It is proposed that a temporary construction vehicular access will be provided on the north side of East Claydon Road approximately 260m west of the existing vehicular access to the East Claydon substation opposite an existing field access on the south side of the road. This will be the subject of minor works and laying of consolidated material to ensure it is suitable for construction traffic. It should be noted that access for emergency services during construction will be provided via the proposed temporary construction vehicular access on East Claydon Road, with emergency services being notified of the location of the emergency access to the proposed development before construction work commences. The location of the proposed construction vehicular access on East Claydon Road is shown in **Figure G2**.

Local Road Network

East Claydon Road

G4.7 East Claydon Road is a marked single carriageway road, operating with a posted speed limit of 60mph and will provide frontage access to the Proposed Development. There are no footways and cycleways along the length of road. The route connects to East Claydon Footpath ECL/3A/1 and Winslow Footpaths WLS/1/1 and WLS/1/2.

Granborough Road

G4.8 Granborough Road is a marked single carriageway road, with speed rumble strips on the northbound carriageway, when entering Winslow. The road operates at a posted speed limit of 60mph, which reduces to 30mph when entering Winslow. Footways are present on both sides of the roads within Winslow, however, there are no dedicated cycle facilities. The route connects to Winslow Footpath WLS/2/2.

Burleys Road

G4.9 Burleys Road is a marked single carriageway road, with a posted speed limit of 30mph. Footways are present on both sides of the road, with no dedicated cycle provision along the route.

Vicarage Road

G4.10 Vicarage Road is a marked single carriageway road, operating at a 30mph posted speed limit. Footways are present on both sides of the road, with connections to Winslow Footpaths WLS/5/2, WLS/6/6 and WLS/6/7. There is no dedicated cycle provision along the route.

A413 High Street

G4.11 The A413 High Street, between the junction of Vicarage Road and the junction of Furze Lane is a marked single carriageway road, with a pelican crossing, zebra crossing and refuge islands. The road operates at a 30mph speed limit, with footways on both sides of the road, with a shared footway / cycleway provided in some sections on both sides of the road. There are connections to Winslow Footpaths WLS/7/1, WLS/8/1 and WLS/6/1.

A413 Buckingham Road

G4.12 The A413 Buckingham Road, between the junction of Furze Road and approximately 120m south of Springfields if a marked single carriageway road, operating at a 60mph posted speed limit. A shared footway / cycleway is provided on the northern side of the road for the entire length. There are connections Addington Footpath ADD/10/1, and Adstock Footpaths ADS/7/1, ADS/5/1, ADS/6/1 and ADS/2/1.

G4.13 The A413 Buckingham Road, between approximately 120m south of Springfields and the junction of Thornborough Road, is a marked single carriageway road, with a 30mph posted speed limit. There are footways present on both sides of the road, with a shared footway / cycleway being provided in some sections on both sides of the road, with links to Padbury Footpaths PAD/8/4, PAD/9/3, PAD/7/1, PAD/1/2 and PAD/2/1.

G4.14 The A413 Buckingham Road, between the junction of Thornborough Road, and approximately 130m south of Needlepin Way, is a marked single carriageway road, with a 60moh posted speed limit. There is a shared footway / cycleway on the northern side of the road for the entire length. There are links to Gawcott Footpath GAW/20/1, and Buckingham Footpaths BUC/22/1 and FP BUC/21/2.

A413 London Road

G4.15 The A413 London Road, between approximately 130m south of Needlepin Way and the junction of the A421, is a marked single carriageway road with two controlled pedestrian crossings. A shared footway / cycleway is in place on the eastern side of the road for the entire length, with a footway on the western side of the road between the junction of the A421 and the junction of Needlepin Way. There are links to Buckingham Footpaths BUC/13/1 and BUC/14/4.

Bus Services

G4.16 The nearest bus stops to the Proposed Development are located approximately 1.4m to the southwest, within East Claydon, on St Marys Road (a 20-minute walk), there are no bus stops within the frontage of the Proposed Development. Services within East Claydon are operated by Winslow Bus, that runs only on Wednesdays (service 54c).

Rail Services

G4.17 The closest railway stations are Bicester North and Bletchley, approximately 15km to the west and northeast respectively. Bicester North Railway Station is operated by Chiltern Railways and offers services to London Marylebone, Birmingham Snow Hill, Birmingham Moor Street and Banbury. Bletchley Railway Station is operated by London Northwestern Railway with offers services to Birmingham New Street, London Euston, Milton Keynes Central and Bedford. A summary of weekday rail services is provided in **Table G4.1**.

Table G4.1 Rail Services

Station	Route	First Train	Last Train	Frequency
Bicester North	Banbury – Leamington Spa – Warwick – Warwick Parkway – Hatton – Dorridge – Solihull – Birmingham Moor Street	05:50	23:50	Half-hourly
	Haddenham & Thame Parkway – High Wycombe – Seer Green & Jordans – Gerrards Cross and London Marylebone	05:33	22:50	Half-hourly
Bletchley	Leighton Buzzard – Tring – Berkhamstead – Apsley – Kings Langley – Watford Junction – Bushey – Harrow & Wealdstone – London Euston	03:35	23:51	20 – 30 minutes
	Milton Keynes Central – Wolverton – Northampton – Long Buckby – Rugby –	06:33	22:30	Half-hourly

	Coventry – Birmingham International – Birmingham New Street			

Chiltern Railways (2025) and London Northwestern Railway (2025)

Baseline Traffic Flows

G4.18 The 2024 baseline traffic flows, collected from ATC surveys on the local road network surrounding the Proposed Development, are provided in Table G4.2 to Table G4.5. Note: some figures may no sum due to rounding.

Table G4.2 Baseline 2024 Traffic Flows – AM Peak Hour 08:00-09:00 (Total Vehicles)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		94		102	109
2 – Granborough Road	181		181		363
3 – A413		428		439	867
4 – London Road	603		466		1,069

Table G4.3 Baseline 2024 Traffic Flows – PM Peak Hour 17:00-18:00 (Total Vehicles)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		123		70	193
2 – Granborough Road	196		161		357
3 – A413		349		386	735
4 – London Road	524		536		1,060

Table G4.4 Baseline 2024 Traffic Flows – AM Peak Hour 08:00-09:00 (HGVs)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		3		3	6
2 – Granborough Road	6		6		13
3 – A413		7		7	14
4 – London Road	20		22		43

Table G4.5 Baseline 2024 Traffic Flows – PM Peak Hour 17:00-18:00 (HGVs)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		1		2	3
2 – Granborough Road	3		3		6
3 – A413		2		3	6
4 – London Road	8		8		17

Personal Injury Accident Data

G4.19 A review of personal injury accident (PIA) data has been obtained from Crashmap for the most recent 5-year period (2018-2022) for the proposed construction route. In total there were 12 slight, 6 serious and 0 fatal accidents along the proposed construction route. 2 serious accidents were located on the A413 London Road between Needlepin Way and Lenborough Road, 2 serious accidents were located on the A413 Buckingham Road between Springfields and Hanover Farm, one serious accident located on the A413 High Street between the A143 High Street and St Albans Road and one serious accident on Granborough Road at the junction of East Claydon Road.

Assumed Baseline

G4.20 The assumed baseline for the transport assessment is the scenario where the replacement substation is under construction at the same time as the Proposed Development (the replacement substation construction is expected to begin in 2027 and be complete and operational by 2030, so two of the construction years could overlap with the Proposed Development's construction). The future baseline of 2029 described below already includes a number of cumulative schemes and assumes that all would be constructed at the same time as the Proposed Development. This is a worst case scenario which is unlikely to be realised, and therefore no additional trips are assigned specifically to the construction of the replacement substation as it is considered any additional construction trips likely to be attracted by the replacement substation will have already been accounted for in the assessment undertaken. It is assumed that a separate CTMP (including AIL mitigation measures where required) will also be in place for the construction of the replacement substation which would give due consideration to committed developments including the Proposed Development in the planning of construction routing and delivery schedules.

G4.21 Once constructed, the existing substation will be decommissioned and out of use.

Future Baseline

G4.22 This assessment has considered a future baseline situation of 2029, which is when the Proposed Developed is expected to be constructed, following a 24-month construction period, starting in January 2028. This assessment takes into account a number of cumulative development and transport improvements considered likely to come forward during the time of the construction period, as provided below.

Cumulative Sites Considered and Excluded

G4.23 The following sites have been reviewed and excluded within the analysis, as their construction timescales will not overlap or there is limited submitted information available as the sites are too early within the pre-planning stage, and are therefore not considered committed in the context of EIA best practice guidance. Scheme numbering is in reference to Table K4.1 within **Chapter K** of the ES and **Appendix K1** (Cumulative Scheme Plan).

Tuckey Farm Solar Farm (Cumulative Scheme 1)

G4.24 A planning application (Planning Reference: 19/00983/APP) was submitted in March 2019 for the construction and operation of a Solar Farm and associated infrastructure on land at Tuckey Farm, Winslow. The site lies approximately 20m to the east of the Proposed Development, and approximately 140m north of East Claydon substation with access provided via accesses on the north and south sides of East Claydon Road. The application was approved in April 2021.

G4.25 The CTMP that was submitted in November 2021 discharged the condition (Planning Reference: 21/04255/APP) attached to the planning permission. The CTMP that was submitted and approved forecasts 10 HGV two-way daily movements and 50 LGV and staff two-way daily movements associated with the construction of the proposed Solar Farm which is expected to take up to 4 months to complete. It also proposes a construction route via East Claydon Road, St Mary's Road, Orchard Way, Werner Terrace, Perry Hill,

Buckingham Road, Grendon Road, Edgcott Road, Broadway and the A41, and then onward to the strategic highway network. The application was approved in November 2022. This site has been excluded as it is due to be operational by 2026, so will not overlap with the construction period of the Proposed Development.

Wings Farm Solar Farm (Cumulative Scheme 4)

G4.26 An EIA Screening Opinion (Planning Reference: 23/01939/SO) was submitted in June 2023 for the construction and operation of a Solar Farm and associated infrastructure on land at Wings Farm, Granborough. The site lies approximately 2.4km to the south of the Proposed Development. The EIA Screening Opinion that was issued stated that an EIA was not required. A full application for the proposed development has yet to be submitted. This site has been excluded as no application has yet been submitted and no further information is available.

East West Rail (Cumulative Scheme 6)

G4.27 The railway line is located approximately 1.3km to the north of the Proposed Development, with an operational construction compound (Compound B3) located on Furze Lane approximately 2.1km to north east of the Proposed Development, and an operational construction compound (Compound B2) located to the east of Sandhill Road at Verney Junction approximately 1.6km north west of the Proposed Development. As there is no current date for the submission of a DCO application there is no information available on construction movements for the wider construction of EWR. However, the existing construction movements to and from the two operational construction compounds have been taken into account as part of the traffic surveys that we have undertaken. This site has been excluded from the cumulative assessment as the construction compound on Furze Lane is currently in use, so construction trips would have been recorded by the traffic surveys undertaken in 2024.

Cumulative Sites Included in Assessment

G4.28 The following cumulative sites have been included within the assessment. A worst-case has been assumed with all construction period overlapping for the below schemes.

Rookery Farm BESS (Cumulative Scheme 2)

G4.29 A planning application (Planning Reference: 23/03875/APP) was submitted in December 2023 for the construction and operation of a BESS and associated infrastructure on land at Rookery Farm, Granborough. The site lies approximately 750m to the south of the Proposed Development, and approximately 400m south of East Claydon substation with access provided via an access road on Hogshaw Road.

G4.30 The CTMP that was submitted as part of the planning application forecasts 48 HGV two-way daily movements and 70 LGV and staff two-way daily movements associated with the construction of the proposed BESS which is expected to take up to 18 months to complete. It also proposes a construction route via Hogshaw Road, East Claydon Road, Granborough Road, Burleys Road, Vicarage Road, the A413 High Street, Buckingham Road and London Road and the A241 (east and west), and then onwards to the strategic highway network.

The application was refused in December 2024, however, as an appeal has been lodged therefore this scheme has been included within this assessment.

Fox Covert Solar Farm (Cumulative Scheme 3)

G4.31 A planning application (Planning Reference: 20/02582/APP) was submitted in August 2020 for the construction and operation of a Solar Farm and associated infrastructure on land at Fox Covert, Great Horwood. The site lies approximately 2.6km to the north east of the Proposed Development, with access provided via an access road from the A413 Buckingham Road. The application was approved in June 2021.

G4.32 The CTMP that was submitted in October 2022 discharged the condition (Planning Reference: 20/C2582/DIS) attached to the planning permission. The CTMP that was submitted and approved forecasts 11 HGV two-way daily movements and 40 LGV and staff two-way daily movements associated with the construction of the proposed Solar Farm which is expected to take up to 8 months to complete. It also proposes a construction route via the B4033 Nash Road, High Street, Winslow Road and Great Horwood Road, the A413 Buckingham Road and London Road and the A421 (east and west), and then onwards to the strategic highway network. The application was approved in February 2023.

Rosefield Solar Farm (Cumulative Scheme 5)

G4.33 A proposed solar farm, battery storage and associated infrastructure on land to the south of East Claydon substation. The site lies approximately 400m to the south of the proposed development. A Development Consent Order (DCO) application is expected to be submitted to the Planning Inspectorate (PI) in the early part of 2025, so no information on construction movements available. This site has been included and information submitted for the Applicant's Preliminary Environmental Information Report has been used to inform the cumulative assessment.

Old Brickyard Farm Residential Development (Cumulative Scheme 7)

G4.34 A planning application (Planning Reference: 19/03482/AOP) was submitted in September 2019 for the construction of 120 residential dwellings and associated infrastructure on land on the east side of Great Horwood Road. The site lies approximately 2.2km to the north east of the Proposed Development, with access provided via two access roads on the east side of Great Horwood Road. The application was approved in July 2021.

G4.35 The CTMP that was submitted in July 2022 discharged the condition (Planning Reference: 19/J3482/DIS) attached to the planning permission. There was limited information provided in the CTMP in relation construction traffic, and as such the construction numbers have been obtained from a similar sized residential development with assumptions being made, with 15 HGV two-way movements and 30 LGV and staff two-way movements associated with the construction of the proposed residential development over a period of 36 months. It also proposes a construction route via Great Horwood Road, the A413 Buckingham Road and London Road and the A421 (east and west), and then onwards to the strategic highway network. The application was approved in October 2022.

Great Horwood Road Residential Development (Cumulative Scheme 8)

G4.36 A planning application (Planning Reference: 18/03422/AOP) was submitted in October 2018 for the construction of 215 residential dwellings and associated infrastructure on land on the east side of Great Horwood Road. The site lies approximately 2.5km to the north east of the Proposed Development, with access provided via two access roads on the east side of Great Horwood Road. The application was approved in January 2022.

G4.37 The CTMP that was submitted in February 2023 discharged the condition (Planning Reference: 18/B3422/DIS) attached to the planning permission. There is limited information provided in the CTMP in relation to construction traffic, and as such the construction numbers have been obtained from a similar sized residential development with assumptions being made, with 21 HGV two-way movements and 40 LGV and staff two-way movements associated with the construction of the proposed residential development over a period of 36 months. It also proposes a construction route via Great Horwoord Road, the A413 Buckingham Road and London Road and the A421 (east and west), and then onwards to the strategic highway network. The application was approved in March 2024.

Hogshaw Road BESS (Cumulative Scheme 9)

G4.38 A planning application (Planning Reference: 24/03262/APP) in October 2024 for the construction and operation of a BESS and associated infrastructure on land at south of Hogshaw Road, Granborough. The site lies approximately 2.2km to the south east of the Proposed Development, with access provided via an access road on Hogshaw Road.

G4.39 The CTMP that was submitted with the planning application forecasts 23 HGV two-way daily movements and 25 LGV and staff two-way daily movements associated with the construction of the proposed BESS which is expected to take up to 9 months to complete. It also proposes a construction route via Hogshaw Road, Granborough Road, Burleys Road, Vicarage Road, the A413 High Street, Buckingham Road and London Road and the A241 (east and west), and then onwards to the strategic highway network. The application is to be determined by March 2025.

Background Traffic Growth

G4.40 The traffic and transport effects of the Proposed Development have been assessed for a future year of 2029. Background growth has been calculated using growth factors derived from the TEMPro database (version 8.1) for Aylesbury Vale 004 and 005.

Future Baseline Traffic Flows

G4.41 The future baseline scenario considers the future baseline without the Proposed Development but with the cumulative schemes.

G4.42 The 2029 Baseline + Cumulative development flows are summarised in Table G4.6 and Table G4.7 for total vehicles and Table G4.8 and Table G4.9 for HGVs. Note: some figures may not sum, due to rounding.

Table G4.6 2029 Baseline + Cumulative Traffic Flows – AM Peak Hour 08:00-09:00 (Total Vehicles)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		163		172	335
2 – Granborough Road	284		284		569
3 – A413		514		525	1,039
4 – London Road	699		554		1,253

Table G4.7 2029 Baseline + Cumulative – PM Peak Hour 17:00-18:00 (Total Vehicles)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		194		137	332
2 – Granborough Road	301		263		563
3 – A413		430		470	901
4 – London Road	617		630		1,247

Table G4.8 2029 Baseline + Cumulative Traffic Flows – AM Peak Hour 08:00-09:00 (HGVs)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	

1 – East Claydon Road		12		13	24	
2 – Granborough Road	20		20		40	
3 – A413		14		15	29	
4 – London Road	29		31		60	

Table G4.9 2029 Baseline + Cumulative Traffic Flows – PM Peak Hour 17:00-18:00 (HGVs)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		15		15	30
2 – Granborough Road	17		17		34
3 – A413		10		11	21
4 – London Road	16		16		33

G5.0 Potential Effects

G5.1 This section outlines the potential significant environmental effects of the Proposed Development in relation to the construction phase.

Do Nothing

G5.2 The Site is currently agricultural land, and any development would therefore create construction and operational trips. If the Proposed Development was not brought forward the Site would remain in agricultural use, so the forecasted trip attraction would not come forward.

Embedded Mitigation

G5.3 A comprehensive package of proposed mitigation and management measures is to be implemented along East Claydon Road, and across the proposed construction access route. These proposed mitigation and management measures will ensure that construction vehicles can access and egress the Site in a safe manner, ensuring that road safety is maintained at all times. The main proposed temporary mitigation and management measures are set out below and documented within the CTMP (Appendix G2) produced for the Proposed Development:

Traffic Control

- Traffic will be managed and controlled at the proposed construction vehicular access on East Claydon Road by a trained banksman;
- A trained banksmen will be also provided at the compound areas;
- Warning signs will be located on approaches to the traffic control signage; and
- A trained banksman will direct the construction vehicles into and out of the proposed construction vehicular access on East Claydon Road.

Access Information

- Direction signage will be provided along East Claydon Road and the proposed temporary construction vehicular access route to the north of the proposed development.

Construction Period

- The construction period will be scheduled to avoid the local harvesting period between July and September;
- Construction vehicular movements will be scheduled using a booking system; and
- Direction and access point maps, along with information on restrictions and constraints and proposed mitigation measures, and Site delivery rules and times will be sent out with each order.

Support Vehicles

- All deliveries made by a 16.5m articulated vehicle and a 26.5m articulated heavy load vehicles will need to be escorted by a support vehicle that will travel with the construction vehicle and guide it along the proposed temporary construction vehicular access route to the north of the Proposed Development where appropriate.

Engagement Manager

- Information will be provided to local residents and businesses on construction vehicular movements along East Claydon Road and the proposed temporary construction vehicular access route to the north of the Proposed Development.

Delivery and Construction Times

- The movement of construction vehicles along East Claydon Road and the proposed temporary construction vehicular access route will take place between 08:00 – 17:00 Monday to Friday and between 08:00 – 13:00 on Saturdays; and
- Construction on Site this will take place between 07:00 – 18:00 Monday to Friday and between 07:00 – 14:00 on Saturdays.

Visual Wheel Inspection

- Construction vehicles will be subject to a visual wheel inspection to ensure all vehicles leave in a clean and safe condition.

Dust Control

- Any dust arising from Site activities will be minimised and suppressed by water bowsers damping down the proposed construction vehicular access road on East Claydon Road, as well as the proposed temporary construction vehicular access road any other working areas.

Existing Condition Survey

- Prior to construction work surveys will be undertaken of the condition of the highway surrounding the proposed development, with any construction damage being repaired.

Monitoring and Compliance

- The contractor will be responsible for implementing and monitoring obligations with regard to the CTMP, updating the CTMP if required, and resolving issues and problems through liaison with relevant stakeholders; and
- A series of mechanisms will be established to provide a clear understanding of the enforcement procedures that will be applied if the requirements outlined in the CTMP are not achieved

Decommissioning

G5.4 As included within the ES Scoping Opinion (Appendix B2), it is likely that the same number and type of construction vehicles will be used in the decommissioning of the Proposed Development as will be used in the construction of the Proposed Development, and as such

it is assumed that the same measures to manage the effects of HGV's and Abnormal Indivisible Loads during the decommissioning phase of the Proposed Development will be implemented in the absence of any other robust dataset.

G5.5 As such, prior to decommissioning, it is assumed that a Decommissioning Management Plan (or similar) will be required to be submitted to manage any similar impacts, and that this will be in accordance with the CEMP, CTMP and AIL submitted with this ES.

Major Hazards and Accidents

G5.6 The PIA data explored above demonstrates that there are no road safety issues on East Claydon Road within the vicinity of the Proposed Development, Granborough Road, Vicarage Road, and on the A413 between Vicarage Road in Winslow, and the A421 in Buckingham along the proposed temporary construction vehicular access route to the north of the Proposed Development. Therefore, based on the existing traffic flows on these roads, along with the predicted number and type of HGV movements, there is no reason to suggest that this will change during the construction of the Proposed Development.

Phasing

G5.7 The construction programme will be phased over a 24-month period with the preparation of the Site expected to take place between months 1 and 18 (Phase 1 and 2). It should be noted that the construction of the proposed temporary construction vehicular access and the proposed temporary construction vehicular access road, turning and compound areas on the Site is expected to take place between months 2 and 7 (Phases 1 and 2) of the programme of works. Further phasing details are provided within the CTMP in **Appendix G2**.

G5.8 The construction of the Proposed Development is expected to take place between months 6 and 18 (Phases 2 and 3) of the programme of works, and the clearance of the site (in preparation for the operational phase) is expected to take place between months 19 and 24 (Phase 3) of the programme of works. It should be noted that operational fencing will take place between months 19 and 20 (Phase 3) and landscaping will take place between months 21 and 24 (Phase 3) after construction has been completed.

G5.9 The peak construction year of 2029 has been used for the assessment within this ES Chapter, which assumes a 'worst case' scenario, when the majority of cumulative schemes, and the replacement substation, identified for the Proposed Development are likely to be under construction concurrently. The wider planning application is seeking to obtain permission for a 5-year period, which could delay peak construction until 2030-31, however, this is unlikely to change the outcome of this ES Chapter, which has assumed the 'worst case'.

G5.10 The proposed construction trips, construction routes, construction programme and access will not change for those within the CTMP.

During Construction

Construction Trip Attraction

G5.11 There will be an increase in total vehicles and HGV traffic visiting the Site during the construction period. HGV movements will be principally associated with the delivery of plant and materials. In addition, construction personnel will also generate car and van movements as they arrive and depart.

G5.12 Table G5.1 below outlines the maximum number of daily LGV and HGV two-way movements that are predicted to be attracted by the Proposed Development during the construction period, provided by Statkraft UK Limited, based on their extensive knowledge and experience of other similar construction sites. It should be noted that the HGV arrivals and departures associated with the delivery of materials, are expected to be distributed throughout the delivery hours, which will help minimise the impact of vehicle movements on the surrounding highway network.

Table G5.1 Maximum Predicted Daily LGV and HGV Movements (Two-Way)

	Phase		
Vehicle Class	**1**	**2**	**3**
LGV	44	58	55
HGV	97	61	7
Total	141	119	62

G5.13 The construction vehicles will access and egress the Site via the proposed temporary construction vehicular access on the north side of East Claydon Road, and will travel to and from this point via the proposed temporary construction vehicular access route to the north. The proposed temporary vehicular construction route to the north of the Proposed Development will be used by all construction traffic to access and egress and will consist of East Claydon Road, Granborough Road, Burleys Road, Vicarage Road, the A413 High Street, Buckingham Road and London Road and the A241 (east and west), and then onwards to the strategic highway network.

G5.14 There is expected to be little interaction between pedestrians and cyclists and construction traffic, as there are limited numbers of vulnerable groups and schools in close proximity.

Cumulative Construction Effects

G5.15 The construction of the developments outlined in Section G4.0 is likely to create cumulative impacts, therefore this assessment assumes that the construction of those developments will occur in tandem with the Proposed Development.

Future Baseline and Proposed Development Traffic Flows

G5.16 The forecast 2029 flows which include the TEMPro growth, cumulative development and Proposed Development construction trips are included in Table G5.2 and Table G5.3 for total vehicles and Table G5.4 and Table G5.5 for HGVs.

Table G5.2 Baseline + Cumulative Development + Proposed Development 2029 Traffic Flows – AM Peak Hour 08:00-09:00 (Total Vehicles)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		185		194	379
2 – Granborough Road	307		306		613
3 – A413		535		546	1,081
4 – London Road	721		575		1,296

Table G5.3 Baseline + Cumulative Development + Proposed Development 2029 Traffic Flows – PM Peak Hour 17:00-18:00 (Total Vehicles)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		216		159	375
2 – Granborough Road	323		284		607
3 – A413		452		492	944
4 – London Road	638		652		1,290

Table G5.4 Baseline + Cumulative Development + Proposed Development 2029 Traffic Flows – AM Peak Hour 08:00-09:00 (HGVs)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	

1 – East Claydon Road		14		15	30
2 – Granborough Road	24		23		47
3 – A413		18		18	36
4 – London Road	32		34		66

Table G5.5 Baseline + Cumulative Development + Proposed Development 2029 Traffic Flows – PM Peak Hour 17:00-18:00 (HGVs)

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		17		18	35
2 – Granborough Road	21		21		42
3 – A413		14		15	29
4 – London Road	20		19		39

G5.17 The absolute and percentage change in traffic flows between the 2029 Baseline and 2029 Baseline + Cumulative + Proposed Development are shown for total vehicles in Table.5.6 and Table 5.7 and Table 5.8 and Table 5.9 for HGVs.

Table G5.6 2029 Baseline and 2029 Baseline + Cumulative + Proposed Development Traffic Flows – AM Peak Hour 08:00-09:00 (Total Vehicles) – Absolute and Percentage Change

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	

1 – East Claydon Road		22 (12%)		22 (11%)	44 (12%)
2 – Granborough Road	23 (7%)		22 (7%)		45 (7%)
3 – A413		21 (4%)		21 (4%)	42 (4%)
4 – London Road	22 (3%)		21 (4%)		43 (3%)

Table G5.7 2029 Baseline and 2029 Baseline + Cumulative + Proposed Development Traffic Flows – PM Peak Hour 17:00-18:00 (Total Vehicles) – Absolute and Percentage Change

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		22 (10%)		22 (14%)	44 (12%)
2 – Granborough Road	22 (7%)		21 (7%)		43 (7%)
3 – A413		22 (7%)		22 (7%)	44 (5%)
4 – London Road	21 (3%)		22 (3%)		43 (3%)

Table G5.8 2029 Baseline and 2029 Baseline + Cumulative + Proposed Development Traffic Flows – AM Peak Hour 08:00-09:00 (HGVs) - Absolute and Percentage Change

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	
1 – East Claydon Road		2 (14%)		2 (13%)	4 (13%)
2 – Granborough Road	4 (17%)		3 (13%)		7 (15%)
3 – A413		4 (22%)		3 (17%)	7 (19%)
4 – London Road	3 (9%)		3 (9%)		6 (9%)

Table G5.9 2029 Baseline and 2029 Baseline + Cumulative + Proposed Development Traffic Flows – PM Peak Hour 17:00-18:00 (HGVs) - Absolute and Percentage Change

Site	Direction				Two-way
	Northbound	Eastbound	Southbound	Westbound	

1 – East Claydon Road		2 (12%)		3 (17%)	5 (14%)
2 – Granborough Road	4 (19%)		4 (19%)		8 (19%)
3 – A413		4 (29%)		4 (27%)	8 (28%)
4 – London Road	4 (20%)		3 (16%)		7 (18%)

Source:

Severance of Communities

G5.18 The tables above show that the total vehicle flows are all below a 30% increase from the 2029 baseline to the 2029 future baseline with the Proposed Development. Similarly, the HGVs numbers do not show an increase above 30%, which would create a negligible temporary adverse magnitude of impact on receptors of a high sensitivity, with overall Negligible significance of effect.

G5.19 The increase in HGV flows is a maximum of 4 vehicles during each peak hour and it is therefore expected that such a small increase in HGV numbers should not have a substantial adverse impact on severance of communities, based on professional judgement. The effect is Negligible and not significant.

Non-Motorised User Delay

G5.20 The tables above show that the total vehicle flows are all below a 30% increase from the 2029 Baseline to the 2029 Baseline + Cumulative + Proposed Development. Similarly, the HGVs numbers do not show an increase above 30%, which would create a negligible temporary adverse magnitude of impact on receptors of a high sensitivity, with overall Negligible significance of effect.

G5.21 It is therefore expected that such a small increase in HGV numbers is not likely to have a substantial adverse impact on NMU delay, based on professional judgment. The effect is Negligible Adverse and not significant.

Non-Motorised User Amenity

G5.22 There are no links within the study area that have halved or doubled as a result of the Proposed Development, therefore, the magnitude of impact will be negligible, with a Negligible significance of effect.

Fear and Intimidation On and By Road Users

G5.23 The assessment has used 18-hour AAWT flows and has analysed the difference in total vehicles and HGVs between the 2029 Future Baseline and 2029 Baseline + Cumulative + Proposed Development. Table G5.10 below sets out the findings.

Table G5.10 Fear and intimindation – potential effects

Site	18-hour average flow all vehicles (vehicle / hour) (a)		18-hour total HGV flow (b)		18-hour average speed change (mph) (c)	
	2029 Baseline	2029 Baseline + Cumulative + Proposed Development	2029 Baseline	2029 Baseline + Cumulative + Proposed Development	2029 Baseline	2029 Baseline + Cumulative + Proposed Development
1 – East Claydon Road	**0**	**0**	**0**	**0**	**30**	**30**
2 – Granborough Road	**0**	**0**	**0**	**0**	**30**	**30**
3 – A413	**0**	**0**	**0**	**0**	**30**	**30**
4 – London Road	**0**	**0**	**0**	**0**	**30**	**30**

G5.24 The assessment shows that in both scenarios there is a moderate level of fear and intimidation, with a negligible magnitude of impact, as there is no step change between the scenarios, with a Negligible significance of effect.

Road Vehicle Driver and Passenger Delay

G5.25 The all vehicle flows show that there are no increases above 30% across all links into the 2029 Baseline + Cumulative + Proposed Development, creating a negligible adverse magnitude of impact, of nil significance. Similarly, the HGVs numbers do not show an increase above 30%, which would create a negligible temporary adverse magnitude of impact on receptors of a high sensitivity, with Negligible significance of effect.

Hazardous and Large Loads

G5.26 A separate Abnormal Indivisible Loads Assessment has been produced to understand the impact of large loads on the local road network. This is included within **Appendix G1**. The outcome of this work suggests that the potential effects would be of a low adverse magnitude of impact, of Minor Adverse significance, which is not significant.

Road User and Pedestrian Safety

G5.27 The assessment of accident risk and highway safety has been based upon a review of the existing accident rates and specific local circumstances, which is documented within the CTMP, included in **Appendix G2**.

G5.28 The road safety data that was obtained demonstrates that there are no road safety issues on East Claydon Road within the vicinity of the Proposed Development, Granborough Road, Vicarage Road, and on the A413 between Vicarage Road in Winslow, and the A421 in Buckingham along the proposed temporary construction vehicular access route to the north of the Proposed Development. Therefore, based on the existing traffic flows on these roads along with the predicted number and type of HGV movements there is no reason to suggest

that this will change during the construction of the Proposed Development. There is mitigation included within the CTMP to protect the safety of construction staff and along the proposed construction route. The magnitude of impact is therefore expected to be low, resulting in a Minor Adverse effect, which is not significant.

During Operation

G5.29 As explained in Section G3.0, the operational phase assessment is scoped out of the EIA.

During Decommissioning

G5.30 Effects are assumed to be the same as the construction phase.

G6.0 Mitigation and Monitoring

During Construction

G6.1 No further mitigation is required, above the embedded mitigation mentioned previously within this assessment.

During Decommissioning

G6.2 No further mitigation is required, above the embedded mitigation mentioned previously within this assessment.

G7.0 Residual Effects

During Construction

G7.1 Construction effects on the following receptors have been assessed:

Severance of Communities

- During construction there will be an increase in total vehicles and HGV movements, however this will result in a negligible temporary adverse impact, with Negligible significance of effect (not significant in EIA terms);

- **Non-Motorised User Delay**
- During construction there will be an increase in total vehicles and HGV movements, however this will result in a negligible temporary adverse impact, with Negligible significance of effect (not significant in EIA terms);

- **Non-Motorised User Amenity**
- No links within the study area have halved or doubled, therefore, the magnitude of impact will be negligible, with Negligible significance of effect (not significant in EIA terms);

- **Fear and Intimidation On and By Road Users**
- During construction there will be an increase in HGV movements, there is no step change between scenarios, so there will be a negligible magnitude of impact, with Negligible significance of effect (not significant in EIA terms).

- **Road Vehicle Driver and Passenger Delay**
- During construction, there would be a negligible temporary adverse magnitude of impact on receptors of a high sensitivity, with Negligible significance of effect (not significant in EIA terms), as it is unlikely to greatly impact the operation of junctions within the local highway network;

- **Hazardous and Large Loads**
- A separate Abnormal Indivisible Loads Assessment has been produced to understand the impact of large loads on the local road network, which is included in Appendix G1. To summarise, residual effects on sensitive receptors will be of a low adverse magnitude of impact, resulting in a Minor Adverse effect (not significant in EIA terms).

- **Road User and Pedestrian Safety**
- During construction there will be an increase in HGV movements, however this will be a temporary Minor Adverse impact (not significant in EIA terms), unlikely to greatly impact the operation of junctions within the local highway network.

During Decommissioning

G7.2 The residual effects on the receptors mentioned above are assumed to be the same as during construction.

G8.0 Summary & Conclusions

G8.1 This Chapter has been prepared to present the potential effects of the Proposed Development on transport and access, as required by the 207 EIA Regulations. This Chapter has been prepared in accordance with Buckinghamshire Council's EIA Scoping Opinion, and to help inform the assessment of the potential highway and transport impacts of the Development.

G8.2 The study area is focused on where there was likely to be an impact resulting from the construction phases of the Proposed Development, which included traffic surveys at four locations, as agreed with Buckinghamshire Council.

G8.3 The assessment has included a future year of 2029, which is when the Proposed Development is likely to be operational.

G8.4 G8.1 below sets out the summary of effects, following this assessment, all will be a temporary impact.

Table G8.1 Summary of Effects

Receptor	Impact	Potential Effects (taking account of embedded mitigation)	Additional Mitigation and Monitoring	Residual Effects
During Construction				
Non-motorised Users	Non-motorised user delay	All vehicles - negligible adverse and not significant. HGVs – negligible adverse and not significant.	No further mitigation is proposed outside of the CTMP	Negligible Not Significant
	Non-motorised user amenity	Negligible and not significant.	N/A	Negligible Not Significant
Motorised Users	Road vehicle driver and passenger delay	All vehicles - negligible adverse and not significant. HGVs – negligible adverse and not significant.	No further mitigation is proposed outside of the CTMP	Negligible Not Significant
Non-motorised and Motorised Users	Severance of communities	All vehicles - negligible adverse and not significant. HGVs – negligible adverse and not significant.	No further mitigation is proposed outside of the CTMP	Negligible Not Significant
	Fear and intimidation on and by road users	Negligible and not significant.	N/A	Negligible Not Significant
	Hazardous and large loads	Low adverse and minor significance.	No further mitigation is proposed outside of the CTMP	Minor Adverse Not Significant

Receptor	Impact	Potential Effects (taking account of embedded mitigation)	Additional Mitigation and Monitoring	Residual Effects
	Road user and pedestrian safety	Low adverse and minor significance.	No further mitigation is proposed outside of the CTMP	Minor Adverse Not Significant
During Operation				
N/A	N/A	N/A	N/A	N/A
During Decommissioning				
Assumed to be the same as during the construction phase following implementation of a Decommissioning Traffic Management Plan with similar measures as the approved CTMP.				

G9.0 Abbreviations & Definitions

Abbreviations

- AAWT - Annual Average Weekday Traffic
- AN – Access Technical Note
- BESS – Battery Energy Storage Scheme
- CTMP/CEMP - Construction Traffic/Environnent Management Plan
- DCO – Development Consent Order
- CTMP – Construction Traffic Management Plan
- DfT - Department for Transport
- DMRB - Design Manual for Roads and Bridges
- EIA - Environmental Impact Assessment
- ES - Environmental Statement
- EWR – East West Rail
- HGV - Heavy Goods Vehicle
- IEMA - Institute for Environmental Management and Assessment
- LGV - Light Goods Vehicle
- LTN - Local Transport Note
- LTP - Local Transport Plan
- MSOA - Middle-Layer Super Output Area
- NMU – Non-motorised user
- NPPF - National Planning Policy Framework
- PIA - Personal Injury Accidents
- PPG - Planning Practice Guidance
- PROW - Public Rights of Way
- TN – Technical Note
- V/C – Ratio of volume to capacity

G10.0 References

1. National Planning Policy Framework, Ministry of Housing, Communities & Local Government, 2024

2. Planning Practice Guidance, Ministry of Housing, Communities & Local Government, 2024

3. Cycle Infrastructure Design, Local Transport Note 1/20, Department for Transport, 2020

4. Gear Change – A Bold Vision for Cycling and Walking, Department for Transport, 2020

5. LA 104 Environmental Assessment and Monitoring, DMRB, 2019

6. Vale of Aylesbury Local Plan 2013 – 2033, Buckingham Council, 2013

7. Buckinghamshire Local Transport Plan 4 2016-2036, Buckinghamshire Council, 2016

8. Buckingham Local Plan 2040, Buckinghamshire Council, 2025

9. Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement, 2023

10. Design Manual for Roads and Bridges (DMRB) Volume 11 Environmental Assessment