Lime Down
Solar Park

Environmental Statement

Volume 1, Chapter 13: Transport and Access (Tracked)

~~**September 2025**~~

May 2026

Revision ~~1~~2

Planning Inspectorate Reference: EN010168

Document Reference: APP/6.1

APFP Regulation 5(2)(a)

Schedule of Changes

Revision	Section Reference	Description of Changes	Reason for Revision
2	Throughout	Updated to confirm schedule of construction vehicle movements associated with deliveries.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation.
	Throughout	Updated to confirm that multiple Final CTMPs will be provided post - consent.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation.
	Throughout	Updated to clarify that the construction phase is two years.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation.
	Paragraph 13.7.32	Updated to confirm the route is for the western area of Lime Down D.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation.
	Table 13-12	Updated to provide breakdown of observed traffic flows for eastern and western construction routes to Lime Down D.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-14	Updated to provide breakdown of personal injury collision data for eastern and western construction routes to Lime Down D.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-17	Updated to provide breakdown of baseline traffic flows for eastern and western construction routes to Lime Down D.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-19	Updated to provide breakdown of site access points for eastern and western construction routes to Lime Down D	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-20	Updated to provide breakdown of HGV movement calculations for the construction phase.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-22	Updated to provide breakdown of total traffic movements for eastern and western construction routes	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Paragraph 13.10.25	Updated to confirm routes to western and eastern areas of Lime Down D.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation

Revision	Section Reference	Description of Changes	Reason for Revision
	Table 13-23	Updated to provide breakdown of total traffic movements for eastern and western construction routes	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-24	Updated to provide breakdown of total traffic impact for eastern and western construction routes	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-25	Updated to provide breakdown of HGV traffic impact for eastern and western construction routes	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Paragraph 13.10.111 and Table 13-42	Updated to provide breakdown of HGV movement calculations for replacement during operation phase.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Paragraph 13.11.1	Added reference to Stage 2 RSA.	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-45	Updated to provide breakdown of cumulative development flows for eastern and western construction routes to Lime Down D	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation
	Table 13-46	Updated to provide breakdown of cumulative traffic impact for eastern and western construction routes	Updated for Deadline 1 of Examination in response to Wiltshire Council's Relevant Representation

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13 Transport and Access

13.1 Introduction

13.1.1 This chapter of the Environmental Statement (ES) presents the findings of the assessment of effects on Transport and Access as a result of the Scheme. For a description of the Scheme, refer to **ES Volume 1, Chapter 3: The Scheme [EN010168/APP/6.1]**.

13.1.2 This chapter identifies and proposes measures to address the potential impacts and likely significant effects on Transport and Access, during the construction, operation and decommissioning phases.

13.1.3 This chapter is supported by the following figures in **ES Volume 2 [EN010168/APP/6.2]**:

- **Figure 13-1: Study Area: Solar PV Sites**;
- **Figure 13-2: Study Area: Cable Route Corridor**;
- **Figure 13-3: Public Rights of Way Location Plan: Solar PV Sites**;
- **Figure 13-4: Public Rights of Way Location Plan: Cable Route Corridor**;
- **Figure 13-5: Abnormal Indivisible Load Routes: Solar PV Sites**;
- **Figure 13-6: Abnormal Indivisible Load Routes: Cable Route Corridor**;
- **Figure 13-7: Sensitivity of Links: Solar PV Sites**;
- **Figure 13-8: Sensitivity of Links: Cable Route Corridor**;
- **Figure 13-9: Traffic Survey Locations: Solar PV Sites**;
- **Figure 13-10: Traffic Survey Locations: Cable Route Corridor**;
- **Figure 13-11: Construction Access Locations: Solar PV Sites**;
- **Figure 13-12: Construction Access Locations: Cable Route Corridor**; and
- **Figure 13-13: Operational Only Access Locations: Solar PV Sites**.

13.1.4 This chapter is supported by the following appendices in **ES Volume 3 [EN010168/APP/6.3]**:

- **Appendix 13-1: Transport Assessment**.

13.1.5 This chapter should also be read in conjunction with the following supporting documents:

- **Outline Construction Traffic Management Plan (CTMP) [EN010168/APP/7.22]**; and
- **Outline Public Rights of Way (PRoW) and Permissive Paths Management Plan [EN010168/APP/7.17]**.

13.2 Consultation

13.2.1 A request for an EIA Scoping Opinion was sought from the Secretary of State through the Planning Inspectorate in July 2024. The issues raised in the Scoping Opinion are summarised and responded to within **ES Volume 1, Appendix 1-2: Scoping Opinion Response Table [EN010168/APP/6.3]** which demonstrates how the matters raised in the Scoping Opinion are addressed in this ES. Matters where the scope of the assessment has been raised by the Planning Inspectorate are summarised in **Table 13-1** below.

Table 13-1: Planning Inspectorate Scoping Opinion Responses

ID	Summary of Matter	Response
3.8.1	The Scoping Report estimates 4 vehicle movements per month during operation which will not trigger the screening thresholds specified in the Institute of Institute of Sustainability and Environmental Professionals (ISEP) Guidelines – Environmental Assessment of Traffic and Movement (2023). On this basis, the Inspectorate is content that this matter can be scoped out of further assessment. However, the ES should confirm the operational vehicle types and numbers (with reference to thresholds within guidance) to justify this position. The Scoping Report states that transport impacts during the decommissioning phase will be equivalent to or less than those during the construction phase and proposes to scope this matter out. Indicative traffic numbers for the construction or decommissioning phases are not provided within the Scoping Report. As such, the Inspectorate is not in a position to scope this matter out at this stage. The ES should provide information on the likely trip generation during decommissioning and confirm the assessment conclusions for the decommissioning phase, based on reasonable assumptions. Further details on the specific mitigation measures required to avoid likely significant effects should also be provided.	Operation and maintenance vehicle types and movements are quantified in Section 13.10 of this chapter. They will not give rise to any residual significant effects, in line with relevant thresholds set out in the ISEP Guidelines 2023 (Ref 13-1) Indicative construction vehicle numbers are quantified in Section 13.10 of this chapter. The vehicular movements associated with the decommissioning phase are not forecast to be greater than the construction phase. This chapter includes additional details regarding mitigation measures.in Section 13.9 and 13.11.
3.8.2	It would assist the reader if the roads set out in Paragraph 13.3.2 of the Scoping Report were identified on Figure 13.1 and a version of this figure is provided in the ES.	Proposed construction vehicle routes are identified in Section 13.10 of this chapter and are illustrated in **ES Volume 2, Figure 13-1 Study Area: Solar PV Sites [EN010168/APP/6.2]** and **ES Volume 2, Figure 13-2 Study**

ID	Summary of Matter	Response
		Area: Cable Route Corridor [EN010168/APP/6.2].
3.8.3	Paragraph 13.3.4 of the Scoping Report states that the Study Area for the Traffic and Transport assessment is shown on Figure 13.1. However, Figure 13.1 only shows proposed construction vehicle routes. The ES should explain how the Study Area for the Traffic and Transport assessment has been defined, with reference to the extent of likely impacts. The ES should document any consultation undertaken with relevant highways authorities with regards to the scope of the proposed assessment, including matters agreed/not agreed. A plan illustrating the extent of the study area, the expected route(s) of construction traffic and the anticipated numbers of vehicle movements (including vehicle type, peak hour and daily movements) should be included in the ES.	The Study Area for the transport and access assessment is based on the construction vehicle routes to the Order Limits. The construction vehicle routes to the Order Limits will be secured through a Construction Traffic Management Plan (CTMP) which will be in substantial accord with the **Outline CTMP [EN010168/APP/7.22]** submitted as part of the DCO Application. There will not be transport and access effects outside these construction vehicle routes. The Study Area, expected routes, and anticipated construction vehicle numbers are set out in Section 13.10 of this chapter. Consultation with the relevant highways authorities has taken place (see ~~Error! Reference source not found.~~**Table 13-2** of this chapter).
3.8.4	The Scoping Report states that the transformers will be classified as an Abnormal Indivisible Load (AIL) and an additional assessment will be undertaken by an AIL specialist to identify suitable routes. The impacts on safety from the delivery of AILs should be assessed within the ES where significant effects are likely to arise. Appropriate measures to ensure safe transportation of hazardous loads (if any) should be included within the AIL Transport Management Plan.	The transportation of Conversion Units will be classified as an Abnormal Indivisible Load (AIL). An assessment of the impact of AIL is set out in Section 13.10.7 of **ES Volume 1, Chapter 13: Transport and Access [EN010168/APP/6.1]** which has been based on the AIL routes proposed by a specialist haulage company on behalf of the Applicant. Appropriate mitigation measures to managed AIL movements is set out within the **Outline CTMP [EN010168/APP/7.22]**.
3.8.5	Paragraph 13.3.2 of the Scoping Report states that the study area for the assessment of significant effects on transport and access "will consist of all PRoW within the Sites and the roads that comprise the construction vehicle routes from Junctions 17 and 18 of the M4" however does not discuss likely significant effects on the M4 itself. Given that construction vehicles are likely to access the Proposed Development via the M4 the ES should include an assessment of traffic impacts on the SRN (including the M4 and associated junctions) during construction and decommissioning which are likely to result in significant effects. The applicant's attention is drawn to the consultation response from National Highways in relation to potential effects on the M4 (Appendix 2 of this Opinion).	The M4 is part of the Strategic Road Network. The impact of construction traffic on mainline flows will be non-material with the most notable impact likely to be at junctions/off-slips. Therefore, an assessment of likely significant transport and access effects on Junction 17 and 18 of the M4 is set out in Section 13.10 of **ES Volume 1, Chapter 13: Transport and Access [EN010168/APP/6.1]**. The submission is also supported by an **Outline CTMP [EN010168/APP/7.22]** which specifically considers the construction phase of the development and **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3]** which considers the impact on the M4 and associated junctions.

ID	Summary of Matter	Response
		Further consultation with National Highways has taken place including a meeting on 17 June 2025.

13.2.2 Engagement has been undertaken with stakeholders comprising Wiltshire Council and National Highways. The matters raised are summarised in **Table 13-2** below.

Table 13-2: Summary of Engagement Undertaken

Consultee and Date	Summary of Matter	Response
National Highways (20 February 2025)	It is acknowledged that the primary traffic impact will be during the construction phase which is anticipated to last for 24 months. All construction vehicles will route to the sites via the M4 at either junction 17 or 18. The PEIR predicts average daily two-way vehicle movements in the order of: • M4 J18 - 237 (of which 45 HGVs) • M4 J17 - 224 (of which 58 HGVs) On the basis that the traffic impact represents a low percentage increase in M4 vehicle flows, the applicant is not proposing to undertake any further assessment of traffic impacts for the SRN. It should be noted that National Highways would not usually accept percentage-flow changes as a measure of traffic impacts on the SRN, but it is recognised that the impact will be temporary for the construction period only. However, both junctions (particularly J17) experience peak-hour congestion and we will expect construction traffic management measures which aim to reduce network peak hour construction vehicle movements. We welcome that you have already sought engagement with National Highways with regards potential abnormal load movements, but further engagement will also be required with our South West Network Occupancy team to agree any specific SRN measures prior to their implementation (eg signing). We look forward to reviewing the proposed Construction Traffic Management Plan in due course.	Construction vehicle movements will be managed through the Outline CTMP [EN010168/APP/7.22]. This will be a requirement of the DCO. The aim of the Outline CTMP [EN010168/APP/7.22] is to ensure that the effect of the construction phase on the local and strategic highway network is minimised. Construction vehicles will avoid travel during the network peak hours where possible. Therefore, deliveries will be scheduled for between 09:30 and 16:30 ~~where possible.~~on weekdays and 09:30 and 12:30 on Saturdays, where practicable.
	National Highways will also need to be a party in any further discussions regarding the Cable Route Corridor as the cables will need to pass under the M4 and any associated works will need to be agreed with us. We understand that this remains an area of search, although Figure 8-1-6 Cable Route Search Corridor Study Area suggest this crossing is likely to be within a section to the north of Sevington, between the overbridges for the minor roads serving Leigh Delamere to the east and Foscote to the west. We understand the Cable Route Search Corridor will be refined as the design progresses to a Cable Route Corridor for the DCO application. As previously stated at the scoping stage	This comment has been noted by the Applicant (Lime Down Solar Park Limited) and engagement with National Highways on the Cable Route Corridor is ongoing. The relevant powers to route cables under the M4 and be included as part of the DCO in coordination with National Highways.

Consultee and Date	Summary of Matter	Response
	Works to implement the Cable Route Corridor under the M4 will be subject to either a s61 consent or s50 licence. National Highways would encourage early engagement with the applicant to progress the required agreements and funding arrangements should the DCO be granted. Any drilling works to accommodate the cable route must be subject to the Design Manual for Roads and Bridges CD622 Managing Geotechnical Risk reporting, and subject to review and acceptance by National Highways. Direct engagement with National Highways will be necessary to progress this requirement.	
	Given that the Solar Arrays will be located at least 1.7km to the north of the M4, we consider that the development is unlikely to have any other significant adverse impacts on the SRN.	This comment has been noted by the Applicant and the conclusions are agreed.
Wiltshire Council, Highways (March 2025)	The council is supportive of the approach for the work undertaken to date by the applicant, in terms of presenting the scheme proposals and the impacts that would arise in terms of direct highways impact. Whilst it is acknowledged that further work is required, the council is content that these have been identified and does not consider that further input is required by the council at this time in terms of the approach and background data. It is considered that the highways and transport section is clearly presented and can be understood by statutory consultees and any other person who may wish to comment on these matters during the statutory public consultation.	This comment has been noted by the Applicant.
	The 'Highway Improvement Areas' should be considered in the context of the need to carry out such improvements solely to support this proposal and the expectation that these improvements are no longer necessary. There should be a clear distinction for any 'Highway Improvement Area's' which are intended to remain in place even after the commissioning works are completed.	This comment has been noted by the Applicant. Further detail on the Highway Improvement Areas are set out in **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3]**. Highway improvements associated with AIL movements will be temporary, with the highway returned to its previous condition once AIL deliveries have been made.
	The council notes that applicant's position that some increases in traffic are larger in percentage terms due to existing low levels of movement. However, in terms of movement, the council's expectation will be for route widths and passing to be acceptable, to which the number and frequency of occurrences is less of an issue than ensuring that even if it only occurs once, that it does so safely and suitably	This comment has been noted by the Applicant and has been considered in the design of highway improvement areas.

Consultee and Date	Summary of Matter	Response
	In some cases, the council considers that management of traffic may be a more reasonable or suitable approach than improvement, but this would come forward as matters progress	This comment has been noted by the Applicant and has been considered in the design of highway improvement areas.
	The council considers that if the applicant's goals for staff numbers and arrivals by shuttle bus or travel planned solutions are to be meaningful, there needs to be clear monitoring and performance measures to ensure that the stated approach is adopted during delivery. Furthermore, the assumptions in terms of staff numbers and arrivals by mode must move towards practical and managed outcomes with realistic strategies. Other site assumptions would need to be presented as having been achieved and met in implementation to satisfy the reliance on them any further	This is noted by the Applicant. An Outline Construction Worker Travel Plan (CWTP) is appended to the **Outline CTMP [EN010168/APP/7.22]**. This will monitor uptake of the shuttle bus and car sharing.
	As indicated by the applicant, it is the council's expectation that the construction management plan and abnormal loads elements form part of any DCO. The council wish to retain final positions on these and authority	The **Outline CTMP [EN010168/APP/7.22]** includes a section on proposed Abnormal Load routes and movements.
	Whilst it is acknowledged that the exact proposals in terms of roads, accesses, and highway impacts are still developing (and survey work is still in the process of being completed), for any works within or affecting the local highway network, the council will need to consider the verge, footways and pathways and the carriageway. It is noted that open cutting of the highway will require a greater reinstatement when compared to directional drilling. The council, therefore, reserves the right to comment further on this matter once the scheme designs are more advanced. Any new apparatus within the highway will need to be licenced under Section 50 of the New Roads and Streetworks Act (NRSWA).	This is noted by the Applicant. Provisions are made within the **Outline CTMP [EN010168/APP/7.22]** for Wiltshire Council to retain technical approval rights for works in the highway. The DCO provides a statutory right for the Applicant to carry out street works required for the Scheme.
	The council will also need to consider any vehicle access onto private land which requires changes to the highway fabric, and these works will need to be licenced in some way. Depending on whether the access is temporary or permanent, the construction detail will vary and will require approval at the licencing stage. A dilapidation survey of the highway condition may be required on high traffic count areas so that the highway can be returned to its original state at the end of construction. The council awaits further details from the applicant to assess whether this will be applicable	The DCO includes the power to form and lay out accesses, with alterations to the highway to be restored to the reasonable satisfaction of the street authority.
	Furthermore, a permit will be required for any works on the highway and depending on the traffic management method proposed, a Portable Traffic Signals licence or Traffic Regulation Order (TRO) may be required. Approval from the council's Streetworks team will be required in either instance. The council considers it prudent to remind the applicant that for large scale works, a 12 week notice	Provisions are made within the **Outline CTMP [EN010168/APP/7.22]** for Wiltshire Council to retain technical approval rights for works in the highway.

Consultee and Date	Summary of Matter	Response
	period is required and the same notice period also applies if a Temporary Traffic Regulation Order (TTRO) is necessary. The council cannot guarantee that the network will be available for the dates and duration required by the applicant and encourages the applicant to provide as much information as possible in advance to aid efficient working practices	
	Whilst access and approvals may be a matter that can sit wholly within the DCO, subject to demonstration of the work and being satisfied that they can be carried out without the need for provision of powers and approvals under the Highways Act. At present, the council will reserve the right to retain final positions and authority on these matters also	Provisions are made within **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3]** for Wiltshire Council to retain technical approval rights for works in the highway.
	It is the council's Highways Officer's view that the assumptions and approach to specifying the vehicle numbers which underpins the assessment of in-combination cumulative effects is considered to be sound. It is acknowledged that these vehicle movements may result in in-combination cumulative effects for other environmental disciplines, for example air quality, noise etc. This would be over and above the highway oversight of ensuring matters can be safely and suitably accommodated.	This comment has been noted by the Applicant.
	Therefore, it is considered that this scheme provides significant opportunities to tackle one of the biggest problems on the PROW network, which is fragmentation of Footpaths and Bridleways, which terminate on roads forcing users onto the road or verges until they can rejoin another PROW. The creation of additional PROW could be of considerable benefit to PROW users, especially if MALW50 and GSOM15 were able to be linked into the PROW network. These two footpaths currently terminate at a point where no onward highway rights exist.	This comment has been noted, and permissive paths are being included in the design of the scheme.
Wiltshire Council, Public Rights of Way (March 2025)	It is noted that the applicant refers to permissive paths. However, given that permissive routes could be removed in 60 years' time once the scheme is decommissioned, it is considered that routes should be dedicated so that they become permanent additions to the PROW network, where possible.	As part of the decommissioning of the Scheme, the permissive paths will be removed and the land returned to the relevant landowners and restored to its current use.
	The council notes that further clarity is required on the impacts to PROW resulting from the cable connection route and the applicant's stated intention to provide this information within the ES.	Construction vehicle movements over PRoW will be managed through the **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17**]. The aim of the document is to ensure that the effect of the construction phase on PRoW is minimised

Consultee and Date	Summary of Matter	Response
		including along the Cable Route Corridor.
	The council welcomes the applicant's intention to submit an Outline PRoWMP with its DCO application. The council reserves the right to comment on the proposed management arrangements once this more detailed information is available.	An **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17**] has been prepared.
Wiltshire Council Highways Development Management Meeting (5 March 2024)	WC would like to see a pro-active approach to workers trips and car sharing etc. Would like the Applicant to work with local businesses and find off-site opportunities and provide onsite facilities	The **Outline CTMP [EN010168/APP/7.22]** includes a section on the proposed approach to worker trips and car sharing.
	WC stated that evidence was required to support numbers and surveyed construction numbers	Calculations on construction numbers are provided in **ES Volume 3 [EN010168/APP/6.3]: Appendix 13-1: Transport Assessment.**
	WC would like to see a construction programme and realistic timescales	The programme is set out in Section 13.10 of this chapter and in further detail in **Table 1-1** of the **Outline CTMP [EN010168/APP/7.22]**.
	WC stated there would be significant issues with the A350 cable route. It is the most highly trafficked route in Wiltshire with the exception of the M4.	This comment has been noted by the Applicant. The Cable Route Corridor will not route along the A350.
Wiltshire Council Countryside Access Development Meeting (12 March 2025)	WC stated that horse riders should be considered as part of the assessment and measures implemented to reduce impacts on bridleways where possible.	Measure relating to bridleways and the management of impacts on existing users is set out in the **Outline CTMP [EN010168/APP/7.22]** and **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]**
	WC confirmed the proposed structure and methodology of the PRoWMP.	An **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17**] has been prepared as per the agreed structure and methodology.
	WC suggested that routes should be dedicated so that they become permanent additions to the PROW network, where possible.	As part of the decommissioning of the Scheme, the permissive paths will be removed and the land returned to the relevant landowners and restored to its current use.

Consultee and Date	Summary of Matter	Response
Wiltshire Council Highways Development Management Meeting (17 March 2025)	WC mentioned potential conflicts with school traffic at the beginning and end of schools days should be considered	Measures setting out construction vehicle times are set out in the **Outline CTMP [EN010168/APP/7.22]**. Measures are set out to avoid AM and PM highway peak hours. The are no schools located directly on the identified construction routes and therefore further restrictions on construction vehicle times are not required.
	WC would like to see a pro-active approach to workers trips and car sharing etc	The **Outline CTMP [EN010168/APP/7.22]** includes a section on the proposed approach to worker trips and car sharing.
	WC stated there would be a need for a preconstruction highway condition survey and a post-construction survey to ensure any damage to the highway is recorded and repaired by the applicant.	A road condition/dilapidation survey forms a measure set out within the **Outline CTMP [EN010168/APP/7.22]**
Wiltshire Council Highways Development Management Meeting (17 March 2025)	WC stated that proposed access locations need to be clearly shown and set out as part of the submission	The proposed access locations are shown in figures in **ES Volume 2 [EN010168/APP/6.2] Figure 13-11 Construction Access Locations: Solar PV Sites;** and **Figure 13-12 Construction Access Locations: Cable Route Corridor.** Further details of each access point are also set out in **ES Volume 3 [EN010168/APP/6.3]: Appendix 13-1: Transport Assessment.**
Wiltshire Council Highways Development Management Meeting (5 June 2025)	WC requested that proposed construction routes are clearly set out and it is demonstrated that passage and width of roads are appropriate for construction traffic.	The proposed access locations are shown in figures in **ES Volume 2 [EN010168/APP/6.2] Figure 13-1: Study Area: Solar PV Sites** and **Figure 13-2: Study Area: Cable Route Corridor -** The construction routes are also set out and described in further detail in the **Outline CTMP [EN010168/APP/7.22]**.

Consultee and Date	Summary of Matter	Response
	WC stated that access drawings should either show the required level of visibility or detail how they will be managed.	Proposed layout and management for each access point are set out in **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3].**
	WC requested that proposed works to be undertaken in the Highway Improvement Areas is clearly set out.	Proposed works for each Highway Improvement Area are set out at Section 1.7.13 of **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3].**
	WC stated there would be a need for a preconstruction highway condition survey and a post-construction survey to ensure any damage to the highway is recorded and repaired by the applicant.	A road condition/dilapidation survey forms a measure set out within the **Outline CTMP [EN010168/APP/7.22]**
Wiltshire Council Highways Development Management Meeting (5 June 2025)	WC requested confirmation of what documents would be submitted as part of DCO and what documents will be secured as a requirement of the DCO	Documents comprise, **ES Volume 1, Chapter 13: Transport and Access [EN010168/APP/6.1]**, **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3], Outline CTMP [EN010168/APP/7.22],** and an **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17**]. The final documents secured as a requirement are specified as part of the DCO.
	WC requested confirmation of the final study area	The extent of the final study area is set out in **ES Volume 1, Chapter 13: Transport and Access [EN010168/APP/6.1]** and shown in **ES Volume 2, Figure 13-1 Study Area: Solar PV Sites [EN010168/APP/6.2]** and **ES Volume 2, Figure 13-2 Study Area: Cable Route Corridor [EN010168/APP/6.2]**.
	WC raised concern regarding construction access to Lime Down E via Grange Road and Rodbourne Road.	Construction access to Lime Down will be taken from the A429 as shown in **ES Volume 2 [EN010168/APP/6.2] Figure 13-11 Construction Access**

Consultee and Date	Summary of Matter	Response
		Locations: Solar PV Sites;
	WC requested confirmation of how the sensitivity for each link was derived and mentioned current comments made by Cotswolds National Landscape.	Link sensitivity is based on guidelines and consideration of the Cotswold National Landscape has been taken in account as part of this as set out in **ES Volume 1, Chapter 13: Transport and Access [EN010168/APP/6.1].**
	WC requested that a detailed breakdown of construction trips generation and programme is included in the Transport Assessment.	A detailed breakdown of construction trip generation calculations and programme is included in **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3].**
	WC requested that distribution of local work trips be considered, but accepted that worker trips are likely to have a non-material impact once distributed onto the local highway network	The impact of worker trips assessed within **ES Volume 1, Chapter 13: Transport and Access [EN010168/APP/6.1]** and **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3]**. Measures to mitigate the impact of construction worker trips are set out in the **Outline CTMP [EN010168/APP/7.22].**
	WC requested clarity on if a haul road will be constructed for the Cable Route Corridor.	A temporary haul road will be constructed during the construction phase of the Cable Route Corridor.
	WC requested if information on highway mitigation required for AIL movements be provided.	Details on highway mitigation required to accommodate AIL movements in provided in **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3]** and **Outline CTMP [EN010168/APP/7.22].**
	WC confirmed approval of the general measures contained within the Outline CTMP.	Noted
	WC requested that the sections of highway requiring a pre-construction and post-construction highway condition survey be confirmed.	Areas requiring a pre-construction and post-construction highway condition survey are set

Consultee and Date	Summary of Matter	Response
		out in the **Outline CTMP [EN010168/APP/7.22].**
	WC requested that minor roads specified in *Wiltshire Council Response to Construction Traffic Management Plan and Traffic Statement Scoping Note (August 2026)* needed tracking throughout to demonstrate adequate carriageway width or frequency of passing place opportunity to pass at least an HGV and a light vehicle.	Swept-path analysis of minor roads specified in Wiltshire Council Response to Construction Traffic Management Plan and Traffic Statement Scoping Note (August 2026) is provided in **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3],** with the exception of those suggested for Lime Down E as access is now being taken from the A429. This demonstrates adequate carriageway width or frequency of passing place opportunity to pass at least an HGV and a light vehicle.

13.2.3 Statutory consultation was held between 29 January 2025 and 19 March 2025. A full list of consultation responses in relation to socio-economic, tourism and regeneration matters are presented in the **Consultation Report [EN010168/APP/5.2]** submitted as part of the Application.

13.2.4 A further round of targeted consultation was undertaken between 3 June 2025 and 11 July 2025 following changes to the development boundary area of the Scheme presented in the PEIR and at Stage Two Statutory Consultation. Further detail regarding the targeted consultation is provided in **ES Volume 1, Chapter 1: Introduction [EN010168/APP/6.1]**.

13.3 Legislation, Planning Policy and Guidance

13.3.1 A summary of applicable legislation, planning policy and other guidance documents relating to Transport and Access pertinent to the Scheme is provided below.

Legislation

13.3.2 There is currently no specific legislation related to transport and access that should be referenced as part of the ES.

National Planning Policy

13.3.3 The National Policy Statements (NPS) that are relevant to the Scheme are:

- Overarching NPS for Energy (EN-1) (January 2024) (Ref 13-2);
- NPS for Renewable Energy Infrastructure (EN-3) (January 2024) (Ref 13-3); and
- NPS for Electricity Networks Infrastructure (EN-5) (January 2024) (Ref 13-4).

13.3.4 The NPS listed above came into effect on 17 January 2024. These NPS set out the Government's energy policy for the delivery of nationally significant energy infrastructure, the need for new energy infrastructure, and guidance for the determination of an application for a Development Consent Order (DCO).

13.3.5 The relevant NPS requirements, together with an indication of where in the ES the information is provided to address these requirements, are provided in **ES Volume 3, Appendix 5-1: National Policy Statement Requirement [EN010168/APP/6.3]**.

13.3.6 The National Planning Policy Framework (NPPF) (December 2024) (Ref 13-5) sets out the Government's planning policies for England and how these are expected to be applied.

13.3.7 Paragraph 116 of the NPPF (Ref 13-5) states that "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios".

13.3.8 Additionally, Paragraph 118 of the NPPF (Ref 13-5) states that "All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored".

Local Planning Policy

13.3.9 Local planning policy documents that are relevant to the Scheme and Transport and Access are:

- Wiltshire Core Strategy Development Plan (Adopted January 2015) (Ref 13-6), including the following policies:
  - Core Policy 42: Standalone Renewable Energy Installations – requires Applicants to demonstrate that impacts are satisfactorily assessed, including cumulative effects, on various factors including the local transport network.

  - Core Policy 60: Sustainable Transport – where possible development should seek to reduce the use of private car, this should be done by ensuring developments are in accessible locations, promoting sustainable transport options and providing mitigation of developments on transport users, communities, and the environment;
  - Core Policy 61: Transport and Developments – new developments should be designed to reduce the need to use private cars, as well to consider all road users in the design of the development; and
  - Core Policy 62: Development Impacts on the Transport Network – developments should provide appropriate mitigation measures to offset adverse impacts on the transport network during construction and operation and maintenance. Unless an over-riding need can be demonstrated, new development should not be accessed directly from the national primary route network.

- Wiltshire Local Plan Pre-Submission Draft 2020-2038 (Regulation 19) (Ref 13-7), including the following policies:
  - Policy 71: Transport and New Developments – new development will be supported where users can access a choice of sustainable transport modes and opportunities are provided to make improvements;
  - Policy 72: Development Impacts on the Primary and Major Road Networks – Proposals for new development should not be accessed directly from the national primary route network or major road network outside built-up areas in order to effectively manage traffic flow and reduce the risk to highway safety, unless an over-riding need can be demonstrated and the impacts can be safely mitigated; and
  - Policy 86: Renewable Energy – proposals will need to demonstrate how impacts have been assessed, including any cumulative effects.
- The fourth Wiltshire Council Local Transport Plan (LTP4) (Ref 13-8) covers the period from 2025 to 2038. It sets out Wiltshire Council's strategic transport objectives to align with the Wiltshire Local Plan and includes six strategic objectives:
  - 1. Improving health, wellbeing and safety;
  - 2. Economic growth;
  - 3. Futureproofing transport;
  - 4. Transport decarbonisation;
  - 5. Protecting and enhancing our unique environment;

- 6. Supporting rural communities.

Other Guidance

13.3.10 Other guidance documents relevant to the assessment of the impacts of the Scheme on Transport and Access include:

- Department for Transport Circular 01/2022 – Strategic Road Network and the Delivery of Sustainable Development (Ref 13-9) which explains how National Highways will:
  - Engage with the planning system; and
  - Fulfil its remit to be a delivery partner for sustainable economic growth whilst maintaining, managing and operating a safe and efficient strategic road network.
- ISEP Guidelines: Environmental Assessment of Traffic and Movement, ISEP, July 2023 (Ref 13-1) which provides practitioners with good practice advice on how to carry out the assessment of traffic and movement of people as part of a statutory EIA or non-statutory environmental assessment.

13.4 Assessment Assumptions and Limitations

13.4.1 Several assumptions have been made when forecasting the traffic generation of the Scheme.

13.4.2 For the construction phase, forecasts have been developed by the Applicant and the assessor based on professional judgement and derived from experience with other developments similar in size, scale and nature to the Scheme. They are considered to represent a realistic estimation of traffic generation for the Scheme.

13.4.3 Forecasts have also been developed based on a 24 month construction programme for the Solar PV Sites and an 18 month construction programme for the Cable Route Corridor as a worst-case. Should the construction phase become extended the impact of traffic generation would be less over the course of an average day, given that the same quantum of works would be spread over a longer period.

13.4.4 As a reasonable worst-case assessment for the ES, it will be assumed that all areas/elements of the Scheme will be constructed concurrently. However, this is not likely, and it is expected that areas/elements of the Scheme will be constructed at different times during the construction phase.

13.4.5 For the purpose of assessment, it has been assumed that only fixed Solar PV Panels are used across the Scheme, with no tracker Solar PV Panels. This scenario would require the greatest number of deliveries.

13.4.6 It is assumed that construction vehicle trip generation during the decommissioning phase will, in effect, be a reverse of the construction phase. Due to reduced construction activities, for example landscaping, the decommissioning phase will result in fewer vehicle trips compared to the construction phase. Therefore, the number of vehicle trips during the decommissioning phase will not exceed that of the construction phase.

13.4.7 For the operation and maintenance phase, the number of trips has again been developed by the Applicant and assessor based on similar projects. Assumptions have been made for day-to-day movements associated with the maintenance and security of the Scheme, and for the replacement of Solar PV Panels and BESS Batteries. The number of vehicle trips for the replacement of Solar PV Panels, Conversion Units and BESS Batteries will be less than that of the construction phase, so a detailed assessment is not required.

13.4.8 Baseline traffic flows have been obtained using a combination of DfT count points and 7-day Automatic Traffic Count (ATC) surveys on identified links during neutral months. These have been used to establish and represent Average Annual Daily Traffic (AADT).

13.4.9 On roads where baseline traffic flows are low, any increase in traffic flow may result in a predicted increase that would be higher than the two thresholds for further assessment set out in the ISEP Guidelines (Ref 13-1). However, as recognised in the ISEP Guidelines (Ref 13-1), it is important to consider any overall increase in road traffic in relation to the capacity of the road.

13.4.10 Other than the Highway Improvement Areas which form part of the Order Limits, the assessment assumes that the road network and existing services will remain the same.

13.4.11 Notwithstanding the limitations and assumptions referenced, it is considered that the methodology used and the identification of effects from the Scheme in this chapter are robust.

13.5 Study Area

13.5.1 For the purposes of assessment the Solar PV Sites and the Cable Route Corridor will have separate Study Areas. This is due to the scale of the Order Limits, meaning that HGVs take different routes to the majority of the Cable Route Corridor compared to the Solar PV Sites.

Solar PV Sites

13.5.2 The Study Area (refer to **ES Volume 2, Figure 13-1: Study Area: Solar PV Sites [EN010168/APP/6.2]**) for the assessment of the Solar PV Sites has been identified to cover the Local Road Network (LRN), Major Road Network (MRN), and Strategic Road Network (SRN) which comprise the construction and decommissioning vehicle routes to the Solar PV Sites. This is the area within which transport and access effects could occur. The construction vehicle route involves vehicles arriving via the motorway network (M4) before using the MRN (A-Roads) and the LRN to approach the Solar PV Sites. Beyond this, on roads which will not be used by construction vehicles, there will not be any transport and access effects.

13.5.3 The roads included within the Study Area for the Solar PV Sites are as follows:

Lime Down A, B and C

- M4 Junction 18;
- A46;
- B4040;
- B4039;
- Unnamed Road west of Grittleton;
- Alderton Road;
- Fosse Way;
- Unnamed Road between Fosse Way and Sherston;

Lime Down D and E

- M4 Junction 17;
- A429;
- Unnamed Road east of Hullavington;
- Bradfield Cottages; and
- A429 south of Corston;

13.5.4 In addition to the above, PRoW that pass through the Solar PV Sites are also included within the Study Area when assessing non-motorised user (NMU) delay and amenity effects (refer to **ES Volume 2, Figures 2-4-1 to 2-4-9: [EN010168/APP/6.2].** These are set out in more detail in **Table 13-8** of this

chapter and include a total of 13 Footpaths, six Bridleways and two Byways Open to All Traffic (BOAT) within the Solar PV Sites.

Cable Route Corridor

13.5.5 The Study Area (refer to **ES Volume 2, Figure 13-2: Study Area: Cable Route Corridor [EN010168/APP/6.2]**) for the assessment of the Cable Route Corridor has been identified to cover the LRN, MRN, and SRN which comprise the construction and vehicle routes access points along the Cable Route Corridor. This is the area within which transport and access effects could occur.

13.5.6 The roads included within the Study Area for the Cable Route Corridor are as follows:

- The Street, Grittleton;
- Neeld Court, South of Grittleton
- Unnamed Road, North of Yatton Keynell
- Unnamed Road, Sevington;
- Cromhall Lane;
- Fowlswick Lane
- B4039;
- A420;
- Sheldon Corner;
- Chippenham Lane;
- Stowell Lane;
- A4 Bath Road;
- Unnamed Road, East of Easton;
- Unnamed Road, South of Easton;
- Coppershell;
- Corsham Road;
- Silver Street, Gastard
- B3353;
- Westlands Lane (East);

- Westlands Lane (West);
- Bath Road, Shaw

13.5.7 In addition to the above, PRoW that pass through the Cable Route Corridor are also included within the Study Area when assessing NMU delay and amenity effects (refer to **ES Volume 2, Figures 2-4-1 to 2-4-9 [EN010168/APP/6.2]**. These are set out in more detail in **Table 13-9** of this chapter and include a total of 43 Footpaths, seven Bridleways and two Byways and one Definitive Map Modification Order (DMMO) within the Cable Route Corridor.

13.6 Assessment Methodology

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

Sources of Information

13.6.2 In the preparation of this chapter, the following sources of published information have been used:

- Automatic Traffic Count (ATC) surveys to provide traffic flow and speed data within the Study Area to identify baseline traffic conditions;
- Personal Injury Collision (PIC) Data, obtained from Wiltshire Council;
- Highway boundary information obtained from Wiltshire Council;
- Ordnance Survey mapping; and
- Topographical surveys.

Definitions of Potential Effects

13.6.3 The potential transport and access effects resulting from the construction and decommissioning phases of the Scheme assessed in this chapter comprise the following:

- Severance;
- Driver Delay;
- NMU delay;
- NMU amenity;
- Fear and intimidation;
- Road user and pedestrian safety; and

- Hazardous/large loads.

13.6.4 These effects have been assessed in accordance with ISEP Guidelines (Ref 13-1) as detailed in the sections below.

Severance

13.6.5 The ISEP Guidelines (Ref 13-1) define severance as "the perceived division that can occur within a community when it becomes separated by major transport infrastructure' that 'separate people from places and other people" (Paragraph 3.13). For example, difficulties crossing existing roads, or the physical barrier created by the infrastructure itself.

13.6.6 There are no predictive formulae which give simple relationships between traffic factors and levels of significance. Nevertheless, there are a range of indicators for determining the significance of the relief from severance. The ISEP Guidelines (Ref 13-1) state *"changes in traffic flow of 30%, 60% and 90% are regarded as producing slight, moderate and substantial changes in severance respectively"* (Paragraph 3.16). The guidance also suggests *"very low baseline flows are unlikely to experience severance impacts even with high percentage changes in traffic"*. To counteract this, the guidance recommends a holistic approach to take into regard the local conditions around the Order Limits to determine the significance of severance.

Driver Delay

13.6.7 Traffic delays to non-development traffic can occur on the local highway network. The ISEP Guidelines (Ref 13-1) state "*delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system*" (Paragraph 3.20). As such, the impact of a Scheme on driver delay is typically considered in relation to background traffic. Junction assessment modelling can be used to estimate increased vehicle delays at junctions, if necessary.

Non-Motorised User Delay

13.6.8 The ISEP Guidelines (Ref 13-1) state "changes in the volume, composition or speed of traffic may affect the ability of people to cross roads. In general, increases in traffic levels are likely to lead to greater increases in delay. Delays will also depend on the general level of pedestrian activity, visibility and general physical conditions of the development site" (Paragraph 3.24).

13.6.9 There are a range of local factors that affect NMU delay, including the level of pedestrian (and all NMU) activity, visibility and general physical conditions of the Order Limits. However, the ISEP Guidelines do not set out definitive thresholds

for judging the significance of changes in levels of delay and suggest that the assessor uses their judgement to determine whether NMU delay is a significant effect.

Non-Motorised User Amenity

13.6.10 NMU amenity is broadly described in the ISEP Guidelines (Ref 13-1) as "the relative pleasantness of a journey" (Paragraph 3.29) and can be affected by traffic flow, composition and pavement width/separation from traffic. Users of PRoW may also be affected by construction traffic. This definition includes NMU fear and intimidation and can be considered a much broader category when considering the overall relationship between NMUs and traffic. The ISEP Guidelines (Ref 13-1) suggest that a threshold for judging this would be *"where the traffic flows (or its lorry component) is halved or doubled"* (Paragraph 3.30). However, the ISEP Guidelines (Ref 13-1) encourage full regard to specific local conditions for a better assessment.

Fear and Intimidation

13.6.11 The ISEP Guidelines (Ref 13-1) state "a further environmental impact that affects people is the fear and intimidation created by all moving objects" (Paragraph 3.32).

13.6.12 The extent of fear and intimidation is dependent on:

- The total volume of traffic;
- The heavy vehicle composition;
- The speed these vehicles are passing; and
- The proximity of traffic to people.

13.6.13 The ISEP Guidelines state there is no commonly agreed threshold for estimating levels of fear and intimidation. However, it suggests that a study by Crompton and Gilbert (1976) (Ref 13-10) could be useful. These thresholds define the degree of hazard to pedestrians by average traffic flow, heavy vehicle flow and average speed. The ISEP Guidelines state that *"while most of these factors can be quantified, there will be a need for judgement to be exercised in determining the degree of fear and intimidation".*

Road User and Pedestrian Safety

13.6.14 The ISEP Guidelines (Ref 13-1) advise that professional judgement should be used to assess the implications of local circumstances, or factors which may increase or decrease the risk of accidents. The guidance does advocate for the

calculation of road accident rates as an approximation of the potential for road safety impacts where possible.

Hazardous Loads/Large Loads

13.6.15 The ISEP Guidelines (Ref 13-1) state "some developments may involve the transportation of dangerous or hazardous loads by road and this should be recognised within any traffic and movement assessment" (Paragraph 3.49).

13.6.16 Some deliveries to the Scheme during the construction and phase will be regarded as large or Abnormal Indivisible Loads (AIL). An AIL is one where the vehicle exceeds 44 tonnes, the width is over 2.9 m or the length is more than 18.65 m. These include the deliveries of Conversion Units to substations located in Lime Down A, C, D and E.

13.6.17 The proposed AIL routes to the Study Area are shown in:

- Solar PV Sites – **ES Volume 2, Figure 13-5: Abnormal Indivisible Load Routes: Solar PV Sites [EN010168/APP/6.2]**; and
- Cable Route Corridor - **ES Volume 2, Figure 13-6: Abnormal Indivisible Load Routes: Cable Route Corridor [EN010168/APP/6.2]**.

13.6.18 Transformers are assumed to have a design life of 30 years. Transformers may require replacement once during the lifetime of the Scheme, although replacement will only be carried out if required for performance or health and safety reasons.

Impact Assessment Methodology

Assessment of Significance

13.6.19 The assessment of the Scheme's likely significant effects has taken into account the construction, operation and maintenance, and decommissioning phases. The effects for the decommissioning phase are likely to be no worse than the construction phase. This is because the decommissioning phase will, in effect, be a reverse of the construction phase, although there will be no requirement for construction specific activities such as landscaping. Whilst the precise decommissioning methodology is not currently known, it will be in line with the **Outline Decommissioning Strategy [EN010168/APP/7.17]** to be secured by a DCO requirement. The significance level attributed to each effect (set out above) has been assessed based on the sensitivity of the affected receptor to change, and the magnitude of change as a result of the Scheme.

Sensitivity of Receptor and Magnitude of Change

13.6.20 The ISEP Guidelines (Ref 13-1) identify the following groups and special interests, referred to as sensitive receptors, as susceptible to changes in traffic flow conditions:

- People at home;
- People at work;
- Children, elderly and disabled persons;
- Sensitive locations such as hospitals, churches, schools, historical buildings;
- Pedestrians;
- Cyclists;
- Equestrian users;
- Open recreational spaces;
- Sites of ecological/nature conservation value; and
- Sites of tourist/visitor attraction.

13.6.21 For the purpose of this assessment, the traffic and transport environmental sensitivity of receptors ranging from negligible to high have been categorised as set out in **Table 13-3**. These have been developed from the sensitive receptor examples included within the ISEP Guidelines (Ref 13-1).

Table 13-3: Sensitivity/Importance of Identified Receptor

Sensitivity	Definition
High	Receptors of greatest sensitivity to traffic flows, such as schools, hospitals, playgrounds/recreational spaces, accident blackspots, retirement/nursing homes. Includes areas with no footways with high pedestrian footfall and congested areas.
Medium	Receptors with moderate sensitivity to traffic flow, such as conservation areas, historical buildings, tourist attractions, and residential areas.
Low	Receptors with low sensitivity to traffic flows, and those distant from affected roads.
Negligible	Receptors with no material sensitivity to traffic flows.

13.6.22 Based on the criteria set out in **Table 13-3** and Department for Transport (DfT) definitions for road classifications, the sensitivities of roads within the Study Area are shown in:

- Solar PV Sites – **ES Volume 2, Figure 13-7: Sensitivity of Links: Solar PV Sites [EN010168/APP/6.2]** and summarised in **Table 13-4**;

- Cable Route Corridor - **ES Volume 2, Figure 13-8: Sensitivity of Links - Cable Route Corridor [EN010168/APP/6.2]** and summarised in **Table 13-5**.

13.6.23 According to the DfT Guidance on Road Classification (March 2012) (Ref 13-11), Motorways and A-roads are defined as 'major' or 'principal roads' intended to *"provide large-scale transport links within or between areas".* These roads are less sensitive to changes in traffic flows. There are no major receptors on the Motorway and A-Roads within the Study Area. Therefore, they are deemed to have negligible sensitivity to traffic flow changes.

13.6.24 The DfT defines B-roads as "roads intended to connect different areas, and to feed traffic between A roads and smaller roads on the network", whilst unnumbered roads are defined as "smaller roads intended to connect together unclassified roads and A and B Roads". B Roads and any unnumbed/unclassified roads away from residential areas are categorised as having low sensitivity. However, it is acknowledged that some pass through the Cotswolds National Landscape, and these roads will be defined as having medium sensitivity. Unnumbered/unclassified roads that pass through residential areas are deemed to have medium sensitivity. PRoW are included within this category. Only one road within the Study Area is judged to be of high sensitivity, where it passes next to a playground.

Table 13-4:Sensitivity/Importance of Roads within the Study Area: Solar PV Sites

Sensitivity	Link	Additional Explanation
High	None	No highly sensitive receptors along roads that make up the Study Area, in line with **Table 13-1.**
Medium	B4039	B-Road passing through Acton Turville and Burton and through National Landscape Area
	B4040	B-Road passing through National Landscape Area
	Roads west of Grittleton	Road passing through National Landscape Area
	Alderton Road	Unnumbered/unclassified road passing next to village of Grittleton (conservation area) and through National Landscape Area.
Low	Fosse Way	No high or medium category receptors
	Road East of Hullavington and Bradfield Cottages	No high or medium category receptors
	Road btw Fosse Way and Sherston	No high or medium category receptors
Negligible	M4 Junction 18	Major/principal road. No high or medium category receptors
	M4 Junction 17	Major/principal road. No high or medium category receptors

Sensitivity	Link	Additional Explanation
	A46	Major/principal road. No high or medium category receptors
	A429	Major/principal road. No high or medium category receptors

Table 13-5: Sensitivity/Importance of Roads within the Study Area: Cable Route Corridor

Sensitivity	Link	Additional Explanation
High	The Street, Grittleton	Unnumbered/unclassified road passing next to village of Grittleton (conservation area) a playground and through National Landscape Area.
Medium	Unnamed Road, Sevington	Unnumbered/unclassified road passing next to Sevington (conservation area).
	Unnamed Road, North of Yatton, Keynell	Unnumbered/unclassified road passing through National Landscape Area
Low	Neeld Court, South of Grittleton	No high or medium category receptors
	Cromhall Lane	No high or medium category receptors
	Fowlswick Lane	No high or medium category receptors
	B4039	No high or medium category receptors
	Chippenham Lane	No high or medium category receptors
	Stowell Lane	No high or medium category receptors
	A4 Bath Road;	No high or medium category receptors
	Unnamed Road, East of Easton	No high or medium category receptors
	Unnamed Road, South of Easton	No high or medium category receptors
	Coppershell	No high or medium category receptors
	Corsham Road	No high or medium category receptors
	Silver Street, Gastard	No high or medium category receptors
	B3353	No high or medium category receptors
	Westlands Lane (East)	No high or medium category receptors
	Westlands Lane (West)	No high or medium category receptors
Negligible	A420	Major/principal road. No high or medium category receptors
	A4 Bath Road	Major/principal road. No high or medium category receptors

Prediction of Impact Magnitude

13.6.25 The ISEP Guidelines (Ref 13-1) set out two rules which have been used as thresholds to define the scale and extent of the assessment, as follows:

- Rule 1: Include highway links where traffic flows will increase by more than 30% (or where the number of heavy goods vehicles (HGV) will increase by more than 30%); and
- Rule 2: Include any other specifically sensitive areas where traffic flows have increased by 10% or more.

13.6.26 A specifically sensitive area is defined as having a 'High' sensitivity in accordance with the criteria set out in **Table 13-3**. The thresholds in Rule 2 will apply to high sensitivity links. Rule 1 will apply to negligible, low and medium sensitivity links. Where this rule is exceeded, further detailed consideration of the associated impacts is undertaken. Where the predicted increase in traffic/HGV flow is lower than these thresholds, the significance of the effects should be considered to be negligible and not significant and further detailed assessment is not required.

13.6.27 It is notable that on roads where baseline traffic flows are low, any increase in traffic flow may result in a predicted increase that would be higher than thresholds set out in Rule 1. Therefore, it is important to consider any overall increase in road traffic in relation to the capacity of the road.

13.6.28 The ISEP Guidelines (Ref 13-1) state "For many effects there are no simple rules or formulae which define the thresholds of significance and there is, therefore, a need for interpretation and judgement on the part of the assessor, backed up by data or quantified information wherever possible", and "those preparing the Environmental Statement will need to make it clear how they have defined whether a change is considered significant or not" (Paragraph 4.5).

Magnitude of Impact

13.6.29 The magnitude of impact is the level of change caused by the Scheme. An overview of the different definitions of the various magnitudes of impact is set out in **Table 13-6**.

Table 13-6: Magnitude of Impact

Impact	Source	Neutral	Negligible	Low	Medium	High
Severance	ISEP Guidance (Ref 13-1)	No Change	Change in total traffic or HGV flows of 10%-30%.	Change in total traffic or HGV flows of 30% to 60%.	Change in total traffic or HGV flows of 60% to 90%.	Change in total traffic or HGV flows over 90%.
Driver Delay **Non-Motorised User Delay**	Professional judgement	No Change	Changes which are unlikely to be perceptible (based on a judgement).	Changes which are likely to be perceptible but not to the extent that it would materially change conditions which would otherwise prevail.	Changes which are likely to be perceptible and which would materially change conditions which would otherwise prevail to the extent that it may affect travel behaviour to measurable degree.	Changes which are likely to be perceptible and which could change conditions which would otherwise prevail to the extent that it would significantly affect travel behaviour.
Non-Motorised User Amenity	Professional judgement	No Change	Magnitude of impact is based on professional judgement regarding the "pleasantness" of a journey and is affected by the composition, speed or volume of traffic introduced as a result of the Scheme. The ISEP Guidance (Ref 13-1) suggests that assessors use their judgement to determine whether pedestrian amenity is a significant effect and as such, the magnitude of change for pedestrian amenity has been defined qualitatively based on professional judgement.			
Fear and Intimidation	ISEP Guidance (Ref 13-1)	No Change	No Change in step changes.	One step change in level, with • <400 vehicles increase in average 18 hr two-way all vehicle flow; and/or. • <500 HGV increase in total 18 hr HGV flow.	One step change in level, but with • >400 vehicles increase in average 18 hr two-way all vehicle flow; and/or. • >500 HGV increase in total 18 hr HGV flow.	Two step changes in level.
Road User and Pedestrian Safety	Professional judgement	No Change	Magnitude of impact to be based on professional judgement following analysis detailed in the Transport Assessment on collision history and the nature of movements associated with the Scheme.			
Hazardous/Large Loads	Professional judgement	No Change	Magnitude of impact to be based on professional judgement following the outcomes of the abnormal loads assessment which will be an appendix to the Transport Assessment, frequency and size of abnormal loads and consideration of wider traffic effects.			

Categorising Likely Significance of Effect

13.6.30 The magnitude of change and receptor sensitivity have been compared to determine the overall significance of effects. This is shown in **Table 13-7**.

13.6.31 There are four categories demonstrating the significance of the effect:

- Negligible;
- Minor;
- Moderate; and
- Major.

Table 13-7: Significance of Potential Effects

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

13.6.32 Whilst this is a useful guideline, the effects need to be reviewed using professional judgement in the context of baseline traffic flows. Within the Study Area, some roads are rural in nature with low baseline traffic flows. In these locations, the addition of any traffic could result in high percentage changes (over 100% in places). However, as the baseline flows are low, the effects could still be considered minor or negligible and therefore not significant.

13.6.33 The nature of the effects will be defined as either:

- Beneficial: Effects that produce benefits in terms of transportation and access;
- Adverse: Effects that produce a negative effect in terms of transportation and access; or
- Neutral: Meaning that changes produce no benefits or disbenefits in terms of transport and access (such as no reduction/increase in traffic, travel time, patronage or no loss/provision of service or facility).

13.6.34 Identified effects that are moderate, or major are considered to be 'significant' in EIA terms, and additional measures to mitigate these effects will be applied.

Effect Duration

13.6.35 The effects can be short, medium or long term in duration. These will be assessed in conjunction with the proposed construction programme. The definitions of these will be as follows:

- A short-term effect – an effect that will be experienced for 0-5 years;
- A medium-term effect – an effect that will be experienced for 5-15 years; and
- A long-term effect – an effect that will be experienced for 15 years or longer.

13.6.36 For the purposes of the assessment, construction phase effects are effects that are anticipated to result from activities during site preparation and enabling works, construction, and commissioning activities. The construction phase effects will be temporary and short-term. The decommissioning phase is expected to take between 12 and 24 months and will also be temporary and short-term. Operation and maintenance effects will be on a spectrum with day-to-day security and maintenance activity temporary and long-term and planned Solar PV Panel, transformer and BESS Batteries replacement activity temporary and short-term.

13.7 Baseline Conditions

The Order Limits

13.7.1 The Order Limits lie within the administrative boundary of Wiltshire Council and South Gloucestershire Council. A full description of the Order Limits is provided in **Chapter 2: The Order Limits** and **Chapter 3: The Scheme [EN010168/APP/6.1]**.

Solar PV Sites

13.7.2 The Solar PV Sites cover an area of approximately 749 hectares (ha). The Solar PV Sites are located near Sherston (approximately 300 m north of Lime Down A), Luckington (approximately 830 m west of Lime Down C), Corston (approximately 480 m east of Lime Down D), Hullavington (approximately 700 m south of Lime Down D), and Rodbourne (approximately 150 m southeast of Lime Down E). The town of Malmesbury is located approximately 3 km northeast of Lime Down B.

Cable Route Corridor

13.7.3 The Cable Route Corridor covers an area of approximately 462 ha and runs for approximately 22 km from the Solar PV Sites to the Existing National Grid Melksham Substation.

Existing National Grid Melksham Substation

13.7.4 The Existing National Grid Melksham Substation is owned and operated by the National Grid. It comprises a hard-standing area with existing electrical and supporting infrastructure present.

Highway Improvement Areas

13.7.5 The Highway Improvement Areas comprise various sections of existing highway within the administrative areas of Wiltshire Council and South Gloucestershire Council to facilitate access to the Solar PV Sites and Cable Route Corridor.

Pedestrian Infrastructure

13.7.6 The following pedestrian infrastructure is available along the proposed construction routes that make up the Study Area:

Solar PV Sites: Lime Down A, B, and C

- **A46:** There is a short section of footway along the southbound carriageway of the A46 just north of the junction with the B4040 that provides access to local bus stop;
- **B4039:** There are footways within the villages of Acton Turville and Burton as well as a short section of footway along the eastbound carriageway for the residential dwellings near to the crossroads of the B4039 and the road heading north towards Grittleton. The footways are not continuous along the B4039; and
- **Alderton Road:** There is a small section of footway along the southbound side of the carriageway that extends to the last residential dwelling on the street.

Solar PV Sites: Lime Down D and E

- **A429:** There are footways on both sides of the A429 in the vicinity of Lower Stanton St Quintin. There are small sections of footways along either side of the road heading west from the roundabout with the A429 with new bus stops on either side of the carriageway. The footways provide access to the new Dyson facility to the south. In addition, there is a footway present along the A429 within the vicinity of Corston. Within the residential area there are footways either side of the carriageway.

Cable Route Corridor

- **The Street, Grittleton:** Footways are located along The Street within Grittleton, extending form the crossroad junction with Alderton Road to the Village Hall;

- **Neeld Court:** A narrow footway is situated on the north side of Neeld Court;
- **A420:** A footway is situated on the north side of the A420 Bristol Road between the A350 and B4039 junction;
- **Corsham Road:** A footway is situated between the A350 for approximately 600m;
- **Silver Street:** Footways are located alongside Silver Street; and
- **B3353:** Footways are located alongside the B3353 between the A365 and Westlands Lane.

Cycling Infrastructure

13.7.7 The following cycling infrastructure is available along the proposed construction routes that make up the Study Area:

Solar PV Sites

13.7.8 There is no cycling specific infrastructure within the Solar PV Sites Study Area.

13.7.9 Section 14 of the Wiltshire Cycleway, which is an on-road, unsegregated route, operates through part of the Study Area. This includes a section of Alderton Road and the Fosse Way routing between Grittleton to the south and the crossroads in the vicinity of Lords Wood to the north.

13.7.10 Sections of the Wiltshire Cycleway within the vicinity of the Solar PV Sites is shown in **ES Volume 2, Figure 13-3: Public Rights of Way Location Plan: Solar PV Sites [EN010168/APP/6.2]**.

Cable Route Corridor

13.7.11 There are two cycle routes which cross the Cable Route Corridor Study Area:

- **National Cycle Network (NCN) Route 403:** The NCN is a UK-wide network of signed paths and routes for walking, wheeling, cycling and exploring outdoors. NCN Route 403 links Chippenham to Marlborough and the Kennet and Avon Canal. Within the Study Area, NCN Route 403 uses a section of Corsham Road.
- **Section 14 of the Wiltshire Cycleway:** This on-road, unsegregated route goes through Yatton Keynell, nearby Sevington, Neeld Road, and The Street, Grittleton.

13.7.12 Sections of the cycle routes within the vicinity of the Cable Route Corridor are shown in **ES Volume 2, Figure 13-4: Public Rights of Way Location Plan: Cable Route Corridor [EN010168/APP/6.2]**.

Public Rights of Way

Solar PV Sites

13.7.13 PRoW operate through the Solar PV Sites. These are shown in **ES Volume 2, Figures 2-4-1 to 2-4-9 [EN010168/APP/6.2]**. The PRoW within the Solar PV Sites are described in **Table 13-8**.

Table 13-8: Public Rights of Way: Solar PV Sites

Public Right of Way	Type	Nearest Site	Route
SHER15	Footpath	Lime Down A	Routes in a general east/west alignment near Southfield and intersects SHER14 and SHER37
SHER16	Bridleway		Connects from the Fosse Way at two points (opposite HULL26 and Pig Lane junction) and continues northwest across the site
NORT5	Footpath	Between Lime Down A and B	Routes east/west from the Fosse Way to the west, opposite SHER15 and onto Honey Lane in the east
NORT1	Footpath	Lime Down B	Routes north/south from near Foxley to the north and onto Honey Lane to the south
SHER17	Footpath	Between Lime Down A and C	Extends between the northern end of SHER35 and the eastern end of SHER16, routing in an east/west alignment
SHER37	Byway Open to All Traffic (BOAT)	Between Lime Down B and C	Connects from the Fosse Way to the south and onto the unnamed road to the north
SHER18	Footpath	Lime Down C	Routes east/west between LUCK35 and the Fosse Way near to HULL25
SHER35	Byway Open to All Traffic (BOAT)		Connects from Commonwood Farm and routes north/south merging with LUCK57
LUCK57	BOAT		Connects from SHER35 to the north and routes south onto the Fosse Way near the railway line
HULL23	Footpath		Extends from Pig Lane, south of the rail line, and routes southeast towards Hullavington
HULL24	Footpath	Between Lime Down C and D	Extends from HULL23 and routes northwest to an unnamed road east of Pig Lane.
HULL26	Footpath		Extends from SHER16 and SHER17 to the north of Farleaze Farm
NORT10	Footpath	Lime Down D	Routes in a general north/south direction between Norton and HULL1

Public Right of Way	Type	Nearest Site	Route
HULL1	Footpath		Extends from NORT10 and routes south to the underpass of the railway line near Bradfield Manor Farm
HULL2	Footpath		Along Scheme boundary from MALW44/46
HULL4	Footpath		Routes north/south from the Unnamed Road south of Norton and connects onto HULL2 near Gorse Leaze Farm
HULL5	Footpath		Follows similar route to HULL4 between the Unnamed Road south of Norton and Gorse Leaze Farm
HULL6	Footpath		Routes between Court Farm north of the railway line and routes in a general northeast direction to connect onto MALW49
HULL7	Bridleway	Between Lime Down D and E	Extends between a track routing northeast from Court Farm and onto MALW51 in an easterly direction
MALW51	Bridleway		Connects to HULL7 to the west
MALW52	Footpath		Connects to HULL8 to the west
MALW53	Footpath		Connects to MALW54
MALW54	Bridleway		Connects between Main Road (north of Kingsway Barn Farm) and routes southwest connecting to MALW60
MALW55	Footpath		Connects to MALW54
MALW60	Footpath	Lime Down E	Routes between Main Road from Kingsway Barn Farm and connects onto MALW54 at its eastern terminus
MALW59	Bridleway		Routes northeast/southwest between the A429 near Hangar Farm and an unnamed track south of Bincombe Wood
MALW61	Bridleway		Routes in a general north/south direction from SSTQ4 and onto an unnamed track to the north near MALW59
SSTQ4	Bridleway		Routes in a general north/south direction from an unnamed road near Haresfield Farm and merges into MALW61
MALW62	Footpath		Routes between SSTQ5 to the south and onto SSTQ4

Cable Route Corridor

13.7.14 PRoW operate through the Cable Route Corridor. These are shown in **ES Volume 2, Figures 2-4-1 to 2-4-9 [EN010168/APP/6.2]**. The PRoW within the Cable Route Corridor are described in **Table 13-9**.

Table 13-9: Public Rights of Way: Cable Route Corridor

Public Right of Way	Type	Route
HULL20	Footpath	Routes east to west until it parts in a parallel north/southeast direction until connecting to HULL19. Also connects to Hull 30.
GRIT22	Bridleway	Extends northwest from GRIT21A
GRIT20	Footpath	Routes northwest towards Grittleton, connecting to GRIT19 in the east.
YKEY6	Footpath	Routes in a northern direction adjacent to an unnamed road north of Yatton Keynell
YKEY2	Footpath	Routes in a northeastern direction connecting to YKEY6
YKEY8	Footpath	Extends from YKEY11 in Yatton Keynell in a northeastern direction connecting to KSTM20
YKEY9	Footpath	Extends in an eastern direction from The Street, Yatton Keynell connecting to KSTM23 in the east.
BIDD17	Bridleway	Extends from Yatton Road connecting to CHIW13 in the northeast. The footpath also connects with BIDD14 and BIDD15.
BIDD23	Footpath	Extends from BIDD18 northwest to CHIW15
CORM122	Byway	Routes in a northwestern direction from Easton Lane
CORM7	Footpath	Routes in a northwestern direction connecting to CORM4
CORM9	Footpath	Routes from west to east from Easton Lane
CORM13	Footpath	Routes from northwest to southeast from Ladbrook Lane to Coppershell
CORM34	Footpath	Extends in a western direction from CORM33 connecting to CORM32 and Monks Lane
CORM32	Footpath	Extends in a southeast direction from CORM34 crossing CORM35 and connecting to CORM31
CORM35	Footpath	Extends northwest from CORM32, also connecting to CORM33
CORM33	Footpath	Extends southwest from the B3353, connecting with CORM34, CORM32, and CORM35
CORM31	Footpath	Routes southwest from the B3353, connecting with CORM32 and CORM30
CORM30	Footpath	Extends in an eastern direction from CORM27 to the B3353, connecting with CORM29, CORM31, CORM25, and CORM23
MELW77	Footpath	Routes in a northern direction from Top Lane to the B3353 Godes Hill
MELW85	Footpath	Routes from west to east connecting from the B3353 to the A350. The Footpath also connects to MELW84, MELW96, and MELW98

Public Right of Way	Type	Route
MELW84	Footpath	Routes southwest from MELW85 connecting to B3353.

Public Transport

Bus – Solar PV Sites

13.7.15 There are a number of bus services operating within the Study Area. A summary of the existing bus services, and the nearest bus stop that serves the route are summarised in **Table 13-10**.

Table 13-10: Local Bus Routes – Solar PV Sites

Route Number	Nearest Bus Stop	Nearest Site	Route
95	Grittleton House Gates	Lime Down C	Castle Combe – Yatton Keynell – Chippenham
41	Tetbury Road/Forge House	Lime Down A and C	Malmesbury – Sherston – Chipping Sodbury - Yate
C62	Tetbury Road	Lime Down A	Yate - Malmesbury
X79	Tetbury Road/Mere Avenue/Radnor Arms	Lime Down A/D/E	Hullavington – Malmesbury – Sherston – Yatton Keynell
99	Telephone Exchange Avenue/Radnor Arms	Lime Down D and E	Chippenham– Malmesbury – Wootton Bassett - Swindon

Bus – Cable Route Corridor

13.7.16 In addition, there are further bus routes operating within the Cable Route Corridor. A summary of the existing bus services, and the nearest bus stop that serves the route are summarised in **Table 13-11**.

Table 13-11: Local Bus Routes – Cable Route Corridor

Route Number	Nearest Bus Stop	Nearest Site	Route
231	Chequers Cross Road	Cable Route Corridor	Bath – Box – Rudloe – Corsham - Chippenham
636	Chequers Cross Road	Cable Route Corridor	Marshfield - Chippenham
X31	Chequers Cross Road	Cable Route Corridor	Bath – Box – Corsham - Chippenham
10	The Plough	Cable Route Corridor	Corsham town service

Route Number	Nearest Bus Stop	Nearest Site	Route
555	The Plough	Cable Route Corridor	Bowerhill – Corsham School

Rail – Solar PV Sites and Cable Route Corridor

13.7.17 There are no railway stations within the immediate vicinity of the Solar PV Sites or Cable Route Corridor, with the nearest station located in Chippenham. From the centre of the Solar PV Sites, Chippenham Railway Station is approximately 10 km south. Services from Chippenham Railway Station provide connections to Bristol, Bath, Swindon, Reading and London among other destinations.

Local Highway Network – Solar PV Sites

13.7.18 A summary of the local highway network that forms the construction vehicle route and Study Area is set out below.

A46 (Lime Down A, B, and C)

13.7.19 The A46 is a two-way, single carriageway road routing from Junction 18 of the M4 towards Nailsworth to the north.

13.7.20 Traffic surveys indicate that the A46 within the vicinity of the Study Area is already well used by HGVs. The road is subject to the national speed limit, which then reduces to 50 mph and then 40 mph as it approaches Old Sodbury.

13.7.21 There are no posted weight or height restrictions along the section of the A46 within the Study Area.

B4040 (Lime Down A, B, and C)

13.7.22 The B4040, is a two-way single carriageway road. It routes from the A46 to the B4039 near Acton Turville to the east. The road is subject to a 50 mph speed limit for a majority of its length within the Study Area, except where it reduces to 40 mph in the vicinity of Old Sodbury and Acton Turville.

13.7.23 Traffic surveys indicate that the B4040, within the Study Area, is already well used by HGVs. There are no posted weight or height restrictions along the section of the B4040 within the Study Area.

B4039 (Lime Down A, B, and C)

13.7.24 From its merger with the B4040 near Acton Turville, the section of the B4039 within the Study Area continues in a southeast direction towards the A420. It is a two-way single carriageway road subject to a 30 mph speed limit within Acton

Turville, Burton and The Gibb, It is subject to a 50 mph speed limit between Acton Turville and Burton and the national speed limit between Burton and The Gibb.

13.7.25 Traffic surveys indicate that the B4039 within the Study Area is already well used by HGVs. There are no posted weight or height restrictions along the section of the B4040 within the Study Area.

Unnamed Road (between The Gibb and Grittleton) (Lime Down A, B, and C)

13.7.26 From its junction with the B4039 to the west, an unnamed road routes between The Gibb and the Grittleton crossroads to the east. It is a two-way single carriageway road with no visible central markings. For the most part, the road is subject to the national speed limit, expect for on the approaches to The Gibb and Grittleton. Here, the speed limit is 30 mph. The unnamed road routes beneath an M4 underbridge.

Alderton Road (Lime Down A, B, and C)

13.7.27 Alderton Road routes north towards the Fosse Way from Grittleton crossroads. It is a two-way single carriageway road, which is subject to the national speed limit upon exiting Grittleton. There are no posted weight or height restrictions along the section of Alderton Road within the Study Area.

Fosse Way (Lime Down A, B, and C)

13.7.28 The Fosse Way routes from Alderton Road in the south and continues in a northeastern direction towards the Lime Down A, B and C Sites. It is a two-way single carriageway road, with no central markings and is subject to the national speed limit. There are no posted weight or height restrictions along the section of the Fosse Way within the Study Area.

Unnamed Road between the Fosse Way and Sherston (Lime Down A)

13.7.29 This road is a two-way, single carriageway road routing between the Fosse Way and Sherston. There are no central markings and is subject to the national speed limit. There are no posted weight or height restrictions along the section of the road within the Study Area.

A429 (Lime Down D and E)

13.7.30 The A429 is a two-way, single carriageway road routing from Junction 17 the M4 towards Malmesbury to the north. Traffic surveys indicate that the A429 within the vicinity of the Study Area is already well used by HGVs.

13.7.31 The A429 is subject to a 60 mph speed limit within the majority of the Study Area. However, through the village of Lower Stanton St Quinton, a 50 mph speed limit is enforced, and throughout the village of Corston, a 30 mph speed limit is enforced. As the A429 routes under the Great Western Main Line, there is an underbridge with a height restriction of 4.2 m.

Unnamed Road (between A429 and Bradfield Cottages) (Lime Down D~~)~~ (West))

13.7.32 From the roundabout junction with the A429 to the east, an unnamed road routes northwest, past Hullavington to Bradfield Cottages. It is a two-way single carriageway subject to the national speed limit. The initial section of the road has recently been upgraded with central markings and street lighting. Beyond the access to Hullavington Airfield, the route becomes more rural in character with no central road markings or street lighting. The unnamed road routes beneath a railway underbridge before becoming Bradfield Cottages. There are no posted weight or height restrictions along the section of road within the Study Area. Bradfield Cottages is similar in character and continues to the western area of Lime Down D.

Local Highway Network – Cable Route Corridor

13.7.33 The following roads will form part of the construction vehicle routes to the Cable Route Corridor accesses.

The Street

13.7.34 The Street routes from Grittleton crossroads in the west to Hullavington crossroads to the east. It is a two-way single carriageway road with no road markings and no pedestrian infrastructure or street lighting, with the exception of the sections within Grittleton and Hullavington. The route is generally rural in character and bound by grass verges and hedgerow for a majority of its length. There are no posted weight or height restrictions along the section of road within the Study Area.

Neeld Court

13.7.35 Neeld Court provides access to a small number of residential units and agricultural land. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along Neeld Court.

Unnamed Road, North of Yatton Keynell

13.7.36 The Unnamed Road connects Grittleton to Yatton Keynell. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along this section of the Study Area.

Unnamed Road, Sevington

13.7.37 The Unnamed Road provides access to Sevington. It is a two-way single carriageway road, which is subject to the national speed limit. Passing areas are located along the road. There are no posted weight or height restrictions along this section of the Study Area.

Cromhall Lane

13.7.38 Cromhall Lane provides access to agricultural land. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along Cromhall Lane.

Fowlswick Lane

13.7.39 Fowlswick Lane provides access to agricultural land and a small number of industrial units. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along Fowlswick Lane.

B4039

13.7.40 The B4039 connects the A420 to the A46 via the B4040). It is a two way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along this section of the Study Area.

A420

13.7.41 The A420 is a two-way single carriageway road routing from the A4174 and the A46 in the west to Chippenham and the A350 to the east. The A420 within the vicinity of the Study Area is already well used by HGVs.

13.7.42 The A420 is subject to a 60 mph speed limit within the majority of the Study Area, reducing to 40 mph upon entering the roundabout junction with the A350 in Chippenham. The speed limit also reduces to 40 mph when passing though Ford and The Shoe and 50 mph when routing past the village of Marshfield. There are no posted weight or height restrictions along the section of road within the Study Area.

Sheldon Corner

13.7.43 Sheldon Corner connects to the A420 and provides access to agricultural land and a small number of industrial units. It is a two-way single carriageway road which is subject to the national speed limit. There are no posted weight or height restrictions along Sheldon Corner.

Chippenham Lane

13.7.44 Chippenham Lane provides access to agricultural land and a small number of industrial units. It is a tow-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along Chippenham Lane.

Stowell Lane

13.7.45 Stowell Lane provides access to agricultural land and a small number of industrial units. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along Stowell Lane.

A4

13.7.46 The A4 is a two-way single carriageway road, which in the local context routes between Bath and the A46 in the west to Chippenham and the A350 to the east. The A420 within the vicinity of the Study Area is already well used by HGVs.

13.7.47 The section of the A4 within the vicinity of the Cable Route Corridor is subject to a 60 mph speed limit, reducing to 40 mph upon entering the roundabout junction with the A350 in Chippenham. The speed limit also reduces to 30 mph when passing though Pickwick to the west. There are no posted weight or height restrictions along the section of road within the Study Area and is specified as a local lorry route on the Wiltshire HGV Route Network.

Unnamed Road, Easton

13.7.48 The Unnamed Road through Easton provides access to agricultural land. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along Stowell Lane.

Coppershell

13.7.49 Coppershell provides access to agricultural land. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along Coppershell.

Corsham Road

13.7.50 Corsham Road connects the A365 to Lacock Road. It is a two-way single carriageway road which is subject to the national speed limit. There are no posted weight or height restrictions along this section of the Study Area.

Silver Street, Gastard

13.7.51 Silverstreet forms part of the B3353, and runs through the village of Gastard. It is a two-way single carriageway road, which is subject to the national speed limit. There are no posted weight or height restrictions along this section of the Study Area.

B3353

13.7.52 The B3353 is a two-way single carriageway road routing between A4 in Corsham to the north and the A365 in Shaw to the south.

13.7.53 The B3353 is subject to a 30 mph speed limit when routing through Corsham, Gastard and Whitley. The speed limit between these locations varies between 40 mph and 50 mph. There are no posted weight or height restrictions along the section of road within the Study Area.

Westlands Lane

13.7.54 Westlands Lane extends from the B3353 in the west to the access of Existing National Grid Melksham Substation to the east. It is a two-way single carriageway road with no road markings and no pedestrian infrastructure. The road is subject to a 60 mph speed limit and there are no posted weight or height restrictions along the section of road within the Study Area. However, there is a 7.5 tonne weight limit to the east of the access to Existing National Grid Melksham Substation and prior to the bridge over the railway line before entering the residential area within Beanacre.

Traffic Flows

13.7.55 ATC surveys have been undertaken for all roads forming the construction vehicle route to the Solar PV Sites and Cable Route Corridor.

13.7.56 For the Solar PV Sites, surveys were undertaken between 23 January 2024 and 1 February 2024 with additional surveys undertaken between the 13 and 20 September 2024. In addition, DfT data (Ref 13-12) has been reviewed for the strategic road network, including the M4 Junctions, A46 and A429. The count locations are shown in **ES Volume 2, Figure 13-9: Traffic Survey Locations: Solar PV Sites [EN010168/APP/6.2]**. The average weekday two-way traffic count for the main roads around the Solar PV Sites is shown in **Table 13-12**.

The roads are grouped based on which Solar PV Sites they serve (Lime Down A, B, C, D and/or E).

Table 13-12: Solar PV Sites: Observed Traffic Flows – Average Day (24 hr), Two-Way

Ref	Link	Sensitivity	Total Vehicles	HGV	%HGV
Lime Down A, B and C					
1	M4 near Junction 18	Negligible	78,440	9,160	11.7%
2	A46	Negligible	13,132	822	6.3%
3	B4040	Medium	2,346	70	3.0%
4	B4039	Medium	2,757	63	2.3%
5	Road West of Grittleton	Medium	925	47	5.1%
6	Alderton Road	Medium	1,308	19	1.5%
7	Fosse Way	Low	886	20	2.3%
8	Road btw Fosse Way and Sherston	Low	1,489	40	2.7%
Lime Down D and E					
9	M4 near Junction 17	Negligible	79,503	8,051	10.1%
10	A429 north of Junction 17	Negligible	14,585	654	4.5%
Lime Down D (West)					
11	Road East of Hullavington	Low	2,925	130	4.4%
12	Bradfield Cottages	Low	1,396	46	3.3%
Lime Down D (East) and E					
13	A429 South of Corston	Negligible	11,615	454	3.9%

13.7.57 The traffic flows in **Table 13-12** show that there is an element of HGV use on all roads around the Solar PV Sites.

13.7.58 For the Cable Route Corridor, surveys were undertaken between 11 March 2025 and 17 March 2025. The count locations are shown in **ES Volume 2, Figure 13-10: Traffic Survey Locations: Cable Route Corridor [EN010168/APP/6.2]**. The average weekday two-way traffic count for the main roads along the Cable Route Corridor is shown in **Table 13-13**.

Table 13-13: Cable Route Corridor: Observed Traffic Flows – Average Day (24 hr), Two-Way

Ref	Link	Sensitivity	Total Vehicles	HGV	%HGV
Cable Route Corridor					
1	The Street, Grittleton	High	1,118	63	5.6%
2	Neeld Court, South of Grittleton	Low	96	2	2.1%
3	Road North of Yatton Keynell	Medium	1,700	49	2.9%
4	Road to Sevington	Medium	200	7	3.5%
5	Cromhall Lane	Low	128	8	6.3%
6	Fowlswick Lane	Low	950	35	3.7%
7	B4039	Low	5,132	159	3.1%
8	A420	Negligible	7,400	298	4.0%
9	Sheldon Corner	Low	1,088	40	3.7%
10	Chippenham Lane	Low	136	8	5.9%
11	Stowell Lane	Low	579	12	2.1%
12	A4 Bath Road	Negligible	19,722	508	2.6%
13	Road East of Easton	Low	579	34	5.9%
14	Road South of Easton	Low	399	8	2.0%
15	Corsham Road	Low	1,792	39	2.2%
16	Coppershell	Low	590	22	3.7%
17	Silver Street, Gastard	Low	5,210	133	2.6%
18	B3353	Low	5,113	139	2.7%
19	Westlands Lane (East)	Low	1,135	57	5.0%
20	Westlands Lane (West)	Low	1,118	45	4.0%
21	A365 Bath Road, Shaw	Low	12,252	418	3.4%

13.7.59 The traffic flows in **Table 13-13** show that there is an element of HGV use on all roads along the Cable Route Corridor.

Road Safety

13.7.60 Statistics showing PIC data on the local road network within the Study Area have been obtained from Wiltshire Council for the most recent five-year period up to and including 19 November 2023.

13.7.61 At the request of National Highways, the M4 Junctions 17 and 18 have been included in the Study Area. The Crashmap (Ref 13-13) website has been used to obtain PIC data for these junctions.

13.7.62 A breakdown of the recorded PICs for the Solar PV Sites Study Area is shown in **Table 13-14**.

Table 13-14: Personal Injury Collision Data (2018-2023) – Solar PV Sites

Ref	Link	Slight	Serious	Fatal	Total
Lime Down A, B and C					
1	M4 Junction 18	6	1	0	7
2	A46	15	1	0	16
3	B4040	1	2	1	4
4	B4039	1	0	1	2
5	Road west of Grittleton	2	0	0	2
6	Alderton Road	0	0	0	0
7	Fosse Way	1	0	0	1
8	Road between Fosse Way and Sherston	1	0	0	1
Lime Down D and E					
9	M4 Junction 17	14	3	0	17
10	A429	14	2	1	17
Lime Down D (West)					
11	Road east of Hullavington	0	1	0	1
12	Bradfield Cottages	2	0	0	2
Lime Down D (East) and E					
13	A429 (Cortston)	6	0	0	6
Total		63	10	3	76

13.7.63 **Table 13-14** indicates a total of 76 PICs within the Solar PV Sites Study Area over the five-year period. Of these collisions, 63 resulted in slight injuries, 10 were serious and three fatal.

13.7.64 Generally, collisions appear to be distributed throughout roads around the Solar PV Sites. A further review of the personal injury accident data is included within the 'Likely Effects: Accidents and Road Safety' section.

13.7.65 A breakdown of the recorded PICs for the Cable Route Corridor Study Area is shown in **Table 13-15**.

Table 13-15: Personal Injury Collision Data (2018-2023) – Cable Route Corridor

Ref	Link	Slight	Serious	Fatal	Total
Cable Route Corridor					
1	The Street, Grittleton	1	0	0	1
2	Neeld Court, South of Grittleton	0	0	0	0
3	Road North of Yatton Keynell	2	3	0	5
4	Road to Sevington	1	0	0	1
5	Cromhall Lane	0	0	0	0
6	Fowlswick Lane	0	0	0	0
7	B4039	1	2	0	3
8	A420	9	5	0	14
9	Sheldon Corner	1	0	0	1
10	Chippenham Lane	0	0	0	0
11	Stowell Lane	0	0	0	0
12	A4 Bath Road	2	2	0	4
13	Road East of Easton	0	0	0	0
14	Road South of Easton	1	0	0	1
15	Corsham Road	0	0	0	0
16	Coppershell	0	0	0	0
17	Silver Street, Gastard	0	1	0	1
18	B3353	7	0	0	7
19	Westlands Lane (East)	1	0	0	1
20	Westlands Lane (West)	0	0	0	0
21	A365 Bath Road, Shaw	9	1	0	10
Total		35	14	0	49

13.7.66 **Table 13-15** indicates a total of 49 PICs within the Cable Route Corridor area over the five-year period. Of these collisions, 35 resulted in slight injuries, 14 were serious and none fatal.

13.7.67 Generally, collisions appear to be distributed throughout roads around the Cable Route Corridor. A further review of the personal injury accident data is included within the 'Likely Effects: Accidents and Road Safety' section.

Future Baseline

13.7.68 This section considers those changes to the baseline conditions, as described above, that might occur in the absence of the Scheme and during the time period over which the Scheme would be in place. The future baseline scenarios are set out in **ES Volume 1, Chapter 6: Environmental Impact Assessment Methodology [EN010168/APP/6.1]**.

13.7.69 There are currently no planned highway works within the Study Area beyond routine maintenance.

13.7.70 Traffic flows may change slightly as a result of cumulative developments in the area. This is discussed further in Section 13.13.

13.7.71 To pick up background traffic growth, an industry standard TEMPro growth factor, which has been adjusted in line with the National Transport Model (NTM) (Ref 13-14), has been applied to the observed traffic flows. A baseline year of 2028 has been assumed as the peak for construction of the Scheme.

13.7.72 The TEMPro growth factor for the Wiltshire district is shown in **Table 13-16**.

Table 13-16: TEMPro Growth Factor (2024-2028) – Average Day

Year	Growth Factor
2024-2028	1.0403

13.7.73 Based on the observed traffic flows set out in **Table 13-12** and **Table 13-13**, and the TEMPro growth factor set out in **Table 13-16**, the 2028 future baseline traffic flows are shown in **Table 13-17**, for the Solar PV Study Area, and **Table 13-18** for the Cable Route Corridor Study Area.

Table 13-17: Solar PV Sites: Baseline 2028 Traffic Flows – Average Day (24 hr), Two-Way

Ref	Link	Sensitivity	Total Vehicles	HGV	%HGV
Lime Down A, B and C					
1	M4 near Junction 18	Negligible	81,601	9,529	11.7%
2	A46	Negligible	13,661	855	6.3%
3	B4040	Medium	2,440	73	3.0%

Ref	Link	Sensitivity	Total Vehicles	HGV	%HGV
4	B4039	Medium	2,868	66	2.3%
5	Road West of Grittleton	Medium	962	49	5.1%
6	Alderton Road	Medium	1,361	20	1.5%
7	Fosse Way	Low	921	21	2.3%
8	Road btw Fosse Way and Sherston	Low	1,549	42	2.7%
Lime Down D and E					
9	M4 near Junction 17	Negligible	82,707	8,375	10.1%
10	A429 north of Junction 17	Negligible	15,173	680	4.5%
Lime Down D (West)					
11	Road East of Hullavington	Low	3,043	135	4.4%
12	Bradfield Cottages	Low	1,452	48	3.3%
Lime Down D (East) and E					
13	A429 South of Corston	Negligible	12,083	454	3.8%

Table 13-18: Cable Route Corridor: Baseline 2028 Traffic Flows – Average Day (24 hr), Two-Way

Ref	Link	Sensitivity	Total Vehicles	HGV	%HGV
Cable Route Corridor					
1	The Street, Grittleton	High	1,163	66	5.7%
2	Neeld Court, South of Grittleton	Low	100	3	3.0%
3	Road North of Yatton Keynell	Medium	1,769	51	2.9%
4	Road to Sevington	Medium	209	7	3.3%
5	Cromhall Lane	Low	133	8	6.0%
6	Fowlswick Lane	Low	988	37	3.7%
7	B4039	Low	5,339	166	3.1%
8	A420	Negligible	7,698	310	4.0%

Ref	Link	Sensitivity	Total Vehicles	HGV	%HGV
9	Sheldon Corner	Low	1,132	42	3.7%
10	Chippenham Lane	Low	142	8	5.6%
11	Stowell Lane	Low	602	13	2.2%
12	A4 Bath Road	Negligible	20,517	528	2.6%
13	Road East of Easton	Low	602	36	6.0%
14	Road South of Easton	Low	415	8	1.9%
15	Corsham Road	Low	1,864	41	2.2%
16	Coppershell	Low	614	22	3.6%
17	Silver Street, Gastard	Low	5,420	138	2.5%
18	B3353	Low	5,319	144	2.7%
19	Westlands Lane (East)	Low	1,181	59	5.0%
20	Westlands Lane (West)	Low	1,163	46	4.0%
21	A365 Bath Road, Shaw	Low	12,746	435	3.4%

13.8 Potential Impacts

13.8.1 Embedded mitigation measures being incorporated into the design and construction of the proposed Scheme are set out in Section 13.9 below. Prior to the implementation of any mitigation (embedded or additional), the proposed Scheme has the potential to affect Transport and Access (positively or negatively), during the construction, operation and maintenance, and decommissioning phases in the following ways:

- Severance;
- Driver Delay;
- NMU delay;
- NMU amenity;
- Fear and intimidation;
- Road user and pedestrian safety; and
- Hazardous/large loads.

13.9 Embedded Mitigation

13.9.1 The Scheme has been designed, as far as practicable, to avoid and reduce impacts and effects on Transport and Access through the process embedding measures into the design. In addition, how the Scheme is constructed, operated and maintained, and decommissioned would be controlled in order to manage and minimise potential environmental effects (required as a result of legislative requirements and/or standard sectoral practices).

13.9.2 The following embedded mitigation measures have been incorporated into the Scheme design.

Construction Phase

13.9.3 Embedded mitigation measures will be implemented during the construction phase.

13.9.4 An **Outline CTMP [EN010168/APP/7.22]** has been prepared and will be secured through the DCO.

13.9.5 The **Outline CTMP [EN010168/APP/7.22]** provides a framework for the management of construction vehicle movements to and from the Scheme, to ensure that the effects of the temporary construction phase on the local highway network are minimised. The **Outline CTMP [EN010168/APP/7.22]** sets out construction access arrangements, construction vehicle routing, construction vehicle trip generation, and the management/mitigation measures. It also summarises the requirements for vehicles to transport AIL (for elements such as Conversion Units).

13.9.6 Delivery drivers, contractors and visitors will be advised of the construction routes in advance of driving each specific access. The construction routes have been designed to utilise the most appropriate roads available, and to avoid, where practicable, designated or protected areas, height and weight restrictions and residential areas.

13.9.7 A number of embedded mitigation measures are set out within the **Outline CTMP [EN010168/APP/7.22]** for the control of vehicles associated with the construction phase. This includes the following:

- Signs to direct construction vehicles associated with the development will be installed along the agreed construction traffic route. Delivery drivers, contractors and visitors will be provided with a route plan in advance of delivering to the Order Limits to ensure that vehicles follow the identified route;
- Advisory signs informing contractors and visitors that parking will not permitted on-street in the vicinity of the Order Limits or on access roads;

- All signage on the designated route will be inspected twice daily by the Site Manager, to ensure they are kept in a well maintained condition and located in safe and appropriate locations;
- A compound area for contractors will be set up on-site, including appropriate parking spaces. Contractors and visitors will be advised that parking facilities will be provided on-site in advance of visiting the Order Limits and that they should not park on-street;
- A wheel wash facility will be provided ahead of exiting the Order Limits allowing vehicles to be hosed down so that no construction vehicles will take mud or debris onto the local highway network;
- A road sweeper will be provided for surrounding local roads along the designated route to alleviate any residual debris generated during the construction phase, as required;
- The Order limits will be secured at all times with Heras fencing;
- A requirement for engines to be switched off on-site when not in use;
- Spraying of areas with water supplied as and when conditions dictate to prevent the spread of dust;
- Vehicles carrying waste material off-site to be sheeted;
- Banksmen will be provided at Site access junctions where required to indicate to construction traffic when it is safe for them to enter and exit the Order Limits;
- Deliveries will be scheduled for between 09:30 and 16:30 where practicable to avoid peak times;
- All residents in the vicinity of the Order Limits along the designated route will be provided with contact details of the Community Liaison Manager, which will also be provided on a site-board at access and egress junctions;
- Agreement to a Road Condition/Dilapidation Survey with the local highway authority; and
- Works to enable AIL deliveries.

13.9.8 An Outline CWTP has also been prepared as part of the **Outline CTMP [EN010168/APP/7.22]** and will be secured through the DCO. This includes measures for the provision of shuttle buses to transport construction workers to and from the Order Limits. This is particularly important for non-local workers, who are expected to stay in local accommodation and be transported to the Order Limits. It will also be utilised by other workers as appropriate. It is expected that the shuttle bus will be able to accommodate 20 workers on

average (shuttle buses are likely to be varying size). In addition, workers who drive will be encouraged to car share where practicable.

13.9.9 All points of access and internal access tracks have been appropriately designed to accommodate HGV and AIL movements where required.

13.9.10 All construction routes can accommodate construction vehicle movements, with Highway Improvement Areas in place. Where the construction routes pass through sections of road that are considered narrow and require widening, these have been adopted into the design as 'Highway Improvement Areas' which will ensure that sufficient passing room is present along the routes or traffic management is implemented to ensure the safe movement of construction vehicles.

13.9.11 There will be a small number of AIL to transport the larger Conversion Units and substation equipment. These movements will be managed by a specialist haulage company so that the potential effects are mitigated. The exact measures will be agreed with the Local Highway Authority (LHA) and police prior to the movements occurring. Additional details, including confirmation of the AIL routes, are set out within **Outline CTMP [EN010168/APP/7.22]**.

13.9.12 In addition, an **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** has been prepared and will be secured through the DCO. Measures in this document include:

- The provision of banksmen where the track crosses a PRoW, to hold vehicles if a PRoW user is present and advise PRoW users of the potential for construction vehicles to be present;
- Speeds to be limited to 5 mph;
- Drivers to stop and give-way to any PRoW user that they encounter;
- Appropriate signage to be installed along the PRoW to make PRoW users aware of the construction activity. This will include information on construction times and contact details for a public liaison officer;
- The PRoW to be kept clear of construction vehicles and apparatus outside of permitted construction hours so far as is practicable to do so; and
- Any damage to the surface of the PRoW will be repaired as soon as practicable. The surface to be returned to its original condition following completion of construction.

Operation and Maintenance Phase

13.9.13 The following embedded mitigation measures will be implemented during the operation and maintenance phase:

- Providing suitable points of access for operation and maintenance phase vehicles with turning areas;
- The planting of landscaping and screening to conceal reflections from the Solar PV Panels as far as possible, which could affect drivers on the local highway network;
- Implementation of measures from the **Outline CTMP [EN010168/APP/7.22]** (where appropriate) during the programme of replacement for the Solar PV Panels, Conversion Units and BESS Batteries;
- The provision of new non-vehicular permissive paths on each of the Solar PV Sites. These permissive paths are shown on the **Works Plan [EN010168/APP/2.3]** as demarcated by Work No.10. These routes will provide pedestrians and horse riders improved accessibility to the countryside and improved connectivity to the wider PROW network. These permissive paths are to remain open up to 365 days per year throughout the proposed 60-year operational lifetime of the Scheme. These permissive paths will provide a beneficial impact on PROW use for local users and visitors through mitigating adverse impacts on other PROW and providing alternative access routes to the use of the local highway network. These measures, when implemented, will enhance connectivity in the local area; and
- The **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** will also apply to the operation and maintenance phase.

Decommissioning Phase

13.9.14 A requirement for a Decommissioning Traffic Management Plan (DTMP) to be approved by the local highway authority prior to the decommissioning phase will be secured through the DCO. This will sit underneath the broader **Outline Decommissioning Strategy [EN010168/APP/7.14]** to be secured through a DCO requirement. The DTMP will follow the principles of the **Outline CTMP [EN010168/APP/7.22]**. It is anticipated that the effects associated with decommissioning will be no worse than during the construction phase.

13.9.15 The **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** will also apply to the decommissioning phase.

13.10 Assessment of Likely Impacts and Effects

13.10.1 This section considers the potential impacts outlined in Section 13.7.69 and, taking into account the committed mitigation measures as detailed in Section ~~13,~~13.9, assesses the potential for the Scheme to generate effects using the methodology as detailed in Section 13.6.

Construction Phase – Solar PV Sites

13.10.2 This section summarises the likely effects associated with the movement of vehicles during the construction of the Solar PV Sites.

Construction Programme

13.10.3 The construction programme for the Scheme is anticipated to last 24 months, which equates to approximately 520 working days. Within the construction phase, it is assumed that each Solar PV Site will take the following approximate time to construct:

- **Lime Down A:** 9 months (230 days);
- **Lime Down B:** 9 months (230 days);
- **Lime Down C:** 16 months (430 days);
- **Lime Down D:** 10 months (250 days); and
- **Lime Down E:** 13 months (330 days).

13.10.4 As a reasonable worst-case assessment for the ES, it will be assumed that all areas/elements of the Scheme will be constructed concurrently. However, this is not likely, and it is expected that areas/elements of the Scheme will be constructed at different times during the construction phase.

Construction Access

13.10.5 During the construction phase, access points serving the Solar PV Sites will be required. The proposed locations of the access points are shown in **ES Volume 2, Figure 13-11: Construction Access Locations: Solar PV Sites [EN010168/APP/6.2]** and listed in **Table 13-19**~~Table 13-19.~~.

Table 13-19: Solar PV Sites: Access Points

Ref*	Link	Existing or New	Use
Lime Down A			
5	West of Road between Fosse Way and Sherston	Existing	Construction/Operation and Maintenance
6	East of Road between Fosse Way and Sherston	Existing	Construction/Operation and Maintenance
Lime Down B			
4	East of Fosse Way (byway), north of crossroads	New	Construction/Operation and Maintenance

Ref*	Link	Existing or New	Use
4ab	Crossing between Honey Lane and Fosse Way	New	4a. Construction 4b.Construction/Operation and Maintenance
Lime Down C			
1	West of Fosse Way south of railway bridge	Existing	Construction/Operation and Maintenance
2	East of Fosse Way south of railway bridge	Existing	Construction/Operation and Maintenance
2ab	Crossing on Pig Lane	New	Construction/Operation and Maintenance
3	East of Fosse Way north of railway bridge	Existing	Construction/Operation and Maintenance
19	AIL Access from Fosse Way north of rail bridge	Existing	Construction/Operation and Maintenance
Lime Down D (West)			
7	East of Bradfield Cottages road	New	Construction/Operation and Maintenance
8	West of Bradfield Cottages road	New	Construction/Operation and Maintenance
9	Unnamed road East of Hullavington crossroads	Existing	Construction/Operation and Maintenance
~~10~~	~~North off A429~~	~~Existing~~	~~Construction~~
20	AIL Access from Bradfield Cottages	New	Construction/Operation and Maintenance
21	Emergency Access to Lime Down D 400kV Substation and BESS Area from Hill Hayes Lane	New	Construction/Operation and Maintenance
Lime Down D (East)			
10	North off A429	Existing	Construction
Lime Down E			
18	South of A429	Existing	Construction/Operation and Maintenance
11	North of Cabbage Lane	Existing	Construction/Operation and Maintenance

Ref*	Link	Existing or New	Use
12	North of Cabbage Lane	Existing	Construction/Operation and Maintenance
13	North of Cabbage Lane	Existing	Construction/Operation and Maintenance
14	End of Cabbage Lane	Existing	Construction/Operation and Maintenance
15	End of Cabbage Lane	Existing	Construction/Operation and Maintenance
16	South of Cabbage Lane	Existing	Construction/Operation and Maintenance
17	South of Cabbage Lane	Existing	Construction/Operation and Maintenance
17ab	South on Cabbage Lane	Existing	Construction/Operation and Maintenance
18	South of A429	Existing	Construction/Operation and Maintenance

13.10.6 Where the proposed access points utilise existing agricultural access points or tracks, they will be formalised and widened where necessary. Access Drawings, including swept path analysis are included within **ES Volume 3, Appendix 13-1: Transport Assessment [EN010168/APP/6.3]** and **Outline CTMP [EN010168/APP/7.22]**.

13.10.7 The proposed haul roads serving Lime Down B from Access 4 and Lime Down D from Access 10 will be temporary for construction, operational replacement, and decommissioning phases only.

HGV Movements

13.10.8 The construction phase will include the use of HGVs to bring the equipment onto the Solar PV Sites and this will be strictly managed to ensure that vehicle movement is controlled and kept to a minimum. On a day-to-day basis, the largest vehicle that will be used to deliver equipment to the Order Limits will be a 16.5 m articulated vehicle, although a significant proportion of movements will be by smaller vehicles. A summary of the construction activity that requires HGV movements is as follows:

- Delivery of Solar PV Panels and Solar PV Mounting Structures;
- Removal of waste and packaging;
- Delivery of Skids/Power Station;

- Delivery of cable for PV Sites;
- Delivery of Substation and BESS equipment;
- Delivery of material for the access track construction; and
- Other deliveries for items such as fencing and landscaping etc.

13.10.9 There will be a small number of AIL movements to transport larger Conversion Units and substation equipment.

13.10.10 **Table 13-20** summarises the number of HGVs expected at the Solar PV Sites during the construction phase. For the purpose of assessment, it has been assumed that only fixed Solar PV Panels are used across the Scheme, with no tracker Solar PV Panels. This scenario would require the greatest number of deliveries.

13.10.11 It is expected that there will be a relatively consistent trip profile of deliveries throughout the construction phase. Therefore, the average number of deliveries per day has been calculated based on the duration of the construction phase.

13.10.12 Whilst an average day is presented, it is acknowledged that there will be small peaks within the construction phase, especially during the set up within the Order Limits. To account for this, a 50% uplift on vehicle movements has been applied for the purposes of assessment, to provide a reasonable worst-case scenario.

~~13.10.13~~ Construction vehicles will avoid travel during the network peak hours where practicable. Therefore, deliveries will be scheduled for between 09:30 and 16:30 on weekdays and 09:30 and 12:30 on Saturdays, where practicable.

Table 13-20: Construction Traffic Flows/HGV Deliveries* ~~*All numbers are rounded up*~~

Construction Activity	Vehicle Size (Max)	Solar PV Site						400kV Substation	BESS	Total
		Lime Down A	Lime Down B	Lime Down C	Lime Down D (West)	Lime Down D (East)	Lime Down E	Lime Down D (West)	Lime Down D (West)	Total
Construction Phase (Working Days)		230	230	434	434	102	357	153	485	-
Solar PV Panels	16.5mArticulated	120	110	340	315	75	240			1,200
Solar PV Mounting Structures	16.5mArticulated	60	50	150	135	35	110			540
Waste	10mTipper	30	20	60	55	15	50			230
Skids/Power Station	16.5mArticulated	7	7	19	18	4	13			68
Cable (for PV Sites)	16.5mArticulated	5	5	15	15	5	10			55
Substation Units/Cabling	16.5mArticulated								445	445
Substation/BESS Aggregate	10mTipper	130	-	130	-	130	130	1,370	975	2,865
Access Track	10mTipper	500	460	1,390	1,305	305	980			4,940
General – Fencing, landscaping etc	10mRigid	270	250	760	715	165	540			2,700
Total HGV Deliveries		1,122	902	2,864	2,558	734	2,073	1,370	1,420	13,043
Total HGV Movements		2,244	1,804	5,728	5,166	1,468	4,146	2,740	2,840	26,086
Average Day HGV Deliveries		5	4	7	6	8	6	9	3	48
Average Day HGV Movements		10	8	14	12	16	12	18	6	96
Peak Day HGV Deliveries (50% Uplift)		8	6	11	9	12	9	14	5	74
Peak Day HGV Movements (50% Uplift)		16	12	22	18	24	18	28	10	148

**All numbers are rounded up*

~~13.10.14~~13.10.13 In summary, on an average and peak day during the construction phase, there are likely to be the following HGV movements across all Solar PV Sites:

- Average HGV Arrivals and Departures per Day – 48 (96 total movements); and
- Peak HGV Arrivals and Departures per Day – 74 (148 total movements).

Car/Light Goods Vehicle Movements

~~13.10.15~~13.10.14 On a peak day, assuming the build out of all areas/elements of the Scheme concurrently, there is expected to be 622 workers spread across the Solar PV Sites. For assessment, construction workers have been spread across the Solar PV Sites on a proportional basis, based on the output of each area.

~~13.10.16~~13.10.15 Construction worker shifts will be scheduled so that workers are not travelling during the network peak hours of 08:00-09:00 and 17:00-18:00.

~~13.10.17~~13.10.16 As part of the **Outline CTMP [EN010168/APP/7.22]**, an Outline CWTP will be prepared. This will include measures for the provision of shuttle buses to transport construction workers to and from the Solar PV Sites. This is particularly important for non-local workers, who will stay in local accommodation and be transported to the Solar PV Sites. It will also be utilised by other workers as appropriate. It is expected that the shuttle bus will be able to accommodate 20 workers on average (shuttle buses are likely to be varying size). In addition, workers who drive will be encouraged to car share where practicable.

~~13.10.18~~13.10.17 With this in mind, it is assumed that 50% of workers will arrive by shuttle bus. This is considered an under-estimate but is in line with assumptions set out in other DCO applications. For example, Longfield Solar Farm (Planning Inspectorate reference EN010118) assumed that 55% of the workforce would arrive by shuttle bus based on the proportion of the workforce that would be non-local to the Solar PV Sites and would stay in local accommodation. In addition, the Cottam Solar Project (Planning Inspectorate reference EN010133) and West Burton Solar Project (Planning Inspectorate reference EN010132) also assumed that 50% of the workers will arrive by shuttle bus.

~~13.10.19~~13.10.18 The remaining workers will arrive by car with an assumed 1.5 construction workers per car, based on the national car occupancy average.

~~13.10.20~~13.10.19 Based on a total of 622 construction workers across the Solar PV Sites, the forecast number of cars/shuttle buses are set out in **Table 13-21**.

Table 13-21: Cars and Shuttle Buses*

	Total
Construction Workers	622
Shuttle Buses (20 workers per Bus)	16
Cars (1.5 Workers per Car)	208
Total Cars and Shuttle Bus (Arrivals)	224
Total Cars and Shuttle Bus (Arrivals plus Departures)	448

**All numbers are rounded up*

Construction Traffic Flows (Peak Day)

~~13.10.21~~13.10.20 The total peak traffic flows, based on the information set out above, are summarised in **Table 13-22**.

Table 13-22: Construction Phase Traffic Flows (Peak Day): Solar PV Sites

Construction Traffic	Lime Down A	Lime Down B	Lime Down C	Lime Down D (West)	Lime Down D (East)	Lime Down E	Total
HGVs	8	6	11	28	12	9	74
Cars/LGVs	23	22	64	60	14	46	229
Total Vehicles	31	28	75	88	26	55	303
Total Movements	62	56	150	176	52	110	606

~~13.10.22~~13.10.21 **Table 13-22** demonstrates that there could be up to 303 arrivals and departures (606 total) during a peak day during the construction phase. This is a reasonable 'worst-case' assessment, and on a typical day, traffic flows will be lower than this.

Construction Routes

~~13.10.23~~13.10.22 The designated routes for all vehicles associated with the construction phase of the Solar PV Site forms the basis for the Study Area for this section of the ES chapter. The routes are shown in **ES Volume 2, Figure 13-1: Study Area: Solar PV Sites [EN010168/APP/6.2]**.

~~13.10.24~~13.10.23 Delivery drivers, contractors and visitors will be advised of the route in advance of driving to the Order Limits. The construction routes have been designed to utilise the most appropriate roads available, and to avoid, where

practicable, designated or protected areas, height and weight restrictions and residential areas.

~~13.10.25~~13.10.24 A summary of the construction vehicle route for each of the Solar PV Sites is set out below:

- **Lime Down A:** M4 Junction 18 → A46 → B4040 → B4039 → Unnamed Road west of Grittleton → Alderton Road → Fosse Way → Unnamed Road between Fosse Way and Sherston;
- **Lime Down B and C:** M4 Junction 18 → A46 → B4040 → B4039 → Unnamed Road west of Grittleton → Alderton Road → Fosse Way;
- **Lime Down D (West):** M4 Junction 17 → A429 → Unnamed Road east of Hullavington → Bradfield Cottages; and
- **Lime Down D (East) and E:** M4 Junction 17 → A429.

~~13.10.26~~13.10.25 Further information on the construction traffic routes is set out in ES Volume 3, **Appendix 13-1: Transport Assessment [EN010168/APP/6.3]** and **Outline CTMP [EN010168/APP/7.22].**

Construction Traffic Flows (Total Daily Movements)

~~13.10.27~~13.10.26 **Table 13-23** sets out the construction traffic flows for the links within the Study Area on a peak day.

Table 13-23: Solar PV Sites: Construction Traffic Flows – Total Daily Movements

Ref	Link	Sensitivity	HGV	Car/LGV	Total
Lime Down A, B and C					
1	M4 near Junction 18	Negligible	50	218	268
2	A46	Negligible	50	218	268
3	B4040	Medium	50	218	268
4	B4039	Medium	50	218	268
5	Road West of Grittleton	Medium	50	218	268
6	Alderton Road	Medium	50	218	268
7	Fosse Way	Low	50	218	268
8	Road btw Fosse Way and Sherston	Low	16	46	62

Ref	Link	Sensitivity	HGV	Car/LGV	Total
Lime Down D and E					
9	M4 near Junction 17	Negligible	98	240	338
10	A429 north of Junction 17	Negligible	98	240	338
Lime Down D (West)					
11	Road East of Hullavington	Low	56	120	176
12	Bradfield Cottages	Low	56	120	176
Lime Down D (East) and E					
13	A429 South of Corston	Negligible	42	120	162

2028 Future Baseline plus Construction Traffic Flows

~~13.10.28~~13.10.27 The construction traffic flows set out in **Table 13-23** have been added to the future baseline (2028) traffic flows set out in **Table 13-17**. This is summarised in **Table 13-24** for all vehicles, and **Table 13-25** for HGVs.

~~13.10.29~~13.10.28 Also set out in **Table 13-24** and **Table 13-25** is a commentary on whether further assessment is required, based on the percentage changes in total vehicles and/or HGVs.

~~13.10.30~~13.10.29 As set out within this chapter, the ISEP Guidelines (Ref 13-1) set out two rules which will be used as threshold impacts to define the scale and extent of the assessment, as follows:

- Rule 1: Include highway links where traffic flows will increase by more than 30% (or where the number of heavy goods vehicles ('HGV') will increase by more than 30%); and
- Rule 2: Include any other specifically sensitive areas where traffic flows have increased by 10% or more.

~~13.10.31~~13.10.30 A specifically sensitive area is an area defined as having a 'High' sensitivity. No link within the Solar PV Sites Study Area is considered to have high sensitivity. Therefore, Rule 1 will apply to all links within the Study Area.

~~13.10.32~~13.10.31 It is concluded that links which do not meet the threshold of Rule 1 will not have significant effects during the temporary construction phase.

Table 13-24: Solar PV Sites: Baseline 2028 AADT Total Traffic Flows plus Construction Traffic (Total Vehicles)

Ref	Link	Sensitivity	Base 2028	Plus Dev	% Change	Further Assessment
Lime Down A, B and C						
1	M4 near Junction 18	Negligible	81,601	81,869	0.3%	No
2	A46	Negligible	13,661	13,929	2.0%	No
3	B4040	Medium	2,440	2,708	11.0%	No
4	B4039	Medium	2,868	3,136	9.3%	No
5	Road West of Grittleton	Medium	962	1,230	27.9%	No
6	Alderton Road	Medium	1,361	1,629	19.7%	No
7	Fosse Way	Low	921	1,189	29.1%	No
8	Btw Fosse Way and Sherston	Low	1,549	1,611	4.0%	No
Lime Down D and E						
9	M4 near Junction 17	Negligible	82,707	83,045	0.4%	No
10	A429 north of Junction 17	Negligible	15,173	15,511	2.2%	No
Lime Down D (West)						
11	Road East of Hullavington	Low	3,043	3,219	5.8%	No
12	Bradfield Cottages	Low	1,452	1,628	12.1%	No
Lime Down D (East) and E						
13	A429 South of Corston	Negligible	12,083	12,245	1.3%	No

Table 13-25: Solar PV Sites: Baseline 2028 AADT Traffic Flows plus Construction Traffic (HGVs)

Ref	Link	Sensitivity	Base 2028	Plus Dev	% Change	Further Assessment
Lime Down A, B and C						
1	M4 near Junction 18	Negligible	9,529	9,579	0.5%	No
2	A46	Negligible	855	905	5.8%	No
3	B4040	Medium	73	123	68.5%	Yes

Ref	Link	Sensitivity	Base 2028	Plus Dev	% Change	Further Assessment
4	B4039	Medium	66	116	75.8%	Yes
5	Road West of Grittleton	Medium	49	99	102.0%	Yes
6	Alderton Road	Medium	20	70	250.0%	Yes
7	Fosse Way	Low	21	71	238.1%	Yes
8	Btw Fosse Way and Sherston	Low	42	58	38.1%	Yes
Lime Down D and E						
9	M4 near Junction 17	Negligible	8,375	8,473	1.2%	No
10	A429 north of Junction 17	Negligible	680	778	14.4%	No
Lime Down D (West)						
11	Road East of Hullavington	Low	135	191	41.5%	Yes
12	Bradfield Cottages	Low	48	104	117.0%	Yes
Lime Down D (East) and E						
13	A429 South of Corston	Negligible	473	515	8.9%	No

~~13.10.33~~13.10.32 **Table 13-24** shows that no links within the Study Area will observe total traffic flows increasing by more than 30%. However, as set out in **Table 13-25**, and in line with Rule 1, eight of the links could see a 30% increase or more in HGVs during peak periods of the construction phase. These have been taken forward for assessment.

~~13.10.34~~13.10.33 It should be noted that high percentage changes in HGVs typically reflect a low baseline number of HGVs. Real term numbers of HGVs are relatively low. For example, on Link 6, Alderton Road, the number of HGVs in the 2028 baseline is 20 per day. This increases to 70 during peak construction phases. Whilst an increase of 250% appears high, the actual increase of HGVs is 50. Where baseline flows are low, any change in traffic flow will result in a large percentage change, but this will not necessarily lead to a likely significant effect.

~~13.10.35~~13.10.34 A review of the likely significant environmental effects in relation to transport and access during the construction phase is set out below.

Likely Effects: Severance

~~13.10.36~~13.10.35 Changes in total traffic flows on all roads taken forward for further assessment are below 30%, which relates to a 'slight' change in 'severance' in line with Paragraph 3.16 on the ISEP guidelines (Ref 13-1). In addition, all roads currently have low traffic flows in the baseline 2028 scenario (between 921 and 3,043 movements per day). Where baseline traffic flows are low, Paragraph 3.16 of the ISEP guidelines (Ref 13-1) goes on to state that *"caution needs to be observed when applying these thresholds as very low baseline flows are unlikely to experience severance impacts even with high percentage changes in traffic".* Therefore, even if increases in traffic flows were higher than 30%, it could still be concluded that effects on severance would be slight.

~~13.10.37~~13.10.36 None of the roads taken forward for further assessment act as a considerable barrier that separates communities. The B4039 does go through Acton Turville, Burton and The Gibb. However, as described above, traffic flows are low meaning severance is still slight in this location. In this location, total traffic flows only increase by 9.3% with the addition of construction traffic.

~~13.10.38~~13.10.37 Therefore, the likely effects on severance during the construction phase are set out in **Table 13-26**. The effects are considered to be temporary and negligible (not significant).

Table 13-26: Effects on Severance of Communities: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
3	B4040	Medium	Negligible
4	B4039	Medium	Negligible
5	Road West of Grittleton	Medium	Negligible
6	Alderton Road	Medium	Negligible
7	Fosse Way	Low	Negligible
8	Btw Fosse Way and Sherston	Low	Negligible
11	Road East of Hullavington	Low	Negligible
12	Bradfield Cottages	Low	Negligible

Likely Effects: Road Vehicle Driver and Passenger Delay

~~13.10.39~~13.10.38 Capacity assessments on local junctions have not been undertaken for the assessment. As stated, through the **Outline CTMP [EN010168/APP/7.22]**, construction vehicles will be coordinated to avoid peak

hour travel, the period where capacity constraints may occur, and, where practicable, there will be no construction traffic on roads within the Study Area between 08:00-09:00 or 17:00-18:00.

~~13.10.40~~13.10.39 As with severance, applying a percentage change in traffic to determine the effects for driver delay is not considered appropriate when the baseline traffic flows are low. At a theoretical peak, there could be an addition of 268 daily movements associated the construction of Lime Down A, B and C. Whilst these changes are likely to be perceptible, they will not change conditions which would otherwise prevail, and will not materially increase driver delay over the course of a daily period.

~~13.10.41~~13.10.40 As such, the likely effect of construction traffic on driver delay within the Study Area is considered to be minor adverse and temporary, which is not significant. The likely effects on driver delay during the construction phase are set out in **Table 13-27**.

Table 13-27: Effects on Road Vehicle Driver and Passenger Delay: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
3	B4040	Medium	Minor Adverse (Temporary)
4	B4039	Medium	Minor Adverse (Temporary)
5	Road West of Grittleton	Medium	Minor Adverse (Temporary)
6	Alderton Road	Medium	Minor Adverse (Temporary)
7	Fosse Way	Low	Minor Adverse (Temporary)
8	Btw Fosse Way and Sherston	Low	Minor Adverse (Temporary)
11	Road East of Hullavington	Low	Minor Adverse (Temporary)
12	Bradfield Cottages	Low	Minor Adverse (Temporary)

Likely Effects: Non-motorised User Delay

~~13.10.42~~13.10.41 The ISEP Guidelines (Ref 13-1) do not set out thresholds for judging the significance of changes in levels of NMU delay and suggest that the assessor uses their judgement to determine whether there is a significant effect on NMU delay.

~~13.10.43~~13.10.42 As set out in the baseline conditions section, there is little dedicated walking, cycling and equestrian infrastructure within the Study Area. NMU flows on these roads are also observed to be low. Therefore, the addition of construction vehicles to the local highway network is not likely to result in any significant delay to NMUs on the local highway network.

~~13.10.44~~13.10.43 It is anticipated that PRoW which cross the Order Limits will generally remain open during the construction phase of the Scheme. There may be some slight perceptible delay to NMU movement if a construction vehicle is crossing a PRoW within the Order Limits. An **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** forms an embedded mitigation and will provide measures to ensure the effects of the construction phase on PRoW users is minimised.

~~13.10.45~~13.10.44 There may be the requirement for temporary closures of PRoW during construction where the Grid Connection Cables cross existing PRoW. This will only be required when the Grid Connection Cables are being installed and will likely not last more than a day and alternate routes will be provided. Where closures are deemed to be necessary, these will be prioritised for overnight work, will be temporary in nature and supported by appropriate amount of notice with closure times and dates clearly provided, and, if appropriate, suitable diversions provided for recreational routes.

~~13.10.46~~13.10.45 The **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** furthermore contains specific measures for the temporary diversion of footpath WT|GRIT|20 and bridleway WT|MALW|54, where access to Cable Route Corridor works east of Grittleton, and HGV access to Lime Down E are taken respectively. These diversions are proposed to ensure unreasonable effects to PROW users are not experienced during construction, replacement and decommissioning.

~~13.10.47~~13.10.46 If a temporary diversion of a PRoW is required, this will be for a short period and appropriately managed in consultation with the local highway authority.

~~13.10.48~~13.10.47 The likely effects on NMU delay during the construction phase is set out in **Table 13-28**. The effects are considered to be negligible on the local highway network, and minor adverse on the PRoW network. In conclusion, the effects on NMU delay are temporary and not significant.

Table 13-28: Effects on Non-motorised User Delay: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
3	B4040	Medium	Negligible
4	B4039	Medium	Negligible
5	Road West of Grittleton	Medium	Negligible
6	Alderton Road	Medium	Negligible
7	Fosse Way	Low	Negligible

Ref	Link	Sensitivity	Significance of Effect
8	Btw Fosse Way and Sherston	Low	Negligible
11	Road East of Hullavington	Low	Negligible
12	Bradfield Cottages	Low	Negligible
PROW Network		Medium	Minor Adverse (Temporary)

Likely Effects: Non-motorised User Amenity (including Fear and Intimidation)

~~13.10.49~~13.10.48 As stated, the level of NMU infrastructure and activity on the roads surrounding the Order Limits is very low. However, it is acknowledged that the addition of HGVs to the network will affect the relative pleasantness of any NMU journey in the area. Given the low number of NMU movements the effects of construction vehicles on NMU amenity on the local highway network is considered to be minor.

~~13.10.50~~13.10.49 PRoW that cross the Solar PV Sites will generally remain open during the construction phase of the Scheme, except for temporary diversions of PRoW where the Grid Connection Cables are laid. Notwithstanding this, there will be an effect on relative pleasantness of NMU amenity if a construction vehicle is crossing a PRoW within the Order Limits, especially given that only agricultural vehicles might currently cross PRoW within the Order Limits. An **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** forms an embedded mitigation and will provide management measures to ensure the effects of the construction phase on PRoW users is minimised. With the embedded mitigation in place, the effects are considered to be minor.

~~13.10.51~~13.10.50 With regards to fear and intimidation, the low level of change in traffic flows will not result in a step change in the level of fear and intimidation magnitude in line with the ISEP guidance (Ref 13-1).

~~13.10.52~~13.10.51 The likely effects on NMU amenity (including fear and intimidation) during the construction phase of the Scheme is set out in **Table 13-29**. The effects are considered to be minor adverse and temporary on the local highway network. These are not significant. Where the internal construction vehicle track crosses a PRoW, the effects are also considered to be **minor adverse** due to the implementation of the **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]**.

Table 13-29: Effects on Non-motorised User Amenity (including Fear and Intimidation): Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
3	B4040	Medium	Minor Adverse (Temporary)
4	B4039	Medium	Minor Adverse (Temporary)
5	Road West of Grittleton	Medium	Minor Adverse (Temporary)
6	Alderton Road	Medium	Minor Adverse (Temporary)
7	Fosse Way	Low	Minor Adverse (Temporary)
8	Btw Fosse Way and Sherston	Low	Minor Adverse (Temporary)
11	Road East of Hullavington	Low	Minor Adverse (Temporary)
12	Bradfield Cottages	Low	Minor Adverse (Temporary)
PROW Network		Medium	Minor Adverse (Temporary)

Likely Effects: Accidents and Safety

~~13.10.53~~13.10.52 An overview of personal injury accidents for the whole Study Area over the most recent five-year period is shown in **Table 13-14**. **Table 13-30** provides a more detailed summary of personal injury accidents on the links taken forward for further assessment.

Table 13-30: Personal Injury Collision Data (2018-2023)

Ref	Link	Accident Reference	Severity	Vehicle(s)	Description
Lime Down A, B and C					
3	B4040	202002672	Slight	1 Car 1 Cycle	V1 collided with rear of Cycle 1, rider fell off Cycle.
		212103499	Serious	1 M/cycle 1 Car	V1 taking r/h bend, V2 (M/cycle) coming round bend on wrong side. V2 struck corner of V1.
		212105589	Fatal	1 M/cycle 1 LDV	V1 (M/cycle) failed to negotiate sharp uphill l/h bend, collided with oncoming V2 (van) head on.
		222202766	Serious	1 M/cycle 1 Car	V1 (M/cycle) failed to negotiate sharp uphill l/h bend, collided with oncoming V2 on the bend head on.

Ref	Link	Accident Reference	Severity	Vehicle(s)	Description
4	B4039	181801458	Fatal	1 M/cycle 2 Car	M/cycle went to overtake V1, collided with V2 who had already begun overtaking manoeuvre of both vehicles. M/cycle lost control and collided with signpost.
		40572/23	Slight	1 HGV	V1 (tractor) equipment broken off, causing V1 to run over it.
		A8947/19	Serious	1 Cars 1 HGV	V2 stopped at side of carriageway with hazard lights on, V1 collided with rear of V2.
5	West of Grittleton	63128/21	Slight	2 Cars	Both vehicles were racing each other. V1 overtaken V2 and collided with V2. V1 lost control and collided with tree.
6	Alderton Road	No recorded accidents			
7	Fosse Way	09594/20	Slight	1 Car	V1 skidded on black ice, lost control and vehicle has overturned.
8	Btw Fosse Way and Sherston	99633/20	Slight	1 Car	V1 has turned at T-junction lost control of car and mounted verge on the opposite of the junction.
11	Road East of Hullavington	59681/22	Serious	1 Car 1 Pedal Cycle	V2 (Cycle) going to turn right on roundabout and V1 (Car) has struck front with V2 nearside. V2 rider displaced.
12	Bradfield Cottages	89435/21	Slight	1 LDV	V1's tyres gone into deep gully causing V1 to lose control and overturn.
		98800/22	Slight	1 Car	V1 failed to negotiate bend, skid and overturned.

~~13.10.54~~13.10.53 As set out in **Table 13-30**, there have been a total of 13 collisions on the links for further assessment. The majority of the incidents are a result of driver misjudgement, the weather or a faulty vehicle. A small cluster of accidents occurring on the B4040 is observed, which resulted in two serious and one fatal accident within a 300 m section of road. **Table 13-30** indicates that all three involved motorcyclists misjudging the bend in the road.

~~13.10.55~~13.10.54 The low level of construction traffic associated with the Scheme is unlikely to materially affect road safety on the links in the Study Area, and the effects on accidents and safety from the Scheme's construction phase on all

links will be temporary and negligible (not significant). This is summarised in **Table 13-31**.

Table 13-31: Effects on Accidents and Safety: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
3	B4040	Medium	Negligible
4	B4039	Medium	Negligible
5	Road West of Grittleton	Medium	Negligible
6	Alderton Road	Medium	Negligible
7	Fosse Way	Low	Negligible
8	Btw Fosse Way and Sherston	Low	Negligible
11	Road East of Hullavington	Low	Negligible
12	Bradfield Cottages	Low	Negligible

~~13.10.56~~13.10.55 Notwithstanding the above, the cluster of motorcycle accidents on the B4040 is noted. Whilst the Scheme is not likely to materially affect the accident rates, the Applicant will provide additional signage in this location during the temporary construction phase. This will advise drivers of the oncoming bends in the road alignment at this location.

Likely Effect: Hazardous Loads/Large Loads

~~13.10.57~~13.10.56 There will be a small number of AILs to transport the larger Conversion Units and substation equipment. An AIL is one where the vehicle exceeds 44 tonnes, the width is over 2.9 m or the length is more than 18.65 m. These movements will be managed by a specialist haulage company so that the potential effects are mitigated. The exact measures will be agreed with the LHA and police prior to the movements occurring. Additional details are set out in the **Outline CTMP [EN010168/APP/7.22]**.

~~13.10.58~~13.10.57 In light of the low numbers of movements associated with this category, and the embedded mitigation through the **Outline CTMP [EN010168/APP/7.22]** the level of trips associated with AIL movements is well below the ISEP thresholds set out in Section 13.6.The likely effects of the construction traffic on hazardous loads/large loads will be negligible and temporary and therefore not significant for all routes shown in **ES Volume 2, Figure 13-5: Abnormal Indivisible Load Routes: Solar PV Sites [EN010168/APP/6.2]**.

Summary of Likely Effects: Construction of Solar PV Sites

~~13.10.59~~13.10.58 With embedded mitigation, namely the **Outline CTMP [EN010168/APP/7.22]** and **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]**, the construction of the Solar PV Sites is not likely to result in any significant Transport and Access effects.

Construction – Cable Route Corridor

~~13.10.60~~13.10.59 Details of the construction methodology for the installation of Grid Connection Cables along the Cable Route Corridor is set out in **ES Volume 1, Chapter 3: The Scheme [EN010168/APP/6.1]** and **ES Volume 3, Appendix 3-2: Cable Route Construction Method Statement [EN010168/APP/6.3]**.

~~13.10.61~~13.10.60 This section summarises the likely effects associated with the movement of vehicles to and along the Cable Route Corridor, during the construction phase.

Construction Programme

~~13.10.62~~13.10.61 The construction programme for the installation of the Grid Connection Cables along the Cable Route Corridor is anticipated to last 18 months, which equates to approximately 520 working days. However, installation will be undertaken in four sections of approximately 5.5 km. Within each section there are between six and eight access points. Therefore, effects will be localised and short-term.

Construction Access

~~13.10.63~~13.10.62 During the construction phase, access points serving the Cable Route Corridor would be required. The proposed locations of the access points are shown in **ES Volume 2, Figure 13-12: Construction Access Locations: Cable Route Corridor [EN010168/APP/6.2]** and listed in **Table 13-32**.

Table 13-32: Cable Route Corridor Access Points

Ref	Link	Existing or New	Use
101	North of The Street, Grittleton	New	Construction
102	South of The Street, Grittleton	Existing	Construction
103	North of Neeld Court	Existing	Construction
104	South of Neeld Court	Existing	Construction
105	North of Unnamed Road, Sevington	Existing	Construction

Ref	Link	Existing or New	Use
106	South of Unnamed Road, Sevington	Existing	Construction
107	North of Cromhall Lane	New	Construction
108	South of Cromhall Lane	New	Construction
109	North of Fowlswick Lane	Existing	Construction
110	South of A420	Existing	Construction
111	North of A420	Existing	Construction
112	North of Chippenham Lane	New	Construction
113	South of Chippenham Lane	New	Construction
114	East of Stowell Lane	Existing	Construction
115	North of A4 Bath Road	Existing	Construction
116	North of Unnamed Road, East of Easton;	New	Construction
117	South of Unnamed Road, East of Easton	New	Construction
118	East of Unnamed Road, South of Easton	Existing	Construction
119	West of Unnamed Road, South of Easton	Existing	Construction
119a	South of Lacock Road, South of Easton	Existing	Construction
120	West of Coppershell [Road]	Existing	Construction
121	South of Coppershell [Road]	Existing	Construction
122	North of Corsham Road	Existing	Construction
123	North of Silver Street	Existing	Construction
124	South of Silver Street	Existing	Construction
125	West of B3353	Existing	Construction
126	South of Westlands Lane (West)	Existing	Construction
127	South of Westlands Lane (East)	Existing	Construction

~~13.10.64~~13.10.63 Where the proposed access points utilise existing agricultural access points or tracks, they will be formalised and widened where necessary. Access Drawings, including swept path analysis are included within the **Transport Assessment [EN010168/APP/6.3]** and **Outline CTMP [EN010168/APP/7.22]**.

HGV Movements

~~13.10.65~~13.10.64 As shown in **Table 13-32**, 28 temporary accesses are required.

~~13.10.66~~13.10.65 It is forecast that each access will generate up to eight arrivals and eight departures per day for the delivery of material and equipment. Around half of these will be HGV trips and half LGV trips. There will also be around 10 construction workers per access. Therefore, accesses along the Cable Route Corridor will generate the following trips per day:

- Material and equipment:
  - HGV – 4 deliveries (8 movements) per access; and
  - LGV - 4 deliveries (8 movements) per access.
- Construction worker arrivals (car/van) – 10 arrivals (20 movements). As a worst case assessment, it is assumed that all workers will arrive via a private vehicle.

~~13.10.67~~13.10.66 HGV trips will largely consist of 10 m tipper trucks, including those required to construct the haul road and laydown areas. There will be approximately 132 AIL movements associated with cable drum deliveries over the length of the Grid Connection Cables.

~~13.10.68~~13.10.67 For the purpose of this assessment, it has been assumed that the daily flows for each access (set out in Paragraph 13.10.66) would continue for the duration of the construction phase with all accesses along the Cable Route Corridor operating concurrently. However in practice, each access is expected to be in use for approximately 90 non-consecutive days over the construction phase with up to four accesses (one per 5.5 km section of the Cable Route Corridor) in operation at one time. Based on this, the Cable Route Corridor will generate the following trips on an average day.

- Material and equipment:
  - HGV – 16 deliveries (32 movements); and
  - LGV - 16 deliveries (32 movements).
- Construction worker arrivals (car/van) – 40 arrivals (80 movements). As a worst case assessment, it is assumed that all workers will arrive via a private vehicle.

~~13.10.69~~13.10.68 These trips will be distributed around the local highway network, in relation to the local of each access.

Construction Routes

~~13.10.70~~13.10.69 The designated routes for all vehicles associated with the installation of the Grid Connection Cables along the Cable Route Corridor forms the basis for the Study Area for this section of the ES chapter. The routes are shown in **ES Volume 2, Figure 13-2: Study Area: Cable Route Corridor [EN010168/APP/6.2]**.

~~13.10.71~~13.10.70 A summary of the construction vehicle route for each access is set out below:

- **Access 101 and 102:** M4 Junction 18 → A46 → B4040 → B4039 → Unnamed Road west of Grittleton → The Street, Grittleton;
- **Access 103 and 104:** M4 Junction 18 → A46 → B4040 → B4039 → Unnamed Road west of Grittleton → Road South of Grittleton Crossroad → Neeld Court;
- **Access 105 and 106:** M4 Junction 18 → A46 → B4040 → B4039 → Unnamed Road west of Grittleton → Road South of Grittleton Crossroad → Sevington;
- **Access 107 and 108:** M4 Junction 18 → A46 → B4040 → B4039 → Unnamed Road west of Grittleton → Road South of Grittleton Crossroad → Cromhall Lane;
- **Access 109:** M4 Junction 17 → A350 → A420 → B4039 → Fowlswick Lane;
- **Access 110 and 111:** M4 Junction 17 → A350 → A420;
- **Access 112 and 113:** M4 Junction 17 → A350 → A420 → Chippenham Lane;
- **Access 114:** M4 Junction 17 → A350 → A420 → Chippenham Lane → Sheldon Corner;
- **Access 115:** M4 Junction 17 → A350 → A4 Bath Road;
- **Access 117 and 118:** M4 Junction 17 → A350 → A4 Bath Road → Unnamed Road South of Chequers;
- **Access 119 and 120:** M4 Junction 17 → A350 → Corsham Road → Easton;
- **Access 121 and 120:** M4 Junction 17 → A350 → Corsham Road → Coppershell;
- **Access 123:** M4 Junction 17 → A350 → Corsham Road;
- **Access 124, 125 and 126:** M4 Junction 17 → A350 → A365 → B3353; and

- **Access 127 and 128:** M4 Junction 17 → A350 → A365 → B3353 → Westlands Lane.

~~13.10.72~~13.10.71 Further information on the construction traffic routes is set out in the **Transport Assessment [EN010168/APP/6.3]** and **Outline CTMP [EN010168/APP/7.22]**.

Construction Traffic Flows (Total Daily Movements)

~~13.10.73~~13.10.72 **Table 13-33** sets out the Cable Route Corridor construction traffic flows for the links within the Study Area. The flows shown in **Table 13-33** assume that the daily flows for each access in Paragraph 13.10.66 continue for the duration of the construction phase with all accesses along the Cable Route Corridor in operation concurrently. However in practice, each access is expected to be in use for approximately 90 non-consecutive days over the construction phase with up to four accesses (one per 5.5 km section of the Cable Route Corridor) in operation at one time.

Table 13-33: Cable Route Corridor: Construction Traffic Flows – Total Daily Movements

Ref	Link	Sensitivity	HGV	Car/LGV	Total
Cable Route Corridor					
1	The Street, Grittleton	High	16	56	72
2	Neeld Court, South of Grittleton	Low	16	56	72
3	Road North of Yatton Keynell	Medium	32	112	144
4	Road to Sevington	Medium	16	56	72
5	Cromhall Lane	Low	16	56	72
6	Fowlswick Lane	Low	8	28	36
7	B4039	Low	8	28	36
8	A420	Negligible	16	56	72
9	Sheldon Corner	Low	24	84	108
10	Chippenham Lane	Low	16	56	72
11	Stowell Lane	Low	8	28	36
12	A4 Bath Road	Negligible	48	168	216
13	Road East of Easton	Low	16	56	72
14	Road South of Easton	Low	16	56	72

Ref	Link	Sensitivity	HGV	Car/LGV	Total
15	Corsham Road	Low	8	28	36
16	Coppershell	Low	24	84	108
17	Silver Street, Gastard	Low	16	56	72
18	B3353	Low	24	84	108
19	Westlands Lane (East)	Low	16	56	72
20	Westlands Lane (West)	Low	8	28	36
21	A365 Bath Road, Shaw	Low	40	140	180

2028 Future Baseline plus Construction Traffic Flows: Cable Route Corridor

~~13.10.74~~13.10.73 The construction traffic flows set out in **Table 13-33** have been added to the future baseline (2028) traffic flows set out in **Table 13-18**. This is summarised in **Table 13-34** for all vehicles, and **Table 13-35** for HGVs.

~~13.10.75~~13.10.74 Also set out in **Table 13-34** and **Table 13-35** is a commentary on whether further assessment is required, based on the ISEP Rules (Ref 13-1) discussed earlier in this chapter, i.e. where total traffic or HGVs change by 30% or more (10% on a highly sensitive link). It is concluded that links which do not meet the threshold will not have significant effects during the temporary construction phase.

Table 13-34: Cable Route Corridor: Baseline 2028 AADT Traffic Flows plus Construction Traffic (Total Vehicles)

Ref	Link	Sensitivity	Base 2028	Plus Dev	% Change	Further Assessment
1	The Street, Grittleton	High	1,163	1,235	6.2%	No
2	Neeld Court, Grittleton	Low	100	172	72.0%	Yes
3	North of Yatton Keynell	Medium	1,769	1,913	8.1%	No
4	Road to Sevington	Medium	209	281	34.4%	Yes
5	Cromhall Lane	Low	133	205	54.1%	Yes
6	Fowlswick Lane	Low	988	1,024	3.6%	No
7	B4039	Low	5,339	5,375	0.7%	No
8	A420	Negligible	7,698	7,770	0.9%	No

Ref	Link	Sensitivity	Base 2028	Plus Dev	% Change	Further Assessment
9	Sheldon Corner	Low	1,132	1,240	9.5%	No
10	Chippenham Lane	Low	142	214	50.7%	Yes
11	Stowell Lane	Low	602	638	6.0%	No
12	A4 Bath Road	Negligible	20,517	20,733	1.1%	No
13	Road East of Easton	Low	602	674	12.0%	No
14	Road South of Easton	Low	415	487	17.3%	No
15	Corsham Road	Low	1,864	1,900	1.9%	No
16	Coppershell	Low	614	722	17.6%	No
17	Silver Street, Gastard	Low	5,420	5,492	1.3%	No
18	B3353	Low	5,319	5,427	2.0%	No
19	Westlands Lane (East)	Low	1,181	1,253	6.1%	No
20	Westlands Lane (West)	Low	1,163	1,199	3.1%	No
21	A365 Bath Road, Shaw	Low	12,746	12,926	1.4%	No

Table 13-35: Cable Route Corridor: Baseline 2028 AADT Traffic Flows plus Construction Traffic (HGVs)

Ref	Link	Sensitivity	Base 2028	Plus Dev	% Change	Further Assessment
1	The Street, Grittleton	High	66	82	24.2%	Yes
2	Neeld Court, Grittleton	Low	3	19	533.3%	Yes
3	North of Yatton Keynell	Medium	51	83	62.7%	Yes
4	Road to Sevington	Medium	7	23	228.6%	Yes
5	Cromhall Lane	Low	8	24	200.0%	Yes
6	Fowlswick Lane	Low	37	45	21.6%	No
7	B4039	Low	166	174	4.8%	No
8	A420	Negligible	310	326	5.2%	No
9	Sheldon Corner	Low	42	66	57.1%	Yes
10	Chippenham Lane	Low	8	24	200.0%	Yes
11	Stowell Lane	Low	13	21	61.5%	Yes

Ref	Link	Sensitivity	Base 2028	Plus Dev	% Change	Further Assessment
12	A4 Bath Road	Negligible	528	576	9.1%	No
13	Road East of Easton	Low	36	52	44.4%	Yes
14	Road South of Easton	Low	8	24	200.0%	Yes
15	Corsham Road	Low	41	49	19.5%	No
16	Coppershell	Low	22	46	109.1%	Yes
17	Silver Street, Gastard	Low	138	154	11.6%	No
18	B3353	Low	144	168	16.7%	No
19	Westlands Lane (East)	Low	59	75	27.1%	No
20	Westlands Lane (West)	Low	46	54	17.4%	No
21	A365 Bath Road, Shaw	Low	435	475	9.2%	No

~~13.10.76~~13.10.75 **Table 13-34** shows that four links within the Study Area see total traffic flows increase by more than 30%. **Table 13-35** shows that 10 links within the Study Area see total traffic flows increase by more than 30% and one, with high sensitivity (The Street, Grittleton) with an increase of over 10%. These have been taken forward for assessment.

~~13.10.77~~13.10.76 It should be noted that high percentage changes in HGVs typically reflect a low baseline number of HGVs. Real term numbers of HGVs are relatively low. For example, on Link 2, Neeld Court, the number of HGVs in the 2028 baseline is 3 per day. This increases to 19 during peak construction phases. Whilst an increase of 533.3% appears high, the actual number of HGVs is just 16. Where baseline flows are low, any change in traffic flow will result in a large percentage change, but this will not necessarily lead to a likely significant effect.

~~13.10.78~~13.10.77 Any identified effects are short term in nature (expected to be in use for approximately 90 non-consecutive days over the construction phase per access). If traffic flows for the installation of the Grid Connection Cables were extrapolated to calculate an average annual daily traffic (AADT) movement, very few links would require further assessment.

~~13.10.79~~13.10.78 A review of the likely significant environmental effects in relation to transport and access during the construction phase along the Cable Route Corridor is set out below.

Likely Effects: Severance

~~13.10.80~~13.10.79 All roads taken forward for further assessment have low traffic flows in the baseline 2028 scenario (between 100 and 1,769 movements per day). Where baseline traffic flows are low, Paragraph 3.16 of the ISEP guidelines goes on to state that that *"caution needs to be observed when applying these thresholds as very low baseline flows are unlikely to experience severance impacts even with high percentage changes in traffic".* Therefore, even if increases in traffic flows were higher than 30%, it could still be concluded that effects on severance would be slight.

~~13.10.81~~13.10.80 None of the roads taken forward for further assessment act as a considerable barrier that separates communities.

~~13.10.82~~13.10.81 Therefore, the likely effects on severance during the construction phase are set out in **Table 13-36**. The effects are considered to be temporary and negligible (not significant).

Table 13-36: Effects on Severance of Communities: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
1	The Street, Grittleton	High	Negligible
2	Neeld Court, Grittleton	Low	Negligible
3	North of Yatton Keynell	Medium	Negligible
4	Road to Sevington	Medium	Negligible
5	Cromhall Lane	Low	Negligible
9	Sheldon Corner	Low	Negligible
10	Chippenham Lane	Low	Negligible
11	Stowell Lane	Low	Negligible
13	Road East of Easton	Low	Negligible
14	Road South of Easton	Low	Negligible
16	Coppershell	Low	Negligible

Likely Effects: Road Vehicle Driver and Passenger Delay

~~13.10.83~~13.10.82 Capacity assessments on local junctions have not been undertaken for the assessment. As stated, through the **Outline CTMP [EN010168/APP/7.22]**, construction vehicles will be coordinated to avoid peak hour travel, the period where capacity constraints may occur, and, where

practicable, there will be no construction traffic on roads within the Study Area between 08:00-09:00 or 17:00-18:00.

~~13.10.84~~13.10.83 As with severance, applying a percentage change in traffic to determine the effects for driver delay is not considered appropriate when the baseline traffic flows are low. At a peak, there could be an addition of between 72 and 144 daily movements associated the Cable Route Corridor, when assuming all access are used concurrently as a worst-case. Whilst these changes are likely to be perceptible, they will not change conditions which would otherwise prevail and will not increase materially increase driver delay over the course of a daily period.

~~13.10.85~~13.10.84 As such, the likely effect of construction traffic on driver delay within the Study Area is considered to be minor adverse and temporary, which is not significant. The likely effects on driver delay during the construction phase are set out in **Table 13-37**.

Table 13-37: Effects on Road Vehicle Driver and Passenger Delay: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
1	The Street, Grittleton	High	Minor Adverse (Temporary)
2	Neeld Court, Grittleton	Low	Minor Adverse (Temporary)
3	North of Yatton Keynell	Medium	Minor Adverse (Temporary)
4	Road to Sevington	Medium	Minor Adverse (Temporary)
5	Cromhall Lane	Low	Minor Adverse (Temporary)
9	Sheldon Corner	Low	Minor Adverse (Temporary)
10	Chippenham Lane	Low	Minor Adverse (Temporary)
11	Stowell Lane	Low	Minor Adverse (Temporary)
13	Road East of Easton	Low	Minor Adverse (Temporary)
14	Road South of Easton	Low	Minor Adverse (Temporary)
16	Coppershell	Low	Minor Adverse (Temporary)

Likely Effects: Non-motorised User Delay

~~13.10.86~~13.10.85 As set out in the baseline conditions section, there is little dedicated walking, cycling and equestrian infrastructure within the Study Area. NMU flows on these roads are also observed to be low. Therefore, the addition of construction vehicles to the local highway network is not likely to result in any significant delay to NMUs on the local highway network.

~~13.10.87~~13.10.86 The Street, Grittleton link is classified as having a 'high' sensitivity given that is passes a children's playground. The maximum of 8 daily HGV deliveries (16 two-way HGV movements) on this link, would equate to approximately one HGV trip per hour throughout the day for the associated access points. Traffic data shows there are already 63 daily HGV trips on the link, which equates to 5.6% of total daily traffic flows. The level of HGV traffic will therefore remain low during the construction phase and will not result in a material impact to NMUs.

~~13.10.88~~13.10.87 It is anticipated that PRoW which cross the Cable Route Corridor will generally remain open. There may be the requirement for some very temporary closures or diversions when the Grid Connection Cables are installed. This will not likely last more than a day and alternate routes will be provided. If a temporary closure/diversion of a PRoW is required, this will be for a short period and appropriately managed in consultation with the local highway authority. Where closures are deemed to be necessary, these will be prioritised for overnight work, will be temporary in nature and supported by appropriate amount of notice with closure times and dates clearly provided, and, if appropriate, suitable diversions provided for recreational routes.

~~13.10.89~~13.10.88 The **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** furthermore contains specific measures for the temporary diversion of footpath WT|GRIT|20 and bridleway WT|MALW|54, where there is access to the Cable Route Corridor works east of Grittleton. This diversion is proposed to ensure unreasonable effects to PROW users are not experienced during construction and decommissioning.

~~13.10.90~~13.10.89 The likely effects on NMU delay during the construction phase is set out in **Table 13-39**. The effects are considered to be negligible the local highway network, and minor adverse on the PRoW network. In conclusion, the effects on NMU delay are temporary and **not significant**.

Table 13-38: Effects on Road Vehicle Driver and Passenger Delay: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
1	The Street, Grittleton	High	Negligible
2	Neeld Court, Grittleton	Low	Negligible
3	North of Yatton Keynell	Medium	Negligible
4	Road to Sevington	Medium	Negligible
5	Cromhall Lane	Low	Negligible
9	Sheldon Corner	Low	Negligible

Ref	Link	Sensitivity	Significance of Effect
10	Chippenham Lane	Low	Negligible
11	Stowell Lane	Low	Negligible
13	Road East of Easton	Low	Negligible
14	Road South of Easton	Low	Negligible
16	Coppershell	Low	Negligible
PROW Network		Medium	Minor Adverse (Temporary)

Likely Effects: Non-motorised User Amenity (including Fear and Intimidation)

~~13.10.91~~13.10.90 As stated, the level of NMU infrastructure and activity on the roads surrounding the Order Limits is very low. However, it is acknowledged that the addition of HGVs to the network will affect the relative pleasantness of any NMU journey in the area. Given the low number of NMU movements the effects of construction vehicles on NMU amenity on the local highway network is considered to be minor.

~~13.10.92~~13.10.91 It is anticipated that PRoW that cross the Cable Route Corridor will generally remain open. There may be the requirement for some very temporary closures or diversions when the Grid Connection Cables are installed. This will not likely last more than a day and alternate routes will be provided. If a temporary closure/diversion of a PRoW is required, this will be for a short period and appropriately managed in consultation with the local highway authority.

~~13.10.93~~13.10.92 An **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]** forms an embedded mitigation and will provide management measures to ensure the effects of the construction phase on PRoW users is minimised. With the embedded mitigation in place, the effects are considered to be minor.

~~13.10.94~~13.10.93 With regards to fear and intimidation, the low level of change in traffic flows will not result in a step change in the level of fear and intimidation magnitude in line with the ISEP guidance (Ref 13-1).

~~13.10.95~~13.10.94 The likely effects on NMU amenity (including fear and intimidation) during the construction phase of the Scheme is set out in **Table 13-39**. The effects are considered to be minor adverse and temporary on the local highway network. These are not significant. Where the Cable Route Corridor crosses a PRoW, the effects are also considered to be minor adverse due to the implementation of the **Outline PRoW and Permissive Path Management Plan [EN010168/APP/7.17]**.

Table 13-39: Effects on Non-motorised User Amenity (including Fear and Intimidation): Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
1	The Street, Grittleton	High	Minor Adverse (Temporary)
2	Neeld Court, Grittleton	Low	Minor Adverse (Temporary)
3	North of Yatton Keynell	Medium	Minor Adverse (Temporary)
4	Road to Sevington	Medium	Minor Adverse (Temporary)
5	Cromhall Lane	Low	Minor Adverse (Temporary)
9	Sheldon Corner	Low	Minor Adverse (Temporary)
10	Chippenham Lane	Low	Minor Adverse (Temporary)
11	Stowell Lane	Low	Minor Adverse (Temporary)
13	Road East of Easton	Low	Minor Adverse (Temporary)
14	Road South of Easton	Low	Minor Adverse (Temporary)
16	Coppershell	Low	Minor Adverse (Temporary)
PROW Network		Medium	Minor Adverse (Temporary)

Likely Effects: Accidents and Safety

~~13.10.96~~13.10.95 An overview of personal injury accidents for the whole Study Area over the most recent five-year period is shown in **Table 13-15**. **Table 13-40** provides a more detailed summary of personal injury accidents on the links taken forward for further assessment.

Table 13-40: Personal Injury Collision Data (2018-2023)

Ref	Link	Accident Reference	Severity	Vehicle(s)	Description
Cable Route Corridor					
1	The Street, Grittleton	202154B759621	Slight	1 car 1 Agricultural vehicle	V1 (Car) passing another moving vehicle on its offside, V2 (Agricultural) in the act of turning right.
2	Neeld Court, Grittleton	No recorded accidents			
3	North of Yatton Keynell	2022544615622	Serious	1 Car 1 Pedal Cycle	V1 (Car) passing another moving vehicle on its offside, V2 (Cycle) Proceeding normally along the carriageway, not on a bend

Ref	Link	Accident Reference	Severity	Vehicle(s)	Description
		201954C359719	Slight	1 Car	V1 (Car) proceeding normally along the carriageway, not on a bend.
		2022549189322	Slight	1 Car	V1 (Car) proceeding normally along the carriageway, on a right-hand bend.
		202054A948320	Serious	1 Car	V1 (Car) proceeding normally along the carriageway, on a left hand bend.
		2020547066620	Serious	1 Pedal Cycle 1 Car	V1 (Cycle) proceeding normally along the carriageway, not on a bend, V2 (Car) is in the act of turning left
4	Road to Sevington	2020543511720	Slight	1 Car 1 Pedal Cycle	V1 (Car) is passing another moving vehicle on its offside, V2 (Cycle) proceeding normally along the carriageway, not on a bend.
5	Cromhall Lane	No recorded accidents			
9	Sheldon Corner	201954B958219	Slight	1 Car	V1 (Car) Vehicle proceeding normally along the carriageway, on a left-hand bend.
10	Chippenham Lane	No recorded accidents			
11	Stowell Lane	No recorded accidents			
13	Road East of Easton	No recorded accidents			
14	Road South of Easton	2022545867922	Slight	1 Car	V1 (Car) proceeding normally along the carriageway, not on a bend.
16	Coppershell	No recorded accidents			

~~13.10.97~~13.10.96 As set out in **Table 13-40**, there have been a total of 9 collisions on the links for further assessment. The majority of the incidents are a result of driver misjudgement, the weather or a faulty vehicle.

~~13.10.98~~13.10.97 The low level of construction traffic associated with the Cable Route Corridor is unlikely to materially affect road safety on the links in the Study Area, and the effects on accidents and safety from the Scheme's construction phase

on all links will be temporary and negligible (not significant). This is summarised in **Table 13-41**.

Table 13-41: Effects on Accidents and Safety: Temporary Construction Phase

Ref	Link	Sensitivity	Significance of Effect
1	The Street, Grittleton	High	Negligible
2	Neeld Court, Grittleton	Low	Negligible
3	North of Yatton Keynell	Medium	Negligible
4	Road to Sevington	Medium	Negligible
5	Cromhall Lane	Low	Negligible
9	Sheldon Corner	Low	Negligible
10	Chippenham Lane	Low	Negligible
11	Stowell Lane	Low	Negligible
13	Road East of Easton	Low	Negligible
14	Road South of Easton	Low	Negligible
16	Coppershell	Low	Negligible

Likely Effect: Hazardous Loads/Large Loads

~~13.10.99~~13.10.98 There will be a requirement for AILs to transport cable drum. An AIL is one where the vehicle exceeds 44 tonnes, the width is over 2.9 m or the length is more than 18.65 m. The cable reel trailer is approximately 26 m in length. AIL Movements will be managed by a specialist haulage company so that the potential effects are mitigated. The exact measures will be agreed with the LHA and police prior to the movements occurring. Additional details are set out in the **Outline CTMP [EN010168/APP/7.22]**.

~~13.10.100~~13.10.99 In light of the low numbers of movements associated with this category, and the embedded mitigation through the **Outline CTMP [EN010168/APP/7.22]** the level of trips associated with AIL movements is well below the ISEP thresholds set out in Section 13.6.The likely effects of the construction traffic on hazardous loads/large loads will be negligible and temporary and therefore not significant for all routes shown in **ES Volume 2 [EN010168/APP/6.2] Figure 13-6: Abnormal Indivisible Load Routes: Cable Route Corridor**. Summary of Likely Effects: Cable Route Corridor

~~13.10.101~~13.10.100 With embedded mitigation, namely the **Outline CTMP [EN010168/APP/7.22]** and **Outline PRoW and Permissive Path Management**

Plan [EN010168/APP/7.17], the installation of the Grid Connection Cables within the Cable Route Corridor is not likely to result in any significant Transport and Access effects.

Operation and Maintenance

Day to Day Operation

~~13.10.102~~13.10.101 During the operation and maintenance phase, there are anticipated to be around five visits to each Solar PV Site per month for maintenance purposes. These would typically be made by light van or 4 x 4 type vehicles. Whilst each construction compound will be removed at the end of the construction phase, space will remain within each Solar PV Site on the access tracks for such a vehicle to turn around to ensure that reversing will not occur onto the highway. The access locations are set out in **Table 13-19** and **ES Volume 2, Figure 13-11: Construction Access Locations: Solar PV Sites [EN010168/APP/6.2]**.

~~13.10.103~~13.10.102 There will be occasional trips to the proposed habitat areas within the Solar PV Sites for operational and maintenance purposes. These would typically be made by light van or 4 x 4 type vehicles and will use the existing field access locations detailed in Table 3-5 of **ES Volume 1, Chapter 3: The Scheme [EN010168/APP/6.1]** shown in **ES Volume 2, Figure 13-13: Operational Only Access Locations: Solar PV Sites [EN010168/APP/6.2]**. Vehicle trip generation associated with these access locations will be the same or lower than the existing agricultural use.

~~13.10.104~~13.10.103 There will be no transport operation effects associated with the installed Grid Connection Cables (within the Cable Route Corridor) as they will be located underground. Access may be required for maintenance, but this is only likely once or twice a year.

~~13.10.105~~13.10.104 In light of this, effects on severance, driver delay, NMU delay and amenity, road safety and hazardous loads during the operation and maintenance phase of the Scheme are considered to be negligible or not significant.

Solar PV Panel and BESS Batteries Replacement

~~13.10.106~~13.10.105 During the operation and maintenance phase, there will be an ongoing replacement of defective panels and breakages etc. This is expected to be on an ad-hoc basis and will result in a non-material level of HGV trips on a day-to-day basis.

~~13.10.107~~13.10.106 The planned replacement of all Solar PV Panels, Conversion Units and BESS Batteries will occur once during the Scheme's lifespan. The Solar PV Panels are anticipated to be replaced on a field by field basis. Just the Solar PV

Panels, Conversion Units and BESS Batteries will need replacing, with no activity relating to the mounting structures. There will also be no activity in relation to other elements of the Order Limits, including, fencing, access tracks and landscaping.

~~13.10.108~~13.10.107 **Table 13-42** sets out a summary of the HGV movements that will be associated with replacement during the operation and maintenance phase of the Scheme. The vast majority of deliveries by HGV will be by 16.5 m articulated vehicles or 8-10 m rigid vehicles. However, there will be a small number of abnormal load deliveries associated with the substations.

~~13.10.109~~13.10.108 It is expected that there will be a relatively flat profile of deliveries throughout the construction phase. Therefore, an average number of deliveries per day has been calculated based on the anticipated length of the replacement activities, which has been assumed to be 12 months in length. Notwithstanding this, it is acknowledged that there will be small peaks throughout the replacement activities. To account for this, a 50% uplift has been applied for the purposes of assessment.

~~13.10.110~~13.10.109 For the purposes of the assessment and to present a reasonable worst-case, it has been assumed that replacement activities associated with Solar PV Sites, Conversion Units and BESS Batteries are undertaken simultaneously.

~~13.10.111~~13.10.110 **Table 13-42** shows that there could be the following HGV movements (across all sites) as a result of replacement during the operation and maintenance phase:

- Average HGV Arrivals and Departures per Day – 17 Deliveries (34 Movements); and
- Peak HGV Arrivals and Departures per Day – 29 Deliveries (58 Movements).

Table 13-42: Lime Down: Anticipated Replacement Deliveries (HGV)*

Replacement Phase/ Activity	Vehicle Size (Max)	Solar PV Site						400kV Substation	BESS	Total
		Lime Down A	Lime Down B	Lime Down C	Lime Down D (West)	Lime Down D (East)	Lime Down E	Lime Down D (West)	Lime Down D (West)	Total
Construction Phase (Working Days)		300	300	300	300	300	300	300	300	-
Solar PV Panels	16.5mArticulated	120	110	340	315	75	240	-	-	1,200
Solar PV Mounting Structures	16.5mArticulated	-	-	-	-	-	-	-	-	-
Waste	10mTipper	20	20	50	40	10	30	-	-	170
Skids/Power Station	16.5mArticulated	7	7	19	18	4	13	-	-	68
Cable (for PV Sites)	16.5mArticulated	-	-	-	-	-	-	-	-	-
Substation Units/Cabling	16.5mArticulated	20	-	20	-	-	20	60	450	570
Substation/BESS Aggregate	10mTipper	-	-	-	-	-	-	-	-	-
Access Track	10mTipper	-	-	-	-	-	-	-	-	-
General – Fencing, landscaping etc	10mRigid	-	-	-	-	-	-	-	-	-
Multiplication factor**		x2	x2	x2	x2	x2	x2	x2	x2	x2
Total HGV Deliveries		334	274	858	746	178	606	120	900	4,016
Total HGV Movements		668	548	1,716	1,492	357	1,212	240	1,800	8,033
Average Day HGV Deliveries		2	1	3	3	1	3	1	3	17
Average Day HGV Movements		4	2	6	6	2	6	2	6	34
Peak Day HGV Deliveries (50% Uplift)		3	2	5	5	2	5	2	5	29
Peak Day HGV Movements (50% Uplift)		6	4	10	10	4	10	4	10	58

**All numbers are rounded up*

~~13.10.112~~13.10.111 The anticipated number of HGV trips for replacement shown in **Table 13-44**, demonstrate they are well below the number of HGV trips associated with the construction phase shown in **Table 13-20**. During the period of programmed replacements, expected to occur once during the 60-year operation, traffic will be increased in comparison to the normal operational traffic movements. However, the transport effects of the proposals will be greatest during the temporary construction phase and therefore no further assessment of the operation and maintenance phase has been undertaken.

~~13.10.113~~13.10.112 To further reduce the number of HGV trips, and where practicable, vehicles bringing new replacement Solar PV Panels and BESS Containers to the Order Limits will also transport the replaced Solar PV Panels and BESS Containers out of the Order Limits.

~~13.10.114~~13.10.113 The measures set out in the **Outline CTMP [EN010168/APP/7.22]** will be applied to the planned replacement operations by means of a final OTMP. This will include HGV routes and all management measures. During the planned replacement of Solar PV Panels and BESS Containers, there will be significantly fewer HGV movements on the local highway network compared to the construction phase of the Scheme.

Decommissioning

~~13.10.115~~13.10.114 The Scheme is anticipated to have a design life of approximately 60 years. At the end of the Scheme's operational life, it will be decommissioned. The number of vehicles associated with the decommissioning phase are not anticipated to exceed the number set out for the construction phase, as set out in **Table 13-22**. An **Outline Decommissioning Strategy [EN010168/APP/7.14]** has been submitted as part of the DCO Application and a final version will be submitted to the local planning authority for approval prior to decommissioning. This will be secured by a requirement of the DCO.

~~13.10.116~~13.10.115 In light of this, effects on severance, driver delay, NMU delay and amenity, road safety and hazardous loads are considered to be the same as shown in the Likely Effects for the construction phase as a reasonable worst-case assessment. The effects will also be short term and temporary.

13.11 Further Mitigation Measures

13.11.1 Despite no significant effects having been identified, the Applicant is committed to minimising the impacts of the construction of the Scheme. As such, the following measures will be implemented to ensure effects are minimised:

- Pre-Construction Phase:
  - Conduct a Stage 1 and Stage 2 Road Safety Audit at all access junctions to recommend additional safety measures at the access points.

- Construction, Decommissioning, and Planned Replacement of Solar PV Panels, Conversion Units and BESS Batteries during Operation and Maintenance:
  - Traffic Management Measures, including signage to warn drivers of the presence of construction traffic. Traffic marshals or banksmen will also be utilised to ensure the safe passage of construction vehicles at access junctions;
  - On some sections of the Cable Route Corridor, trenching will be required across roads. This will be managed through Traffic Management. On no-through roads any affected residents or businesses will be notified and works undertaken in a day or night for excavation and another day or night for to allow for curing time of the tarmac. Steel plates will be available on site for emergencies or emergency vehicle access. Pedestrian access to residential properties will be maintained at all times; and
  - Where Grid Connection Cables may be laid longitudinally in the highway, rolling traffic management will be implemented to allow for construction and agreed with Wiltshire Council in advance. This will potentially be required along Goodes Hill on the B3353 and along Westlands Lane in the vicinity of the Existing National Grid Substation.

13.11.2 No additional mitigation measures are proposed for the operation and maintenance phase beyond what is set out for the planned replacements.

Monitoring

13.11.3 As no potential significant effects have been identified for Transport and Access, no monitoring of significant effects is required. Notwithstanding this, the **Outline CTMP [EN010168/APP/7.22]** will include monitoring requirements to ensure the construction routes are adhered to, and that all mitigation measures are implemented.

13.12 Residual Effects and Conclusions

13.12.1 This section summarises the residual significant effects of the Scheme on Transport and Access following the implementation of embedded and additional mitigation.

13.12.2 All effects will remain unchanged compared to what is set out in the likely effects section

Construction

13.12.3 The likely effects of the Scheme during the construction phase, are summarised in **Table 13-43**. All effects will be temporary and short term and there will be no significant residual effects on Transport and Access.

Table 13-43: Summary of Residual Effects During Temporary Construction Phase

Ref	Link	Sensitivity	Severance	Driver Delay	NUM Delay	NMU Amenity	Road Safety	Hazardous Loads
Solar PV Sites								
4	B4039	Medium	Negligible	Minor	Negligible	Minor	Negligible	Negligible
5	Road West of Grittleton	Medium	Negligible	Minor	Negligible	Minor	Negligible	Negligible
6	Alderton Road	Medium	Negligible	Minor	Negligible	Minor	Negligible	Negligible
7	Fosse Way	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
8	Btw Fosse Way and	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
11	Road East of	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
12	Bradfield Cottages	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
PROW Network		Medium			Minor	Minor		
Cable Route Corridor								
1	The Street, Grittleton	High	Negligible	Minor	Negligible	Minor	Negligible	Negligible
2	Neeld Court, Grittleton	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
3	North of Yatton Keynell	Medium	Negligible	Minor	Negligible	Minor	Negligible	Negligible
4	Road to Sevington	Medium	Negligible	Minor	Negligible	Minor	Negligible	Negligible
5	Cromhall Lane	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
9	Sheldon Corner	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
10	Chippenham Lane	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
11	Stowell Lane	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
13	Road East of Easton	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
14	Road South of Easton	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
16	Coppershell	Low	Negligible	Minor	Negligible	Minor	Negligible	Negligible
PROW Network		Medium	-	-	Minor	Minor	-	-

Operation and Maintenance

13.12.4 Residual effects for the operation and maintenance phase will remain unchanged. These are considered to be negligible and not significant.

13.12.5 The residual effects for Solar PV Panel, transformer and BESS Batteries replacement in the operation and maintenance phase will be less than the residual effects of the construction phase (**Table 13-22**) as a reasonable worst-case assessment. The effects for Solar PV Panel, transformer and BESS Batteries replacement will also be short term and temporary.

Decommissioning

13.12.6 Residual effects for the decommissioning phase will be the same as the residual effects of the construction phase (**Table 13-22**) as a reasonable worst-case assessment. The effects will also be short term and temporary.

13.13 Cumulative Assessment

Inter-Project Cumulative Effects

13.13.1 This section presents an assessment of cumulative effects between the Scheme and other proposed and committed plans and projects.

13.13.2 This assessment has been made with reference to the methodology and guidance set out in **Volume 1, Chapter 21: Cumulative and In-Combination Effects** which includes a shortlist of cumulative plans and projects.

13.13.3 For individual receptors, this cumulative effect assessment identifies where the predicted effects of the Scheme could interact with effects arising from other plans and/or projects based on a spatial and/or temporal basis.

13.13.4 Cumulative schemes identified in **Volume 1, Chapter 21: Cumulative and In-Combination Effects** have been reviewed. Those schemes which have the potential to result in cumulative effects on Transport and Access within the Study Area are set out in **Table 13-44**. The remaining schemes are not considered to have cumulative effects on Transport and Access within the Study Area.

13.13.5 The number of traffic flows on the links associated with the construction phase of the Scheme are low, and it is therefore unlikely that the cumulative effects will greatly affect the severity of effects from the Scheme. This is particularly the case given that the impacts of the construction phase are temporary in nature and that measures set out in

the **Outline CTMP [EN010168/APP/7.22]** will ensure that construction traffic avoids the AM and PM highway peaks.

13.13.6 The TEMPro growth factor applied to establish the future baseline year also allows for increased future flows and, therefore, inherently takes into account those from permitted and allocated developments.

Table 13-44:Plans and Projects Relevant to Transport and Access Cumulative Assessment

Chapter 21 Ref	Planning Ref	Description	Distance from the Scheme	Potential Cumulative Effects
3	PL/2023/00865	Residential development for 45 dwellings.	0.9 km (Solar PV Study Area)	Unlikely to generate a significant number of vehicle trips within Study Area. The Transport Statement refers to 209 daily vehicle trips but provides no trip distribution. It has been assumed that 50% of trips would travel towards Malmsbury and outside of the Study Area. 25% towards the M4 J17 and 25% towards M4 junction 18.
5	PL/2021/10696	Proposed erection of a GP Surgery	1 km (Solar PV Study Area)	Unlikely to generate a significant number of vehicle trips within Study Area. The Transport Statement refers to 301 daily vehicle trips but provides no trip distribution. It has been assumed that 50% of trips would travel towards Malmsbury and outside of the Study Area. 25% towards the M4 J17 and 25% towards M4 junction 18).
58	20/10972/OUT	Outline Planning Application for up to 71 Dwellings,	0.6 km (Solar PV Study Area)	TEMPro growth factor includes planned growth, so movements already accounted for in future baseline. Therefore, no additional cumulative effects have been identified. Not taken forward for further analysis.
96	18/08271/OUT	Outline planning application for up to 44,150 sqm. (GIA) of development, comprising a maximum of 20,000 sqm. (GIA) of research and development/office floorspace (Class B1 (a) and (b)) and 24,150 sqm. of ancillary development	0.8 km (Solar PV Study Area)	Site is partially built out so accounted for in baseline and TEMPro growth factor includes for planned growth, so movements accounted for in Future Baseline. The proposed off-site highway works have been delivered. No significant cumulative effects have been identified. Not taken forward for further analysis.

Chapter 21 Ref	Planning Ref	Description	Distance from the Scheme	Potential Cumulative Effects
207	19/10628/FUL	The construction of a ~~10MW~~10 MW Battery Storage Facility	0.3 km (Cable Route Corridor Study Area)	Located at The Barn southeast of 8 Tiddlywink, South from Yatton Keynell to Crossroads, Yatton Keynell, SN14 7BY Low level of trips and unlikely to be constructed during the localised cable route corridor construction (each 5.5km section built out within the 18 month construction phase). Therefore, no cumulative effects identified. Not taken forward for further analysis.
208	PL/2021/07610	Development of a ~~20MW~~20 MW battery storage facility	0.3 km (Cable Route Corridor Study Area)	Located at The Barn southeast of 8 Tiddlywink, South from Yatton Keynell to Crossroads, Yatton Keynell, SN14 7BY, there are no potential cumulative effects. Low level of trips and unlikely to be constructed during the localised cable route corridor construction (each 5.5km section will be built out within the 18 month construction phase). Therefore, no cumulative effects identified. Not taken forward for further analysis.
218	20/08618/FUL	Installation of a solar farm comprising ground mounted solar PV panels with a generating capacity of up to 49.9 MW.	6.5 km (Solar PV Study Area)	Located to the north of Malmsbury. The Transport Assessment states that there could be eight HGV arrivals on an average day during the construction phase. These would use the A429. There could be some vehicle movements associated with up to 40 construction workers. As a worst-case assessment it is assumed that these all travel south on the A429.
221	PL/2021/06100	The installation of a solar farm of up to 49.~~9MW~~9 MW of generating capacity	1.3 km (Cable Route Corridor Study Area)	Located on Land to the south of the M4 at Leigh Delamere, to the west of Leigh Delamere Motorway Services, Chippenham. Construction of access has begun so likely to be built out before construction of Scheme commences. There are no potential cumulative effects identified. Not taken forward for further analysis.
229	PL/2022/01695	EIA Screening Opinion for a proposed ~~20MW~~20 MW	1.76 km (Solar PV Study Area)	Located to the south of Malmsbury. No information on trips within documentation. It is assumed 40 AADT using the A429 to Junction 17 of M4.

Chapter 21 Ref	Planning Ref	Description	Distance from the Scheme	Potential Cumulative Effects
		Solar Farm development		
231	20/03528/FUL	Installation of a renewable led energy scheme comprising ground mounted photovoltaic solar arrays and battery-based electricity storage containers	9 km (Solar PV Study Area)	Located on Land Near Minety Substation, Minety, Wiltshire, SN16 9DX, east of Malmsbury. It is assumed 40 AADT using the A429 to Junction 17 of M4.
234	20/05893/SCO	EIA screening/scoping opinion for installation of a solar farm with a 49.9 MW output for a temporary period of 40 years	6 km (Solar PV Study Area)	Located to the north of Malmsbury. No information on trips within documentation. It is assumed 40 AADT using the A429 to Junction 17 of M4.
310	PL/2024/10434	EIA Screening Opinion for proposed battery energy storage scheme of up to c. ~~50MW~~50 MW	0.2 km (Cable Route Corridor Study Area)	Located on Land at Chapel Knapp Farm, Chapel Knapp, Gastard, Corsham, SN13 9PS. Low level of trips and unlikely to be constructed during the localised cable route corridor construction (each 5.5km section will be built out within the 18 month construction phase). Therefore, no likely cumulative effects identified. Not taken forward for further analysis.
328	PL/2024/09725	Outline Planning application (with all matters except access reserved) for up to 22 dwellings	0.1 km (Cable Route Corridor Study Area)	Located on Land off Corsham Road, Whitley, Melksham. TEMPro growth factor includes planned growth, so movements already accounted for in future baseline. Therefore, no additional cumulative effects have been identified. Not taken forward for further analysis.
333	PL/2024/10089	EIA Screening Opinion in relation to the proposed development of "Battery Energy Storage Scheme"	1.3 km (Cable Route Corridor Study Area)	Located on Land on the South West Side of Bath Road, Shaw, Melksham. Low level of trips and unlikely to be constructed during the localised cable route corridor construction (each 5.5km section will be built out within the 18 month construction phase). Therefore, no likely cumulative effects identified. Not taken forward for further analysis.

Chapter 21 Ref	Planning Ref	Description	Distance from the Scheme	Potential Cumulative Effects
346	PL/2024/09410	Construction and operation of a solar farm together with all associated works, equipment and necessary infrastructure.	0.1 km (Cable Route Corridor Study Area)	Located on Land East of Battens Farm, Allington, Chippenham, SN14 6LT. Low level of trips and unlikely to be constructed during the localised cable route corridor construction (each 5.5km section will be built out within the 18 month construction phase) Therefore, no likely cumulative effects identified. Not taken forward for further analysis.

Solar PV Cumulative Assessment

13.13.7 **Table 13-45** sets out the AADT flows associated with the cumulative schemes identified in **Table 13-45** for the Solar PV Study Area.

Table 13-45: Daily Traffic Flows Associated with Cumulative Schemes – Solar PV Study Area

Ref	Link	PL/2023/00865	PL/2021/10696	20/08618/FUL	PL/2022/01695	20/03528/FUL	20/05893/SCO	Total
Lime Down A, B and C								
1	M4 near Junction 18	54	76	0	0	0	0	130
2	A46	54	76	0	0	0	0	130
3	B4040	54	76	0	0	0	0	130
4	B4039	54	76	0	0	0	0	130
5	Road West of Grittleton	0	0	0	0	0	0	0
6	Alderton Road	0	0	0	0	0	0	0
7	Fosse Way	0	0	0	0	0	0	0
8	Road btw Fosse Way and Sherston	0	0	0	0	0	0	0
Lime Down D and E								
9	M4 near Junction 17	0	0	56	40	40	40	176
10	A429 north of Junction 17	0	0	56	40	40	40	176
Lime Down D (West)								
11	Road East of Hullavington	0	0	0	0	0	0	0
12	Bradfield Cottages	0	0	0	0	0	0	0

Ref	Link	PL/2023/00865	PL/2021/10696	20/08618/FUL	PL/2022/01695	20/03528/FUL	20/05893/SCO	Total
Lime Down ~~E~~ED (East) and D								
13	A429 South of Corston	0	0	56	40	40	40	176

13.13.8 **Table 13-47** shows the traffic flows applied to the baseline traffic flows for each link, and the baseline plus construction traffic flows for the Scheme.

Table 13-46: Solar PV Sites: Baseline 2028 AADT Total Traffic Flows plus Construction Traffic (Total Vehicles)

Ref	Link	Base 2028	Plus Dev	Plus Cumulative	% Change (Base)	% Change (Plus Dev)
Lime Down A, B and C						
1	M4 near Junction 18	81,601	81,869	81,999	0.5%	0.2%
2	A46	13,661	13,929	14,059	2.9%	0.9%
3	B4040	2,440	2,708	2,838	16.3%	4.8%
4	B4039	2,868	3,136	3,266	13.9%	4.1%
5	Road West of Grittleton	962	1,230	1,230	27.9%	0.0%
6	Alderton Road	1,361	1,629	1,629	19.7%	0.0%
7	Fosse Way	921	1,189	1,189	29.1%	0.0%
8	Btw Fosse Way and Sherston	1,549	1,611	1,611	4.0%	0.0%
Lime Down D and E						
9	M4 near Junction 17	82,707	83,045	83,221	0.6%	0.2%
10	A429 north of Junction 17	15,173	15,511	15,687	3.4%	1.1%
Lime Down D (West)						
11	Road East of Hullavington	3,043	3,~~267~~219	3,~~267~~219	~~7.4~~5.8%	0.0%
12	Bradfield Cottages	1,452	1,~~676~~628	1,~~676~~628	~~15.4~~12.1 %	0.0%
Lime Down D (East) and E						
13	A429 South of Corston	12,083	12,~~197~~245	12,~~373~~421	2.~~4~~8%	1.4%

13.13.9 **Table 13-45** indicates that traffic flows do not significantly change as a result of the cumulative schemes and that the majority of traffic associated with the cumulative schemes use the 'A' and 'B' Roads within the Study Area.

13.13.10 In terms of total vehicle movements, no roads exceed the threshold for additional assessment in line with the rules set out in the ISEP guidance.

13.13.11 It is acknowledged that HGV use has not been broken down separately in **Table 13-46**. HGV movements would likely be associated with the Solar and BESS schemes identified in **Table 13-45**. These are all located on the A429 corridor which has a low sensitivity. The additional HGVs would not result in HGV use increasing by 30% on the A429, in line with Rule 1 of the ISEP guidance.

13.13.12 It should also be noted that it is not likely that all cumulative BESS Area and Solar schemes will be constructed simultaneously, and at the same time as the Scheme.

13.13.13 Therefore, it is concluded that the cumulative effects of the Scheme on the Solar PV Study Area are the same as the residual effects, as set out in **Table 13-44**.

Cable Route Corridor Cumulative Assessment

13.13.14 There are additional cumulative schemes within the vicinity of the cable route corridor. The majority of trips associated with these cumulative schemes will be utilising A and B Roads within the Study Area, and not the more local roads that have greater sensitivity and that were taken forward for further assessment in Section 13.10. In addition, as these cumulative schemes are predominately solar and BESS schemes, it is not likely that will all be constructed simultaneously, and at the same time as the Scheme.

13.13.15 In the unlikely case that there are vehicle movements on the more local roads within the Study Area, the addition of the low vehicle movements associated with each cable route corridor access~~, over a 90-day period,~~ will not result in a significant cumulative effect at these locations.

13.13.16 Therefore, it is concluded that the cumulative effects of the Scheme on the cable route corridor Study Area are the same as the residual effects, as set out in 13.44.

In-Combination Cumulative Effects

13.13.17 In-combination cumulative effects are those where impacts from two or more environmental disciplines are considered likely to result in a new or different likely significant effect, or an effect of greater significance, than any one of the impacts on their own. The identified in-combination effects

are set out within **ES Volume 1, Chapter 21 Cumulative and In-Combination Effects [EN010168/APP/6.1]**.

13.13.18 In-combination effects at road receptors as a result of landscape and visual and transport and access impacts have been identified during the construction and decommissioning phases, however, these have been assessed as not significant.

13.13.19 No in-combination effects alongside transport and access have been identified as a result of the Scheme during the operation and maintenance phase.

13.14 Conclusions

13.14.1 This chapter has set out and assessed the likely effects of the Scheme in relation to transport and access. Likely effects have been assessed for the construction, operation and decommissioning phases of the Scheme. The Scheme is not likely to result in any significant residual Transport and Access effects during the construction, operation and decommissioning phases. An **Outline CTMP [EN010168/APP/7.22]** and **Outline Public Rights of Way and Permissive Paths Management Plan [EN010168/APP/7.17]** have been prepared to manage construction vehicle movement during the construction phase and operation and maintenance phase.

13.15 References

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Ref 13-12 Department for Transport: Road Traffic Statistics [website], available at: https://roadtraffic.dft.gov.uk/#6/55.254/-13.173/basemap-regions-countpoints> [Accessed 5 October 2024]

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