Green Hill Solar Farm

EN010170

Outline Operational Traffic Management Plan

Revision A (Tracked)

Prepared by: Lanpro

Date: November ~~May~~ 2025

Document Reference: EX1~~APP~~/GH7.25_A

APFP Regulation 5(2)(q)

Schedule of Changes

Revision	Section Reference	Description of Changes	Reason for Revision
A	[cover]	Application document number corrected.	As recommended by PINS in their Section 51 advice.
	[throughout]	Updates to document references.	As required for submission as Deadline 1.
	Paragraph 2.2.1	Typographical errors	Responding to matters raised in ExA First Written Questions

kmc
transport planning

Green Hill Solar Farm

Outline Operational Traffic Management Plan Revision A

Document Reference: ~~EN010170/APP~~EX1/GH7.25 A

~~May~~November 2025

Document:	Outline Operational Traffic Management Plan
Project:	Green Hill Solar Farm
Client:	Green Hill Solar Farm Limited
Job Number:	23061

Issue	Date	Status	Prepared	Reviewed	Approved
1	23.05.2025	Final	SM	SM	KM
2	6.11.25	Rev. A	SM	KM	KM

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1 Introduction

1.1 Outline

1.1.1 This Outline Operational Traffic Management Plan (Outline OTMP) has been prepared by KMC Transport Planning (KMC) on behalf of Green Hill Solar Farm Limited (the Applicant) in relation to an application for a Development Consent Order (DCO) Revision A **[EX1/GH3.1 A]** for Green Hill Solar Farm (hereafter referred to as the Scheme).

1.1.2 The proposed development spans several local highway authorities:

- West Northamptonshire Council;
- North Northamptonshire Council;
- Milton Keynes City Council; and
- National Highways.

1.2 The Scheme

1.2.1 The Scheme will comprise the construction, operation, maintenance and decommissioning of a Solar Photovoltaic (PV) electricity generating facility and Battery Energy Storage System (BESS) with a total capacity exceeding 50 megawatts. The Scheme comprises nine land parcels (Sites). The Sites are connected by a Cable Route Corridor to each other and to the Point of Connection (POC) at Grendon National Grid Substation.

1.2.2 The Sites are in an area of countryside to the west and south of Wellingborough, and north, east and south east of Northampton as shown in **Figure 1.1**.

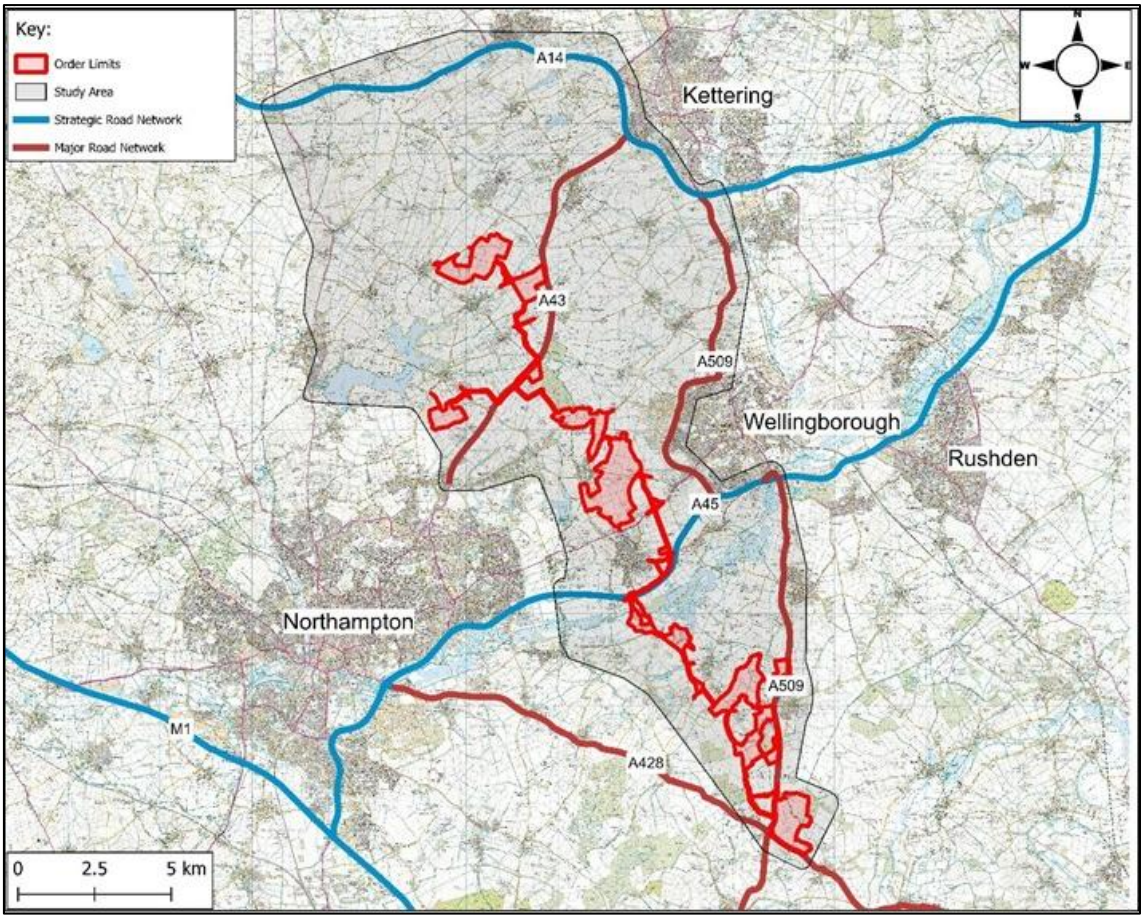

Figure 1.1 – Scheme Overview and Highway Network Context

1.3 Outline OTMP

1.3.1 This Outline OTMP provides a framework for the management of vehicle movements to and from the Site during periods of scheduled replacements activities to be carried out during the operation phase, to reduce, as far as practicable, impacts of the Scheme on the local highway network. It is a live document that will be updated prior to commencement of the scheduled replacement of solar PV panels and batteries forming part of the Scheme, to reflect any relevant changes to the approach, for example routes that may become more or less acceptable for vehicle movements and wider changes to the local highway network.

1.3.2 A Final OTMP will be prepared prior to the date of final commissioning of the authorised development for approval of the relevant highway authorities.

1.3.3 The document will be linked to and respond to the details contained in the Outline Construction Traffic Management Plan (Outline CTMP) ~~[EN010170/APP~~Revision A **[EX1/GH7.9_A]**. The Outline CTMP Revision A **[EX1/GH7.9_A]** will be updated and forms the basis for the OTMP. As such, relevant details in the various iterations of the outline and final CTMPs will need to be considered and where relevant, included in the outline and final OTMPs.

1.3.4 This Outline OTMP has the following objectives:

- To build on the measures and approach set out in the Outline CTMP~~;~~ Revision A **[EX1/GH7.9_A]**;
- Minimise the number of construction vehicles involved in replacement activities;
- Ensure the safe movement of equipment, material and workers during the replacement activities; and
- Minimise the effects of operation traffic associated with replacement activities on the local community and other road users.

1.3.5 It will be the responsibility of the Scheme's operator to ensure that the appointed contractor complies with all statutory regulations and guidelines in relation to construction and movement activities during the replacement activities.

2 The Green Hill Solar Farm Scheme

2.1 Solar Arrays

2.1.1 The main element of the Scheme comprises nine Sites that will accommodate the solar arrays. These are referred to as:

- **Green Hill A** – Accessed via Accesses:
  - Access A-1: Broughton ~~Lane~~Road
  - Access A-2: Broughton ~~Lane~~Road
- **Green Hill A.2** – Accessed via Access A.2-1: ~~Ketting~~Kettering Road
- **Green Hill B** – Accessed via Accesses:
  - Access B-1: Sywell Road
  - Access B-2: Moulton Road
- **Green Hill C** – Accessed via Access C-1: Sywell Road/Glebe Road junction
- **Green Hill D** – Accessed via Accesses:
  - Access-D-1: Highfield Road adjacent to Sywell Road
  - Access-D-2: Highfield Road adjacent to the access to Highfield Happy Hounds
  - Access-D-3: Highfield Road, c.200m south of the access to Highfield Happy Hounds
  - Access-D-4: Highfield Road adjacent to Access-E-1
  - Access-D-5: Highfield Road adjacent to The Grange
- **Green Hill E** – Accessed via Accesses:
  - Access E-1: c.200m south of the access to Highfield Happy Hounds
  - Access-E-2: Mears Ashby Road
- **Green Hill BESS** – Accessed via Accesses:
  - Access-BESS-1: c.600m northwest of Grendon Substation access
  - Access-BESS-2: c.190m northwest of Grendon Substation access
  - Access-BESS-3: c.60m southeast of Grendon Substation access
  - Access-BESS-4: c.175m southeast of Grendon Substation access
- **Green Hill F** – Accessed via Accesses:
  - Access-F-1: Off the A509, north of Bozeat.
  - Access-F-2: Easton Lane/Private Access to Motorcycle Dealership junction
  - Access-F-3: Off the A509 to the west of Bozeat.
- **Green Hill G** – Accessed via AccessG-1: off the A428, c.100m to the east of the junction with the A509.

2.1.2 ~~These~~A number of crossing point accesses are included to provide access to parts of the Site or the Cable Route Corridor whilst minimising or avoiding the use of unsuitable highways.

~~2.1.2~~2.1.3 The Sites and all HGV accesses associated with the Scheme, including crossing point accesses and access for the Cable Route Corridor, are shown in **Figures 2.1, 2.2, 2.3, 2.4,** and **2.5**.

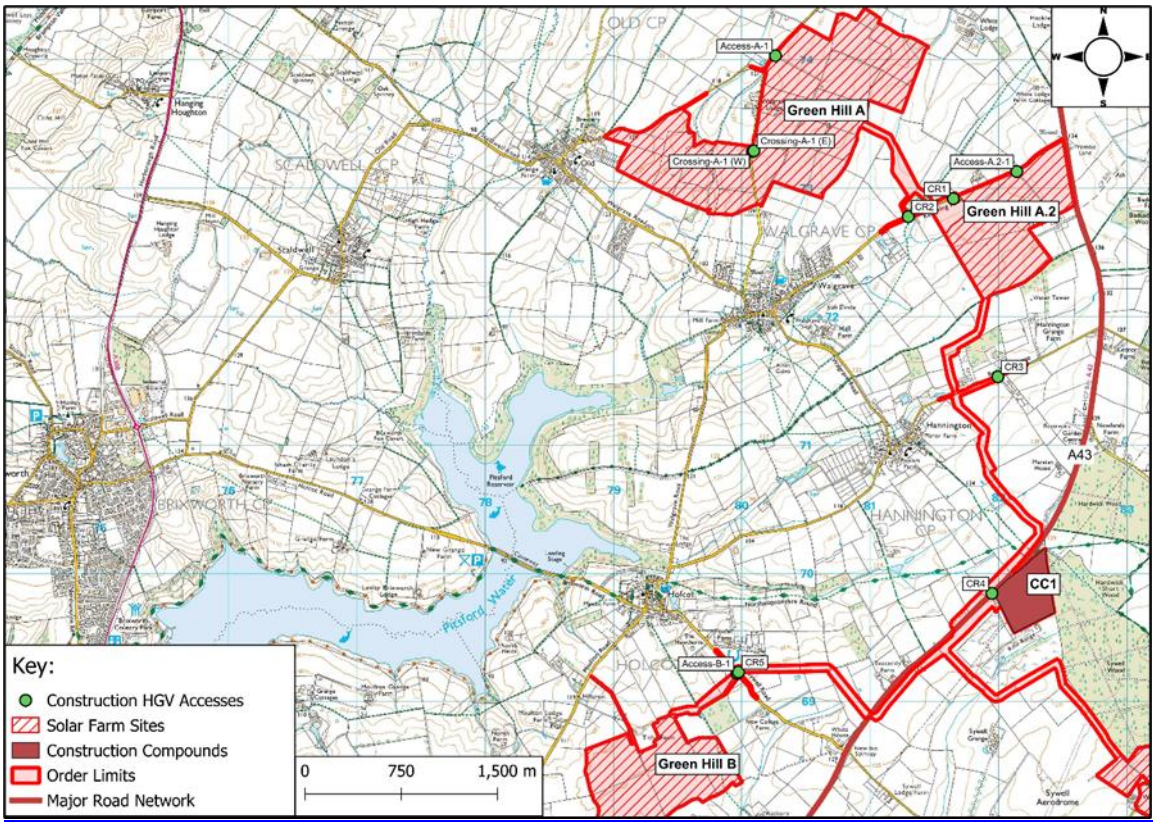

Figure 2.1 – HGV Access Locations for Sites and Cable Route Corridor (North Area)

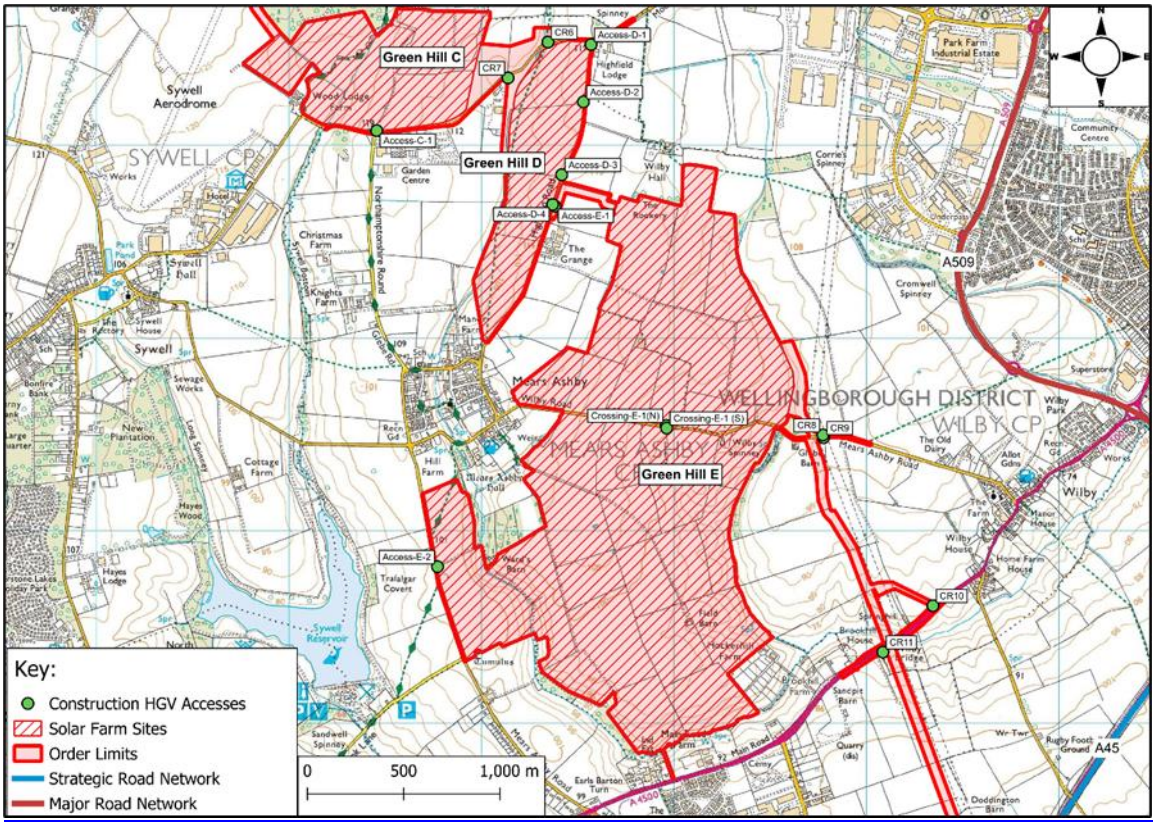

Figure 2.2 – HGV Access Locations for Sites and Cable Route Corridor (Central Area)

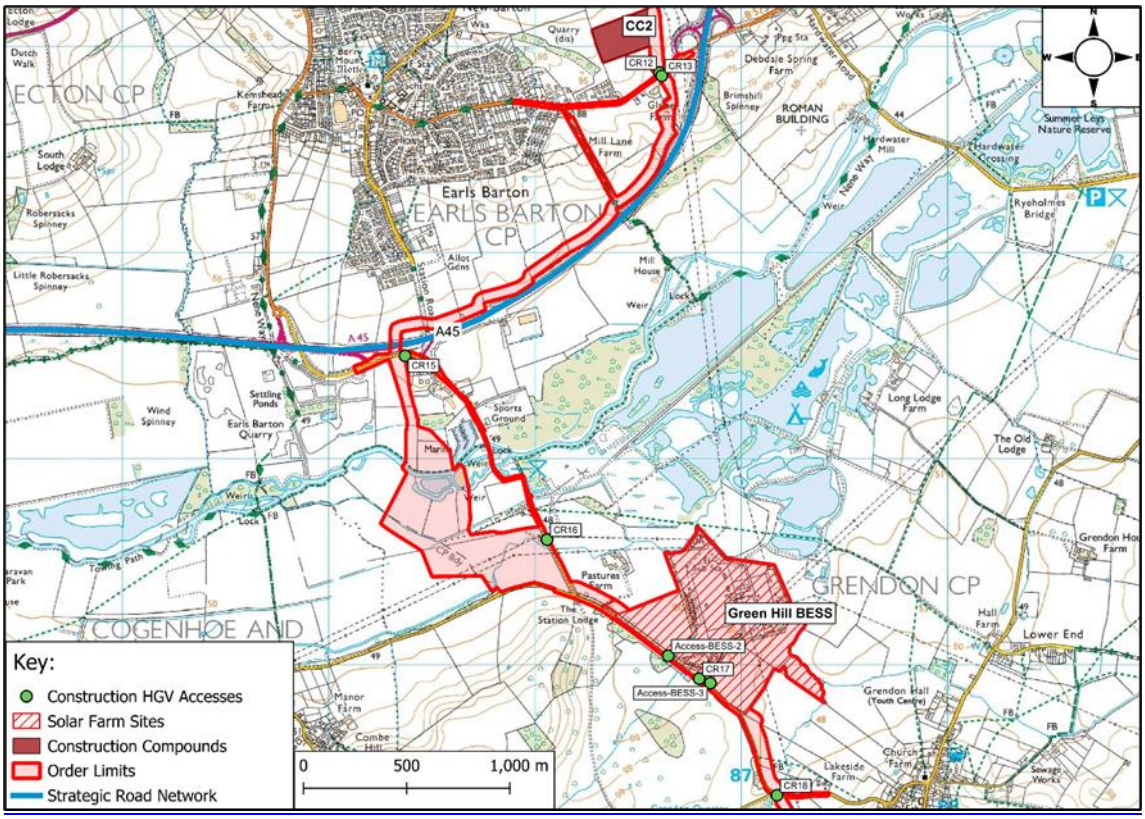

Figure 2.3 – Access Locations for Sites and Cable Route Corridor (South Area Part 1)

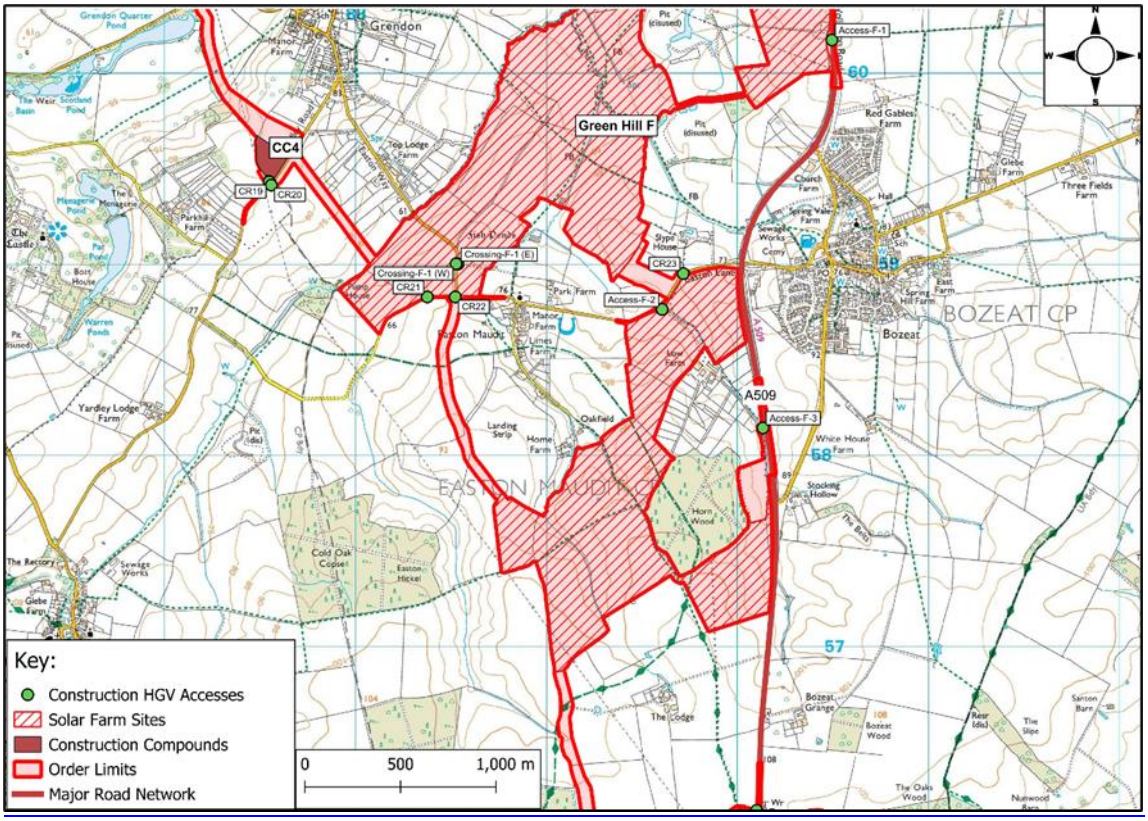

Figure 2.4 – HGV Access Locations for Sites and Cable Route Corridor (South Area Part 2)

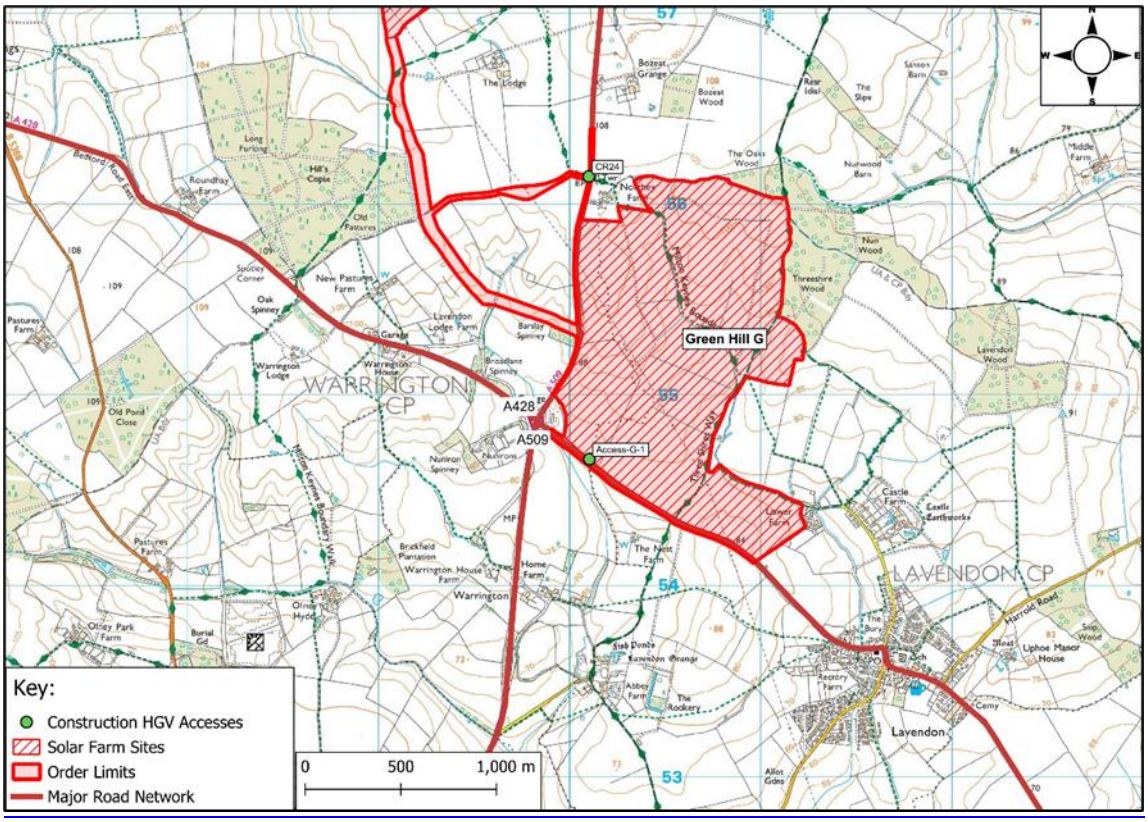

Figure 2.5 – HGV Access Locations for Sites and Cable Route Corridor (South Area Part 3)

~~2.1.3~~2.1.4 The key equipment within the Solar Array Works Areas are:

- The solar photovoltaic panels (Solar PV Panels) which convert sunlight/daylight into electrical current;
- Solar PV Mounting Structures will be metal frames, typically aluminium or steel. The metal frames are typically installed by driving the piles directly into the ground;
- A tracker system which involves attaching the Solar PV Panels to a motorized table that can move in relation to the sun. This allows for optimal power generation throughout the day and may be utilised across Sites;
- Conversion Units incorporate the inverters, transformers and associated equipment and are required to manage the electricity generated by the PV Panels; and
- Transformers are required to step up the voltage of the AC electricity generated by the inverters across the solar sites before it reaches the Site substation.

2.2 Energy Storage Facility

2.2.1 An Energy Storage Facility (also referred to as a Battery Energy Storage System (BESS)) is proposed. The preferred location for the BESS is at Green Hill BESS adjacent to Grendon National Grid Substation, however BESS may also or alternatively be located within Green Hill C.

2.2.2 The BESS is designed to provide peak generation and balancing services to the grid by allowing excess electricity generated either from the solar PV panels, or imported from the grid, to be stored in batteries and dispatched when required.

2.3 Substations

2.3.1 The Scheme includes two 400kV Substations. These substations are to be located within Green Hill BESS and Green Hill C. The Green Hill C 400kV Substation will be air insulated switchgear, whereas Green Hill BESS will either be air insulated switchgear or gas insulated switchgear.

2.3.2 The 400kV Substations would also step down the voltage from 400kV to 132kV and 33kV. This would allow for both electricity provided from the grid at 400kV and provided from the Sites to be stored within the BESS.

2.3.3 On Green Hill A, B, E, F and G, there will be the need for a 132kV Substation on each of the Sites.

2.3.4 There will be a requirement for 33kV Substations on Green Hill A.2 and D.

2.4 Grid Connection

2.4.1 The electricity generated and stored by the Scheme will be exported to the National Grid at the existing Grendon Substation. The Sites will be linked to Grendon Substation via underground cables within the Cable Route Corridor. The underground cables will also transfer electricity from the National Grid to the BESS.

2.4.2 The Cable Route Corridor will comprise underground electrical cables to connect the Sites to the Point of Connection (PoC) at Grendon Substation. The Cable Route Corridor runs for approximately 31km from Green Hill A at its most northern extent to Green Hill G at its southernmost point.

2.4.3 The Cable Route Corridor has a typical width of 50m, however the Cable Route Corridor incorporates a number of wider areas, for example to allow additional working area for trenchless techniques such as Horizontal Directional Drilling (HDD), enable flexibility around areas of environmental sensitivity and temporary construction compounds.

2.5 Access Points

2.5.1 Access points across the Scheme are proposed for construction and operation purposes for the Sites~~, Cable Corridor~~ and Cable ~~Construction Compounds~~Route Corridor. The majority of access points will be improved existing field accesses.

2.5.2 Access points used during the construction phase of the Solar Sites may also be utilised during the scheduled replacement phase. In addition, new access points are proposed to support the day-to-day operational requirements of the solar sites at Green Hill A and D. A summary of the access points is provided in **Table 2.1**.

Table 2.1 - Access proposals for the Scheme

Access Ref	Location	Description	Use
Green Hill A			
Access-A-1	Broughton Road	Improved existing field access	Construction Operation Cable Route Corridor
Access-A-2	Broughton Road	Improved existing field access	Operation
Crossing-A-1 (E)	Newland Road	New access	Construction Operation
Crossing-A-1 (W)	Newland Road	Improved existing field access	Construction Operation
Green Hill A.2			
Access-A.2-1	Kettering Road	Improved existing field access	Construction Operation Cable Route Corridor
Green Hill B			
Access-B-1	Sywell Road	Improved existing field access	Construction Operation Cable Route Corridor
Access-B-2	Moulton Road	Existing farm access	Operation
Green Hill C			
Access-C-1	Sywell Road	Existing access to solar farm	Construction Operation Cable Route Corridor
Green Hill D			
Access-D-1	Highfield Road	Improved existing field access	Construction (including replacement) Cable Route Corridor
Access-D-2	Highfield Road	Improved existing field access	Construction Operation
Access-D-3	Highfield Road	Improved existing field access	Construction Operation
Access-D-4	Highfield Road	Improved existing field access	Construction (including replacement)
Access-D-5	Highfield Road	Improved existing field access	Operation
Green Hill E			
Access-E-1	Highfield Road	Improved existing field access	Construction Operation Cable Route Corridor
Access-E-2	Earls Barton Road	Improved existing field access	Construction Operation
Crossing E-1 (N)	Wilby Road	New access	Construction Operation
Crossing-E-1 (S)	Wilby Road	Improved existing field access	Construction Operation
Green Hill BESS			
Access-BESS-1	Station Road	Improved existing field access	Emergency access only
Access-BESS-2	Station Road	Improved existing field access	Construction Operation Cable Route Corridor
Access-BESS-3	Station Road	Improved existing field access	Construction

Access Ref	Location	Description	Use
			Operation
Access-BESS-4	Station Road	New access	Emergency access only
Green Hill F			
Access-F-1	A509	Existing access to quarry	Construction Operation Cable Route Corridor
Access-F-2	Easton Lane	Improved existing farm yard access	Construction Operation Cable Route Corridor
Access-F-3	A509	Existing access to solar farm	Construction Operation Cable Route Corridor
Crossing-F-1 (E)	Easton Way	Improved existing field access	Construction Operation Cable Route Corridor
Crossing-F-1 (W)	Easton Way	Improved existing field access	Construction Operation Cable Route Corridor
Green Hill G			
Access-G-1	A428	Improved existing field access	Construction Operation

3 Operation Phase of the Scheme

3.1 Usual day-to-day operation

3.1.1 Typical maintenance associated with the Scheme will be the minimal. This will be associated with checking/maintaining the solar arrays and replacing individual faulty/damaged components.

3.1.2 This low-level activity will result in low levels of traffic and would remain constant for the operational life time of the Scheme. Its low level means that it has no effect on the road network and no mitigation is required. This OTMP does not apply to typical maintenance activity.

3.2 Replacement period

3.2.1 The programme of replacement for the solar panels and BESS will see greater volumes of traffic than ordinary maintenance activity.

3.2.2 The replacement of equipment would be undertaken in stages, with individual sections of Sites being taken offline at a time.

3.2.3 The replacement of equipment within the solar Sites will essentially require the delivery of new modules and, separately, the removal of old modules for recycling. Battery equipment will also need to be removed, and new equipment installed.

3.2.4 An indicative programme for replacement has been developed which would see all solar arrays and batteries on the Sites within the Scheme replaced over a 2 year period, roughly 30 years following the original construction.

3.2.5 The lifespan for the proposed BESS is 10 to 15 years. The BESS are expected to require five (5) replacements throughout the operational phase. At this stage it is assumed that panels will be fully replaced once during the lifecycle of the Scheme. Inverters are also anticipated to be replaced five times during the operation phase. Transformers are assumed to require replacement solely if required for performance or health and safety reasons.

4 Forecast Vehicle Trips

4.1 General Operational Maintenance

4.1.1 Typical maintenance associated with the Scheme will be the minimal, comprising a low number of movements associated with checking/maintaining the solar arrays and replacing individual faulty/damaged components.

4.1.2 Associated with the Scheme's maintenance, there is anticipated to be fewer than one vehicle trip per day per Site for maintenance purposes. These would typically be made by light van or 4x4 type vehicles. This scale of vehicle traffic will not have any material effect on the local or strategic highway networks.

4.1.3 These low levels of operational traffic would remain constant for the operational life time of the Scheme.

4.1.4 HGVs are not anticipated to be required for general operational maintenance.

4.2 Replacement Activities

4.2.1 The programme of replacement for the solar panels, other equipment and BESS will see greater volumes of traffic than ordinary maintenance activity. The replacement of solar modules will see the greatest level of traffic movement and activity.

4.2.2 The replacement of panels would be undertaken in stages, with individual sections of Sites being taken offline at a time.

4.2.3 The replacement of equipment within the solar Sites will essentially require the delivery of new modules and, separately, the removal of old modules for recycling. Battery equipment will also need to be removed, and new equipment installed.

4.2.4 An indicative programme for replacement has been developed which would see all solar arrays and batteries on the Sites within the Scheme replaced over a 2 year period.

4.2.5 A summary of HGV movements associated with the replacement period is presented in **Table 4.1**.

Table 4.1 - Forecast HGV replacement vehicle movements (Solar Modules and BESS)

Replacement activity	Vehicle type	Green Hill A	Green Hill A.2	Green Hill B	Green Hill BESS	Green Hill C Solar	Green Hill D	Green Hill E	Green Hill F	Green Hill G	Green Hill BESS
Replacement Period (Working Days)		126	74	75	220	41	40	204	223	174	220
Modules - New	16.5m Articulated	226	107	108	500	48	44	355	390	299	500
Modules - Removal	16.5m Articulated	226	107	108	500	48	44	355	390	299	500
Total		**452**	**214**	**216**	**1,000**	**96**	**88**	**710**	**780**	**598**	**1,000**
Average daily HGV movements		**4**	**3**	**3**	**5**	**2**	**2**	**3**	**3**	**3**	**5**

4.2.6 In addition to HGV movements associated with the delivery of new equipment and the removal of old, workers will clearly need to be in place to undertake the work. The same assumptions for the construction phase have been applied to the replacement period. In reality, replacement can take place across a period that is less intensive than construction phase with sites worked on at different times.

4.2.7 A summary of replacement period worker numbers and forecast vehicle movements are presented in **Table 4.2**.

Table 4.2 - Summary of replacement period worker numbers and forecast vehicle movements (Solar and BESS)

	Green Hill A	Green Hill A.2	Green Hill B	Green Hill C BESS	Green Hill C Solar	Green Hill D	Green Hill E	Green Hill F	Green Hill G	Green Hill BESS
Total Workers by Grouping		216				206		214		
Average workers	111	52	53	65	22	20	164	121	93	66
% Travel by shuttle	54%	57%	57%	46%	68%	75%	46%	49%	49%	23%
Travel by shuttle	60	30	30	30	15	15	75	60	45	15
Travel by car / van	51	22	23	35	7	5	89	61	48	51
Number of shuttles	4	2	2	2	1	1	5	4	3	1
Number of cars and vans	34	15	16	24	5	4	60	41	32	34
Total vehicles	**38**	**17**	**18**	**26**	**6**	**5**	**65**	**45**	**35**	**35**

4.2.8 Deliveries of materials to individual Sites will be made principally by HGVs. This will vary between 16.5m long articulated vehicles and rigid vehicles 8-10m in length.

5 Vehicle Routing

5.1.1 During regular maintenance, movements will be infrequent and generally undertaken by smaller vehicles. As such, specific routes do not need to be defined.

5.1.2 **Figures 5.1, 5.2 and 5.3** below show the proposed HGV construction vehicle routes as presented in the Outline CTMP- Revision A **[EX1/GH7.9_A].**

5.1.3 At this stage, these routes should also be considered for movements associated with the replacement activities unless the routes are no longer suitable or the most appropriate in which case alternative routes will be agreed with the local highway authority.

5.1.4 These routes have been chosen to provide routes which are the shortest distance between the various access points associated with the proposed development and the Strategic Road Network (A14 and A45), therefore minimising travel on less suitable roads.

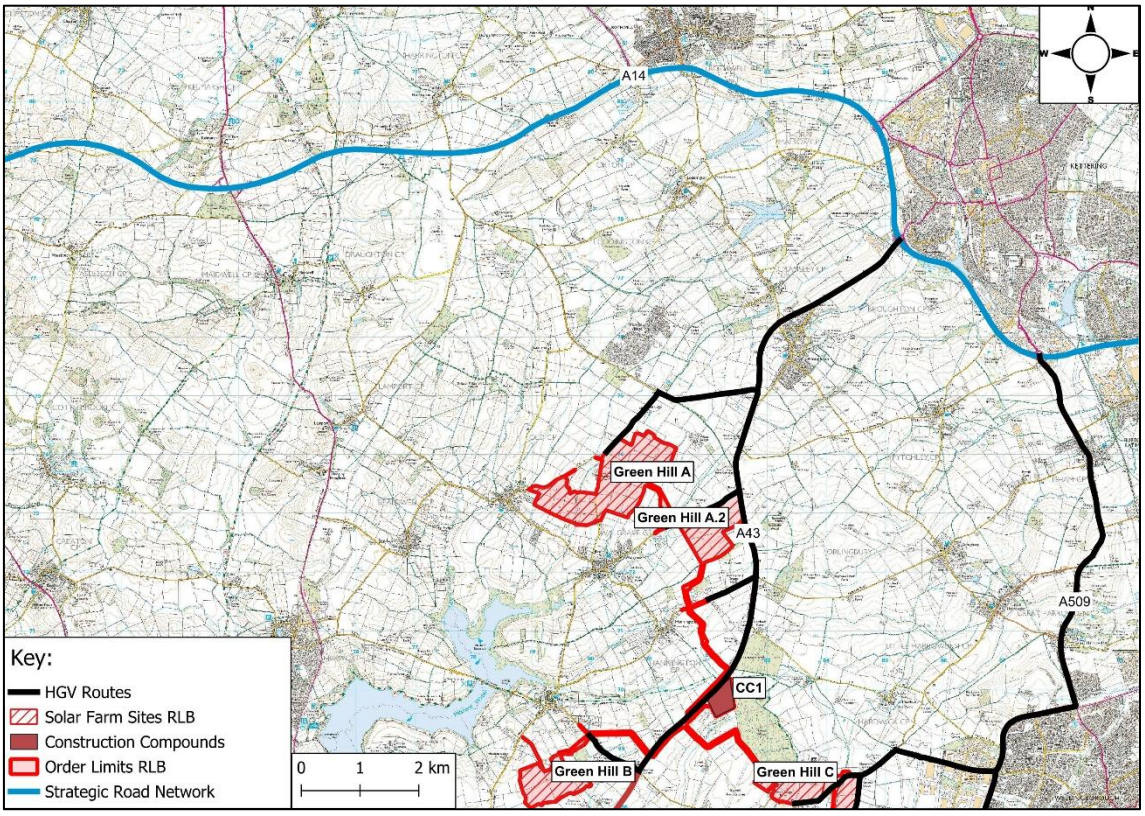

Figure 5.1 – Construction HGV Routing- North Sites

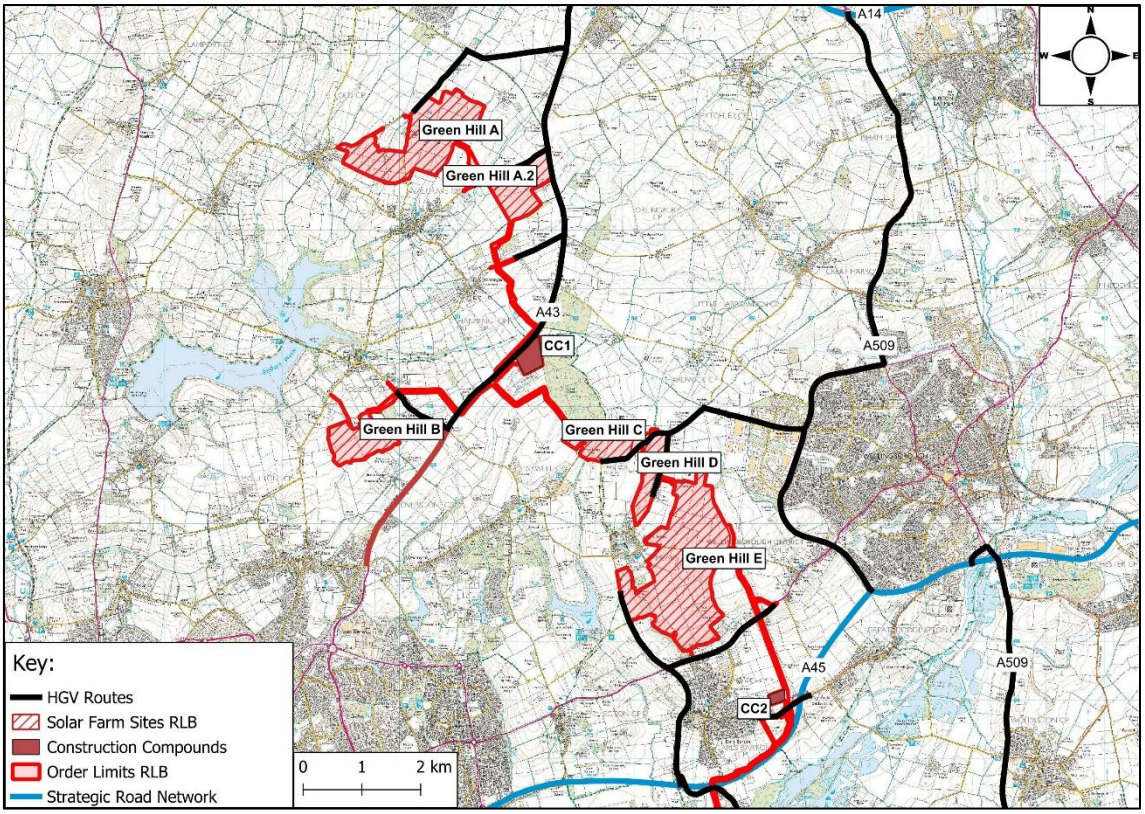

Figure 5.2 – Construction HGV Routing- Central Sites

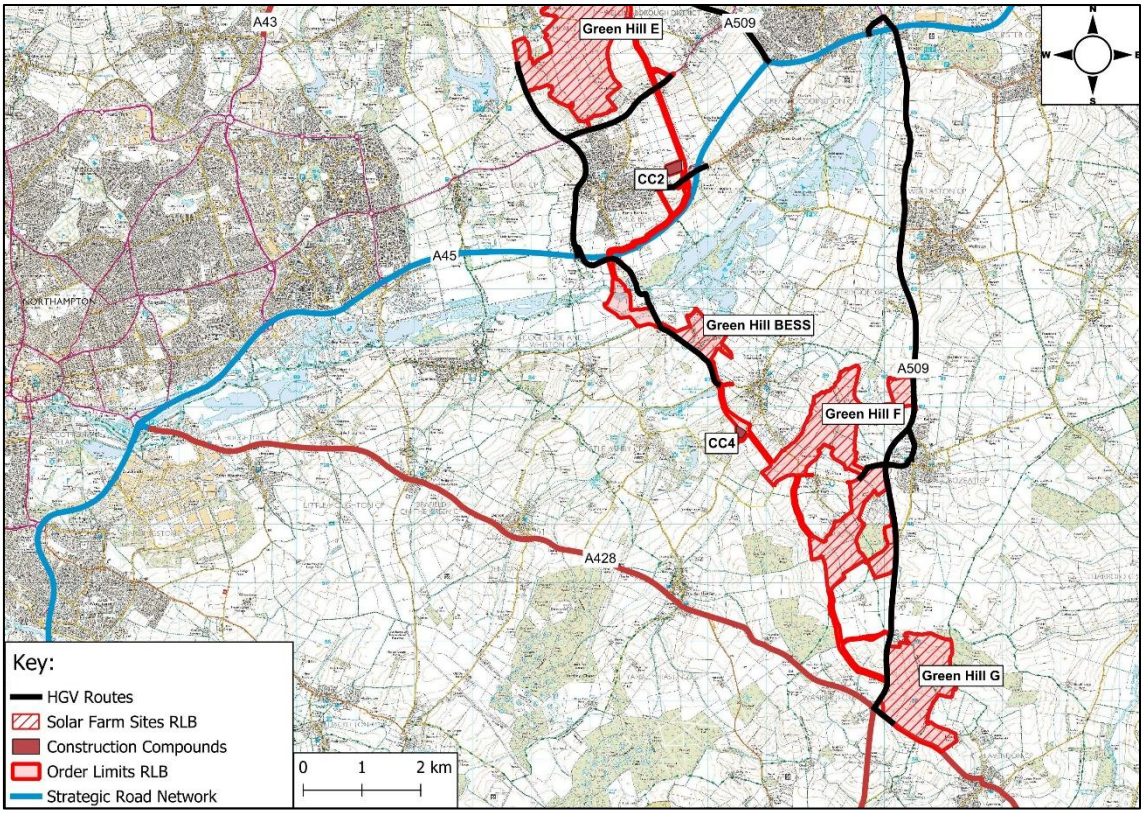

Figure 5.3 – Construction HGV Routing- Southern Sites

6 Replacement Activities Vehicle Traffic – Mitigation Measures

6.1.1 The following measures are suggested to be implemented for the replacement activities to mitigate impacts owing to replacement traffic.

6.1.2 These measures will be updated in-line with any changes to the Outline CTMP Revision A **[EX1/GH7.9_A]** and Final CTMP. The measures will also need to be reviewed to ensure they remain suitable at the time of replacement activity.

6.2 Access Points

6.2.1 Existing accesses to Sites will be used where practicable, however any access that is temporarily created or amended for the replacement period will be restored to its original condition subject to agreement. Where existing accesses are utilised, these may be widened and formalised where required. Visibility splays will be kept clear throughout the replacement activities.

6.2.2 The use of temporary traffic management to manage the use of accesses for replacement activities will be considered on a site-by-site basis and, where management is required, this will be agreed with the relevant highway authorities.

6.2.3 All replacement vehicles will access and egress the Site in a forward gear. Where required, banksmen or other traffic management will be utilised at crossing access points, to ensure the safe manoeuvring of HGVs across highways.

6.3 Parking

6.3.1 Signs informing contractors and visitors that parking is not permitted on-street in the vicinity of the Site or on the Site access road will be erected. Contractors and visitors will be advised that parking facilities will be provided onsite in advance of visiting.

6.4 Management of Deliveries

6.4.1 Replacement vehicles will avoid travel during the morning and evening network peak hours, where possible. Therefore, deliveries will be arranged to occur after ~~0930~~09:30 and before ~~1630~~16:30.

6.4.2 In order to minimise instances of HGVs passing each other in opposite directions on narrow/inappropriate roads, all deliveries will be required to use a delivery booking system. Drivers will be instructed to not leave their depot, or alternatively stop in an appropriate layby or other appropriate stopping place, and report if they are likely to miss their slot.

Procedure for Arrival to Site

- Drivers will be allocated a slot arrival time and instructed which access/route to use;
- Where required, when the vehicle is due, the banksmen will be notified and will position at the relevant access;

- The driver will then be notified to travel to the Site via the agreed route;
- All operatives will communicate with each other, as necessary; and
- Where required, banksmen or other traffic management will be utilised to assist HGVs to manoeuvre from the public highway into the Site accesses.

Procedure for Leaving the Site

- When vehicles are ready to depart, the Site Manager will be notified. If required, they will then mobilise the banksmen at the relevant Site access;
- Drivers will be advised when the banksmen are in place; and
- Banksmen will guide the vehicles safely on to the public highway- or other traffic management will be utilised to provide safe access onto the highway.

6.5 Wheel Washing

6.5.1 Wheel washing facilities will be provided at each access. This will be located at the egress of each Site. A visual inspection of vehicles will be undertaken before they depart the Site, to ensure that they are not carrying debris onto the highway.

6.5.2 Notwithstanding wheel washing measures, if required, a road sweeper will be provided for the area surrounding access to alleviate any residual debris generated during the replacement activities.

6.5.3 Visual inspections of the public highway in the vicinity of the site accesses will be undertaken on a daily basis by the site manager. Where inspections identify visible deposits of mud, dust, or debris on the public highway, or where concerns are raised by the local highway authority, a road sweeper will be deployed promptly to remove such material.

6.5.4 Records of inspections and any road sweeping undertaken will be maintained within the site's environmental log and made available to the local highway authority upon request. The frequency and effectiveness of the measures will be reviewed throughout the construction period to ensure that appropriate and proportionate mitigation remains in place to maintain highway safety and cleanliness.

6.6 Traffic Management Measures

Route Signage

6.6.1 Temporary road signage will be installed along the replacement traffic routes to inform all road users of the replacement works and to direct replacement traffic to and from the various replacement accesses.

6.6.2 Signage will comply with Chapter 8 of the Traffic Signs Manual. The following will be considered when locating signage:

- The position of the sign in relation to the highway to ensure visibility splays are maintained;

- Possible distraction to drivers; and
- The proximity to junctions and roundabouts.

6.6.3 Details of the form and proposed locations of any signs (or signals) to be placed on a public highway will be pursuant to relevant Articles of the DCO Revision A **[EX1/GH3.1_A]** and will be submitted to the traffic authority for approval in advance of being placed.

6.6.4 All signage on the designated route will be inspected, to ensure they are kept in a well-maintained condition and located in safe and appropriate locations.

6.6.5 Traffic management for abnormal load movements will be agreed with the local highway authority and police prior to the abnormal load movements taking place.

6.7 Public Rights of Way

6.7.1 A Public Rights of Way and Permissive Paths Management Plan will be implemented during the construction phase of the Scheme. An Outline Publics Right of Way and Permissive Paths Management Plan ~~**[EN010170/APP**~~Revision A **[EX1/GH7.10_A]** is included as part of the application. As part of this plan, the following measures will be implemented during the replacement activities:

- Appropriate signage will be installed along the PRoW or permissive path to make users aware of the replacement activities. This will include information on replacement times and contact details for a public liaison officer;
- Drivers will stop and give-way to any PRoW or permissive path user (in particular for equestrians);
- Where relevant, widened access tracks to ensure vehicles can pass PRoW or permissive path users safely;
- Banksmen to be positioned where relevant along a PRoW or permissive path impacted by replacement traffic, to hold vehicles if a PRoW or permissive path user is present and advise PRoW and permissive path users of the potential for replacement vehicles;
- Speeds to be limited to 10mph near PRoWs and permissive paths;
- The PRoW or permissive path will be kept clear of replacement vehicles and apparatus outside of permitted hours for replacement activities so far as is practicable to do so; and
- Any damage to the surface of the PRoW or permissive path directly attributable to the Scheme will be repaired as soon as practicable.

6.8 Noise Reduction and Air Quality

6.8.1 When on Site and when not in use, engines will be required to be switched off. Vehicles carrying material off-Site will be sheeted / covered to prevent the spread of dust and debris. In dry conditions, areas near to the Site access will be sprayed with water to prevent the spread of dust and debris.

6.9 Site Security

6.9.1 CCTV and fencing installed as part of the Scheme will be in place to ensure the safety of the sites during replacement. If required, additional CCTV or fencing to protect replacement activities will be implemented. All access tracks will be secured by gates, which will be set back from the public highway. Where existing access tracks are used that also provide access to residential properties, appropriate security measures will be put in place in consultation with the relevant property owner.

6.10 Community Engagement and Monitoring

6.10.1 The details of the Site Manager during the replacement activities will be provided to the local highway authorities in advance of any work being carried out and will also be advertised on a Site information board.

6.10.2 Residents and businesses in the vicinity of the Sites will be provided with contact details of the Site Manager to report any identified issue.

6.11 Procedure in the event of incident on an HGV route

Flooding on HGV Route

6.11.1 In the event of flooding on a proposed HGV route the following procedure will apply:

- The contractor(s) will monitor local flood alerts (e.g. Environment Agency warnings, local authority updates);
- If there is advance warning of a significant flood event that is likely to impact an HGV route, HGV bookings will be rescheduled;
- In the event that a flood event temporarily closes an HGV route without advanced warning, the HGVs will be required to follow the diversion route provided by the emergency services/ local highway authority.

Other Incident on HGV Route

6.11.2 In the event of an incident on a proposed HGV route which temporarily closes the road HGVs will be required to following the approved diversion route set by the highway authority. Diversion routes are required to be on the same class of road as the closed highway to ensure that the route is suitable for the traffic volume.

6.12 Monitoring and compliance

~~6.10.3~~6.12.1 Any unforeseen issues that arise in relation to replacement vehicle movement will be logged by the Site Manager. If necessary, the issues will be discussed with the local highway authority so that they can be resolved as appropriate.

6.12.2 The monitoring of HGV movements to ensure their compliance to the oOTMP will include:

- Banksman will record the direction HGVs arrive from. Any that do not arrive from the direction adhering to the HGV routes will be recorded and any instances on non-compliance will be raised with the relevant contractor.
- A telephone line will be set up for members of the public to report suspected breaches of the HGV routes which will be investigated and addressed with the relevant contractor.

6.12.3 Potential corrective actions include, but are not limited to:

- Improvements to the communication strategy;
- Replace HGV drivers if there are repeat instances of individual HGV drivers diverging from the HGV routes;
- Suspend booking delivery slots to contractors that repeatedly breach the HGV routes until corrective action is demonstrated; and
- Provision of additional signage on the HGV routes.

7 Worker Traffic – Mitigation Measures

7.1 Working Hours

7.1.1 Replacement activities will be carried out Monday to Friday ~~0700-1800~~07:00-18:00 and between ~~0800~~08:00 and ~~1330~~13:30 on Saturdays, which constitute the core working hours (excluding any start-up and shut down works). No replacement activities will take place on Public Holidays. However, some activities may be required outside of these times (such as the arrival and departures of workers and the delivery of abnormal loads).

7.1.2 Replacement deliveries by HGV will be scheduled to arrive between ~~0930-1630~~09:30-16:30. They will be coordinated to avoid vehicle movements during the traditional AM peak hour (~~0800-0900~~08:00-09:00) and PM peak hour (~~1700-1800~~17:00-18:00). In addition, worker shift patterns will be coordinated to avoid travel during the network peak hours of ~~0800-0900 and 1700-1800.~~08:00-09:00 and 17:00-18:00 and workers will be advised of local schools in the vicinity of access points (e.g. Grendon Primary School) and advised not to travel past these during the school drop off and pick up times (typically 08:00-09:00 and 15:00-16:00).

7.2 Vehicle Trip Reduction

7.2.1 Measures are proposed to minimise the number of workers travelling by car or van, including the provision of shuttle buses to transport workers to and from each Site and nearby conurbations.

7.2.2 Workers who drive to any Site will be encouraged to car share where possible and this tends to occur on major construction projects without intervention.

7.3 Replacement Activities Worker Travel Plan

7.3.1 A Replacement Activities Worker Travel Plan (RAWTP) will be drafted and implemented prior to major replacement periods, to encourage workers to travel to the Site via sustainable travel, where possible. The RAWTP will reflect the measures agreed through the ~~RAWTP prepared for the replacement activities~~Construction Worker Travel Plan (CWTP) and will be agreed with the relevant local planning and highway authorities.

7.3.2 The following key aims and objectives are identified at this stage:

- To reduce single occupancy car travel by workers;
- To encourage and promote car sharing and shuttle bus use; and
- To increase knowledge of the public transport and/or Active Travel opportunities available to workers (where applicable/viable).

7.3.3 A Travel Plan Coordinator (TPC) will be appointed to oversee the implementation of the CWTP whose responsibilities will comprise, but not necessarily be limited to, the following:

- Implement measures set out in the Travel Plan;

- Raise awareness and promote the Travel Plan; and
- Provide advice to workers regarding sustainable travel options.

7.3.4 Suggested measures could include:

- Establish a car share scheme for workers;
- Arrange on-site facilities for workers, such as storage lockers for equipment;
- Provide a map with identified cycling/walking/bus routes to a Site; and
- Provide emergency cycle repair kit at the compounds.

7.3.5 Uptake of Travel Plan measures will be monitored by the TPC. Additional measures will be provided if necessary/as appropriate.

8 Abnormal Indivisible Loads (AILs)

8.1 Overview

8.1.1 As part of the replacement activities, there may be a requirement for abnormal load movements associated with aspects of the Scheme.

8.1.2 An AIL vehicle is defined as having one or more of the following characteristics on any part of the vehicle combination:

- a gross vehicle weight of more than 44,000kg;
- an axle load of more than 10,000kg for a single non-driving axle and 11,500kg for a single driving axle;
- a width of more than 2.9 metres;
- a rigid length of more than 18.65 metres;
- the vehicle load projects over the front or rear of the vehicle by more than 3.05m or more than 305mm over the side of the vehicle; or
- is a Part 2 vehicle combination (N3 vehicle and trailer) of greater than 25.9m total length.

8.1.3 Road based AILs fall into three principal classifications:

- Special order for the heaviest, widest or longest loads. Any AIL greater than 150 tonnes gross vehicle weight or over 6.1m wide or over 30m long is classified as a Special Order load;
- Special type General Order (STGO) for loads not in the Special Order category, but which are over the weight limit for the number of axles, wider than 4.3m or longer than 27.5 m. STGO are sub-divided into three categories (Cat 1, 2 or 3) depending on the gross weight and axle weight. A further STGO category is used for loads over 5m wide, which are referred to as VR1 loads; and
- Construction and Use (C&U) for loads that are not in the STGO category but do not qualify as an HGV movement due to their size (width, length or overhang).

8.1.4 A report has been prepared to consider the routes that Abnormal Load movements will take and is appended to the Transport Assessment. This will need to be reviewed prior to the replacement activities in order to ensures the routes and measures remain suitable at the time of replacement.

8.2 Management

8.2.1 Application for notification of AIL deliveries must be made by transport (haulage) operators, preferably through the Electronic Service Delivery for Abnormal Loads (ESDAL2) system. If the ESDAL2 system is not used, the application for each AIL movement must be submitted in adequate time to allow consultation, planning and further notification.

8.2.2 The ESDAL system will notify the police, highway authorities and bridge authorities of the proposed AIL movement. Authorities will respond with objections, conditions, or consent through the portal.

8.2.3 A police escort is normally only required where road safety, traffic management or public safety cannot be maintained without a police escort. The police will be notified through the ESDAL notification system and will review the route and assess risk. They will confirm in their response whether a police escort is required or not.

8.2.4 Where an AIL cannot pass safely along a route due to street furniture, the haulier must plan for the temporary removal of the affected street furniture in co-ordination with the relevant highway authority.

8.2.5 The process undertaken for this is typically as follows:

- During a detailed route survey, street furniture requiring temporary removal is identified (e.g. signs, bollards, lighting columns, guardrails etc);
- The highway authority is notified well in advance of the AIL movement, providing details of the location and type of street furniture to be removed, estimated duration of removal, and the traffic management required during the temporary removal and reinstatement of the street furniture;
- The highway authority will review the safety implications and, if acceptable, approve the proposed temporary street furniture removal;
- ~~8.2.1~~ All street furniture is required to be reinstated after the AIL movement and all costs of the AIL movement and associated works are borne by the undertaker.