One Earth Solar Farm

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Revision 01

Pell Frischmann

One Earth Solar Farm

A57 Access Strategy Review

November 2025

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Ref. reference. Rev revision. Suit suitability.

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1 Introduction

This report has been developed to help describe the proposed access strategy for One Earth Solar Farm, to illustrate the reasons for the proposed access junction on the A57, that serves the west of the development area and why construction traffic is barred from the village of Ragnall.

The report has been requested following discussion between the Applicant's transport consultants (Pell Frischmann) and officers from Nottingham County Council (NCC). The Applicant is very grateful for the time that NCC officers have taken in discussing the access arrangements for the solar farm.

2 Development Proposals

The Proposed Development straddles the administrative boundaries of both NCC and Lincolnshire County Council (LCC), with the majority of the Proposed Development falling within NCC.

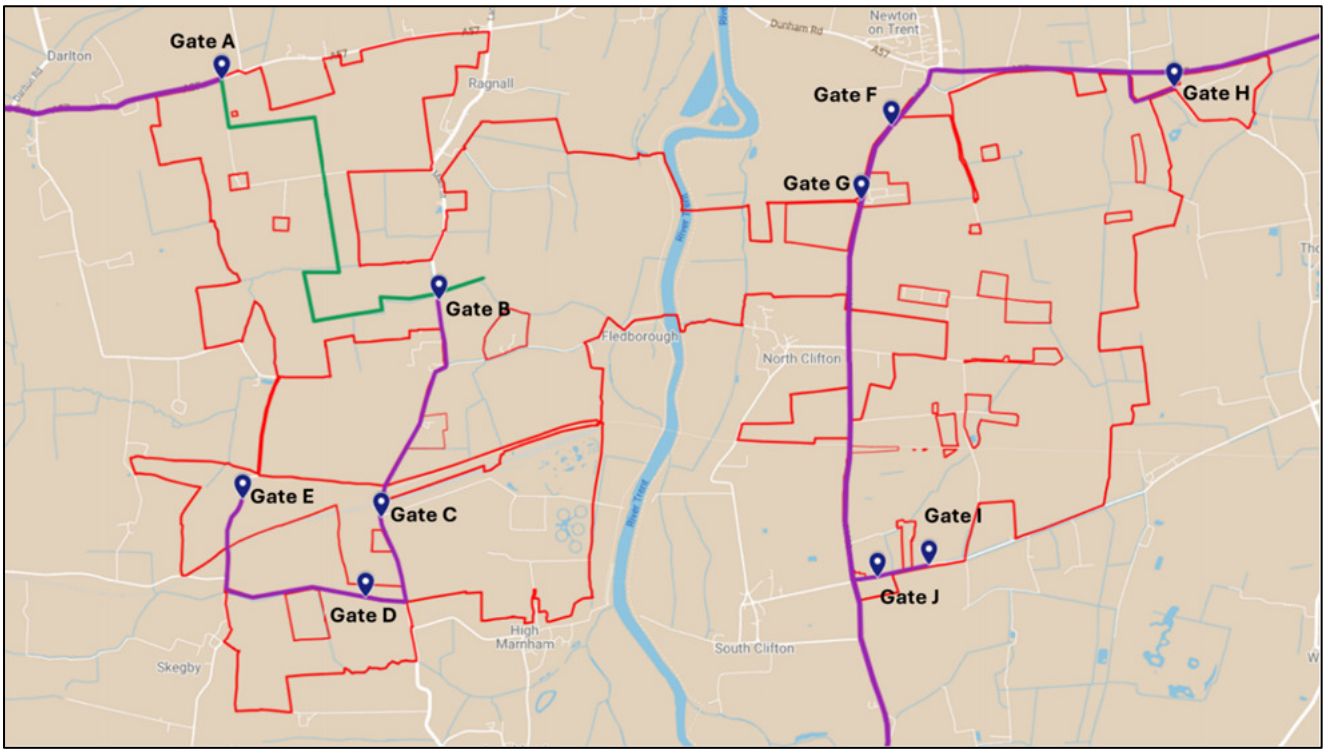
Construction traffic will enter the Proposed Development via a number of specifically designed access junctions. The principal access points are located on the A57 and A1133 and serve the main development areas of the Proposed Development. Further access points are also provided on other roads to distinct, smaller sections of the site.

All traffic associated with development on the west bank of the River Trent is proposed to entre via a purpose-built access junction on the A57.

It is proposed that all construction access for the west development area will be taken from the A57 to the west of Dunham. Traffic will access land parcels from a set of private access roads that bypass the village of Ragnall. Access to other sections of the western development area will be taken from new access junctions located on the public road network to the south of Ragnall.

The proposed access junction locations are illustrated in **Figure 1**. The A57 Junction is labelled Gate A.

Figure 1 Site Access Junction Locations



It is proposed that all construction traffic for the western area uses the A57 junction and that the C-Class Main Street[1] (connecting the A57 to Ragnall) is barred to construction traffic.

NCC have questioned this proposal and have indicated a preference not to have an access junction on the A57 and for construction traffic to pass through Ragnall and for Gate B to be the main access junction for the solar farm.

This report outlines the reasoning behind creating an access on the A57 and then compares the two access options.

[1] https://www.findmystreet.co.uk/map?usrn=2222217

3 Junction Strategy and Form

3.1 General Access Strategy

The access strategy for One Earth Solar Farm was developed to ensure the safe and efficient delivery of construction plant, materials and staff to the Proposed Development.

During the non-statutory consultation, the Applicant was asked by local communities to ensure that all measures possible would be undertaken to minimise disruption caused by construction traffic movements on the road network surrounding the development. To that end, the Applicant agreed that wherever possible construction traffic would not pass through villages and towns and that access would be taken from more suitable roads wherever possible.

This commitment has been carried through to the proposed access strategy adopted. The creation of an access junction on the A57 and barring construction traffic from passing through Ragnall will:

- Minimise the volumes of traffic operating on the public road network. The A57 junction will take traffic from the public network and will use the site access tracks to distribute traffic around the site. A significant proportion of construction traffic entering the A57 junction will be for materials and staff solely working on the site elements located to the west of Main Street;
- Reduces construction disruption in Randall for users of Main Street and residents living along the road. The A57 junction and barring of construction movements through the village, ensures that Ragnall is effectively bypassed by construction traffic;
- Reduces the likelihood for junction modifications on the existing road network. The creation of a purpose built junction ensures that there would be no temporary works at the A57 / Main Street junction;
- Removes the potential for difficult interactions between articulated Heavy Goods Vehicle (HGV) traffic and other road users on the sinuous sections of Main Street; and
- Reduces the potential for wear and tear on the public road, by minimising construction traffic movements.

3.2 Proposed Junction

The proposed A57 junction is illustrated in **Appendix A**. It is a simple priority junction with visibility splays in accordance with the Design Manual for Roads and Bridges (DMRB).

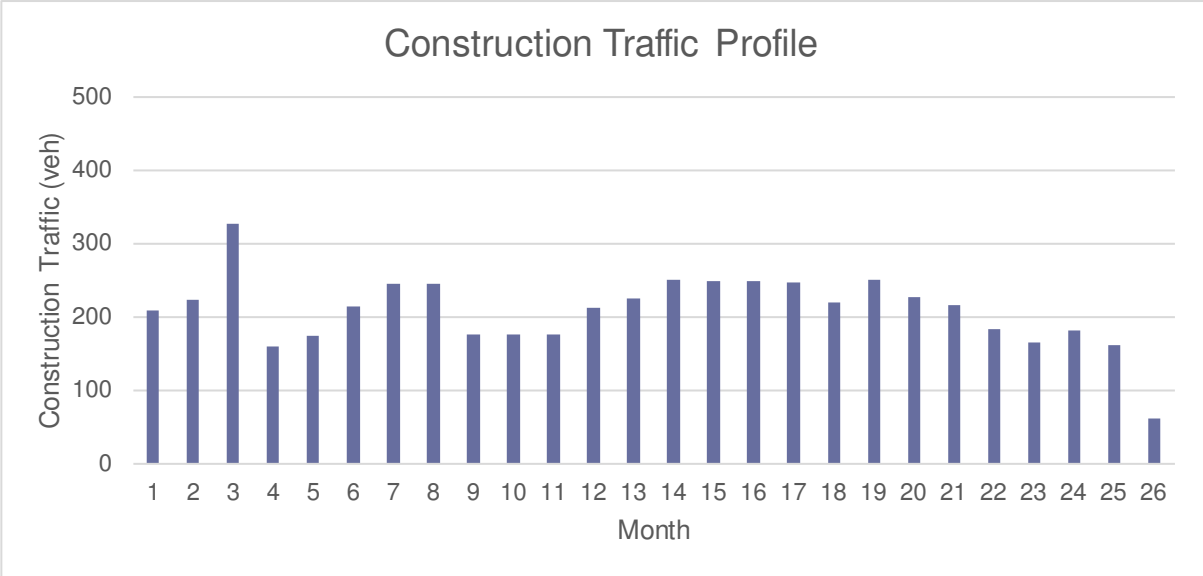
3.3 Traffic Flows

Traffic flows for the construction phase are provided in Appendix 12.2: Transport Assessment [EN010159/APP/6.21]. The flows are taken from Appendix C of the Transport Assessment for the Western Gate (it should be noted that figures noted in Table 4 of the Transport Assessment for the A57 West of Dunham, include traffic destined for the eastern portion of the site, and that do not use the access junction).

The mainline traffic flows on the A57 in 2027 are predicted to be 9,188 vehicles. This flow is an Annual Average Daily Traffic (AADT) flow and comprises of 8,307 Car & Light Goods Vehicles (LGV) and 881 HGV.

The proposed traffic flow using the construction access varies across the construction period. **Figure 2** illustrates the peaked nature of construction traffic use at the access junction on the A57.

Figure 2 Traffic Generation



The peak construction traffic flow is 328 vehicles per day. This occurs for one month only, with the average junction flow being 209 vehicles per day during the construction phase.

During normal operation, the junction would operate with significantly less traffic, which would be controlled by the Operational Environmental Management Plan (OEMP).

3.4 Junction Design Review

NCC has requested that the junction operation is compared against the criteria set out in CD 123 "Geometric design of at-grade priority and signal-controlled junctions"[2]. CD123 forms part of the DMRB and established the criteria for road and junction design.

The relevant source for reviewing junction form is Figure 2.3.1. of CD123. A copy of the figure is provided in **Figure 3**.

This chart allows for a review of mainline traffic flows against the minor arm flows. The flows when plotted on the chart determines the junction type required, and whether a ghost island for right turning traffic is required for example.

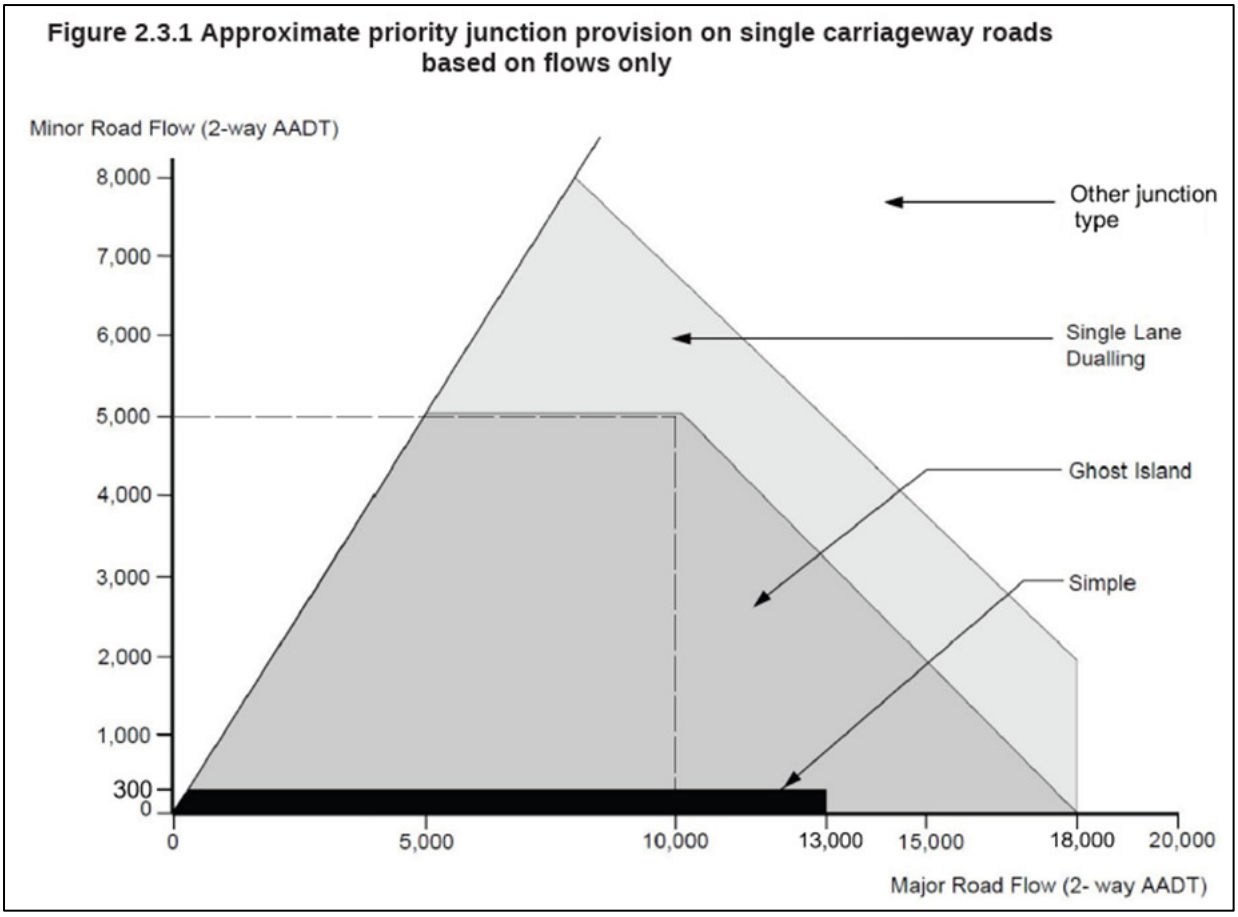
The chart uses AADT traffic flows and not Passenger Car Units (PCU) and provides an approximate review of junction form.

With a mainline traffic flow of circa 10,000 vehicles per day, the major road flow is still within the simple junction form.

The minor arm (construction traffic) peaks at 328 vehicles. This figure is on the boundary between simple junctions and ghost island junctions. However, as the junction only experiences this flow for one month in the project's 40 year lifetime, the average traffic flow is seen as a more appropriate flow condition to review the junction form and operation. With this average flow being 209 vehicles, the CD123 review suggests that a simple priority junction layout is entirely feasible and appropriate for the road and estimated conditions.

[2] https://www.standardsforhighways.co.uk/search/962a81c1-abda-4424-96c9-fe4c2287308c

Figure 3 Extract from CD123: Junction Form Review Chart



3.5 Safety Audit Results

A Road Safety Audit (RSA) to GG119[3] has been undertaken by independent safety auditors. A copy of the RSA Brief is provided in **Appendix B**, along with a copy of the latest road accident data for 2024 – 2025, as requested by NCC (the previous year's data is provided in the Transport Assessment).

The RSA was undertaken to Stage 1 as requested by NCC. A copy of the report is also provided in **Appendix B** along with a copy of the Designer Response from Aecom, the junction designer. Please note that the RSA also includes a further access junction for the scheme, although this junction is not part of the remit for this report.

The RSA does not include any comments that cannot be accommodated in the detailed design stage.

The access junction design does not appear to have any apparent road safety issues that have been identified.

3.6 Stopping Sight Distance

NCC requested that a review of Stopping Sight Distance (SSD) be undertaken for the proposed A57 junction.

The formula for estimating SSD is taken from NCC's design guidance[4] and is SSD = $vt+(v^2/2(d+0.1a))$, where v is the speed in m/s, t is the driver perception / reaction time, d is deceleration in m/s^2 and a is the gradient of the road.

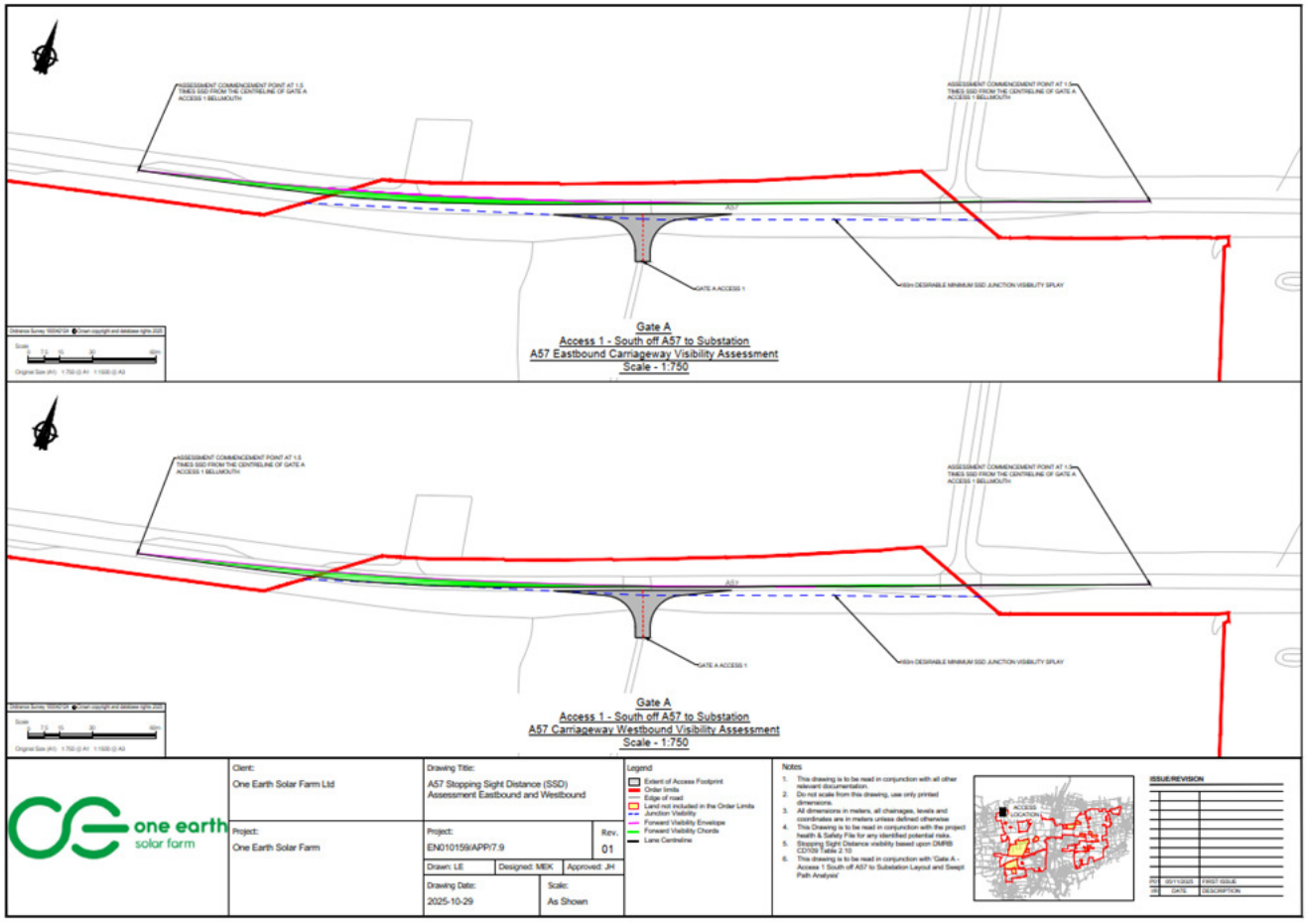
[3] https://standardsforhighways.co.uk/search/69517ebd-ed8d-4558-b101-c1e80611000a
[4] https://www.nottinghamshire.gov.uk/media/b4olkjka/33-visibility-splays.pdf

Using speed survey data, the 85th percentile speed in wet weather conditions is 24.99m/s, t is 2.0, d is 2.45m/s^2 and a is estimated as being 0.1.

The subsequent SSD is calculated as being 176.96m.

Increasing the SSD value to 215m to provide a further robust factor, indicates that the junction centre line is visible in either direction as noted in **Figure 4** below, with the 215m SSD shown in yellow.

Figure 4 SSD for Proposed A57 Junction



The SSD visibility is displayed in **Figure 5** from the west, with an image taken from Google Streetview to provide a fair and independent representation. The approximate location of the access junction right turn area is shown by the red line.

Figure 5 SSD Image from the West

This indicates that the junction is visible and that oncoming traffic can easily see any right turn traffic.

3.7 Junction Capacity Review

A junction modelling exercise for the A57 junction has been undertaken at the request of NCC, using the modelling software Junctions 11.

Traffic data for the A57 has been used to identify the peak hour, noted as being 1600 – 1700hrs. To provide a robust review of the junction operation, 20% of the total car / LGV use and 10% of the total HGV use has been assumed to use the junction at the network peak. This has then been converted to Passenger Car Units (PCU) for input into the model.

The Junctions 11 assessment has considered the geometry of the junction as noted in the plans contained in Appendix B of the Transport Assessment.

The assessment summary considers queued vehicles and the Ratio of Flow vs Capacity (RFC). Ideal RFC values are generally under 0.85, indicating that the junction is operating with a substantial capacity margin, the ultimate value being an RFC of 1.00, indicating that the junction has reached its theoretical capacity.

The assessment summary for the PM peak period is set out below in **Table 1**.

Table 1 Junction Operation Summary, 2027, PM Peak Period

Manoeuvre	Queue (PCU)	Delay (s)	RFC
Access – Left Turn	0	11	0.05
Access – Right Turn	0	17	0.01
A57 – Right Turn	0	7	0.09

The assessment indicates that the junction can operate within capacity and that there is no significant queuing of right turn traffic on the A57.

The junction form is therefore considered suitable.

3.8 AIL Movements

The access junction has been designed to accommodate AIL movements as noted in the Route Survey Report attached to Appendix 12.2: Transport Assessment [EN010159/APP/6.21]. This allows AIL traffic for the western portion of the site to access the site quickly and efficiently and bypasses the need to transport AIL traffic through Ragnall.

4 Alternative Access Arrangement

4.1 Alternative Access Strategy

Should the Examining Authority decide not to agree to an access junction on the A57, then access to the western parcels of the site would need to be taken from Gate B on Main Street. At present, this junction has not been designed to accommodate an incoming AIL.

4.2 Route Description

The route to Gate B would be as follows:

- Proceed eastbound on the A57 to its junction with Main Street;
- Turn right at the four way crossroad junction;
- Proceed southbound on Main Street, passing through the village of Ragnall; and
- Turn right into the Gate B access junction.

Whilst the route is signposted for HGV traffic associated with the former High Marnham power station, the route passes through the village of Ragnall (population circa 88 from the 2021 census).

Main Street is subject to a 40 miles per hour (mph) speed limit through the village. To the south of the village, the road is derestricted to the national speed limit (60mph).

Within Ragnall, there are a number of sinuous sections of road as illustrated in **Figure 6** (viewed from the north proceeding south).

Figure 6 Main Street Bends in Ragnall (Image from Google Streetview)

Main Street Bend near Trinity Forge

Main Street Bend near Ragnall Church

Main Street Bend near Farrhill Lane Junction

Main Street Bend south of Ragnall

A narrow pedestrian footpath is provided within Ragnall only on the western verge. This terminates to the south of the village and at the A57 junction to the north. The footpath appears to be substandard in width in sections, placing pedestrians closer to the active road lanes.

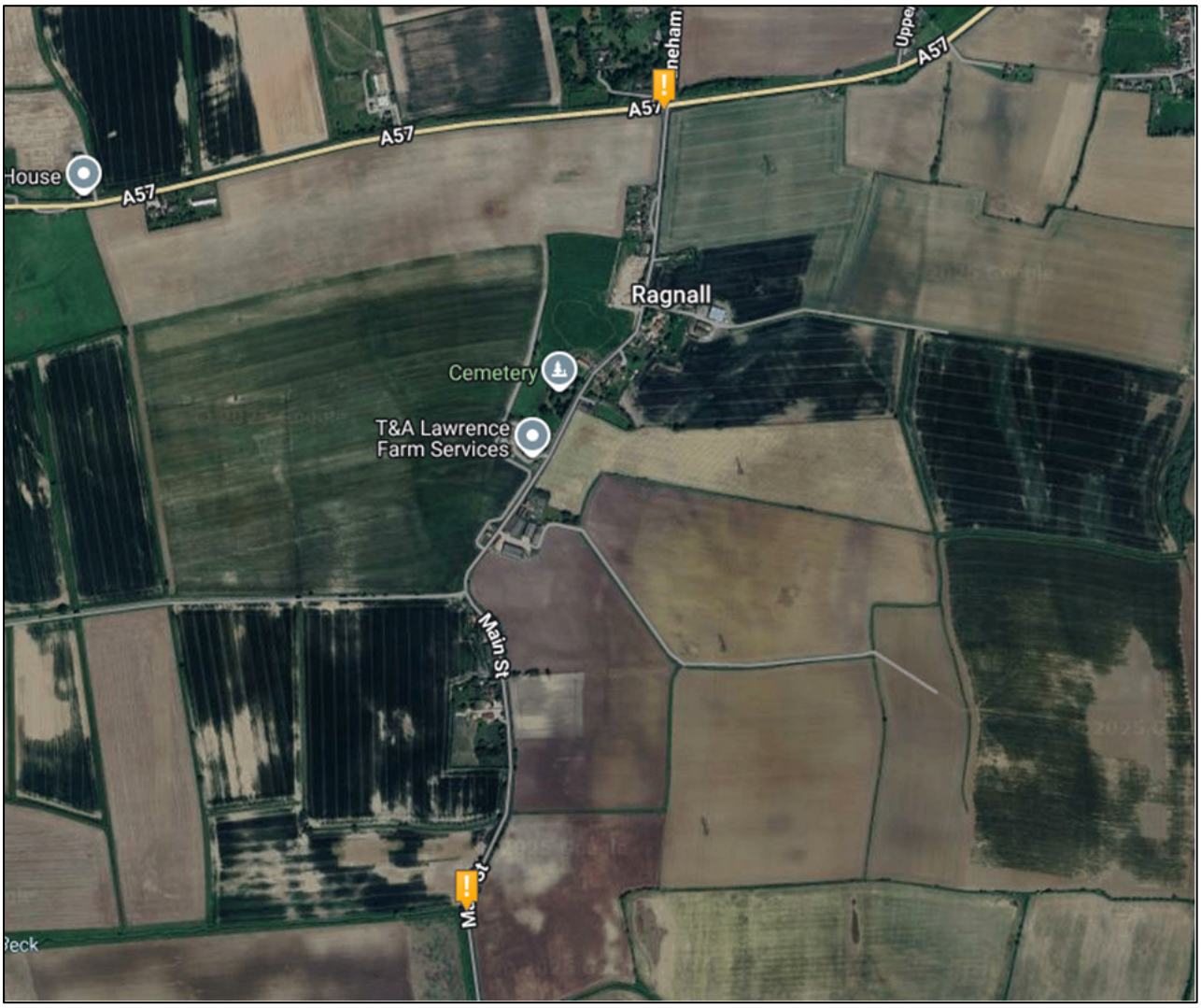
The majority of houses in the village have direct driveway access onto Main Street.

The increased traffic operating on Main Street, if there was no A57 junction, would increase traffic flows through Ragnall and increase the potential for vehicle conflict between driveway accesses, at bends and potentially with pedestrians.

4.3 Road Safety Review

A review of accident data for 2019 – 2023[5] notes that two accidents have occurred on Mian Street between the A57 and the south of Ragnall. This is illustrated in **Figure 7**.

Figure 7 Main Street Accident Review 2019 - 2023 (Image from www.crashmap.co.uk)



The accident on the Man Street bend south of Ragnall involved only one vehicle and was classified as “Slight”. The accident at the A57 junction at the A57 junction involved one HGV and one car and resulted in a “Slight” accident involving a child casualty and two adults.

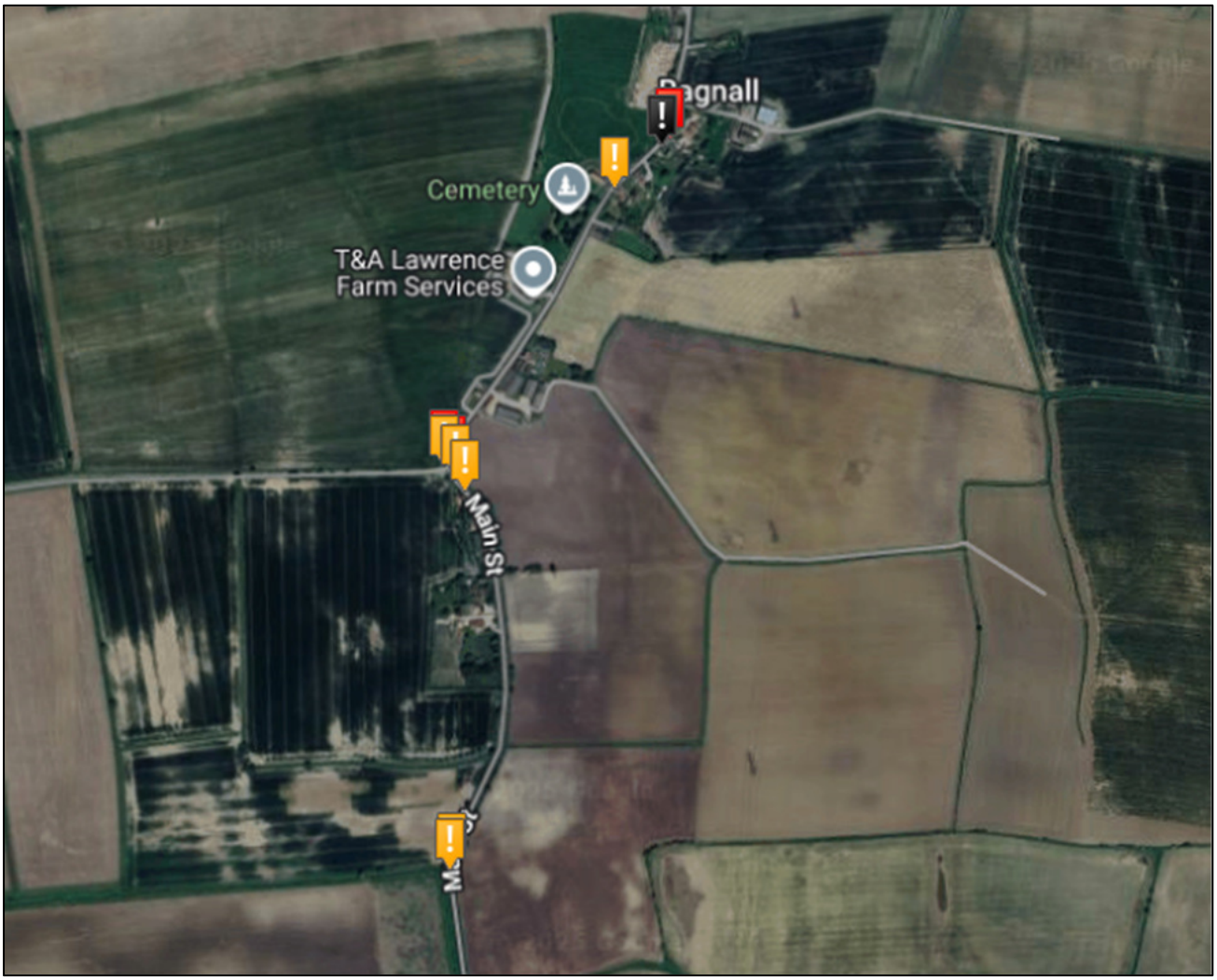
Main Street was formally the HGV route to High Marnham power station. This facility was decommissioned between 2004 and 2012 when all major demolition works were undertaken on the site. Previous to that period,

[5] https://www.crashmap.co.uk/Search

the route was used by staff, LGV and HGV traffic to access the site and HGV flows on the road were higher as noted in the Department for Transport (DfT) data for Main Street[6].

The crashmap.co.uk data does show that historically, the bends within Ragnall do have accident clusters around them. The extract below in **Figure 8** for the previous 25 year period does show a propensity for accident potential at these locations.

Figure 8 Main Street Accident Review (1999 – 2023) (Image from www.crashmap.co.uk)



There is potential for further accidents to occur in the future if construction traffic were to pass through Ragnall. The ability to undertake visibility improvement works or road widening is constrained by houses, walls and established trees.

4.4 AIL Access

A review of AIL access from the A57 through Ragnall has been undertaken. The diversion from Gate A to Gate B is approximately 3.8 kilometres (km). This would be travelled in circa 15-20 minutes (accounting for the junction turn and negotiation of the bends).

Swept path assessment drawings for the A57 / Main Street junction and through Ragnall have been undertaken and are presented in **Appendix C**. The assessment indicate that street furniture adjustments would be required at the junction and that the loads would require all to all lanes at the junction and Main Street. Traffic queues

[6] https://roadtraffic.dft.gov.uk/manualcountpoints/940737

would occur as the section of Main Street from the A57 to the site access would need to be closed during AIL deliveries on this section.

5 Alternative Access Strategy Impact Review

5.1 EIA Methodology

The methodology used to review the impact on the users of Main Street and the residents of Ragnall is the same used in Environmental Statement Volume 2: Chapter 12: Transport and Access [EN010159/APP/6.12.1].

Using the same criteria, the receptor sensitivity for road users and residents are assumed to be as illustrated in **Table 2**.

Table 2 Receptor Sensitivity

Receptor	Sensitivity	Reason
Users of Main Street	Medium	Noting that the road has historically carried HGV traffic to the power station but noting the bends and geometric alignment of Main Street in Ragnall itself.
Residents of Ragnall	Low	Where a location is a small rural settlement, few community or public facilities or services.

5.2 Impact Review

The inclusion of the construction traffic on Ragnall and Main Street has been assessed. The impact summary is summarised below in **Table 3**.

Table 3 Traffic Impact

Scenario	Car & LGV Traffic (Vehicles)	HGV Traffic (Vehicles)	Total Traffic (Vehicles)
2027 Baseline Traffic	954	84	1,038
Peak Construction Traffic	92	289	381
2027 Base + Construction Traffic	1,046	373	1,419
Traffic Impact	**9.6%**	**344%**	**36.7%**

The traffic impact of total traffic movements at 36.7% and HGV movements at 344% increase is considered significant and would trigger a further assessment, as noted in Rule 1 of the IEMA (now ISEP) guidelines, where an assessment should be undertaken *"..where traffic flows are predicted to increase by more than 30% (or where the number of heavy goods vehicles (HGVs) is predicted to increase by more than 30%)".*

The assessment of effects is summarised in **Table 4**.

Table 4 Summary of Effects

Receptors	Potential Effect	Magnitude of Effect	Significance of Effect	Comment
Users of Main Street (Low Sensitivity)	Severance	Minor	Minor (Not Significant)	The potential increases in traffic (total flows and HGV flows) are unlikely to have a severance effect.
	Driver Delay	Minor	Minor (Not Significant)	There is spare capacity along the existing link road, therefore the effect on driver delay is considered minor.
	Pedestrian Delay	Minor	Minor	There are no continuous pedestrian facilities located along the road within Main Street (outwith the Ragnall), therefore the

Receptors	Potential Effect	Magnitude of Effect	Significance of Effect	Comment
				effect on pedestrian delay is considered minor.
	Non-motorised User (NMU) Amenity	Minor	Minor (Not Significant)	The potential increase in HGV traffic is insufficient to result in significant effects.
	Fear & Intimidation	Minor	Minor (Not Significant)	The total increase in traffic flow is minor in total vehicle numbers.
	Road Safety	Minor	Minor (Not Significant)	There are no existing clusters of accidents within the 5 year period, although there have been historically clusters at bends in the road (however these are outwith the 5 year study period recommended by guidelines).
	Large Loads	Minor	Minor (Not Significant)	Whilst AIL traffic will pass along the road, this is restricted to effects on up to three days only.
Residents of Ragnall (Medium Sensitivity)	Severance	Minor	Minor (Not Significant)	The potential increases in traffic (total flows and HGV flows) are unlikely to have a severance effect.
	Driver Delay	Minor	Minor (Not Significant)	There is spare capacity along the existing link road, therefore the effect on driver delay is considered minor for all but AIL movements.
	Pedestrian Delay	Minor	Minor (Not Significant)	There are no continuous pedestrian facilities located within Ragnall on both sides of Main Street, therefore the effect on pedestrian delay is considered minor.
	Non-motorised User (NMU) Amenity	High	**Moderate (Significant)**	The increase in HGV traffic more than doubles HGV movements through the village.
	Fear & Intimidation	Minor	Minor (Not Significant)	The total increase in traffic flow is below 40%.
	Road Safety	Moderate	**Moderate (Significant)**	Ther potential for traffic to interact with existing village traffic is considered higher and potentially detrimental.

Receptors	Potential Effect	Magnitude of Effect	Significance of Effect	Comment
	Large Loads	Minor	Minor (Not Significant)	Whilst AIL traffic will pass along the road, this is restricted to effects on up to three days only.

Two significant effects have been identified. These can be mitigated by:

1. Removing construction through Ragnall, by bypassing the village by the creation of the proposed access junction on the A57 and creating a construction access track between Gates A and B; or
2. Enhancing the Construction Traffic Management Plan (CTMP) to provide greater warning signage in Ragnall for all road users and placing a speed restriction on construction traffic through the village.

Of these measures, Option 1 is considered to be the most appropriate option, as it removes issues through design, ensuring that the issues cannot occur.

Both solutions would mitigate the effects to not significant, however the bypass of the village and barring of traffic through Ragnall are considered to be the most effective measure.

5.3 Cumulative Development

The Transport Assessment identifies cumulative traffic flows associated with other developments in the surrounding area. A number of these developments are located on Main Street.

Cumulative traffic flows on Main Street are summarised in **Table 5**.

Table 5 Cumulative Traffic

Scenario	Car & LGV Traffic (Vehicles)	HGV Traffic (Vehicles)	Total Traffic (Vehicles)
Main Street Cumulative Traffic Flows	84	230	314

An additional 314 vehicle movements could be added to Main Street, in addition to the 381 vehicle movements associated with the Proposed Development.

Minimising the combined traffic effects through Ragnall is considered to be worthwhile to help protect residents and Main Street users from combined traffic effects. It will also help reduce potential road wear and tear issues.

5.4 Alternative Access Location

Further discussions with NCC have been undertaken and a suggestion to place an access junction on Main Street, to the north of Ragnall was suggested by the Council.

An indicative junction plan was developed, locating the junction 50m to the north of the nearest property in Ragnall. The junction has been sized to accommodate two way HGV traffic and AIL traffic. The indicative layout plan and images of the location are shown in **Figures 9 and 10**.

Figure 9 NCC Suggested Main Street Junction Location

Figure 10 Location of NCC Suggested Junction (Image from Google Streetview)

Main Street Looking South	Main Street Looking North
	

The proposed junction would cross an existing footway and requires the removal of street lighting, overhead utilities, “Give Way” road signage and a post box.

Visibility to the south allows for a 4.5m x 120m visibility splay. Access to the north is however constrained to 95m.

A review of DCO powers that are available indicate that the draft DCO does not include the necessary powers to allow for the removal of the overhead utilities and that a separate order would need to be made, should a junction be formed at this location.

A review of the junction option by other EIA disciplines has been undertaken. Significant noise concerns issues are anticipated by the noise consultant team who have suggested that the junction option would result in significant effects, given the close proximity of residents in Ragnall. As such , the Applicant doe not consider this access option viable.

The Applicant has given serious consideration to the proposed junction location, however it is considered that the proposal for a priority junction on the A57 to be a more appropriate solution. The A57 priority junction removes construction traffic from the residential area and would not lead to increased noise and other disturbances to residents of Ragnall.

6 Summary

6.1 Summary & Conclusions

A detailed review of the A57 junction has been undertaken. This has included a review of the design criteria, a safety audit and review of the access strategy.

The junction has been correctly considered as a simple priority junction. The safety audit has not identified any in-principal design issues with the proposals.

The use of a junction on the A57 and the bypass of Ragnall has been selected for the following reasons:

- Minimise the volumes of traffic operating on the public road network. The A57 junction will take traffic from the public network and will use the site access tracks to distribute traffic around the site. A significant proportion of construction traffic entering the A57 junction will be for materials and staff solely working on the site elements located to the west of Main Street;
- Reduces construction disruption in Randall for users of Main Street and residents living along the road. The A57 junction and barring of construction movements through the village, ensures that Ragnall is effectively bypassed by construction traffic;
- Reduces the likelihood for junction modifications on the existing road network. The creation of a purpose built junction ensures that there would be no temporary works at the A57 / Main Street junction;
- Removes the potential for difficult interactions between articulated HGV traffic and other road users on the sinuous sections of Main Street; and
- Reduces the potential for wear and tear on the public road, by minimising construction traffic movements.

Routing traffic through Ragnall will increase traffic flows in the village by 36.7% overall, with an increase in HGV traffic of 344%. This level of traffic would lead to significant effects prior to the application of mitigation measures.

Cumulative traffic flows on Main Street and passing through Ragnall would add a further 314 vehicle movements through the village.

The most effective measure to remove the potentially significant effects from Ragnall would be the provision of the A57 junction and the bypass of construction traffic from the village through the use of the private construction track network and the barring of the route through Ragnall as set out in the CTMP.

6.2 Conclusion

NCC and the Applicant agree that access through Ragnall is not an optimum access solution for the proposed development.

The remaining decision with respect to access are therefore based on the following options:

- The A57 junction without a ghost island; or
- The A57 with junction with a ghost island.

The Applicant is of the view that an A57 access junction without a ghost island is appropriate. Recent discussions with NCC, following the initial drafts of this report, now concur and both parties are content with the proposed access solution on the A57.

Appendix A Proposed A57 Access Junction Layout

Arboricultural Information

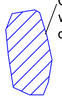
Individual Trees

Existing crown spread in BS Category Colour.

Approximate shade arc.

Root Protection Area. Dashed alignment indicates veteran RPA calculation.

Groups of Trees



Canopy extent of tree group with hatch and outline denoting Category Colour.

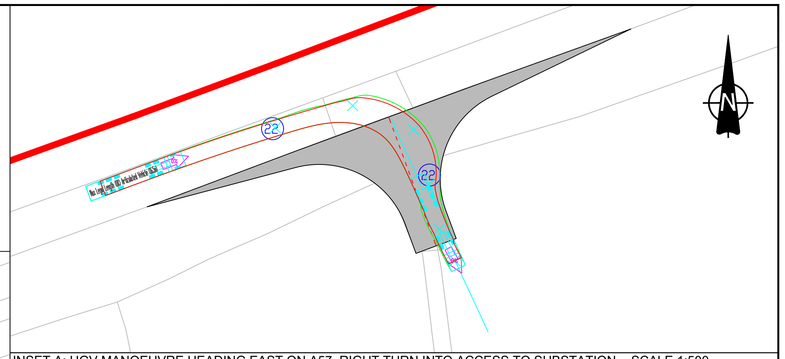
Note: Root protection area of groups are to canopy extent unless otherwise denoted with purple outline.

BS 5837 Category Colours

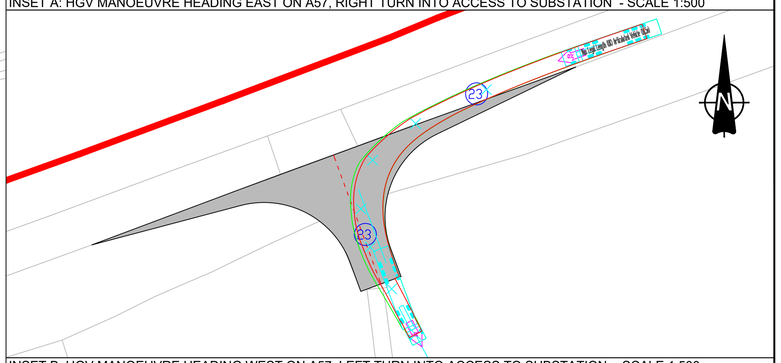
- **BS 5837 CATEGORY A TREE, GROUP, HEDGE, OR WOODLAND** (HIGH QUALITY & VALUE)
- **BS 5837 CATEGORY B TREE, GROUP, HEDGE, OR WOODLAND** *(MODERATE QUALITY & VALUE)*
- **BS 5837 CATEGORY C TREE, GROUP, HEDGE, OR WOODLAND** *(LOW QUALITY & VALUE)*
- **BS 5837 CATEGORY U TREE, GROUP, HEDGE, OR WOODLAND** *(UNSUITABLE FOR RETENTION)*

Max Legal Length (UK) Articulated Vehicle (16.5m)

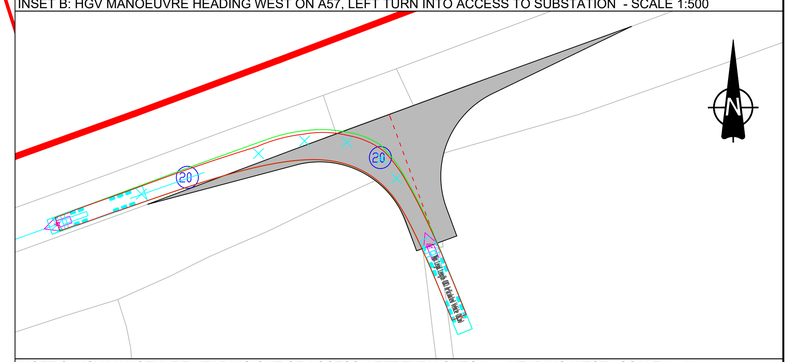
Overall Length	16.5m
Overall Width	2.55m
Overall Body Height	3.681m
Min Body Ground Clearance	0.441m
Max Track Width	2.5m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.53m



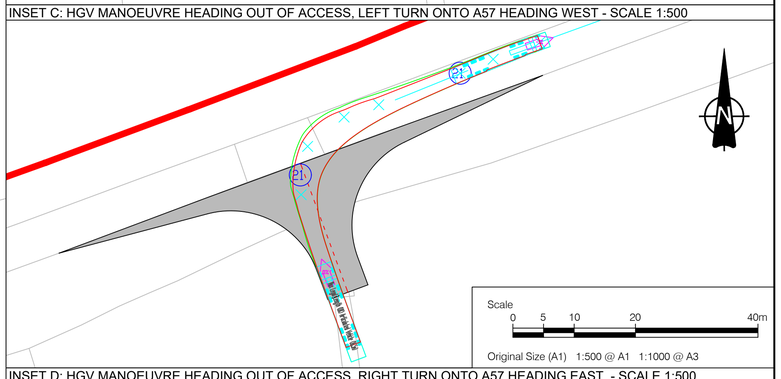
INSET A: HGV MANOEUVRE HEADING EAST ON A57, RIGHT TURN INTO ACCESS TO SUBSTATION - SCALE 1:500



INSET B: HGV MANOEUVRE HEADING WEST ON A57, LEFT TURN INTO ACCESS TO SUBSTATION - SCALE 1:500



INSET C: HGV MANOEUVRE HEADING OUT OF ACCESS, LEFT TURN ONTO A57 HEADING WEST - SCALE 1:500



Scale
0 5 10 20 40m

Original Size (A1) 1:500 @ A1 1:1000 @ A3

INSET D: HGV MANOEUVRE HEADING OUT OF ACCESS, RIGHT TURN ONTO A57 HEADING EAST - SCALE 1:500

Scale
0 10 20 40 80m

Original Size (A1) 1:1000 @ A1 1:2000 @ A3

Access 1 - South off A57 to Substation
Scale - 1:1000

one earth solar farm

Client:	One Earth Solar Farm Ltd
Project:	One Earth Solar Farm
Planning Inspectorate Scheme Ref:	EN010159/APP/7.9
Volume	7
Drawing Title:	Access 1 South off A57 to Substation Layout and Swept Path Analysis
Project:	EN010159/APP/7.9
Rev.	05
Drawn: PG	Designed: MEK	Approved: JH
Drawing Date:	2024-10-21
Scale:	As Shown

Legend

- Extent of Access Footprint
- Order limits
- Existing Public Rights of Way
- Vehicle body
- Vehicle body path
- Vehicle load
- Vehicle load path
- Vehicle wheels path
- Edge of road
- Land not included in the Order Limits
- Junction Visibility
- Vegetation Management for Vis splay
- Hedgerow Removal for Vis Splay
- Hedgerow Removal for Bellmouth Access
- Cycle Route

Notes

1. This drawing is to be read in conjunction with all other relevant documentation.
2. Do not scale from this drawing, use only printed dimensions.
3. All dimensions in meters, all chainages, levels and coordinates are in meters unless defined otherwise
4. This Drawing is to be read in conjunction with the project health & Safety File for any identified potential risks.
5. Vegetation to be removed denotes any vegetation features (such as hedgerows) that need to be removed to provide the required junction visibility. Any verge grassland is not to be removed but managed by the relevant maintainer to a low height so as to not impact upon junction visibility
6. Junction visibility for the access based upon DMRB CD109 Table 2.10

ISSUE/REVISION

P05	19/08/2025	NOTE ADDED TO ACCESS EXTENT
P04	03/02/2025	COMMENTS AND RLB UPDATE
P03	27/11/2024	EXTERNAL REVIEW
P02	06/11/2024	COMMENTS ADDRESSED
P01	21/10/2024	FIRST VERSION
I/R	DATE	DESCRIPTION

Appendix B Road Safety Audit

Road safety audit brief template

Project Summary

Date:	19/08/2025
Document reference:	OESF RSA 01
Prepared by:	Pell Frischmann
On behalf of:	Nottinghamshire County Council (NCC)
AUTHORISATION SHEET	
Project:	One Earth Solar Farm
Report title:	RSA Stage 1 Gates A (A57) and Gate H (Roadwood Lane)
PREPARED BY:	
Name:	Gordon Buchan
Signed:	
Organisation:	Pell Frischmann
Date:	19/08/2025
I APPROVE THE RSA BRIEF AND INSTRUCT THE RSA TO TAKE PLACE ON BEHALF OF THE OVERSEEING ORGANISATION:	
OVERSEEING ORGANISATION:	
Name:	Sarah Hancock
Signed:	
Organisation:	Nottingham County Council
Date:	Insert date

General Details

Road Scheme & Number	A57, to the west of Dunham on Trent Roadwood Lane, to the east of Newton on Trent
Type of Scheme	Solar farm access junctions on the A57 and Roadwod Lane
RUSA Stage	Stage 1
Overseeing Organisation Details	Nottingham County Council County Hall, West Bridgford, Nottingham. NG2 7QP
Design Organisation Details	Aecom 2 City Walk, Holbeck, Leeds LS11 9AR
Police Contact Details	N/A - Stage 3 only
Managing Agent Contact Details	Via East Midlands Bilsthorpe Depot, Bilsthorpe Business Park, Eakring Road, Bilsthorpe, Nottinghamshire. NG22 8S
RSA team membership	Dan Susans, MICE, CIHT

	Daniel Hounsell, MCIHT CV details are attached. Both are independent to the design or transport planning teams used on the project.

Scheme Details

General
This RSA is to examine the proposed solar farm priority access junctions on the A57 and Roadwood Lane and have been specifically requested by NCC. At the A57, an existing field access will be converted into a priority access junction. At Roodwood Lane, an existing junction is to be upgraded for use to serve construction traffic. The A57 could be used solely for construction and decommissioning uses. The Roadwood Lane junction would be used for construction, operational and decommissioning uses.
Design standards applied to the scheme design
DMRB
Design speeds
The speed limit on the A57 is 50mph, indicating a design speed of 85A kph. The speed limit on Roadwood Lane is 60mph, indicating a design speed of 100A kph.
Speed limits
The mandatory speed limits are 50mph for the A57 and 60mph for Roadwood Lane.
Existing traffic flows/queues
Traffic data is available in the Transport Assessment (Table 1, Page 23)
Forecast traffic flows
Future year data is available in the Transport Assessment (Table 3, Page 26)
Pedestrian, cyclist and equestrian desire lines
No pedestrian footways or National Cycle Network routes are present at either junction locations.
Environmental constraints
There are no SSSI located in close proximity to either junction location.

Location

Description of locality
All works are contained within the existing road verge. The surrounding areas to each location are: • A57: Grass verge and agricultural land used for crops • Roadwood Lane Junction: grass verge with scrub. Trees located behind scrub line No specific designations noted.
General description
All works are contained within the verge of the trunk road network or land under the control of the developer.
Relevant factors which may affect road safety

None

Analysis

Collision data analysis
Please see details from Crashmap.co.uk appended and further accident data from East Midlands database.
Departures from standards
None
Previous road safety audit stage reports, road safety audit response reports and evidence of agreed actions
None available
Strategic decisions
None
List of included documents and drawings
Documents provided
On Earth Solar Farm documents: • **EIA Transport Chapter** • **Transport Assessment** • **Outline Construction Traffic Management Plan** • **Accident Plots**
Drawings provided
• **Access Junction Layout Plans**

Checklist

Tick all that are included and provide reasons for those that are not included			
Site location plan (within TMP report)	**x**	**Scale layout plans**	**x**
Departures and relaxations from standards None	**x**	**Construction/ typical details** Attached	**x**
Previous RSA reports No previous RSA undertaken as part of the proposed works	**n/a**	**Previous RSA response reports and evidence of agreed actions** No previous RSA undertaken as part of these proposed works	**n/a**
Collision data and collision data analysis Attached	**x**	**Road traffic collision plot** Attached	**x**
Traffic signal staging No signal phasing impacted	**n/a**	**Traffic counts** See section within briefing	**x**
Speed surveys No surveys required to inform design	**n/a**	**Pedestrian, cyclist and horse riding desire lines and volumes** See relevant NMU section within briefing	**x**

Walking, cycling and horse riding assessment and reviews See relevant NMU section within briefing	**x**	**Items outside the scope of the RSA/ strategic** No other relevant factors identified	**n/a**
Other factors that may impact on road safety No other factors identified	**n/a**	**Design speeds/ speed limits** See section within briefing	**x**
Design standards used See section within briefing	**x**	**Adjacent land uses** See section within briefing	**x**

Accident Details Report

Total number of reports = **5**

Total number of pages (including this page) = **6**

ROAD TRAFFIC INJURY ACCIDENT RECORDS - DISCLAIMER

These details are a record of the personal injury accidents reported to the Police. Every endeavour is made to ensure the accuracy and completeness of these records, which have been transcribed from the original Police Reports. The data is then entered and held on computer.

Occasions may arise when information from the Police, relevant to a particular accident, may not be available for several months and will therefore not be included.

No. 1	District Bassetlaw		VRUs	Grid Reference 473968 / 373564
SEVERITY **SLIGHT**	Ref.No 2B020024	**Accident Details**		Police Officer Attend: Yes

Date	07/02/2024	Day Wednesday	ROAD A57
Time	08:43		LOCATION A57, at its Junction with U/C ASKHAM ROAD, EAST MARKHAM
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

Speed Limit	60 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Single c'way		CARRIAGEWAY HAZARDS: None
Lane markings	Centre/hazard line		
Junction Detail	Crossroads		
Junction Control	Give way sign or uncontrolled		
2nd Road Number	U		
Pedestrian Facilities	No Human control within 50m		
and	No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No.	1	Vehicle type	Car		
Manoeuvre	Turning right				
Direction from	North west to South west	Towing?	No		
Skidded	No				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Leaving main road				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Nearside				
Drivers age	32 yrs	Sex	Female	Other veh.hit (ref.) 2	Hit and run No
Foreign vehicle	Not foreign				Breath test Negative
Journey purpose	Other/Not known				

Veh.No.	2	Vehicle type	Van/Goods < 3.5t		
Manoeuvre	Going ahead other				
Direction from	South east to North west	Towing?	No		
Skidded	No				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Mid junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Drivers age	51 yrs	Sex	Male	Other veh.hit (ref.) 1	Hit and run No
Foreign vehicle	Not foreign				Breath test Negative
Journey purpose	Journey as part of work				

CASUALTIES INVOLVED 1

Cas No	1	Cas Class	Driver or Rider	Veh ref No	2
Severity	**SLIGHT**	Age	51 yrs	Sex	Male
Car Passenger?	No	PSV Passenger?	No		
Ped Movement	Not a pedestrian				
Ped location	Not a pedestrian				
Ped Direction to	Not a pedestrian				
School Pupil	Other				
Roadworker injured	No				

No. 2	District Bassetlaw		VRUs	Grid Reference 475301 / 373174
SEVERITY **SLIGHT**	Ref.No 2B058024	**Accident Details**		Police Officer Attend: Yes

Date	13/04/2024	Day Saturday	ROAD A57
Time	13:44		LOCATION A57 LINCOLN ROAD, 737 metres southeast of U/C PTE ENT/EXT PHEASANTRY BREWERY, 737 metes SE of BACK LANE. EAST MARKHAM
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

Speed Limit	60 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Single c'way		CARRIAGEWAY HAZARDS: None
Lane markings	Centre/hazard line		
Junction Detail	T or Staggered junction		
Junction Control	Give way sign or uncontrolled		
2nd Road Number	U		
Pedestrian Facilities	No Human control within 50m		
and	No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car
Manoeuvre Turning left
Direction from North to East Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Entering main road
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Drivers age 87 yrs Sex Male Other veh.hit (ref.) 2 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose Other/Not known

Veh.No. 2 Vehicle type Car
Manoeuvre Going ahead other
Direction from West to East Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Mid junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Drivers age 25 yrs Sex Female Other veh.hit (ref.) 1 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity **SLIGHT** Age 25 yrs Sex Female
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

Cas No 2 Cas Class Driver or Rider Veh ref No 1
Severity **SLIGHT** Age 87 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 3	District Bassetlaw		VRUs	Grid Reference 476962 / 373633
SEVERITY **SERIOUS**	Ref.No 2B110224	**Accident Details**		Police Officer Attend: Yes

Date	15/07/2024	Day Monday	ROAD A6075
Time	11:22		LOCATION A6075 TUXFORD ROAD, at its Junction with A57 BROAD GATE, DARLTON
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS	
Speed Limit	40 MPH
Carriageway	Single c'way
Lane markings	Centre/hazard line
Junction Detail	T or Staggered junction
Junction Control	Give way sign or uncontrolled
2nd Road Number	A57
Pedestrian Facilities	No Human control within 50m
and	No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car
Manoeuvre Starting
Direction from South to North Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Entering main road
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Drivers age 21 yrs Sex Male Other veh.hit (ref.) 2 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose Other/Not known

Veh.No. 2 Vehicle type Car
Manoeuvre Going ahead other
Direction from East to West Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Mid junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Drivers age 34 yrs Sex Female Other veh.hit (ref.) 1 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose Other/Not known

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity **SERIOUS** Age 34 yrs Sex Female
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 4	District Newark and Sherwood	Accident Details	VRUs	Grid Reference 482933 / 370331
SEVERITY **SLIGHT**	Ref.No 2B128724			Police Officer Attend: Yes

Date	24/08/2024	Day Saturday	ROAD A1133
Time	16:33		LOCATION A1133 GAINSBOROUGH ROAD, 122 metres south of HIGH STREET, SOUTH CLIFTON
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

Speed Limit	60 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Single c'way		CARRIAGEWAY HAZARDS: None
Lane markings	Centre/hazard line		
Junction Detail	Not at or within 20m of junction		
Junction Control			
2nd Road Number			
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m		

VEHICLES INVOLVED 1

Veh.No.	1	Vehicle type	Car		
Manoeuvre	Going ahead other				
Direction from	South to North	Towing?	No		
Skidded	Yes				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Left c'way near-side				
Hit object in c'way?	None				
Hit object off c'way?	Tree				
First point of impact	Front				
Drivers age	17 yrs	Sex	Male	Other veh.hit (ref.)	0
Foreign vehicle	Not foreign			Hit and run	No
Journey purpose				Breath test	Negative

CASUALTIES INVOLVED 1

Cas No	1	Cas Class	Driver or Rider	Veh ref No	1
Severity	**SLIGHT**	Age	17 yrs	Sex	Male
Car Passenger?	No	PSV Passenger?	No		
Ped Movement	Not a pedestrian				
Ped location	Not a pedestrian				
Ped Direction to	Not a pedestrian				
School Pupil	Other				
Roadworker injured	No				

No. 5	District Bassetlaw		VRUs	Grid Reference 474841 / 373235
SEVERITY **FATAL**	Ref.No 2B119224	**Accident Details**		Police Officer Attend: Yes

Date	04/09/2024	Day Wednesday	ROAD A57
Time	06:47		LOCATION A57 (BROAD GATE), 273 metres southeast of BACK LANE, EAST MARKHAM
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS	
Speed Limit	60 MPH
Carriageway	Single c'way
Lane markings	Centre/hazard line
Junction Detail	Not at or within 20m of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car
Manoeuvre Going ahead other
Direction from South east to North west Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Drivers age 29 yrs Sex Female Other veh.hit (ref.) 2 Hit and run No
Foreign vehicle Not foreign Breath test Not provided
Journey purpose Commuting to/from work

Veh.No. 2 Vehicle type Car
Manoeuvre Going ahead other
Direction from North west to South east Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Drivers age 57 yrs Sex Male Other veh.hit (ref.) 1 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity **SLIGHT** Age 29 yrs Sex Female
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity **FATAL** Age 57 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

Pell Frischmann

One Earth Solar Farm, Lincoln

Stage 1 Road Safety Audit

September 2025

Report Ref.		**110432-PEF-XX-OE-TAU-O-0001**				
File Path		**P:\Data\Road Safety Audits (Bham office)\2025\25-30 - RSA1 One Earth, Lincoln\Report\110432-PEF-XX-OE-TAU-O-0001_One Earth, Lincoln RSA1_FINAL.docx**				
Rev	**Suit**	**Description**	**Date**	**Originator**	**Checker**	**Approver**
A	S5	Final	10.09.2025	D.SUSANS	D.HOUNSELL	D.SUSANS

Prepared for

Nottinghamshire County Council

Prepared by

Pell Frischmann

3rd Floor
Edmund House
12-22 Newhall Street
Birmingham
B3 3AS

Nottinghamshire County Council

Pell Frischmann

Contents

Tables

Figures

Appendices

1 Project Details

Table 1: Project Details

Project Details	
Project Title:	One Earth Solar Farm, Lincoln Stage 1 Road Safety Audit
Date:	10th September 2025
Document and revision:	110432-PEF-XX-OE-TAU-O-0001
Prepared by:	Pell Frischmann
On behalf of:	Nottinghamshire County Council

2 Introduction

Nottinghamshire County Council have appointed Pell Frischmann to undertake a Stage 1 Road Safety Audit of proposed highway alterations relating to multiple accesses for One Earth Solar Farm. The extent of the Road Safety Audit is shown on **Figure 1** of this report.

The One Earth Solar Farm proposes highway alterations at 18 locations across north Nottinghamshire and into Lincolnshire. This Safety 1 Road Safety Audit relates to two proposed priority-controlled junctions on Roadwood Lane and A57, 1km east of Dalton only.

The Audit Team were appointed by Sarah Hancock of Nottinghamshire County Council (NCC), via Gordon Buchan of Pell Frischmann. The Audit Team have been approved by NCC and an audit brief has been provided, however NCC have declined to sign, with the Audit Team as follows:

- Daniel Susans, BSc (Hons) Civil Engineering, MCIHT, MSoRSA, EngTech MICE
  Transport Planner, Pell Frischmann, Birmingham
  Certificate of Competency in Road Safety Audit gained in 2020

- Daniel Hounsell, BA (Hons) Geography, MCIHT, MSoRSA
  Senior Transport Planner, Pell Frischmann, Birmingham
  Certificate of Competency in Road Safety Audit gained in 2025

The Road Safety Audit team undertook the desktop audit between Monday 1st September and Tuesday 9th September 2025. The Audit Team visited the site together on Tuesday 2nd September 2025, between 11:45am and 12:45pm. Weather conditions during the site visit were sunny and the road surface was dry. Traffic conditions were observed to be quiet on Roadwood Lane and moderate on A57.

The Road Safety Audit comprised an examination of the information, listed in **Appendix A**. No previous Road Safety Audits were provided to the Audit Team for review.

Personal Injury Collision (PIC) data along the local highway network relevant to this scheme has been provided to the Audit Team, comprising five collisions across the extents of the full scheme. None of the five collisions are within the extents of the two accesses covered by this Stage 1 Road Safety Audit.

This audit has been undertaken in line with the terms of reference described in GG 119, with the exception of a signed audit brief.

The Road Safety Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design to any other criteria. All comments and recommendations are referenced to the drawings provided and the locations have been indicated on **Figure 2** of this report.

3 Items raised at this Stage 1 Road Safety Audit

A1 Local Alignment

The Audit Team identified no Local Alignment related road safety problems at this Stage 1 Road Safety Audit.

A2 General

A2.1 Departures from Standards

The Audit Team have not been advised of any departures from standards.

A2.2 Landscaping

A2.2.1 Problem 1

Location: Access 18 Westmoor Lane.

Summary: Overgrown vegetation and tree branches could be struck by articulated vehicles/ abnormal loads, resulting in loss of control collisions.

Description: Overgrown vegetation and large overhanging tree branches currently encroach the footprint of the existing access road off Roadwood Lane. Swept path analysis confirms that articulated vehicles remain within the proposed access road boundary; however, they are still likely to collide with overhanging vegetation, which could result in loss of control collisions. No swept path drawings have been provided for abnormal vehicles, which may also require access to the site.

Access 18: Existing overgrown vegetation and tree branches

RECOMMENDATION

Cut back trees and vegetation, ensuring they do not conflict with the envelope of manoeuvring articulated and abnormal load vehicles.

A2.3 Skid Resistance

A2.3.1 Problem 2

Location: Access 18 Westmoor Lane.

Summary: Detritus within path of turning vehicles could lead to poor skid resistance, with potential for loss of control collisions.

Description: Detritus was observed within the proposed junction extents, and along the carriageway of access 18, located within the path of turning vehicles. The detritus will likely reduce the surface's skid resistance and could lead to loss of control collisions.

Access 18: Detritus built up within the extents of the proposals

RECOMMENDATION

Ensure the surface is clean of any detritus prior to works being undertaken.

A2.4 Basic Design Principles

A2.4.1 Problem 3

Location: Access 1 A57.

Summary: Significant levels difference through proposed junction could lead to subsidence of carriageway surface, with potential for loss of control collisions.

Description: A significant levels difference exists through the proposed junction, which looked to be a rainwater drain. Should the junction be constructed, without catering for the embankment and its likelihood to retain rainwater, subsidence of the junction could occur. Should the surface subside, loss of control collisions could occur.

Access 1 A57, west of proposed junction: Steep embankment

RECOMMENDATION

Undertake topographical survey at the next design stage, ensuring levels are accounted for and adequate rainwater drainage through the junction is catered for.

A3 Junctions

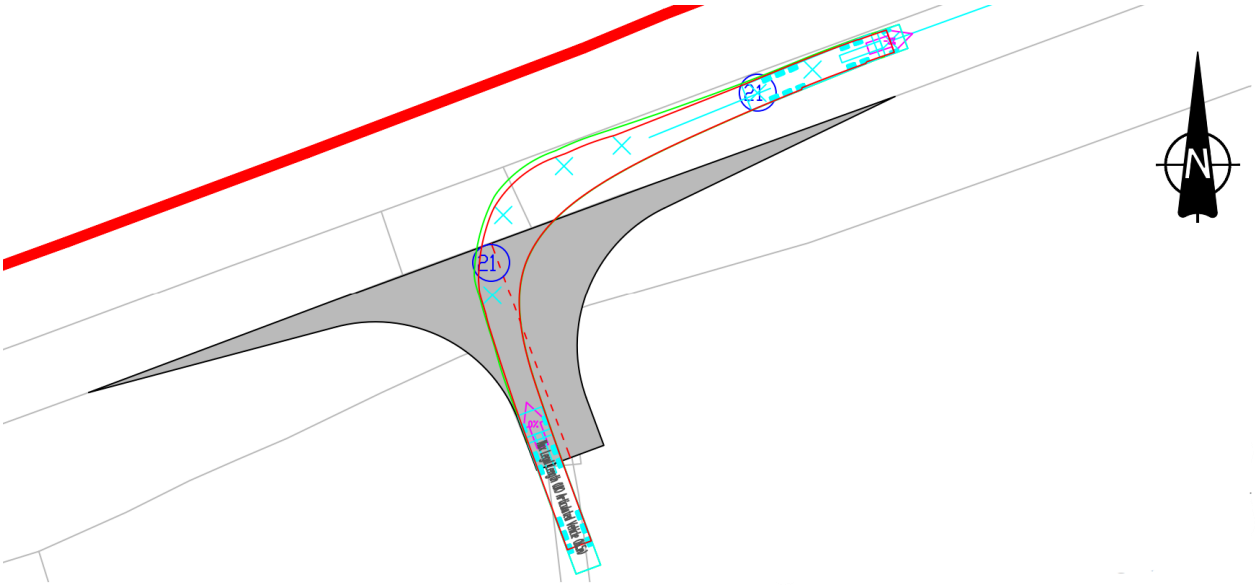
A3.1 Layout

A3.1.1 Problem 4

Location: Proposed junction between Access 1/ A57.

Summary: Unclear whether an articulated vehicle is able to turn right out of access without overrunning verges, which could lead to loss of control collisions.

Description: The inset D swept path showing an articulated vehicle turning right onto A57 encroaches the opposing lane prior to giving way to traffic on the A57. However, drivers egressing the site would likely approach the give way on the left side of the centre line, and then turn right. Therefore, it is unclear whether an articulated lorry would encroach the embankments if they started their manoeuvre on the left side of the centre line, which could lead to loss of control collisions.



Access 1 A57: Articulated vehicle giving way on the opposing side of the centre line

RECOMMENDATION

Undertake swept path analysis, having right turning articulated vehicles begin their manoeuvre on the left side of the centre line at the give way markings, and adjust the proposals to suit.

A4 Walking, Cycling and Horse Riding

The Audit Team identified no Walking, Cycling and Horse Riding related road safety problems at this Stage 1 Road Safety Audit.

A5 Traffic Signs, Carriageway Markings and Lighting

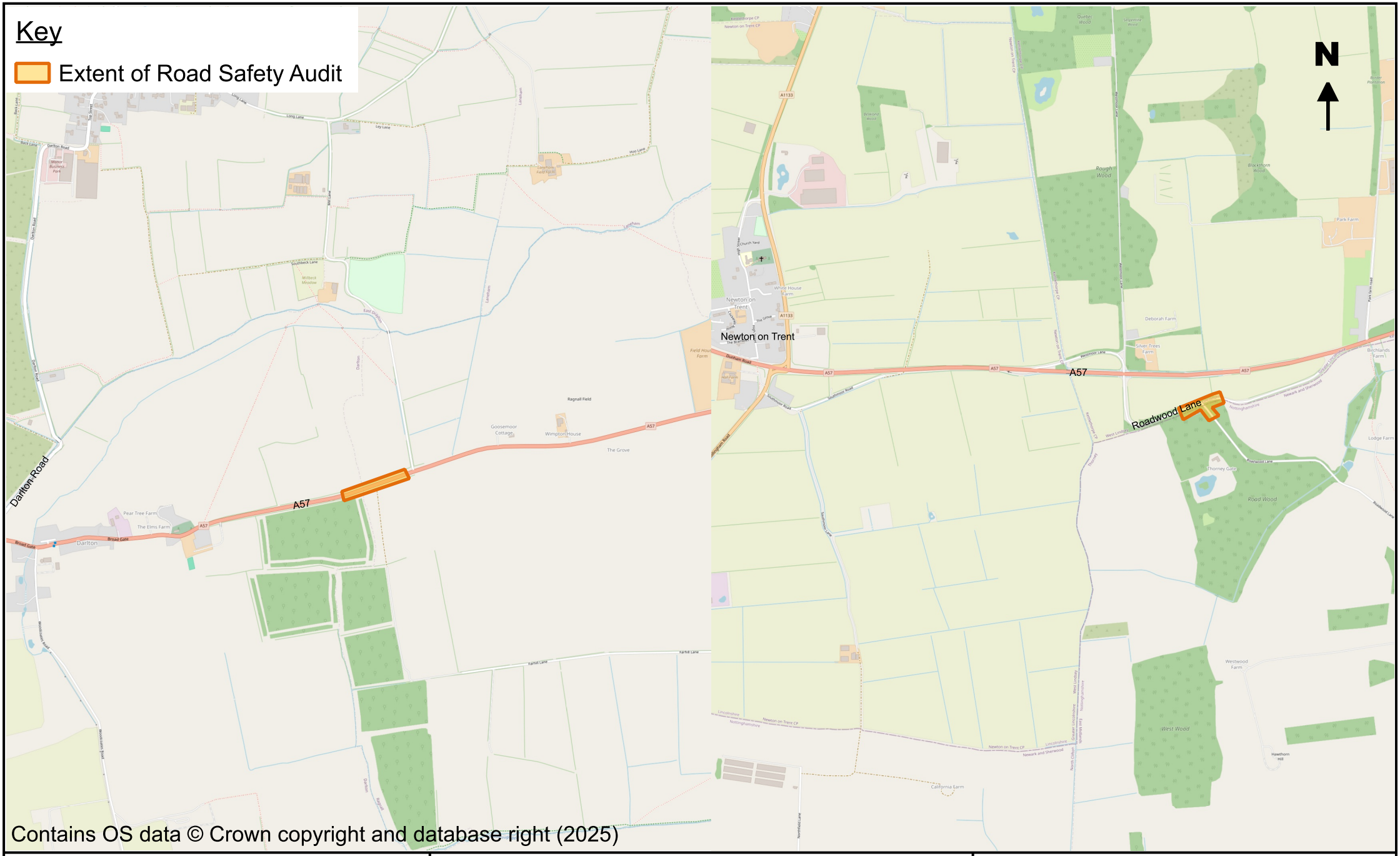
The Audit Team identified no Traffic Signs, Carriageway Markings and Lighting related road safety problems at this Stage 1 Road Safety Audit.

4 Audit Team Statement

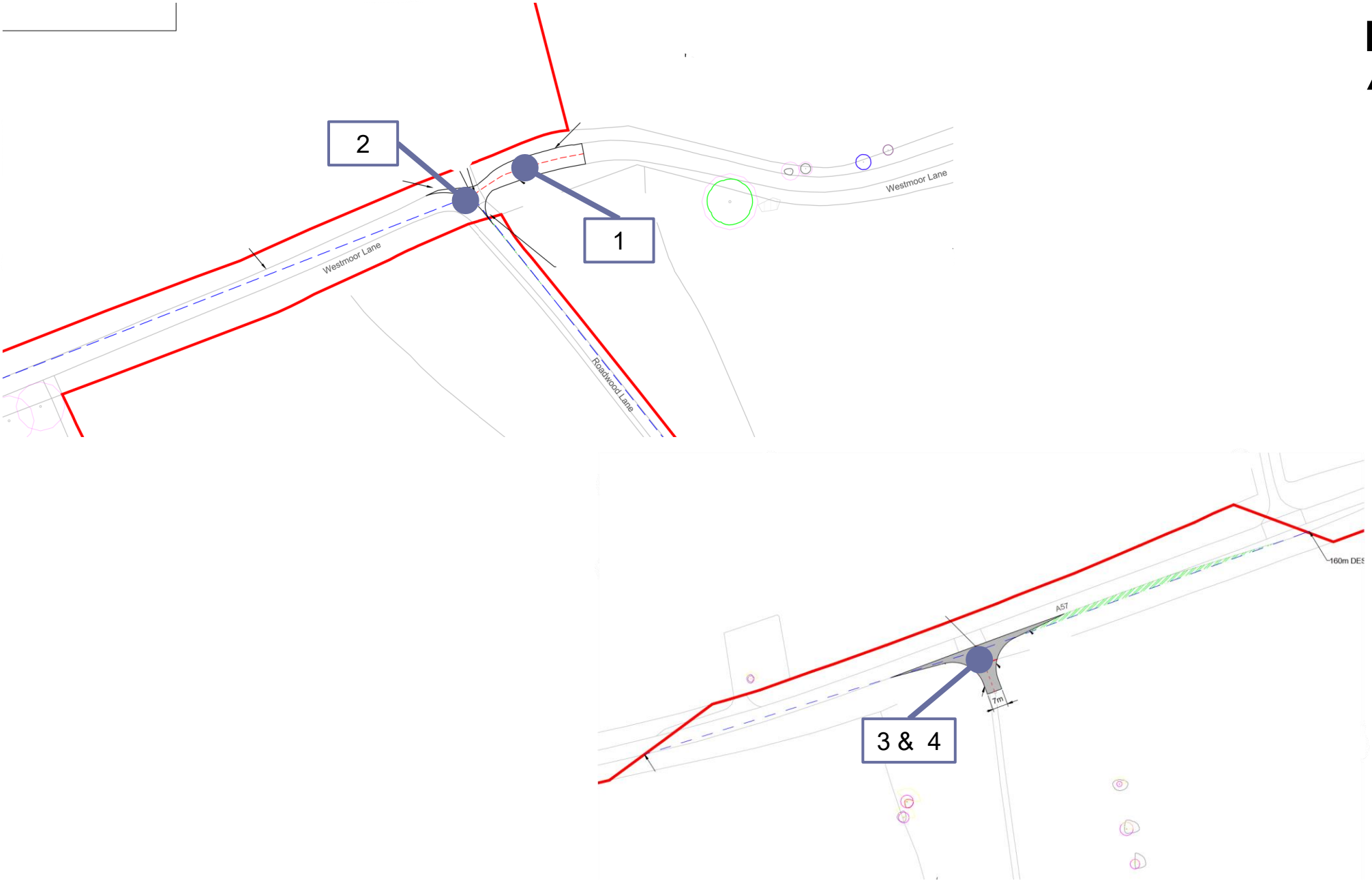
Table 2: Audit Team Statement

We certify that this road safety audit has been carried out in accordance with GG 119.	
Road Safety Audit Team Leader	
Name:	Daniel Susans, BSc (Hons) Civil Engineering, MCIHT, MSoRSA, EngTech MICE
Signed:	[redacted]
Position:	Transport Planner
Organisation:	Pell Frischmann
Date:	10th September 2025
Road Safety Audit Team Member	
Name:	Daniel Hounsell, BA (Hons) Geography, MCIHT, MSoRSA
Signed:	[redacted]
Position:	Senior Transport Planner
Organisation:	Pell Frischmann
Date:	10th September 2025

Figures



One Earth Solar Farm, Lincoln Stage 1 Road Safety Audit	**Figure 1** Site Location Plan	Pell Frischmann



One Earth Solar Farm, Lincoln
Stage 1 Road Safety Audit

Figure 2
Problem Location Plan

Pell Frischmann

Appendix A Incoming Audit Information

Document/ Drawing No.	Rev	Title/ Description	Scale	Date
OESF RSA 01	-	On Earth Solar Farm Title: GG119 RUSA Briefing Note	-	19.08.25
-	P05	Access 1 South off A57 to Substation Layout and Swept Path Analysis	1:500 & 1:1000 @ A1	19.08.25
-	P02	Access 18 Westmoor Lane Access Layout and Swept Path Analysis	1:500 & 1:1000 @ A1	19.08.25
EN010159/APP/6.21	03	Volume 6.0 Environmental Statement [EN010159] Volume 3: Technical Appendices Supporting ES Volume 2 Appendix 12.2: Transport Assessment (TA)	-	Aug 2025
-	-	Accident Details Report – A57	-	28.08.25

One Earth Solar Farm

Stage 1 Road Safety Audit Response Report

September 2025

Revision 01

Contents

1. Introduction

1.1 Project Details

Project:	One Earth Solar Farm
Report Title:	Stage 1 Road Safety Audit Response Report
Date:	30th September 2025
Revision	01
Produced by:	One Earth Solar Farm
On behalf of:	Nottinghamshire County Council
PREPARED BY:	
Name:	James Hemingway CEng MICE
Position:	Associate Director
Signed:	[redacted]
Organisation:	AECOM
Date:	30th September 2025
APPROVED BY:	
Name:	Sarah Hancock
Position:	
Signed:	
Organisation:	Nottinghamshire County Council
Date:	

1.2 Introduction

1.2.1 This Road Safety Response Report contains the designer's response to the Stage 1 Road Safety Audit carried out by Pell Frischmann Consultants Limited, document reference 110432-PEF-XX-OE-TAU-O-0001 which was prepared on the 10th September 2025 at the request of Sarah Hancock of Nottinghamshire County Council.

1.2.2 The Road Safety Audit Team were appointed by Sarah Hancock of Nottinghamshire County Council via Gordan Buchan of Pell Fricschmann.

1.2.3 For the purpose of this Response Report:

- The Overseeing Organisation is Nottinghamshire County Council
- The Design Organisation is AECOM
- The Road Safety Audti Organisation is Pell Frischmann

1.2.4 The Audit Team who undertook the Stage 1 Road Safety Audit were:

- Daniel Susans, BSc (Hons) Civil Engineering, MCIHT, MSoRSA, EngTech MICE. Transport Planner, Pell Frischmann, Birmingham. Certificate of Competency in Road Safety Audit gained in 2020
- Daniel Hounsell, BA (Hons) Geography, MCIHT, MSoRSA. Senior Transport Planner, Pell Frischmann, Birmingham. Certificate of Competency in Road Safety Audit gained in 2025

1.2.5 The Road Safety Audit team undertook a desktop audit between Monday 1st September and Tueday 9th September 2025. The Audit Team visited the site together on Tuesday 2nd September 2025, between 11:45am and 12:45pm. Weather conditions during the site visit were sunny and the road surface was dry. Traffic conditions were observed to be quiet on Roadwood Lane and moderate on A57.

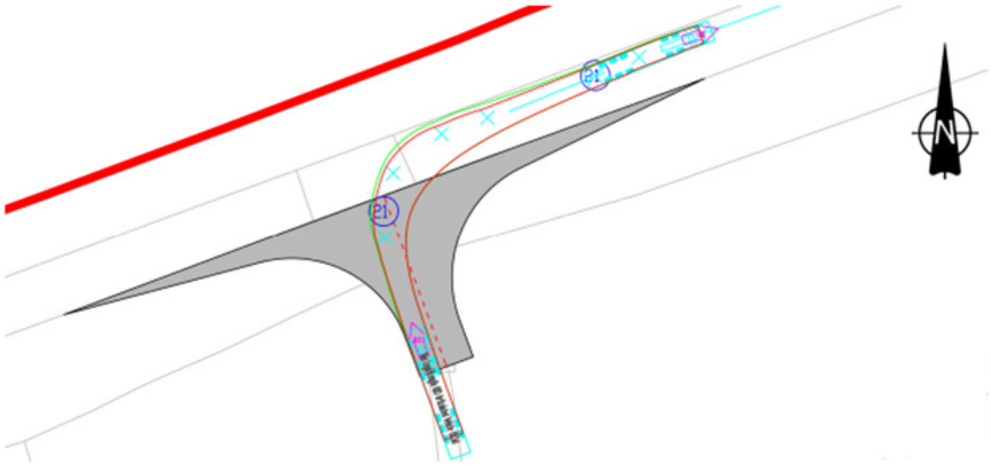
1.2.6 The following section of this report contains the problems identified and the agreement reached between the Design and Overseegin Organisation.

2. Designer's Response to Stage 1 Road Safety Audit Log

RSA Problem 1 (A2.2.1)	
RSA Problem Description:	Overgrown vegetation and large overhanging tree branches currently encroach the footprint of the existing access road off Roadwood Lane. Swept path analysis confirms that articulated vehicles remain within the proposed access road boundary; however, they are still likely to collide with overhanging vegetation, which could result in loss of control collisions. No swept path drawings have been provided for abnormal vehicles, which may also require access to the site. 
RSA Recommendation:	Cut back trees and vegetation, ensuring they do not conflict with the envelope of manoeuvring articulated and abnormal load vehicles.
Design Organisation Response:	Agreed. Any vegetation cutback necessary to facilitate access will need to be undertaken. The Design Organisation notes that no abnormal load vehicles are required to access Gate H.
Overseeing Organisation Response	
Agreed Action	

RSA Problem 2 (A2.3.1)	
RSA Problem Description:	Detritus was observed within the proposed junction extents, and along the carriageway of access 18, located within the path of turning vehicles. The detritus will likely reduce the surface's skid resistance and could lead to loss of control collisions. 
RSA Recommendation:	Ensure the surface is clean of any detritus prior to works being undertaken.
Design Organisation Response:	Agreed. Any detritus which may impact the surface skid resistance should be cleared as part of preparatory works for the utilisation of Gate H and the road condition maintained whilst in use.
Overseeing Organisation Response:	
Agreed Action:	

RSA Problem 3 (A2.4.1)	
RSA Problem Description	A significant levels difference exists through the proposed junction, which looked to be a rainwater drain. Should the junction be constructed, without catering for the embankment and its likelihood to retain rainwater, subsidence of the junction could occur. Should the surface subside, loss of control collisions could occur. 
RSA Recommendation:	Undertake topographical survey at the next design stage, ensuring levels are accounted for and adequate rainwater drainage through the junction is catered for.
Design Organisation Response:	Agreed Topographic survey data will be acquired to establish the final design levels to necessitate safe access and accord for any surface water drainage design.
Overseeing Organisation Response:	
Agreed Action:	

RSA Problem 4 (A3.1.1)	
RSA Problem Description:	The inset D swept path showing an articulated vehicle turning right onto A57 encroaches the opposing lane prior to giving way to traffic on the A57. However, drivers egressing the site would likely approach the give way on the left side of the centre line and then turn right. Therefore, it is unclear whether an articulated lorry would encroach the embankments if they started their manoeuvre on the left side of the centre line, which could lead to loss of control collisions. 
RSA Recommendation:	Undertake swept path analysis, having right turning articulated vehicles begin their manoeuvre on the left side of the centre line at the give way markings, and adjust the proposals to suit.
Design Organisation Response:	Agreed. The junction design will be refined during the detailed design phase to address any potential conflict once the exact vehicle dimensions have been confirmed with the contractors.
Overseeing Organisation Response:	
Agreed Action:	

3. Design Organisation and Overseeing Organisaiton Statements

On behalf of the design organisation I certify that: 1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.	
Name:	James Hemingway
Signed	[redacted]
Position:	Associate Director
Organisation:	AECOM
Date:	30th September 2025

On behalf of the Overseeing Organisation I certify that: 1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design Organisation; and 2) the agreed RSA actions will be progressed.	
Name:	Sarah Hancock
Signed	
Position:	
Organisation:	Nottinghamshire County Council
Date:	

Appendix A Documents Provided for the Audit

Document Drawing Number	Revision	Title / Description	Scale	Date
OESF RSA 01	-	One Earth Solar Farm Title: GG119 RUSA Briefing Note	-	19.08.25
-	P05	Access 1 South off A57 to Substation layout and Swept Path Analysis	1:500 & 1:1000 @ A1	19.08.25
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-	-	Accident Details Report – A57	-	28.08.25

one earth

solar farm

Appendix C AIL Swept Path Assessment

Pell Frischmann

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Client
ONE EARTH SOLAR FARM LIMITED

Project
ONE EARTH SOLAR FARM

Drawing Title
TRANSFORMER LOAD

POI
01

SPA Location
A57 / MAIN STREET JUNCTION

Notes
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Do not scale from this drawing.

Rev	Description	Drn	App	Date
-	-	-	-	-

Drawn	GB	Approved	SC
Date	20/09/2025		
Status	Draft		
Revision	00		
Scale	1:1000 @ A3		

Key
- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Overrun
- Oversail
- DoT

Drawing No.
99999999 - PF - SPA - 01

Rev	Description	Drn	App	Date
-	-	-	-	-

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Client
ONE EARTH SOLAR FARM LIMITED

Project
ONE EARTH SOLAR FARM

Drawing Title
TRANSFORMER LOAD

POI
02

SPA Location
MAIN STREET, RAGNALL

Notes
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Do not scale from this drawing.

Drawn	Approved	Date
GB	SC	20/09/2025

Status	Draft
Revision	00
Scale	1:1000 @ A3

Key
- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Overrun
- Oversail
- DoT

Drawing No.
99999999 - PF - SPA - 02

Rev	Description	Drn	App	Date
-	-	-	-	-

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Client
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Project
ONE EARTH SOLAR FARM

Drawing Title
TRANSFORMER LOAD

POI
03

SPA Location
MAIN STREET RAGNALL

Notes
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Do not scale from this drawing.

Drawn	Approved	Date
GB	SC	20/09/2025

Status	Draft
Revision	00
Scale	1:1000 @ A3

Key
- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Overrun
- Oversail
- DoT

Drawing No.
99999999 - PF - SPA - 03

Rev	Description	Drn	App	Date
-	-	-	-	-

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Client
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Project
ONE EARTH SOLAR FARM

Drawing Title
TRANSFORMER LOAD

POI
04

SPA Location
MAIN STREET, RAGNALL

Notes
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Do not scale from this drawing.

Drawn	Approved	Date
GB	SC	20/09/2025

Status	Draft
Revision	00
Scale	1:1000 @ A3

Key
- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Overrun
- Oversail
- DoT

Drawing No.
99999999 - PF - SPA - 04

Rev	Description	Drn	App	Date
-	-	-	-	-

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Project
ONE EARTH SOLAR FARM

Drawing Title
TRANSFORMER LOAD

POI
05

SPA Location
MAIN STREET, RAGNALL

Notes
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Do not scale from this drawing.

Drawn	Approved	Date
GB	SC	20/09/2025

Status	Draft
Revision	00
Scale	1:1000 @ A3

Key
- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Overrun
- Oversail
- DoT

Drawing No.
99999999 - PF - SPA - 05

Rev	Description	Drn	App	Date
-	-	-	-	-

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Client
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Project
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Drawing Title
TRANSFORMER LOAD

POI
06

SPA Location
MAIN STREET, RAGNALL

Notes
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Do not scale from this drawing.

Drawn	Approved	Date
GB	SC	20/09/2025

Status	Draft
Revision	00
Scale	1:1000 @ A3

Key
- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Overrun
- Oversail
- DoT

Drawing No.
99999999 - PF - SPA - 06