RWE

Peartree Hill Solar Farm

Environmental Statement

Volume 4

Appendix 14.1: Transport Assessment

Revision 34 (tracked)



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1

1 INTRODUCTION

Context

- 1.1 SCP, an RSK Group company, has been appointed by RWE Renewables UK Solar and Storage Limited (hereafter, 'the Applicant') to prepare a Transport Assessment (TA) in support of the proposed Peartree Hill Solar Farm (hereafter, 'Proposed Development').
- The Proposed Development comprises the construction, operation (including maintenance) and decommissioning of a solar photovoltaic (PV) electricity generating and storage facility with an export capacity of up to 320 megawatts (MW) and associated infrastructure, as described within Environmental Statement (ES) Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1] and Schedule 1 of the Draft Development Consent Order (DCO) [EN010157/APP/3.1].
- 1.3 The Proposed Development is located within the administrative boundary of East Riding of Yorkshire Council on land between the villages of Leven, Tickton, Riston, Wawne, Weel and Woodmansey, to the north of the city of Hull, comprising approximately 893 ha (hereafter, 'the Site'). The boundary of the Site is hereafter referred to as the 'Order Limits', as shown in **Appendix B**.
- 1.4 The Order Limits include parcels of land, which are split across five Land Areas labelled B to F for solar PV modules and ancillary equipment such as on-site substations. The Proposed Development will connect to the National Grid Creyke Beck Substation via underground cables (the 'grid connection cable route') and there are interconnecting cable routes that run between the Land Areas. A series of plans showing the Land Areas and proposed underground cable routes, as well the indicative layout of the Proposed Development are included at **Appendix B**.

Document Purpose

- 1.5 The purpose of this TA is to demonstrate that the Proposed Development will be acceptable in transport and highways terms, and it follows transport assessment scoping discussions held with East Riding of Yorkshire Council Officers for the local highway authority.
- 1.6 The TA has been prepared in accordance with the agreed parameters set out in the Transport Assessment Scoping Report which was produced by SCP in July 2024 and agreed with Highways Officers at East Riding of Yorkshire Council on 16 September 2024 (see **Appendix A** of this document).
- 1.7 ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2] which makes reference to the findings of this TA.



Consultation

- 1.8 In addition to the statutory and non-statutory consultations, the Proposed Development has been supported by an ongoing consultation process to agree the approach for the TA, to allow mitigation measures to be incorporated into the design of the Proposed Development and to minimise adverse effects.
- 1.9 The following provides a summary of the consultation which has taken place with respect to transport and access.

East Riding of Yorkshire Highways

- 1.10 The Site is to be accessed via the major roads nearby, the A165, A1035 and A1079, which are maintained by the local highway authority, East Riding of Yorkshire Council, and do not form part of National Highway's Strategic Road Network (SRN).
- 1.11 Discussions were undertaken via a meeting on 19 February 2024 with Highways Officers at East Riding of Yorkshire Council in which it was agreed that the impact of the Proposed Development on the local road network is not likely to be severe and it was recommended that further discussions took place with Area Engineers over the details of highway mitigation works (passing places, visibility splays and access locations). The further discussions with Area Engineers took place on 6 June 2024 in which the following items were agreed:
 - The proposed locations of passing places, carriageway widening, and accesses were acceptable;
 - Passing places should be 20m in length with 10m tapers at either end;
 - East Riding of Yorkshire Council would be willing to adopt passing places and widening on the local road network where the works are constructed to an adoptable standard; and
 - Temporary speed reductions could be implemented during the construction phase to overcome visibility issues without the need to remove trees, hedgerows and vegetation.
- 1.12 Following the meeting with East Riding of Yorkshire Council Area Engineers, revised passing places and access plans for the local road network were submitted for further review on 2 August 2024. A further minor amendment to take account of the Local Wildlife Site on Meaux Lane and passing place on Arnold Lane West was issued on 9 October 2024 in order to agree which passing places and areas of widening East Riding of Yorkshire Council would be willing to adopt. East Riding of Yorkshire Council confirmed on 12 September and 10 October 2024 that the highway mitigation proposals were acceptable and that the majority of carriageway widening, and new passing places constructed to East Riding of Yorkshire Council standards will likely be retained for adoption by the Highway Authority following completion of the construction stage of the Proposed Development.



- 1.13 Additional discussions were undertaken via a meeting on 20 August 2025 with a Highways Officer at East Riding of Yorkshire Council in which details of the proposed new accesses were discussed. The discussions were focused on agreeing the layout and management of the new accesses. The new accesses which were discussed were the creation of a new access on the west side of the A165 to access Cable B-B (the cable route between Land Areas B and B) and the replacement of the northernmost access on Meaux Lane with the existing farm access off the A1035 (access to Land Areas D and E).
- 1.14 It is proposed to enforce a left turn only restriction for HGVs at the farm access off the A1035 which East Riding of Yorkshire Council stated this would be favourable but not a requirement.
- 1.15 The new A165 access is proposed to only be used for access to the cable connection.
- 1.16 The management of these accesses is in line with the management of other accesses, as set out in the Outline Construction Traffic Management Plan (CTMP) [EN010157/APP/7.7].

National Highways

- 1.17 The nearest strategic roads on the SRN are the A63 and M62, which will not be adversely impacted by traffic generated by the Proposed Development, as has been agreed with National Highways (JSJV PEIR Review Document, TM001, Becky Garrett, 12.06.24).
- 1.18 As set out in **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]**, discussions took place with National Highways via a meeting on 25 March 2024. National Highways and their consultants did not identify any specific concerns about the Proposed Development on the SRN and requested to be kept informed as the design and potential trip generation and distribution was refined.
- 1.19 As set out in **Schedule 2** of the **Draft DCO [EN010157/APP/3.1]**, the Applicant must consult with National Highways on any Construction Traffic Management Plan.

Hull City Council Highways

1.20 Hull City Council's Highways Officers were consulted via email on 16 September 2024. They were made aware that whilst some of the trips generated by the Proposed Development will use the highway network in the Hull City Council area (such as materials delivery into Hull Docks or using the A165), the vast majority of trips will occur outside of the highway network peak hours and that no amendments are proposed to the highway network in the Hull City Council area. A further meeting was held with Hull City Council Highways Officers on 23 September 2024 when it was agreed that whilst there was not likely to be any adverse impact on the Hull City Council highway network, the Applicant would keep Hull City Council informed of the likely HGV flows and timing so that the Council can liaise with the Port Authorities (this is



- because there are a number of large infrastructure schemes in the area that may generate trips through the Port during a similar period).
- 1.21 Hull City Council will be kept informed of the Proposed Development as construction traffic will use their highway networks (this will also allow Hull City Council to keep the Port of Hull informed of likely trips where Hull Docks are used to import materials for the Proposed Development).
- 1.22 As set out in **Schedule 2** of the **Draft DCO [EN010157/APP/3.1]**, the Applicant must consult with Hull City Council on any Construction Traffic Management Plan.

Preliminary Environmental Information Report

- 1.23 The Preliminary Environmental Information Report (PEIR) was prepared in May 2024 to support the statutory consultation on the Proposed Development.
- 1.24 The transport and access section of the PEIR concluded that the highways impact of the Proposed Development was negligible on the majority of transport links; in the few instances where an impact was anticipated this was mostly due to the fact that existing traffic flows on these links was extremely low which resulted in a disproportionately high percentage impact. On these low trafficked roads, it is proposed to provide mitigation in the form of passing places and widening which is considered to be sufficient to mitigate against any potential highway impacts.

Transport Assessment Scoping Report

- 1.25 The Transport Assessment Scoping Report was submitted to East Riding of Yorkshire Council Highways by email on 28 August 2024. The Transport Assessment Scoping Report set out the parameters on which this TA is based, including access arrangements, traffic routing, vehicle trip generation, extent of assessment for safety and capacity.
- 1.26 A review response was provided by AECOM on behalf of East Riding of Yorkshire Council on 9 September 2024. Further to additional correspondence from SCP, East Riding of Yorkshire Council confirmed their agreement with the suggested scope.
- 1.27 The Transport Assessment Scoping Report and East Riding of Yorkshire Council responses are included in **Appendix A**.

Additional Reports

- 1.28 The following reports are to be read alongside the TA:
 - ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2];
 - Outline Construction Traffic Management Plan (CTMP) [EN010157/APP/7.7];



- Outline Travel Plan (Appendix A to the Outline CTMP [EN010157/APP/7.7]); and
- Outline Rights of Way and Access Management Plan [EN010157/APP/7.9].

Report structure

- 1.29 The remainder of this TA is structured as follows:
 - Section 2 provides an overview of relevant national and local policies;
 - Section 3 sets out details relating to the Order Limits location and surrounding areas;
 - Section 4 provides details of the Order Limits accessibility by various travel modes including by vehicle, public transport, on foot and by bicycle;
 - **Section 5** provides details of the Proposed Development;
 - Section 6 sets out the forecast vehicular trip attracting and distribution for the Proposed Development during construction, operation (including maintenance), and decommissioning;
 - Section 7 reviews the future baseline conditions including other committed developments in the area, highway improvements and other schemes:
 - Section 8 provides the highway impact assessment for the Proposed Development; and
 - **Section 9** sets out the summary to the report.



2 PLANNING POLICY AND GUIDANCE CONTEXT

National Planning Policy

Overarching National Policy Statement for Energy (EN-1)

- 2.1 The Overarching National Policy Statement for Energy (EN-1) was first published in 2011 and provided the basis for decisions regarding nationally significant energy infrastructure. The latest version was published November 2023 (designated in January 2024). Section 5.14 outlines the planning policy for traffic and transport, including guidance on undertaking relevant parts of the Environmental Impact Assessment (EIA).
- 2.2 Paragraph 5.14.5 states that 'If a project is likely to have significant transport implications the applicant's ES should include a transport appraisal'. Applicants should consult the Highways Agency and Highways Authorities as appropriate on the assessment and mitigation.
- 2.3 Paragraph 5.14.7 states that where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. This should include details of proposed measures to improve access by public and shared transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.
- 2.4 Paragraph 5.14.10 states that if additional transport infrastructure is proposed, applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits.
- 2.5 Section 2.10 in the National Policy Statement for Renewable Energy (EN-3)¹ considers solar development including the assessment of traffic and transport impacts during construction, inclusive of traffic and transport, noise and vibration and Large Loads. Paragraphs 2.10.120 to 2.10.126 refer to routing to sites and cumulative impact assessment requirements. Paragraphs 2.10.139 to 2.10.144 refer to mitigation measures and consultation requirements. Likewise, paragraphs 2.10.161 to 2.10.162 note operational traffic is generally limited, and that the Secretary of State will place limited weight on traffic and transport noise and vibration operational impacts.

National Planning Policy Framework (NPPF) (December 2024)

- 2.6 The National Planning Policy Framework (NPPF) was published in March 2012 and most recently updated in December 2024.
- 2.7 In paragraph 115 the NPPF states that when considering planning applications, it should be ensured that:

¹ https://assets.publishing.service.gov.uk/media/64252f5f2fa848000cec0f52/NPS EN-3.pdf



- Sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;
- Safe and suitable access to the site can be achieved for all users; and
- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach..
- 2.8 NPPF paragraph 116 states that "Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios".
- 2.9 In relation to paragraph 116, developments should be in accordance with paragraph 117, which states:
 - Give priority first to pedestrians and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible

 to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use.
 - Address the needs of people with disabilities and reduced mobility in relation to all modes of transport.
 - Create places that are safe, secure and attractive which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards.
 - Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
 - Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.
- 2.10 Paragraph 118 of the NPPF states that all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.

Local Planning Policy

East Riding of Yorkshire Local Transport Plan (LTP) (2021 – 2039)

2.11 The Local Transport Plan (LTP) for East Riding of Yorkshire was adopted in 2021 and sets out the County's objectives for improving travel within the county and improving the lives of all residents. The LTP is written to comply with the specific Department of Transport (DfT) requirements.



2.12 Appendix A – Network Management Plan of the LTP, sets out how East Riding of Yorkshire Council will ensure HGVs are directed to the most suitable routes. A freight map for the area has been developed. Large Loads are also considered in paragraph 3.8.5 of the Plan.

East Riding of Yorkshire Carbon and Energy Management Strategy (CEMS) (2021-2025)

- 2.13 The CEMS analyses the current context for carbon and energy management, sets targets for carbon reduction and provides recommendations for how to meet the targets.
- 2.14 It categorises greenhouse gas emissions to be considered in the analysis into three "scopes":
 - Scope 1: Direct emissions from owned or controlled sources
 - Scope 2: Indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company
 - Scope 3: All other indirect emissions that occur in a company's value chain.
- 2.15 One of the 12 key findings of the analysis was:

"The Council's energy consumption has reduced by 25.1% since 2012-13, partially through the Council's prudent investment of £4,062,000 on energy efficiency and renewables. There has been a significant carbon reduction of 1,725 tonnes over the same period and there has been an increase in budget pressures associated with energy."

The Institute of Environmental Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (July 2023)

- 2.16 The IEMA guidelines "provide the basis for systematic, consistent and comprehensive coverage for the assessment of traffic and movement impacts for a wide range of development projects." They are intended to "compliment professional judgement and the experience of trained and competent assessors".
- 2.17 In paragraph 1.22, the guidelines outline the importance of what is to be considered as part of a transport assessment and traffic and movement assessments for an EIA or non-statutory environmental assessments:
 - "Transport Assessments report the overall transport strategy for development sites to maximise accessibility for non-car modes of transport, but also assess the traffic impact of the proposals based on an assessment of conditions on the highway network in peak periods.
 - Traffic and movement assessments for EIA and non-statutory environmental assessments present the impact of traffic and movement on people and the environment – which are initially



undertaken with reference to daily traffic flows prior to assessing the time period with the highest potential impact (i.e. degree of change from baseline conditions), which may not be the same as the time period with the highest baseline traffic flows."

- 2.18 There are guidelines on screening/scoping (chapter 2) and the assessment methodology (chapter 3).
- 2.19 Screening/scoping guidelines are categorised as:
 - The impacts of traffic and movement
 - Determination of traffic and movement levels
 - Spatial scope (Geographic extent)
 - Year(s) of assessment
 - Relationship between the future baseline and the cumulative scenario
- 2.20 Assessment methodology guidelines are categorised as:
 - Severance
 - Driver delay
 - Pedestrian (all non-motorised users incorporated) delay
 - Non-motorised user amenity
 - Fear and intimidation
 - Road Safety
 - Road Safety Audits
 - Hazardous/large loads
- 2.21 The guidelines have been used to inform and structure the scoping and assessment stages of the Proposed Development.



3 SITE AND SURROUNDINGS

Site Location

3.1 The Site encompasses an area of approximately 893 hectares (ha) and is located to the east of Beverley and to the north of Hull in the East Riding of Yorkshire, as shown in **Appendix B**.

Surrounding Areas

3.2 The areas in the vicinity of the Order Limits comprise a number of villages including Leven, 1km north of the Order Limits as well as Beverley, 250m to the west and Cottingham, approximately 700m to the south. Bransholme is also approximately 750m south of the Order Limits and Hull is approximately 3.5km to the south.

Study Area

3.3 The extent of the study area to be included within the TA was agreed with East Riding of Yorkshire Council Highways as part of the Transport Assessment Scoping Report (see **Section 1.19** above). The study area includes the main routes to be used to and from the Site; the A1035, the A165 White Cross Road, Meaux Lane/Meaux Road, the private farm track off the A1035, Arnold Lane West, Carr Lane (Long Riston) and Carr Lane (Arnold). Additionally, access will be taken via A1174 Hull Road, Long Lane and Park Lane temporarily during the construction phase for the grid connection cable route works, these accesses will not be required during operation (including maintenance) and decommissioning. A plan showing the study area is included in **Appendix C**.

Existing Highway Network

- 3.4 The major roads which connect the Site to the wider road network are the A1035 and the A165.
- 3.5 The A1035 is a principal road which runs from the Killingwoldgraves Roundabout (A1079 / A1174 / A1035 / Killingwoldgraves Lane) west of Beverley to the junction with Market Place in Hornsea. It is predominantly a single carriageway road; however it is a dual carriageway for the section between the White Cross Roundabout and the Leven Roundabout. To the west of the White Cross Roundabout the road is subject to a 50mph speed limit which is increased to the national speed limit to the east of the roundabout.
- 3.6 The A165 is a principal road which runs from the signal-controlled junction with the A64 in Scarborough to the signal-controlled junction with the A1079 in Kingston upon Hull. It is a single carriageway road to the south of the White Cross Roundabout and becomes a dual carriageway for a 4km section north eastbound as it merges with the A1035. It is subject to the national speed limit,



- except for when it passes through residential areas such as Skirlaugh and Hull where it is reduced to 30mph and Coniston and Bridlington where it is reduced to 40mph.
- 3.7 In addition to the major roads, there are minor roads which will be used to provide construction access to the Site. The minor roads which will connect the Site to the major roads are Meaux Lane, Carr Lane (Long Riston), Carr Lane (Arnold) and Black Tup Lane/Arnold Lane West.
- 3.8 Meaux Lane (Meaux Road south of Holderness Drain) runs from a right-turn ghost island priority junction at the A1035, adjacent to Routh approximately 2.5km west of the White Cross Roundabout. It is restricted to vehicles under 7.5tn (Except for Access). It is subject to a 40mph speed limit and is not street lit. It is a single carriageway publicly maintained road with an approximate width of 5.0m (although this varies). The road has several bends along its route with limited visibility in places and has informal passing places / areas of minor widening in places.
- 3.9 Beverley Road forms the northern arm of the White Cross Roundabout and connects the A1035 to Leven. It continues as South Street to the north of the junction with Carr Lane. It is a single carriageway publicly maintained road with a carriageway width of between 6.0m and 7.0m. It has a 30mph speed limit in Leven village which is increased to the national speed limit to the White Cross Roundabout.
- 3.10 The private farm track off the A1035 is a rural track which has a width of approximately 8m at a 10m offset from the A1035 which narrows to approximately 3.0m at 15m offset. The track is privately maintained and provides access to a farm and a small number of residential dwellings. The track is surfaced up to the access to the dwellings, to the south of this it becomes an unsurfaced, muddy track. There is no footway or street lighting. The track has planning consent to access committed solar farm developments, Carr Farm Solar Farm and Field House Solar Farm.
- 3.11 Black Tup Lane/ Arnold Lane West is a single track publicly maintained road which has a width of between approximately 4.5m and 5.5m. It runs in a southern alignment from its right-turn ghost island priority junction with the A165 White Cross Road to the junction with Woodhouse Lane where it continues as Ings Lane. It is subject to a 30mph speed limit and there are no restrictions in place. It is a generally straight road with some bends and there are some passing places along the route, however there is evidence of vehicle wheels tracking over the verge where the width of the road has not been sufficient for two vehicles to pass.
- 3.12 Carr Lane in Long Riston is a single track publicly maintained road which runs in a western alignment from its ghost island right turn priority T-junction with the A165 White Cross Road (immediately north of Long Riston and opposite Dancing Lane). Carr Lane (Long Riston) is a no-through road and provides access to Carr House Farm 1.5km to the west. It is approximately 3.0m wide with grassed highway verge on either side. There are no footways or street



- lighting. Carr Lane (Long Riston) is subject to the national speed limit, although recorded average speeds on the road are approximately 24mph.
- 3.13 Carr Lane in Arnold is a single-track road which runs in a western alignment from its junction with the Black Tup Lane and provides access to farmlands and does not provide through-traffic access to the west. It is approximately 3.0m wide with grassed highway verge on either side. There is no footway or street lighting.
- 3.14 Park Lane is a single-carriageway road which runs in a northern alignment from its junction with Northgate to the access to Creyke Beck substation, it becomes a single-track road to the north of the westernmost residential dwelling on Park Lane as it continues to the substation. It also forms a section of the National Cycle Network Route 1. The single track section is approximately 4.5m wide and has grass verge on either side. There is no footway on this section, although it is designated as a public footpath (Skidby Footpath No. 17, see **Table 3.1** below for details).
- 3.15 Long Lane is a single-track road which runs from its junction with A1174 Hull Road in a north-western alignment to its junction with Keldgate. It forms an underpass of the A164, where the road narrows with priority given to southbound traffic. In the vicinity of the Site accesses, it is approximately 4.7m wide and there is no footway with grass verge on either side.
- 3.16 A1174 Hull Road is a single-carriageway road which runs from the roundabout junction with the A164 to the A1079 Dunswell Roundabout to the north-west of Hull. In the vicinity of the Site accesses, it is approximately 8.3m wide and there is a shared footway/cycleway which runs along the west side of the road and grass verge on the east side.
- 3.17 The nearest SRN roads are the M62 and A63. It is likely that construction vehicle trips will be routed to the Site via the A63 (particularly for deliveries from Hull Port) and via the M62 for deliveries from other locations to the west. The A63 and M62 are included in the study area and through discussions with National Highways it has been discussed and agreed that the Proposed Development will not result in any significant effects on the Strategic Road Network. This is outlined in further detail in the ES Volume, 2 Chapter 14: Transport and Access [EN010157/APP/6.2]. Based on the discussions with National Highways and Hull City Council Highways, it was not considered necessary to establish baseline conditions by undertaking a traffic survey on the A63 or M62.

Public Rights of Way (PRoW)

3.18 Whilst most of the roads serving the Site are minor rural roads and do not have footways provided, there is a network of public footpaths and bridleways in the vicinity of the Site. Whilst these could be used to access the Site by workers it is appreciated that this is only likely to be of limited use given the isolated nature of some of these routes. They are largely used by ramblers, cyclists and equestrians.



- 3.19 In addition, the National Cycle Network Route 1 runs along Park Lane which is to be used for access temporarily during the construction phase. There is also a section of the long distance path, Wilberforce Way, which runs east of the A1174 and around the northern and eastern boundary of the Tokenspire Industrial Estate and connects with Woodmansey Footpath No. 28. The Wilberforce Way is a long distance path between Hull and York.
- A plan showing each of the PRoW in relation to the Order Limits is included at **Appendix D. Table 3.1** provides a summary of the PRoW within and adjacent to the Site. The management of these routes within the Order Limits is set out in the **Outline CTMP [EN010157/APP/7.7]** and **Outline Rights of Way and Access Management Plan [EN010157/APP/7.9]**.

Table 3.1: PRoW Within or Adjacent to the Order Limits

Reference	Туре	Description	Location in relation to Site	Section of the Site where route intersects
BEVEF23 – Beverley Footpath No.23	Public Footpath	Commences at the eastern end of Waterside Road and follows the River Hull to the southeast for approx. 2km.	Partially within Order Limits	Grid connection cable route
LEVEF05 – Leven Footpath No.5	Public Footpath	Commences from the A1035 at Monk Bridge and leads south along the eastern bank of Monk Dike for approx. 300m.	Within Order Limits	Land Area B
RISTF01 – Riston Footpath No. 1	Public Footpath	Commences at the western end of Woodhouse Lane and leads west across Monk Dike before continuing south for approx. 1km.	Partially within Order Limits	Land Area C
RISTF02 – Riston Footpath No. 2	Public Footpath	Commences at the southern end of Leven Footpath No. 05 and continues south until the	Partially within Order Limits	Land Areas B and C



Reference	Туре	Description	Location in relation to Site	Section of the Site where route intersects
		Meaux and Benningholme Road Bridge on Kid Hill Lane.		
SKIDB07 – Skidby Bridleway No. 7	Public Bridleway	Commences at Wanlass Farm and leads in a generally north westerly direction for approx. 600m.	Partially within Order Limits	Grid connection cable route
SKIDF10 – Skidby Footpath No. 10	Public Footpath	Commences at Skidby Footpath No. 11 at the eastern access to Creyke Beck electricity sub- station and continues south for approx. 1km.	Partially within Order Limits	Grid connection cable route
SKIDF11 – Skidby Footpath No. 11	Public Footpath	Commences at Wanlass Farm and leads in an easterly direction to the railway line.	Within Order Limits	Grid connection cable route
SKIDF12 – Skidby Footpath No. 12	Public Footpath	Commences at Skidby Footpath No. 11 in the vicinity of Wanlass Farm and leads in a north easterly direction to the railway line.	Partially within Order Limits	Grid connection cable route
SKIDF17 – Skidby Footpath No. 17	Public Footpath	Commences at the northern end of Park Lane, Cottingham and leads in a north- westerly direction to Burn Park Farm.	Partially within Order Limits	Grid connection cable route



Reference	Туре	Description	Location in relation to Site	Section of the Site where route intersects
SWINF07 – Swine Footpath No. 7	Public Footpath	Commences at Swine Road and leads south along the eastern bank of Monk Dike for approx. 1.8km.	Adjacent to the Order Limits	Land Area C
TICKB05 – Tickton Bridleway No.5	Public Bridleway	Commences at the southern end of Carr Lane (Tickton) and leads generally south for approx. 2.7km.	Partially within Order Limits	Land Area E
TICKF06 – Tickton Footpath No.6	Public Footpath	Commences at Foster's Bridge on Tickton Bridleway No. 05 and leads in an easterly direction to the northeast corner of Long Plantation.	Adjacent to the Order Limits	Land Area E
TICKF09 – Tickton Footpath No.9	Public Footpath	Commences at Tickton Footpath No. 12 and leads in a generally south easterly direction for approximately 800m.	Partially within Order Limits	Grid connection cable route
TICKF12 – Tickton Footpath No.12	Public Footpath	Commences at the east of the Weel and leads in a south easterly direction along the eastern bank of the River Hull for approx. 1.3km.	Partially within Order Limits	Grid connection cable route



Reference	Туре	Description	Location in relation to Site	Section of the Site where route intersects
WAWNF01 – Wawne Footpath No. 1	Public Footpath	Commences on Meaux Road approx. 150m west of Foxholme and leads in a north easterly direction to Meaux Road at East Field.	Partially within Order Limits	Land Area F
WOODB39 – Woodmansey Bridleway No. 39	Public Bridleway	Commences southeast of Hull Road Roundabout and leads south easterly for approx. 80m to rejoin Hull Road.	Adjacent to the Order Limits	Grid connection cable route
WOODF04 – Woodmansey Footpath No. 4	Public Footpath	Commences at a point on Shepherd Lane east of Old Hall and leads in a generally south direction for approx. 1.6km.	Partially within Order Limits	Grid connection cable route
WOODF09 – Woodmansey Footpath No. 9	Public Footpath	Commences at the Blacksmith's Corner in Woodmansey and leads in a south westerly direction for approx. 500m.	Partially within Order Limits	Grid connection cable route
WOODF12 – Woodmansey Footpath No. 12	Public Footpath	Commences at a point on Woodmansey Footpath No. 09 southwest of Paradise Farm and leads north	Partially within Order Limits	Grid connection cable route



Reference	Туре	Description	Location in relation to Site	Section of the Site where route intersects
		westerly to the railway line.		
WOODF18 – Woodmansey Footpath No. 18	Public Footpath	Commences on the western side of Hull Road opposite Tokenspire Business Park and leads in a generally north westerly direction to Minster Way.	Partially within Order Limits	Grid connection cable route
Wilberforce Way	Long Distance Path	Commences at The Deep in Hull and runs to The Minster in York for approx. 96km.	Partially within Order Limits	Grid connection cable route
NCN Route 1	National Cycle Route	Commences at the White Cliffs of Dover and runs to Tain for approx. 1,200km	Partially within Order Limits	Grid connection cable route

- 3.21 There are no proposals to permanently stop up or divert any existing PRoWs as part of the Proposed Development. Users of the affected PRoWs will be protected in the first instance during construction via temporary fencing or distancing tactics (via banksperson), which will be supported by inspections. Where works may affect the safety of PRoW users and such risks cannot be controlled using local management measures, localised closures will be utilised. Such closures will be temporary and short-term to facilitate periods of construction works that are discrete in nature and can typically be completed within a maximum of five days. Public rights of way will remain open with safety measures in place as much as is reasonably practicable whilst maintaining the safety of those using them. This is detailed in secured by the **Outline Rights of Way and Access Management Plan [EN010157/APP/7.9]**.
- Once appointed, the Principal Contractor will acquire the relevant licences and permissions with agreement with East Riding of Yorkshire Council as local highway authority to undertake the temporary closures. A plan showing the locations and extent of the affected PRoW is included at **Appendix D**.



- 3.23 Further details about the proposed management of the PRoW network is set out in the Outline Rights of Way and Access Management Plan [EN010157/APP/7.9].
- 3.24 **Table 3.3** below shows the PRoW that may potentially be subject to management and/or temporary closure, together with the approximate length of section that is anticipated to be temporarily affected.

Table 3.3: PRoW that may potentially be subject to management and/or temporary closure, together with the approximate length of section that

is anticipated to be temporarily affected

s anticipated to be temporarily affected					
PRoW	Type	Approximate	Control Measures		
Reference		Length Affected			
LEVEF05 – Leven Footpath No.5	Public Footpath	322m	PRoW to be physically separated from proposed construction routes and works areas using mesh, Heras, other similar types of fencing where necessary.		
RISTF01 – Riston Footpath No.1	Public Footpath	1,303m	The public footpaths run through the solar PV development and cross internal access tracks.		
RISTF02 – Riston Footpath	Public Footpath	4,157m	Crossing points will be marshalled by a Banksperson and possibly gated.		
No.2			A default priority will be in place for construction drivers to		
WAWNF01 – Wawne	Public Footpath	164m	give way to PRoW users.		
Footpath No.			Advanced warning signage will be provided to warn PRoW users and construction drivers of crossings.		
			Visibility will be maximised at crossings.		



PRoW Reference	Туре	Approximate Length Affected	Control Measures
			No temporary diversions will be required.
RISTF01 – Riston Footpath No.1	Public Footpath	200m	The public footpaths and public bridleways run through the Site where the grid connection cable route runs and/or crosses
BEVEF23 – Beverley Footpath No.	Public Footpath	416m	construction vehicle routes. Crossing points will be
SKIDB07 – Skidby	Public Bridleway	7m	marshalled by a Banksperson and possibly gated.
Bridleway No.7			A default priority will be in place for construction drivers to
SKIDF10 – Skidby Footpath	Public Footpath	110m	give way to PRoW users.
No.10 SKIDF11 – Skidby Footpath No. 11	Public Footpath	411m	Advanced warning signage will be provided to warn PRoW users and construction drivers of crossings.
SKIDF12 – Skidby Footpath No.	Public Footpath	350m	Visibility will be maximised at crossings.
SKIDF17 – Skidby Footpath No. 17	Public Footpath	400m	There are no suitable routes for temporary diversions, closures or restrictions will be required for short
TICKB05 – Tickton Bridleway No.5	Public Bridleway	21m	periods of time to enable construction works but restrictions will be used where



PRoW	Туре	Approximate	Control Measures
Reference		Length Affected	
TICKF09 – Tickton Footpath No.9	Public Footpath	423m	reasonably practicable ahead of temporary closures.
TICKF12 – Tickton Footpath No.12	Public Footpath	395m	
WOODF04 – Woodmansey Footpath No. 4	Public Footpath	408m	
WOODF09 – Woodmansey Footpath No. 9	Public Footpath	162m	
WOODF12 – Woodmansey Footpath No. 12	Public Footpath	157m	
WOODF18 – Woodmansey Footpath No. 18	Public Footpath	191m	
Wilberforce Way Long Distance Path	Long Distance Path	300m	
National Cycle Network Route 1	National Cycle Route	1,250m	

Baseline Traffic Flows

3.26 Information on the baseline network and traffic and access conditions has been gathered through on-site traffic counts of the links and junctions included within the study area, site visits across the study area and data provided by East Riding of Yorkshire Council as local highway authority. The surveys were



- undertaken in neutral conditions, i.e. they reflect typical traffic flow conditions outside of school holiday periods and with typical weather conditions.
- 3.27 The baseline data sources are listed below.
- 3.28 East Riding of Yorkshire Council automatic traffic counters of the following links (month of survey in brackets):
 - A165 Main Street, Skirlaugh (September 2023).
- 3.29 Department for Transport automatic traffic counters of the following links (month of survey in brackets):
 - A1174 Hull Road, Beverley count point 92096 (April 2022).
- 3.30 Manually classified junction turning-movement count surveys undertaken at the following links (date of survey in brackets):
 - Brandesburton Roundabout (October 2023).
 - Leven Roundabout (October 2023).
 - White Cross Roundabout (October 2023).
 - A1035/Meaux Lane Priority Right-Turn Ghost Island Junction (October 2023).
 - North Street/East Street/South Street/West Street Crossroads (October 2023).
 - A165/Arnold Lane West Priority Right-Turn Ghost Island Junction (October 2023); and
 - Wawne Road/Cumbrian Way/Kesteven Way Roundabout (October 2023).
- 3.31 Automatic Traffic Counter (ATC) surveys (recording total two-way movements on a link) by vehicle type on the following links (month of survey in brackets):
 - Carr Lane (Opposite Dancing Lane) (October 2023).
 - A1035 (East of Swinemoor Lane Roundabout) (February 2024).
 - Meaux Road (south of Holderness Drain) (February 2024).
 - Black Tup Lane (South of Carr Lane) (February 2024).
 - West Street, Leven (East of Heigholme Lane) (February 2024).
 - Heigholme Lane (February 2024).
 - Park Lane, Cottingham (October 2024); and
 - Long Lane, Woodmansey (October 2024).
- 3.32 The surveyed traffic flows at the junctions within the study area are shown at **Traffic Figure 1** in **Appendix E.**



Extant Permissions

- 3.33 The Transport Assessment Scoping Report reviewed local committed developments which are considered to be likely to have an impact on the highway network within the study area and are therefore considered within this TA. These have been agreed during scoping with East Riding of Yorkshire Council and are as follows:
 - Carr Farm Solar Farm (22/03648/STPLF) Construction of solar photovoltaic development including solar panels mounted on metal frames, new access tracks, underground cabling, perimeter fencing with CCTV cameras and access gates, a temporary construction compound and all ancillary grid infrastructure and associated works.
 - Field House Solar Farm (22/00824/STPLF) Construction of solar photovoltaic development including solar panels, installation of substation, medium voltage power stations, battery energy storage containers, erection of perimeter fence and CCTV poles with associated access and erection of temporary construction compound.
 - Hornsea Project Four Offshore Wind Farm (NSIP) Development of the Hornsea Project Four offshore wind farm. This is within the western area of the former Hornsea known as Zone 4, under the Round 3 offshore wind licensing arrangements established by The Crown Estate.
- 3.34 At the time of writing, it is understood that Hornsea Project Four has been discontinued. However, there is a reasonable prospect that the project could be re-continued and that the construction phase of Hornsea Project Four will overlap with the Proposed Development construction phase; i.e. when both developments will generate their peak daily vehicle movements. On this basis, it is considered to be included as a committed development.
- 3.35 Carr Farm Solar Farm and Field House Solar Farm have unclear timescales with regards to the commencement of the respective construction phases, it is possible that they are completed prior to the commencement of the Proposed Development construction phase. However, due to the location and use of the same access junction and vehicular routes as the Proposed Development it has been included as an assessed committed development within this TA.
- 3.36 There are no extant highway schemes in the immediate vicinity of the Site with the exception of the construction of the Beverley bypass scheme some four miles to the west of the Site.
- 3.37 The Beverley bypass scheme, specifically focusing on the A164 and Jock's Lodge Junction improvement, is a major highway project for East Riding of Yorkshire Council; construction has started and is expected to be complete in 2026. The plan aims to alleviate significant congestion along two of the East Riding's busiest roads: the A164 (Hull to Beverley) and A1079 (Hull to York). The improvements will include replacing the existing Jock's Lodge junction with a new roundabout on the A1079 and connecting it with the Lincoln



- Way/Minster Way roundabout in Beverley. Additionally, the A164 will be widened into a dual carriageway between Coppleflat Lane and Harland Way.
- 3.38 These changes are expected to ease traffic flow, reduce bottlenecks, and enhance safety for all road users, including cyclists and pedestrians, by incorporating dedicated routes. Further information can be found at https://www.a164jockslodge.co.uk/. Once constructed the scheme will have a materially beneficial effect on the local highway network.

Personal Injury Collisions Review

- 3.39 In order to establish whether there are any existing highway safety issues which could be impacted by the Proposed Development, the Personal Injury Collision (PIC) STATS-19 data, which details collisions that have occurred over the most recent five years which includes three years without COVID-19 pandemic restrictions, (January 2018 to December 2019 and Jan to December 2022). For completeness accidents for the full period Jan 2018 to Dec 2022 are shown below (including periods with and without pandemic restrictions).
- 3.40 Since the DCO submission, the STATS-19 dataset for 2023 has been fully validated. As a result, the data is now available for assessment, enabling a more robust analysis and improving the accuracy of findings. The following section has subsequently presented an overview of the 2023 results and, therefore, reflects the most up-to-date available evidence. The 2023 collision data is found at **Figure 3.6**.
- 3.41 The extents of the Site and routes to the Site have been included in the collision review study area Due to the fact that this covers a large area, it has been considered in sections, as outlined below.

The A165 between Skirlaugh, Arnold and Long Riston

- 3.42 This section covers the stretch of the A165 between Skirlaugh, Arnold and Long Riston villages. It also includes the minor and rural roads which are designated as vehicle routes to the Site, e.g. Black Tup Lane. The area does not include roads to the east of the A165 in each village which will not accommodate construction traffic or other traffic associated with the Proposed Development.
- 3.43 The collisions which were recorded in this section are shown in **Figure 3.2**. **Table 3.4** provides a summary of the collisions which occurred.



Figure 3.2: Collisions on the A165 between Skirlaugh, Arnold and Long Riston



Table 3.4: Summary of Collisions on the A165 between Skirlaugh, Arnold and Long Riston

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160255975	2018	A165 between Balk Lane/ A165 and Main Road/ Vicarage Lane	1	1	Car driver	Slight
160257268	2018	At Junction Benningholme Lane/ Hull Road	3	3	Car Driver, Two Car Passengers	Serious
160265853	2018	At Junction Balk Lane/ Whitecross Road	3	2	Two Car Drivers	Slight
160827528	2018	At Junction Kidhill Lane/ Swine Road	1	1	Motorcyclist	Serious



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160917446	2020	A165 between Arnold Lane/A165 and Main St/ A165	2	2	Goods Vehicle Driver, Car Driver	Serious
160997815	2020	At Junction A165/ Dancing Lane	2	2	Two Car Drivers	Slight
161063331	2021	At Junction A165/ Main St	2	1	Car Driver, Motorcyclist	Serious
161168616	2022	At Junction A165/ Arnold Lane	2	2	Two Motorcyclists	Serious

- 3.45 In total there were eight collisions recorded in the study area, of which three were slight, five were serious and none were fatal. None of the collisions resulted in a pedestrian or cyclist as a casualty.
- 3.46 There were no specific junctions or links in the study area which have been identified as having a high frequency of collisions. The link where the most collisions occurred was between A165/Arnold Lane and A165/Main Street where three collisions occurred, an average of less than one per year. No collision patterns have been identified which require further consideration as part of the assessment.
- 3.47 Details of the collisions which were recorded in 2023 are discussed at **Paragraph 3.66**.

A1035 A165 White Cross & Meaux Lane

- 3.48 This section covers the stretch of the A1035 and A165 and includes the village of Routh and A165/A1035 roundabout. It also includes the minor and rural roads which are designated as vehicle routes to the Site, e.g. a section of Meaux Lane.
- 3.49 The collisions which were recorded in this section are shown in **Figure 3.3**. **Table 3.5** provides a summary of the collisions which occurred.



Figure 3.3 – Collisions on the A1035, A165 White Cross Road & Meaux Lane

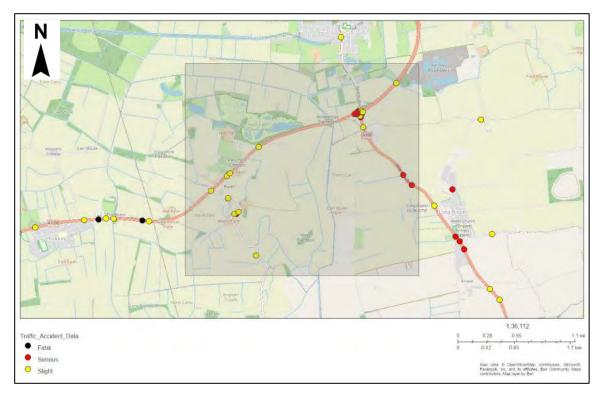


Table 3.5: Summary of Collisions on the A1035, A165 White Cross Road & Meaux Lane

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160263321	2018	Junction at A1035 / Meaux Lane	2	2	Two Car Drivers	Slight
160298772	2018	A165 between A165/Dancing Lane and A165 /A1035 Roundabout	1	3	Three Car Passengers	Serious
160316277	2018	Junction at A1035/ Park View	2	1	Motorcyclist	Slight
160806622	2018	A165/ A1035 Roundabout	1	1	Motorcyclist	Slight



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160807171	2018	A165/ A1035 Roundabout	2	2	Car Driver and car Passenger	Serious
160809715	2019	A165 between A165/Dancing Lane and A165 /A1035 Roundabout	2	1	Car Driver	Slight
160842474	2019	Junction at A1035 / Meaux Lane	2	3	Two Car Drivers, Car Passenger	Slight
160846947	2019	A165/ A1035 Roundabout	2	2	Van Driver, Car Passenger	Slight
160862027	2019	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	2	1	Motorcyclist	Serious
160882876	2019	A165/ A1035 Roundabout	2	1	Motorcyclist	Slight
160915561	2020	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	2	3	Two Car Drivers, Car Passenger	Slight
160986763	2020	Meaux Lane between junction at A1035 / Meaux Lane	2	1	Car Driver	Slight



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
		and Meaux Lane/ Skirlaugh Road				
161019841	2021	A165/ A1035 Roundabout	2	1	Motorcyclist	Serious
161023301	2021	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	2	2	Car driver, Car Passenger	Slight
161042784	2021	A165/ A1035 Roundabout	3	1	Car Driver	Serious
161042872	2021	A165/ A1035 Roundabout	2	1	Motorcyclists	Slight
161047030	2021	A165/ A1035 Roundabout	1	1	Motorcyclist	Serious
161071522	2021	A165 between A165/Dancing Lane and A165 /A1035 Roundabout	1	1	Car Driver	Serious
161071648	2021	A1035 between A165/A1035 Roundabout and Leven Roundabout	3	1	Van or Car Driver	Slight
161079092	2021	A1035 between A1035/Park View and Heron Lakes	2	1	Bus Driver and passenger	Slight



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
161124740	2021	A165/ A1035 Roundabout	1	1	Motorcyclist	Serious
161126474	2021	Meaux Lane between junction at A1035 / Meaux Lane and Meaux Lane/ Skirlaugh Road	1	2	Car Driver, Car Passenger	Slight
161179799	2022	A165/ A1035 Roundabout	2	1	Motorcyclist	Slight
161197033	2022	A1035 between A1035/Park View and Heron Lakes	2	2	Two Motorcyclists	Slight
161204521	2022	A165/ A1035 Roundabout	2	1	Cyclist	Slight
161268927	2022	A165/ A1035 Roundabout	2	1	Car Driver	Slight

- 3.50 There were 12 collisions at the A165/A1035 Roundabout which equates to between two and three collisions per year on average. This is not above what is usually expected on a major roundabout on a major road with high daily volumes of traffic. Out of the 12 accidents, 42% were recorded as serious in severity.
- 3.51 Along Meaux Lane, between Manor Farm and Church Farm, five collisions occurred which equates to an average of one accident per year which is a very low average, and the majority were recorded as slight (80%).
- 3.52 No collision patterns have been identified which would require further consideration.
- 3.53 Details of the collisions which were recorded in 2023 are discussed at **Paragraph 3.66**.

A1035 between A1174 and private farm track



- 3.54 This section covers the stretch of the A1035 between A1174 and the private farm track. .
- 3.55 The PICs which were recorded in this section are shown in **Figure 3.4**. **Table 3.6** provides a summary of the PICs which occurred.

Figure 3.4: Collisions on the A1035 between A1774 and private farm track

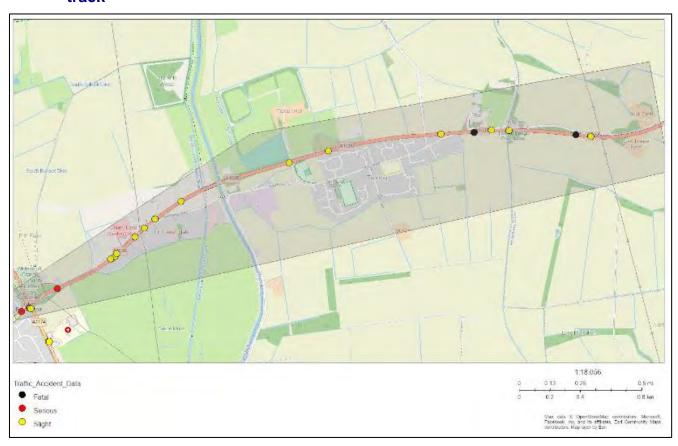


Table 3.6 – Summary of Collisions on the A1035 between A1774 and private farm track

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160288176	2018	Between A1035/Main St and A1035/Main St	2	2	Car Driver, Car Passenger	Slight
160303906	2018	Between A1035/Main St and A1035/Park View	2	1	Car Driver	Slight



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160337566	2018	Between Swinemoor Lane Roundabout and A1035/Main St	1	1	Car driver	Slight
160831586	2019	Swinemoor Lane Roundabout	1	1	Motorcyclist	Serious
160836973	2019	Between A1035/Main St and A1035/Park View	1	1	Cyclist	Fatal
160850344	2019	Between Swinemoor Lane Roundabout and A1035/Main St	2	4	Van Driver, Car Driver, Two Passengers	Slight
160881736	2019	Between A1035/Main St and A1035/Park View	2	1	Car Driver	Slight
160891110	2019	Swinemoor Lane Roundabout	2	1	Cyclist	Slight
160957604	2020	Between Swinemoor Lane Roundabout and A1035/Main St	2	1	Cyclist	Slight
160965935	2020	Between Swinemoor Lane Roundabout and A1035/Main St	3	2	Car Driver and Cyclist	Slight
160967080	2020	Between A1035/Main St and A1035/Park View	2	1	Car Driver	Fatal
160968118	2020	Between A1035/Main St and A1035/Park View	2	1	Car Passenger	Slight
160979638	2020	Swinemoor Lane Roundabout	2	1	Car Passenger	Slight



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160982172	2020	Between Swinemoor Lane Roundabout and A1035/Main St	2	1	Car Driver	Slight
160993685	2020	Swinemoor Lane Roundabout	2	3	Two Car Drivers and car passenger	Serious
161039619	2021	Between Swinemoor Lane Roundabout and A1035/Main St	2	2	Two Car Drivers	Serious
161131351	2022	Between Swinemoor Lane Roundabout and A1035/Main St	3	1	Car Driver	Slight
161202454	2022	Junction at A1035/Main St	2	2	Car Driver and Passenger	Slight
161231977	2022	Between Swinemoor Lane Roundabout and A1035/Main St	3	4	Car Driver, Three Passengers	Slight
161244282	2022	Junction at A1035/Main St	2	2	Car and Goods Vehicle drivers	Slight
161279605	2022	Between Swinemoor Lane Roundabout and A1035/Main St	2	1	Car Passenger	Slight

- 3.56 There were nine collisions between Swinemoor Lane Roundabout and A1035/Main Street. Two of these were outside Cherry Lane Garden Centre. This is an average of less than two collisions per year, along a main road with high volumes of traffic. This is therefore not a significant number of collisions.
- 3.57 There were four collisions at Swinemoor Lane Roundabout, which is an average less than one per year. Therefore this is not seen as a significant number of collisions.



- 3.58 There were two fatal accidents and they both occurred between A1035/Main St and A1035/Park View.
- 3.59 Overall, there was an average of three collisions per year across the section of the A1035 between Swinemoor Lane Roundabout and the farm access off the A1035. This is a relatively low frequency of collisions and there are no clusters or collision patterns which have been identified which would suggest there are any existing safety issues which would require further consideration.
- 3.60 Details of the collisions which were recorded in 2023 are discussed at **Paragraph 3.66**.

Wawne and Meaux Road

- 3.61 This section covers the stretch of Meaux Lane/Meaux Road which also covers part of the village of Wawne.
- 3.62 The collisions which were recorded in this section are shown in **Figure 3.5**. **Table 3.7** provides a summary of the collisions which occurred.

Figure 3.5: Collisions in Wawne and on Meaux Road/Meaux Lane

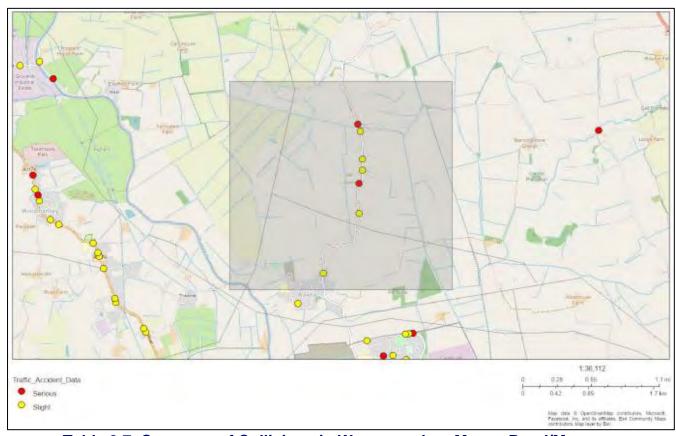


Table 3.7- Summary of Collisions in Wawne and on Meaux Road/Meaux Lane



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
160299856	2018	Junction Meaux Lane/ Skirlaugh Road	2	2	Two Car Drivers	Serious
160937709	2020	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	3	1	Car Driver	Slight
161008016	2020	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	1	2	Car Driver and Passenger	Slight
161036532	2021	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	1	1	Car Driver	Slight
161103958	2021	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	2	1	Car Passenger	Serious
161224706	2022	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	2	2	Two Car Drivers	Slight
161250089	2022	Meaux Road between Cedar Close/Meaux Road and Meaux Lane/ Skirlaugh Road	2	1	Car Passenger	Slight

- 3.63 There are no patterns of collisions along the stretch of Meaux Lane. There is an average of 1.4 accidents per year along the stretch of road.
- 3.64 71% of incidents were recorded as slight severity and all accidents involved cars and no other types of vehicles.



3.65 No collision patterns have been identified which would require further consideration.

Updated 2023 Study Area

3.66 **Figure 3.6** provides a review of all four areas previously discussed, for the period of January – December 2023 only. **Table 3.8** provides a summary of the collisions which occurred.

Figure 3.6: Collisions Recorded in the Jan - Dec 2023 Period

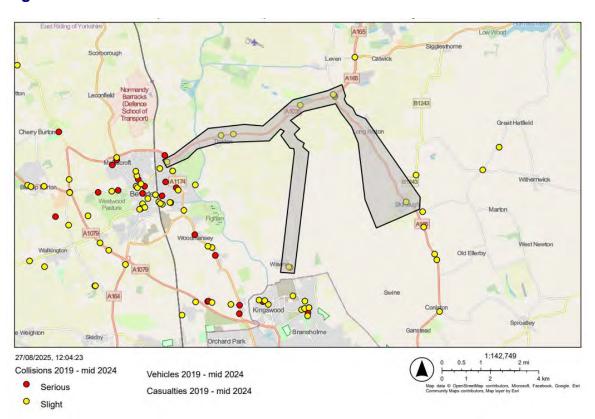


Table 3.7- Summary of Collisions in Jan - Dec 2023 Period

Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
161289740	2023	Junction of Langdale Villas / A165 Main Road	2	2	Car Driver and Pedestrian	Slight
161271865	2023	White Cross Road approach of Roundabout	2	1	Car Driver	Slight
161364459	2023	White Cross Roundabout	1	1	Car Driver	Slight



Collision Reference	Year	Location	No. of Vehicles	No. of Casualties	Type of Casualty	Severity
161372656	2023	A1035 (W) approach of roundabout	2	1	Car Passenger	Slight
161348604	2023	Junction of High Farm Country Park / A1035	2	1	Cyclist	Slight
161376457	2023	Junction of Main Street / A1035	2	1	Car Passenger	Slight
161322746	2023	A1035 between Weel Road & Main Street	2	1	Motorcyclist	Slight
161316129	2023	B1230 approach of Swinemoor Lane Roundabout	3	1	Car Driver	Slight
161364187	2023	Sutton Road	2	1	Cyclist	Slight
161345226	2023	Sutton Road	1	2	Car Driver and Car Passenger	Slight

- 3.67 During the period of January 2023 to December 2023, a total of 10 collisions were recorded in the whole of the study area. All reported collisions were classified as slight in severity, with no serious or fatal collisions recorded. This indicates a relatively low level of accident severity within the study corridor for the year under review.
- 3.68 A breakdown of these incidents is as follows:
 - 4 collisions along the A165 / A1035 corridor, including the village of Routh and the A165 / A1035 roundabout.
 - 3 collisions on the A1035 corridor, between A1174 and private farm track
 - 2 collisions on Sutton Road, which also covers part of the village of Wawne and the extent of Meaux Road / Meaux Lane.
 - 1 collision along the A165 at Skirlaugh, covering the adjacent villages of Long Riston and Arnold.
- 3.69 Based on these findings, the frequency and severity of collisions recorded are not considered sufficient to indicate any significant safety concerns along the study routes.



4 ACCESSIBILITY APPRAISAL

Access by Walking

- 4.1 Walking is recognised as the most important mode of travel at a local level, and it offers the greatest potential to replace short car trips, particularly under two kilometres. As such, consideration has been given to the existing pedestrian facilities in the vicinity of the Proposed Development.
- 4.2 As is outlined in **Section 3** above, there are a number of public footpaths and bridleways which connect to, run through and adjacent to the Site and connect it to the wider area and nearby settlements. These have been considered as part of the analysis; however it is acknowledged that due to the rural location of the Site, it is unlikely that it will attract pedestrian trips associated with construction, operation (including maintenance) or decommissioning of the Site.
- 4.3 Additionally, given that the Site is across approximately 893 hectares and there are several locations on Site where people will travel to and from, the centre of the Site has been selected as one of the main construction compounds accessed off Meaux Lane (in Land Area F) which approximately represents the centre of the Site. Although clearly the precise walking catchment would vary depending on the area of the Site being accessed.
- 4.4 GIS software has been used to model a 5km walking catchment from the Site compound at Land Area F (hence it does not appear as a consistent shape around the Order Limits) and is shown in **Figure 4.1** and **Appendix F**.



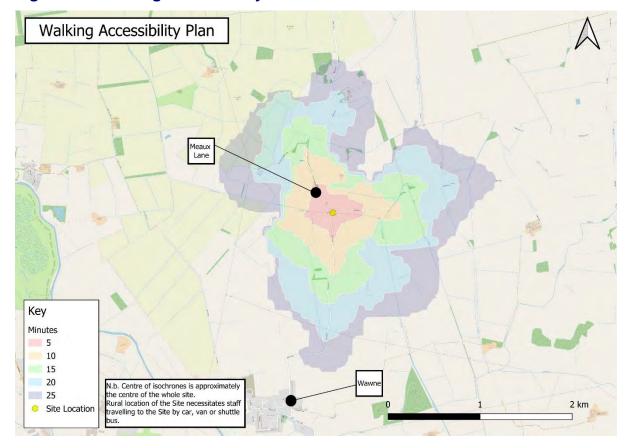


Figure 4.1: Walking Accessibility Plan

4.5 As is shown in Figure 4.1, the Site is situated in a rural setting and is evidently not likely to generate pedestrian trips other than in a small number of cases where staff may live in local villages, such as Wawne for staff working in Land Area F.

Access by Cycling

- 4.6 Cycling is a relatively inexpensive, efficient, and healthy way to travel. Transport policy identifies that cycling represents a realistic and healthy alternative to the use of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport.
- 4.7 Cycle access has been considered to explore the possibility of construction and operational staff cycling to the Site.
- 4.8 As is outlined in **Section 3** above, there are a number of public bridleways which connect to, run through and are adjacent the Site and connect it to the wider area and nearby settlements. These have been considered as part of the analysis; however it is acknowledged that due to the rural location of the Site, it is unlikely that they will attract cycle trips.
- 4.9 In addition to public bridleways, the National Cycle Network (NCN) Route 65 (Trans-Pennine Trail) connects the Site to Hull and Hornsea, locally, and runs



- between Swine and Coniston villages where it intersects the A165. Further afield the route continues past Hull to Selby, York and terminates at Middlesbrough. NCN Route 1 connects to the Site in Cottingham and runs adjacent the site in Beverley.
- 4.10 GIS software has been used to model a 5km cycle catchment from the Site and is shown in **Figure 4.2** and **Appendix F.**

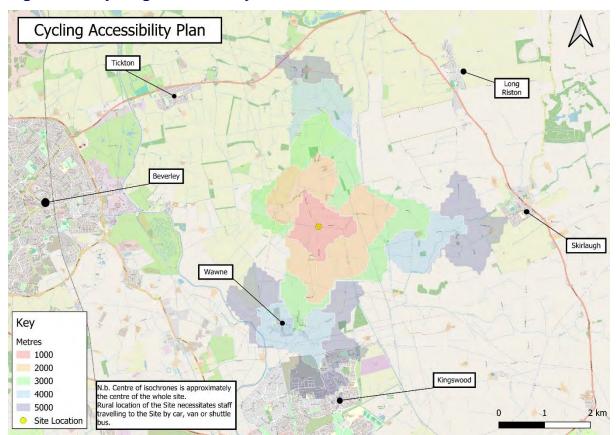


Figure 4.2: Cycling Accessibility Plan

4.11 As is shown in Figure 4.2, staff living in Wawne, Kingswood and part of Skirlaugh would be able to access Land Area F within a 5km cycle. This demonstrates that the Site has reasonable accessibility by cycling and in particular nearby villages, Hull and Beverley are accessible within a reasonable cycle distance from different parts of the Site. Nonetheless, due to the rural setting of the Site, it is unlikely to attract many cycle trips by staff.

Access by Public Transport

Bus

4.12 There are several villages and main roads which have bus services running in the vicinity of the Site. There are bus stops near to the Site in Brandesburton, Leven, Routh, Tickton, Long Riston, Arnold, Skirlaugh and Wawne.



4.13 **Table 4.1** below provides a summary of the bus services. As is shown, there are several locations adjacent to the Site which are served by frequent bus services that connect to several useful destinations in the region including Hull, Beverley, Hornsea and Bridlington.

Table 4.1: Bus Services Summary

Service	Bus	Route Description (stops near Site in bold)	Frequency*				
No.	Operator		Mon-Fri Daytime	Mon-Fri Evening	Saturday	Sunday	
10	Stagecoach East Midlands	Hull Interchange to Wawne via Stoneferry, Sutton Fields, Bransholme and North Bransholme.	Every 20 mins (Hourly to Wawne)	1 x service	Every 30 mins (Hourly to Wawne)	Every 30 mins (Hourly to Wawne)	
24	Go Ahead East Yorkshire	Hull to Hornsea via Holderness Road, Coniston, Skirlaugh, Arnold, Long Riston, Leven, Brandesburton, Catwick, Sigglesthorne and Seaton.	Every 1.5 hours	Every 2.5 hours (Fridays only)	Every 1.5 hours	Every 2 hours	
25	Go Ahead East Yorkshire	Hornsea to Hessle Square via Seaton, Sigglesthorne, Catwick, Brandesburton, Leven, Routh, Tickton, Hull Bridge, Beverley, Cottingham Green, Castle Hill, Willerby, Anlaby and First Lane.	Hourly	Every 2 hours (Fridays only)	Hourly	Every 2 hours	
99 (Park & Ride)	Stagecoach East Midlands	Bridlington P&R to Hull Interchange via Beeford, Skirlaugh,		J	0, 0830, 093 0, 1730, 183		



Service	Bus	Route	Frequency*				
No.		Description (stops near Site in bold)	Mon-Fri Daytime	Mon-Fri Evening	Saturday	Sunday	
		Arnold, and Sutton Ings.					
242	Go Ahead East Yorkshire	Hedon to Beverley via Preston, Sproatley, Bilton, Ganstead, Coniston, Skirlaugh, Arnold, Long Riston and Routh	Hedon to Beverley: 0930 Beverley to Hedon: 1330		No service		
243	North Holderness Community Transport	Withernsea to Beverley via Roos, Burton, Sproatley, Skirlaugh, Arnold and Routh	With to Bev: 0930 Bev to With: 1330	No service			

^{*}Timetables correct as of October 2024

Rail

- 4.14 There are three railway stations that are accessible from the Site: Cottingham, Hull and Beverley. The assessment of bus and rail services has demonstrated that there are a number of services operating within close proximity to the Site.
- 4.15 However, due to the existing land uses (predominantly agricultural land and farms) there is limited existing infrastructure connecting the bus stops and rail stations to the Site. It is not anticipated that any staff will travel to and from the Site by public transport. If there are some staff that choose to travel by bus or rail, the shuttle bus service operated by the Principal Contractor during the construction phase will pick them up and drop them off at a suitable off-site location to be agreed to avoid the need to walk or cycle between the stop/station and the Site.

Beverley Station

4.16 Beverly station is approximately 4km west from the Site as the crow flies. There are trains towards Bridlington, Sheffield, Scarborough, and York, and 4 trains call at the station each hour. There are two platforms, and the station is managed by Northern Rail. The station has 60 car parking spaces and 54 spaces for cycle storage. The station is unstaffed and there are toilets, however they are not accessible. There is a seating area and waiting room.



Cottingham Station

4.17 Cottingham Station is approximately 6km south of the Site as the crow flies There are trains towards Hull, Bridlington, Scarborough, Sheffield, and York, and four trains call at the station each hour. There are two platforms, and the station is managed by Northern Rail. The station has 45 car parking spaces and six spaces for bicycle storage. The station is unstaffed and there are no toilets available. There is an area for seating, however the waiting room is closed until further notice.

Hull Station

4.18 Hull station is approximately 8km south of the Site as the crow flies. From this station there are services towards Sheffield, Scarborough, Liverpool Lime Street, Manchester Piccadilly, Manchester Victoria, Bridlington, York, Halifax, Doncaster, London Kings Cross and Leeds, and seven trains call at the station each hour. There are seven platforms, and the station is managed by TransPennine Express. The station has 280 car parking spaces and 251 spaces for bicycle storage. There are staff on Site and there are both toilet and seating facilities available.

Summary

- 4.19 The nature of the Proposed Development necessitates a rural location in order to provide sufficient space to provide the proposed solar PV development and associated equipment. The rural location of the Site results in limited access to the Site by walking, cycling and public transport.
- 4.20 Nonetheless, there are some villages within walking or cycling distance of the Site, as is demonstrated by the accessibility appraisal. As a result of the rural setting, there is limited infrastructure which directly connects villages to the Site.
- 4.21 The Proposed Development will include the provision of some cycle parking for staff at the construction compounds however it is anticipated that most, if not all, staff will travel to and from the Site by car/van share or shuttle bus which will be arranged by the Principal Contractor as part of the Construction Traffic Management Plan, this is secured as a Requirement to the DCO through the Outline CTMP [EN010157/APP/7.7].



5 PROPOSED DEVELOPMENT

Proposed Development

- This section of the TA provides details of the Proposed Development including the proposed programme, the construction, operation (including maintenance) and decommissioning phases, the proposed solar PV development Site layout, access arrangements, vehicle types, traffic routing, parking arrangements and pedestrian/cycle access.
- A summary of the Proposed Development components is provided in Section 1 of the TA and is described in detail in ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1].

Programme

- As outlined in **ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]**, the earliest that construction is expected to start is Quarter 3 in 2026, subject to obtaining development consent. Construction is anticipated to be 24 months and would be phased, with Land Areas B-F constructed in stages. The assumption is that no more than two Land Areas would be constructed concurrently. Construction of the grid connection cable route would occur at the same time as the Land Areas. The duration of construction of each land Area is anticipated to be up to eight months. For the grid connection cable route works it is anticipated to be up to ten months.
- 5.4 The earliest that the Proposed Development could be connected to the national electricity network and be operational is Quarter 3 2028. The operational life of the Proposed Development is expected to be 40 years.
- 5.5 Decommissioning is expected to take between 18 and 24 months, and to be undertaken in phases.
- 5.6 Based on the above, for the purposes of this assessment, the programme is assumed to be:
 - Construction phase (Q3 2026 to Q3 2028).
 - Operational phase (2028 to 2068); and
 - Decommissioning phase (not earlier than 2068).

Construction

5.7 The nature of the Proposed Development is such that the greatest impact in terms of transport and access is likely to occur during construction and decommissioning phases. Subject to obtaining development consent, the earliest construction start is expected to be Q3 2026. Construction is anticipated to be 24 months, with the peak period of construction activity anticipated to be during 2027.



- As outlined in **ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]**, phasing is indicative at this stage. Details of phasing will be developed following procurement of the Principal Contractor. In order to undertake a robust assessment, indicative phasing has been set out which provides a worst-case scenario for the study area. The following phasing is assumed for assessment purposes:
- 5.9 The estimated phasing during construction is as follows:
 - Phase 1: Land Area B (months 1 to 4)
 - Phase 2: Land Areas B & C (months 5 to 8)
 - Phase 3: Land Areas C & D and commence grid connection cable route works (months 9 to 12)
 - Phase 4: Land Areas D & E and continue grid connection cable route works (months 13 to 16)
 - Phase 5: Land Areas E & F and continue grid connection cable route works (months 17 to 20)
 - Phase 6: Land Area F and complete grid connection cable route works (months 21 to 24).
- 5.10 The assessment in this TA and the **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]** is based on the above programme, however it is unlikely that a short delay in construction would result in a change to the conclusions of the TA.

Operation

- 5.11 Q3 2028 is the earliest date that the Proposed Development could be completed in readiness for connection to the national electricity network.
- During the operation (including maintenance) phase of the Proposed Development, on-site activities would include routine servicing, maintenance, monitoring, and replacement of solar PV development or Battery Energy Storage System (BESS) equipment as and when required, as well as solar panel cleaning and vegetation management.
- As detailed within the Outline Operational Environmental Management Plan (Outline OEMP) [EN010157/APP/7.3], During the operation (including maintenance) phase of the Proposed Development, on-site activities would be limited to maintenance activities and grazing. Maintenance activities, as described in ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1], would include:
 - Regular visual inspection of all infrastructure;
 - Regular scheduled inspections and testing of equipment;
 - Replacement of consumable items (e.g., inverter filters);
 - Cleaning of solar PV modules, if required;



- Repair or replacement of solar modules or other components, if damaged;
- Delivery of spare parts, replacement equipment items and consumables;
- Water management (e.g., clearing of drainage ditches); and
- Vegetation management (e.g., cut back of grass, hedges, trees).
- 5.14 Access to the Site from the local highway network would be required during the operational phase to allow for ongoing maintenance activities. Access will be required from time to time for routine maintenance, and less frequently for major maintenance & upgrades. It is anticipated that the number of workers typically on-site at any one time during the operational (including maintenance) phase can be broken down as follows:
 - Two workers for security during daytime; and
 - Two workers for security at night.
- 5.15 Permanent security staff are expected to be based at the office within the onsite substation compounds. Other operational workers undertaking maintenance would be based within the region and would attend the Proposed Development periodically, making use of the staff welfare and office facilities within the substation compounds.
- As well as routine maintenance, there may also be a requirement to repair and replace components on Site as part of maintaining the Proposed Development during the operation (including maintenance) phase. This could require the use of HGVs. Certainty of the number of HGVs required for these works is not known at this stage, given the extent of any repair and replacement works is unknown.
- 5.17 The operational life of the Proposed Development is expected to be 40 years.

Decommissioning

- 5.18 As previously outlined, the operational life of the Proposed Development is 40 years from the start of operation (including maintenance). After which, the Proposed Development will require decommissioning.
- 5.19 Decommissioning is expected to take between 18 and 24 months, to be undertaken in phases.
- 5.20 The process of decommissioning would involve the removal of all solar infrastructure, including the solar PV modules and on-site supporting equipment, to be recycled or disposed of in accordance with industry best practices at that time. It is anticipated at this stage that underground cabling would be left in-situ to avoid unnecessary ground disturbance. Any proposals to leave certain infrastructure, for example internal access tracks, would be discussed and agreed with landowners as part of the decommissioning process. Any requests from the Distribution Network Operator to retain the on-



- site substations beyond the operational period of the Proposed Development, will be discussed and agreed with the Distribution Network Operator.
- 5.21 Passing places and carriageway widening that are likely to be adopted will be retained permanently (during the operational phase and after decommissioning).
- 5.22 The decommissioning phase is expected to be similar in duration and nature to the construction phase, associated impacts are expected to be equal to or less than those occurring during construction in respect to traffic movements.
- 5.23 For the purpose of the EIA, the decommissioning assessment year is assumed to be no earlier than 2068, which is considered to be too far into the future to be able to accurately predict baseline traffic flows or road/junction layouts at that time. It is therefore considered reasonable to assume that the impacts during the decommissioning phase will be the same as, or less than, the construction phase..
- A Decommissioning Traffic Management Plan will be developed by the Principal Decommissioning Contractor prior to decommissioning in consultation with East Riding of Yorkshire Council, , as detailed in and secured by the Outline Decommissioning Environmental Management Plan (Outline DEMP) [EN010157/APP/7.4].
- 5.25 Therefore, this TA will assess the peak construction phase as the scenario used to determine the traffic impact of the Proposed Development.

Vehicular Access Arrangements

- 5.26 Each Land Area has been assessed for its specific access arrangements individually based on assessment of potential routes from the nearest major road. Where possible, the existing road network has been utilised and internal access roads with the overall aim of minimising the impact of the Proposed Development on the local highway network in terms of safety and capacity.
- 5.27 The Proposed Development includes the provision of seven new access junctions in addition to existing accesses from the local highway network into the Site. All of the accesses have been designed to be 7.3m wide with 15m junction radii to ensure that HGVs can safely access and egress with sufficient width for two HGVs to pass if required. In some cases, the access junctions adjoin single track roads.
- 5.28 Staff will access the Site via the junctions closest to the main construction compounds to access the relevant area where they are required. Main construction compounds will incorporate some car parking, and the Principal Contractor will also operate a shuttle bus service to bring staff to the Site and minimise traffic impact of single occupancy vehicle trips.
- The proposed construction accesses and off-site junction mitigation, including passing places and carriageway widening on the routes connecting the accesses to the nearest major road are shown at SCP drawing numbers SCP/230483/SK01, SCP/250491/SK03, SCP/250491/SK04,



SCP/250491/SK05, SCP/250491/SK06, SCP/230483/SK13, SCP/230483/SK14, SCP/230483/SK15 and SCP/230483/SK16 in **Appendix G**. Additional mitigation is proposed on Meaux Lane and Meaux Road to provide a temporary speed reduction from 40mph to 30mph between the junction with A1035 and a point approximately 40m north of Tippet Lane as well as a second section on Meaux Road in the vicinity of the two proposed accesses to Land Area F. The temporary speed reduction is set out in the **Traffic Measures Plans [EN010157/APP/2.9]** and detailed in Schedule 6 of the **Draft DCO [EN010157/APP/3.1]** (Traffic Regulation Measures).

5.30 All of the construction accesses to the Site will be retained for operation (including maintenance) and decommissioning phases. New access junctions will be reinstated to their existing condition following completion of decommissioning.

Internal Access Tracks

- 5.31 A series of internal access tracks will be provided to enable connection between the Land Areas for movement of plant and materials, shuttling staff around the Site during construction, operation (including maintenance) and decommissioning. The use of these internal access tracks minimises impact on the local highway network and is an approach that the Applicant and other solar farm developments have adopted.
- 5.32 The internal access tracks would typically be constructed of permeable materials such as gravel or crushed concrete to allow water to filtrate through and maintain greenfield runoff rates and would be of approximately 4m width, with the exception of internal access tracks leading to the on-site substations which would have a width of 4.5m.

Parking

Car parking

- 5.33 During the construction phase, there will be a total provision of approximately 140 parking spaces across the Site at the main compounds serving the Site which will include parking spaces as below.
 - Two compounds serving Land Area B 20 car spaces plus two minibus drop-off bays for each compound;
 - Compound serving Land Area C 20 car spaces plus two mini-bus drop-off bays;
 - Compound serving Land Area D 20 car spaces plus two mini-bus drop-off bays;
 - Compound serving Land Area E 20 car spaces plus two mini-bus drop-off bays;
 - Compound serving western portion of Area B and northern portion of Area D - 20 car spaces plus 2 mini-bus drop-off bays; and



 Compound serving Land Area F – 20 car spaces plus two mini-bus drop-off bays.

Cycle parking

5.34 The main compounds will include the provision of a small number of cycle parking stands to accommodate staff who may choose to cycle to the Site, for example if they are residing locally. The final number of stands will be detailed in the **Construction Traffic Management Plan** and associated **Travel Plan**.

Grid connection cable route

- 5.35 The Proposed Development would connect to the National Grid Creyke Beck Substation, located approximately 5.6km south-west of the southern extent of the Land Areas by underground cabling. The grid connection cable route is set out in ES Volume 3, Figure 1.2: Land Areas and Cable Routes Plan with Field Numbering System [EN010157/APP/6.3].
- 5.36 The underground cabling would comprise 132kV cables. The maximum dimensions of the trench required to install the cabling would be approximately 1.6m deep by 1.5m wide.
- 5.37 Cable ploughing will be utilised where ground conditions and other Site factors allow; however, for the purposes of the EIA, it has been assumed that open cut trenching will take place as a worst-case scenario. The underground cabling would be located in existing gaps in hedgerows wherever practicable. In instances where open cut or cable plough cannot be used, for example when crossing a public road or large drainage ditch, alternative methods, such as Horizontal Directional Drilling (HDD), would be used. The areas requiring HDD are identified on ES Volume 3, Figure 3.3: Indicative HDD Crossing Points [EN010157/APP/6.3].
- 5.38 The construction area for the grid connection cable route works will be accessed via internal access tracks and existing accesses directly off the local highway network at A165 White Cross Road, A1174 Hull Road, Long Lane and Park Lane, Cottingham.
- The grid connection cable route works will require temporary traffic management when the works intersect/cross local roads. It is anticipated that approximately 100m length of trenching works can be achieved per day which would enable temporary traffic management to be scheduled on an ongoing basis as and when required, as is secured pursuant to Schedule 7 of the **Draft DCO [EN010157/APP/3.1]** (Traffic Measures). It is envisaged that traffic management will be dealt with through lane closures rather than whole road closures but where roads are single track it may be necessary to close the full width for limited periods, as is secured pursuant to Schedule 5 of the **Draft DCO [EN010157/APP/3.1]** (Temporary Closures or Restrictions on Streets and Public Rights of Way) and Schedule 7 of the **Draft DCO [EN010157/APP/3.1]** (Traffic Measures). The exact methodology for



- implementing the temporary traffic management will be determined by the Principal Contractor once appointed and designed to minimise any potential effects as far as possible.
- Further details will be provided within the Construction Traffic Management Plan once further details are known in due course. The Construction Traffic Management Plan will be prepared in line with the Outline CTMP [EN010157/APP/7.7].

Vehicle Types and Large Loads

Construction

- 5.41 At this stage, it is anticipated that the majority of HGV deliveries during the construction phase will use standard length (16.5m long) articulated HGV.
- However, two Large Loads are anticipated to be required to transport the two transformers to the on-site substations in Land Areas C and E. The Large Loads will consist of a total of four vehicle movements during the construction phase, one arrival and one departure to both substations. The two on-site substations are to be left in-situ subject to agreement with Distribution Network Operator, so no further Large Loads are anticipated to be required to remove or replace the transformers during the decommissioning phase.
- 5.43 The substation at Land Area C will be accessed via the A165 White Cross Road, Carr Lane (Long Riston) and along internal access tracks. The junction of A165 White Cross Road and Carr Lane (Long Riston) is to be widened to accommodate a standard length articulated HGV. The proposed access arrangement has been assessed for the anticipated Large Load vehicle and the swept path assessment demonstrates that the proposed arrangement is sufficient for safe and efficient access and egress. The swept path assessment is included in **Appendix G**.
- The substation at Land Area E will be accessed via the A1035, Meaux Lane and along internal access tracks. Meaux Lane is proposed to be widened and passing places are provided at several locations in order to accommodate a standard length articulated HGV. A new access junction is proposed to facilitate HGV access to Land Area E via Land Area D on the west side of Meaux Lane. The route along Meaux Lane with the proposed highway mitigation has been assessed for the anticipated Large Load vehicle and the swept path assessment demonstrates that the proposed arrangement of Meaux Lane is sufficient for safe and efficient access and egress although a road closure will be required due to the narrow width of Meaux Lane which would not enable another vehicle to pass the Large Load. East Riding of Yorkshire Council Highways has confirmed that a road closure of Meaux Lane would be acceptable during the night time (response shown at Appendix A). The swept path assessment is included in Appendix G.
- 5.45 An alternative option of the Large Load routing via the A1035 and the private farm track off the A1035, instead of Meaux Lane, is under ongoing



- consideration. This option would negate the proposed road closure on Meaux Lane and would mean the route would only require A-class roads up to the private farm track off the A1035.
- There is the possibility of heavy and high loads being transported to Site that would not be classified as Large Loads but would require specific routes. National Highways "Advice for Hauliers" sets out the available heavy and high load routes which connect to the Strategic Road Network.
- 5.47 High Route 41 connects the A63 to the A1035 at Beverley via the A1079 and the A165 and would therefore be a suitable route to provide high loads to the Site which is accessed off the A165.
- 5.48 Heavy Route 107 connects the A63 to Cottingham adjacent to National Grid Creyke Beck Substation and would therefore provide a suitable heavy load route to the Site.
- 5.49 Although based on the anticipated construction activities at this stage, vehicle trips associated with construction of the Proposed Development are not anticipated to include any loads of a dangerous nature based on the classification on loads from the Department for Transport. Should this change and it be necessary for the Proposed Development to include a number of dangerous load movements, this will be first discussed with the relevant local highway authority (Hull City Council, East Riding of Yorkshire Council and National Highways as necessary) and the required approvals will be obtained.
- 5.50 The anticipated volume of LGVs and HGVs during the construction phase is set out in **Section 6** below.
- Further details will be provided within the Construction Traffic Management Plan once further information is known in due course. The Construction Traffic Management Plan will be prepared in line with the Outline CTMP [EN010157/APP/7.7].

Operation

- 5.52 The majority of vehicle trips during the operation (including maintenance) phase will be for maintenance which will require LGVs in the majority of instances. Should any major repair, replacement or maintenance works be required then there is the possibility of requiring access for a worst-case of a standard length (16.5m) articulated HGV.
- 5.53 It is not anticipated that any Large Loads will be required during the operation (including maintenance) phase.

Decommissioning

5.54 It is anticipated that the decommissioning stage will be similar in nature to the construction phase. The worst-case vehicle is anticipated to be a standard length (16.5m) articulated HGV and it is not anticipated that any AlLs will be required.



5.55 Further details will be provided within the **Decommissioning Environmental Management Plan** once further details are known in due course.



6 TRIP ANALYSIS

6.1 This section outlines the approximate trip generation and distribution for each phase of the Proposed Development, i.e. during construction, operation (including maintenance) and decommissioning.

Trip Generation

- The PEIR assessment predicted the trip generating potential of construction activities associated with each Land Area using trip rates extracted from comparable sites on the National Planning Inspectorate portal and also site experience from the Applicant's sites elsewhere.
- 6.3 Since the statutory consultation stage, for which the PEIR was produced, the construction phase traffic data has been refined to include anticipated daily trip numbers associated with the construction of each Land Area, the grid connection cable route works and other associated works, as well as anticipated operational and decommissioning daily trip numbers. These numbers were set out in the Transport Assessment Scoping Report and have been agreed with East Riding of Yorkshire Council.

Construction Phase

- 6.4 The two elements of the works during the construction phase which will determine the vehicle trip generation are staff and delivery/construction vehicles associated with works taking place in each Land Area and the grid connection cable route works.
- Both staff and construction vehicles will be controlled through the implementation of an Outline CTMP [EN010157/APP/7.7] and Outline Travel Plan (Appendix A to the Outline CTMP [EN010157/APP/7.7]), which will set out the protocols for vehicle routes, staff parking, on-site shuttle bus plans.

Construction Vehicle Trips - Construction Phase

- For the majority of the construction period, construction HGVs will be controlled to operate between the typical AM and PM network peak hours (between 09:00 and 16:00). It is anticipated that the vast majority of HGV arrivals and departures will be spread across the hours between the peaks, and this will be managed through the implementation of the **Outline CTMP** [EN010157/APP/7.7].
- 6.7 The number of daily construction vehicles predicted to be generated during the peak of the construction phase trips for each Land Area and the grid connection cable route works for light and heavy vehicles is summarised in **Table 6.1**.



- 6.8 Notwithstanding the above, there will be a short period during the construction on each Land Area of approximately two weeks in duration when it will be necessary for approximately ten HGV trips (20 HGV movements) to travel to and from the Site which may occur during the AM peak period (0715-0815).
- The occurrence of these trips during the AM peak period will have no significant impact on the local highway network operation and these trips are included in the anticipated construction phase trip generation assessed in ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2].

Table 6.1: Proposed Development Daily HGV and LGV Trips

Land Area	Vehicle Movements	HGVs	LGVs (Other Deliveries)
	Arrivals	15	13
В	Departures	15	13
	Total Daily	30	26
	Arrivals	20	16
С	Departures	20	16
	Total Daily	40	32
	Arrivals	31	31
D	Departures	31	31
	Total Daily	62	62
	Arrivals	15	13
E	Departures	15	13
	Total Daily	30	26
	Arrivals	12	12
F	Departures	12	12
	Total Daily	24	24
Grid connection	Arrivals	5 10	5 10
cable route	Departures	5 10	5 10
works	Total Daily	10 20	10 20



Staff Vehicle Trips - Construction Phase

- 6.10 It is understood that staff will arrive in the hour before the working day begins (06:00 07:00) and depart in the hour after (19:00 20:00). This will be managed through the implementation of the **Outline CTMP** [EN010157/APP/7.7].
- 6.11 For the purposes of undertaking a robust assessment, it has been assumed that staff trips will occur during the network AM and PM peak hours. Although in reality, trips associated with staff movements would occur outside of the peak hours.
- Staff travel to work will be managed through the implementation of the Outline Travel Plan (Appendix A to the Outline CTMP [EN010157/APP/7.7]) and the Outline CTMP [EN010157/APP/7.7] itself, and subsequent Construction Traffic Management Plan and Travel Plan. The Applicant will provide a shuttle bus service to accommodate 50% of staff, with each shuttle bus able to accommodate up to 14 staff members. The remaining 50% of staff are expected to all travel by either car or van due to the rural location of the Site; this will be managed so that staff travel with an average three members of staff per vehicle (driver plus two passengers) in order to ensure that the number of vehicles accessing the Site does not exceed the number of parking spaces available. Staff will be asked to car share and made aware of the cost benefits of doing so.
- 6.13 The number of daily staff numbers and vehicles predicted to be generated during the peak of the construction phase trips for each Land Area and the grid connection cable route works is summarised in **Table 6.2**.

Table 6.2: Proposed Development Daily Staff Trips

Land Area	Number of Staff	Shuttle Buses (50% of staff – 1 shuttle bus per 14 staff)	Cars/Vans (1:3 ratio for remaining 50% of staff)	Total Veh Arrivals	Total Veh Departures
В	125	4	21	25	25
С	128	5	21	26	26
D	248	9	41	50	50
Е	125	4	21	25	25
F	96	3	16	19	19



Land Area	Number of Staff	Shuttle Buses (50% of staff – 1 shuttle bus per 14 staff)	Cars/Vans (1:3 ratio for remaining 50% of staff)	Total Veh Arrivals	Total Veh Departures
Grid connection cable route	20	1	4	5	5

Note: some rounding of numbers will occur

Construction Phase Daily and Peak Hour Trip Generation

- 6.14 It is anticipated that the construction phase will occur over two years, with each Land Area taking approximately eight months to be constructed completely and the grid connection cable route works to take place over approximately ten months. On this basis, the indicative phasing consists of two Land Areas being constructed simultaneously. From an assessment perspective, the worst-case scenario is for Land Areas C & D and D & E to be constructed in two phases although in reality they may be separated into individual phases which will dilute the traffic generation during these periods.
- 6.15 For the purposes of this assessment, the indicative phases are as set out in **Section 5.6**:
- 6.16 Based on the above assumptions, **Table 6.3** provides a summary of the anticipated daily, AM peak hour and PM peak hour vehicle trips during the majority of each construction phase (assuming the worst case as described above).



Table 6.3: Proposed Development Vehicle Trips by Construction Phase

Time Period	Arr/Dep	Light Vehicles (Cars, Vans	Heavy Vehicles	Total Vehicles					
renou		and LGVs)	(HGVs)						
	Phase 1: Land Area B (Months 1 to 4)								
AM Peak	Arrivals	25	0	25					
Hour	Departures	0	0	0					
PM Peak	Arrivals	0	0	0					
Hour	Departures	25	0	25					
Daily	Arrivals	38	15	53					
Daily	Departures	38	15	53					
	Phase 2: Land Areas B & C (Months 5 to 8)								
AM Peak	Arrivals	51	0	51					
Hour	Departures	0	0	0					
PM Peak	Arrivals	0	0	0					
Hour	Departures	51	0	51					
Daily	Arrivals	80	35	115					
Daily	Departures	80	35	115					
Phase 3: La	nd Areas C & I	and commence	grid connection	works (Months					
		9 to 12)							
AM Peak	Arrivals	81	0	81					
Hour	Departures	0	0	0					
PM Peak	Arrivals	0	0	0					
Hour	Departures	81	0	81					
Daily	Arrivals	13 <u>8</u> 3	56 61	1 <u>9</u> 89					
Daily	Departures	13 <u>8</u> 3	56 61	1 <u>9</u> 89					



Table 6.3: Proposed Development Daily Staff Trips (cont.)

able 6.3: Proposed Development Daily Staff Trips (cont.) Phase 4: Land Areas D & E and continue grid connection works (Months 13						
		to 16)				
AM Peak	Arrivals	80	0	80		
Hour	Departures	0	0	0		
PM Peak	Arrivals	0	0	0		
Hour	Departures	80	0	80		
Daily	Arrivals	1 <u>34</u> 29	5 <u>6</u> 4	1 <u>9</u> 80		
Dany	Departures	1 <u>34</u> 29	5 <u>6</u> 4	1 <u>9</u> 80		
Phase 5: Lar	nd Areas E & F	and continue gr	id connection wo	orks (Months 17		
		to 20)				
AM Peak	Arrivals	49	0	49		
Hour	Departures	0	0	0		
PM Peak	Arrivals	0	0	0		
Hour	Departures	49	0	49		
Daily	Arrivals	79 <u>84</u>	3 <u>7</u> 2	1 <u>2</u> 41		
Dany	Departures	79 <u>84</u>	3 <u>7</u> 2	1 <u>2</u> 11		
Phase 6: La	and Area F and	I complete grid c	onnection works	(Months 21 to		
		24)				
AM Peak	Arrivals	24	0	24		
Hour	Departures	0	0	0		
PM Peak	Arrivals	0	0	0		
Hour	Departures	24	0	24		
Daily	Arrivals	41 <u>46</u>	17 <u>22</u>	5 <u>6</u> 8		
Dany	Departures	41 <u>46</u>	17 <u>22</u>	5 <u>6</u> 8		

Operation

- 6.17 The Proposed Development is currently anticipated to be operational from approximately Quarter 3 in 2028.
- 6.18 As described in Section 5, a minimal level of activity is expected across the Site during the operation (including maintenance) phase. It will be restricted to maintenance tasks, such as vegetation management, equipment maintenance and servicing, replacing and renewing of components, testing, inspection and monitoring.



6.19 Overall, the predicted trip generation of the Proposed Development during the operation (including maintenance) phase is low in comparison to the construction and decommissioning phases.

Decommissioning

- 6.20 The decommissioning phase is anticipated to broadly represent a reversal of the process of construction of the Proposed Development. Albeit it is likely to generate fewer vehicle movements as a result of less work being required as described below.
- 6.21 Underground cables will be left in situ. On this basis, the grid connection cable route works accesses on A1174 Hull Road, Long Lane and Park Lane will not be required for access during the decommissioning phase. As a result, there will be no impact on these links or the National Cycle Network Route 1 on Park Lane during the decommissioning phase.
- 6.22 It is anticipated that the internal access tracks (subject to discussions with relevant landowners), access junctions, passing places for users of the public highway, carriageway widening, two on-site substations (subject to agreement with the Distribution Network Operator prior to decommissioning) and environmental mitigation (subject to discussions with landowners) will be retained permanently after the operation (including maintenance) phase.
- 6.23 It is anticipated that the decommissioning phase will involve the removal of all above ground solar infrastructure comprising solar PV modules, inverters, BESS, DC-DC converters, switchgears, cabins and storage containers.
- 6.24 Overall, the predicted trip generation of the Proposed Development during the decommissioning phase is anticipated to be less than or equal to the construction phase. On this basis, the assessment of the construction phase is considered sufficient to identify any potential highways issues that may occur during the decommissioning phase.



7 FUTURE BASELINE CONDITIONS

- 7.1 This section sets out the future baseline traffic conditions on the local highway network in relation to traffic growth.
- 7.2 This includes the extant permissions for committed developments in the area local to the Site which are included within the future year baseline assessment (2026) and background traffic growth.

Background Traffic Growth

- 7.3 Background traffic from surveys undertaken in 2023 has been forecasted to the future assessment year of 2026 as the assessed construction year using the DfT's traffic forecasting program TEMPro (v.8) which is considered to be a robust model.
- 7.4 The traffic surveys undertaken in 2024 were link counts which are not used in the assessments for this TA, which assesses junctions, and are therefore not included in the future year scenario.
- 7.5 The traffic growth has been calculated based on the specific area in which the Site is located, Middle Super Output Area (MSOA) East Riding of Yorkshire 014. Factors have been derived to apply to surveyed traffic flows to forecast the construction year of 2026.
- As a result of the committed developments taken into consideration (outlined below), amendments to the assumptions that underpin the growth factors have been made to avoid double-counting. The 'future jobs prediction' has been reduced to base (from 2,499 to 2,476). The road type was defined as 'All' and the area type was defined as 'Rural'. **Table 7.1** shows the resulting growth factors for the AM peak hour, PM peak hour and Average Annual Daily Traffic (AADT) which were agreed with East Riding of Yorkshire Council in the Transport Assessment Scoping Report. The TEMPro calculations are included at **Appendix H**.

Table 7.1: TEMPro Growth Factors

Year	AM Peak	PM Peak Growth	AADT Growth
i Gai	Growth Factor	Factor	Factor
2023 - 2026	1.0259	1.0252	1.0263
2016 - 2026	1.0493	1.0375	1.0486

7.7 The 2023 traffic survey flows have been factored to 2026 using the growth factors in **Table 7.1** to derive the 2026 base traffic scenario, this is shown at **Traffic Figure 2** in **Appendix E.**



Committed Developments

- 7.8 The committed developments which are set out in **Section 3** have been considered as part of the future year baseline traffic flows. For clarity, these are:
 - Carr Farm Solar Farm
 - Field House Solar Farm
 - Hornsea Project Four Offshore Wind Farm
- 7.9 The traffic flows for the committed developments are shown on **Traffic Figures 57, 58 and 59**, in **Appendix E**. To derive the peak hour Hornsea Project 4 flows, the AADT flows were reviewed and 20% of HGVs have been assumed to be in the peak hours and 100% of staff trips in peak hours. To derive the peak hour flows for Carr Farm Solar Farm and Field House Solar Farm (Tickton) the following assumptions were made to derive the flows from AADT.
 - 7.10 Traffic flows extracted from Construction Traffic Management Plan (Neo Environmental 04/11/2022 and 01/03/2022, respectively).
 - HGV movements are assumed to be outside of peak hours.
 - Assumed worst case of 30 staff vehicle trips.
 - Assumed 50/50 distribution of staff trips to the Site from Beverley and Hull.
- 7.11 The total committed development flows are added to the 2026 base traffic flows to derive the 2026 base plus committed development scenario which is shown at **Traffic Figure 60**, in **Appendix E**.



8 TRAFFIC IMPACT ASSESSMENT

Assessment Scenarios

- 8.1 The following scenarios have been examined in detail as part of the traffic impact assessment:
 - Existing Baseline (2023).
 - Future Baseline (2026)
 - Peak Construction Phase (2026).
- 8.2 The following scenarios have been examined qualitatively:
 - Operational Phase (2028-2068); and
 - Decommissioning Period (not earlier than 2068).
- 8.3 The scope of assessment was set out in the Transport Assessment Scoping Report and this has been agreed with East Riding of Yorkshire Council, as is shown in **Appendix A**.
- 8.4 However, subsequent to the agreement of the scope an assessment of the Swinemoor Lane Roundabout has been included for the purposes of providing supporting information to the **ES Volume 2, Chapter 14: Transport and Access [EN010157/APP/6.2]**. The 2016 Traffic Survey flows extracted from the planning application 20/03720/STPLF Swinemoor Lane Proposed Mixed-Use TA (Dynamic Transport Planning September 2020) have been used to provide baseline traffic data.
- 8.5 The junctions which have been assessed are:
 - A1035 / Meaux Lane priority junction.
 - A1035/ A165/ A165 White Cross Road/ Beverley Road (White Cross Roundabout).
 - A165 White Cross Road / Site Access to Land Area B.
 - A165 White Cross Road / Carr Lane.
 - A165 White Cross Road / Arnold Lane West; and
 - A1035 / A1174 Swinemoor Lane / A164 Grange Way / B1230 Hull Bridge Road (Swinemoor Lane Roundabout).
- 8.6 The junction models undertaken for the network peak hours include staff trips to take a robust approach (even though staff movements are likely to take place between 06:00 and 07:00 and between 19:00 and 20:00, either side of the 12-hour shift). The models, however, exclude LGV and HGV trips as for the majority of the construction phase these will occur between 09:00 and 16:00 in order to avoid the network peak periods.
- 8.7 Each of the junctions has been assessed using the Junctions 10 software, produced by the company TRL which comprises the ARCADY and PICADY



software. The results generated by Junctions 10 models provide a Ratio to Flow capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions within the junction's practical capacity. Values between 0.85 and 1.0 represent variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of 1.0 represent overloaded conditions (i.e. congestion). The model output files are included within **Appendix I**.

A1035/Meaux Lane Priority Junction

Peak Construction Phase

- 8.8 The peak impact in terms of vehicle trips generated by the Proposed Development at the A1035/Meaux Lane priority junction is during construction Phase 4 (Land Areas D and E and the grid connection cable route works).
- 8.9 **Table 8.1** provides a summary of the PICADY 10 results.

Table 8.1: A1035/Meaux Lane Priority Junction

	AM		PM			
Arm	RFC Queue (PCU*)		RFC	Queue (PCU)		
2023 Base Year						
Meaux Lane	0.35	0.6	0.22	0.3		
A1035	0.04	0.0	0.10	0.1		
2026 Base + Commit	ted					
Meaux Lane	0.52	1.1	0.44	0.7		
A1035	0.04	0.0	0.14	0.2		
2026 Base + Committed + Development (Phase 4)						
Meaux Lane	0.56	1.3	0.67	1.9		
A1035	0.08	0.1	0.15	0.2		

^{*}Passenger Car Units

8.10 **Table 8.1** shows that the A1035/Meaux Lane priority junction operates well within capacity during the peak of the construction phase with and without the addition of development traffic.



A1035/A165/A165 White Cross Road/Beverley Road (White Cross Roundabout)

Peak Construction Phase

- 8.11 The peak impact in terms of vehicle trips generated by the Proposed Development at the White Cross Roundabout is during construction Phase 3 (Land Areas C and D and the grid connection cable route works).
- 8.12 **Table 8.2** provides a summary of the ARCADY 10 results.

Table 8.2: A1035/A165/A165 White Cross Road/Beverley Road (White Cross Roundabout)

Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
2023 Base Year				
A165 (E)	0.29	0.4	0.34	0.5
A165 White Cross Road	0.48	1.0	0.33	0.5
A1035	0.53	1.2	0.70	2.3
Beverley Road	0.23	0.3	0.14	0.2
2026 Base + Commit	ted			
A165 (E)	0.30	0.5	0.70	2.4
A165 White Cross Road	0.77	3.5	0.44	0.8
A1035	1.08	66.4	0.74	2.8
Beverley Road	0.38	0.6	0.14	0.2
2026 Base + Committed + Development (Phase 4)				
A165 (E)	0.30	0.5	0.70	2.4
A165 White Cross Road	0.78	3.8	0.46	0.9
A1035	1.09	72.7	0.76	3.1
Beverley Road	0.39	0.7	0.14	0.2

8.13 **Table 8.2** shows that there is a significant increase in queues in 2026 as a result of the addition of the committed development (Hornsea Project Four Offshore Wind Farm). With the addition of development traffic, there is only a minor increase in queues of 6 PCUs. Due to the temporary development of the construction compound of the Proposed Development, this minor increase is anticipated to have a negligible impact on the White Cross Roundabout



- during the peak of the construction phase with and without the addition of development traffic.
- 8.14 Clearly the traffic associated with Hornsea Project Four Offshore Wind Farm will be temporary in nature as it is associated with construction of that scheme.

A165 White Cross Road/Site Access to Land Area B Priority Junction

Peak Construction Phase

- 8.15 The peak impact in terms of vehicle trips generated by the Proposed Development at the A165 White Cross Road/Site Access to Land Area B Priority Junction is during construction Phase 2 (Land Areas B and C).
- 8.16 **Table 8.3** provides a summary of the PICADY 10 results which only include an assessment with development as the Site access does not currently exist.

Table 8.3: A165 White Cross Road/Site Access to Land Area B Priority Junction

Arm	А	M	PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
2026 Base + Committed + Development (Phase 4)				
Land Area B	0.00	0.0	0.03	0.0
A165	0.01	0.0	0.00	0.0

8.17 **Table 8.3** shows that the A165 White Cross Road/Site Access to Land Area B Priority Junction will operate well within capacity during the peak of the construction phase with the development traffic.

A165 White Cross Road/Carr Lane Priority Junction

Peak Construction Phase

- 8.18 The peak impact in terms of vehicle trips generated by the Proposed Development at the A165 White Cross Road/Carr Lane Priority Junction is during construction Phase 2 (Land Areas B and C).
- 8.19 **Table 8.4** provides a summary of the PICADY 10 results.



Table 8.4: A165 White Cross Road/Carr Lane Priority Junction

Arm	AM		PM			
	RFC	Queue (PCU)	RFC	Queue (PCU)		
2026 Base Year	2026 Base Year					
Carr Lane	0.00	0.0	0.00	0.0		
A165	0.00	0.0	0.01	0.0		
2026 Base + Committed						
Carr Lane	0.00	0.0	0.00	0.0		
A165	0.00	0.0	0.01	0.0		
2026 Base + Committed + Development (Phase 4)						
Carr Lane	0.00	0.0	0.03	0.0		
A165	0.02	0.0	0.01	0.0		

8.20 **Table 8.4** shows that the A165 White Cross Road/Carr Lane Priority Junction operates well within capacity during the peak of the construction phase with and without the addition of development traffic.

A165 White Cross Road/Arnold Lane West Priority Junction

Peak Construction Phase

- 8.21 The peak impact in terms of vehicle trips generated by the Proposed Development at the A165 White Cross Road/Arnold Lane West Priority Junction is during construction Phase 3 (Land Areas C and D and the grid connection cable route works).
- 8.22 **Table 8.5** provides a summary of the PICADY 10 results.

Table 8.5: A165 White Cross Road/Arnold Lane West Priority Junction

Arm	AM		PM		
	RFC	Queue (PCU)	RFC	Queue (PCU)	
2023 Base Year					
Arnold Lane West	0.11	0.2	0.08	0.1	
A165	0.01	0.0	0.02	0.0	
2026 Base + Committed					
Arnold Lane West	0.15	0.2	0.09	0.1	
A165	0.01	0.0	0.02	0.0	
2026 Base + Committed + Development (Phase 4)					



Arm	AM		PM	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Arnold Lane West	0.15	0.3	0.14	0.2
A165	0.05	0.1	0.02	0.0

8.23 **Table 8.5** shows that the A165 White Cross Road/Arnold Lane West Priority Junction operates well within capacity during the peak of the construction phase with and without the addition of development traffic.

A1035/A1174 Swinemoor Lane/A164 Grange Way/B1230 Hull Bridge Road (Swinemoor Lane Roundabout)

Peak Construction Phase

- 8.24 The assessment of Swinemoor Lane was undertaken because it was necessary to assess the driver delay on the link of the A1035 east of Swinemoor lane, which is in the study area. Hence the junction assessment was undertaken.
- 8.25 The peak impact in terms of vehicle trips generated by the Proposed Development at the Swinemoor Lane Roundabout is likely to be during construction Phase 4 (Land Areas D and E and the grid connection cable route works). As is outlined above, base year traffic was extracted from planning application 20/03720/STPLF Swinemoor Lane Proposed Mixed-Use TA (Dynamic Transport Planning September 2020) which used 2016 traffic survey data which has been used to derive the base model.
- 8.26 **Table 8.6** provides a summary of the ARCADY 10 results.

Table 8.6: A1035/A1174 Swinemoor Lane/A164 Grange Way/B1230 Hull Bridge Road (Swinemoor Lane Roundabout)

Arm	AM		PM			
	RFC	Queue (PCU)	RFC	Queue (PCU)		
2016 Base Year	2016 Base Year					
A1035 (E)	0.12	0.2	0.06	0.1		
Swinemoor Lane	0.11	0.1	0.16	0.2		
A1174 Hull Bridge Road	0.11	0.2	0.12	0.2		
A1035 Grange Way	0.13	0.2	0.09	0.1		
2026 Base + Committed						
A1035 (E)	0.14	0.2	0.28	0.5		



Arm	AM		PM			
	RFC	Queue (PCU)	RFC	Queue (PCU)		
Swinemoor Lane	0.30	0.5	0.19	0.2		
A1174 Hull Bridge Road	0.13	0.2	0.15	0.2		
A1035 Grange Way	0.34	0.7	0.10	0.1		
2026 Base + Commit	2026 Base + Committed + Development (Phase 4)					
A1035 (E)	0.14	0.2	0.29	0.5		
Swinemoor Lane	0.32	0.5	0.19	0.2		
A1174 Hull Bridge Road	0.13	0.2	0.15	0.2		
A1035 Grange Way	0.34	0.7	0.10	0.1		

8.27 **Table 8.6** shows that the Swinemoor Lane Roundabout operates well within capacity during the peak of the construction phase with and without the addition of development traffic.

Operation Phase (2028 – 2068)

- 8.28 As is outlined above, it is anticipated that a small number of vehicles will access the Site during the operation (including maintenance) phase of the Proposed Development. Access will be required from time to time for routine maintenance, and less frequently for major maintenance and upgrades.
- 8.29 As well as routine maintenance, there may also be a requirement to repair and replace components on Site as part of maintaining the Proposed Development during the operation (including maintenance) phase. This could require the use of HGVs. The number of HGVs required for these works is not known, given the extent of any repair and replacement works is unknown.
- 8.30 On this basis, the predicted daily trip generation of the Proposed Development during the operation (including maintenance) phase will be significantly less than the construction phase and is therefore considered to have a negligible impact.

Decommissioning Phase (Not earlier than 2068)

8.31 Decommissioning will involve the dismantling of equipment and reinstating some of the infrastructure which will require slightly less time, and fewer staff and vehicles to undertake than the construction phase. The routes and accesses (during operation and decommissioning) will be as per the construction phase.



- 8.32 As with the construction phase, the movement of workers, materials and plant are likely to generate trips on the local highway network. Any permanent mitigation delivered for the construction phase or highway enhancements implemented for the Proposed Development will be in place at the start of the decommissioning phase, including accesses from the local road network and junction improvements/widening. Therefore, it is not anticipated that further highway works will be required to facilitate the decommissioning of the Proposed Development.
- 8.33 The decommissioning phase is anticipated to take place 40 years from the start of the operation (including maintenance) phase of the Proposed Development, which is considered to be too far into the future to be able to accurately predict baseline traffic flows or road/junction layouts at that time. It is therefore considered reasonable to assume that the impacts during the decommissioning phase will be the same as, or less than, the construction phase.
- 8.34 The management of movement of decommissioning traffic will be detailed in the **Decommissioning Traffic Management Plan** and secured by the **Outline DEMP [EN010157/APP/7.4]**. Transport and access associated impacts are expected to be equal to or less than those occurring during construction in respect to traffic movements.

Summary

- 8.35 Quantitative assessments have been undertaken of the junctions in the vicinity of the Site using Junctions 10 software. The assessments have been based on a very robust scenario that assumes that all staff trips occur during the AM and PM peak hours. However, in reality it is unlikely that any staff vehicle movements generated by the Proposed Development will occur during the weekday network peak hours as a result of the working hours on Site (07:00 to 19:00 Monday to Friday; 07:00 to 12:00 on Saturday)
- 8.36 The assessments have demonstrated that all of the junctions are predicted to operate well within capacity with the addition of Proposed Development traffic during the construction phase, committed development traffic and local traffic growth with the exception of the White Cross Roundabout.
- 8.37 The White Cross Roundabout is predicted to operate over capacity with the addition of committed development traffic. However, the addition of traffic generated by the Proposed Development only results in a minor additional increase in RFC and delay at the junction. It is therefore concluded that the impact of the Proposed Development is negligible.
- 8.38 The operation (including maintenance) and decommissioning phases have been assessed qualitatively due to the fact that they will generate fewer trips than the construction phase. In both instances, it is considered that the traffic generation will have a negligible impact on the local road network.



8.39 Overall, the assessment of the impact of the Proposed Development during the construction, operation (including maintenance) and decommissioning phases has been demonstrated to be negligible.



9 SUMMARY AND CONCLUSIONS

- 9.1 This Transport Assessment has demonstrated that the Site has a reasonable level of accessibility considering the rural location of the Site. It is not anticipated that the Proposed Development will generate a significant number of trips to the Site by sustainable modes. Nonetheless, the proposals include the provision of cycle parking and staff can be picked up and dropped off at agreed off-site locations such as town centre car parks or public transport terminals, if required, to be managed through the delivery of the **Construction Traffic Management Plan** once produced in accordance with the **Outline CTMP [EN010157/APP/7.7]**.
- 9.2 A review of Stats-19 personal injury collision data has demonstrated that there are no major clusters of collisions on the road network in the vicinity of the Proposed Development, including the roads to be used for staff, LGV and HGV routing to and from the Site. There have been no highway safety issues or collision patterns identified which require further consideration.
- 9.3 Quantitative assessments have been undertaken of the junctions in the vicinity of the Site using Junctions 10 software. The assessments were based on a very robust scenario that assumed that all staff trips would occur during the AM and PM peak hours; however, in reality it is unlikely that any staff vehicle movements generated by the Proposed Development will occur during the peak hours as a result of the working hours on Site.
- 9.4 The assessments have demonstrated that all of the junctions are predicted to operate well within capacity with the addition of Proposed Development traffic during the construction phase, committed development traffic and local traffic growth with the exception of the White Cross Roundabout.
- 9.5 The White Cross Roundabout is predicted to operate over capacity with the addition of committed development traffic. However, the addition of traffic generated by the Proposed Development only results in a minor additional increase in RFC and delay at the junction. It is therefore concluded that the impact of the Proposed Development is negligible.
- 9.6 The operation (including maintenance) and decommissioning phases have been assessed qualitatively due to the fact that they will generate fewer trips than the construction phase. In both instances, it is considered that the traffic generation will have a negligible impact on the local road network.
- 9.7 Overall, the assessment of the impact of the Proposed Development during the construction, operation (including maintenance) and decommissioning phases has been demonstrated to be negligible.
- 9.8 This TA has demonstrated that the Proposed Development will not have a severe impact on the operation and safety of the surrounding highway network. Consequently, there is no highway or transport related reason why planning consent should not be granted.



APPENDIX A

Transport Assessment Scoping Report and East Riding of Yorkshire Council Correspondence



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Peartree Hill Solar Farm

Transport Assessment Scoping Report

Our reference: CGQ/230483/TASR - v.04

Author: Calum Gill-Quirke Reviewed: Jon Phillip Date: 28 August 2024

Introduction

- 1. SCP has been appointed by RWE Renewables UK Solar and Storage Ltd (hereafter, RWE) to prepare a Transport Assessment Scoping Report (TASR) in order to agree the assessment parameters which will underpin the Transport Assessment to be prepared in support of the proposed Peartree Hill Solar Farm Environmental Statement.
- 2. Peartree Hill Solar Farm is a proposed solar photovoltaic (PV) electricity generating and storage facility with an export capacity of approximately 320 megawatts (MW) and associated infrastructure (hereafter, the Proposed Development).
- 3. The site is approximately 865ha in size and is located approximately 5km north of Kingston upon Hull and east of Beverley. It is within the administrative area of East Riding of Yorkshire Council (ERYC). The site mostly comprises agricultural land and is divided by a number of drains and dikes to drain the land.
- The Proposed Development consists of:
 - Solar PV modules and associated mounting structures;
 - On-site supporting infrastructure including inverters, transformers, and switchgear;
 - A Battery Energy Storage System (BESS);
 - Two on-site substations to connect the solar PV modules to the existing electricity distribution and transmission network:
 - Low voltage and 33 kilovolts (kV) interconnecting cabling within the Land Areas to connect
 the solar PV modules together and to connect the solar PV modules to the two on-site
 substations;
 - 132 kV underground cabling connecting the Land Areas to the National Grid Creyke Beck Substation;
 - Associated infrastructure including internal vehicle access tracks, vehicle parking, security measures, gates and fencing, lighting, drainage infrastructure and storage containers and site compounds;



- Works at National Grid Creyke Beck Substation to facilitate the connection of the 132 kV underground cabling in to the Substation;
- Highways works to facilitate access for construction vehicles;
- Environmental mitigation and enhancement measures; and
- Temporary development during the construction phase of the Proposed Development including construction compounds, parking and temporary access roadways.
- 5. The major roads nearby, which will provide routes for access to the site at various points, are the A165, A1035 and A1079. These roads are maintained by the local highway authority, ERYC, and do not form part of National Highway's Strategic Road Network (SRN).
- 6. The nearest road on the SRN is the A63 which is not anticipated to be materially impacted by the proposed development. Discussions were undertaken with National Highways via a Teams meeting on 25th March 2024. National Highways did not express any particular concerns about the likely impact of the Proposed Development and requested to be kept informed as the design and potential development-trip generation and distribution was refined.
- 7. Discussions were undertaken via a Teams meeting on 19th February 2024 with Highways Officers at ERYC in which it was agreed that the impact of the Proposed Development on the local road network is not likely to be severe and it was recommended that further discussions took place with Area Engineers over the details of highway mitigation works (passing places, visibility splays and vehicle access locations). The further discussions with Area Engineers took place on 6th June 2024 in which the following items were agreed:
 - The proposed locations of passing places, carriageway widening and accesses would be provided to the relevant Area Engineers for formal comment.
 - Passing places should be 20m in length with 10m tapers;
 - ERYC would be willing to adopt some passing places and widening on the local road network
 where they are constructed to adoptable standard in order to provide an enduring
 improvement to benefit highway users and the local community; and
 - Temporary speed reductions could be considered during the construction phase to overcome visibility issues and reduce the impact trees, hedging and vegetation.
- 8. Following the meeting with Area Engineers, revised passing places and access plans for the local road network have been submitted for further review and to agree which passing places and areas of widening ERYC would be willing to adopt. As of the time of writing this report (August 2024), no response has yet been provided.
- 9. This TASR sets out the parameters of the Transport Assessment (TA) to be produced in support of the proposals. It seeks to agree with ERYC the suggested methodology to be used for the production of the TA. The TA will be included as an appendix to the Environmental Statement (ES).



- 10. The Preliminary Environmental Impact Report (PEIR) for the Proposed Development was commenced in April and provided opportunity for the public and other stakeholders to engage. The transport and access section of the PEIR found that the impact of the Proposed Development was negligible on the majority of links, in the few instances where an impact was anticipated this was mostly due to the fact that existing traffic flows on these links was very low which resulted in a high percentage impact. In these lower trafficked roads, it is proposed to provide mitigation in the form of passing places and widening which is considered to be sufficient to mitigate against any potential highways impacts. A response to the PEIR was provided on 20th August 2024 and the comments have been taken into consideration as part of this TASR.
- 11. Design freeze for the Proposed Development was on 31st July 2024 and details of the vehicle trip generation for staff and construction vehicles has been refined.

Assessment Scenarios

12. This section sets out the proposed assessment scenarios; i.e. the phase of development which will be assessed and the baseline and future years of assessment, for the Transport Assessment.

Phase of Development

- 13. The Proposed Development is anticipated to begin the construction phase in 2026 and it is expected to take 24 months to complete. The operational phase will begin post-construction, i.e. circa 2028. It is anticipated that the lifespan of the Proposed Development will be approximately 40 years after which the decommissioning phase would commence in circa 2068. The above dates are subject to DCO consent, programming and subject to design life of the equipment.
- 14. The vast majority of vehicle trips associated with the site will be undertaken during the construction phase, comprising construction of internal roads and other infrastructure, delivery of solar panels and other equipment/machinery and employee trips to and from the construction site.
- 15. The operational phase is not anticipated to generate a significant number of trips. Any operational trips to/from the site will be for maintenance, testing and other tasks which will be negligible when compared to the construction phase. RWE anticipates 1 weekly visit to the site during operation plus approximately 26 maintenance visits per year. The traffic associated with this would be negligible compared to existing traffic levels and is therefore considered unnecessary to assess the highway impact of the operational phases.
- 16. The decommissioning phase will generate a relatively similar number of trips to the construction phase, albeit slightly fewer as less work will be required. Additionally, given that decommissioning will occur in circa 2068, it is difficult to accurately predict base traffic and changes to the road network which would result in assessment being inaccurate. It is considered to be covered by the assessment of the construction phase given that trip generation is anticipated to be similar, or possibly lower.
- 17. The vehicles used during the construction phase will include HGVs which require greater consideration in terms of routing and access compared to LGVs which would be used during the operational phase.



18. On the above basis, the peak construction phase will be assessed as the worst-case scenario of the Proposed Development for the purposes of the TA and ES.

Base and Future Year Scenarios

- 19. Baseline traffic data was collected from several sources, as follows:
 - East Riding of Yorkshire Council automatic traffic counters of the following links (date of survey in brackets):
 - o A165 Main Street, Skirlaugh (September 2023); and
 - Meaux Road, Wawne (January 2020).
 - Manually classified junction turning-movement count surveys undertaken at the following junctions (date of survey in brackets):
 - o A165 Brandesburton Roundabout (October 2023);
 - A165 Leven Roundabout (October 2023);
 - o A165 / A1035 White Cross Roundabout (October 2023);
 - A1035 / Meaux Lane Priority Right-Turn Ghost Island Junction (October 2023);
 - North Street / East Street / South Street / West Street Crossroads, Leven (October 2023);
 - A165 / Arnold Lane West Priority Right-Turn Ghost Island Junction, Long Riston (October 2023); and
 - Wawne Road / Cumbrian Way / Kesteven Way Roundabout (October 2023).
 - Automatic Traffic Counter (ATC) surveys (recording total two-way link movements) by vehicle type on the following links (date of survey in brackets):
 - Carr Lane (Long Riston) (October 2023);
 - A1035 (East of Swinemoor Lane Roundabout) (February 2024);
 - Meaux Road (south of Holderness Drain) (February 2024);
 - Black Tup Lane (South of Carr Lane) (February 2024);
 - West Street, Leven (East of Heigholme Lane) (February 2024); and
 - Heigholme Lane (February 2024).
- 20. Since baseline traffic data was collected in 2023 and early 2024, the study area has been refined. Notably this included the removal of Land Area A (which was included in the PEIR) and refining of routes to/from each land area, therefore a number of the above junctions and links have been



removed from the study area. The surveys shown italics are no longer within the study area and are not used in the assessment.

- 21. The 2023 Traffic Survey Flows are shown at **Traffic Figure 1** in **Appendix 1**.
- 22. In terms of a year of assessment, the worst-case scenario is the construction phase. Therefore the baseline traffic data has been forecasted to construction start of 2026 in line with the programme for the construction phase.
- 23. The ES chapter is based on percentage impact of the Proposed Development compared to the baseline traffic. Therefore, lower baseline traffic would increase the possibility of a greater impact and 2026 is therefore considered to be an appropriate year of assessment for the ES chapter.
- 24. For consistency, 2026 is also proposed as the future assessment year for assessment in the TA. Typically, a TA would assess 5 years post-planning application however in this instance the construction phase would be completed and the impact of the development would be significantly reduced by this year as the programme enters the operational phase and therefore it is more robust to assess 2026.
- 25. Traffic growth factors have been calculated based on changes within a specific zone (Middle Super Output Area (MSOA) East Riding of Yorkshire 014) and are derived using the Department for Transport's TEMPro national program v.8 (Trip End Model Presentation Program). Such factors have been derived to factor traffic flows from the survey year of the relevant surveys (only those undertaken in 2023) to a construction year of 2026.
- 26. A list of committed developments was identified in the PEIR report and these have been reviewed to see which would have a direct impact on the transport study area. In addition to baseline traffic growth from TEMPro, local committed developments have been considered. A shortlist of committed developments were reviewed using data from their respective Transport Assessments, ES chapters or Construction Traffic Management Plans to identify whether they would generate significant traffic on the highway network within the study area. A number were removed. The short list and reason for exclusion or inclusion is included in **Appendix 2**.
- 27. The committed developments which are proposed to take into account are:
 - 22/00824/STPLF Construction of solar photovoltaic development including solar panels, installation of sub-station, medium voltage power stations, battery energy storage containers, erection of perimeter fence and CCTV poles with associated access and erection of temporary construction compound
 - NSIP Development of the Hornsea Project Four offshore wind farm. This is within the
 western area of the former Hornsea known as Zone 4, under the Round 3 offshore wind
 licensing arrangements established by The Crown Estate.
- 28. The TEMPro has been amended to account for the above committed developments. The 'future jobs prediction' has been reduced to base (from 2,499 to 2,476) to avoid double-counting of the jobs created by the committed developments. The road type was defined as "All" and the area type was defined as "Rural". **Table 1** shows the resulting growth factors.



Table 1: TEMPro Growth Factors

Year	AM Peak Growth Factor	PM Peak Growth Factor	AADT Peak Growth Factor
2023 – 2026	1.0259	1.0252	1.0263

- 29. **Traffic Figure 2** in **Appendix 1** shows the 2026 Base Traffic Flows, this is the 2023 surveyed flows factored to 2026 with the TEMPro growth factors.
- 30. **Traffic Figures 3, 4 and 5** in **Appendix 1** show the committed developments traffic flows during the peak hours and the total committed development traffic flows.
- 31. Traffic Figure 6 in Appendix 1 shows the 2026 Base plus committed development traffic flows.

Vehicular Access

- 32. The Proposed Development consists of five land areas referred to as Land Area B to Land Area F. Cable crossing the site will connect the development in each of the Land Areas to Creyke Beck substation. Land Area A has been removed from the site since the submission of the PEIR. A plan showing the location of each Land Area is attached at **Appendix 3**.
- 33. A process of reviewing the access route options from the nearest major road to each Land Area has been undertaken with detailed analysis through vehicle tracking, visibility assessments and discussions with stakeholders. the resulting proposed vehicle access arrangements and passing places are being reviewed by ERYC Highways Area Engineers and comments will be considered before final submission.
- 34. The proposed routes and accesses are as follows:

Land Area B (see plan number: SCP/230483/SK13 Rev B)

- Access to land area to the east of A165 via new priority T-junction access arrangement;
- Access to land area to the west of A165 via Carr Lane (opposite Dancing Lane); and
- Access to land area to the east of Land Area D via new priority T-junction access arrangement with Meaux Lane.
- All accesses to be used by staff trips and HGVs.

Land Area C (see plan number: SCP/230483/SK14 Rev B)

- Access via A165 / Arnold Lane West priority junction, enter and exit site via Carr Lane (Arnold).
- Access to be used by staff trips and HGVs.

Land Areas D (see plan number: SCP/230483/SK15 Rev C)



- Access from the A1035 via Meaux Lane and access land areas via four new priority Tjunctions on Meaux Lane.
- The northernmost junction on the west side of Meaux Lane will be used by HGVs only. Staff will not use this access (other than by shuttle bus).
- The northernmost junction on the east side of Meaux Lane will provide access for staff to the compound located near this access, staff will be transported around other parts of Land Area D by shuttle bus. This access will also be used by HGVs.
- The next access to the south, on the east side of Meaux Lane, will be used by HGVs only.
- The southernmost access to Land Area D, on the west side of Meaux Lane, will be used by staff for access to the compound near the access junction, from which staff will be transported around Land Area D by shuttle bus. This access will also be used by HGVs.

Land Area E (see plan number: SCP/230483/SK15 Rev C)

- Land Area E accessed via the southernmost access to Land Area D, on the west of Meaux Lane, through internal tracks in Land Area D. This access will be used by staff and HGVs.
- The northernmost access to Land Area D will be used by HGVs to access Land Area via internal tracks through Land Area D.

Land Area F (see plan number: SCP/230483/SK16 Rev C)

- Access via two new priority T-junctions approximately on Meaux Road, one to the east and one to the west. These are the two southernmost accesses on Meaux Road/Meaux Lane, i.e. to the south of the accesses to Land Areas D and E.
- The access to the west of Meaux Road will only be accessed by HGVs.
- The access to the east of Meaux Road will be accessed by HGVs and staff trips, the staff compound is located near to this access and staff will be transported around Land Area F from here by shuttle bus.
- 35. The plan at **Appendix 3** indicates the locations of each of the accesses outlined above. Plans showing the proposed access arrangements and mitigation works on the routes to the site are included in **Appendix 4**. The mitigation works include the proposed passing places and carriageway widening which will facilitate access by articulated HGVs.

Access to land for cable works

36. In addition to the accesses to each Land Area, existing accesses from the public highway will be used for access to undertake the works associated with the cable connection to Creyke Beck. There are six existing vehicular accesses which will be used for short periods of time, each will be used for a few weeks whilst work is undertaken. The accesses will only be used by a small



number of daily LGVs and HGVs (delivering tools, machinery and equipment for cable works). Staff will be shuttled by mini-bus to the site from nearby site compounds in the solar Land Areas, it is anticipated that approximately 20 staff will be required which can be shuttled by two buses in total. Considering the small number of vehicles accessing for cable works and the short period of time each access will be in operation, there are no highway mitigations required. Each access will be managed and controlled by banksmen and the regulations for access (including no staff vehicle access other than by shuttle bus) will be set out in more detail in the CTMP.

- 37. The existing accesses which will be used to access land for cable works are located on the north and south sides of A1174 Hull Road (approximately 150m and 175m south east of the A164 roundabout), on the south side of Long Lane (approximately 1.03km west of the A1174 Hull Road) and via either Park Lane or Dunswell Road to Creyke Beck substation.
- 38. The staff trips generated by the development are included in the assessment. The HGV and LGV daily volumes are negligible, the trips will be spread throughout the day and across different routes to those associated with the main solar Land Areas and are therefore not considered to be necessary to include.

Traffic Routing

39. The traffic routing to the different land areas of the site has been considered separately for staff and LGVs/HGVs.

Staff Routing

- 40. For the assessment in the PEIR, it was assumed that all staff trips were from Beverley. However, the proposed development and details of staff trips have been subsequently refined.
- 41. Staff will arrive to site either by car or van, by shuttle bus (picking up and dropping off staff from the local area) or by car/van share (picking up and dropping off by other staff). Staff will travel to the compound in the Land Area which they are working in and be transported around the Land Area from there by shuttle bus along the internal site tracks.
- 42. Each Land Area will include cycle parking and facilities such as showers and changing rooms to provide opportunities for people to cycle to work. This may be possible for staff who live in nearby villages. However, to be robust it is assumed that all staff arrive by car, van or shuttle bus.
- 43. The NOMIS database of journey to work data (based on 2011 Census) has been used to identify the place of residence of people working in the middle super output area (MSOA) within which the site lies (East Riding of Yorkshire 014). This has been used to create a gravity distribution model to inform the distribution of staff trips to and from each land area. The gravity model is included in **Appendix 5**.
- 44. In summary, 36% of staff will travel to and from Beverley/A1035, 13% from Wawne/North Hull/Meaux Lane, 21% from East Hull/A165, 20% from A1035 to the north-east (Hornsea) and 10% from Leven/Brandesburton.



HGV Traffic Routing

- 45. It is envisaged that HGV trips will originate at Hull docks on the Humber, particularly for those delivering solar panels. Additionally, delivery of other machinery and equipment will be most likely to arrive from Hull or Beverley. Therefore the main routes to the site by HGVs will be via the A1035 and A165.
- 46. Deliveries and HGV trips will be controlled so that they do not conflict with the network peak hours. As a result, the distribution and assignment of HGV and delivery trips has not been included in the peak hour assessment.
- 47. The routes have been assessed using swept path analysis to assess whether they are sufficient to accommodate articulated HGVs (16.5m length). This is the worst case vehicle anticipated to access the site, there are no abnormal loads expected.
- 48. Several passing places are proposed to be provided on Meaux Lane, Carr Lane (Long Riston), Black Tup Lane and Arnold Lane West and Carr Lane (Arnold). Additionally, several bends in the road on Meaux Lane have been widened to enable two HGVs to pass. Subject to agreement with highways, the passing places are to be adopted and retained as permanent highway.
- 49. Meaux Lane is proposed to have a temporary speed reduction to 30mph during the construction phase. This is to reduce the stopping sight distance requirements in order to reduce the need for the removal of hedging and vegetation.

Trip Generation

- 50. The PEIR assessment predicted the trip generating potential of each Land Area using trip rates extracted from equivalent sites on the National Planning Inspectorate portal.
- 51. Since the PEIR, the construction phase traffic data has been refined by RWE and they have provided details of daily trip numbers.

Delivery and HGV Trip Generation

- 52. **Table 2** provides a summary of the delivery vehicle and HGV trips anticipated for each Land Area based on data provided by RWE.
- 53. The figures shown are the daily HGV and LGV volumes during the peak of the construction of each Land Area and the cable works. It is anticipated that there will be off-peak periods where there are fewer daily vehicles than shown in Table 2. In the case of each of the Land Areas, the construction phase will last approximately 8 months and construction will take place 6 days a week (Monday to Saturday) with HGVs and deliveries to be outside of the network peak hours.



Table 2: Anticipated Daily HGV and Delivery Trips

Land Area		HGVs	LGVs (Other Deliveries)	
В	Arrivals	15	13	
	Departures	15	13	
	Total Daily	30	26	
С	Arrivals	20	16	
	Departures	20	16	
	Total Daily	40	32	
D	Arrivals	31	31	
	Departures	31	31	
	Total Daily	62	62	
	Arrivals	15	13	
Е	Departures	15	13	
	Total Daily	30	26	
F	Arrivals	12	12	
	Departures	12	12	
	Total Daily	24	24	
Creyke Beck Cable Works	Arrivals	5	5	
	Departures	5	5	
	Total Daily	10	10	

54. The vehicle volumes shown in Table 2 represent the peak of each Land Area. For the majority of the construction of each Land Area, the number of daily vehicles is likely to be lower. As outlined above, HGV and delivery trips will be controlled to be outside of the peak hours. This will be included within a Construction Traffic Management Plan.

Staff Trip Generation

55. **Table 3** outlines the number of staff per Land Area and the proportion expected to travel by car, van or shuttle bus. 50% of staff are anticipated to be taken to and from site by shuttle bus and each shuttle bus accommodates 14 staff. The remaining 50% are anticipated to car/van share, with a 3:1 ratio of staff to vehicle.



Table 3: Anticipated Daily Staff Trips

Land Area	Number of Staff	Shuttle Buses	Cars/Vans	Total Arrivals	Total Departures
В	125	4	21	25	25
С	128	5	21	26	26
D	248	9	41	50	50
E	125	4	21	25	25
F	96	3	16	19	19
Grid					
connection cable route	20	1	4	5	5

- 56. Staff will arrive to the site during the morning peak hour (around 9am) and depart during the evening peak hour (around 5pm).
- 57. The traffic distribution for the cable works and each Land Area and assignment of staff trips during the AM and PM peak hours is shown on **Traffic Figures 7** to **18** in **Appendix 1**.

Phasing

- 58. Each Land Area is anticipated to be constructed over an 8 month period. The Creyke beck cable works are anticipated to occur over approximately 10 months.
- 59. Phasing of the construction phase is based on two Land Areas being constructed simultaneously across several 4 or 5 month periods in order to assess the worst case scenarios. The exception being than the first 4 months of Land Area B (Phase 1) and the final 4 months of Land Area F (Phase 6) at which point they are the sole Land Area being constructed. The phasing is indicative at this stage. The indicative phasing plan is included in **Appendix 6**.
- 60. The indicative construction phases are as follows:

Phase 1: Land Area B

Phase 2: Land Areas B & C

Phase 3: Land Areas C & D and Grid connection cable route

Phase 4: Land Areas D & E and Grid connection cable route

Phase 5: Land Areas E & F and Grid connection cable route

Phase 6: Land Area F

61. The trip generation for each combined Land Area and Grid connection cable route works, i.e. Phases 2 to 5, are shown on **Traffic Figures 19** to **22**, in **Appendix 1**. These figures show the



peak construction trip generation at any one time during each Phase. However it is noted that throughout periods of the construction of each Land Area, the vehicle numbers will be lower as fewer staff will be required at certain stages.

Traffic Impact

- 62. The trip generation at local junctions during the peak construction phases, as shown on Traffic Figures 19 to 22, has been reviewed to assess whether any capacity modelling will be required.
- 63. A general rule of thumb has been applied, i.e. a trigger point of 30 total vehicle movements at a junction will trigger the need for modelling. However, there are exceptions on Meaux Lane junctions as the existing traffic volumes are low and the additional vehicles generated by the Proposed Development will only result in approximately 1 additional vehicle every minute or two which is likely to be imperceptible compared to baseline traffic.
- 64. It is proposed to undertake capacity assessments at the following junctions on the ERYC Local Highway Network in order to assess the worst case impact at each stage of the construction process:
 - A1035 / Meaux Lane priority junction (worst case of 69 vehicle movements in both AM and PM peak hours during Phase 4 Land Areas D & E);
 - A1035/ A165/ A165 White Cross Road/ Beverley Road (White Cross Roundabout) (worst case of 48 vehicle movements in both AM and PM peak hours during Phase 3 – Land Areas C & D);
 - A165 White Cross Road / Site Access to Land Area B (worst case of 35 vehicle movements in AM and PM peak hours during Phase 2 – Land Areas B & C);
 - A165 White Cross Road / Carr Lane (worst case of 32 vehicle movements in AM and PM peak hours during Phase 2 Land Areas B & C); and
 - A165 White Cross Road / Arnold Lane West (worst case of 38 vehicle movements in AM and PM peak hours during Phase 3 Land Areas C & D).
- 65. The capacity assessments will be undertaken using the ARCADY10 software in the base year and future year with and without the addition of development traffic.

Highway Safety

66. Additionally, the impact of the proposed development in terms of road safety will be considered in detail. The most recent 3-year period (including 2018 and 2019 to provide 3 years without the COVID-19 restrictions, i.e. a total of 5 years) of road traffic collision history will be reviewed for the wider highway network in the vicinity of the site to identify collision patterns, estimate the impact of the proposed development traffic in conjunction with capacity modelling and propose mitigation where appropriate. It is not anticipated that the proposed development will have a detrimental impact on road safety in the local area given that the peak traffic generating phase is temporary and that HGVs will mostly travel outside of the network peak hours.



Construction Traffic Management Plan

67. A Construction Traffic Management Plan will be prepared. This will include details of the routes to be taken to site by staff and HGVs. It will also include details of the location of staff compounds and proposals for wheel washing.

Summary

- 68. This Transport Assessment Scoping Report sets out the assessment year, traffic growth, committed developments, vehicle trip generation and distribution and proposed junctions to assess for agreement by East Riding of Yorkshire Council.
- 69. The Transport Assessment will be submitted as an appendix to the Environmental Statement Transport and Access chapter which will be submitted as part of the DCO submission.

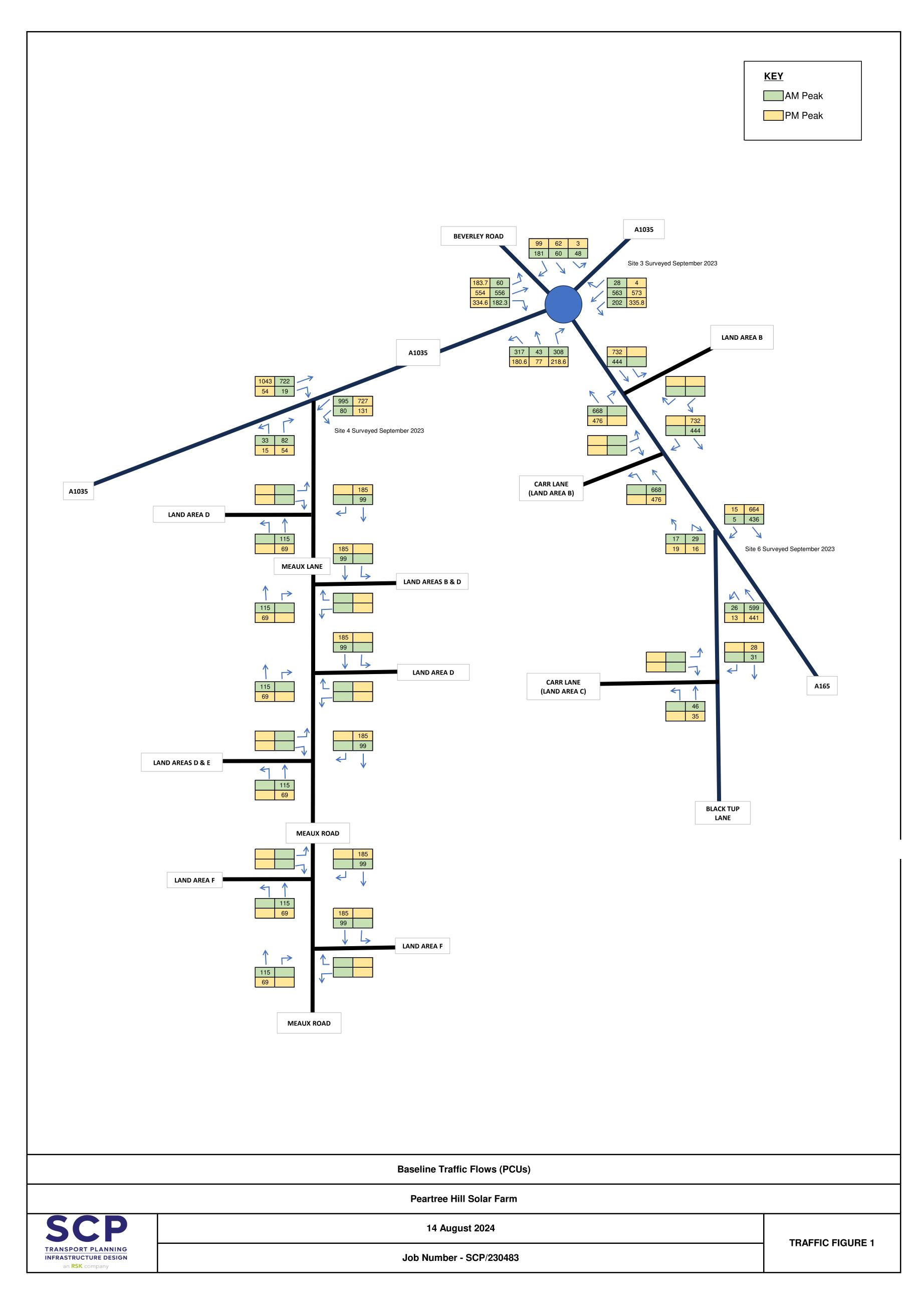


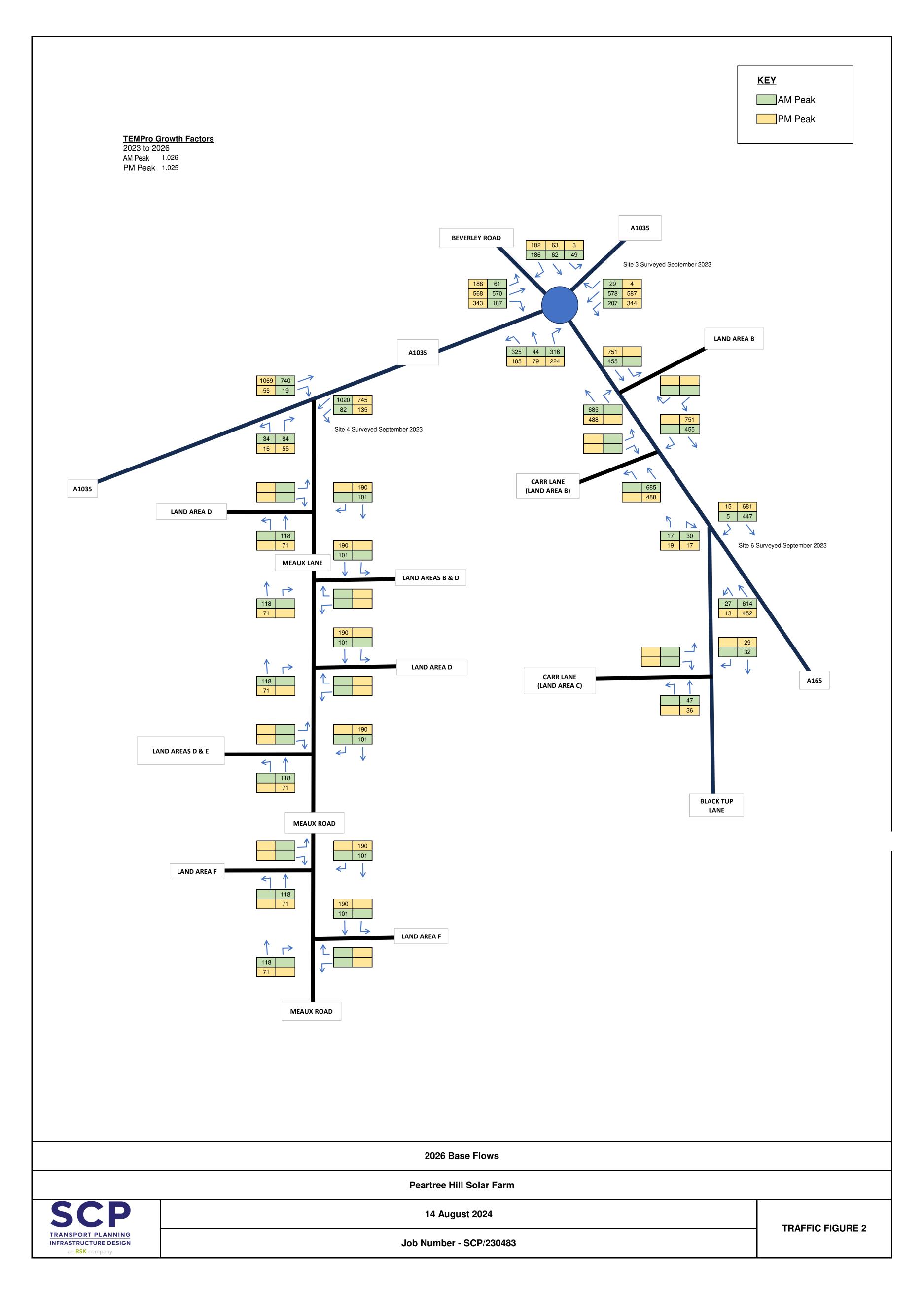
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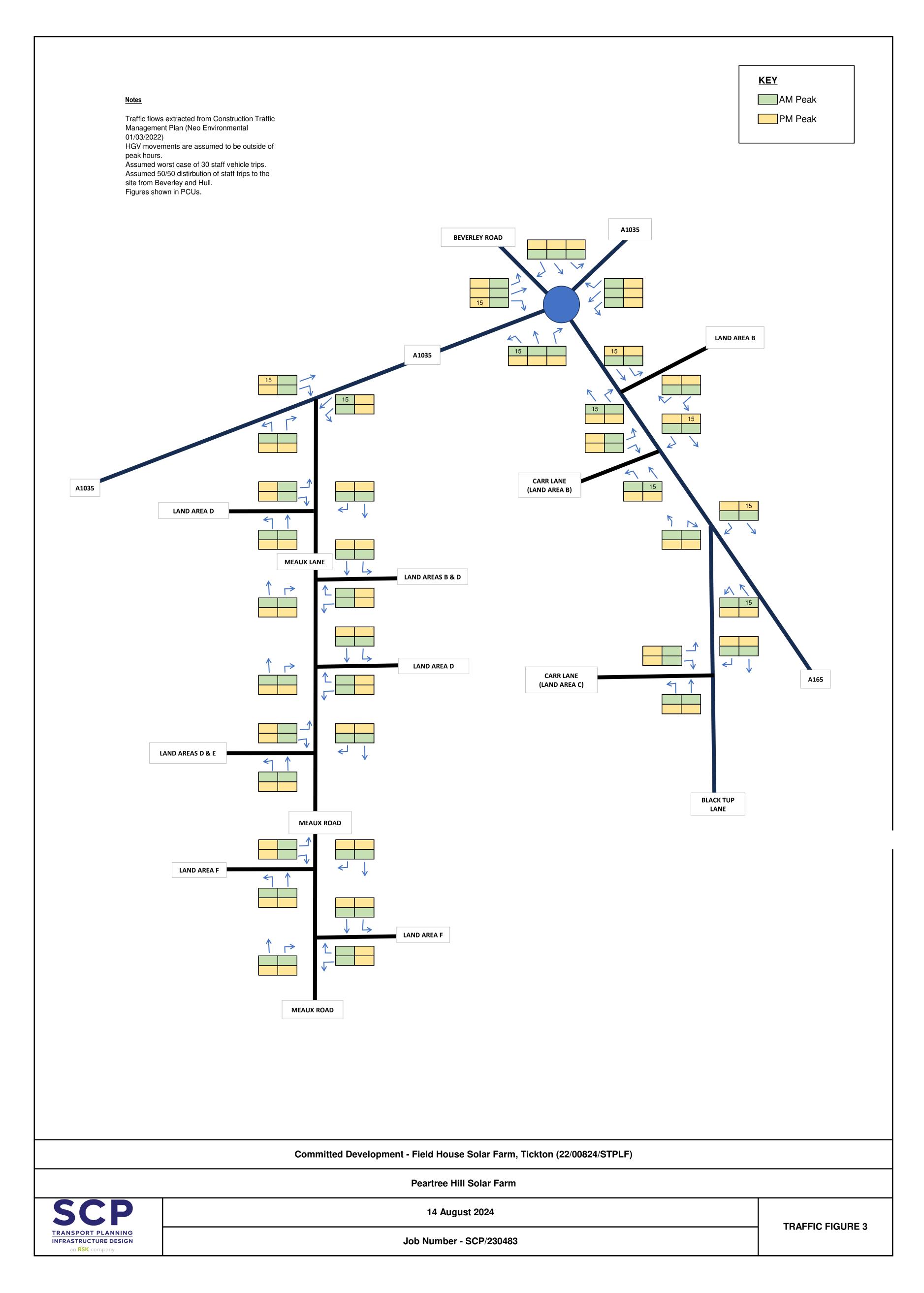
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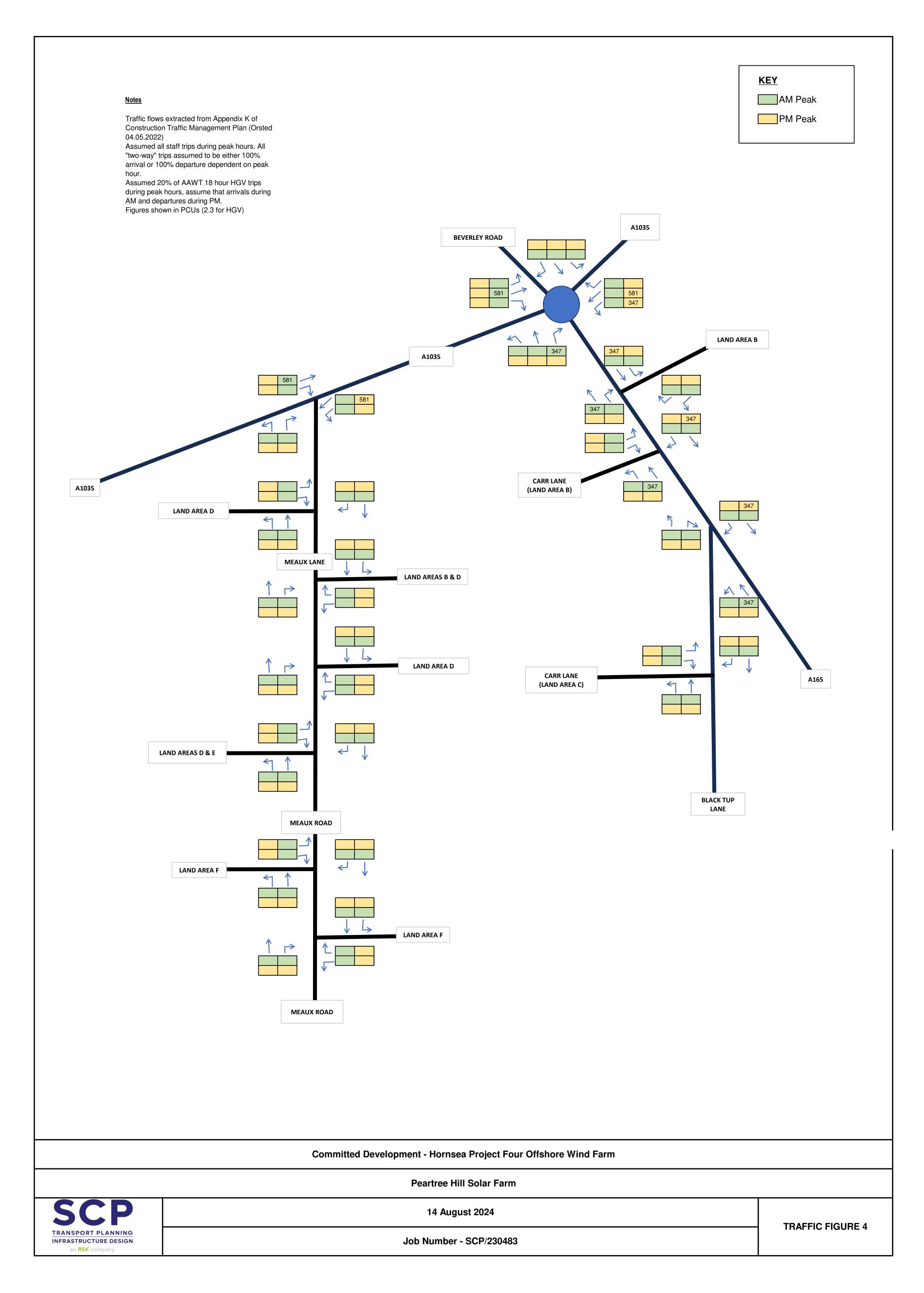
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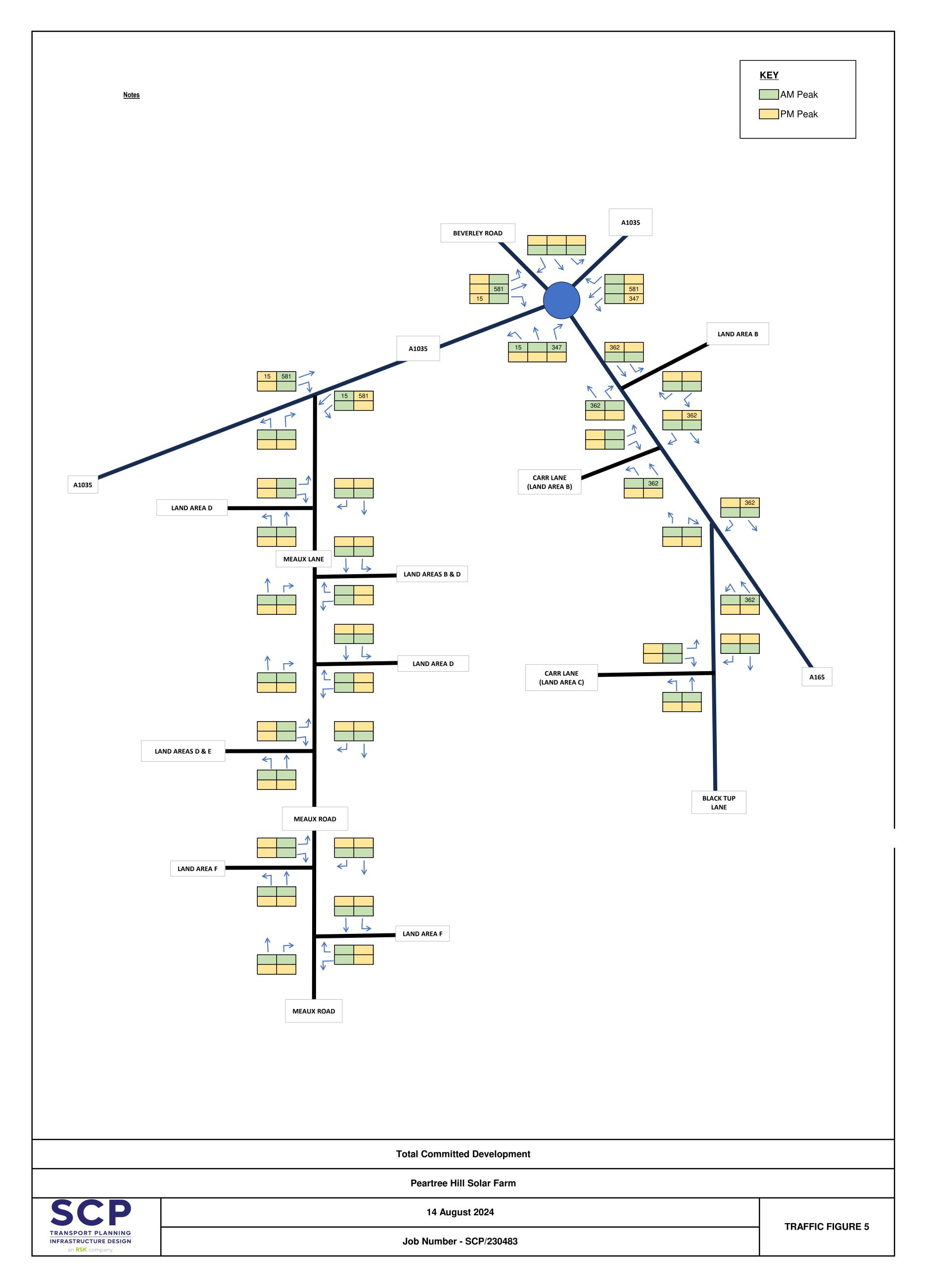
TRAFFIC FIGURES

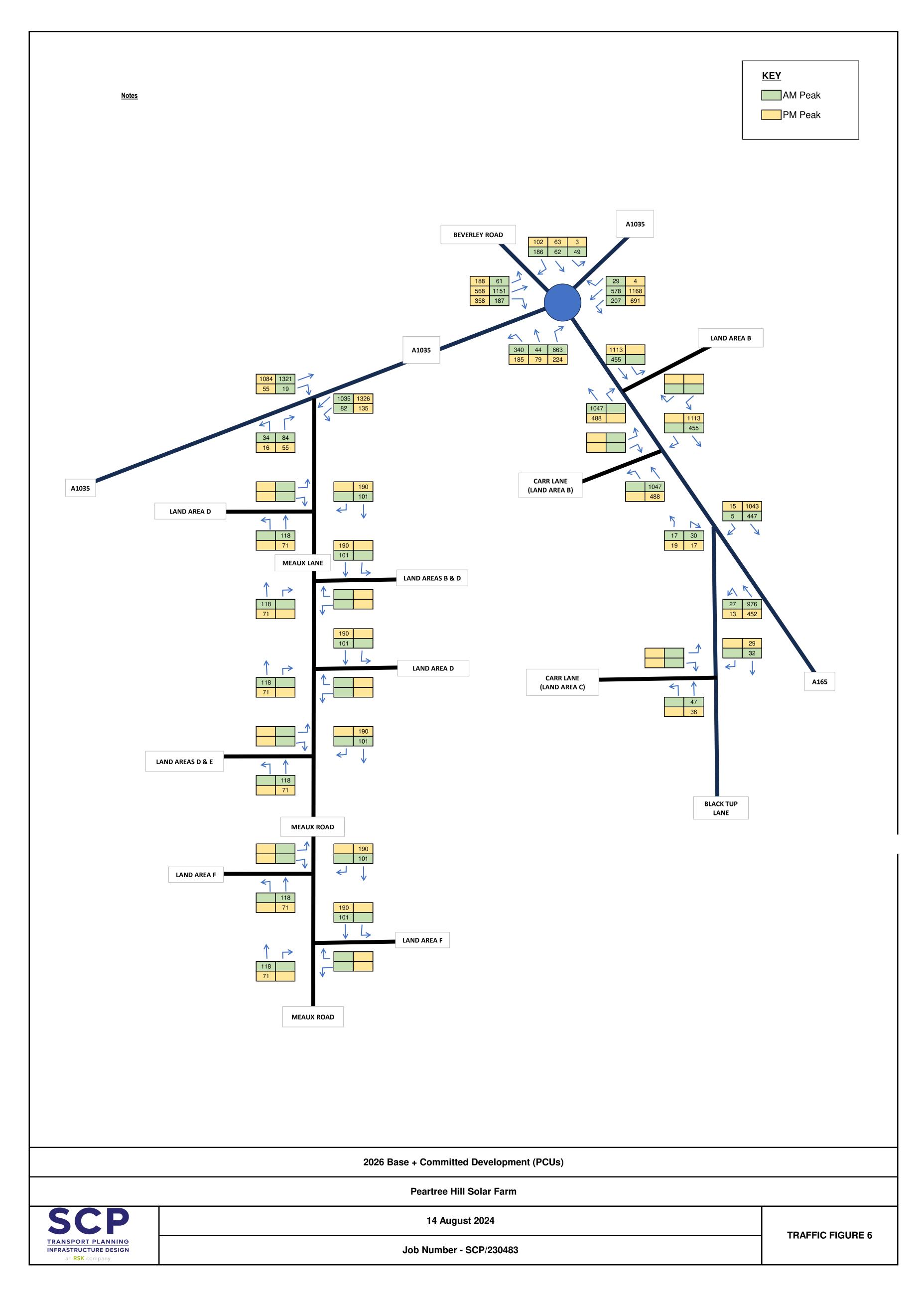


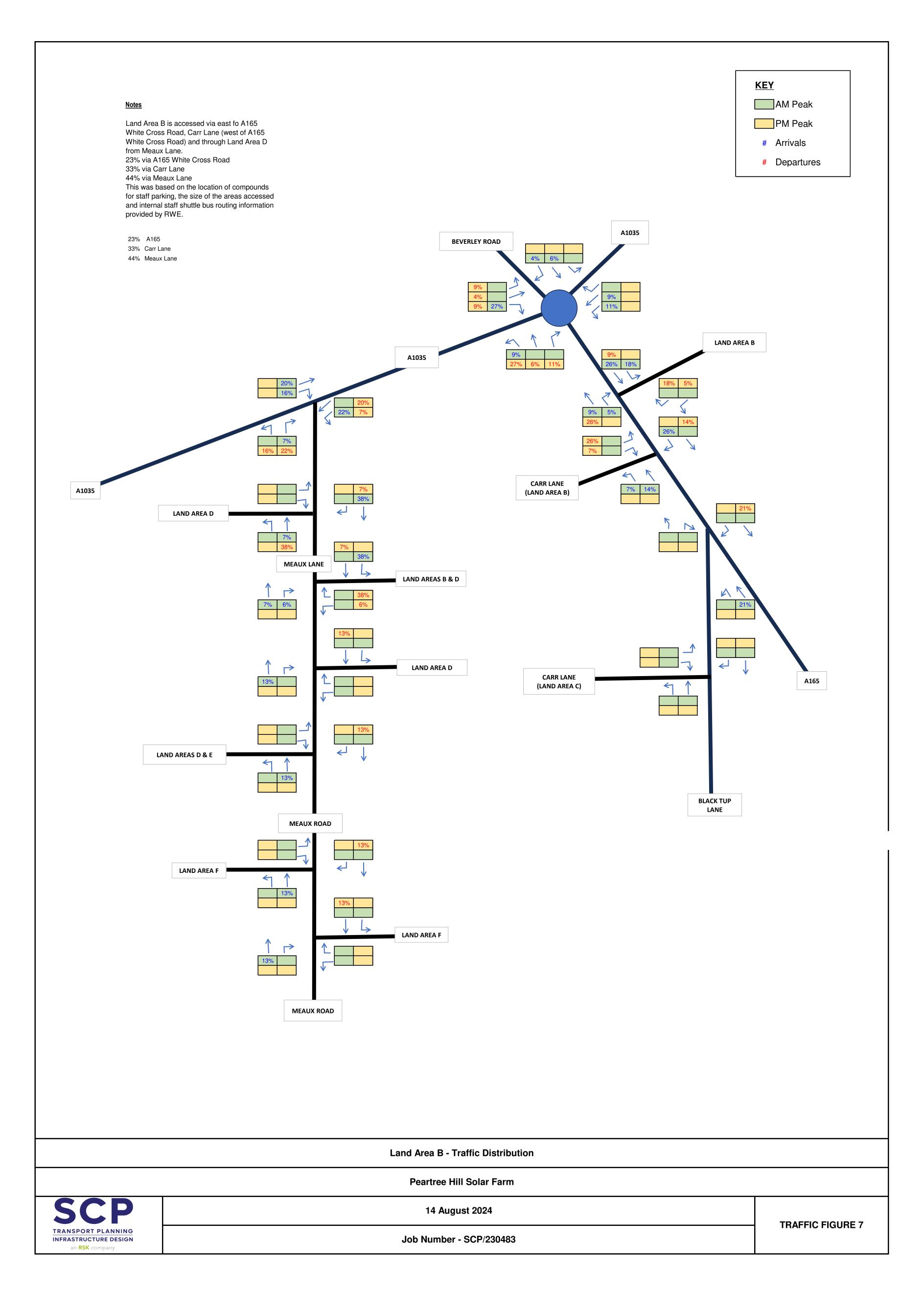


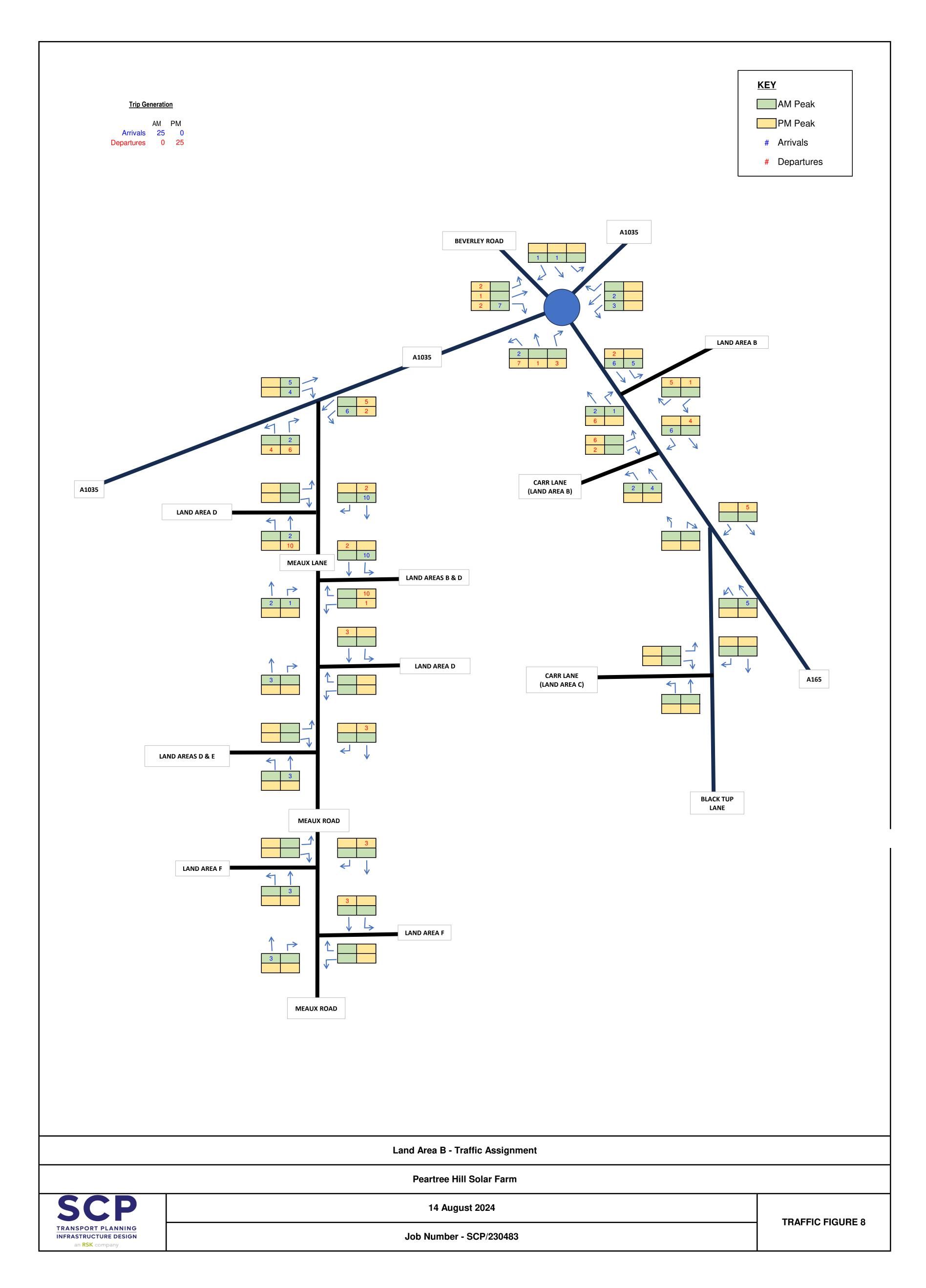


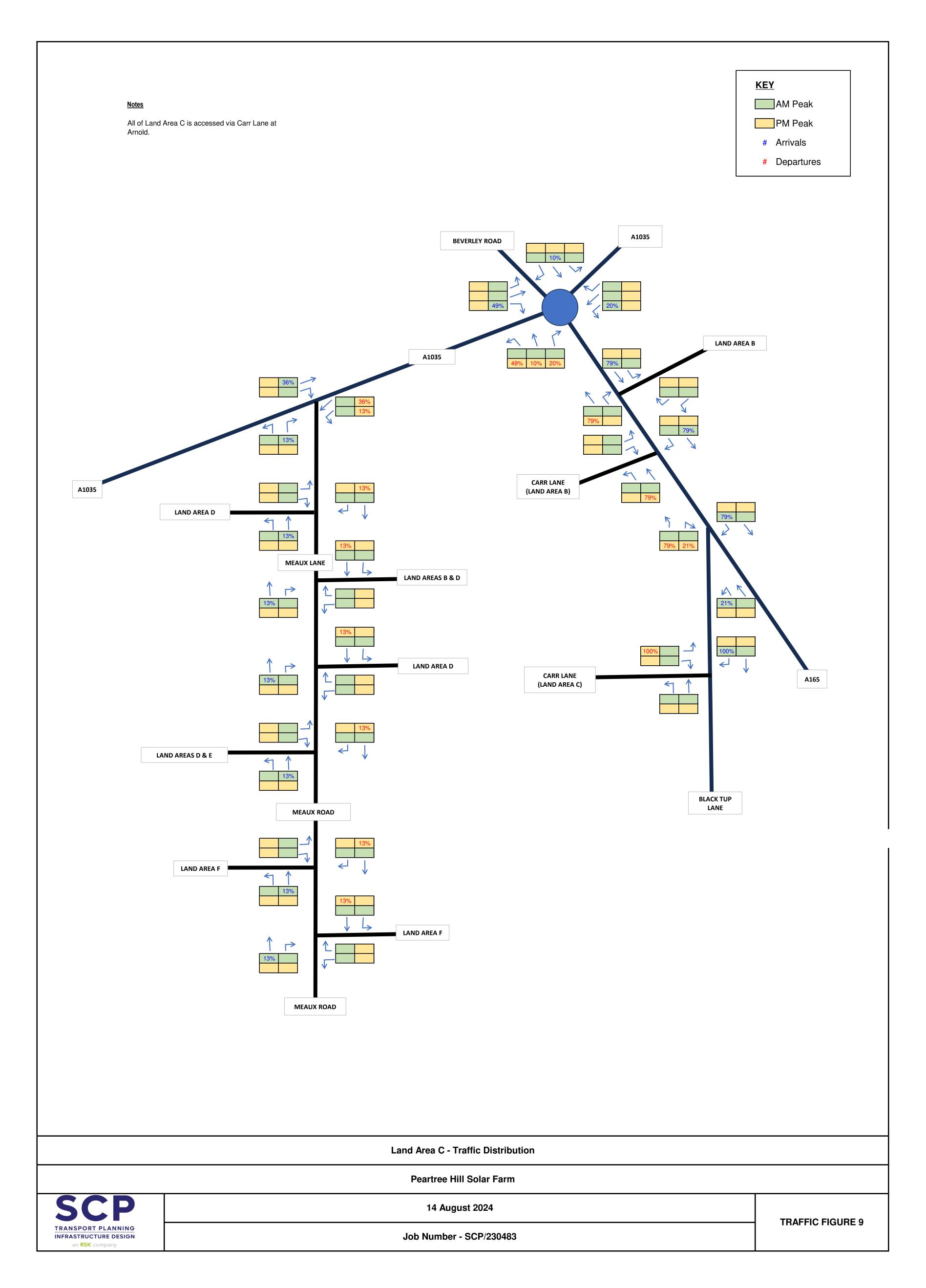


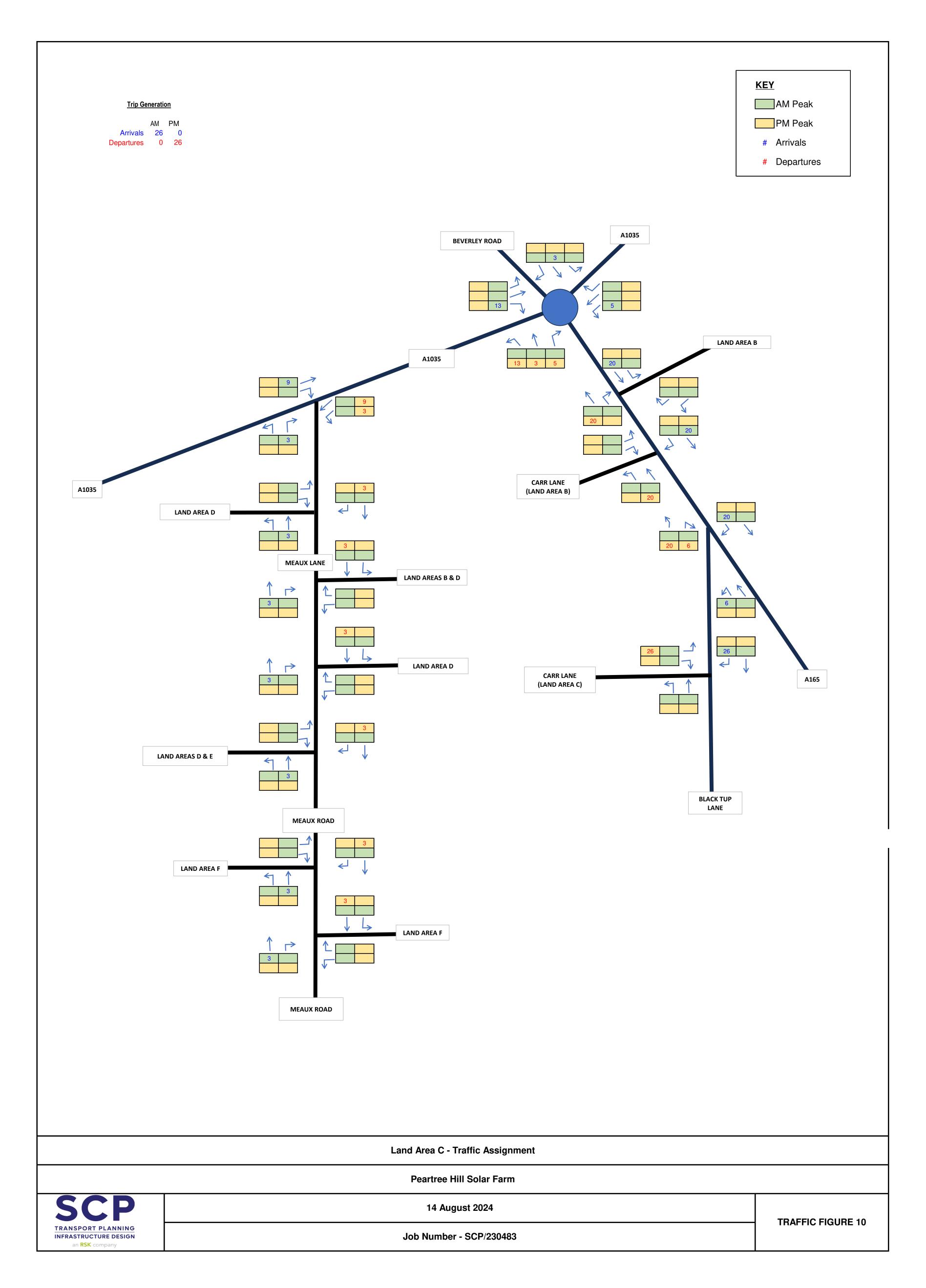


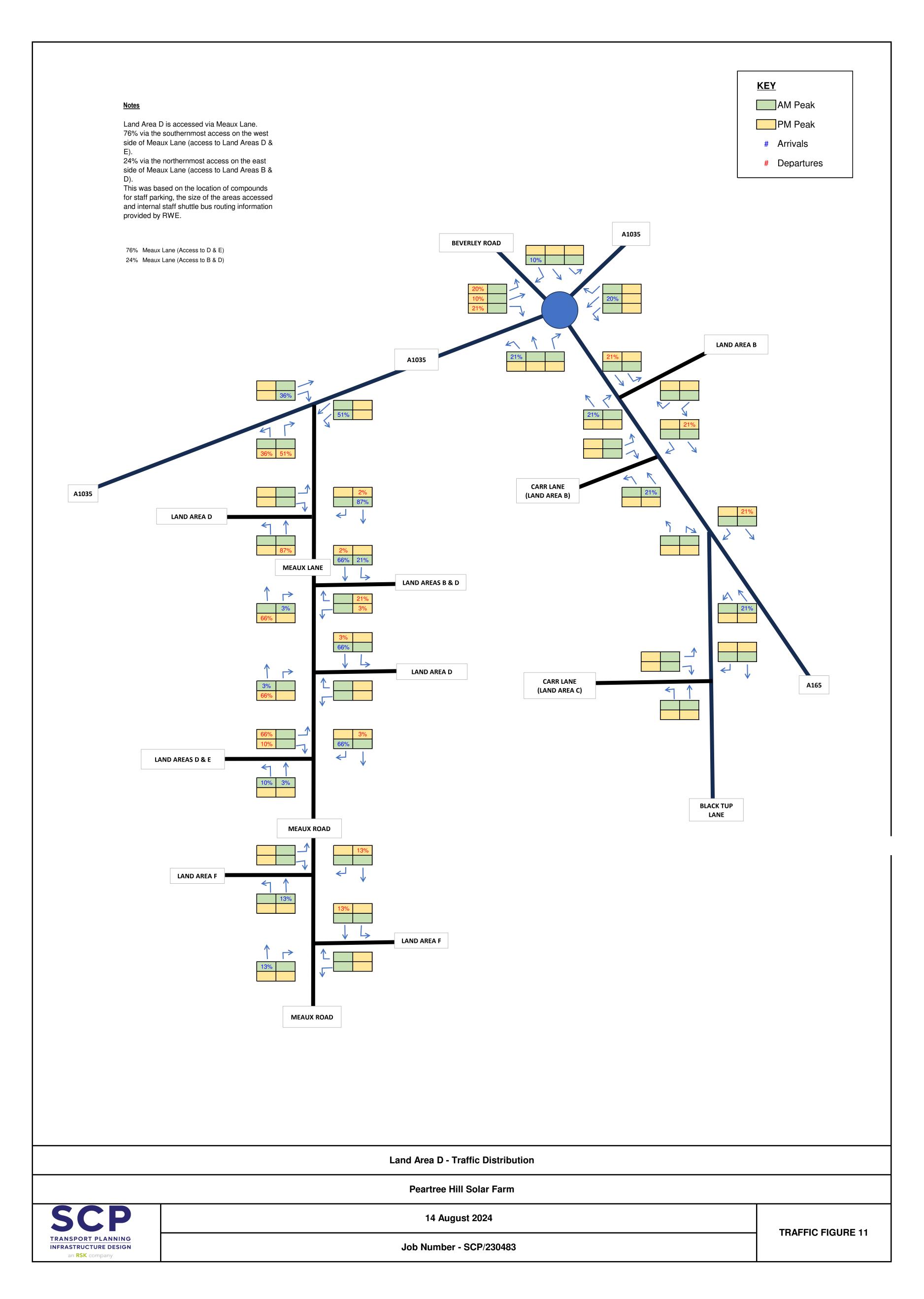


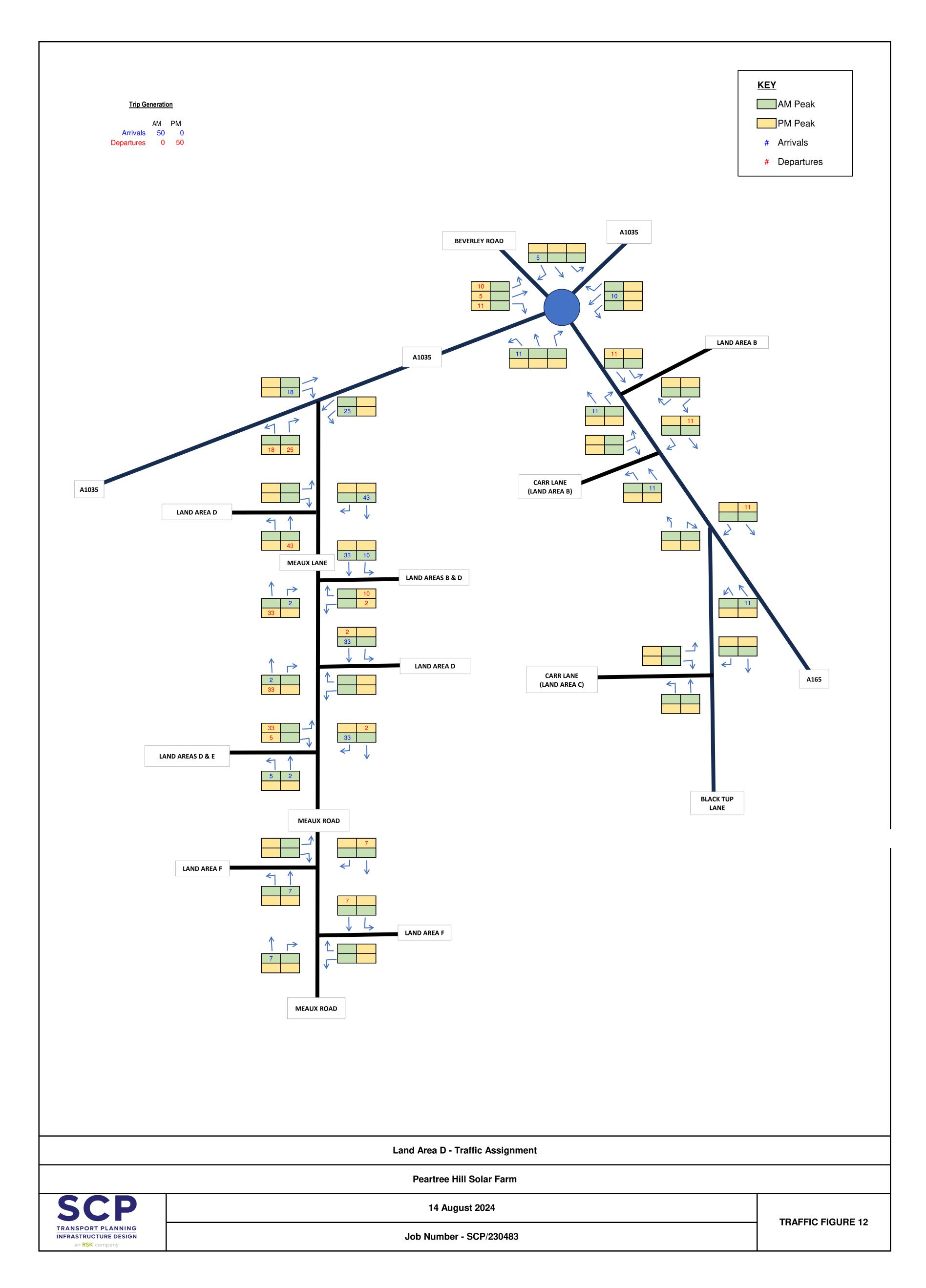


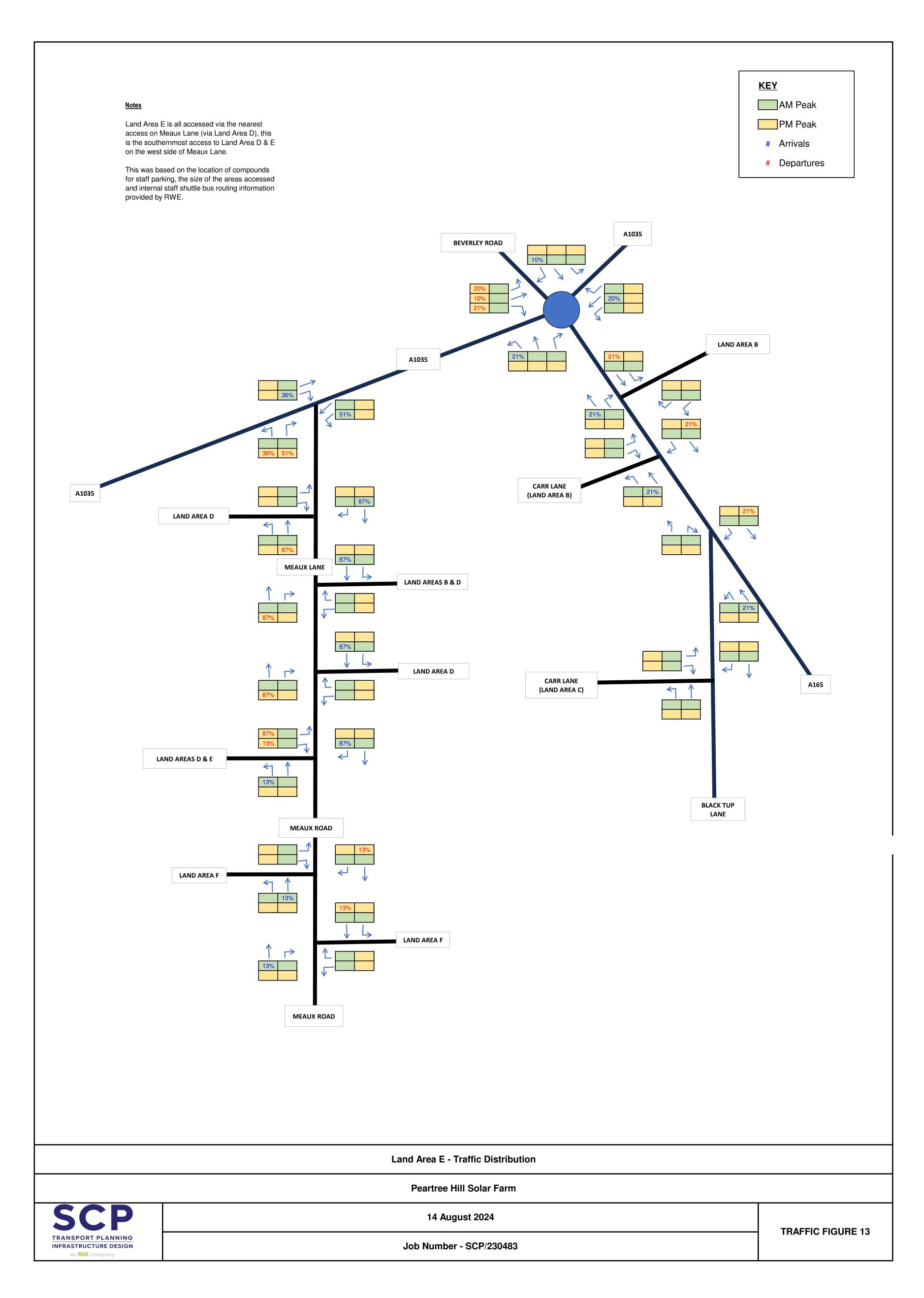


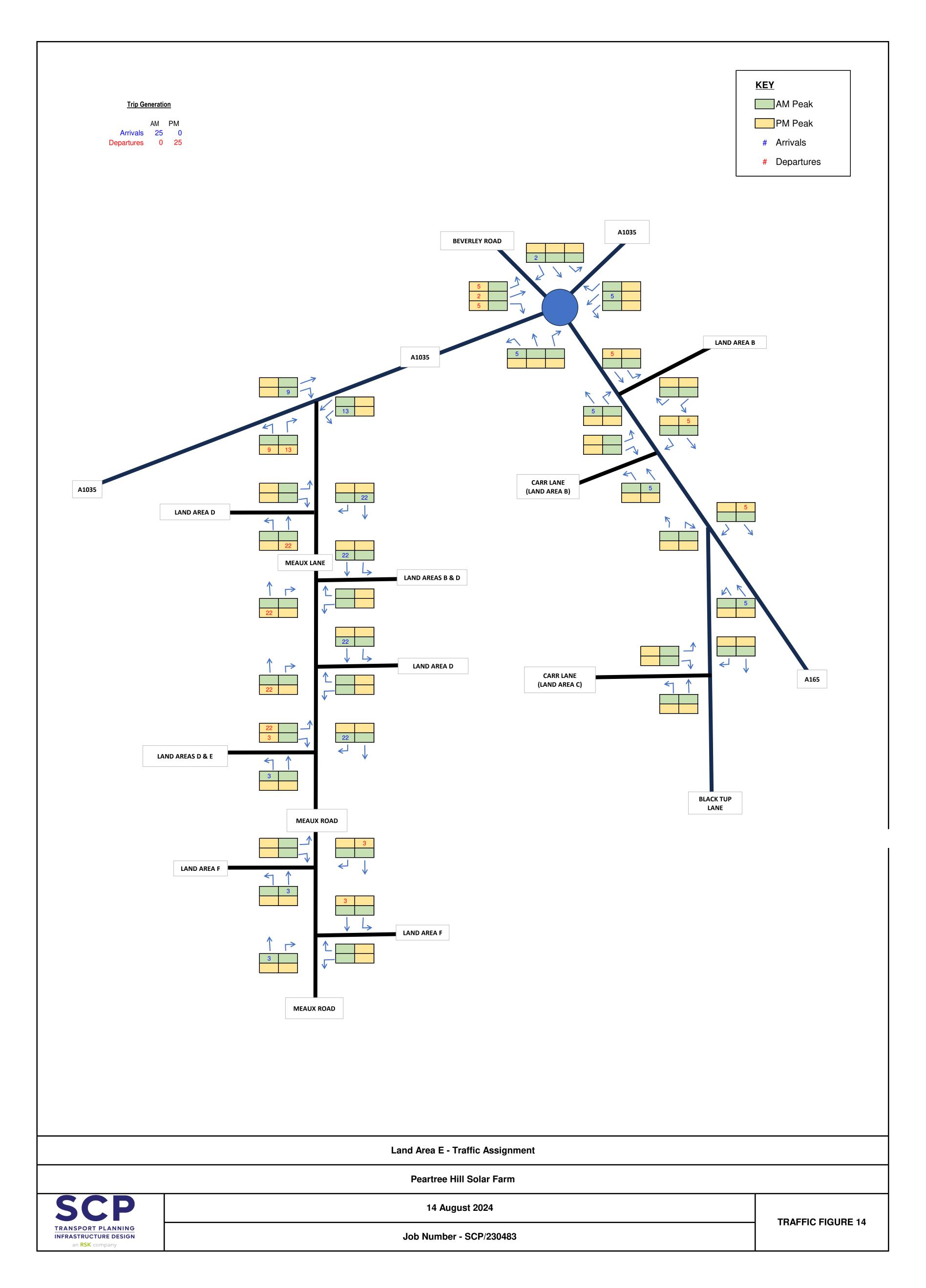


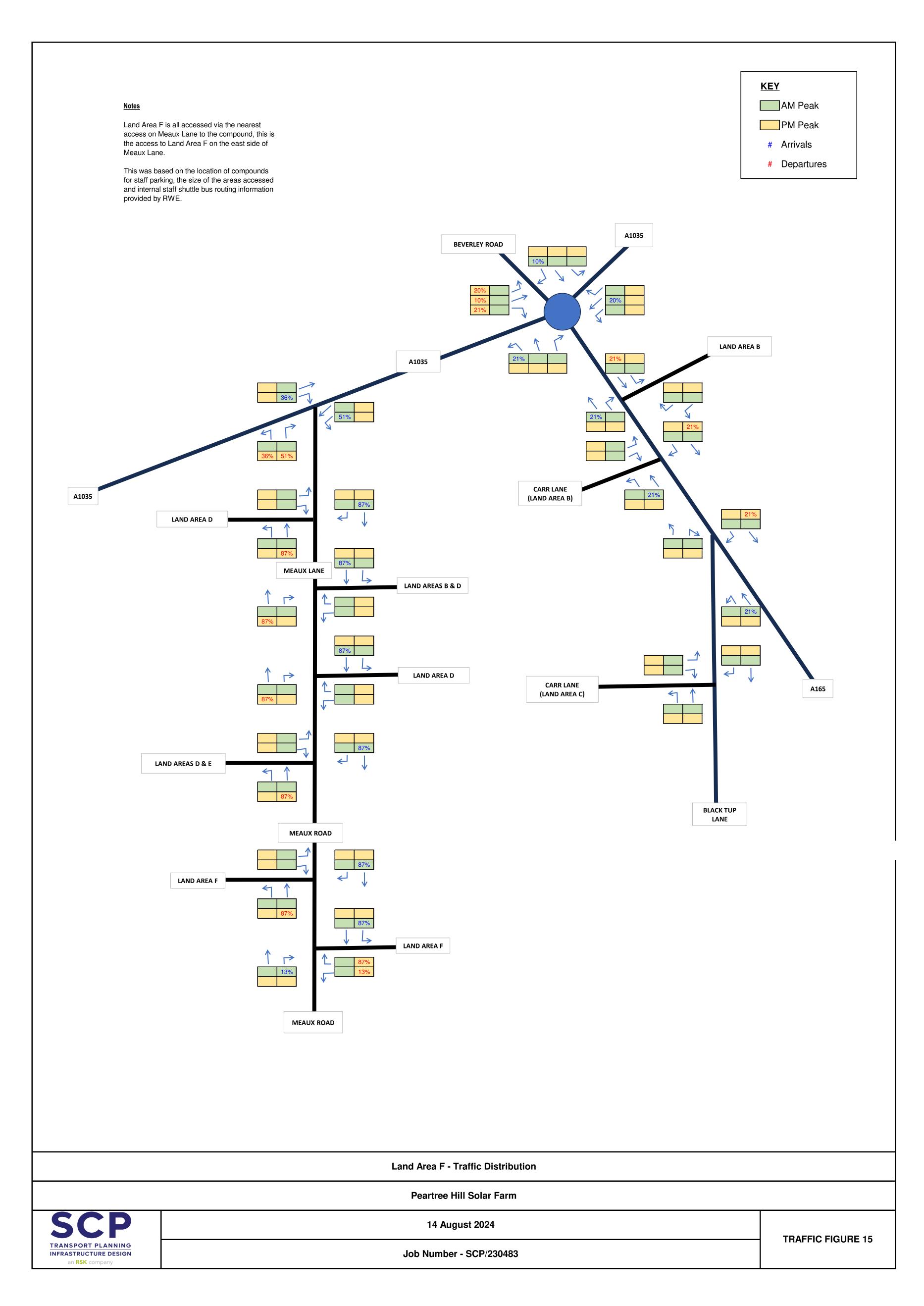


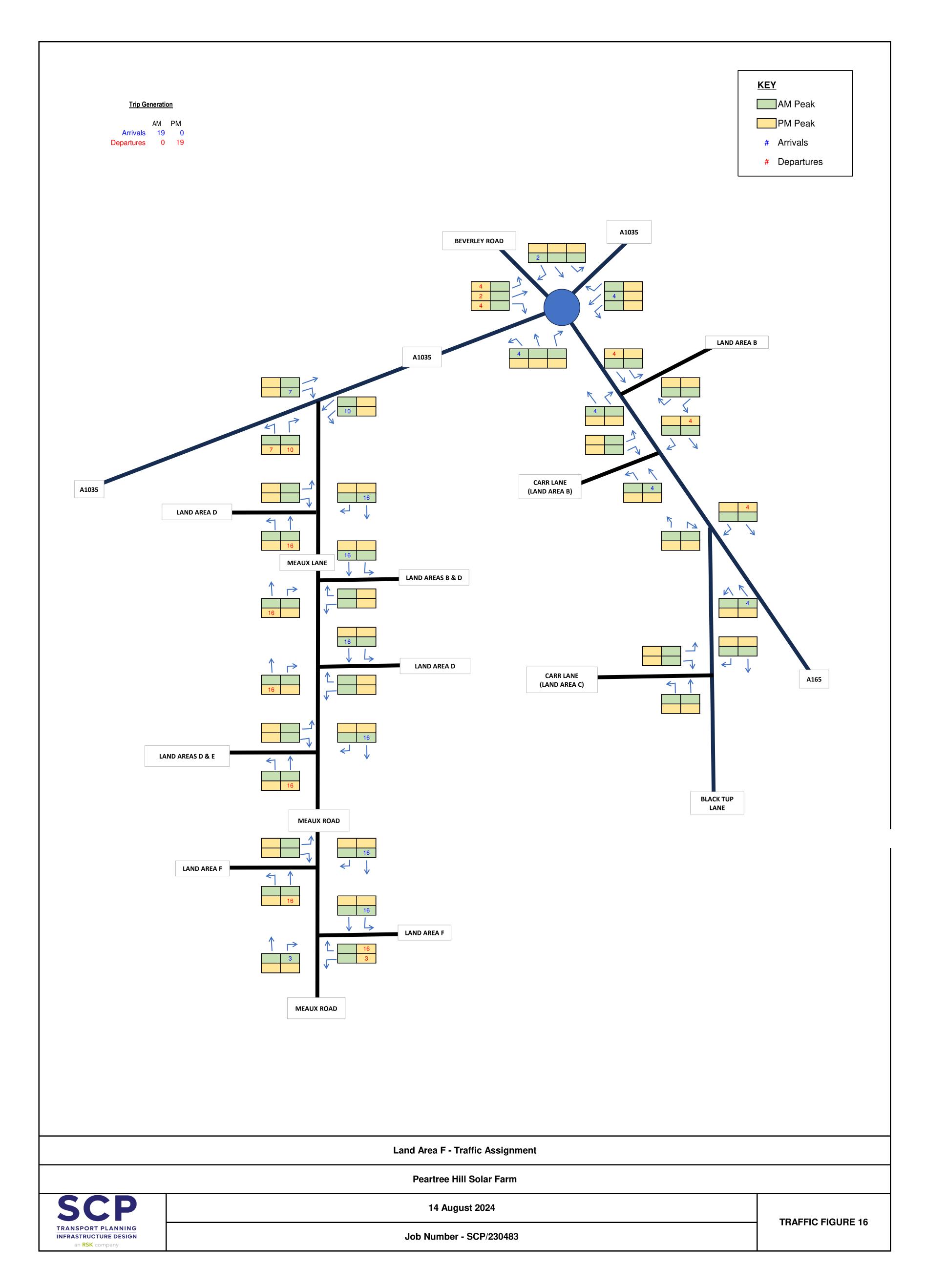


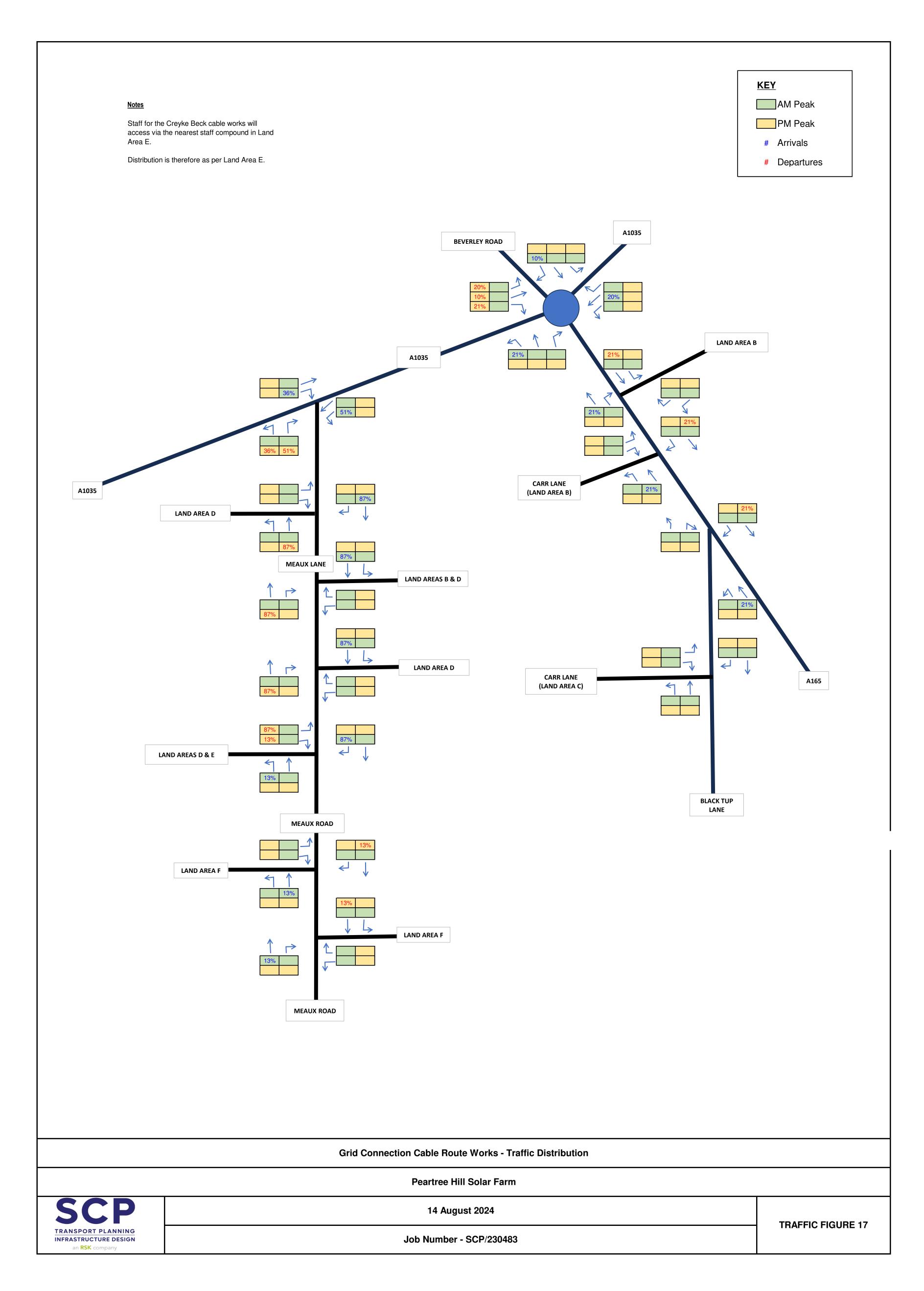


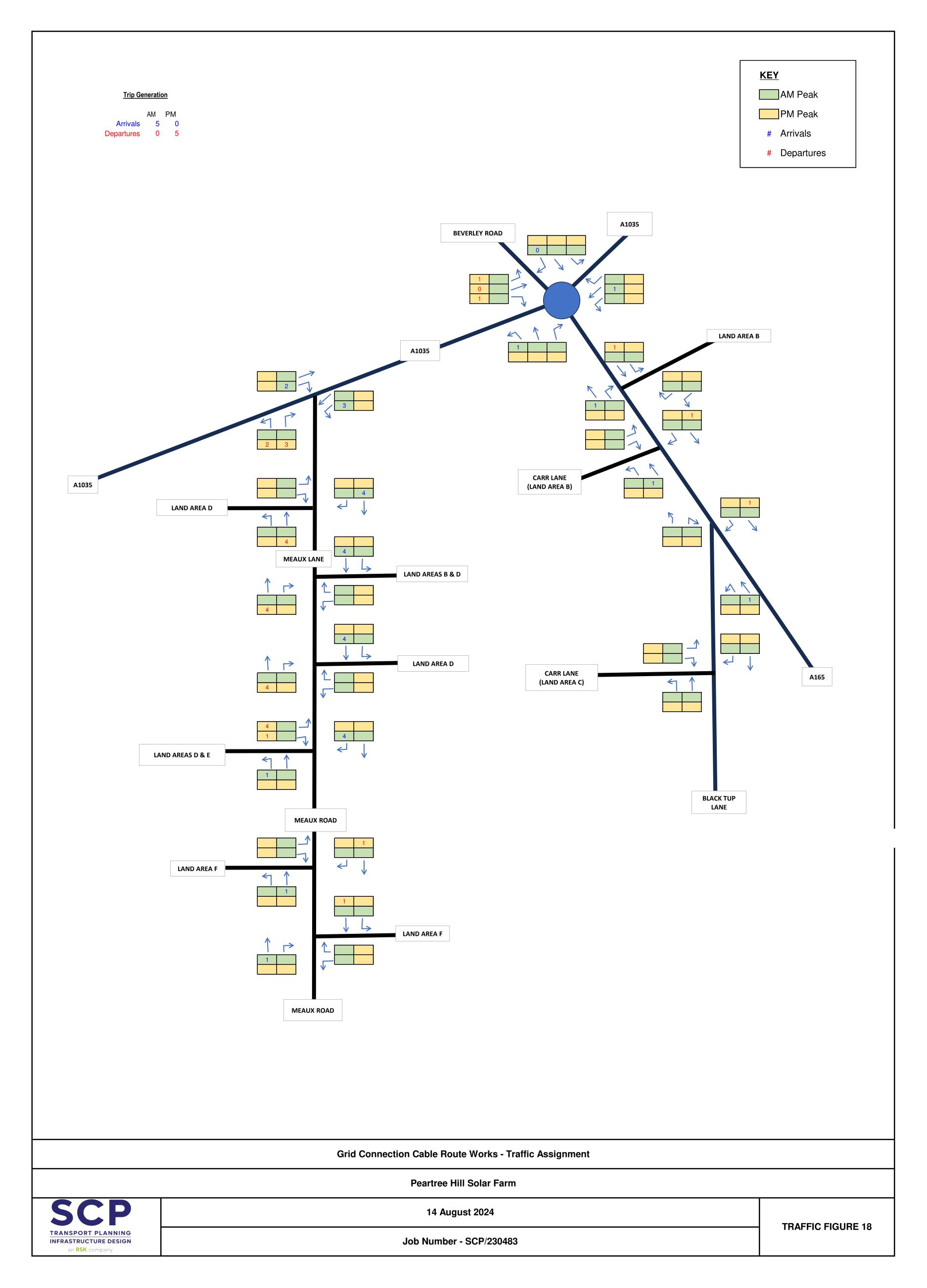


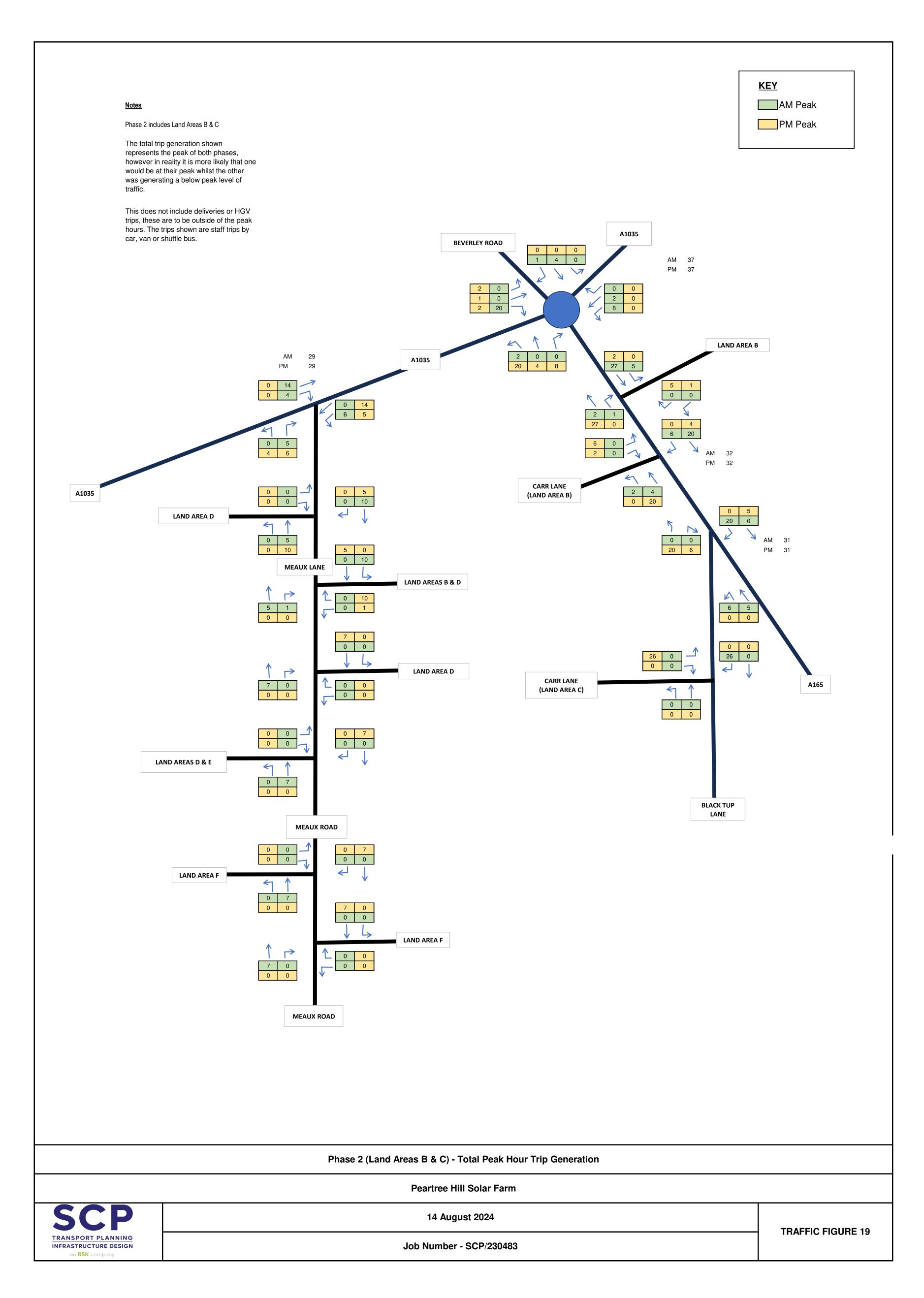


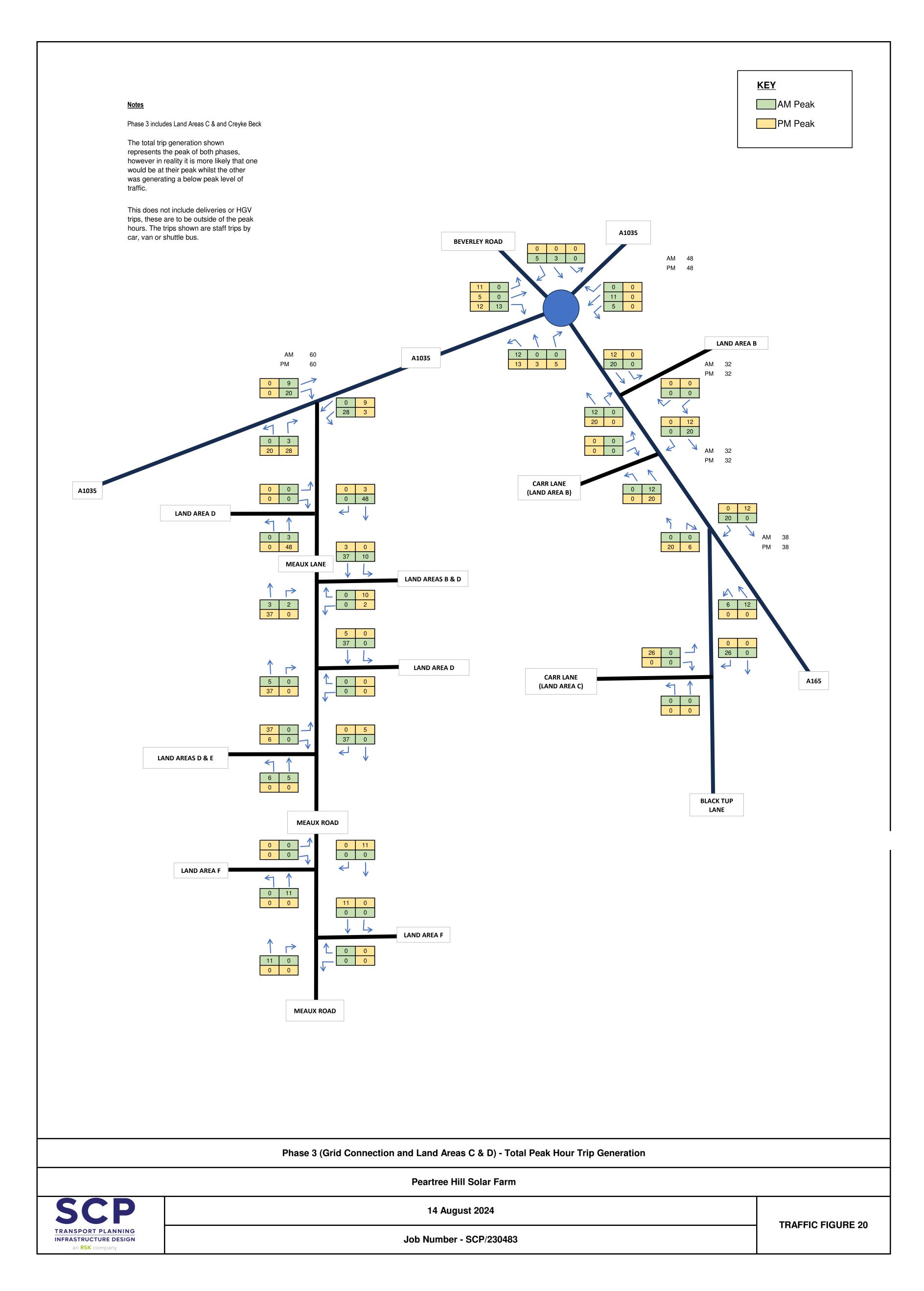


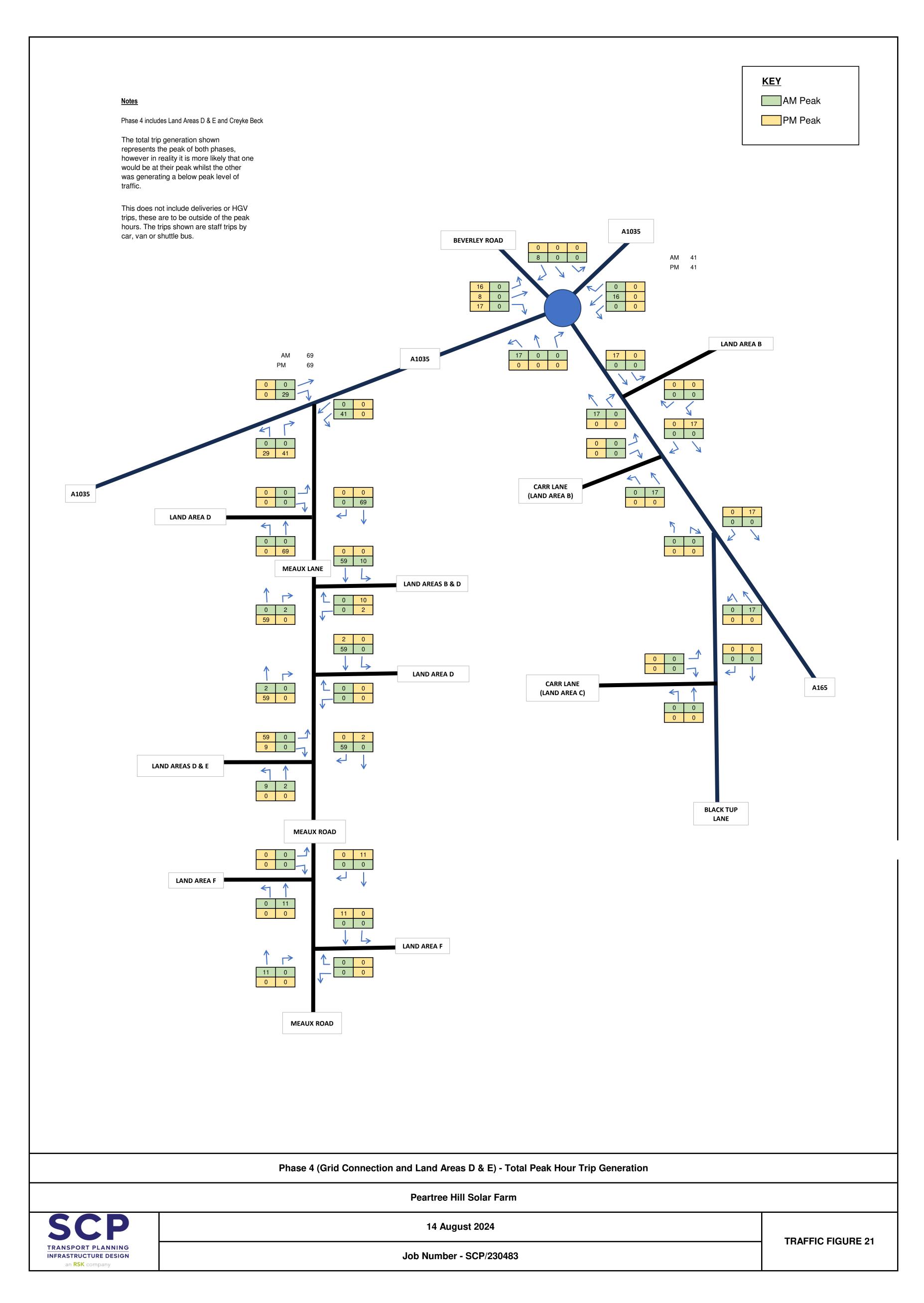


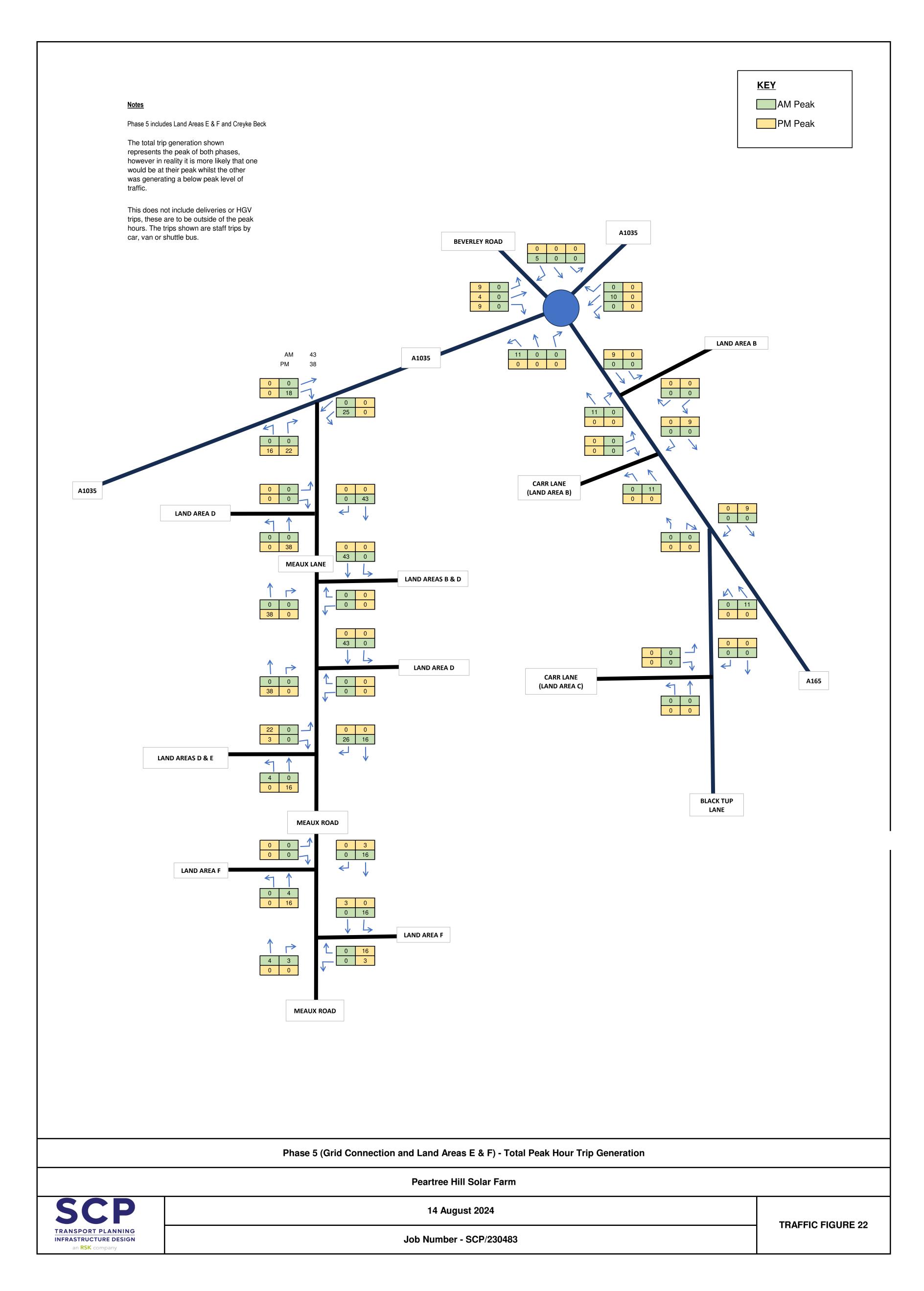














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APPENDIX 2

COMMITTED DEVELOPMENTS

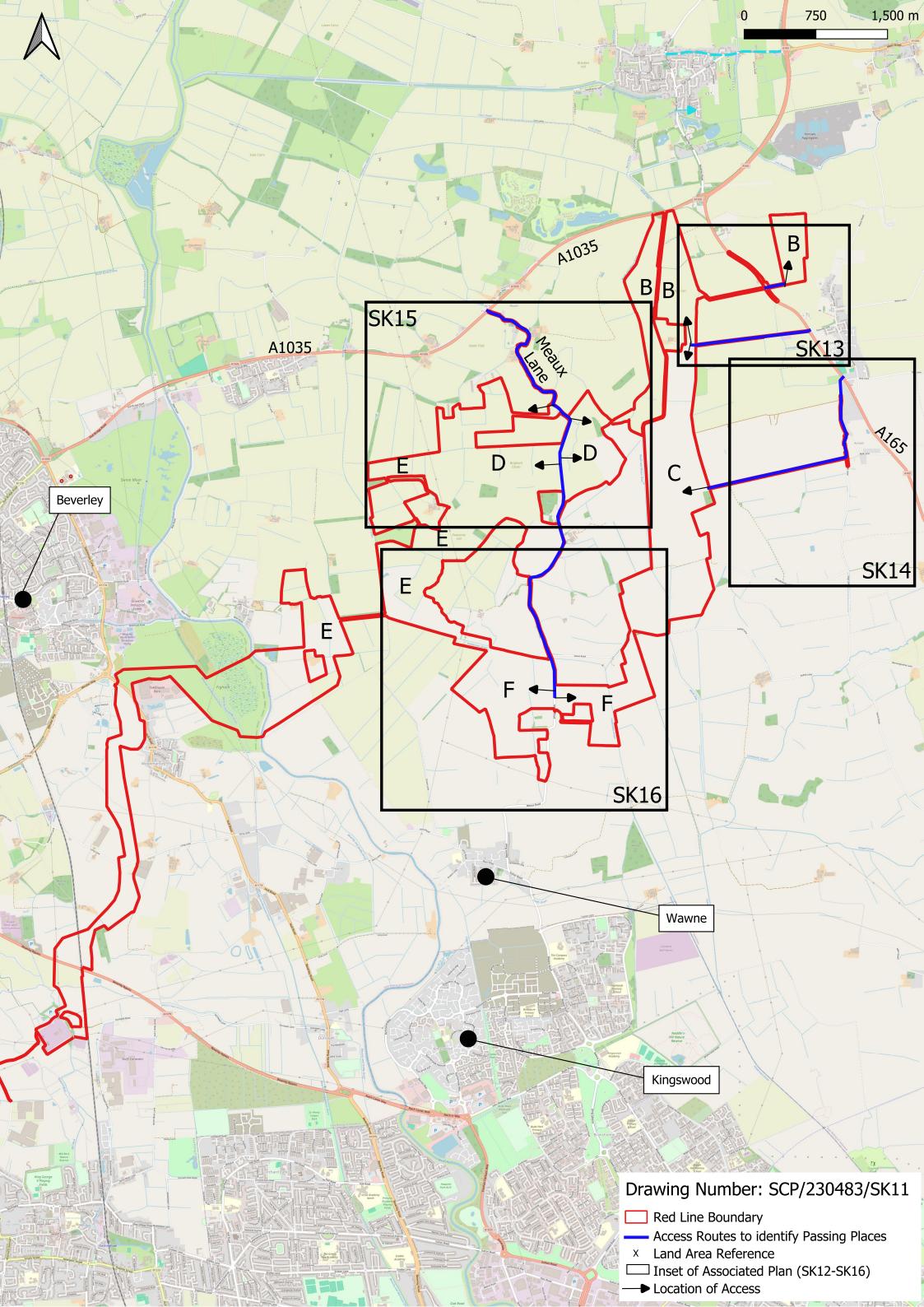
Planning Reference	Description	Status	Traffic Impact?
21/01492/STPLF	Erection of 297 dwellings with access from Woodmansey Mile and associated infrastructure,	Under construction/ completed	Approx 2% of vehicles on network (approx. 5 2-way
	open space and landscaping and installation of signalised system to Long Lane, Beverley		peak hour trips), excluded.
22/01208/STPLF	Construction of solar photovoltaic development including solar panels, installation of sub-	Approved	Accessed via Wawne, different route to Peartree.
	station, transformers, storage containers, erection of perimeter fence and CCTV poles with		Excluded.
	associated access, gates, internal tracks, infrastructure, landscaping and biodiversity		
	enhancements and erection of temporary construction compound		
18/04095/STPLF	Construction of holiday park comprising of 55 lodges, reception/amenity building and	Approved	Minimal traffic impact during peak hours.
	associated infrastructure		Excluded.
19/03081/STOUT	Outline - Erection of Hotel (up to 70 rooms), extension to existing clubhouse/leisure facilities		No trips in extent of highway network for Peartree.
	and associated access, parking and landscaping (access to be considered) (revised scheme	architect's website	Excluded.
	of 18/00195/STOUT)		
22/00824/STPLF	Construction of solar photovoltaic development including solar panels, installation of sub-	Approved	Included. Traffic flows extracted from CTMP
	station, medium voltage power stations, battery energy storage containers, erection of		
	perimeter fence and CCTV poles with associated access and erection of temporary		Assumed that only staff trips impact peak hours.
	construction compound		HGV trips can be included in AADT flows.
21/02335/STPLF	Construction of a 49.9MW Solar Farm, underground cabling, 18 inverter substations,	Approved	Site accessed via A164 and Harland Way, not on
	installation of perimeter fencing (up to 2.5m high) with access gates and 176 CCTV		Peartree network. Excluded.
	cameras/infra-red lighting on steel poles (up to 3.5m high steel poles) and 2 temporary		
	construction compounds; construction of a grid compound consisting of substations,		
	control rooms, transformers, cabling and fencing; construction of a storage compound		
	consisting of 24 battery storage containers, 24 PCS units and 2.5m high perimeter fencing		
	and associated grid infrastructure and associated works		21
22/01546/STPLF	Erection of a building for vertical farming, two associated 2-storey office buildings and an	Approved	Site accessed via A1174, outside of Peartree
	energy network building; Creation of attenuation pond incorporating wildlife/nature park and		network. Excluded.
ENGAGOGO NOID	with associated access, internal road, parking areas and infrastructure		O'. 'S I W S I MADE I ME
EN010098 NSIP	Development of the Hornsea Project Four offshore wind farm. This is within the western area	Approved	Significant traffic using A1035 and A165. Traffic
	of the former Hornsea known as Zone 4, under the Round 3 offshore wind licensing		flows extracted from App. K of Traffic and
	arrangements established by The Crown Estate.		Transport Technical Report.
			Included.
			motadoui



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APPENDIX 3

LAND AREAS AND ACCESS LOCATION PLAN

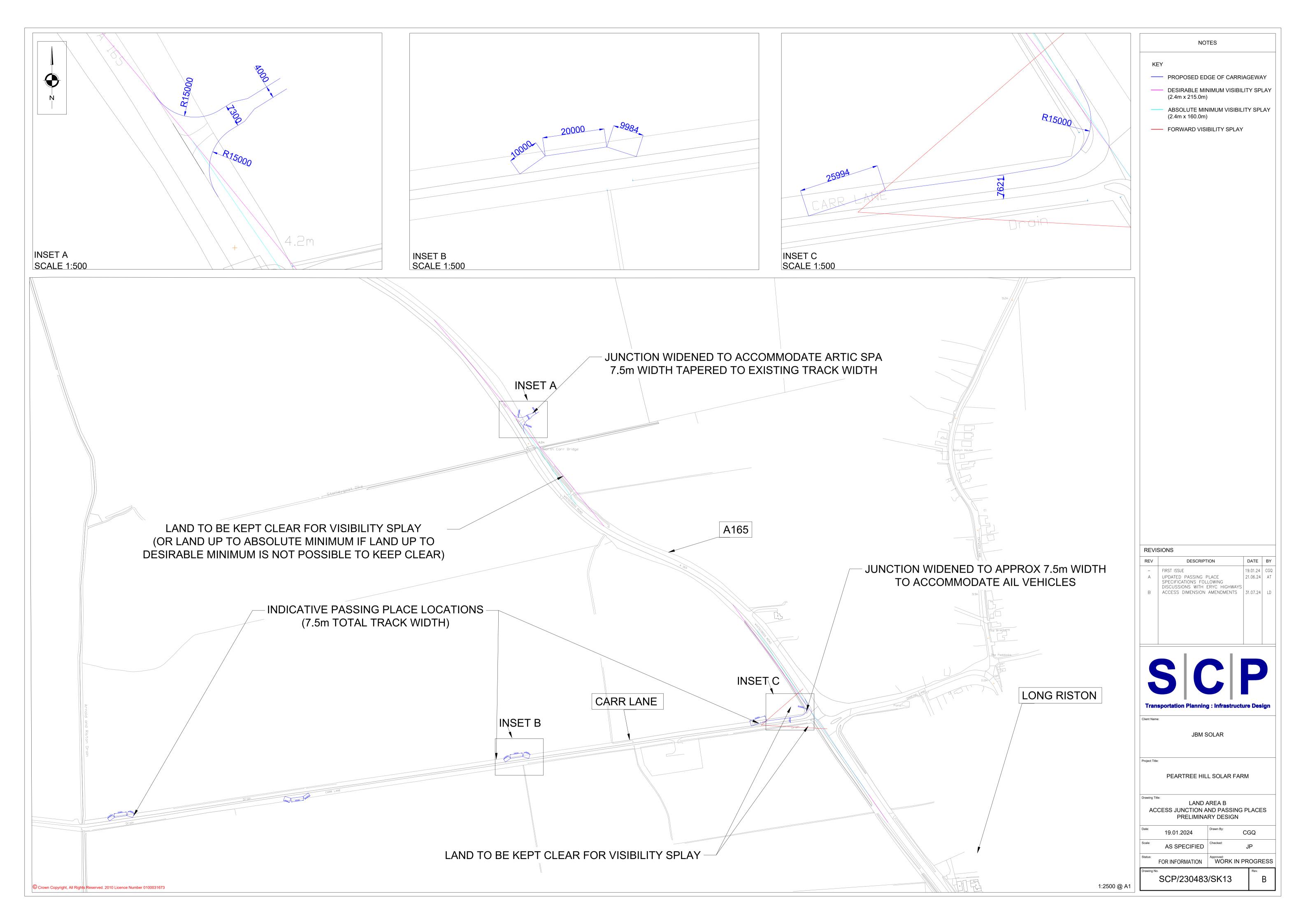


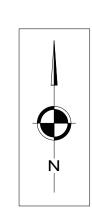


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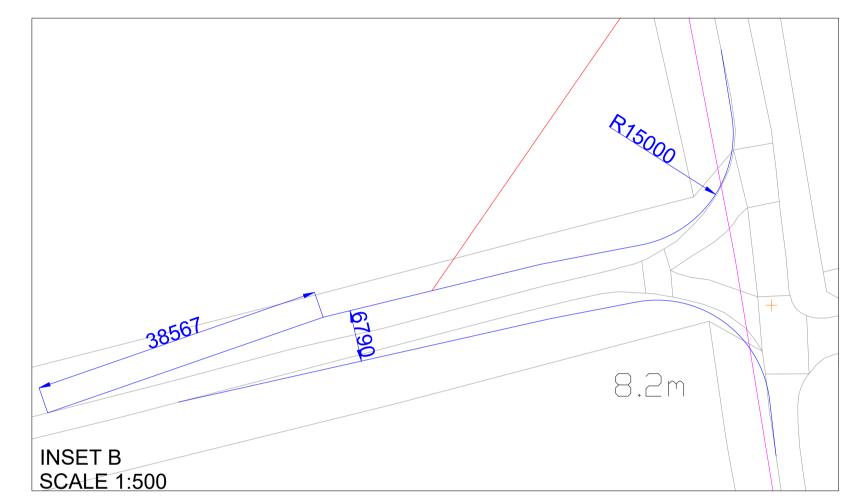
APPENDIX 4

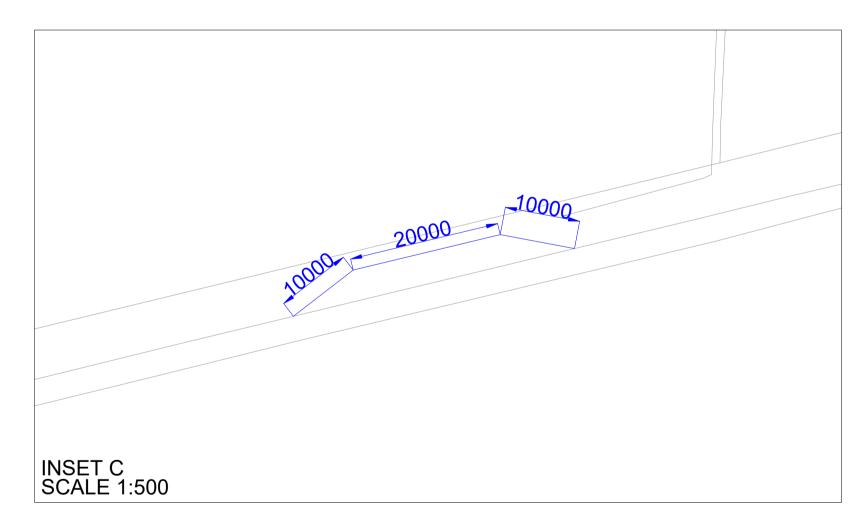
PROPOSED HIGHWAY WORKS PLANS

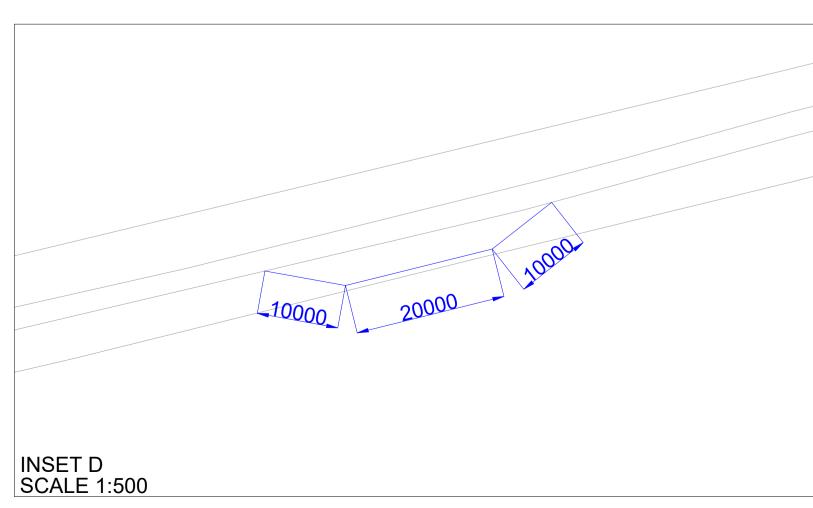


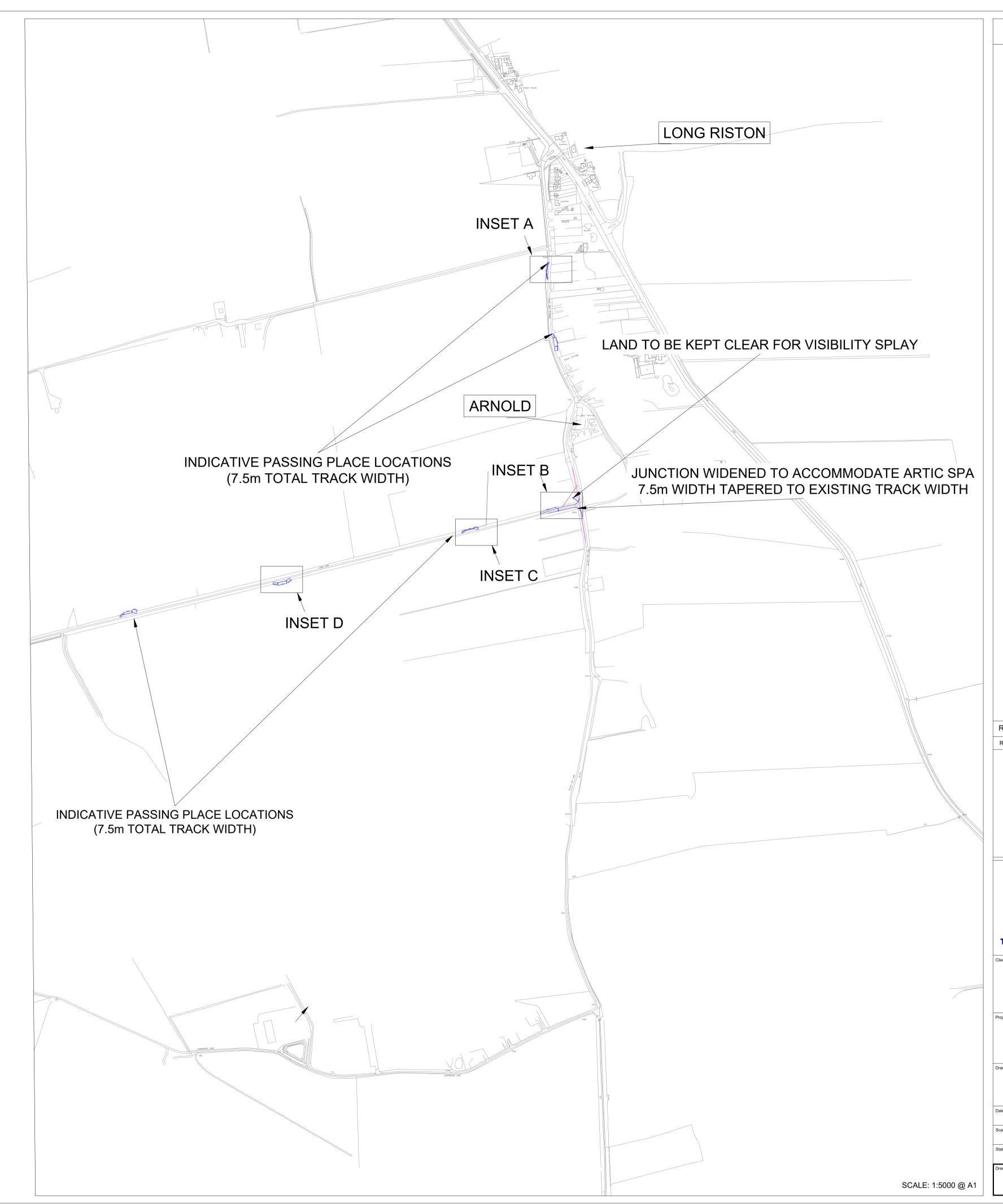












NOTES PROPOSED EDGE OF CARRIAGEWAY DESIRABLE MINIMUM VISIBILITY SPLAY (2.4m x 90.0m) ABSOLUTE MINIMUM VISIBILITY SPLAY (2.4m x 70.0m) FORWARD VISIBILITY SPLAY REVISIONS DESCRIPTION DATE BY 19.01.24 CGQ 21.06.24 AT FIRST ISSUE UPDATED PASSING PLACE SPECIFICATIONS FOLLOWING DISCUSSIONS WITH ERYC HIGHWAYS B UPDATED PASSING PLACE SPECIFICATIONS JBM SOLAR PEARTREE HILL SOLAR FARM LAND AREA C
ACCESS JUNCTIONS AND PASSING PLACES
PRELIMINARY DESIGN

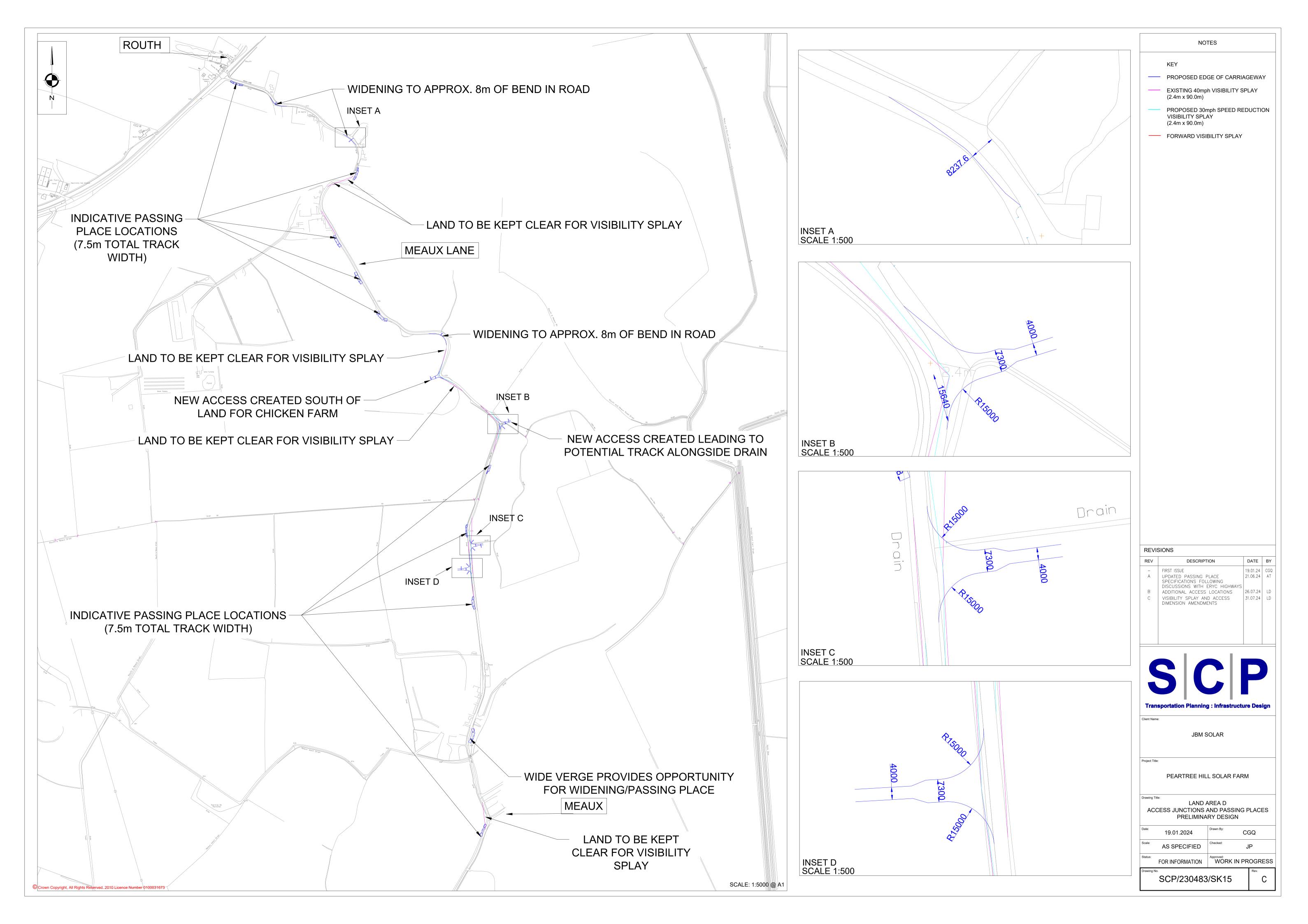
19.01.2024

AS SPECIFIED

SCP/230483/SK14

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APPENDIX 5

GRAVITY MODEL

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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units

population All usual residents aged 16 and over in employment the week before the census

Persons 2011

method of travel to work All categories: Method of travel to work (2001 specification)

place of work				Distribution			Assignment					
usual residence : 2011 super output area - middle layer	E02002697 : East Riding of Yorkshire 014	Settlements	Route A	Route B	Route C	Route D	Route E	Route A	Route B	Route C	Route D	Route E
E02002697: East Riding of Yorkshire 014	285	Leven, Wawne, Tickton, Long Riston, Catwick	20%	20%	15%	15%	25%	57	57	43	43	71
E02002704: East Riding of Yorkshire 021	89	Skirlaugh, Bilton, Aldbrough, New Ellerby		20%	80%			0	18	71	0	0
E02002693: East Riding of Yorkshire 010	71	Beeford, Brandesburton, Sigglesthorne		10%	10%	70%	10%	0	7	7	50	7
E02002702 : East Riding of Yorkshire 019	69	Beverley	100%					69	0	0	0	0
E02002699 : East Riding of Yorkshire 016	67	Beverley	100%					67	0	0	0	0
E02002695 : East Riding of Yorkshire 012	61	Hornsea				100%		0	0	0	61	0
E02002700 : East Riding of Yorkshire 017	46	Beverley	100%					46	0	0	0	0
E02002696 : East Riding of Yorkshire 013	43	NW of Beverley	100%					43	0	0	0	0
E02002712 : East Riding of Yorkshire 029	27	Hedon (East of Hull)			100%			0	0	27	0	0
E02002652 : Kingston upon Hull 001	22	Kingswood		100%				0	22	0	0	0
E02002716: East Riding of Yorkshire 033	21	Thorngumbald (East of Hull)			100%			0	0	21	0	0
								282	104	169	153	78

36%

13%

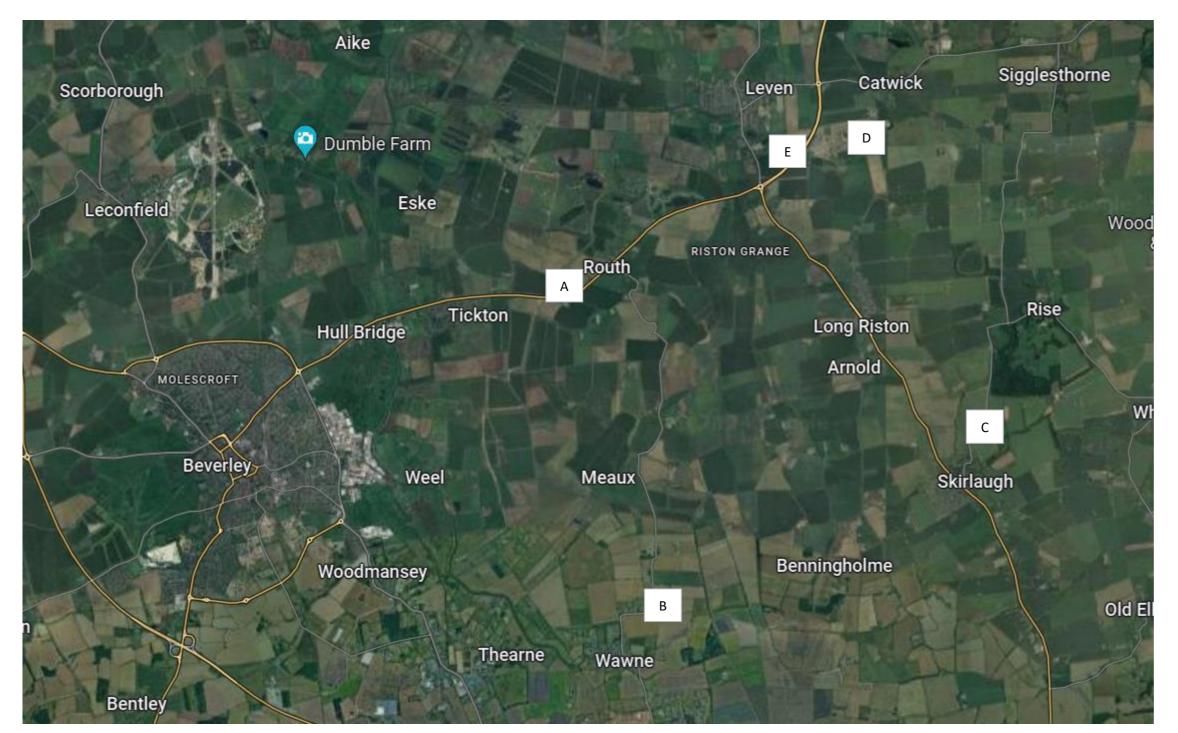
21%

20%

10%

Route Distribution

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.





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APPENDIX 6

INDICATIVE PHASING PLAN



Peartree Hill Solar Farm

Transport Assessment Scoping Report - Review

East Riding of Yorkshire Council

6 September 2024

Peartree Hill Solar Farm Transport Assessment Scoping Report Review

Quality information

Prepared by	Checked by	Verified by	Approved by
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Graduate Consultant	Senior Consultant	Associate Director	Associate Director

Revision History

Revision	Revision date	Details	Authorized	Name	Position
0	06.09.24	Draft	MR	Mark Romanowski	Associate Director

Peartree Hill Solar Farm
Transport Assessment Scoping Report
Review

Prepared for:

East Riding of Yorkshire Council

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1. Introduction

AECOM have been commissioned by East Riding of Yorkshire Council (ERYC) to provide a review of a Transport Assessment Scoping Report (TASR), prepared by SCP for RWE ('the applicant'), in support of the development of a proposed solar photovoltaic (PV) electricity-generating and storage facility with an export capacity of 320 megawatts (MW) and associated infrastructure located in East Riding of Yorkshire.

The Proposed Development, namely Peartree Hill Solar Farm, comprises several areas of land ('Land Areas B to F') and for the purposes of this report, the application will be referred to as 'Proposed Development'. Note, since the Preliminary Environmental Impact Report (PEIR) was produced (also reviewed by AECOM in August 2024), Land Area A has been removed after refining the routes to/from each land area.

For ease of reference, this TASR review will follow the same structure as set out in the document produced by the applicant, with comments made where necessary.

Key comments for review by the applicant are highlighted by the **bold / underlined text** and summarised at the end.

2. Proposed Development

No further comment.

3. Consultation

Consultation has taken place with the following bodies and organisations:

- ERYC Highways Department; and
- National Highways and Jacobs (one of National Highways' highways consultants used to review submissions).

A meeting was held with National Highways on the 25th March 2024. The nearest Strategic Road Network (SRN) is the A63 and National Highways requested to be kept informed as the design was refined and when the data on trip generation and likely distribution to/from the Strategic Road Network was known.

A meeting was held with ERYC Highways on the 19th February 2024. It was recommended that further discussions take place with Area Engineers over the details of highway mitigation works (passing places, visibility splays and vehicle access location). On the 6th June 2024, it was agreed with Area Engineers that:

- The proposed locations of passing places, carriageway widening, and accesses would be provided to the relevant Area Engineers for formal comment;
- Passing places should be 20m in length with 10m tapers;
- ERYC would be willing to adopt some passing places and widen the local road network where
 they are constructed to adoptable standards to provide an enduring improvement to benefit
 highway users and the local community; and
- Temporary speed reductions could be considered during the construction phase to overcome visibility issues and reduce the impact of trees, hedging and vegetation.

The proposed passing location and access plans have been submitted for review and at the time of writing the TASR, the applicant had not yet received a response. <u>Any responses or comments from the Area Engineers should be adhered to and integrated into the Transport Assessment (TA) for review.</u>

The applicant states that comments provided by AECOM on the PEIR on the 20th August 2024 have been taken into consideration for the TASR, which is welcomed.

4. Assessment Scenarios

4.1 Phase of Development

The construction phase is anticipated to begin in 2026 and is expected to take 24 months to complete. This phase will be assessed as the worst-case scenario of the Proposed Development for the purposes of the TA and Environmental Statement.

The operational phase is anticipated to begin thereafter, with the applicant expecting one weekly site visit plus 26 maintenance visits per year. This is deemed negligible by the applicant and has not been assessed due to not being the worst-case scenario for the Proposed Development, which is acceptable.

The applicant states that during the decommissioning phase, circa 2068, the number of trips generated will be similar to, or slightly fewer than generated for the construction phase. <u>All relevant organisations</u> and bodies should be contacted prior to the decommissioning taking place.

4.2 Base and Future Year Scenarios

Several forms of traffic count data have been collated, as summarised below in Table 1.

Table 1. Traffic Count Sources, Location, and Date

Source	Location	Date
East Riding of Yorkshire	A165 Main Street, Skirlaugh	September 2023
Council automatic traffic counters	Meaux Road, Wawne	January 2020
Manually classified	White Cross Roundabout	October 2023
junction turning-movement count surveys	A1035/Meaux Lane Priority Right-Turn Ghost Island Junction	October 2023
	A165/Arnold Lane West Priority Right-Turn Ghost Island Junction	October 2023
Automatic Traffic Counter	Carr Lane (Opposite Dancing Lane)	October 2023
(ATC) surveys (recording total two-way movements	A1035 (East of Swinemoor Lane Roundabout)	February 2024
on a link) by vehicle type	Meaux Road (south of Holderness Drain)	February 2024
	Black Tup Lane (South of Carr Lane)	February 2024

It should be ensured that all survey dates are neutral. According to the DfT, transport data should be included that reflects the typical (neutral) flow conditions on the network (for example, non-school holiday periods, typical weather conditions etc) in the area of the Plan and should be valid for the intended purposes. This should be confirmed within the Environmental Statement and Transport Assessment.

The base traffic flows from 2023 have been growthed to the construction year of 2026 via the DfT's TEMPro national program v.8 (Trip End Model Presentation Program), based on the Middle Super Output Area (MSOA) East Riding of Yorkshire 014 zone. However, the 2024 base traffic flows have not been growthed. It should be explained why these have not been growthed.

A list of committed developments has also been considered, with some removed based on whether they would generate significant traffic on the highway network within the study area. The committed developments which are proposed to take into account are:

 22/00824/STPLF - Construction of solar photovoltaic development including solar panels, installation of sub-station, medium voltage power stations, battery energy storage containers, erection of perimeter fence and CCTV poles with associated access and erection of temporary construction compound • NSIP - Development of the Hornsea Project Four offshore wind farm. This is within the western area of the former Hornsea known as Zone 4, under the Round 3 offshore wind licensing arrangements established by The Crown Estate.

Appendix 2 provides the reasoning behind the inclusion or exclusion of the committed developments. The committed developments that are proposed to be taken into account should be agreed upon with ERYC and National Highways.

The TEMPro was amended to account for the above-committed developments. The 'future jobs prediction' was reduced to base (from 2,499 to 2,476) to avoid double-counting of the jobs created by the committed developments. However, it is recommended any reduction in TEMPro should be agreed upon with ERYC and National Highways. All traffic assessments should represent a worst-case scenario and reducing the TEMPro could make the data unrepresentative.

The growth factors presented within the TASR are shown below in Table 2.

Table 2. TEMPro Growth Factors

Year	AM Peak Growth Factor	PM Peak Growth Factor	AADT Peak Growth Factor
2023 – 2026	1.0259	1.0252	1.0263

Appendix 1 shows the traffic flows in Passenger Car Units (PCUs) for the following base scenarios:

- Baseline Traffic Flows
- 2026 Base Flows
- Committed Development Field House Solar Farm, Tickton (22/00824/STPLF)
- Committed Development Hornsea Project Four Offshore Wind Farm
- Total Committed Development
- 2026 Base + Committed Development

These have been reviewed and appear logical.

5. Vehicular Access

The Proposed Development consists of five land areas referred to as Land Area B to Land Area F. EYRC Highways Area Engineers are currently reviewing the proposed vehicle access arrangements and passing places, in relation to each Land Area. <u>All comments received from ERYC should be included in the TA to justify the design decisions.</u>

The plan in Appendix 3 indicates the locations of each of the accesses and the plans in Appendix 4 show the proposed access arrangements and mitigation works on the routes to the site. The mitigation works include the proposed passing places and carriageway widening which will facilitate access by articulated HGVs. It is recommended that vehicle auto-tracking is undertaken and provided for review by ERYC Highways to show that the proposed works are suitable for all vehicle types that will be accessing the site.

5.1 Access to Land for Cable Works

For cable connection to Creyke Beck, the applicant anticipates that there will be a small number of daily LGVs and HGVs. The trips have not been included in the assessment, however, the TA should confirm the number of LGVs and HGVs that will be used for the cable connection.

Staff will be shuttled by minibus to the site from nearby site compounds in the solar Land Areas, it is anticipated that approximately 20 staff will be required which can be shuttled by two buses in total. These trips have been included in the assessment.

6. Traffic Routing

The applicant anticipates that the traffic routing to the different land areas of the site varies for staff and LGVs/HGVs.

6.1 Staff Routing

A gravity model has been developed, based on 2011 Census data, to identify the routes that staff will take to travel to and from the Proposed Development. Appendix 5 shows this data, with 36% of staff travelling to and from Beverley/A1035, 13% from Wawne/North Hull/Meaux Lane, 21% from East Hull/A165, 20% from A1035 to the north-east (Hornsea) and 10% from Leven/Brandesburton.

The applicant states that the staff will travel by single-occupancy cars/vans, shuttle buses, and car/van shares. Once staff arrive at the Proposed Development, they will then be transported internally by shuttle buses. This approach appears to be suitable.

6.2 HGV Traffic Routing

The main routes to the site by HGVs will be via the A1035 and A165, based on the applicant's assumption that HGVs, particularly those delivering solar panels, will originate from Hull docks on the Humber, and all other trips will likely arrive from Hull or Beverley. The HGV trips will be outside of the network peak hours and have therefore not been included in the network peak assessment, which is acceptable.

The routes have been assessed using swept path analysis to assess whether they are sufficient to accommodate articulated HGVs (16.5m length). <u>It is recommended that these swept paths be presented within the TA.</u>

The proposed mitigation measures to facilitate the routing, such as the addition of permanent passing places and a temporary speed reduction along Maeux Lane, are subject to agreement with ERYC Highways. The applicant should ensure that all comments are adhered to upon receipt, with any design changes made in accordance where necessary. Specific locations of passing places and temporary speed reduction areas should also be provided to ERYC Highways when available.

7. Trip Generation

7.1 Delivery and HGV Trip Generation

Table 3 shows the anticipated daily HGV and delivery trips which have been provided by the applicant. These will occur outside of the network's peak hours. Please can the hours of arrival / departure for staff and HGVs be included with the TA document. A profile across the construction period indicating the daily traffic levels on a monthly basis should also be included.

Table 3. Anticipated Daily HGV and Delivery Trips

Land Area	Direction	HGVs	LGVs (Other Deliveries)
В	Arrivals	15	13
	Departures	15	13
	Total Daily	30	26
С	Arrivals	20	16
	Departures	20	16
	Total Daily	40	32
D	Arrivals	31	31
	Departures	31	31
	Total Daily	62	62
E	Arrivals	15	13

Land Area	Direction	HGVs	LGVs (Other Deliveries)
	Departures	15	13
	Total Daily	30	26
F	Arrivals	12	12
	Departures	12	12
	Total Daily	24	24
Creyke Beck Cable Works	Arrivals	5	5
	Departures	5	5
	Total Daily	10	10

A Construction Traffic Management Plan (CTMP) will be produced to show the controls that will be put in place to manage the traffic. It is recommended that these controls consider external environmental factors along the routes that will be used. For example, there are several schools close to the routes and it should be ensured that HGV movements do not coincide with school start and finish times.

7.2 Staff Trip Generation

The applicant anticipates that 50% of staff will be taken to and from the site by shuttle bus and each shuttle bus accommodates 14 staff. The remaining 50% are anticipated to car/van share, with a 3:1 ratio of staff to vehicle. The applicant should provide details in the CTMP on how these ratios will be ensured. Robust measures will need to be put in place to encourage 50% of staff to travel to and from the site by shuttle bus.

The anticipated staff daily trips are shown below in Table 4.

Table 4. Anticipated Daily Staff Trips

Land Area	Number of Staff	Shuttle Buses	Cars/Vans	Total Arrivals	Total Departures
В	125	4	21	25	25
С	128	5	21	26	26
D	248	9	41	50	50
E	125	4	21	25	25
F	96	3	16	19	19
Grid Connection Cable Boute	20	1	4	5	5

According to the applicant, staff will arrive during the morning peak hour (around 9 am) and depart during the evening peak hour (around 5 pm). The TASR does not state the actual timings of the AM and PM hourly network peaks. For clarification, these timings should be stated in the TA.

Appendix 1 shows the traffic distribution for the cable works and each Land Area and the assignment of staff trips during the AM and PM peak hours.

8. Phasing

The applicant anticipates six construction phases, including:

Phase 1: Land Area B

• Phase 2: Land Areas B & C

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- Phase 3: Land Areas C & D and Grid connection cable route
- Phase 4: Land Areas D & E and Grid connection cable route
- Phase 5: Land Areas E & F and Grid connection cable route
- Phase 6: Land Area F

Appendix 1 shows the trip generation flow diagrams for these phases.

9. Traffic Impact

It is proposed to undertake capacity assessments at the following junctions on the ERYC Local Highway Network to assess the worst-case impact at each stage of the construction process:

- A1035 / Meaux Lane priority junction (worst case of 69 vehicle movements in both AM and PM peak hours during Phase 4 Land Areas D & E);
- A1035/ A165/ A165 White Cross Road/ Beverley Road (White Cross Roundabout) (worst case of 48 vehicle movements in both AM and PM peak hours during Phase 3 – Land Areas C & D);
- A165 White Cross Road / Site Access to Land Area B (worst case of 35 vehicle movements in AM and PM peak hours during Phase 2 – Land Areas B & C);
- A165 White Cross Road / Carr Lane (worst case of 32 vehicle movements in AM and PM peak hours during Phase 2 – Land Areas B & C); and
- A165 White Cross Road / Arnold Lane West (worst case of 38 vehicle movements in AM and PM peak hours during Phase 3 Land Areas C & D).

The applicant states that the capacity assessments will be undertaken using the ARCADY10 software in the base year and future years with and without the addition of development traffic, which is welcomed. It is noted there are also priority junctions within the list above, which should be assessed using the PICADY package within Junctions 10.

It is recommended that all junction geometries are presented, alongside the modelling input / output files for review by ERYC Highways when available. Please can evidence also be provided within the TA that discounts the requirement to assess other junctions that may be impacted by the development, such as Levens Roundabout and Swinemoor Lane Roundabout.

10. Highway Safety

The most recent 3-year period (including 2018 and 2019 to provide 3 years without the COVID-19 restrictions, i.e. a total of 5 years) of road traffic collision history will be reviewed for the wider highway network in the vicinity of the site to identify collision patterns, estimate the impact of the proposed development traffic in conjunction with capacity modelling and propose mitigation where appropriate.

If it is found that there are any links or junctions with hotspots of accidents within that period, these should be assessed further, to ensure that the Proposed Development traffic will not cause further detriment to highway safety.

11. Construction Traffic Management Plan

The applicant will prepare a Construction CTMP. This will include details of the routes to be taken to the site by staff and HGVs. It will also include details of the location of staff compounds and proposals for wheel washing. All measures stated to minimise the impact on construction traffic should be robust and site-specific.

12. Appendices

12.1 Appendix 1: Traffic Figures

The applicant has provided traffic flow diagrams for several scenarios. This includes base flows, growthed base flows, committed development flows, and Proposed Development flows. **For clarity, the network AM and PM hours should be stated.**

12.2 Appendix 2: Committed Developments

The applicant has provided the reasoning behind the inclusion or exclusion of the committed developments. Whilst the reasonings stated are reasonable, the committed developments that are proposed to be included should be agreed upon with ERYC and National Highways.

12.3 Appendix 3: Land Areas and Access Location Plan

The applicant has provided a plan of the different Land Areas, in relation to key towns and roads in the area. There are no further comments.

12.4 Appendix 4: Proposed Highway Works Plan

The applicant has provided drawings of the proposed highway mitigation works to enable the movement of vehicles accessing the Proposed Development. These works have been submitted to ERYC Highways Area Engineers for review.

The applicant should provide vehicle tracking on these designs to show that the proposed works are suitable for each vehicle type that will be travelling to and from the Proposed Development.

12.5 Appendix 5: Gravity Model

The applicant has used a gravity model to distribute staff trips along the highway network in accordance with 2011 Census data. There are no further comments.

12.6 Appendix 6: Indicative Phasing Plan

The applicant has provided details of the indicative phasing plan. There are no further comments.

13. Summary

AECOM have been commissioned by East Riding of Yorkshire Council (ERYC) to provide a review of a TASR, prepared by SCP for RWE ('the applicant'), in support of the development of a proposed solar photovoltaic (PV) electricity-generating and storage facility with an export capacity of 320 megawatts (MW) and associated infrastructure located in East Riding of Yorkshire.

The following comments are provided:

- Continue liaising with ERYC and National Highways, particularly with:
 - ERYC Highway Area Engineers who may have comments on the proposed highway works;
 - Both organisations who may have comments on the proposed inclusion or exclusion of committed developments;
 - Both organisations who may have comments on the reduced TEMPro future job prediction;
- Confirm that traffic survey dates all represent neutral conditions;
- Present the vehicle auto-tracking of the proposed routes (and works) to show that all vehicle types can access the Proposed Development;
- State the number of LGVs and HGVs that will be used for the cable connection to avoid ambiguities of the word 'small';

Peartree Hill Solar Farm
Transport Assessment Scoping Report
Review

- Ensure that the CTMP provides robust and site-specific measures to minimise the impact on the traffic on the road network;
- Provide clarification in the TA on how it will be ensured that 50% of staff will travel to and from the site by shuttle bus;
- State the hours of the AM and PM network peaks to provide context; and
- Identify any accident hotspots and show that the Proposed Development traffic will cause no detriment to highway safety.
- It is recommended that all junction geometries are presented, alongside the modelling input / output files for review by ERYC Highways when available. Please can evidence also be provided within the TA that discounts the requirement to assess other junctions that may be impacted by the development, such as Levens Roundabout and Swinemoor Lane Roundabout.



From: @eastriding.gov.uk>
Sent: 16 September 2024 08:17

To: Cc: Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

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Hi Jon,

Thank you for you email and clarification on the points raised below. I can confirm the TA scope is now acceptable.

Kind Regards,

Principal Highway Development Management Officer

www.eastriding.gov.uk



From:	@SCPTransport.co.uk>	
Sent: Tuesday, Septe	ember 10, 2024 14:19	
To:	@eastriding.gov.uk>	
Cc:	@eastriding.gov.uk>;	@eastriding.gov.uk>;
	@scptransport.co.uk>;	@dwd-ltd.co.uk>;
	@rsk.co.uk>;	@dwdllp.com>

Subject: FW: 24/01813/NSIP - Peartree Hill Plantation

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Scott

Thanks for your email below. I have commented on each point below in red.

As requested we submitted the TA Scope and require approval from ERYC so that we can progress the Transport Assessment using parameters (traffic growth, assessment periods etc) **on an agreed basis**.

Many of the comments from AECOM (such as those relating to committed development and traffic growth for example simply say that agreement is required from ERYC) whereas I had understood the purpose of the AECOM review exercise was to comment on the acceptability of our approach (or otherwise).

All Traffic surveys undertaken for the Transport Assessment were carried out during neutral months. The scope also listed surveys undertaken **for the ES** which are not relevant to the TA Scope.

HGV Vehicle swept paths have been provided to ERYC Area officers for comment (for all the proposed mitigation comprising accesses and passing places); these will be appended to the TA.

At this stage we need agreement from ERYC to the individual junctions we have proposed to assess; obviously once the relevant junction assessments are undertaken, the geometric parameters and modelling inputs and results will be provided once the TA is submitted.

I trust the responses above and below now enable you or colleagues at ERYC to provide agreement to our proposed Transport Assessment scope so that we can progress with the work.

If you have any queries or you think there are any issues outstanding don't hesitate to give me a call.

Thanks and regards
Jon

Associate Director



10 South Parade • Leeds • LS1 5QS

@scptransport.co.uk

www.scptransport.co.uk

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From:	@eastriding.gov.uk>	
Sent: 09 Septemb	per 2024 09:49	
То:	@dwd-ltd.co.uk>	
Cc:	<pre>@eastriding.gov.uk>;</pre>	<pre>@eastriding.gov.uk>;</pre>
-	@scptransport.co.uk>;	@SCPTransport.co.uk>;

Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

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Hi Laura/Georgia,

I have had the comments back from our consultants (AECOM) who has the below high-level comments witch details comments throughout the attached report.

- Continue liaising with ERYC and National Highways, particularly with:
 - ERYC Highway Area Engineers who may have comments on the proposed highway works; Awaiting response from ERYC
 - o Both organisations who may have comments on the proposed inclusion or exclusion of committed developments; See above email.
 - o Both organisations who may have comments on the reduced TEMPro future job prediction; See above email.
- Confirm that traffic survey dates all represent neutral conditions; See above email.
- Present the vehicle auto-tracking of the proposed routes (and works) to show that all vehicle types can access the Proposed Development; Will be included in TA (subject to agreement on proposed accesses from ERYC).
- State the number of LGVs and HGVs that will be used for the cable connection to avoid ambiguities of the word 'small'; RWE have clarified the cable connection HGV and LGV volumes, these will be included
- Ensure that the CTMP provides robust and site-specific measures to minimise the impact on the traffic on the road network; Noted
- Provide clarification in the TA on how it will be ensured that 50% of staff will travel to and from the site by shuttle bus; agreed – to be included in TA and oCTMP
- State the hours of the AM and PM network peaks to provide context; agreed to be included in TA and oCTMP
- Identify any accident hotspots and show that the Proposed Development traffic will cause no detriment to highway safety. These will be included in the TA
- It is recommended that all junction geometries are presented, alongside the modelling input / output files for review by ERYC Highways when available. Please can evidence also be provided within the TA that discounts the requirement to assess other junctions that may be impacted by the development, such as Levens Roundabout and Swinemoor Lane Roundabout, See above email.

If you need anything else please let me know.

Kind Regards,

Principal Highway Development Management Officer

www.eastriding.gov.uk













From:	@dwd-ltd.co.uk>	
Sent: Friday, September 6, 2024 13:54		
То:	@eastriding.gov.uk>	
Cc:	@eastriding.gov.uk>;	@eastriding.gov.uk>;
	<pre>@scptransport.co.uk>;</pre>	<pre>@SCPTransport.co.uk>;</pre>

@dwd-ltd.co.uk>

Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

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Thanks Scott.

When you provide your response on Monday are you able to include my colleague Georgie in your response (CC'd).

Cheers,

From: @eastriding.gov.uk>

Sent: 29 August 2024 16:45

To: dwd-ltd.co.uk>

Cc: <u>@eastriding.gov.uk</u>>; <u>@eastriding.gov.uk</u>>;

scptransport.co.uk>; SCPTransport.co.uk>

Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

Hi Laura,

Thank you for passing this across.

I should be able to provide a response by 9th September as I am on annual leave on the 6th, I hope this is acceptable.

Kind Regards,

Principal Highway Development Management Officer

www.eastriding.gov.uk



@dwd-ltd.co.uk> Sent: Wednesday, August 28, 2024 11:43 @eastriding.gov.uk> @eastriding.gov.uk>; @eastriding.gov.uk>; @scptransport.co.uk>; @SCPTransport.co.uk>

Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

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As discussed, please find attached the Transport Assessment Scoping Report for your review. It would be appreciated if you could please confirm whether you are comfortable with the approach that we are proposing for the Transport Assessment.

Please feel free to get in touch with Calum or Jon (CC'd) directly if you have any questions.

Is the 6th September still possible for a response?

Cheers,

Associate

@dwd-ltd.co.uk

dwd-ltd.co.uk



Chartered Surveyors & Town Planners

69 Carter Lane, London, EC4V 5EQ



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From:

Sent: 22 August 2024 17:04

@eastriding.gov.uk>

Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

Hey Scott,

Thanks so much for sending the below through. My team are making their way through the comments at the moment and will be in touch if they have any queries.

We are still hoping to get the TA methodology to you tomorrow, however we are looking to include some additional points following your comments on the PEIR so its possible that this may slip to Monday. I will keep you up to date.

Cheers,

Associate

Associate

T: M:

E: @dwd-ltd.co.uk

dwd-ltd.co.uk



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69 Carter Lane, London, EC4V 5EQ



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From: @eastriding.gov.uk>

Sent: 21 August 2024 11:20

To: @dwd-ltd.co.uk>

Cc: @eastriding.gov.uk>; @eastriding.gov.uk>

Subject: Re: 24/01813/NSIP - Peartree Hill Plantation

Hi Laura,

I hope this email finds you well.

I am pleased to send across ERYC higwhay comments through the AECOM report atatched. The full comments are bold and underlined throughout the document.

The highlight comments of the PEIR review are as follows:

• Continue engaging with ERYC highways department and National Highways at the earliest opportunity for each stage of the design and its associated transport-related factors, such as routing and trip generation;

- Refer to IEMA 2023 guidance for any design changes that impact transport, such as the inclusion or exclusion of certain road links within the assessment;
- Ensure that all traffic survey dates are outside of events such as school holidays when the level of traffic may be lower than normal;
- Confirm that each element of the desktop studies has been verified on a site visit and that the conditions are representative;
- Confirm whether sustainable transport options, are viable for all Land Areas;
- Any junctions or roads that are identified to have clusters of accidents should receive appropriate mitigation measures to ensure that the Proposed Development does not exacerbate this;
- Any years impacted by COVID-19 should be excluded from the highway safety review;
- Any reduction in TEMPro is to be agreed with ERYC and National Highways;
- All changes to the highway, such as the implementation of passing places as a form of mitigation, are drawn and mapped, to ensure compliance with guidance;
- The identification of the AM and PM network peak within the Transport Assessment, and the subsequent assessment of the impact of the construction traffic generation during these peaks;
- The provision of a site masterplan and a detailed construction timeline of the phases on site with a breakdown of generated traffic from each phase, to be provided within the submitted Transport Assessment;
- A robust method to calculate the distribution of trips, such as a gravity model, if the exact origin of each worker is unknown; and
- All relevant organisations and bodies should be contacted prior to the decommissioning taking place.

Following this, could you provide an updated timeframe in regards to receiving the TA?

Kind Regards,

Principal Highway Development Management Officer

www.eastriding.gov.uk



From: @dwd-ltd.co.uk>

Sent: Wednesday, August 14, 2024 13:46

To: @eastriding.gov.uk>

@eastriding.gov.uk>; @eastriding.gov.uk>

Subject: RE: 24/01813/NSIP - Peartree Hill Plantation

[CAUTION]This email was sent from outside of your organisation. Do not click any links, preview or open attachments, or provide any log-in details unless you recognise the sender and know the content is safe. Afternoon Scott,

Many thanks for the below. I have spoken to my client who has confirmed that they are happy for you to instruct the consultant so that the work can be turned around in a shorter period.

As an update, we are also hoping to issue the TA methodology to you next week and would like your review / comments on this. We are happy to cover the consultants time for this also, would a response on this be possible for the 6th September?

Cheers,



Associate

T: |

@dwd-ltd.co.uk

dwd-ltd.co.uk



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69 Carter Lane, London, EC4V 5EQ



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@eastriding.gov.uk> From:

Sent: 12 August 2024 11:03

@dwd-ltd.co.uk>

@eastriding.gov.uk>; @eastriding.gov.uk>

Subject: 24/01813/NSIP - Peartree Hill Plantation

Good Morning Laura,

I hope this email finds you well.

Highway Management have been consulted on the above NSIP for a PEIR review and due to very recent staffing issues within the team we will not be able to start looking at this until 2nd September, however given the situation we face I have asked our transport consultants for a quote and time frame, which is why I am contacting you today.

- 1. If HDM team are to look at this internally this will begin w/c2nd September and will take approx. 10-12 hours to review with a response provided by COP 6th September.
- 2. However, our consultants have come back with a five day turn around period following commission at a cost of £1,604.64 and we could get this to you by COP 20th following your response to this email.

As we have a PPA set up for this submission please could you respond which of the above options you would like me to proceed with.

Principal Highway Development Management Officer

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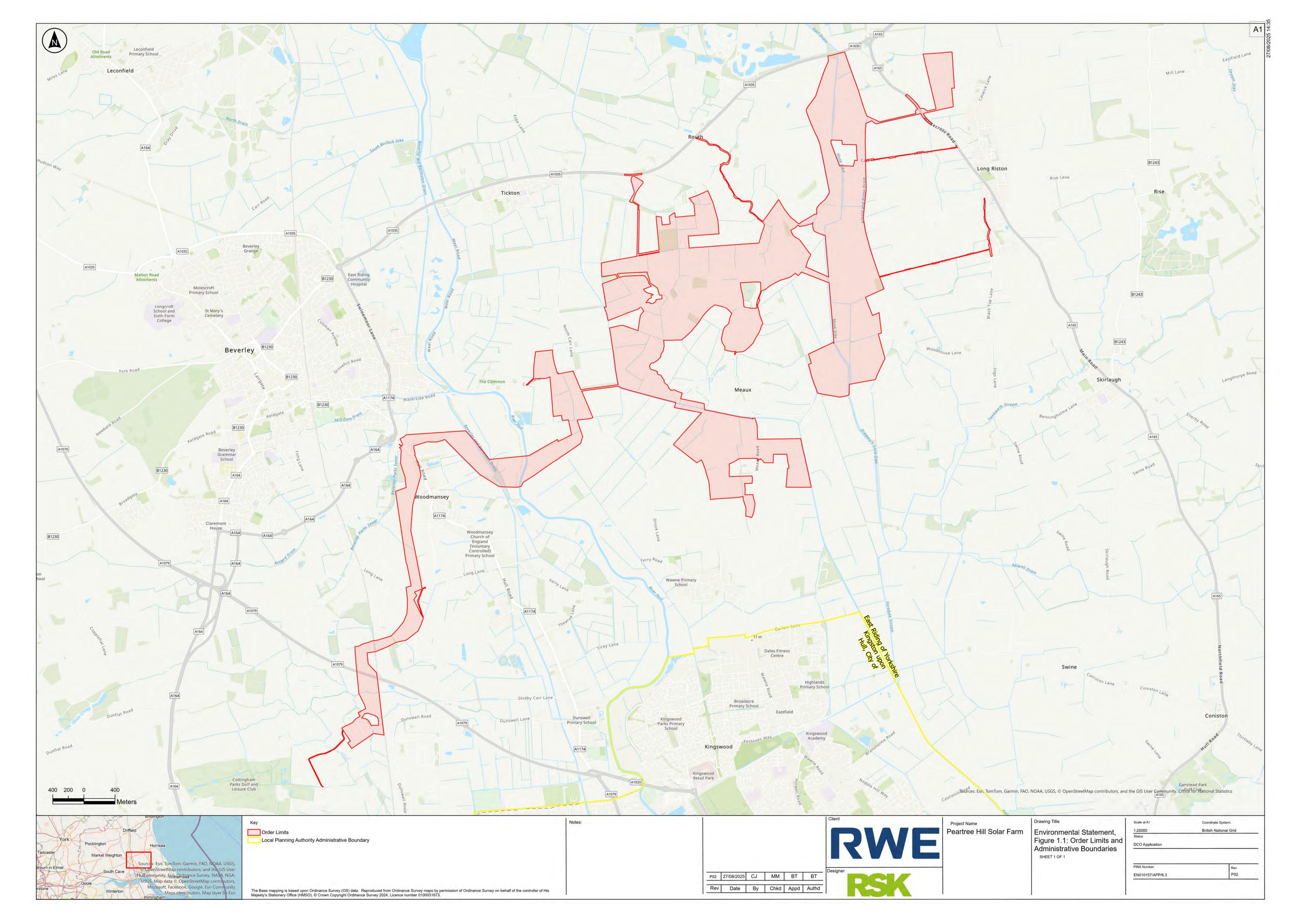
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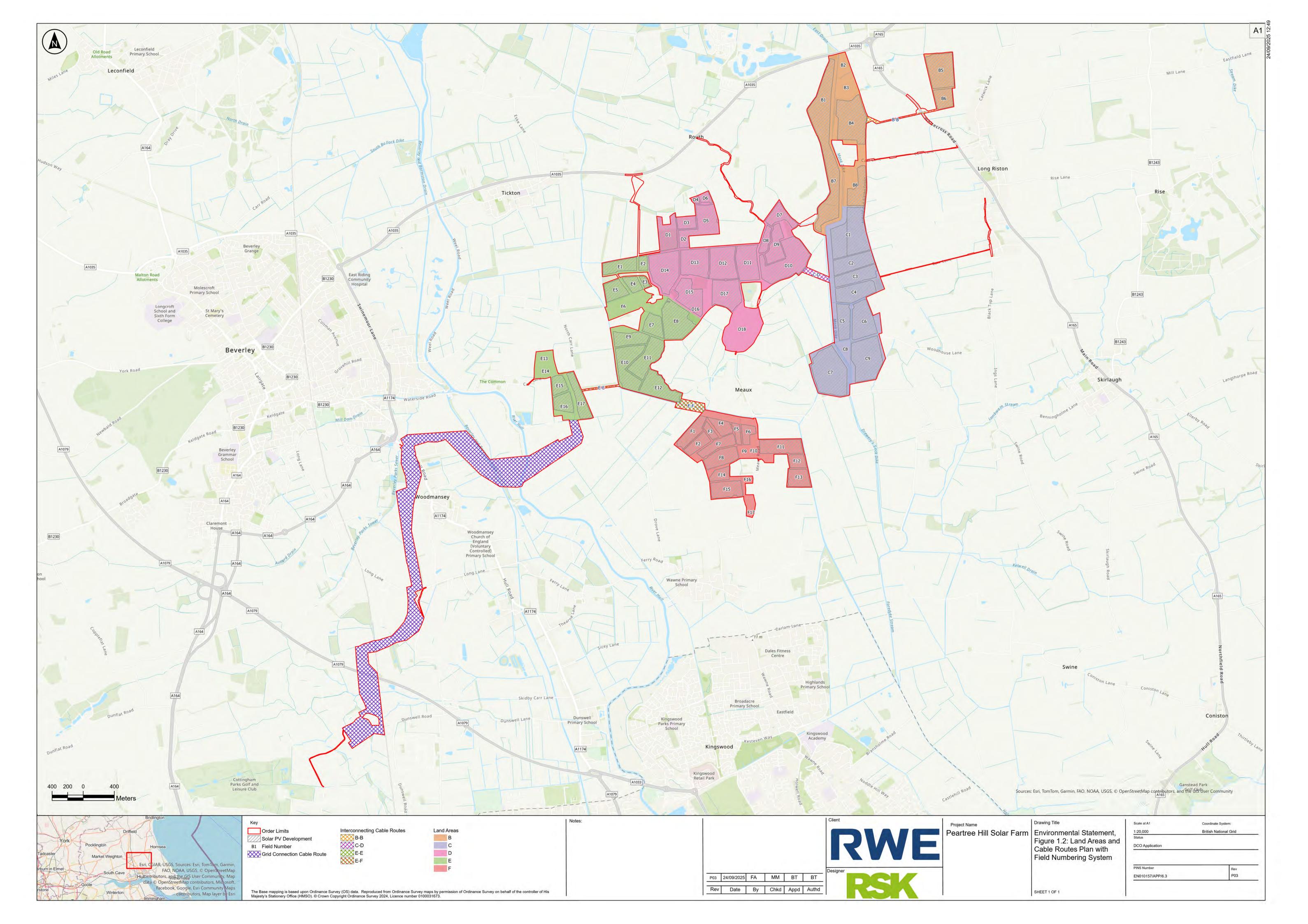
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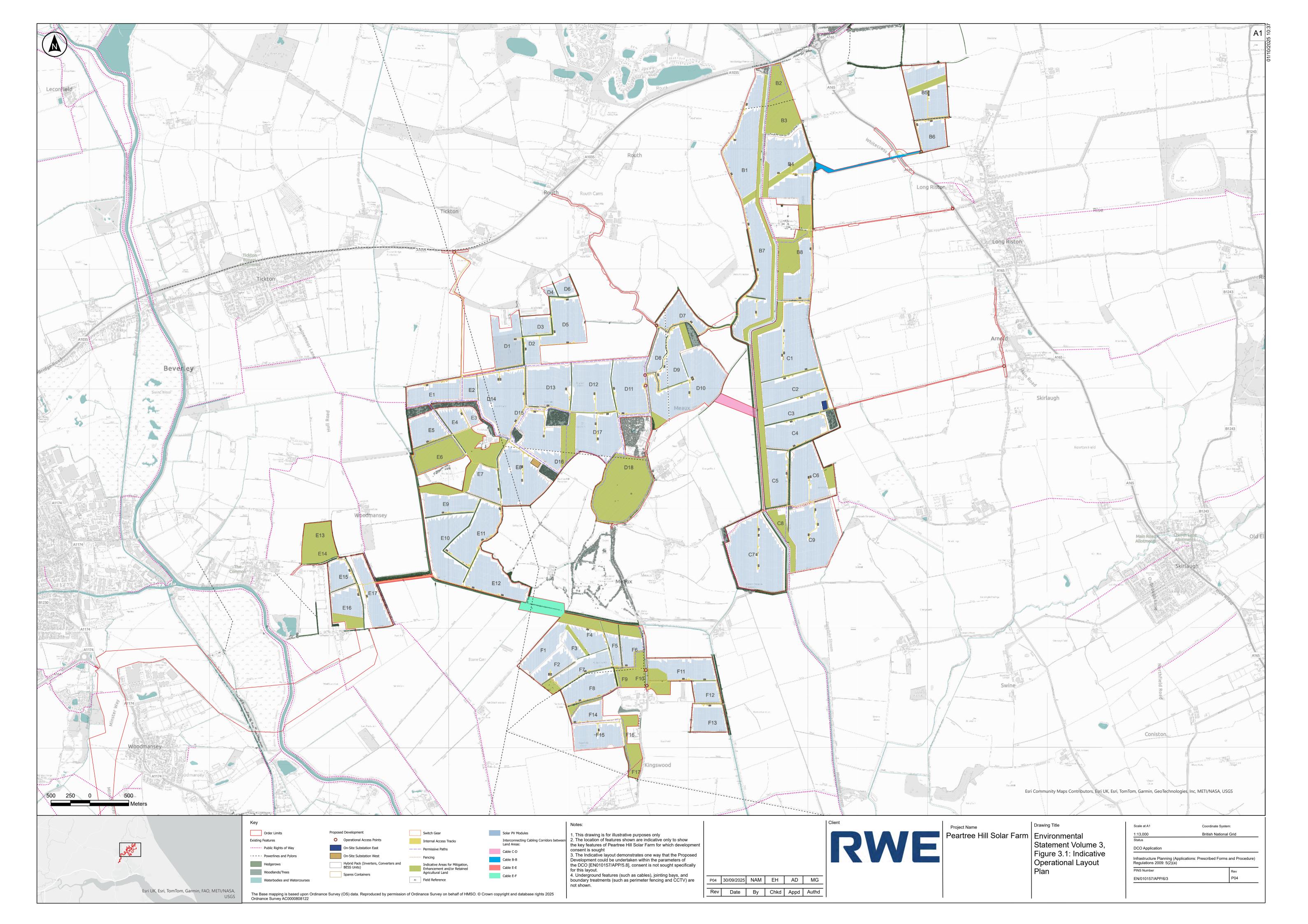


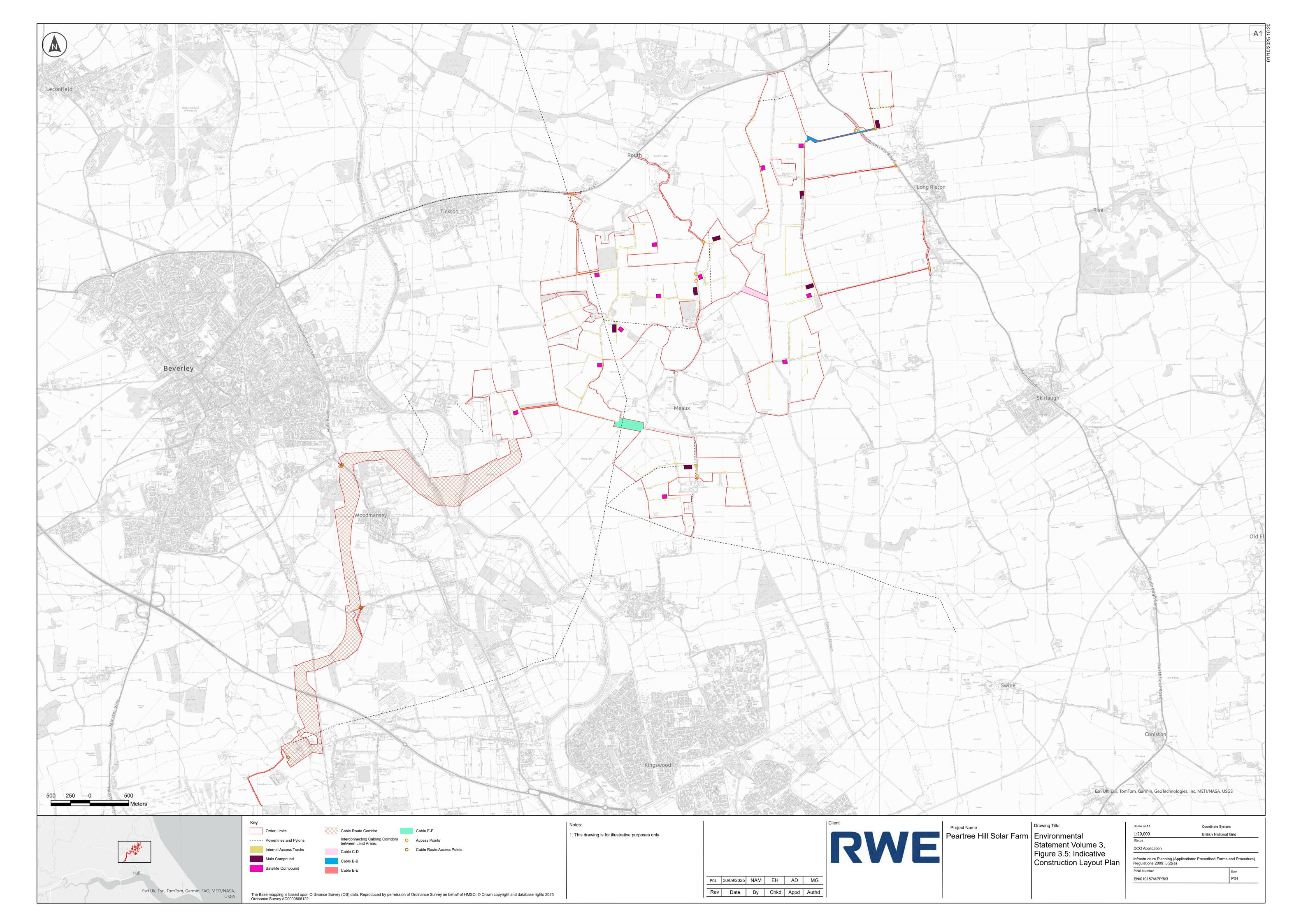
APPENDIX B

Site Plans and Order Limits





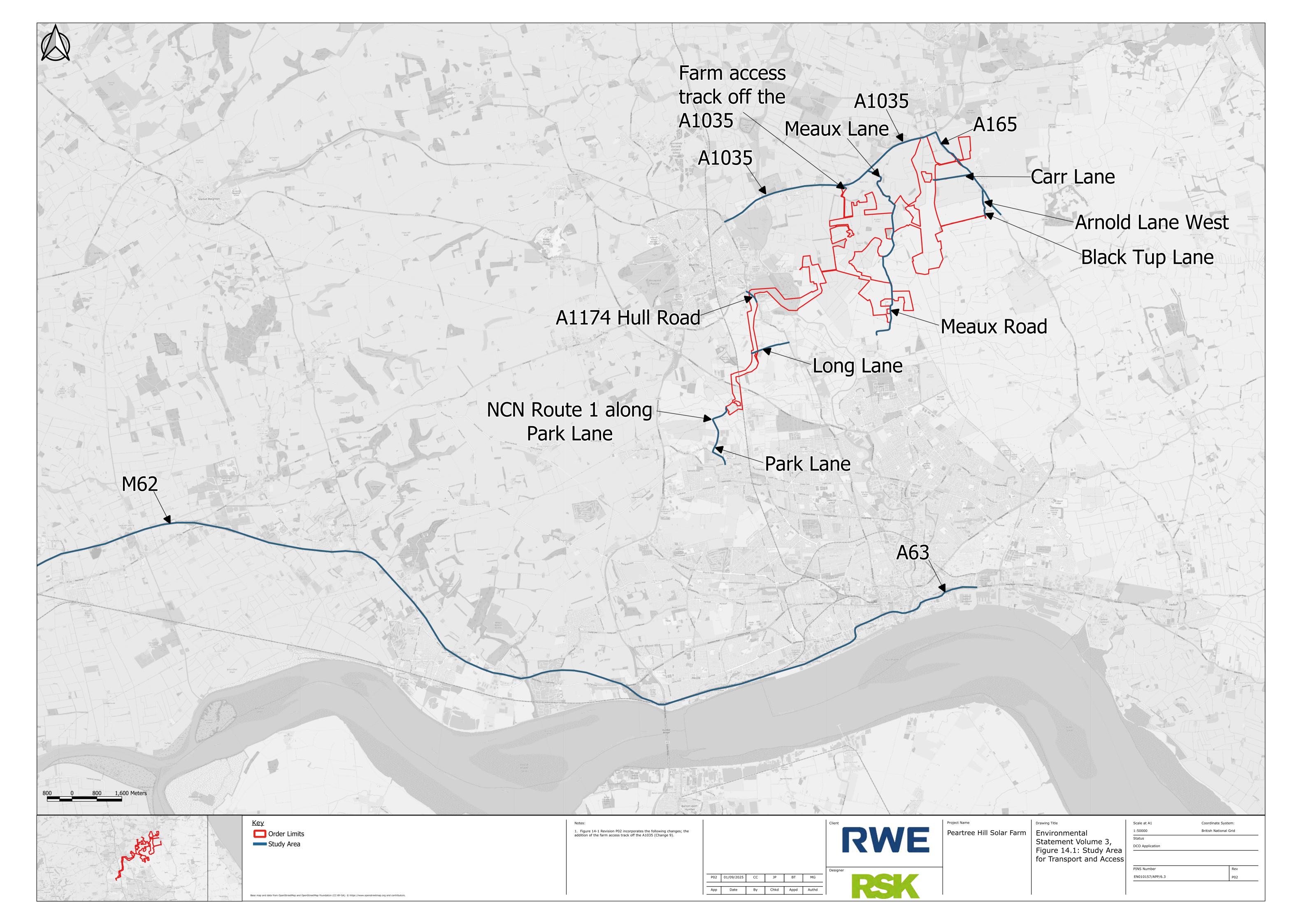






APPENDIX C

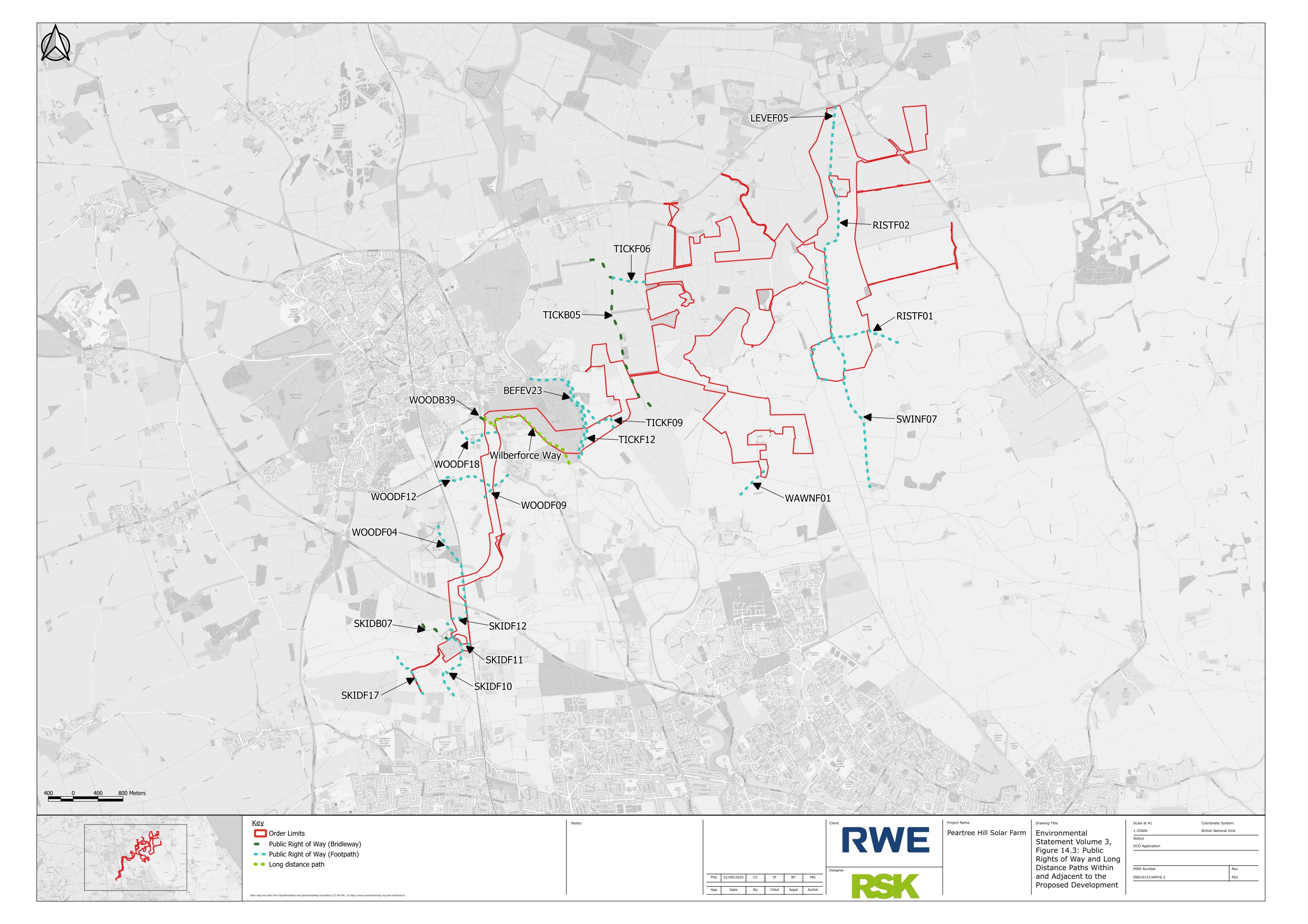
Transport and Access Study Area





APPENDIX D

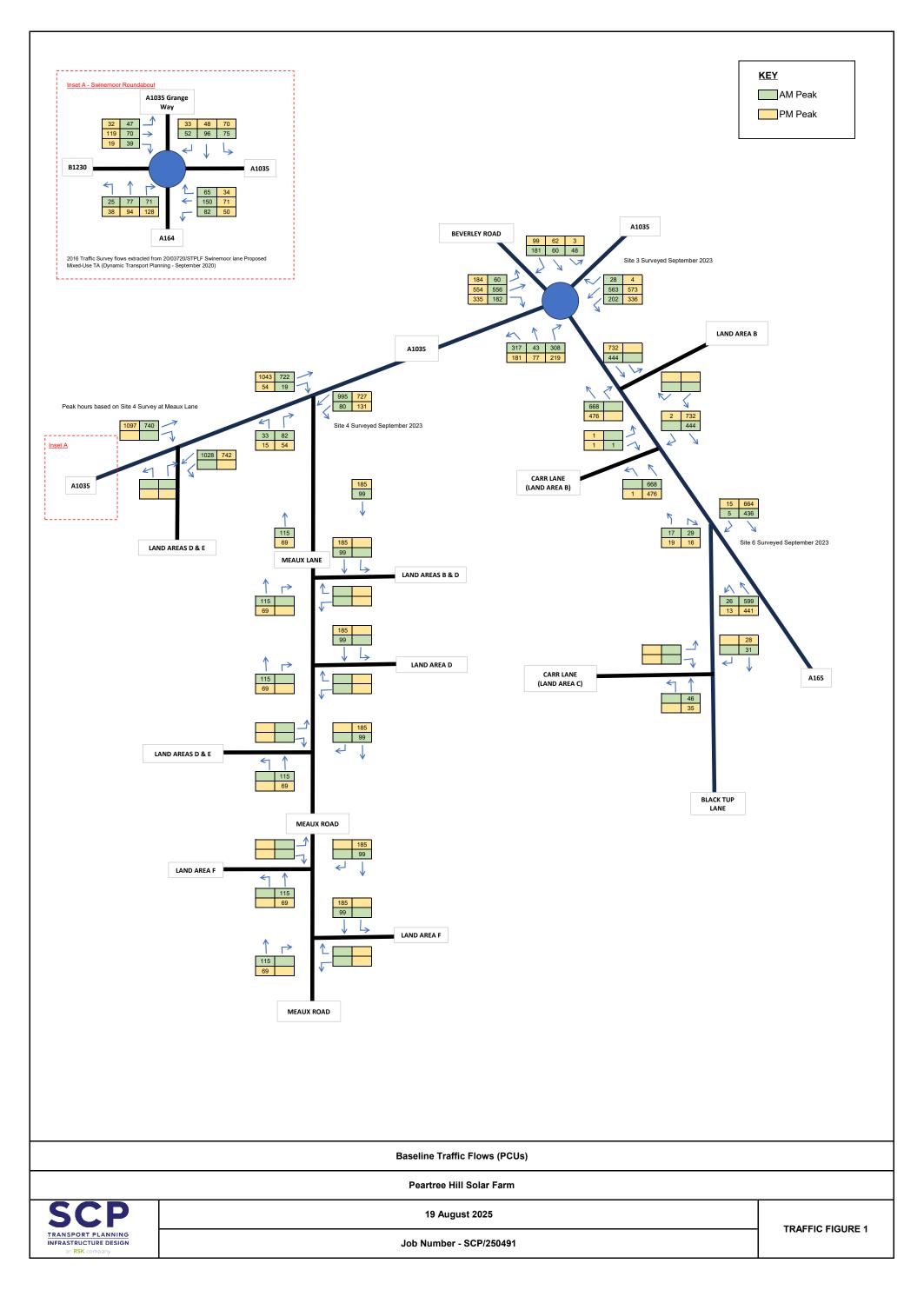
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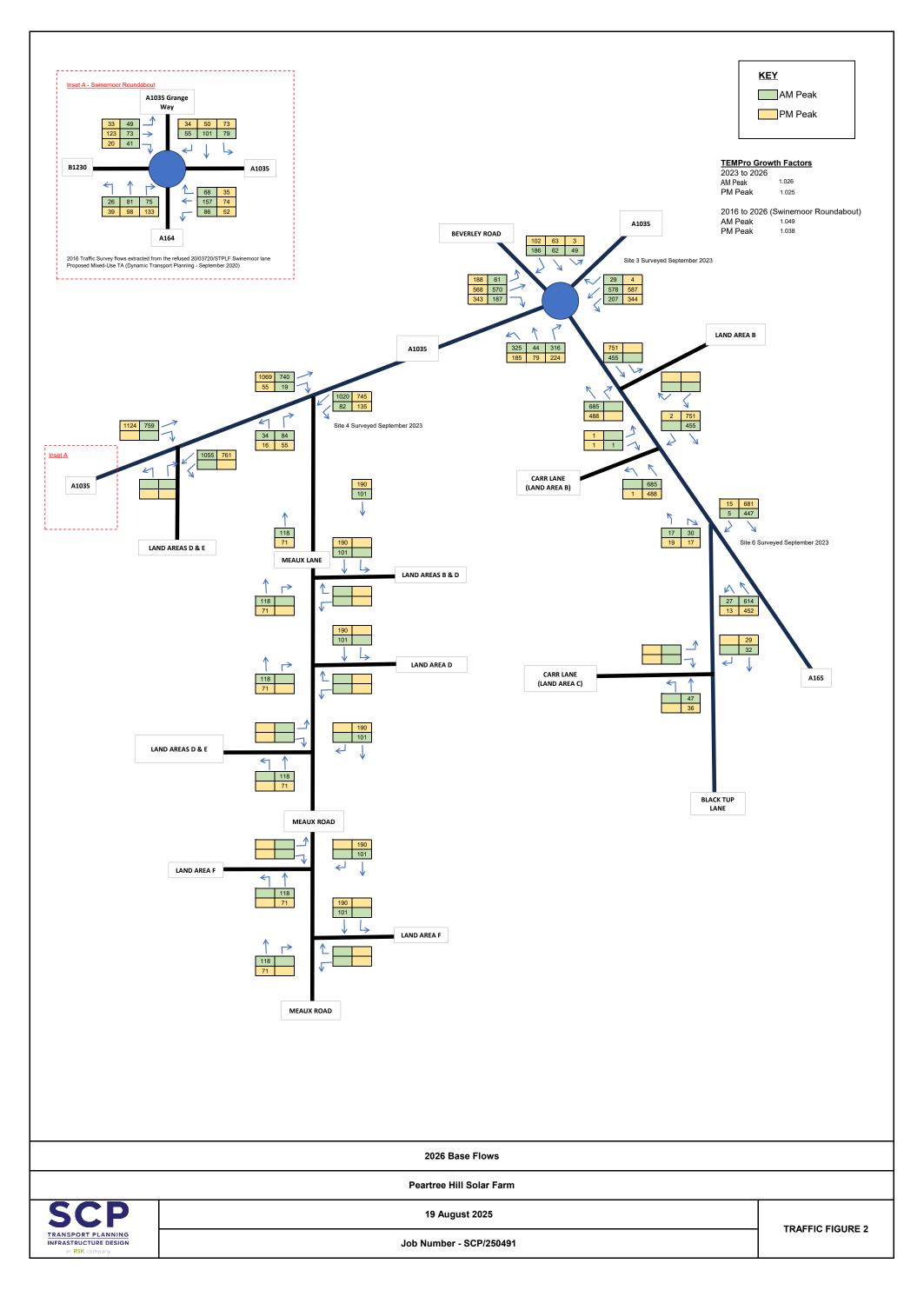


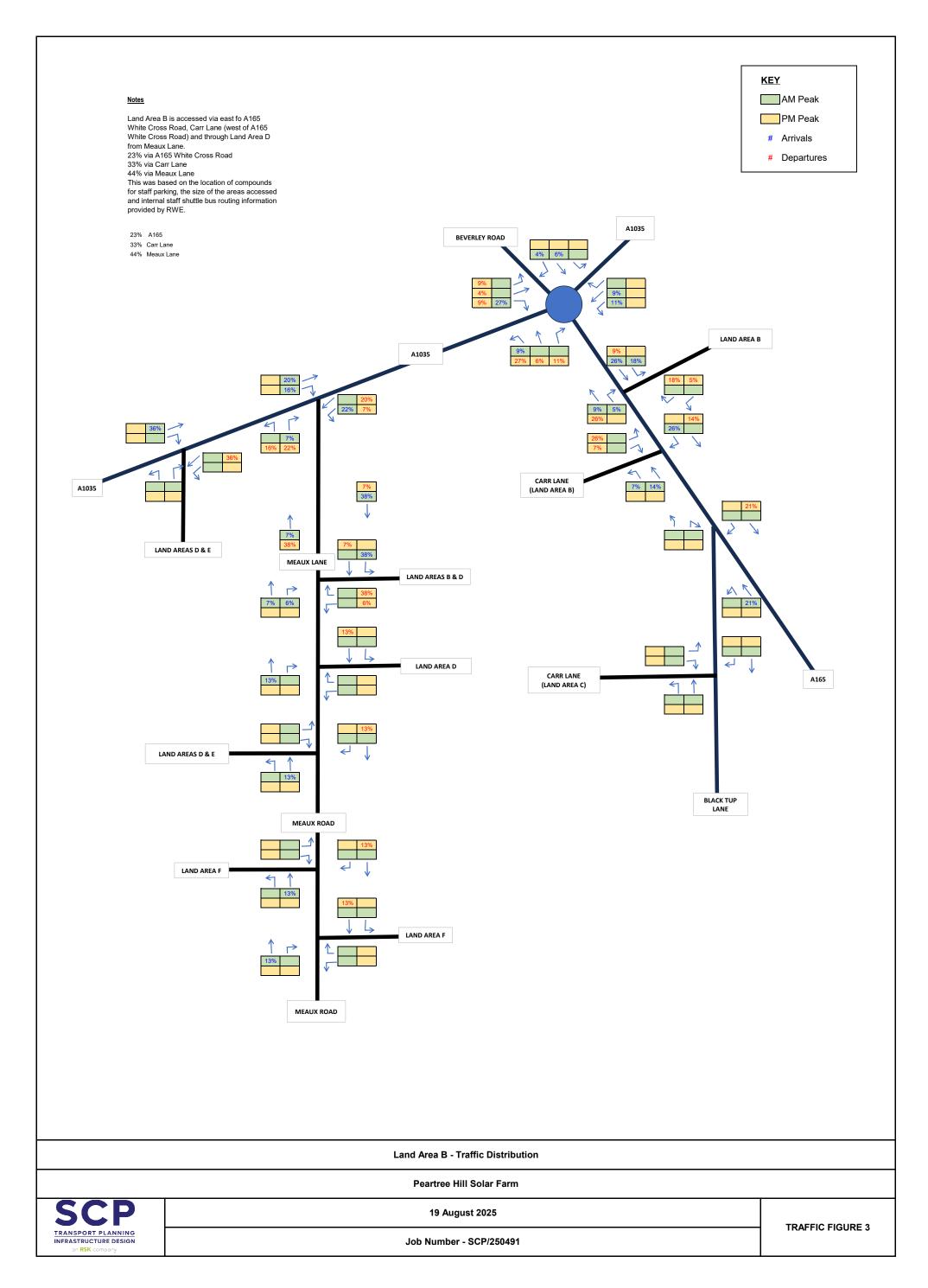


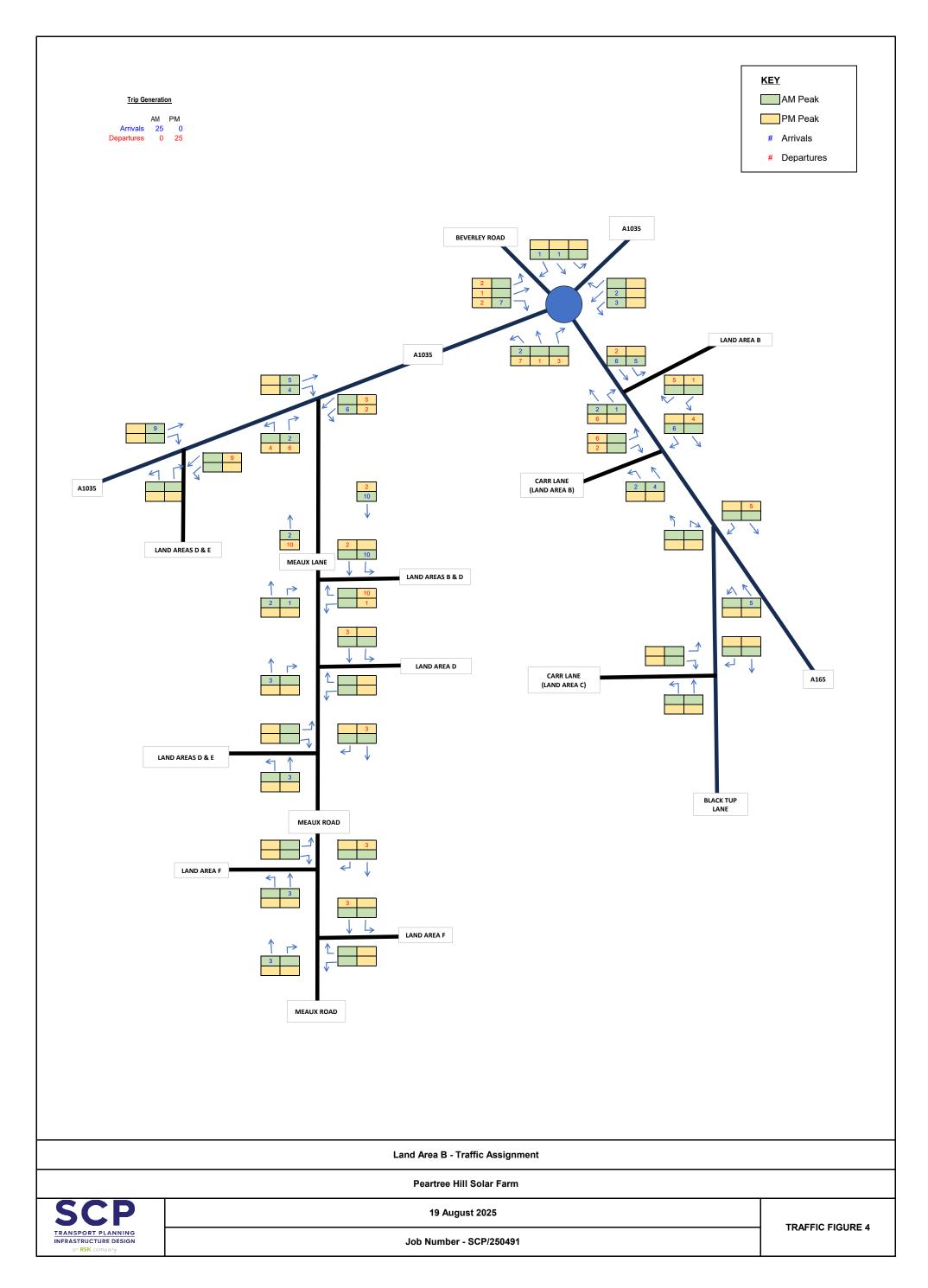
APPENDIX E

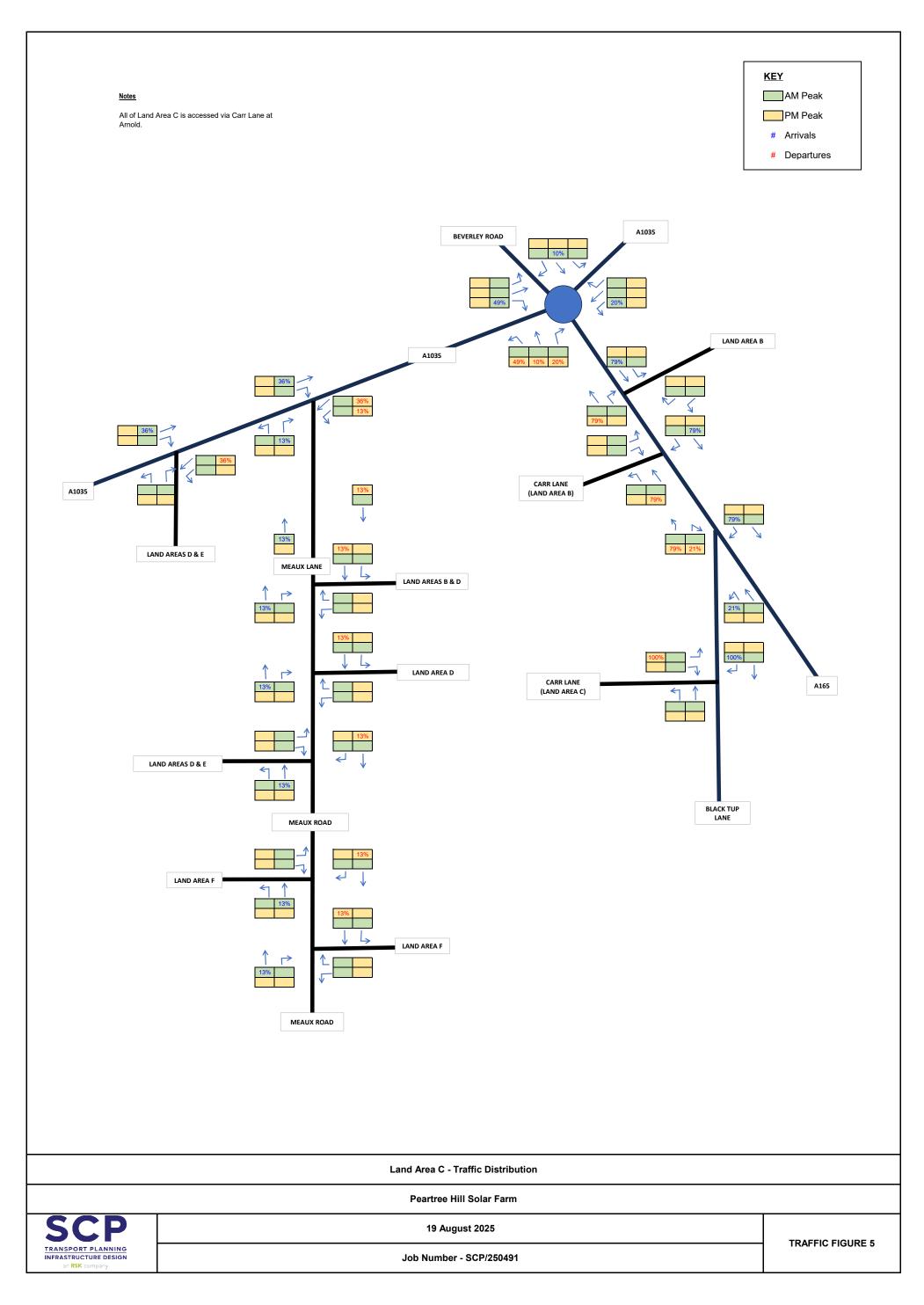
Traffic Figures

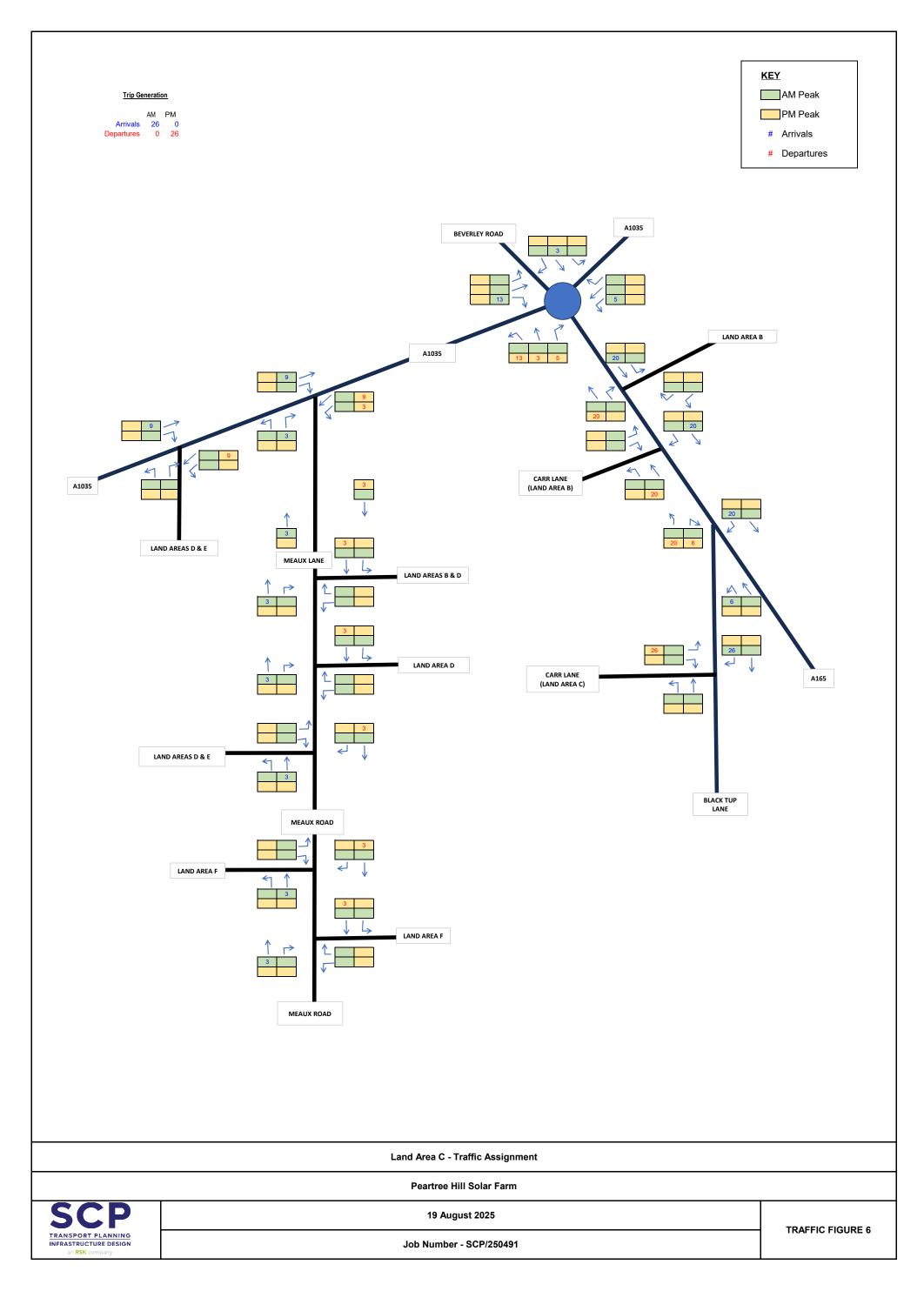


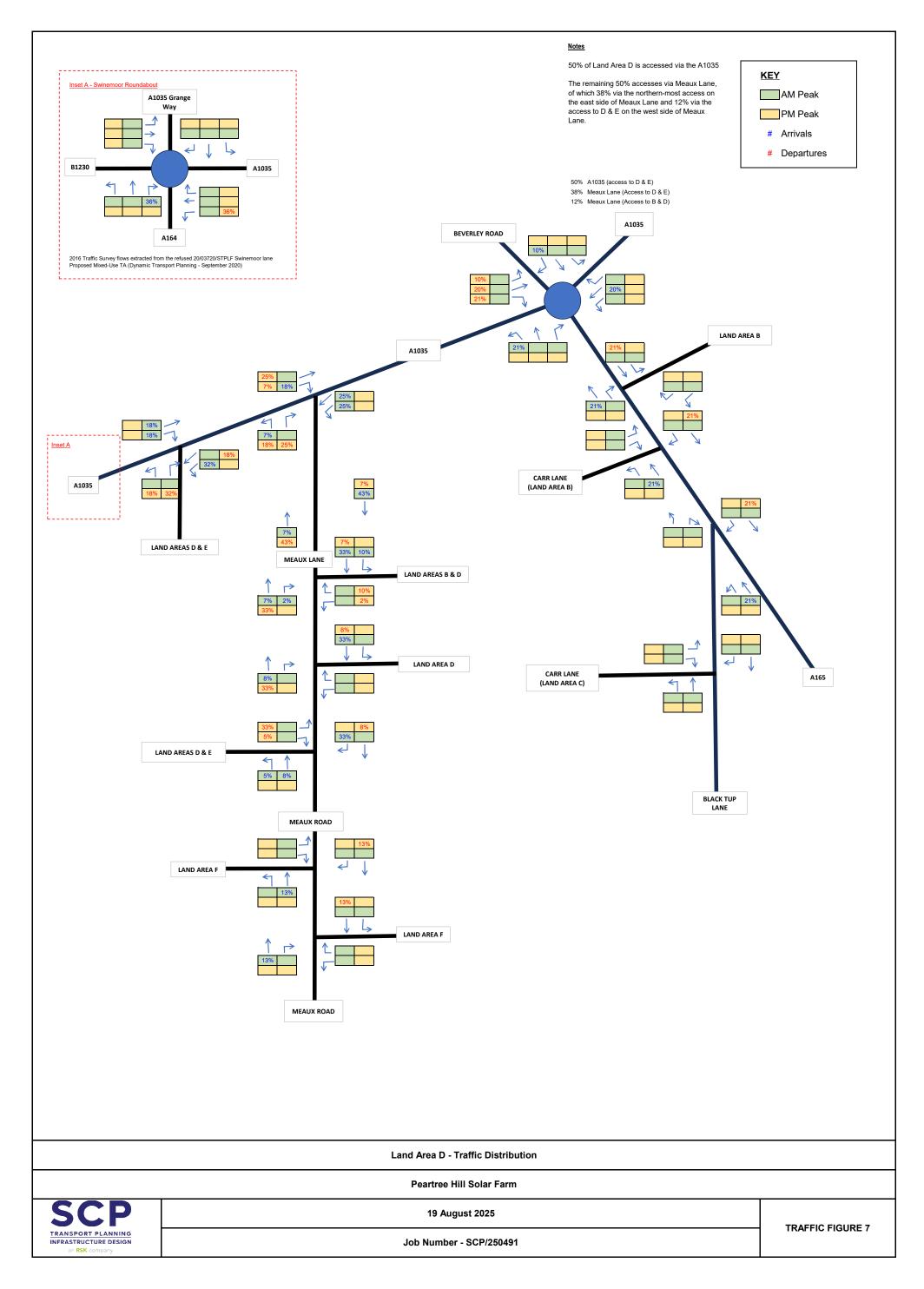


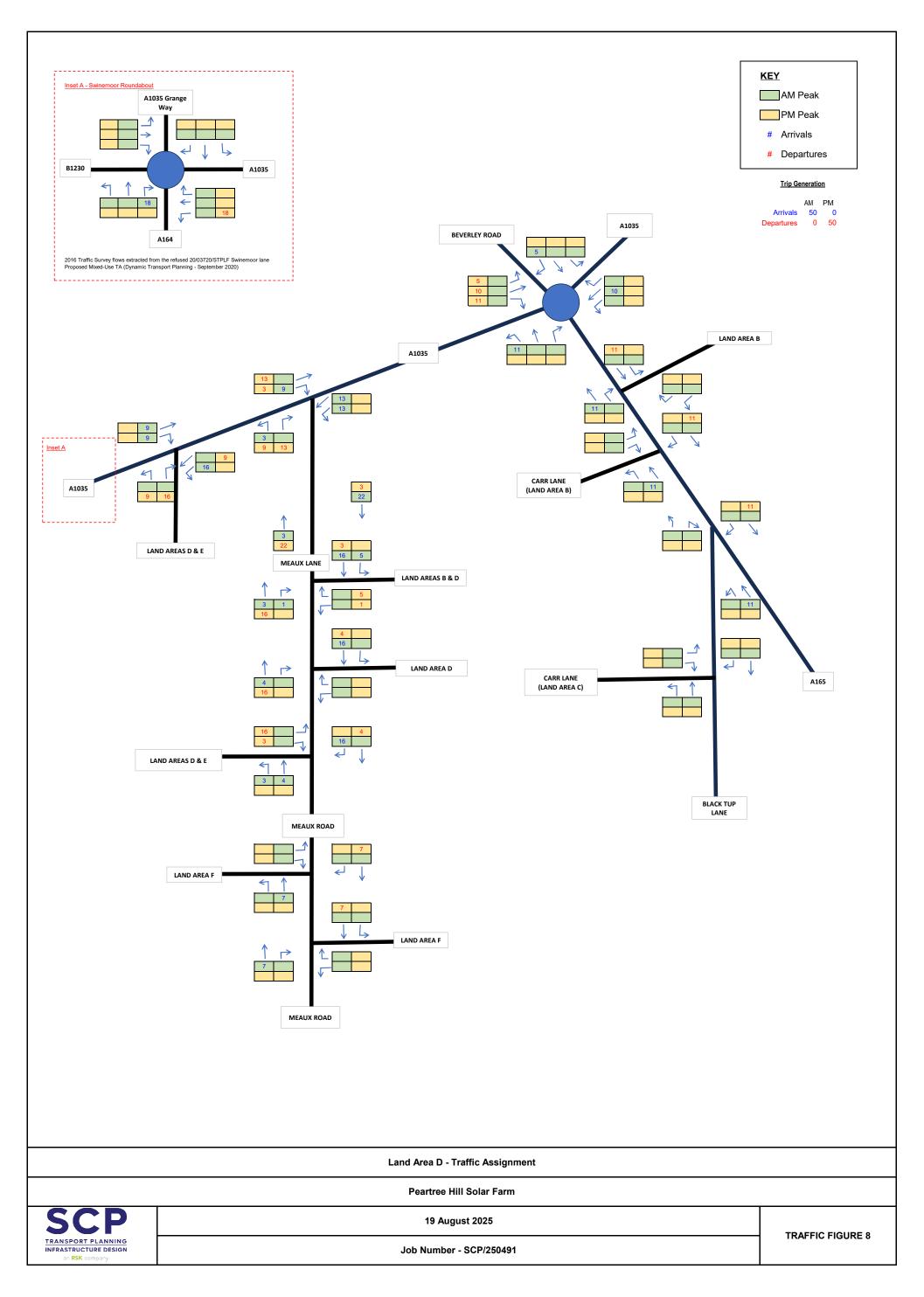


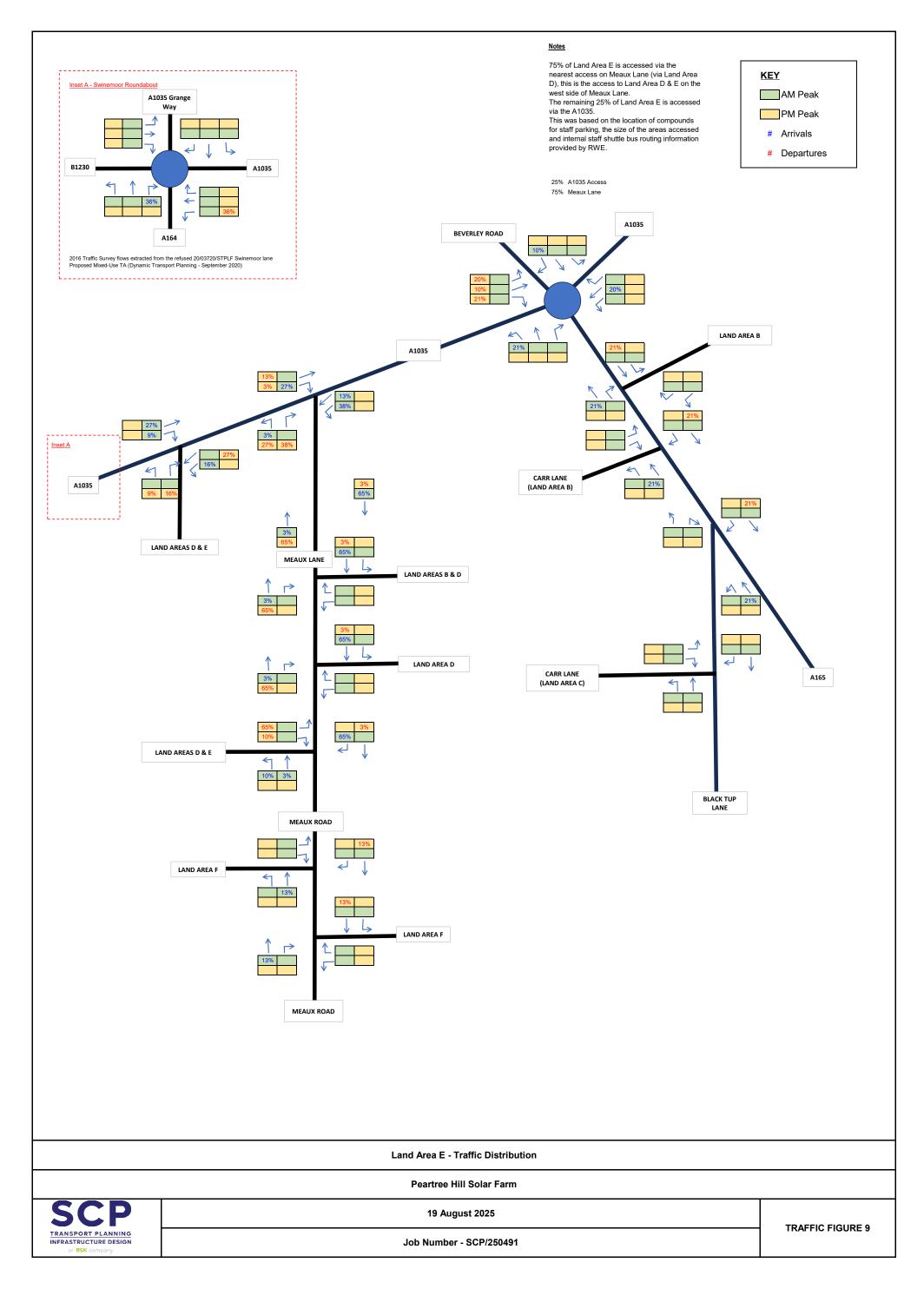


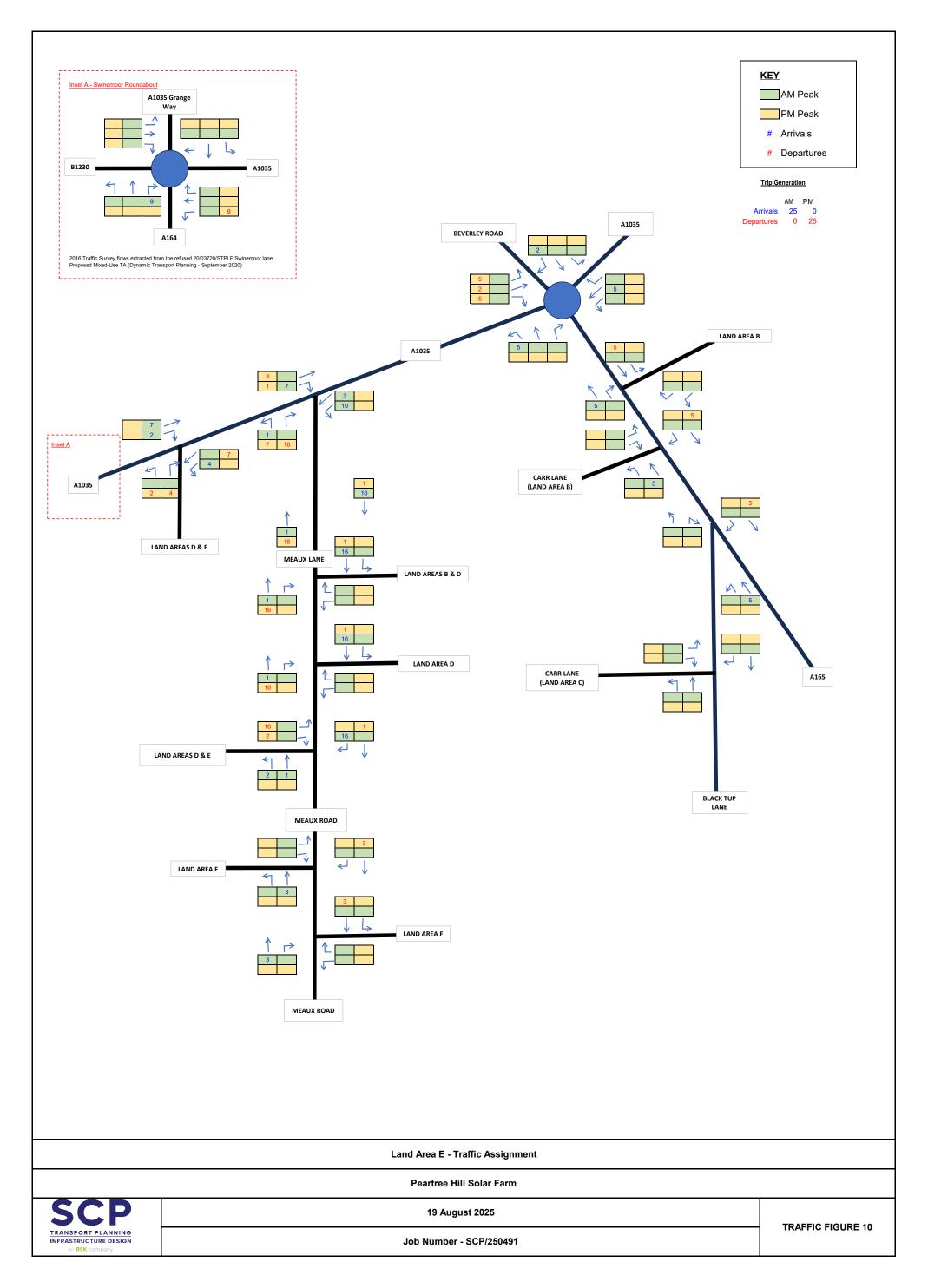


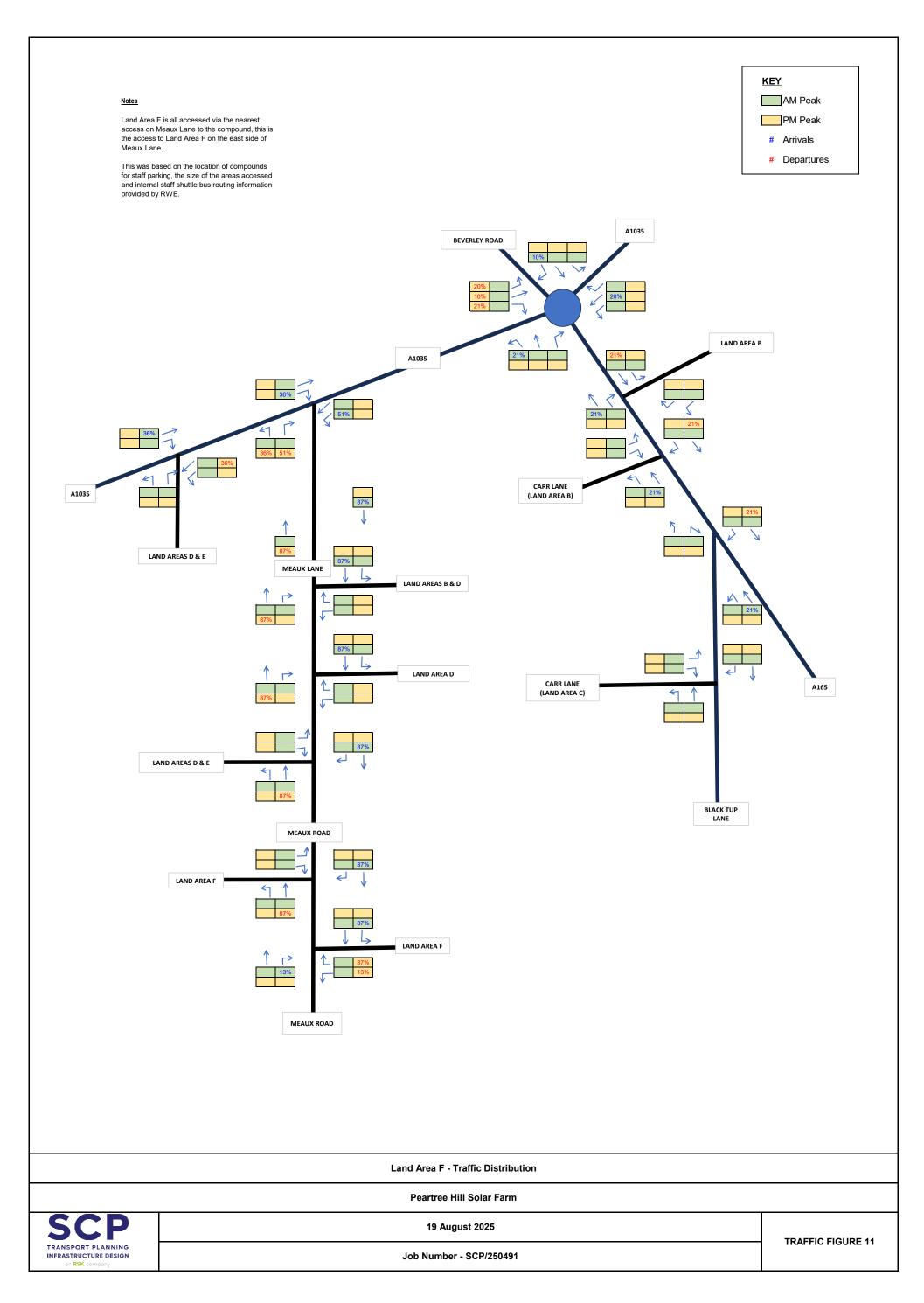


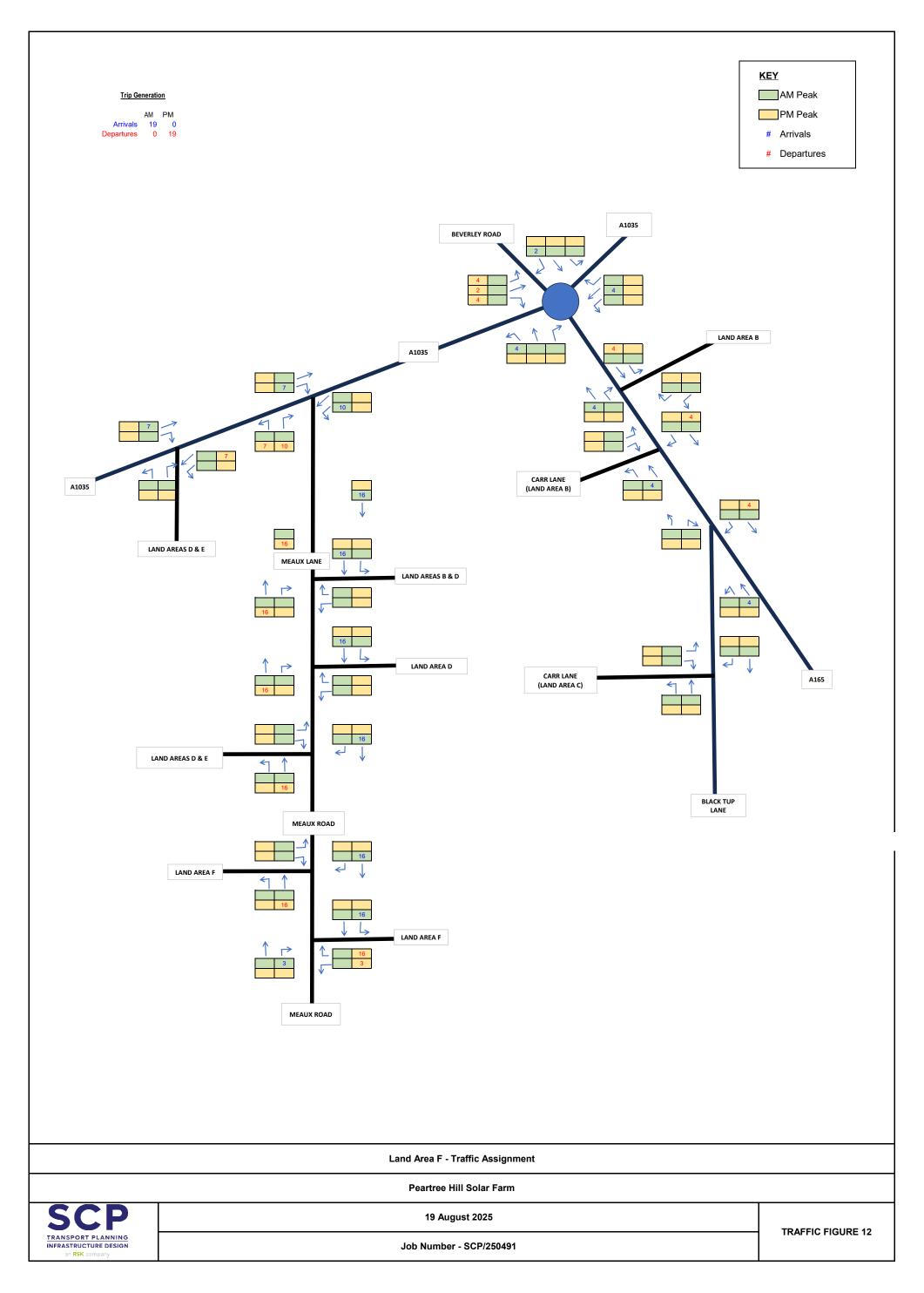


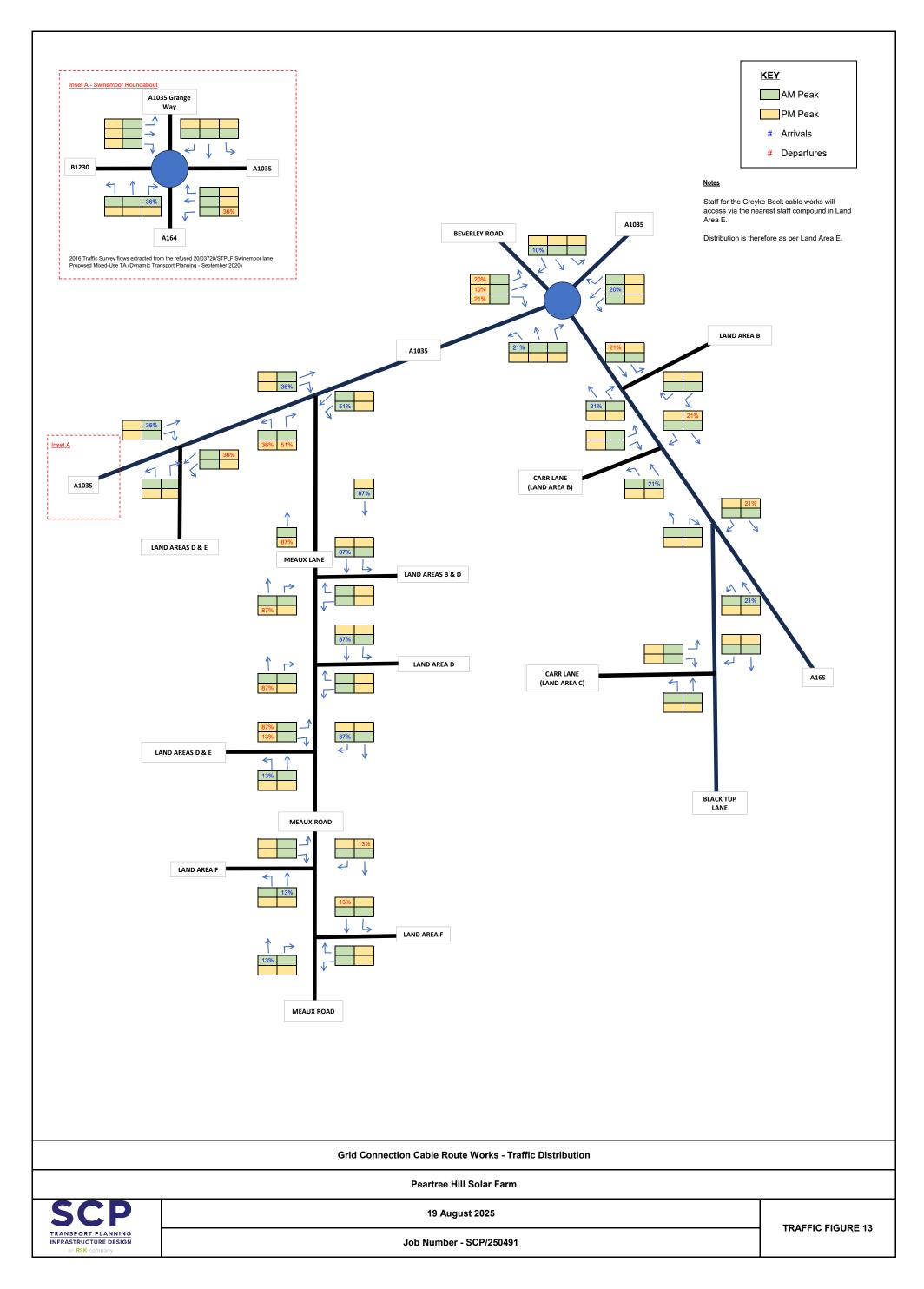


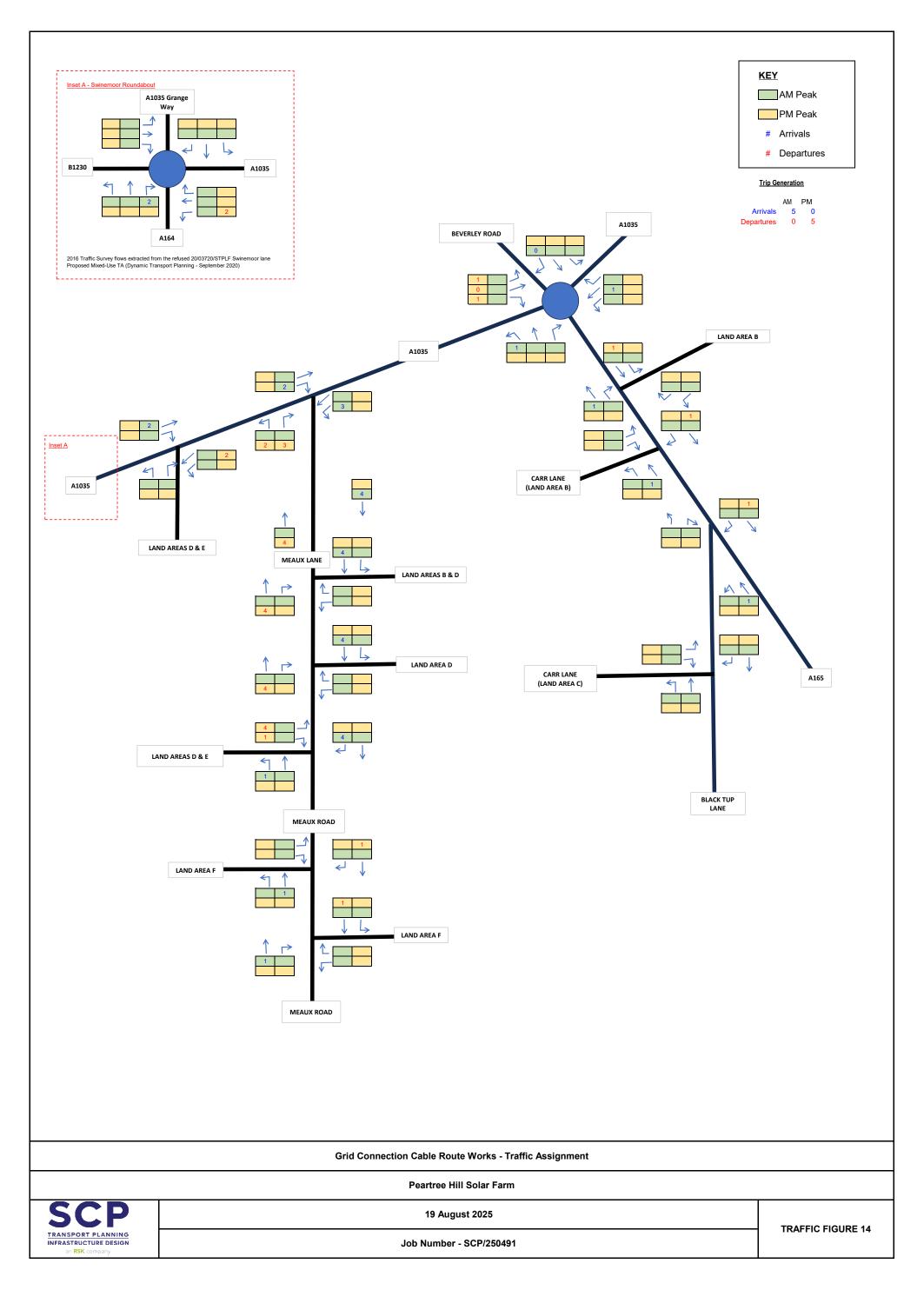


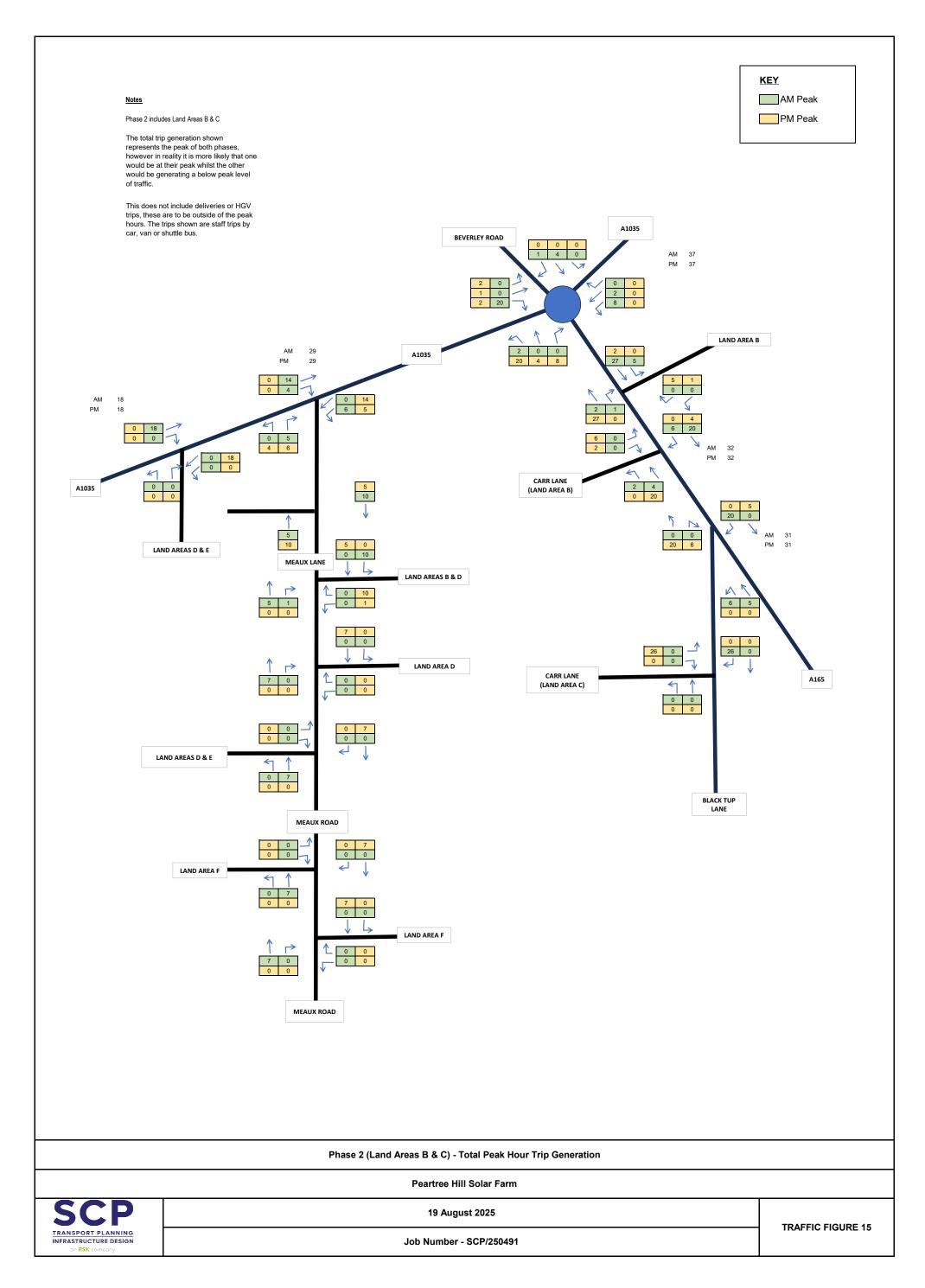


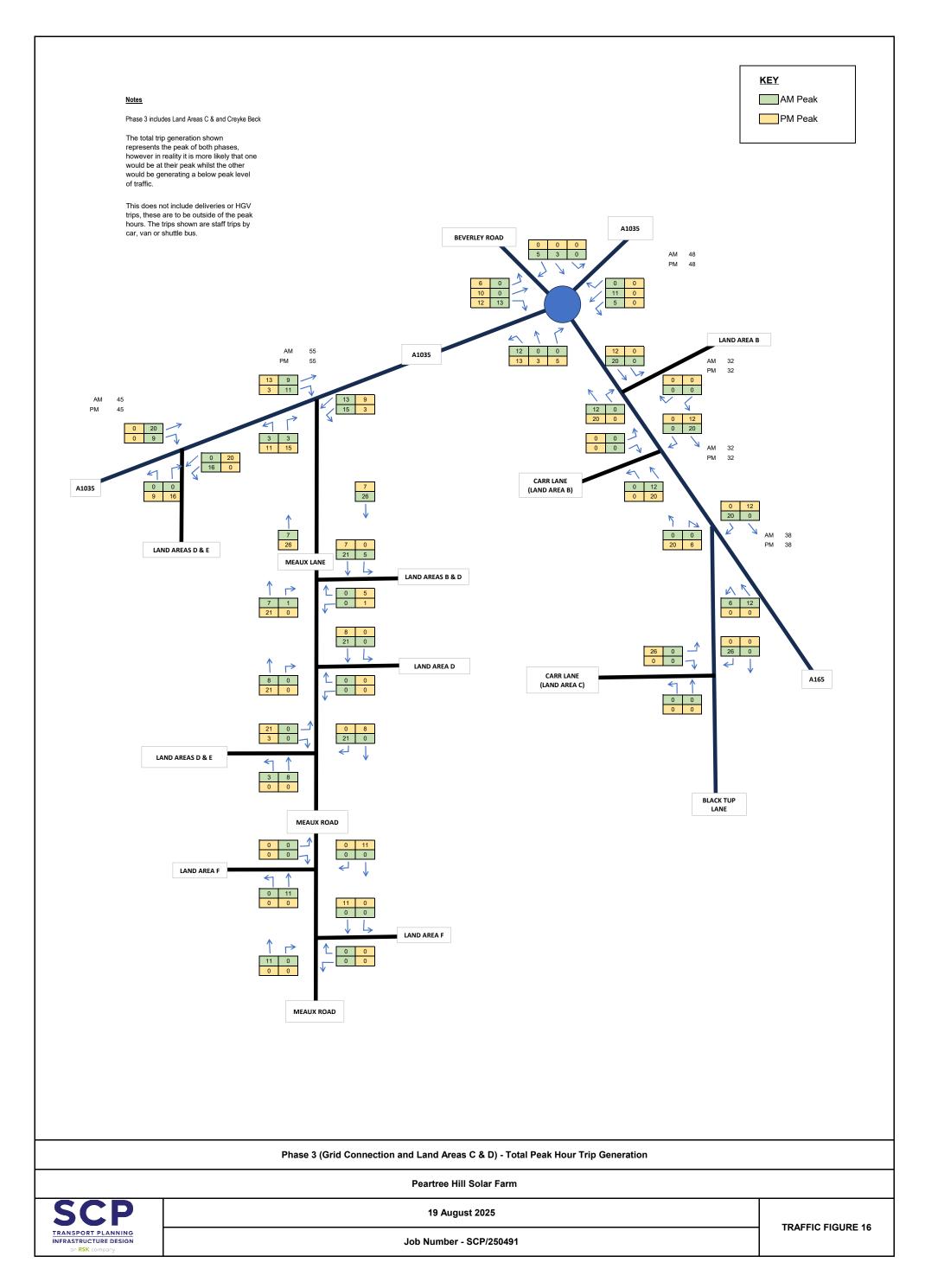


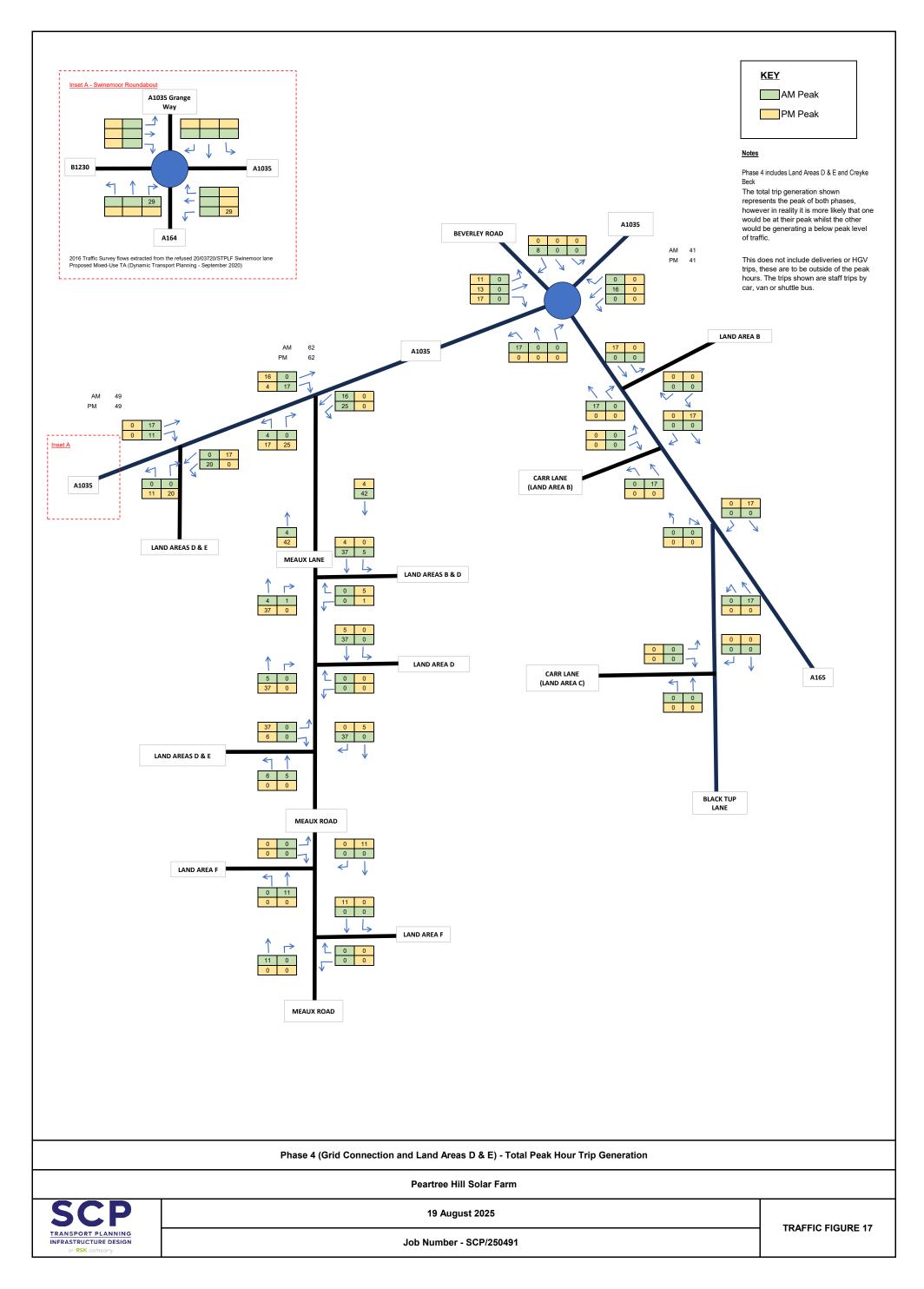


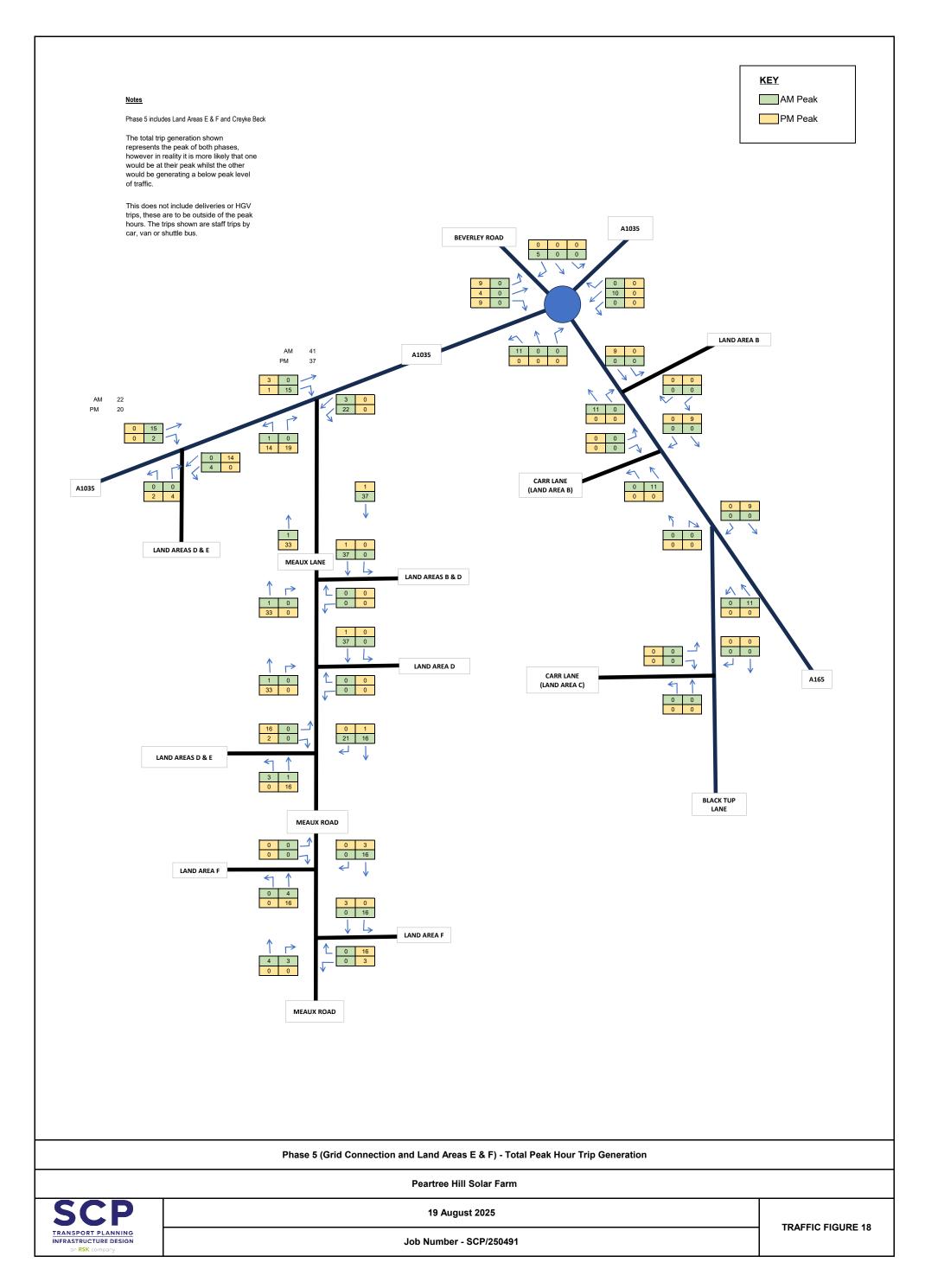


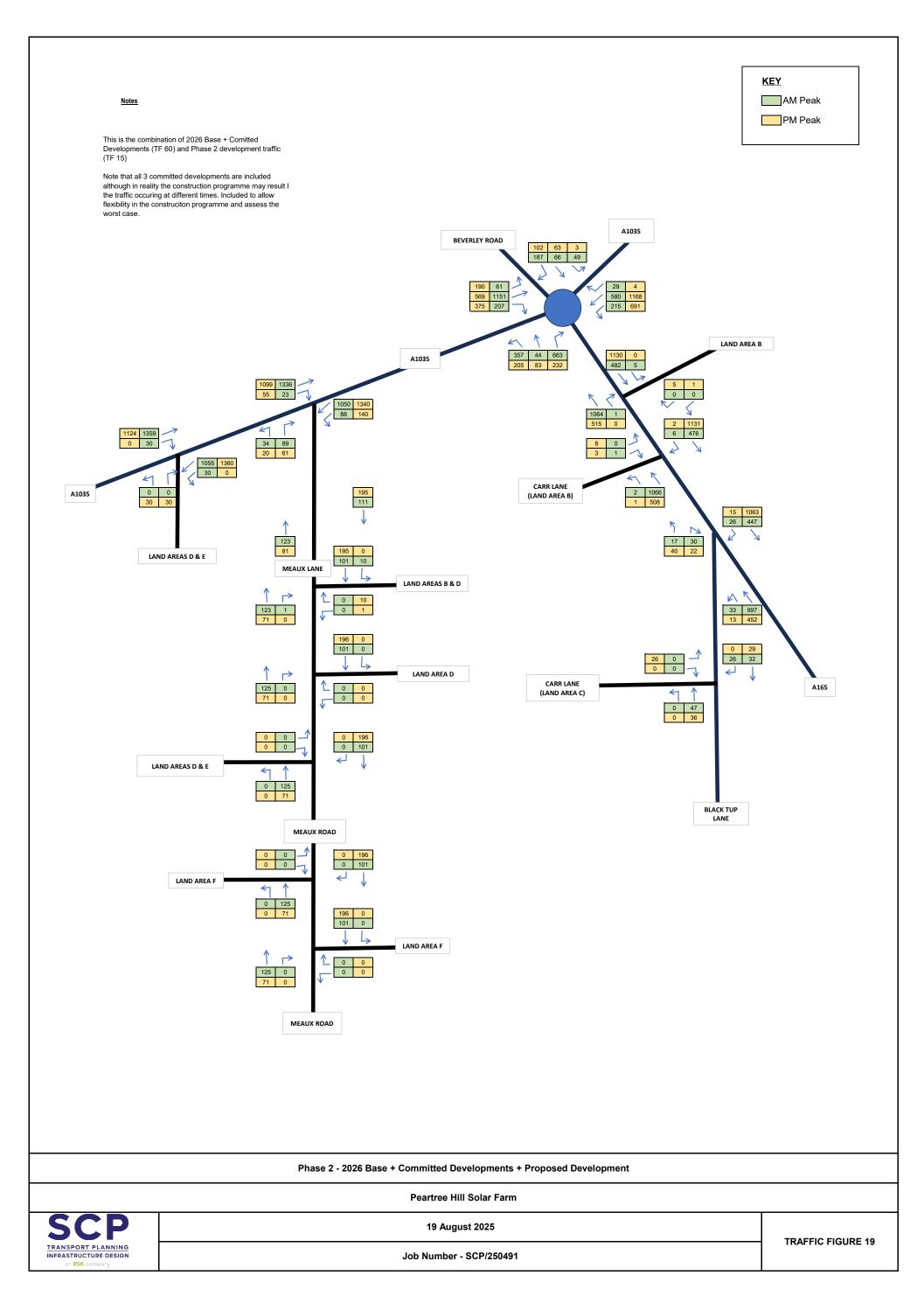


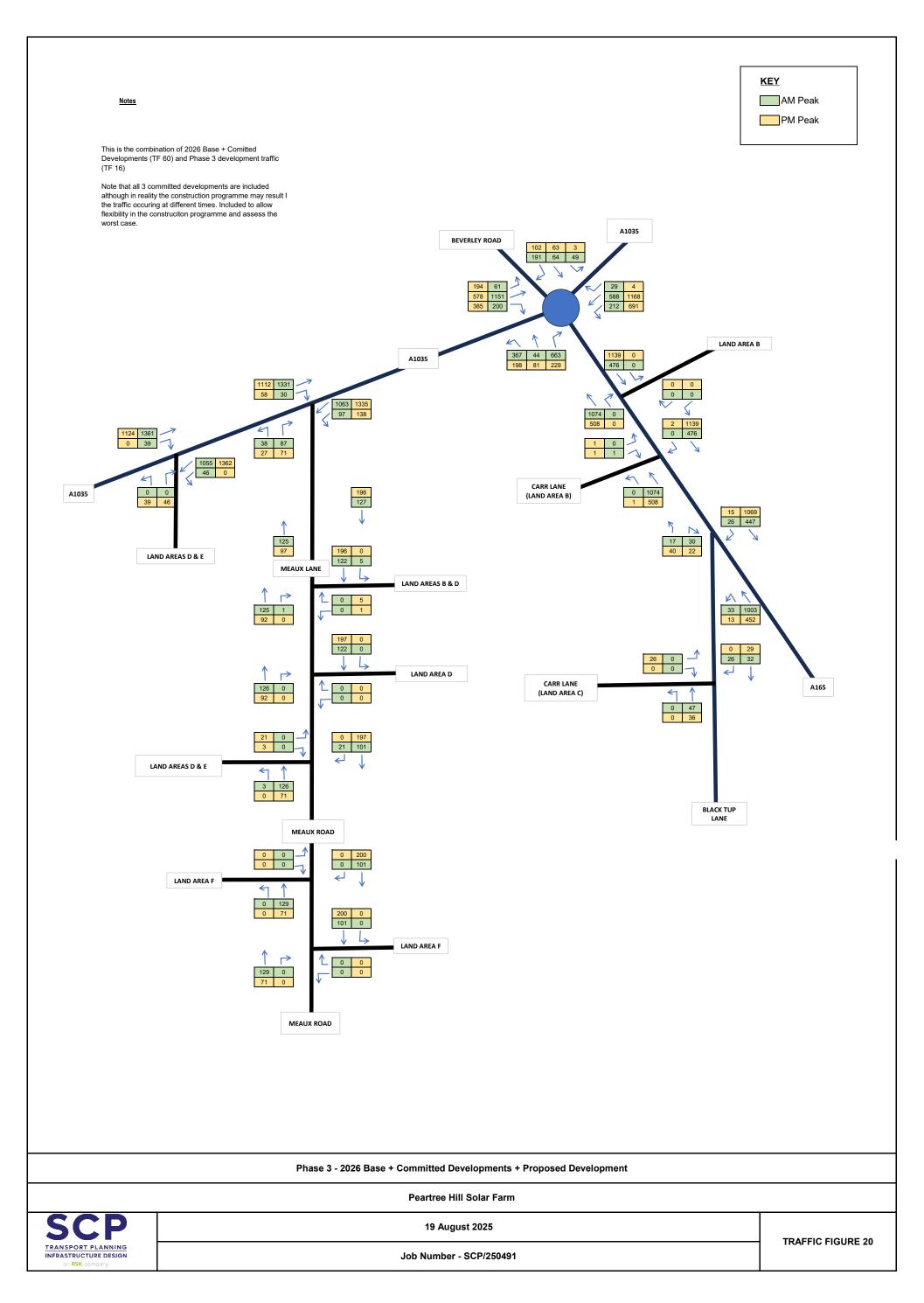


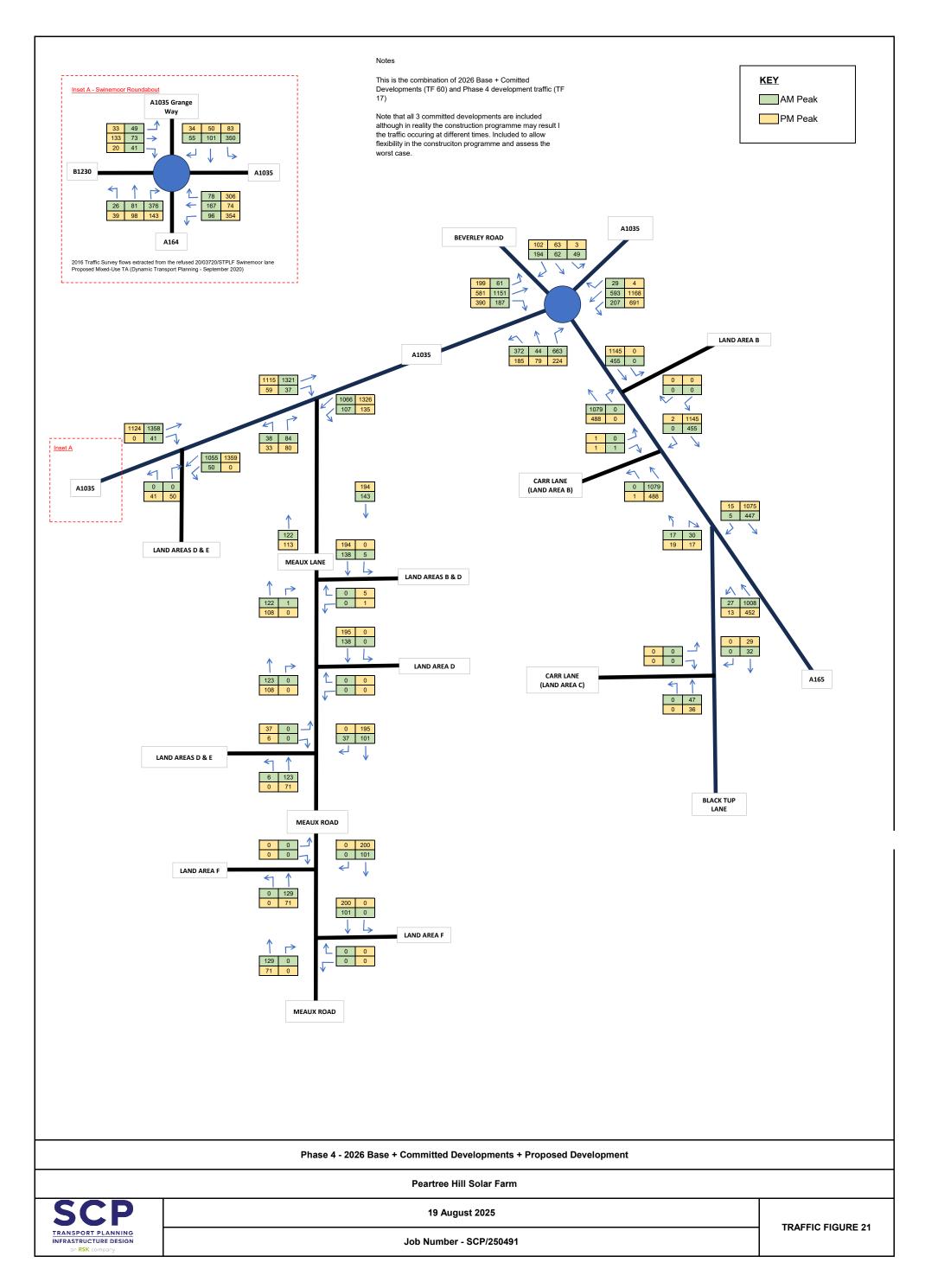


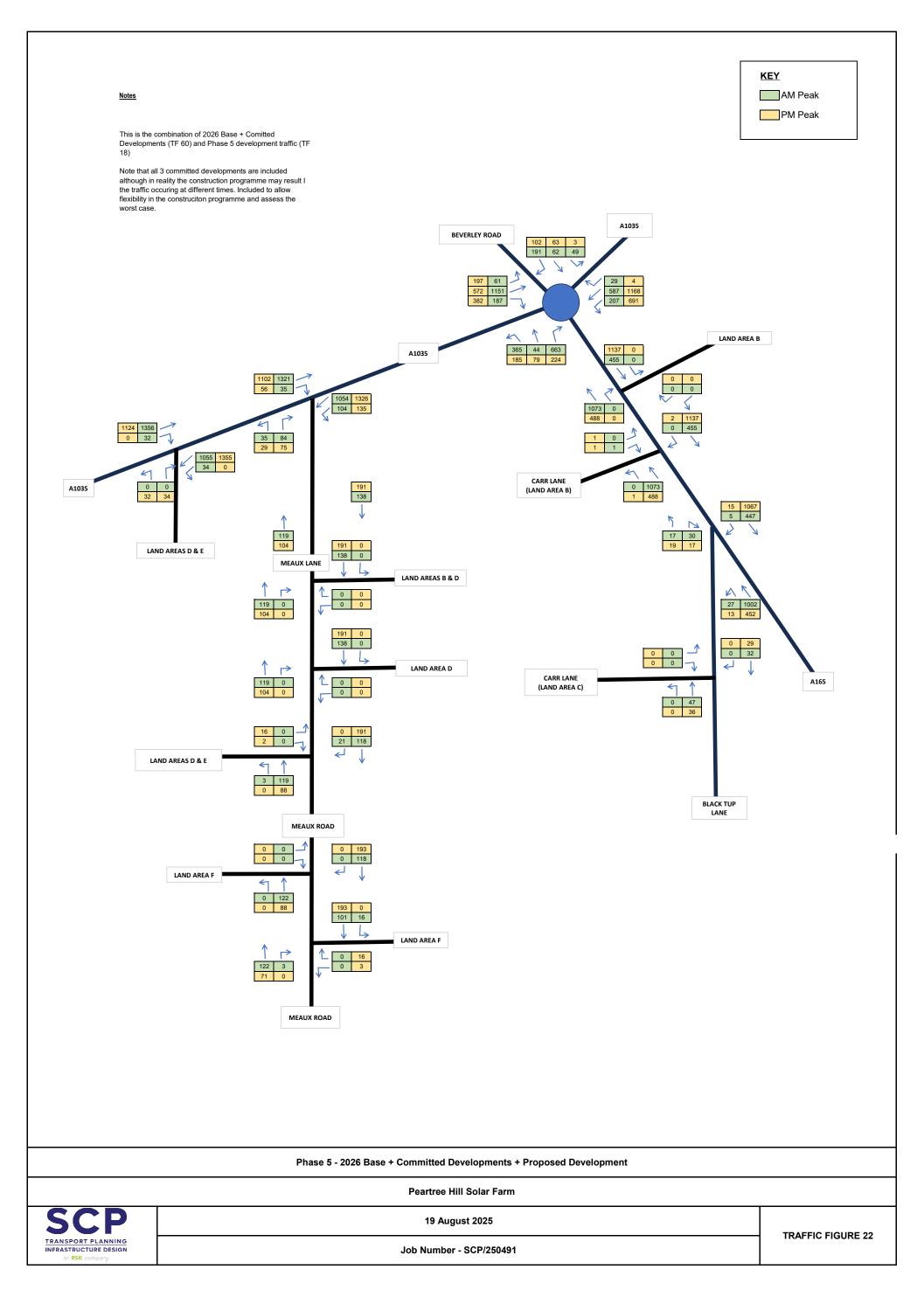


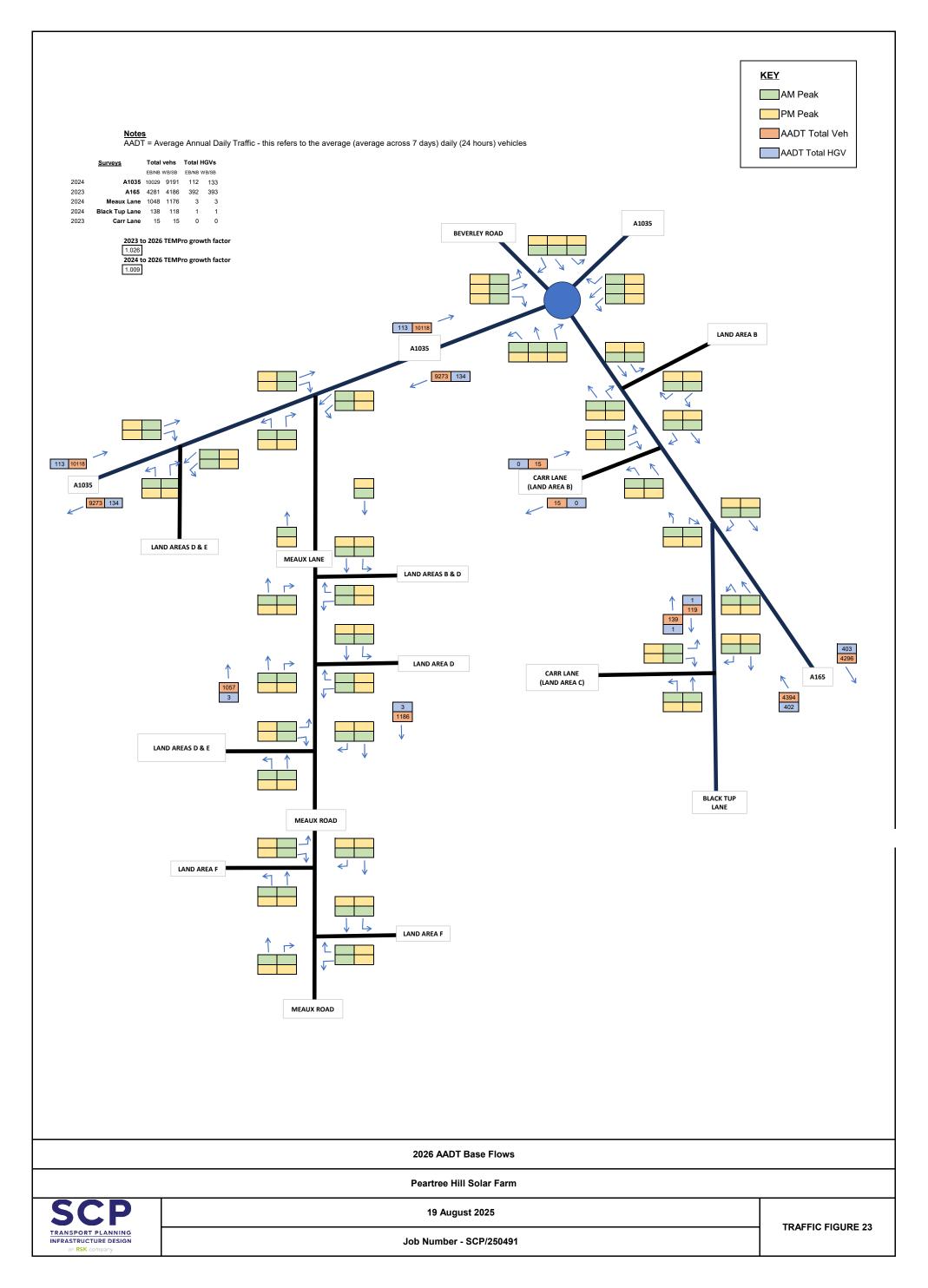


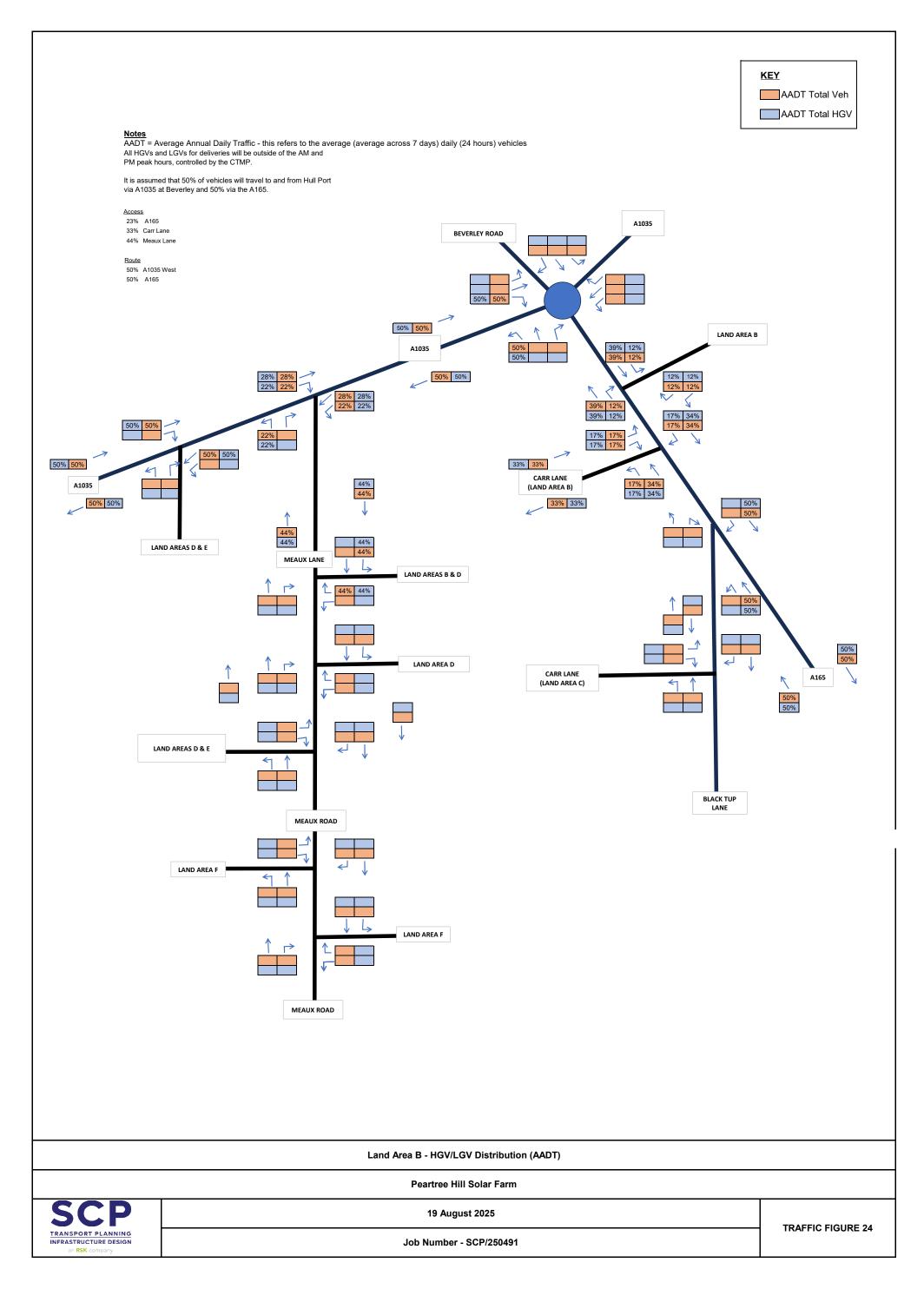


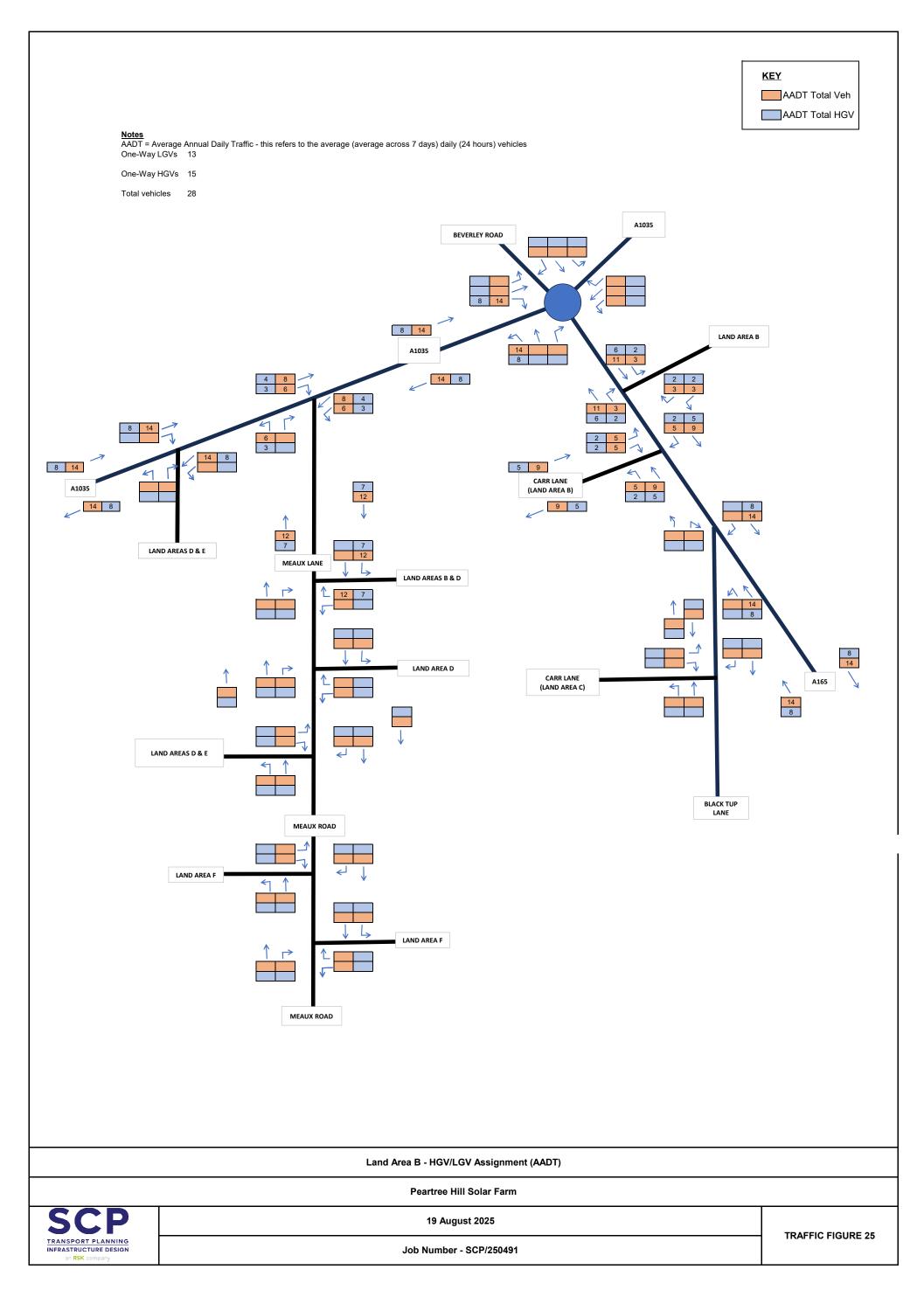


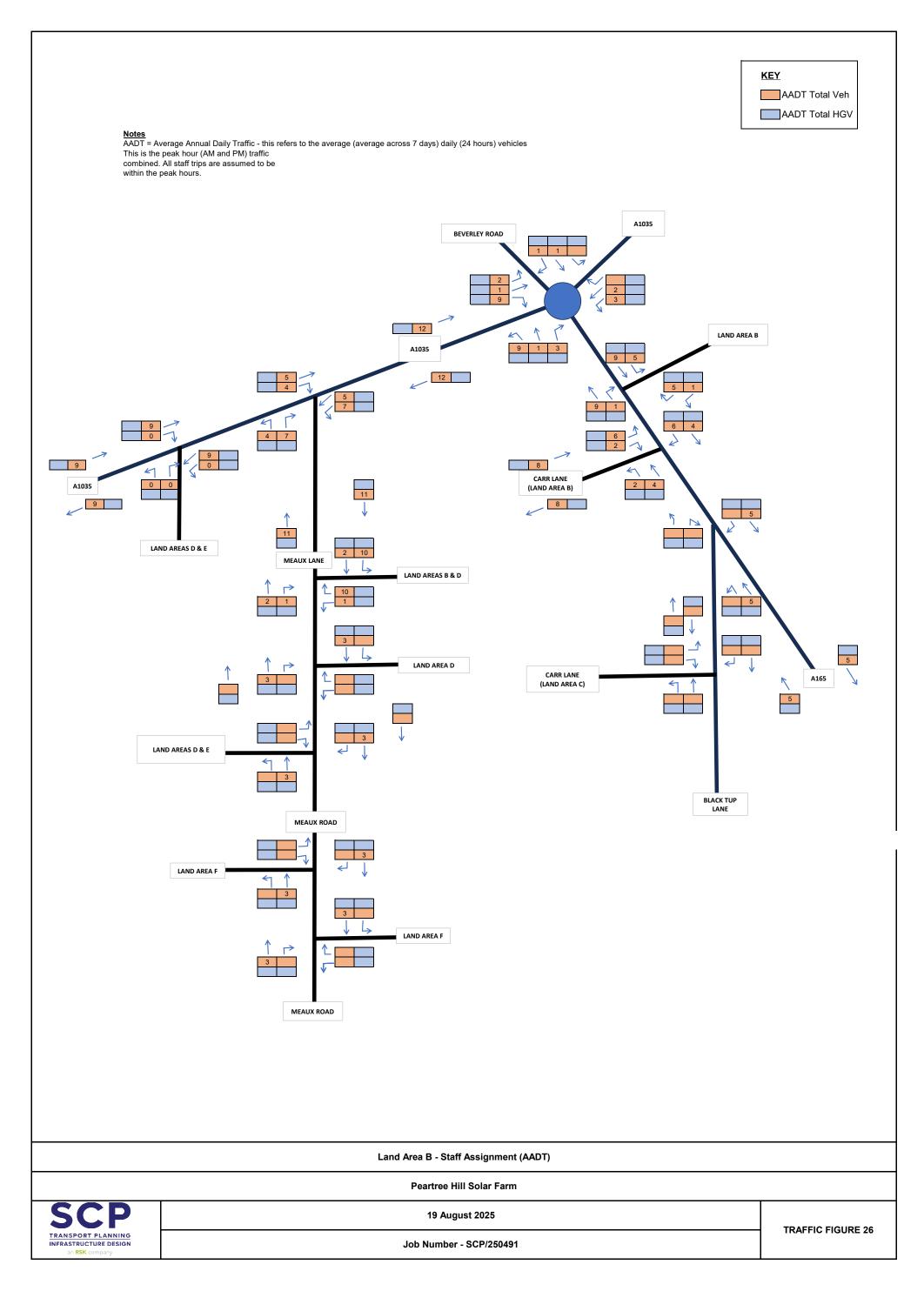


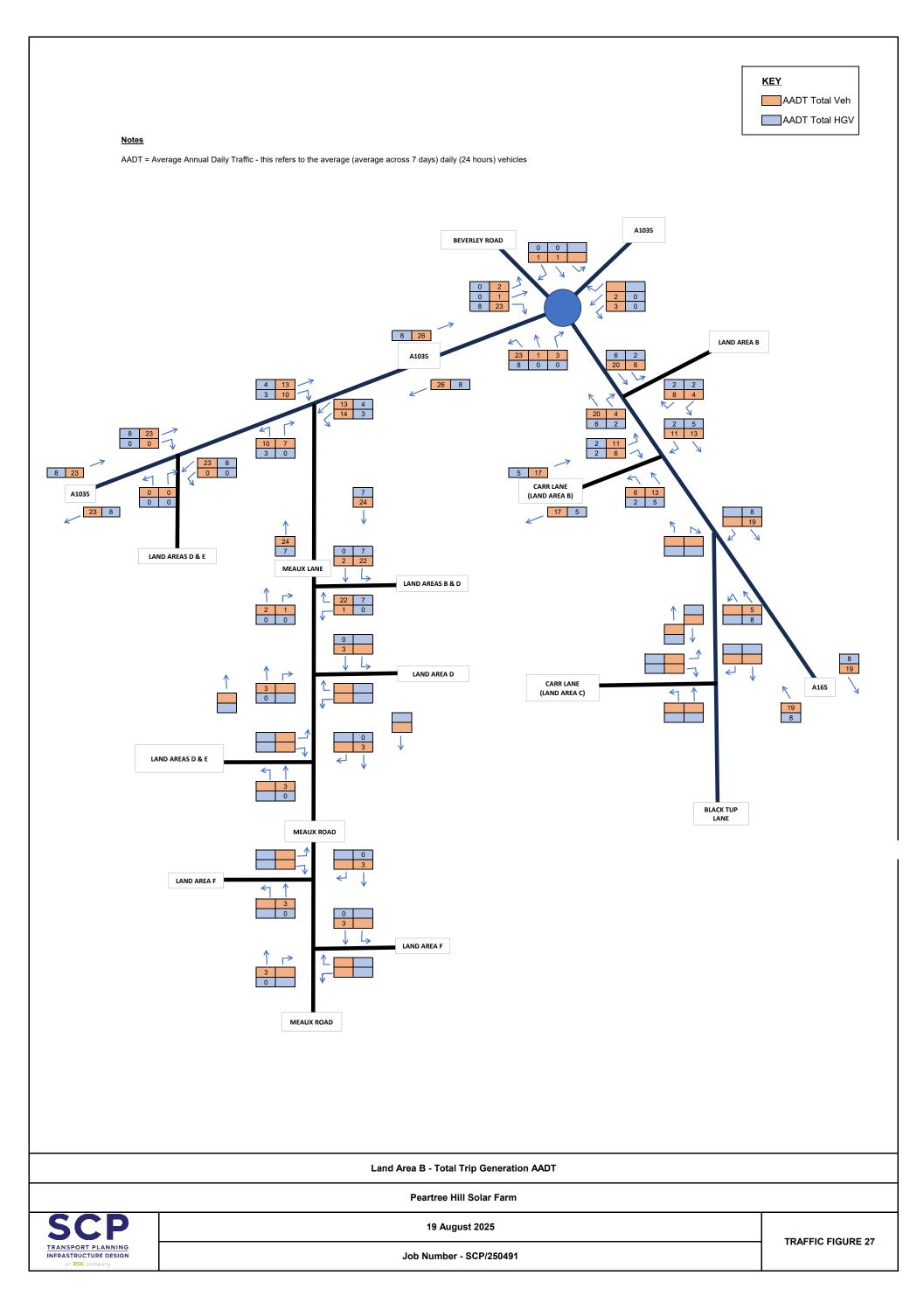


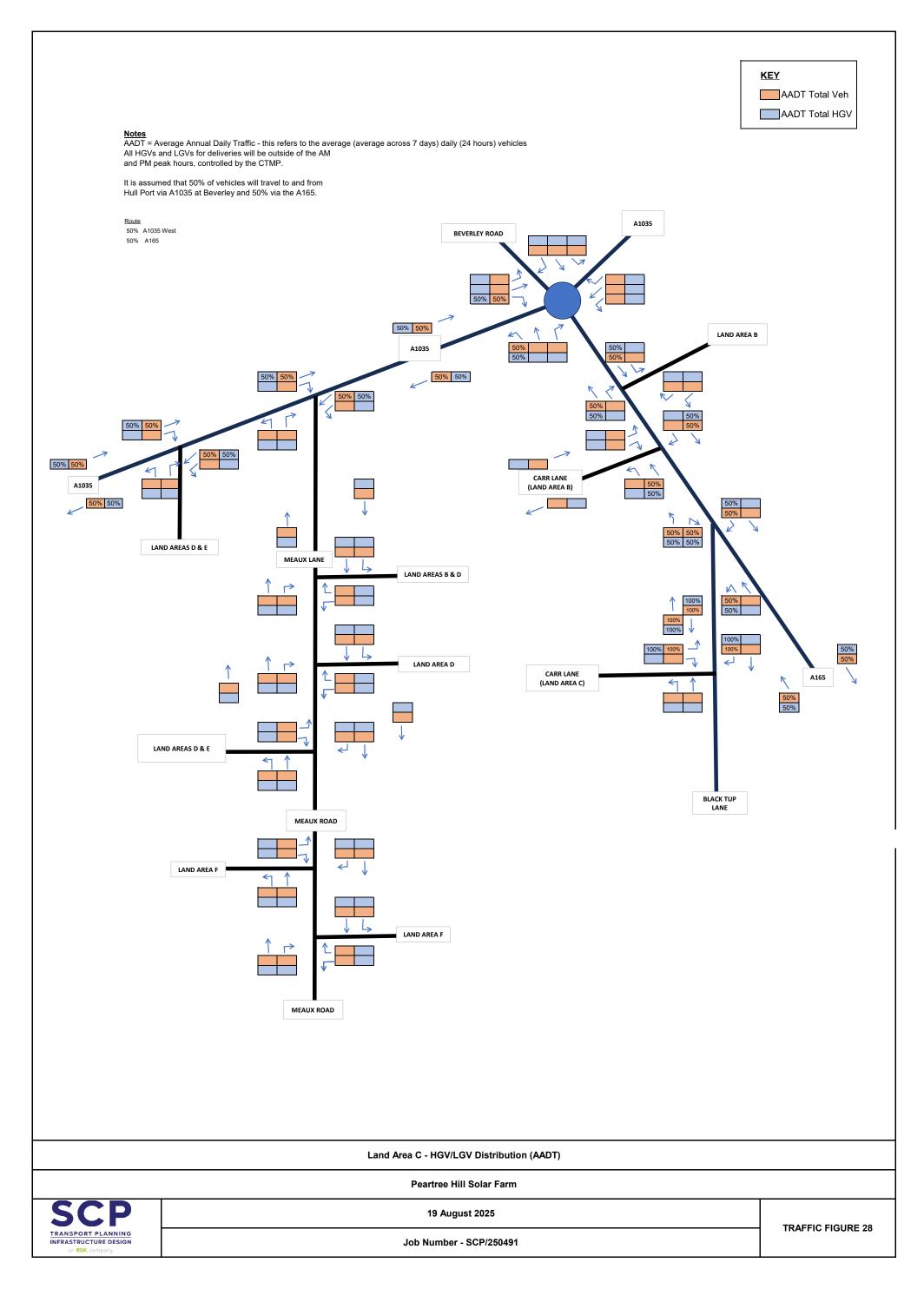


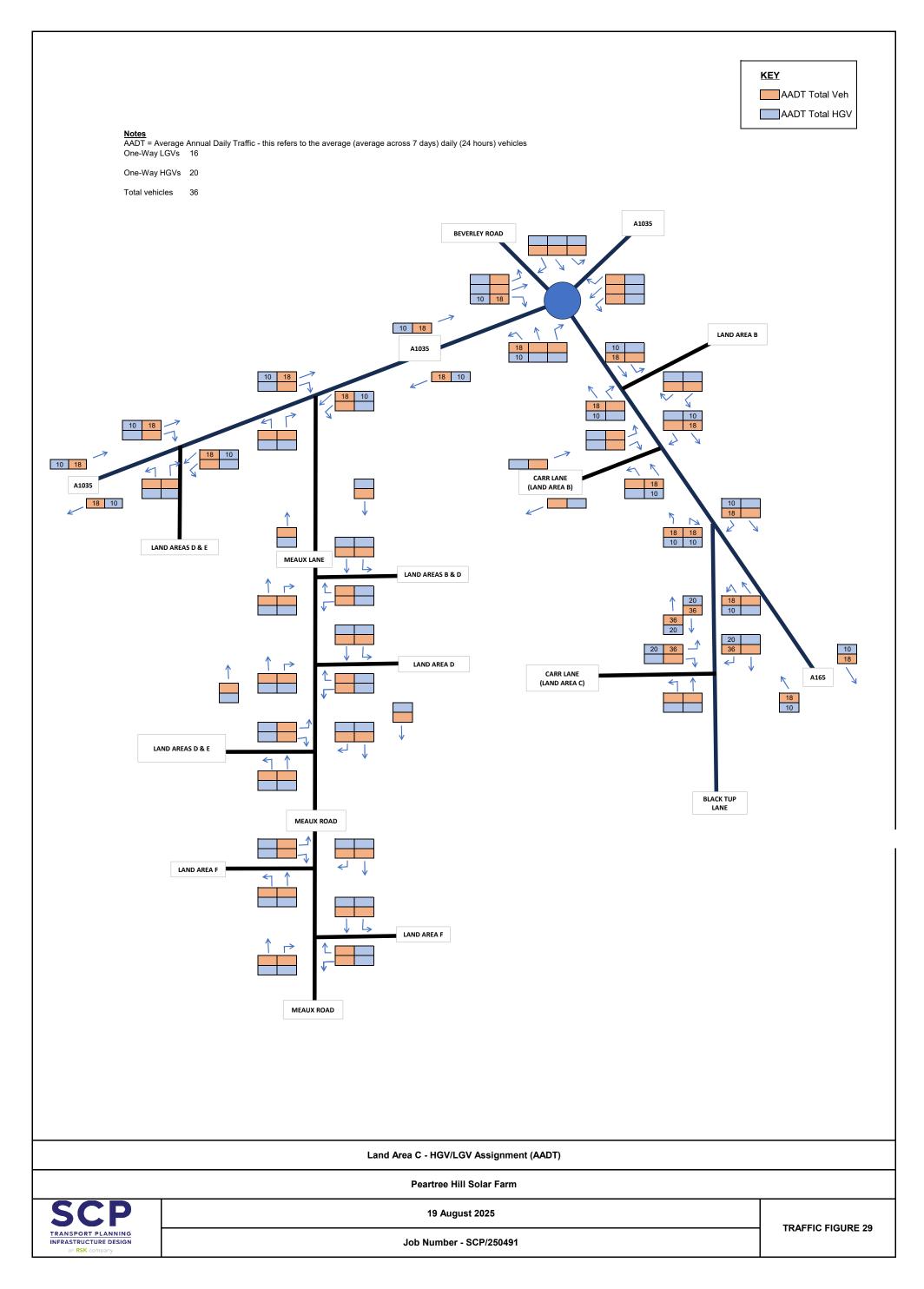


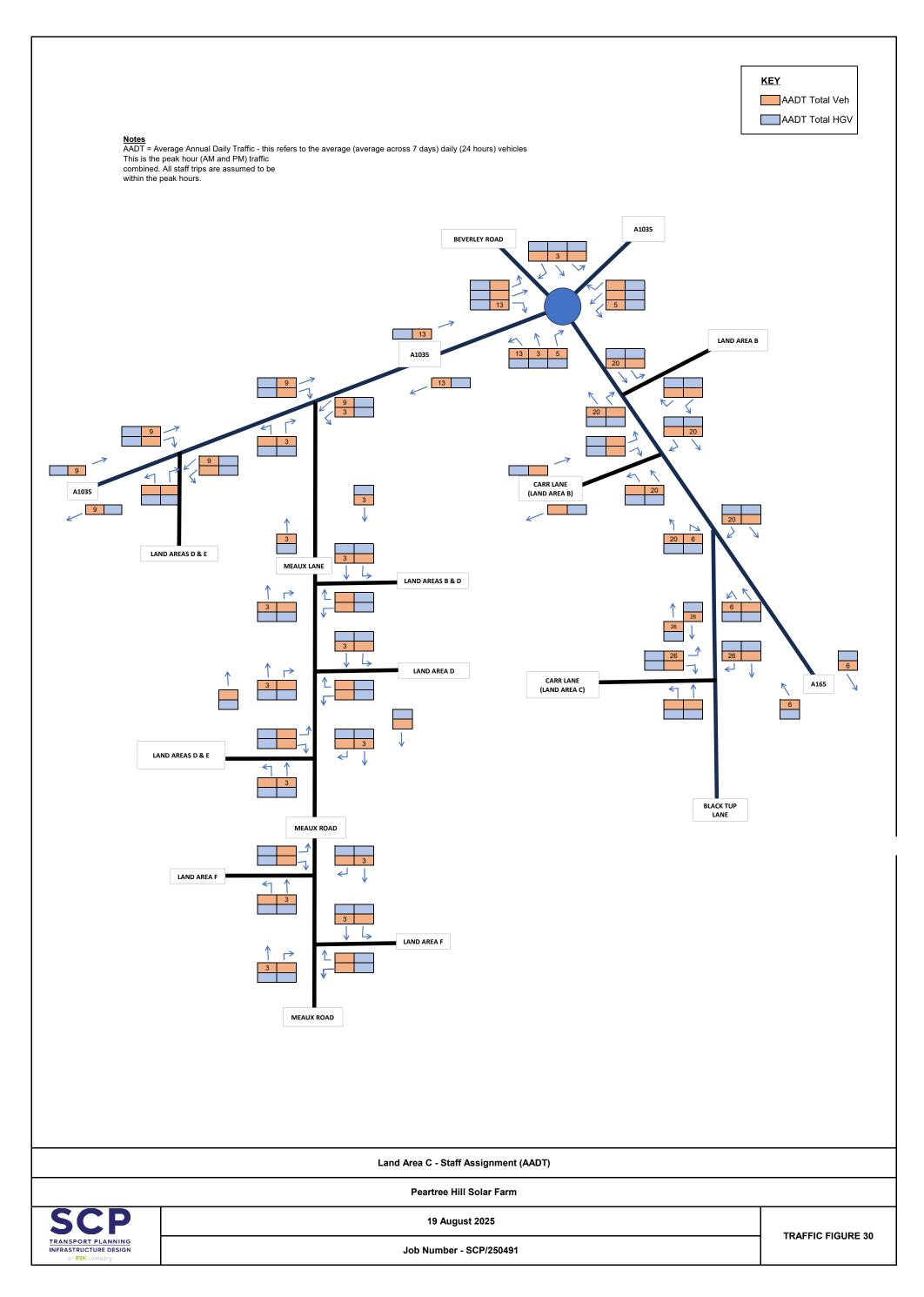


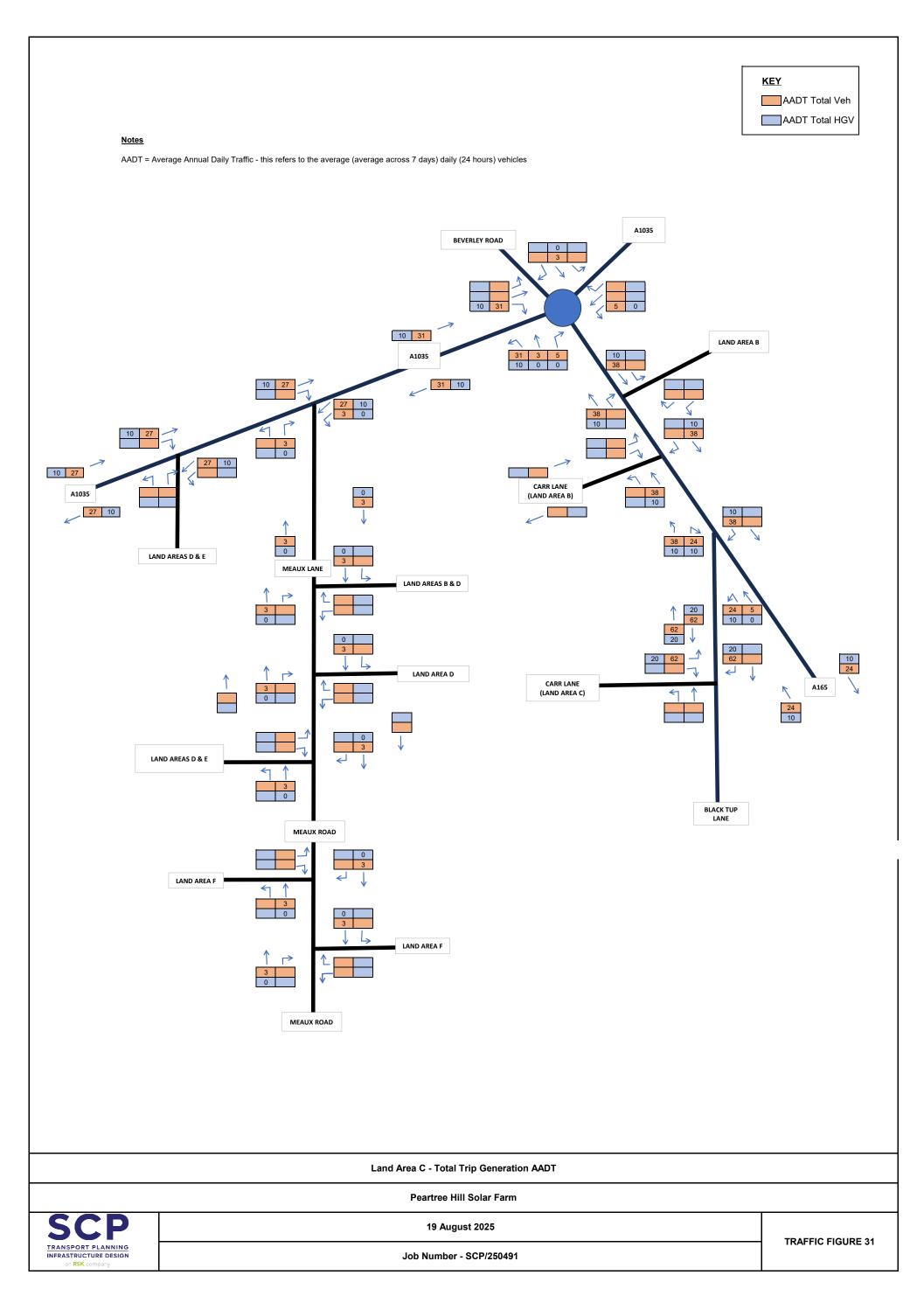


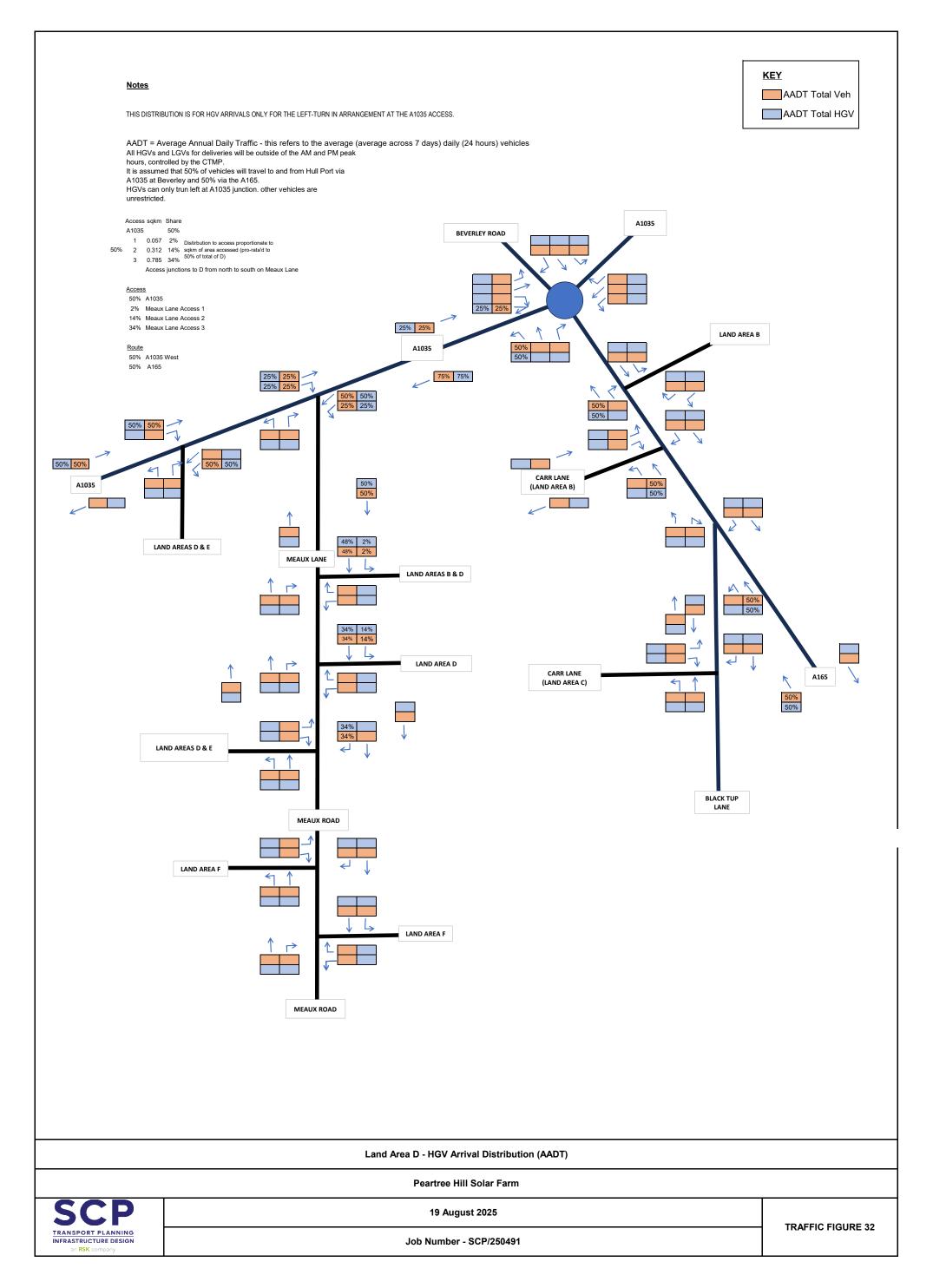


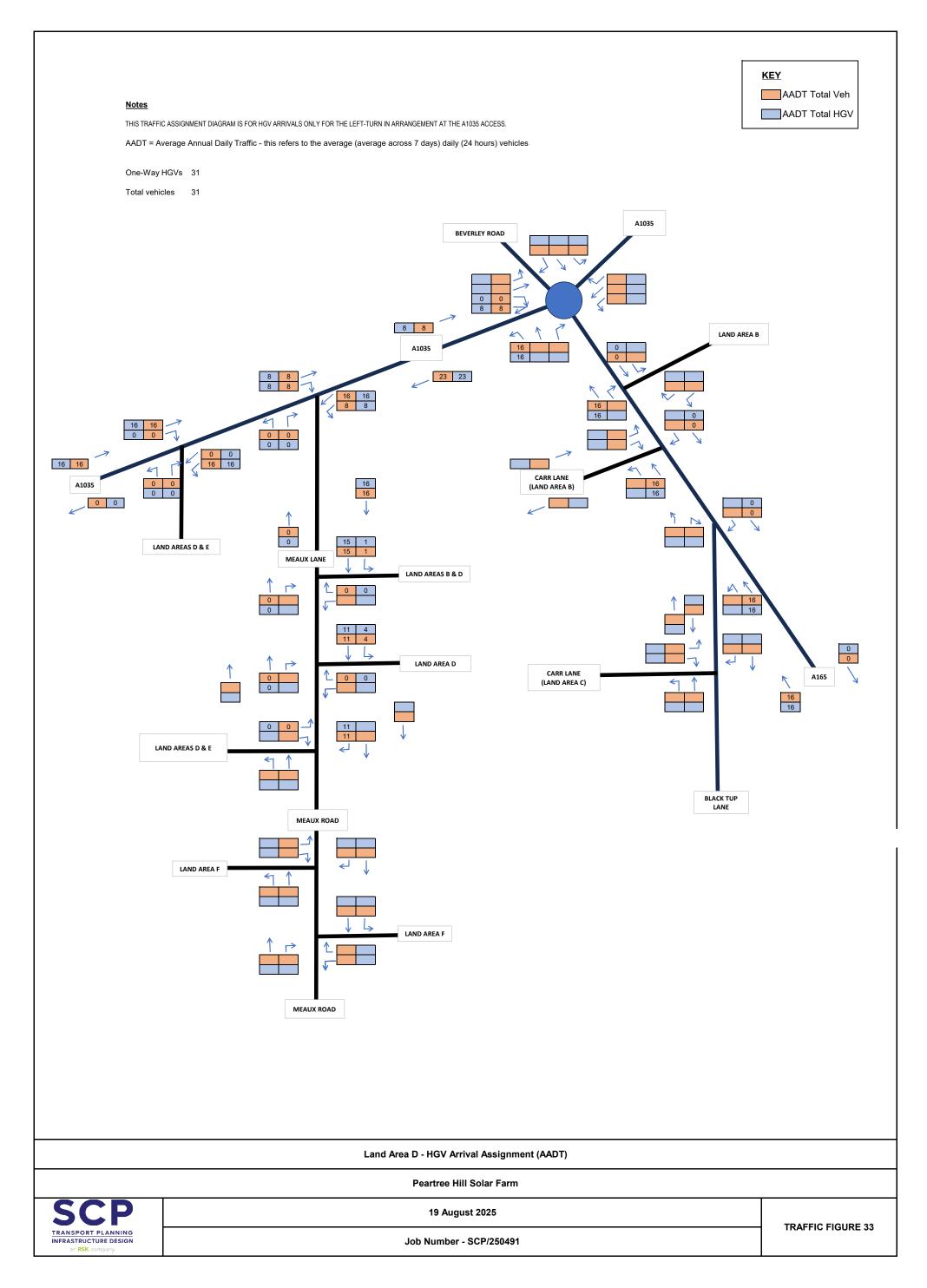


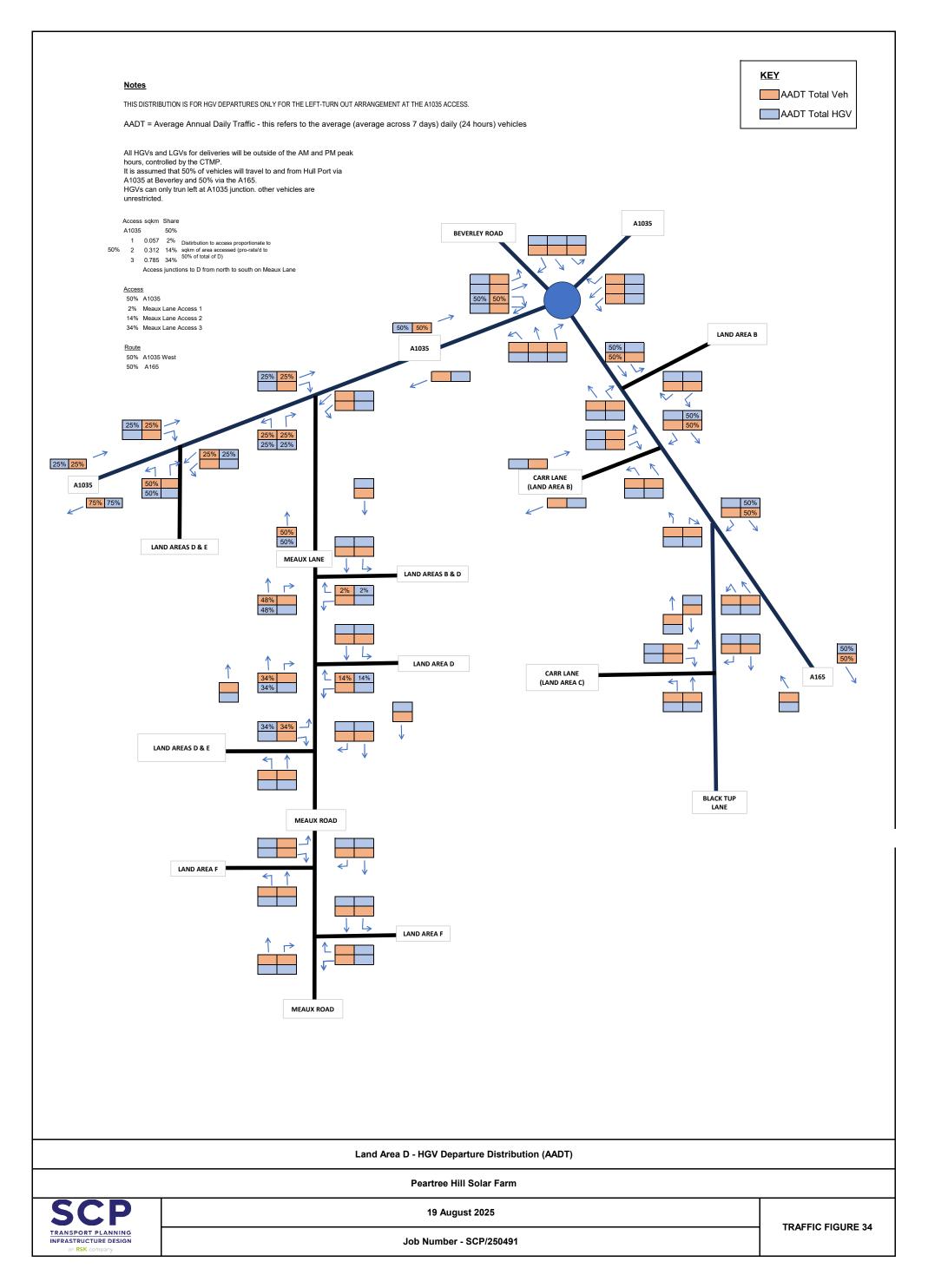


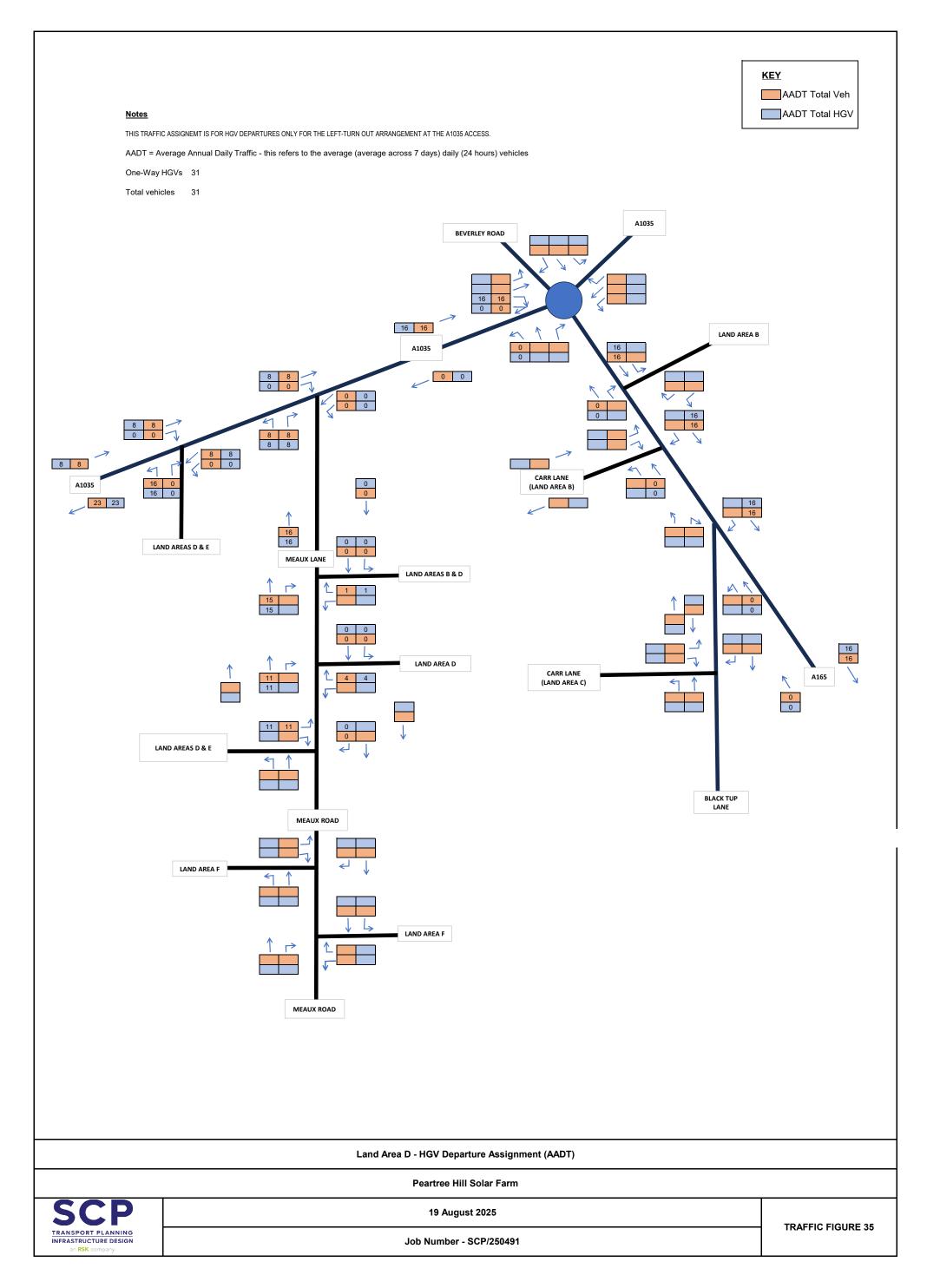


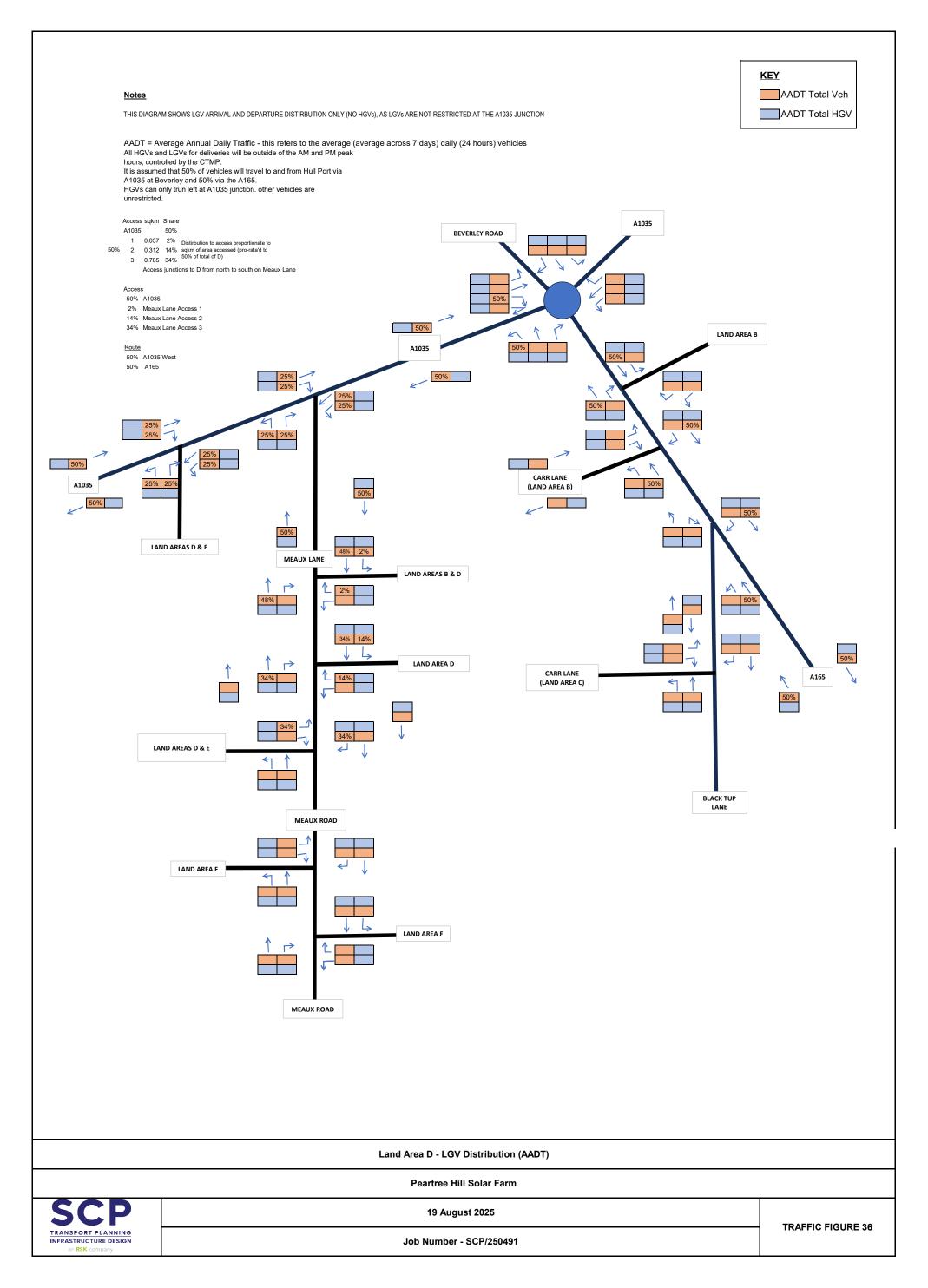


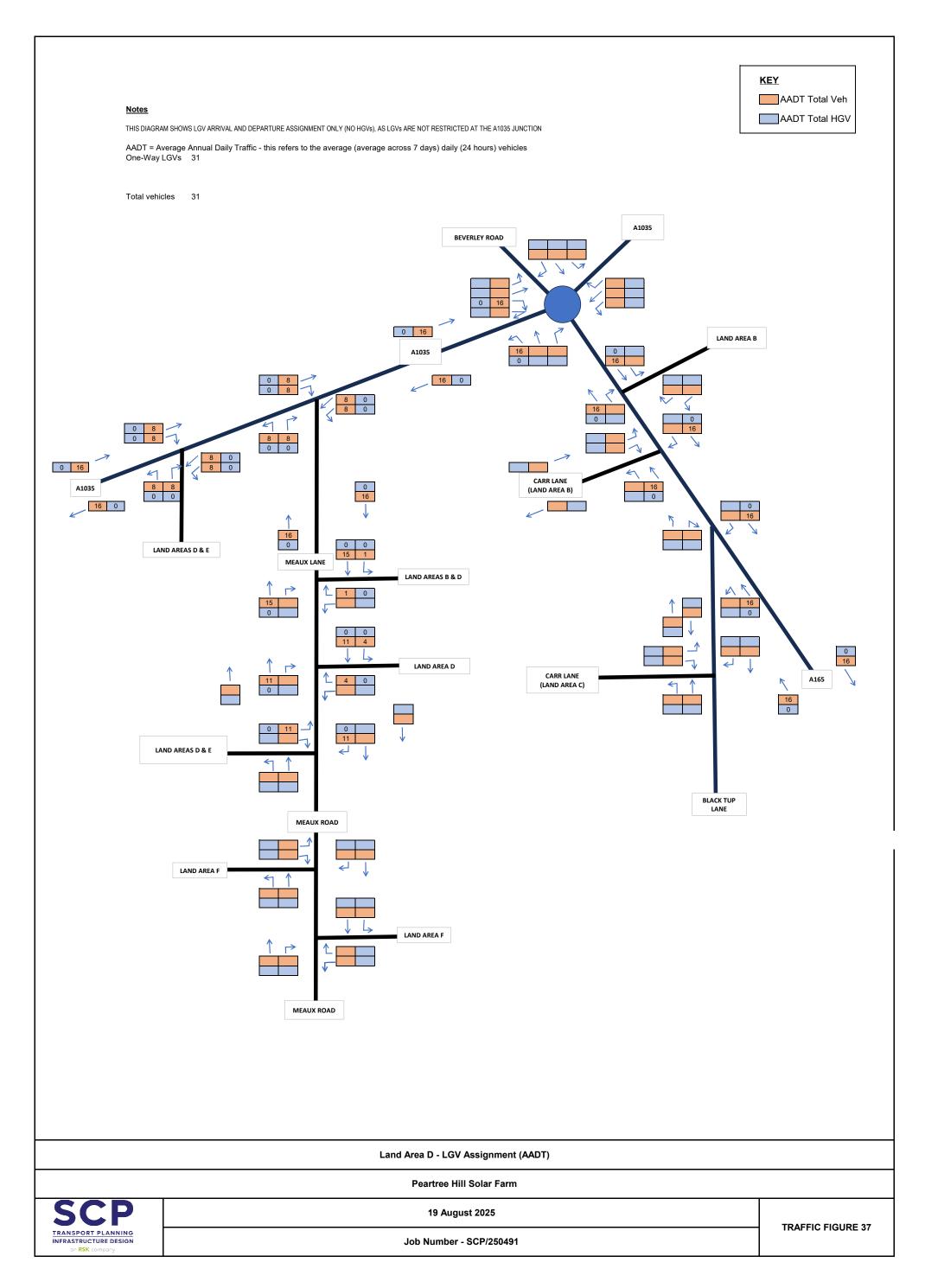


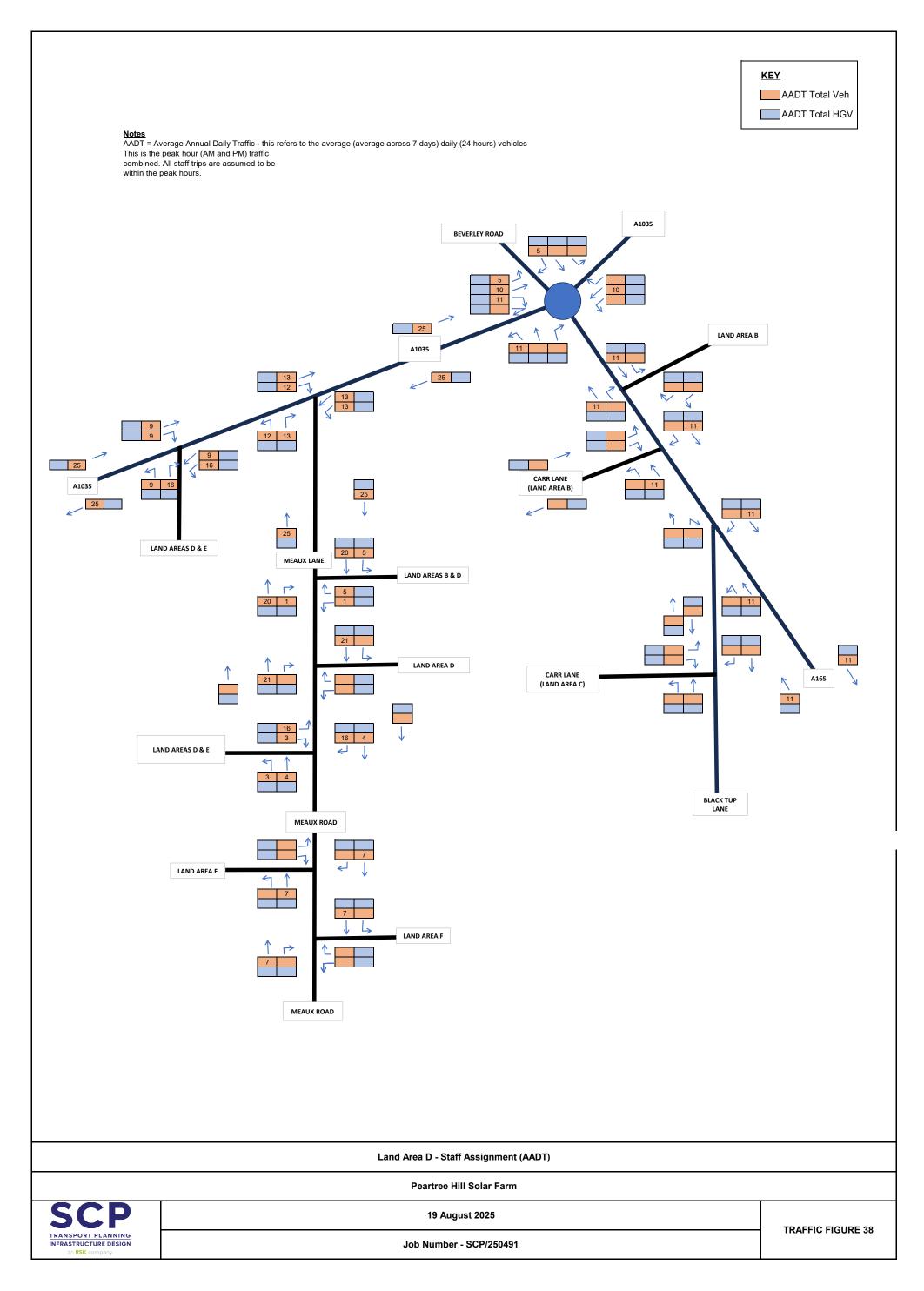


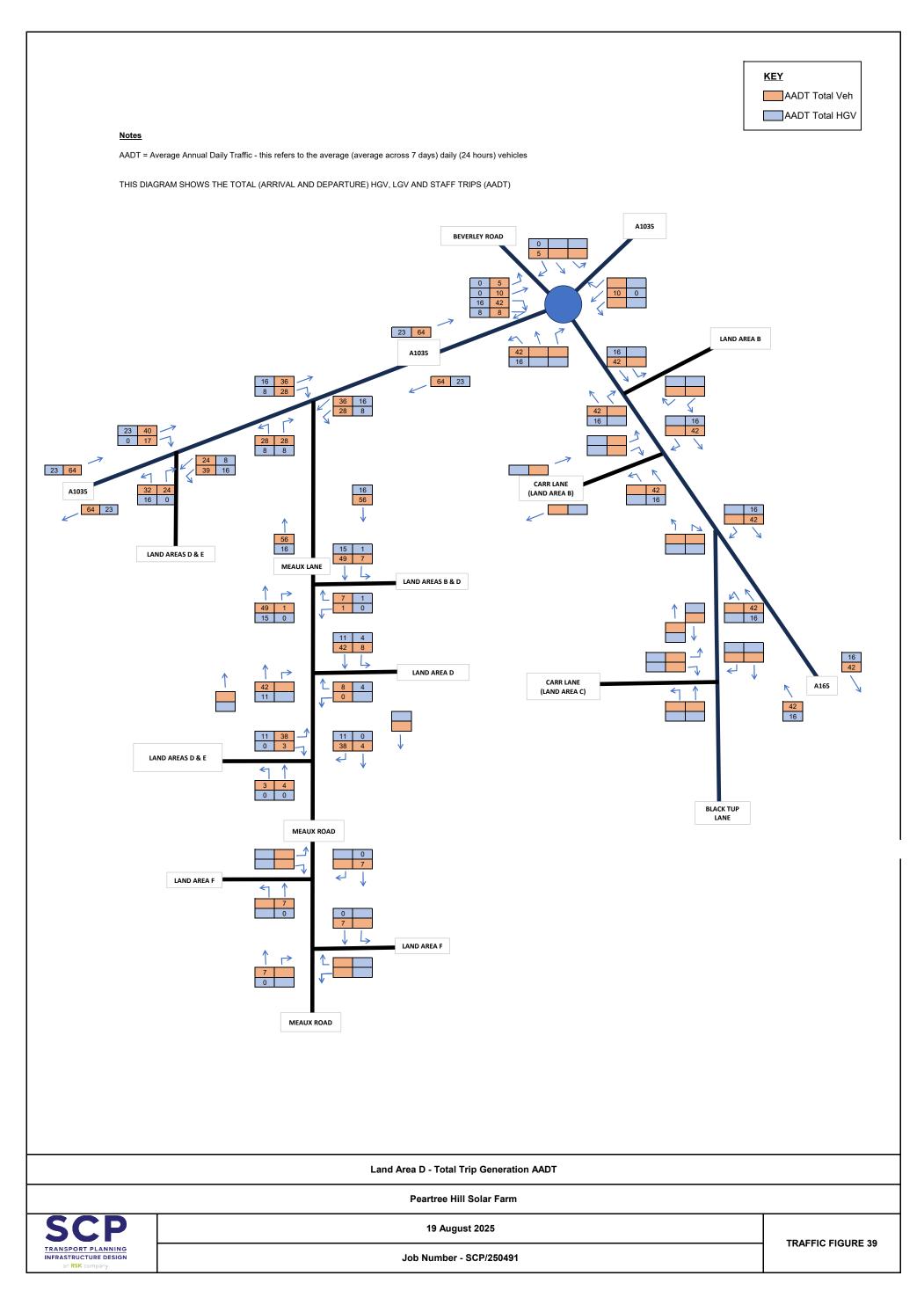


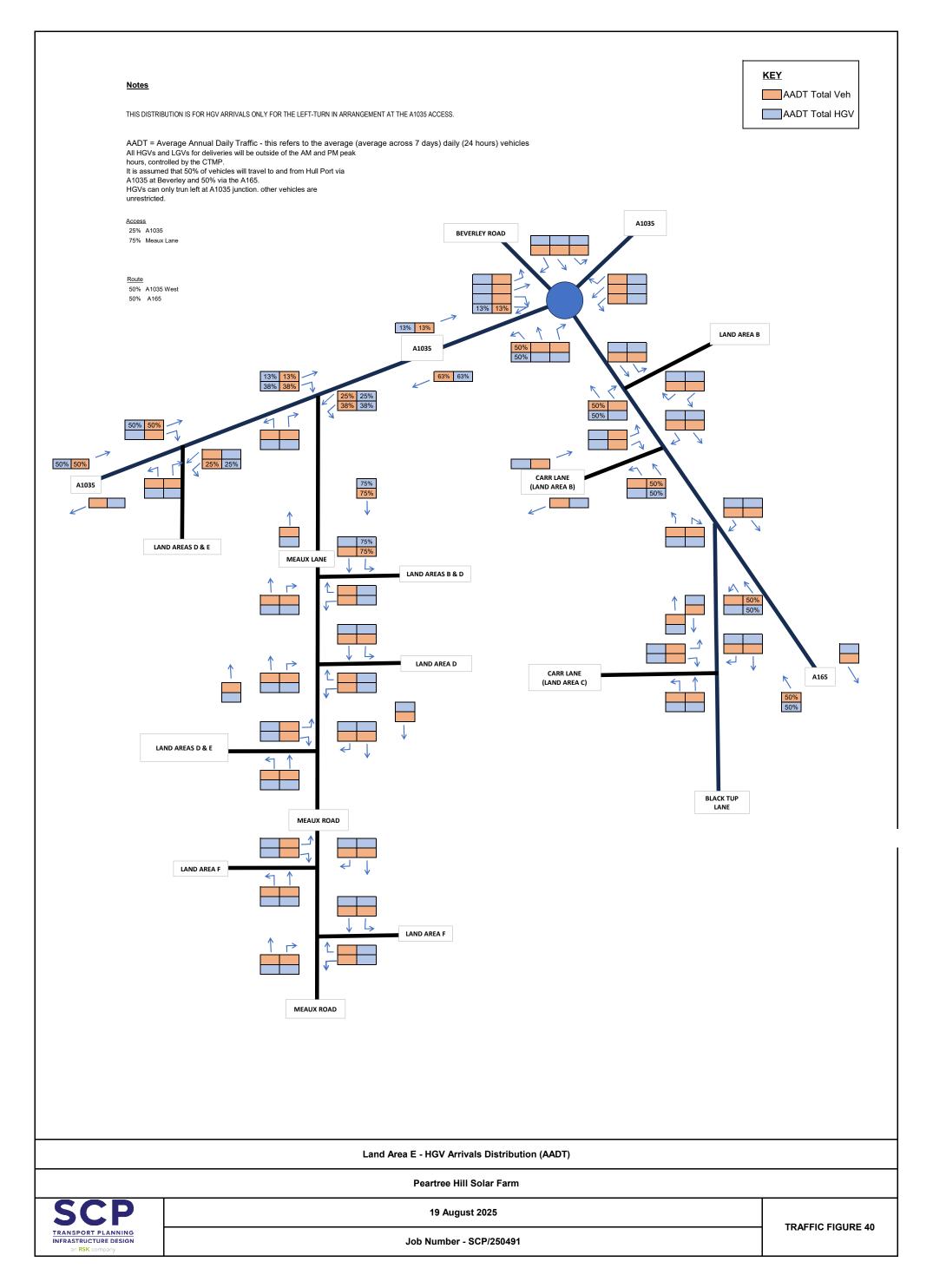


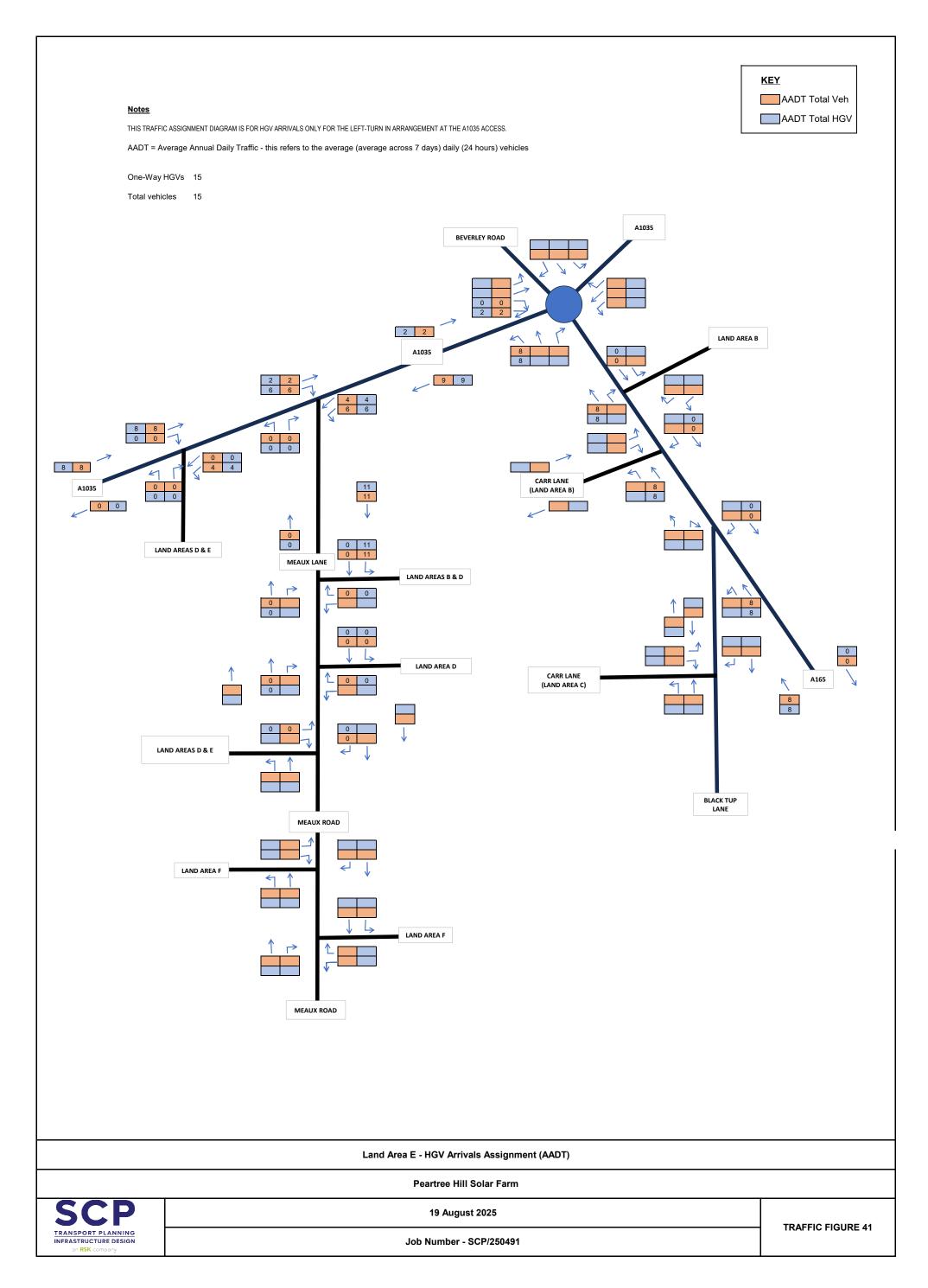


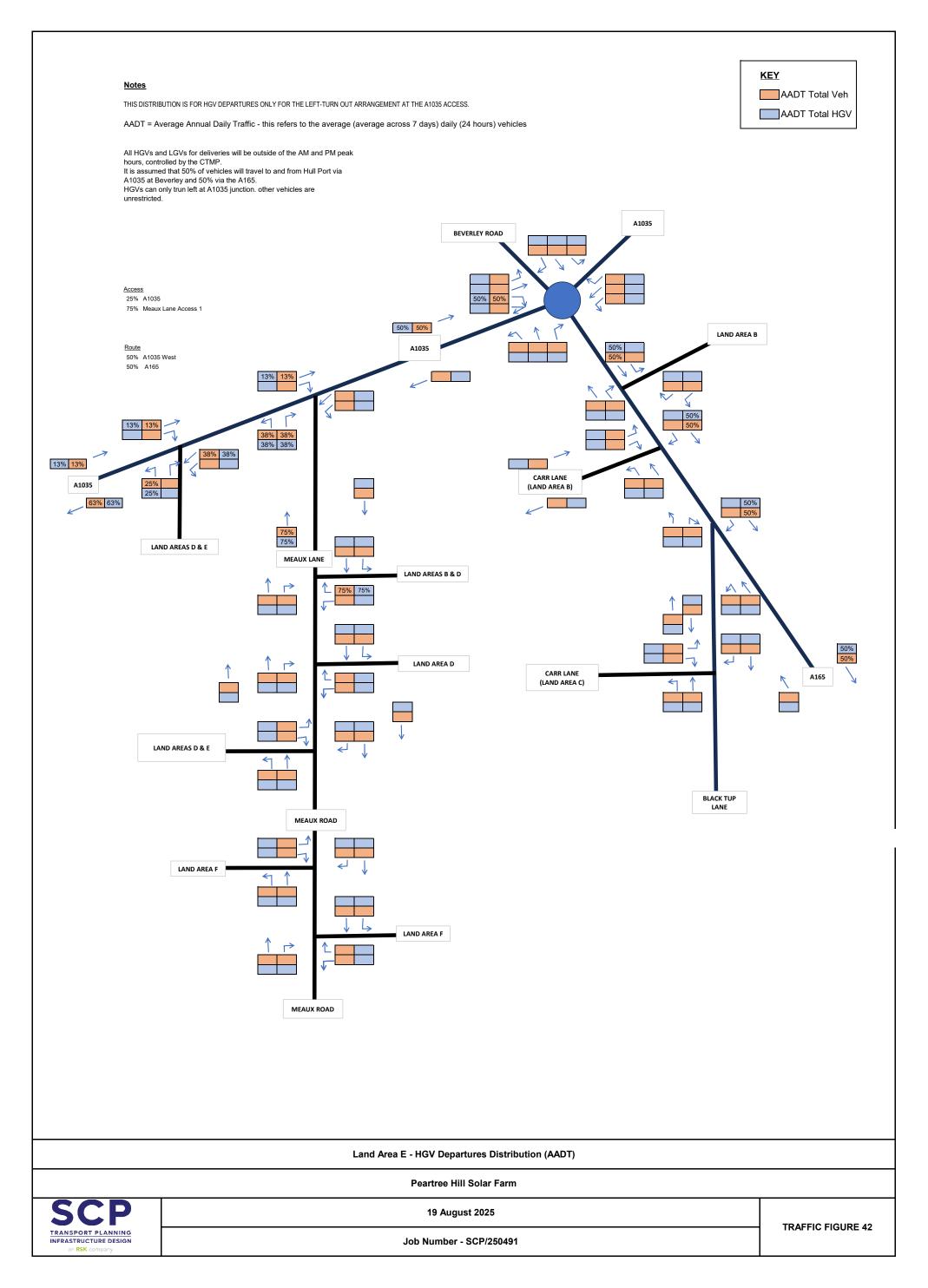


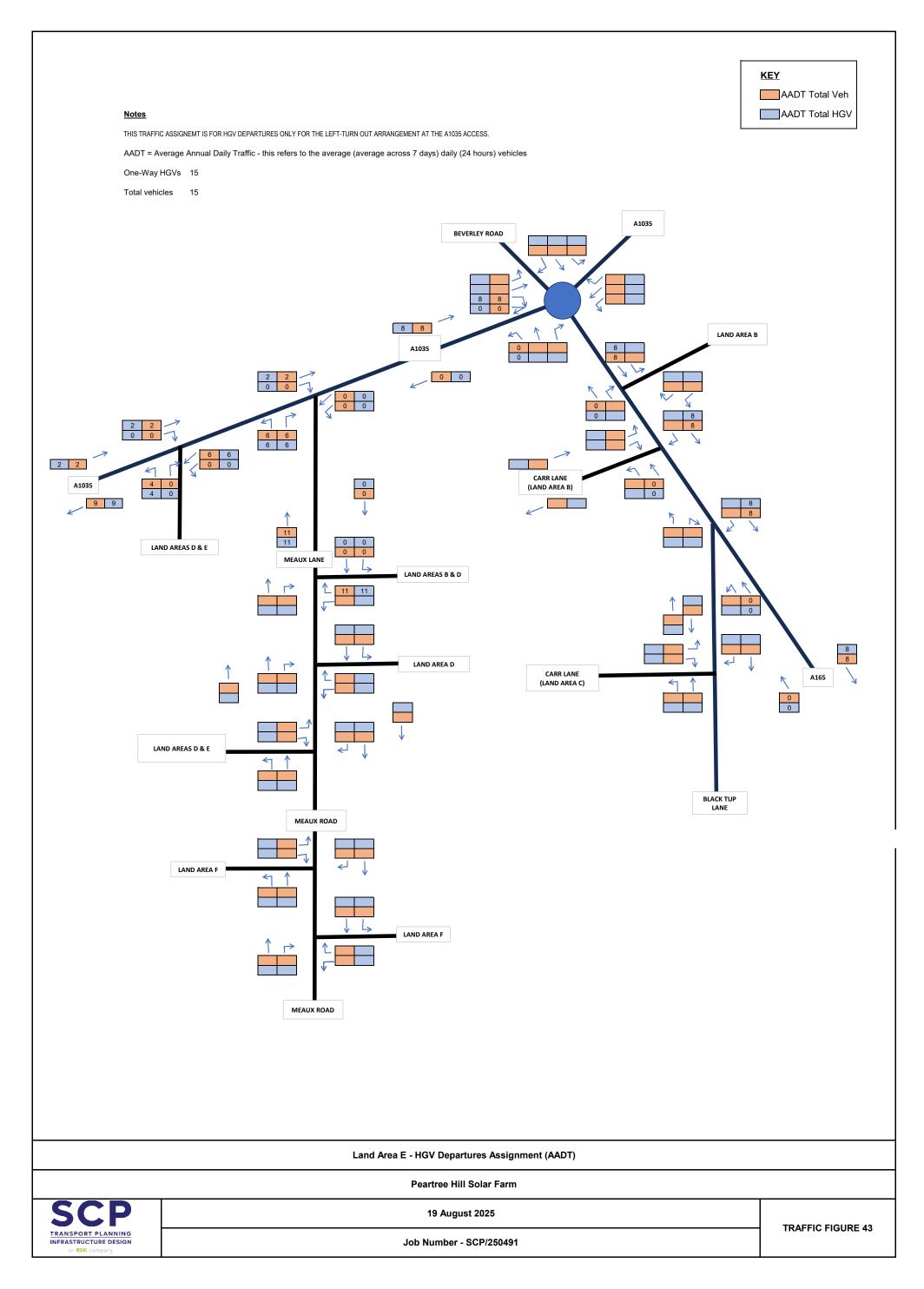


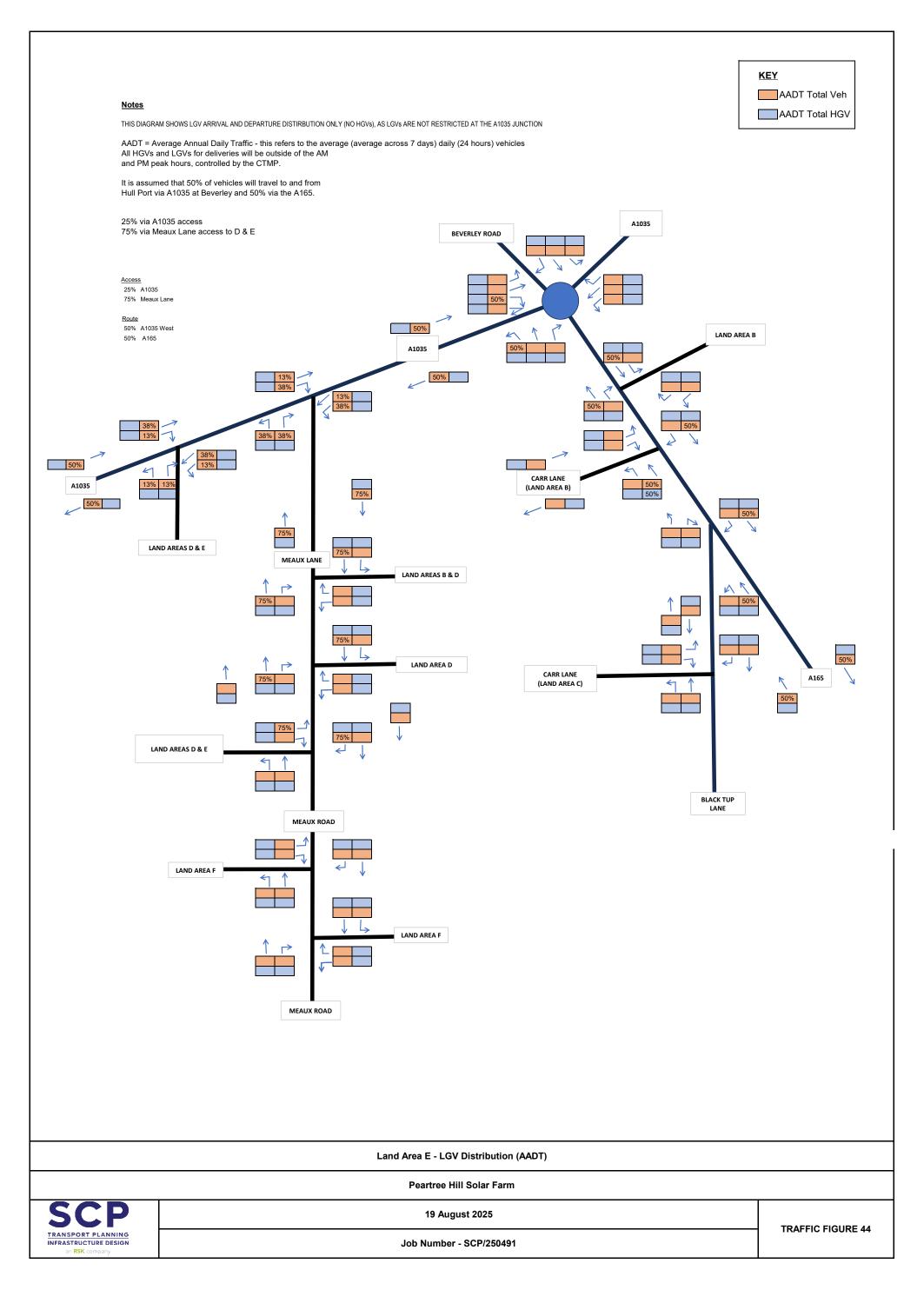


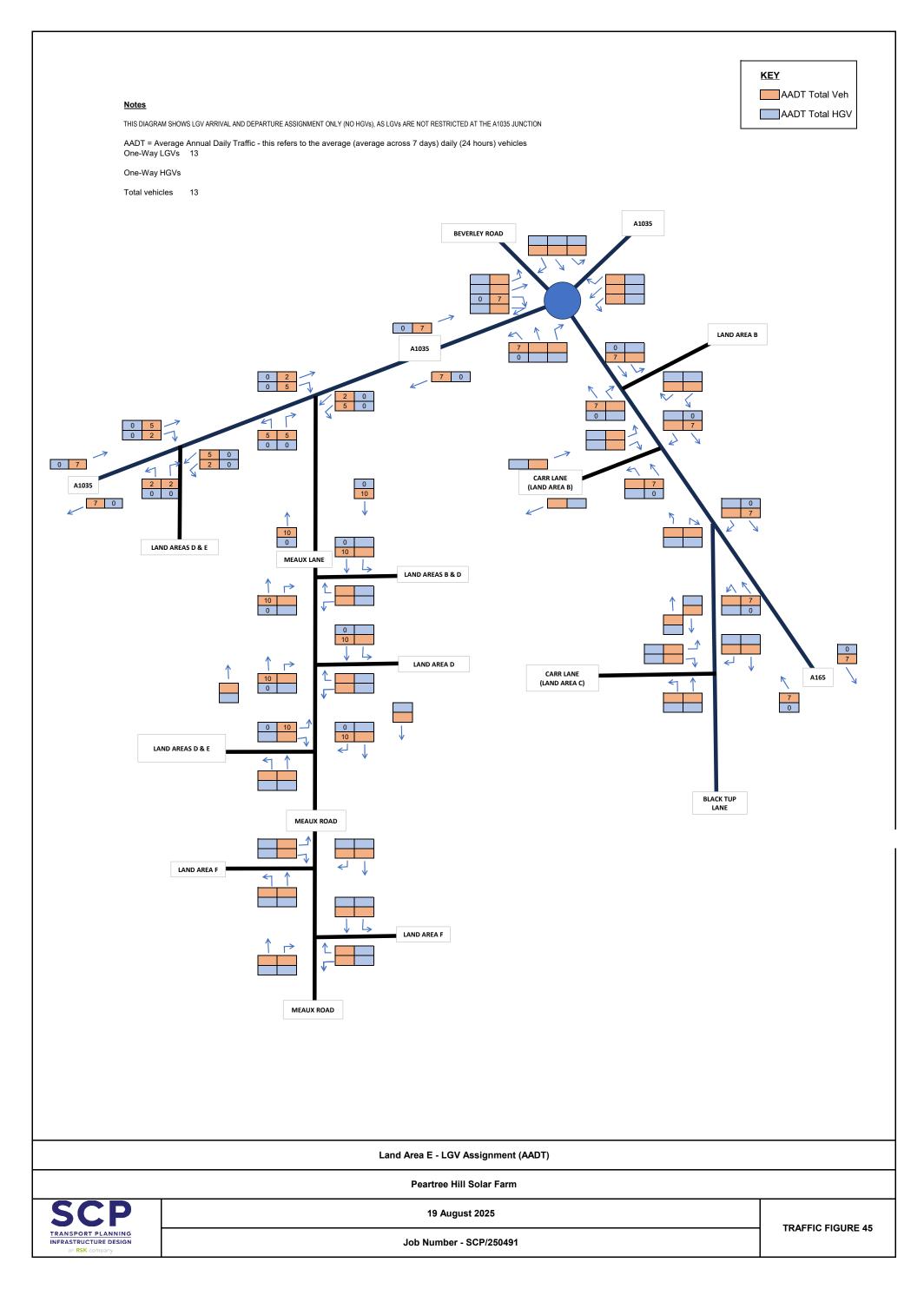


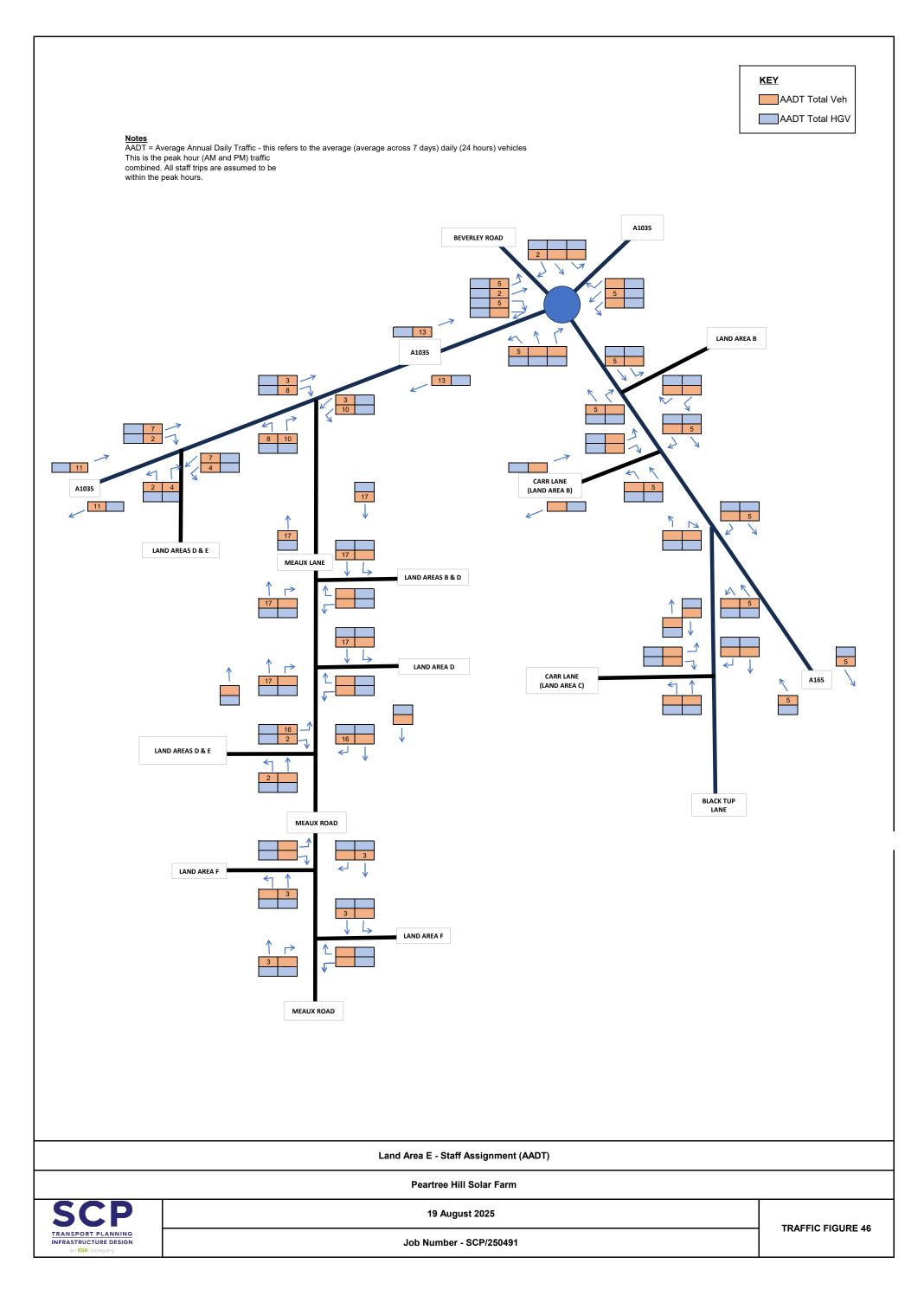


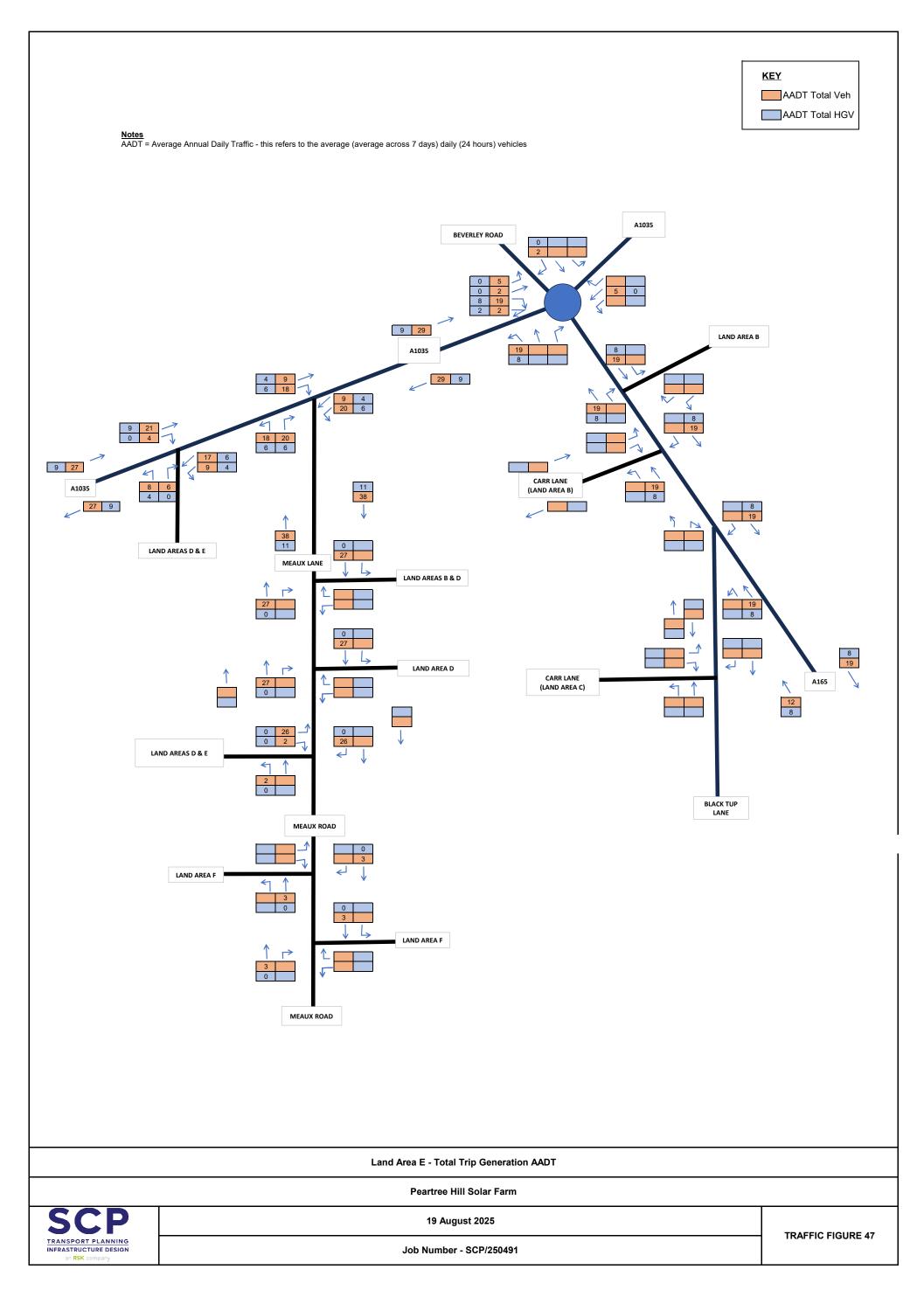


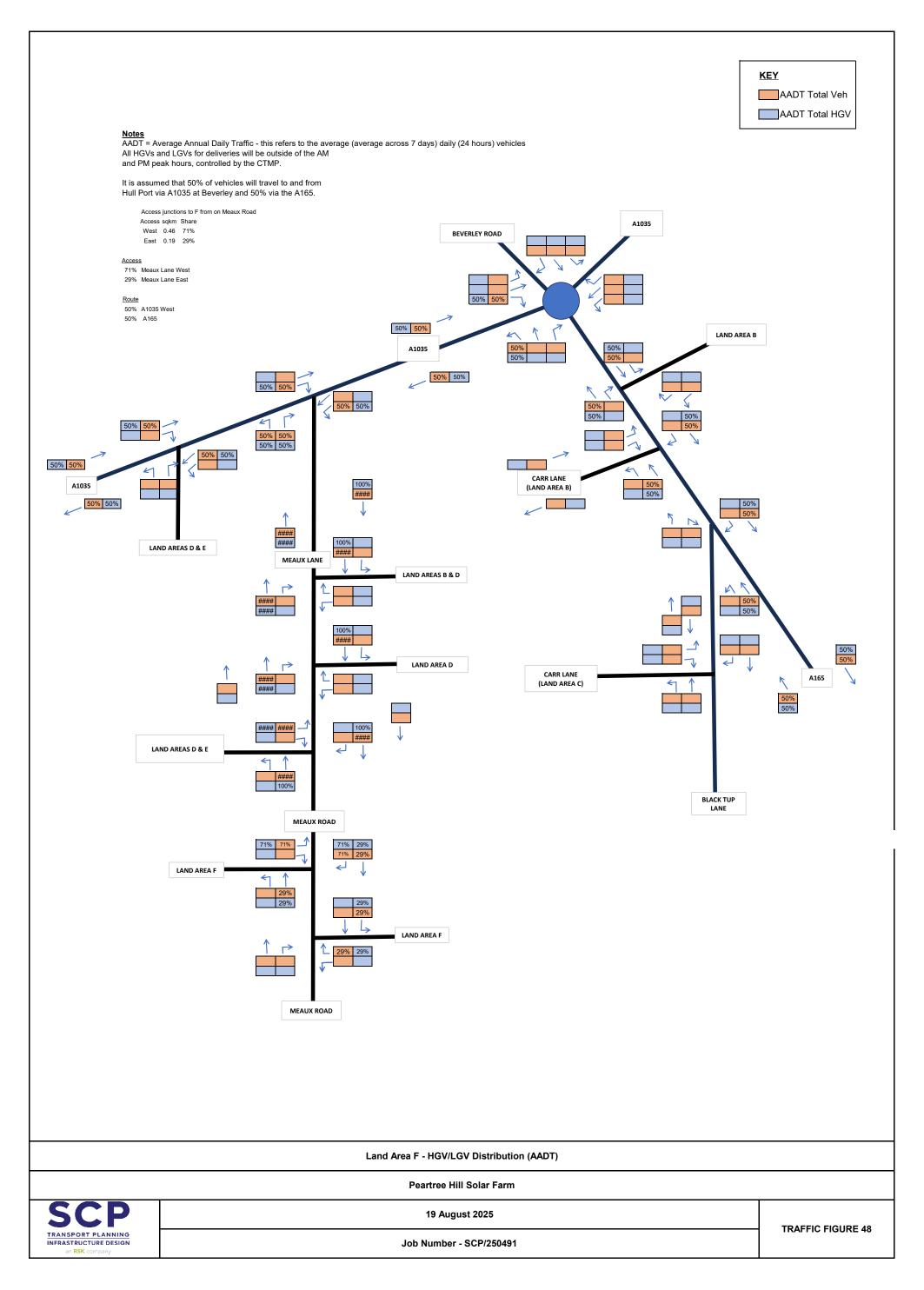


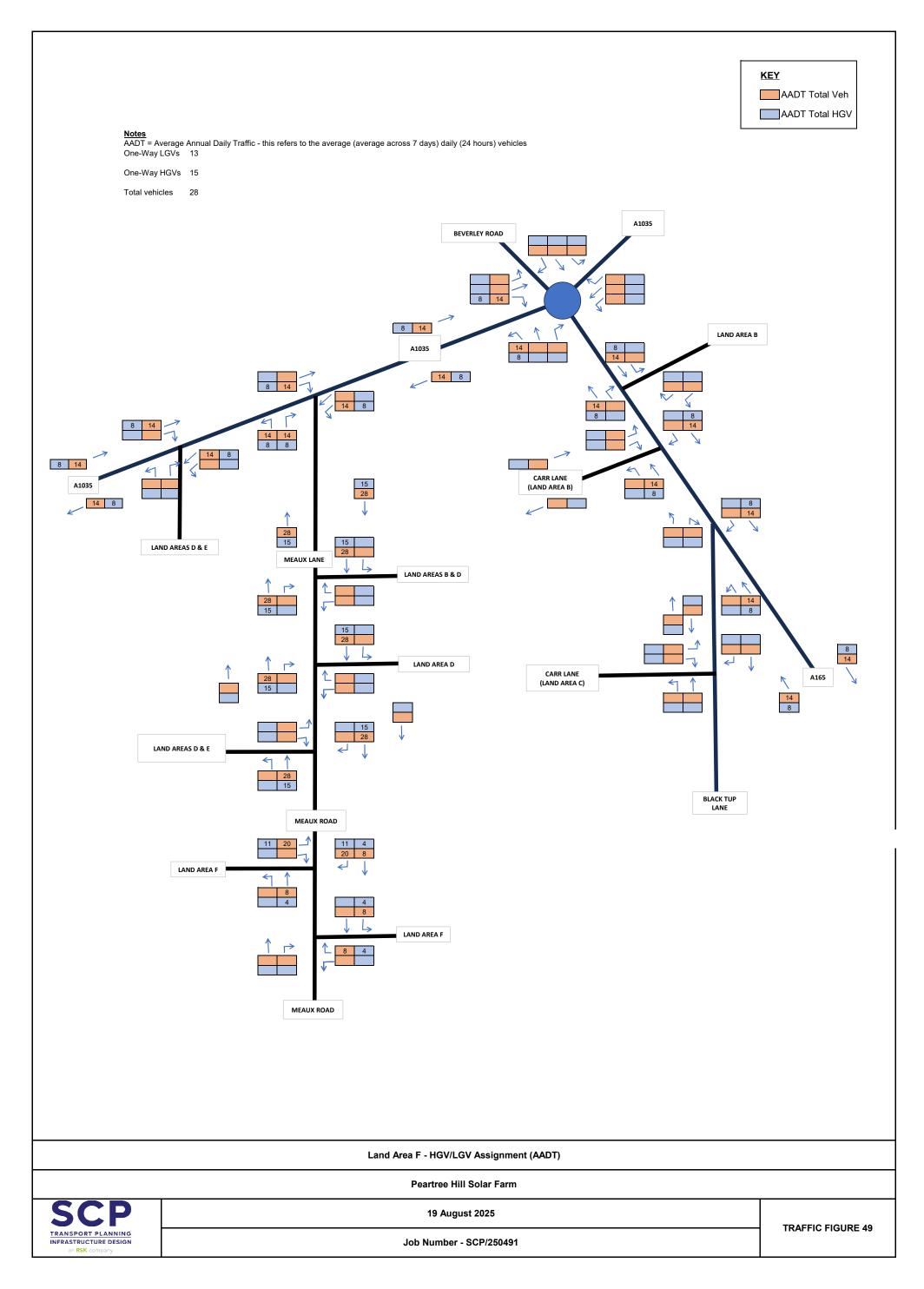


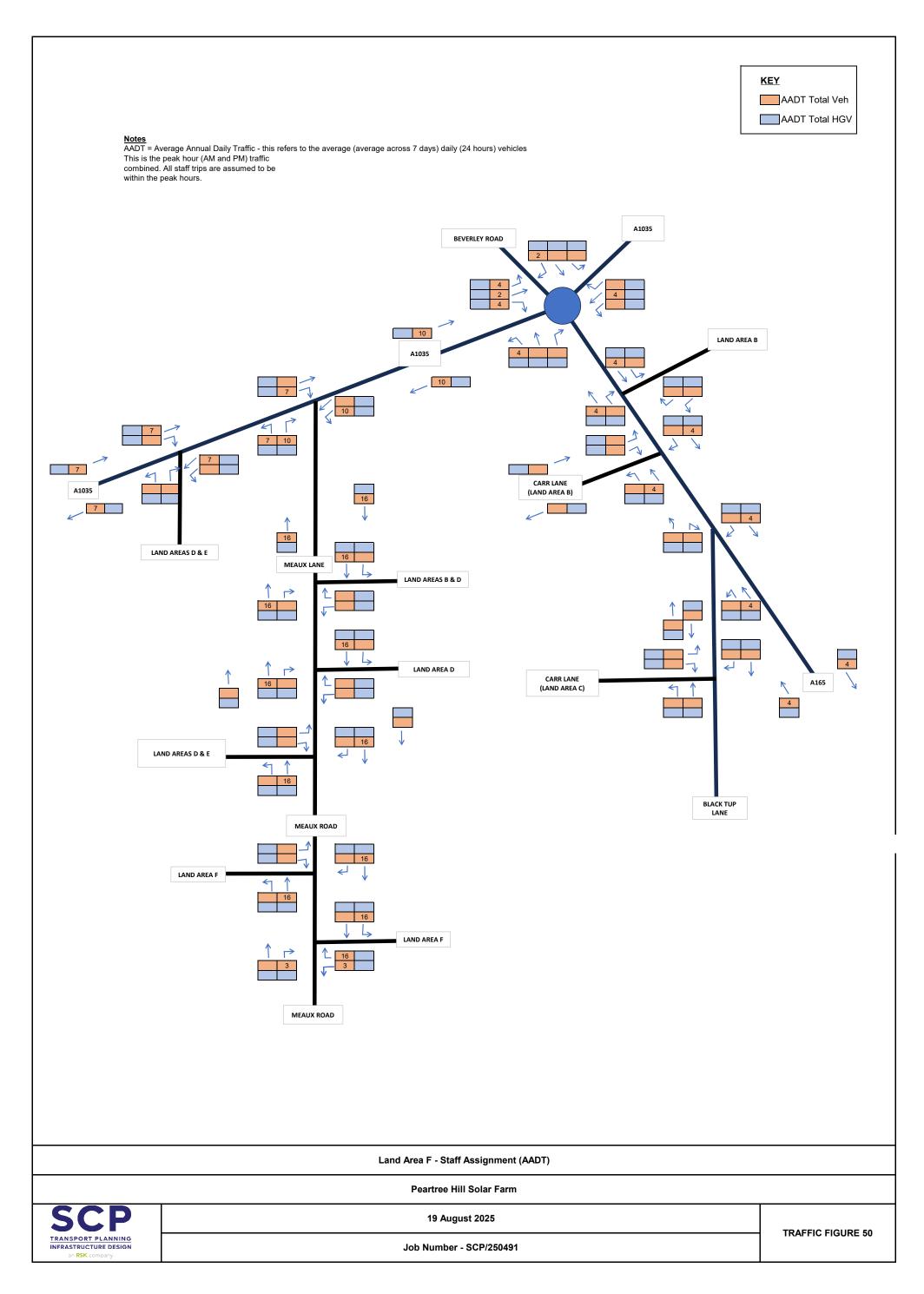


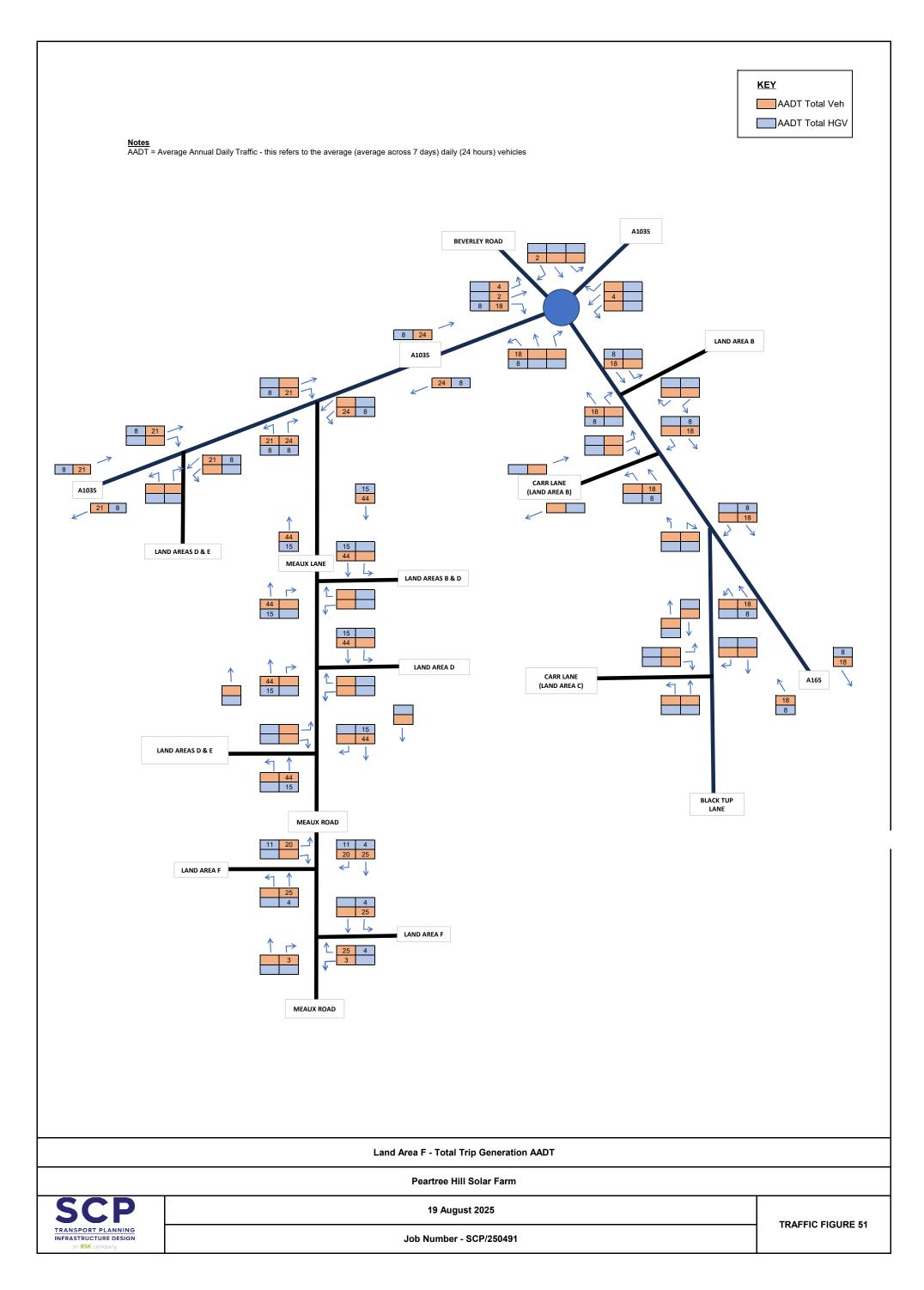


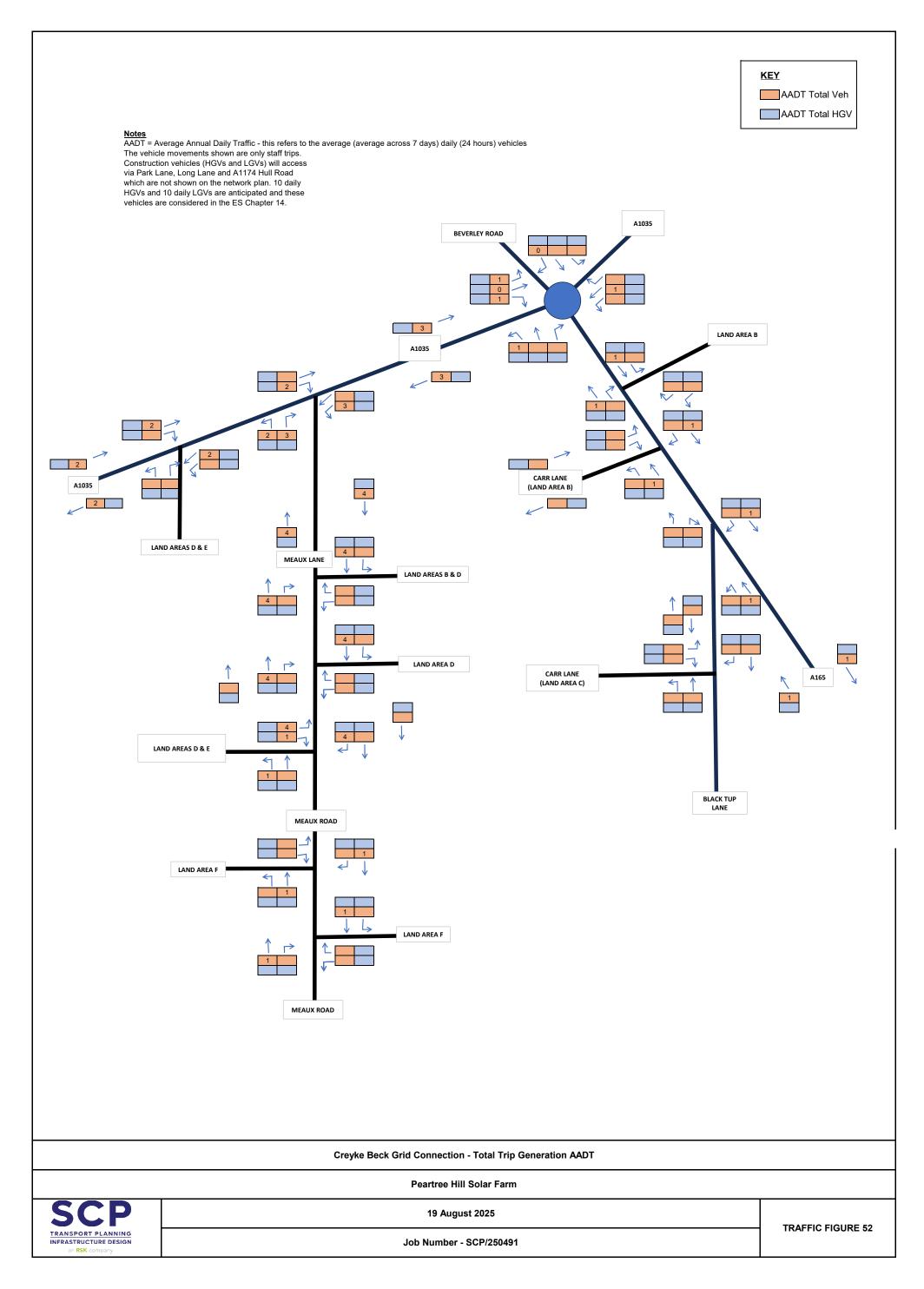


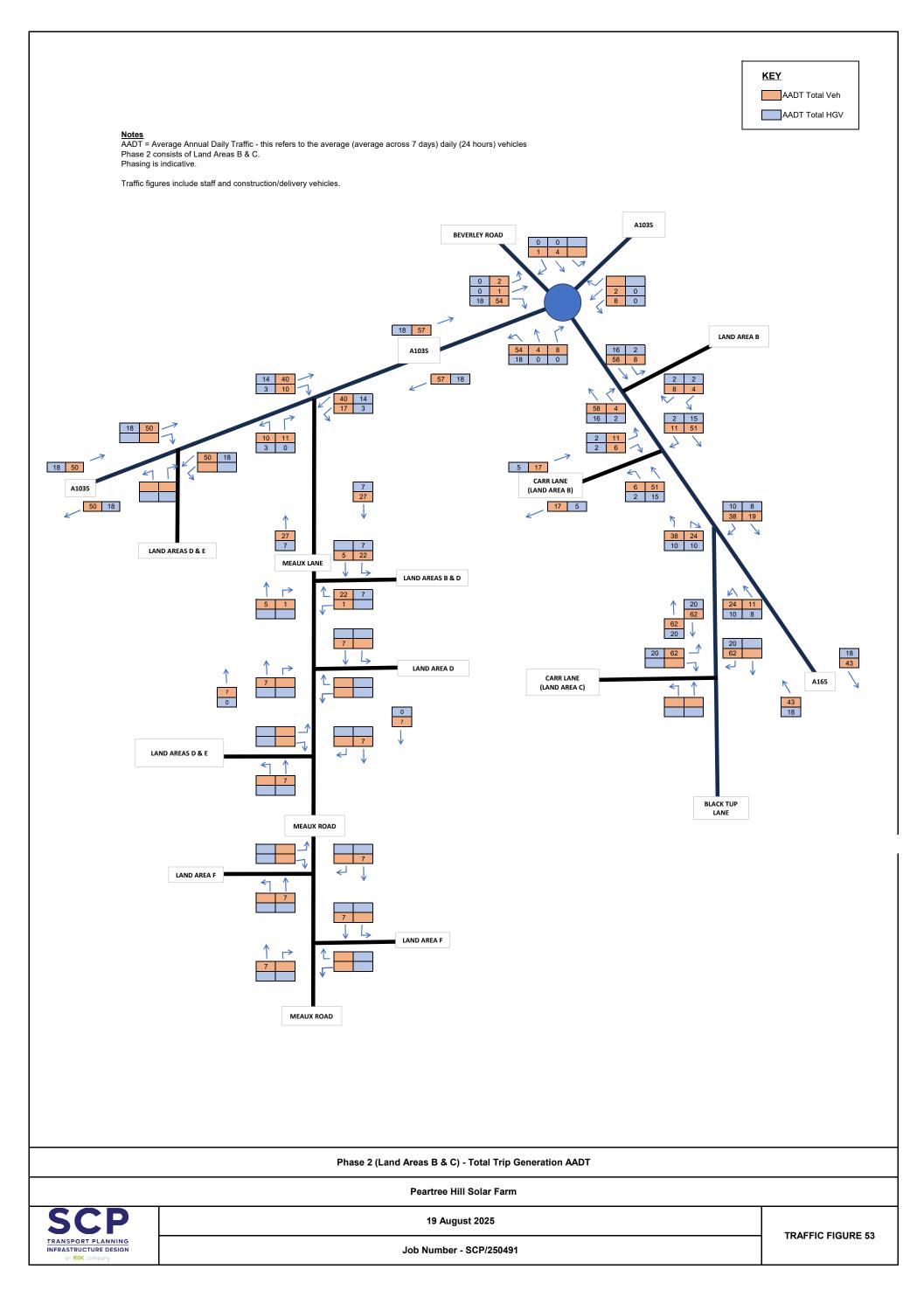


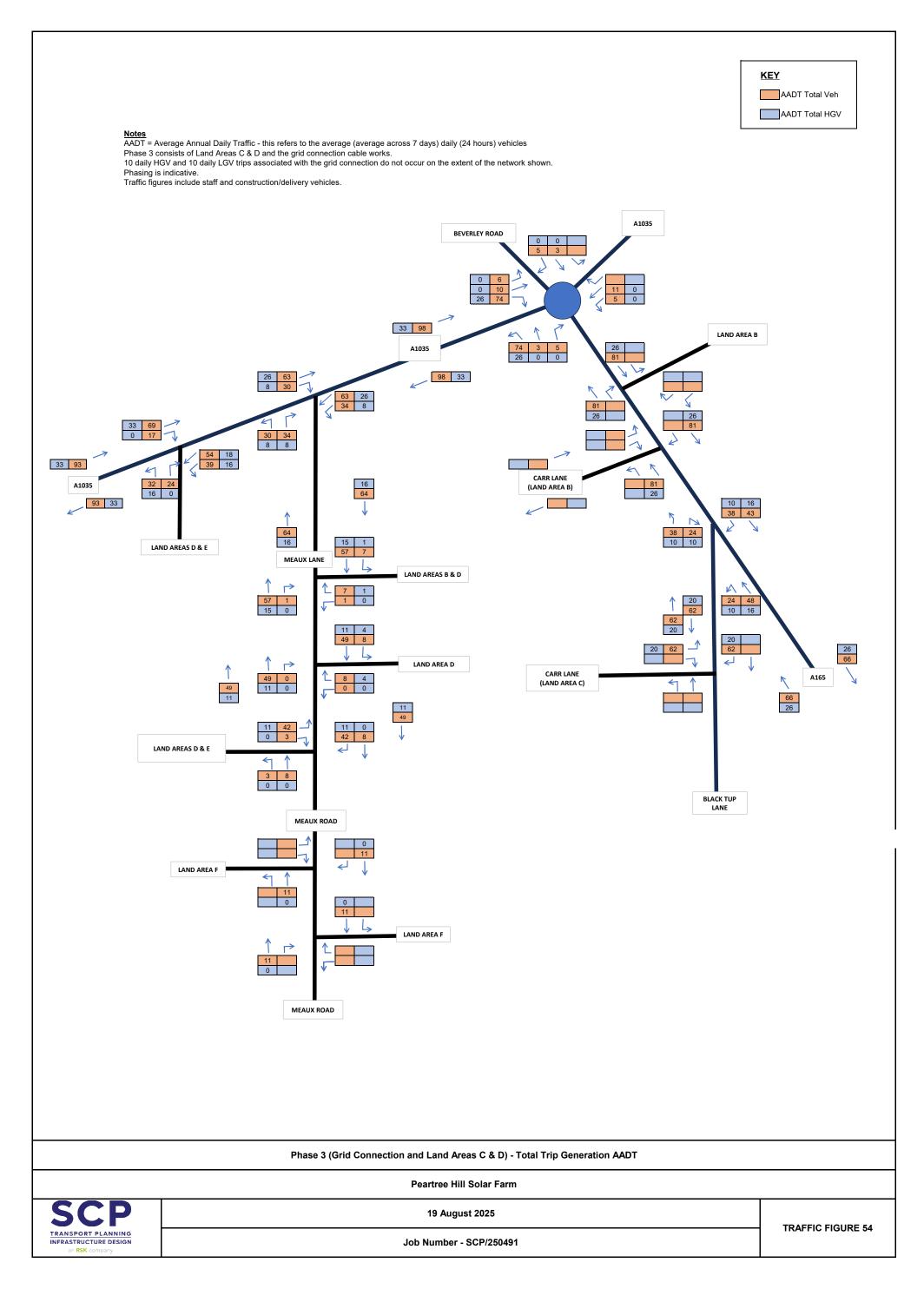


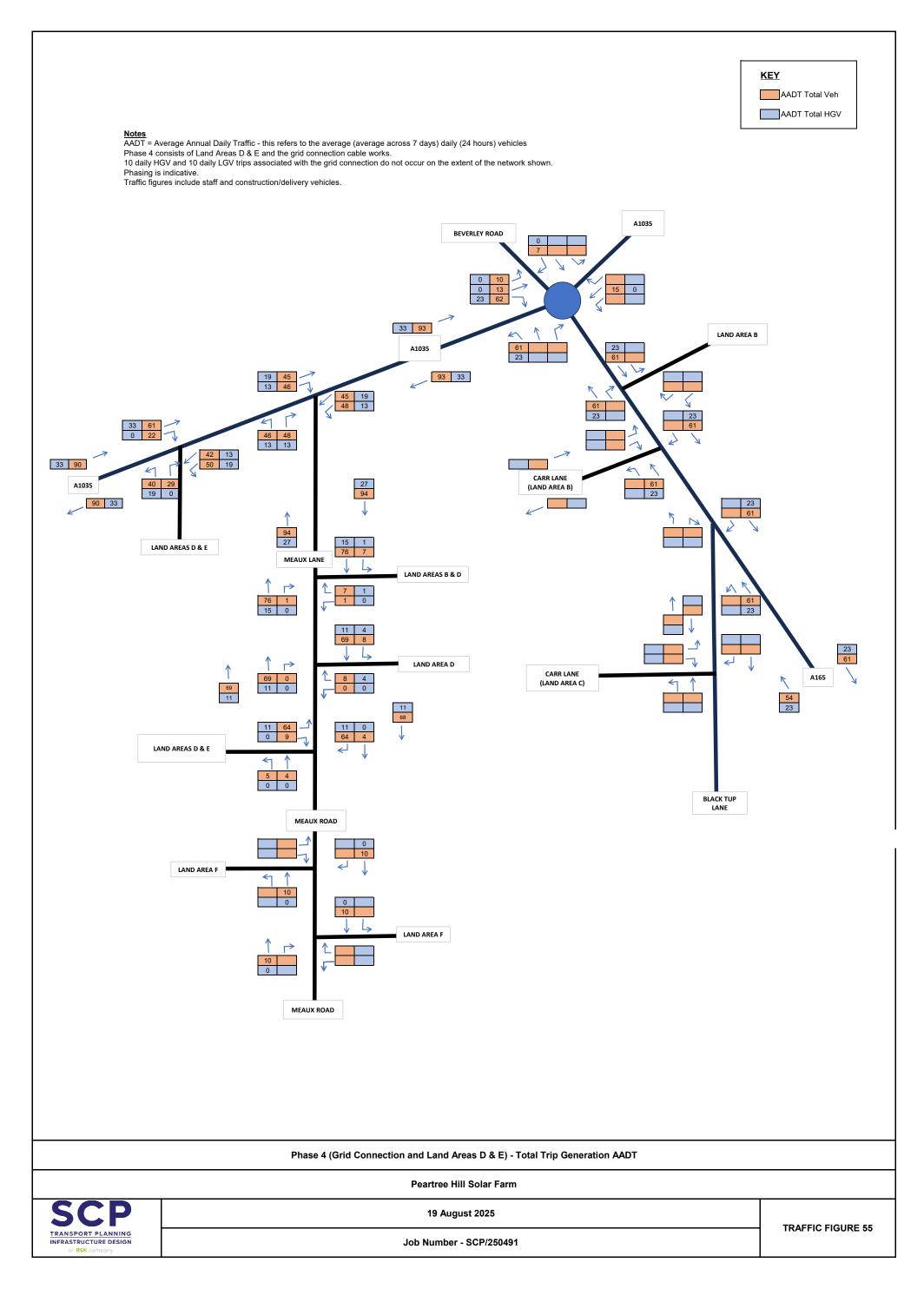


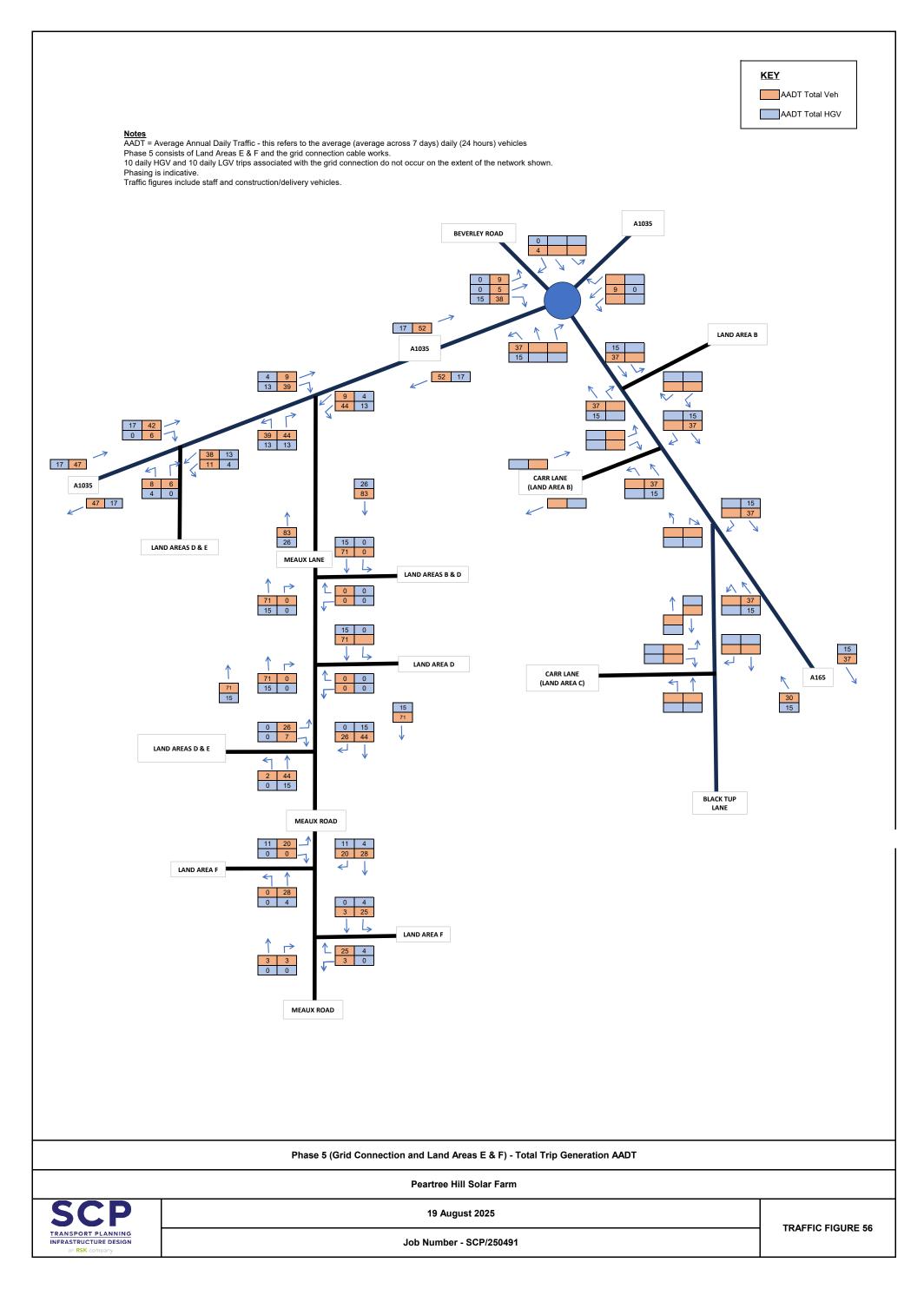


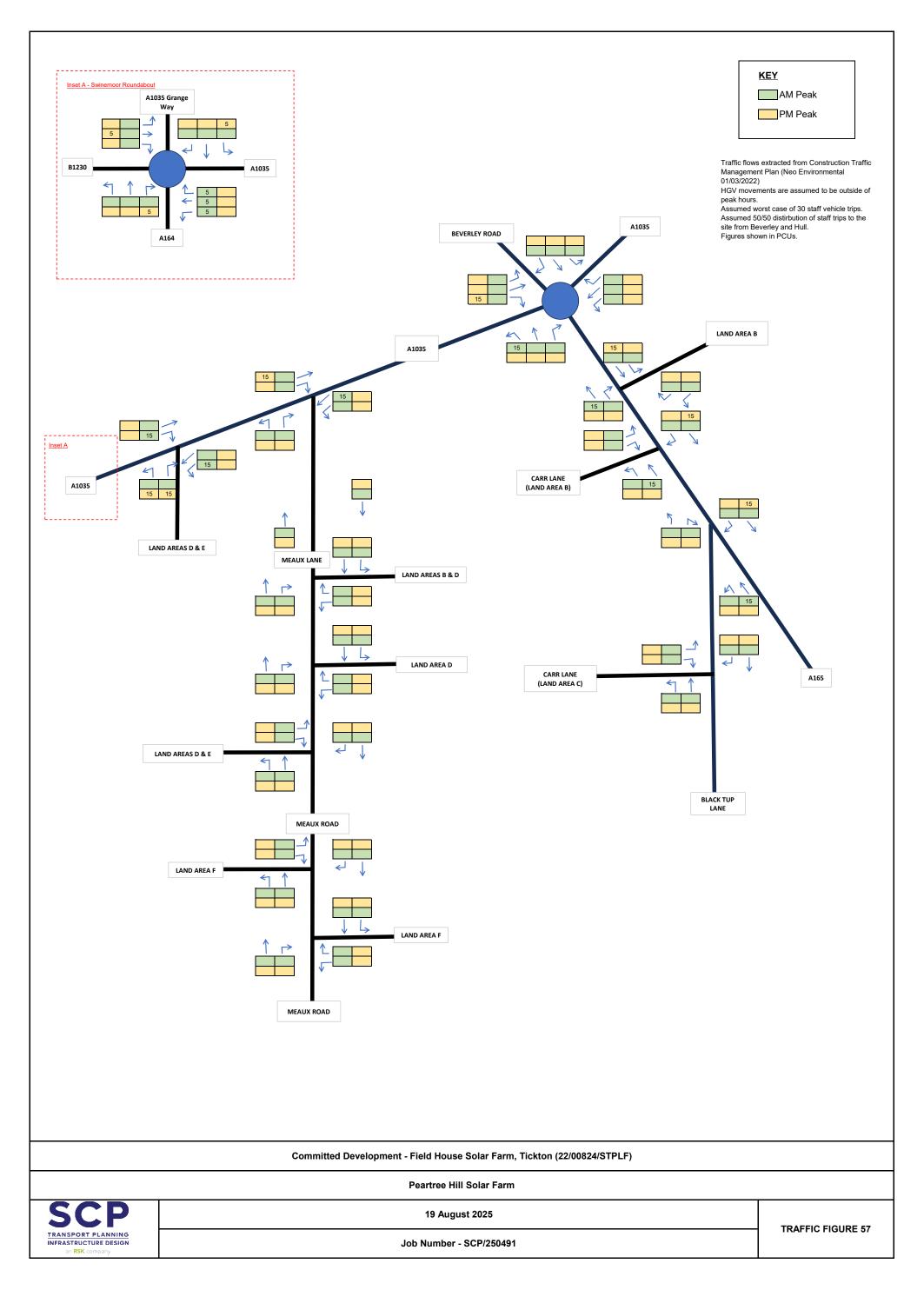


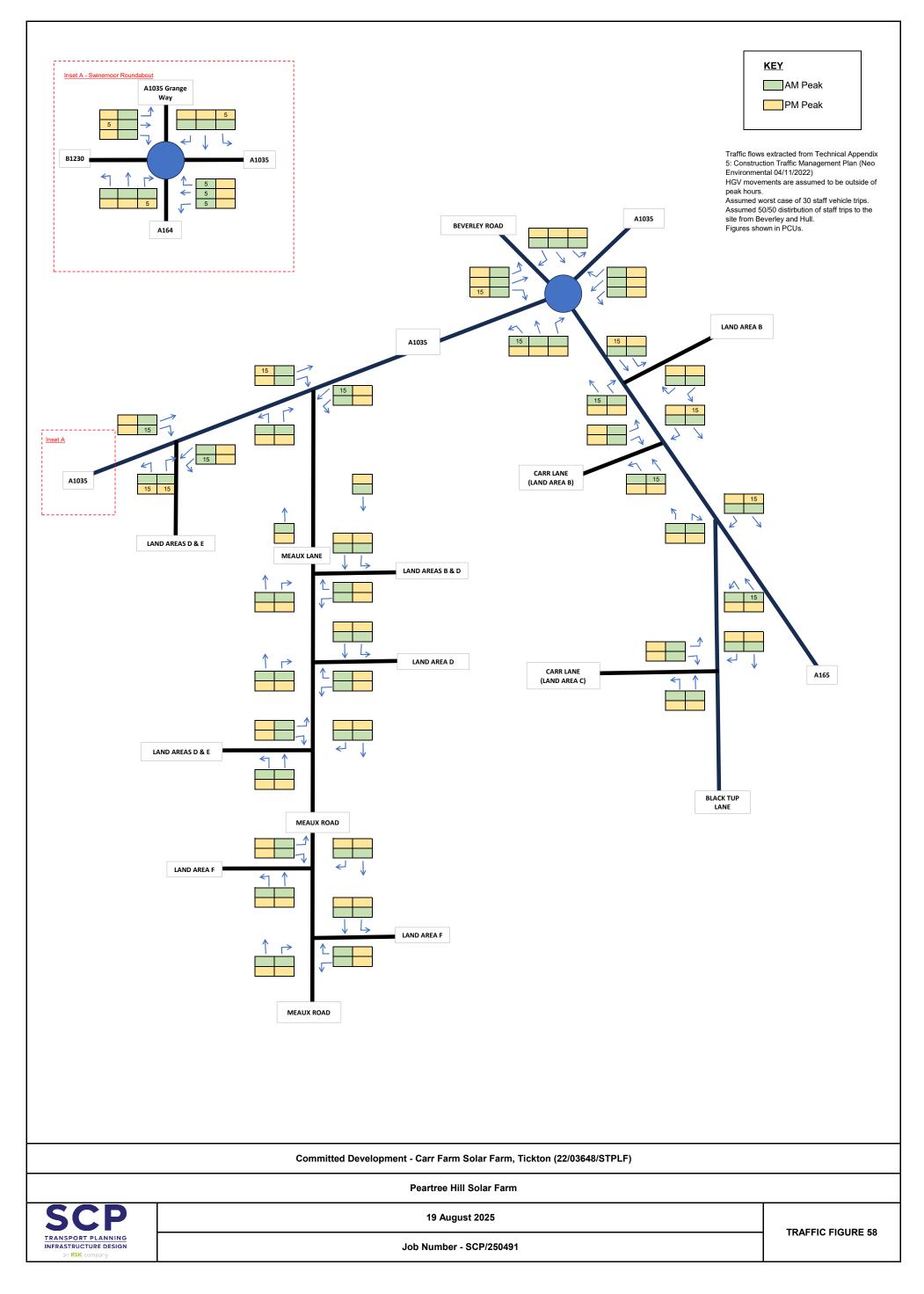


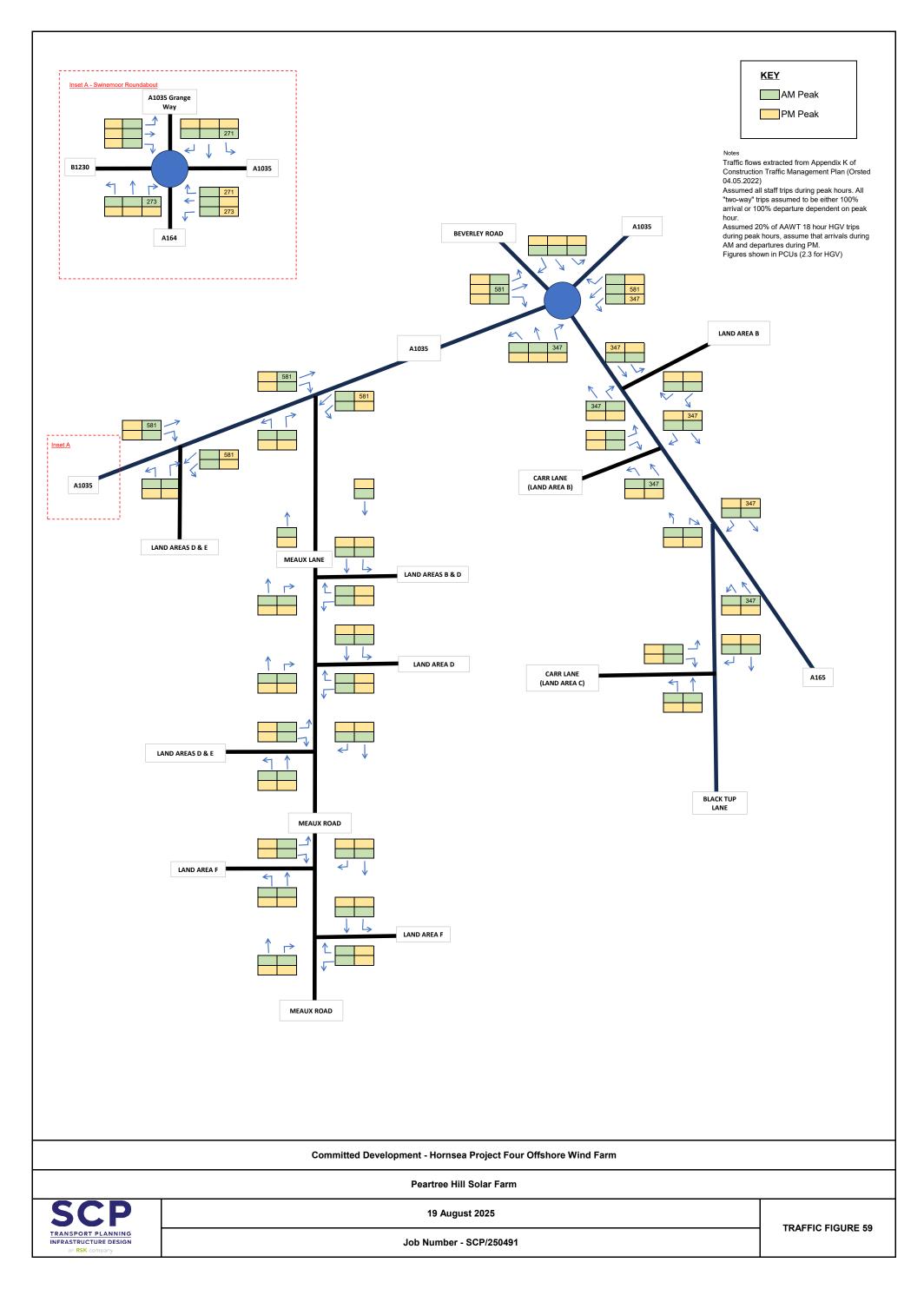


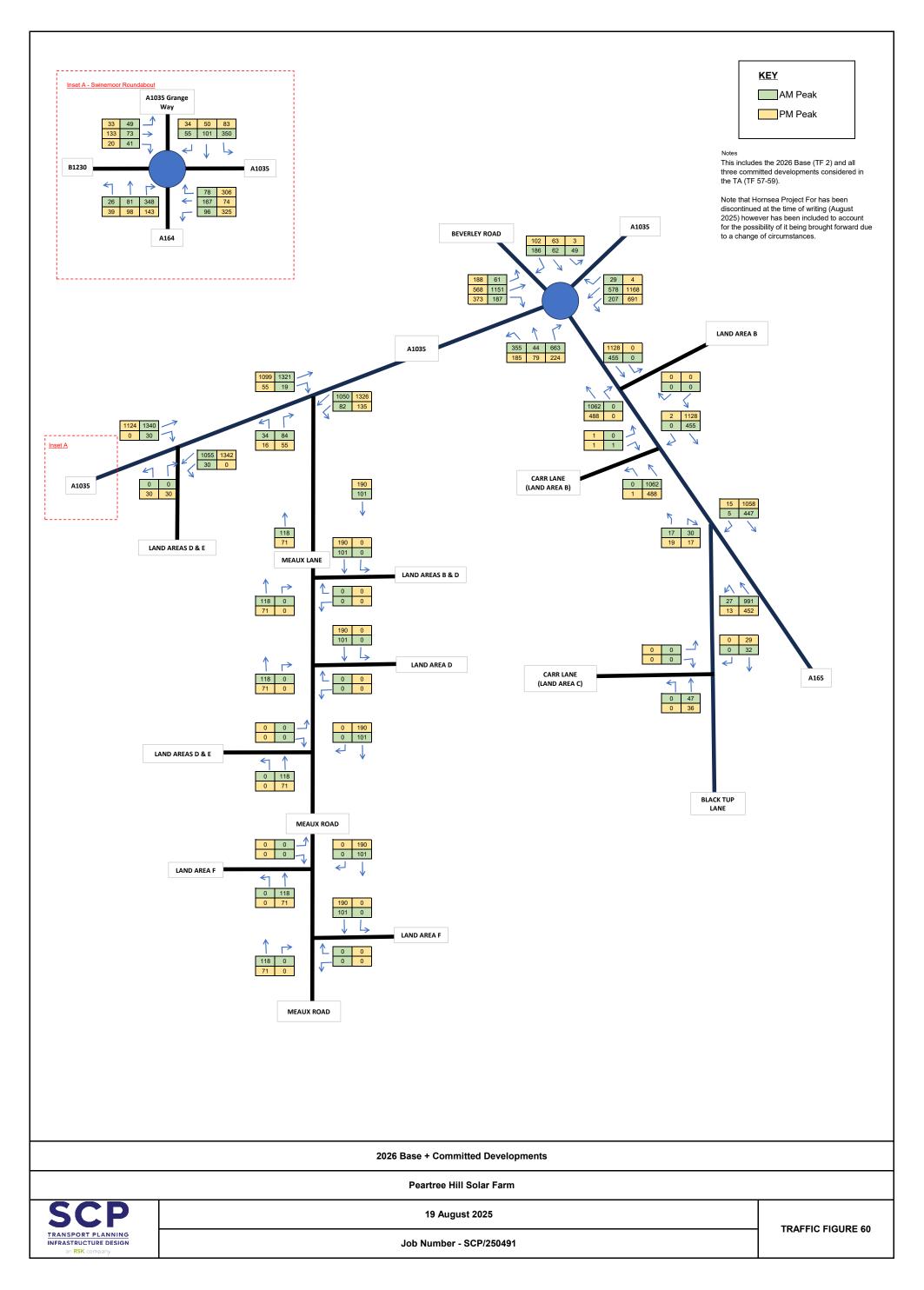










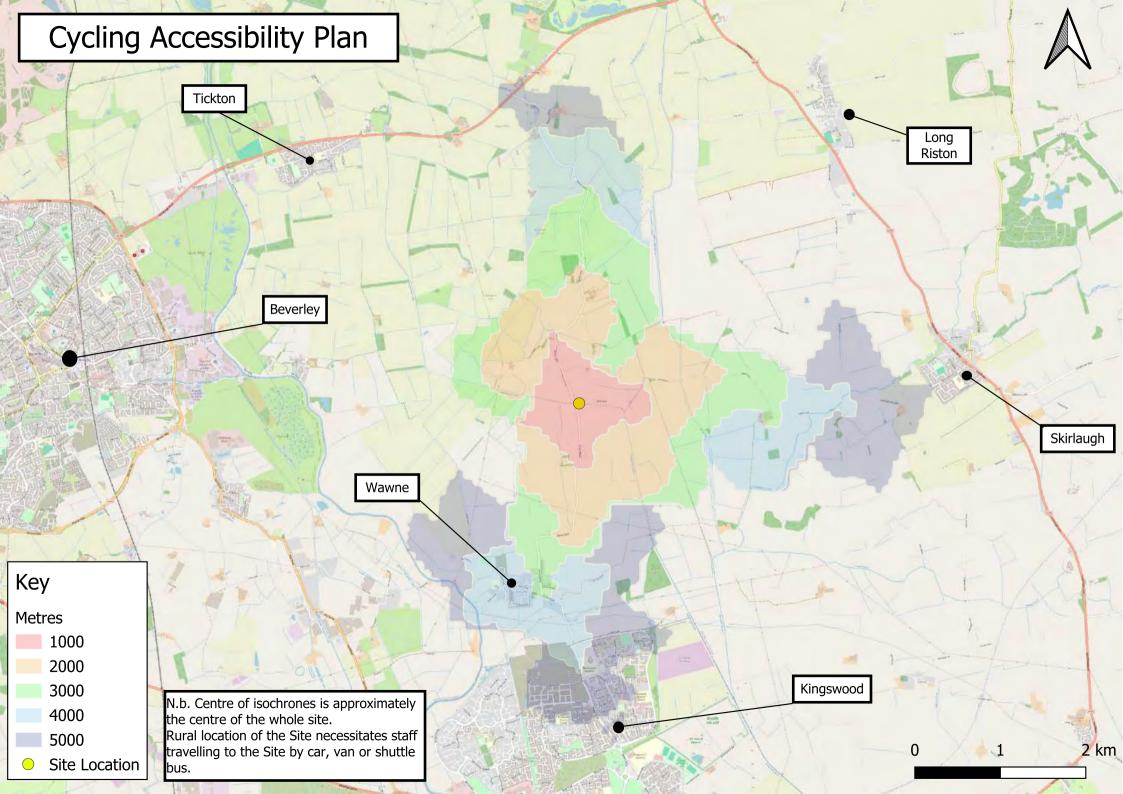




APPENDIX F

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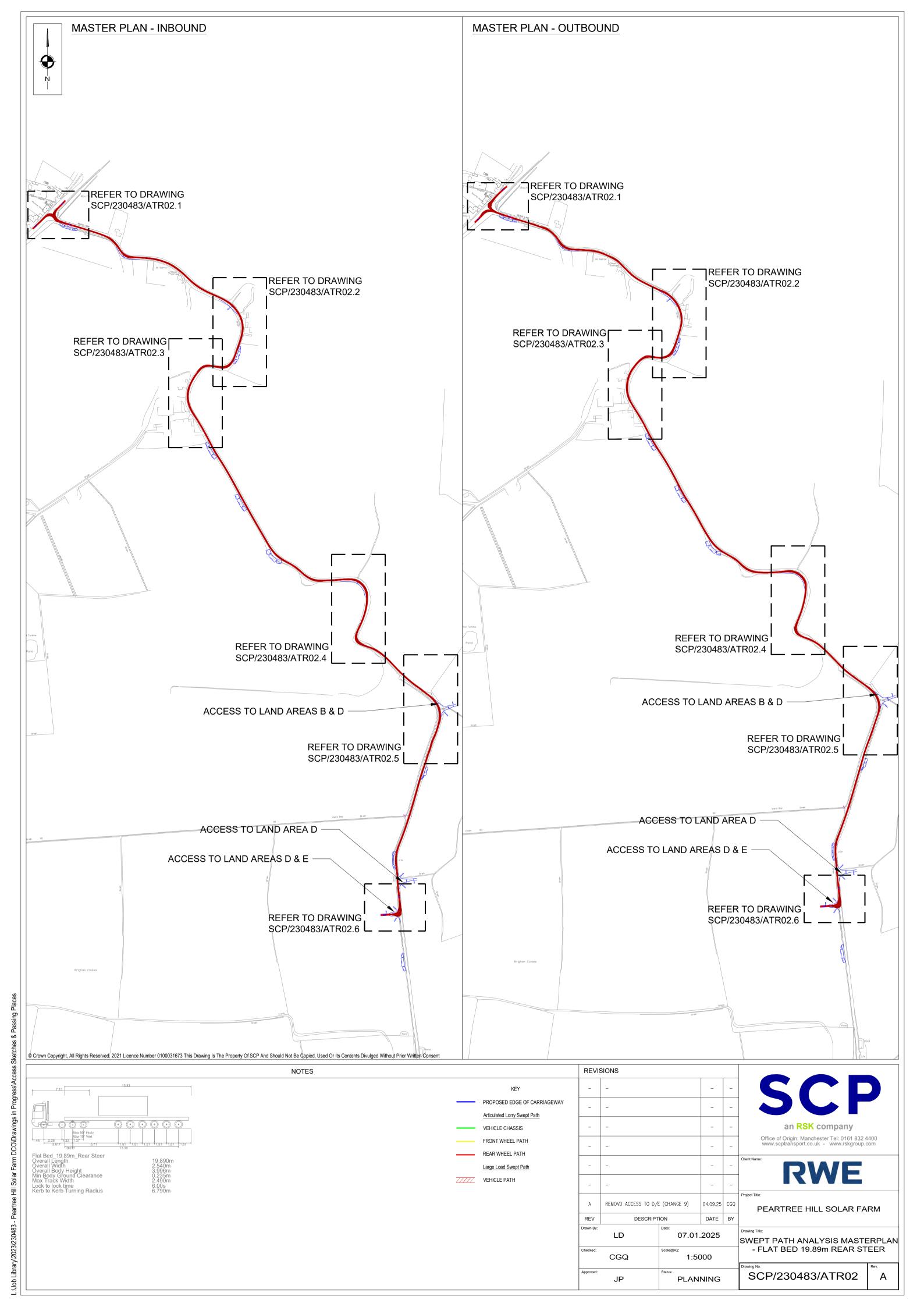


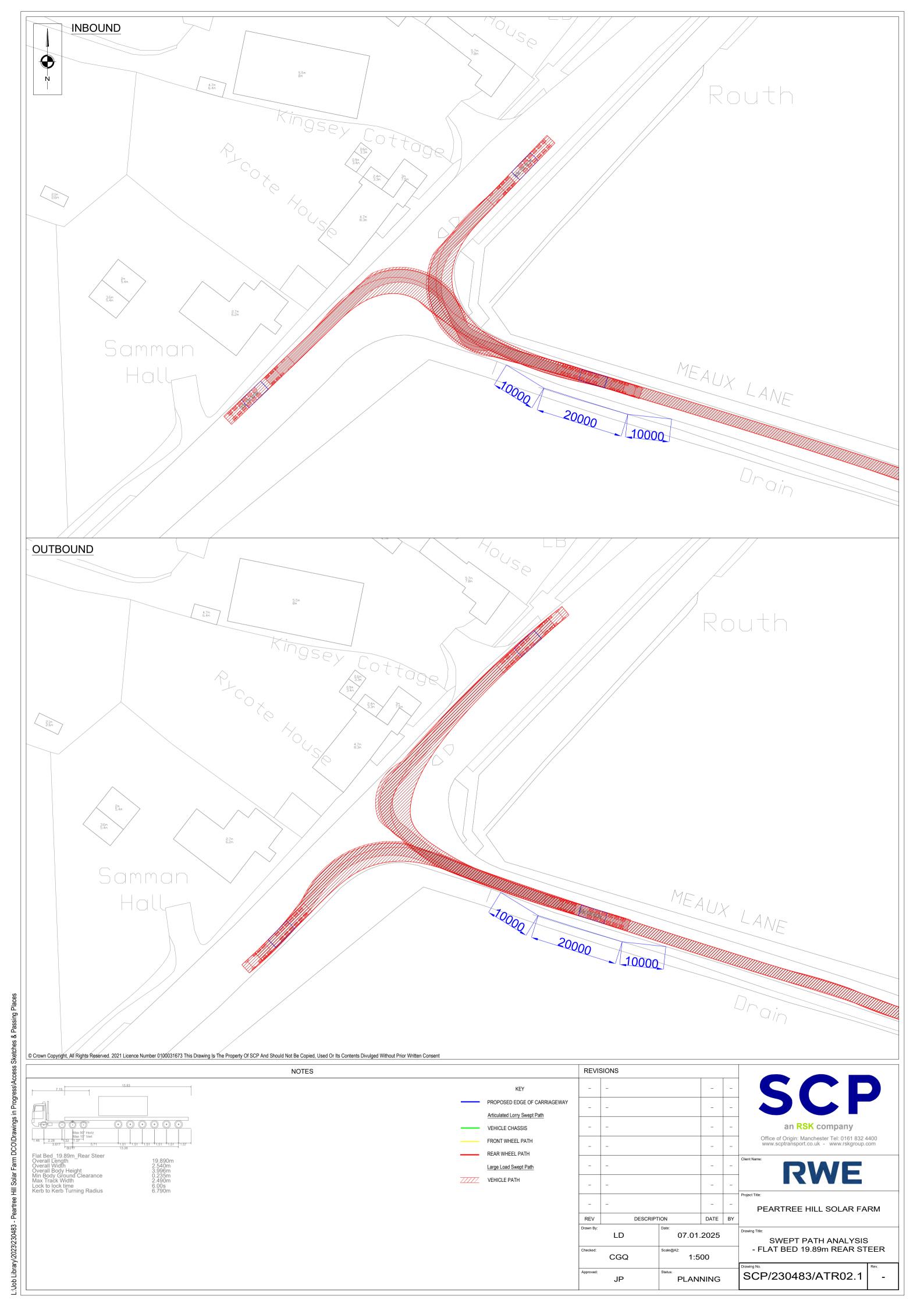


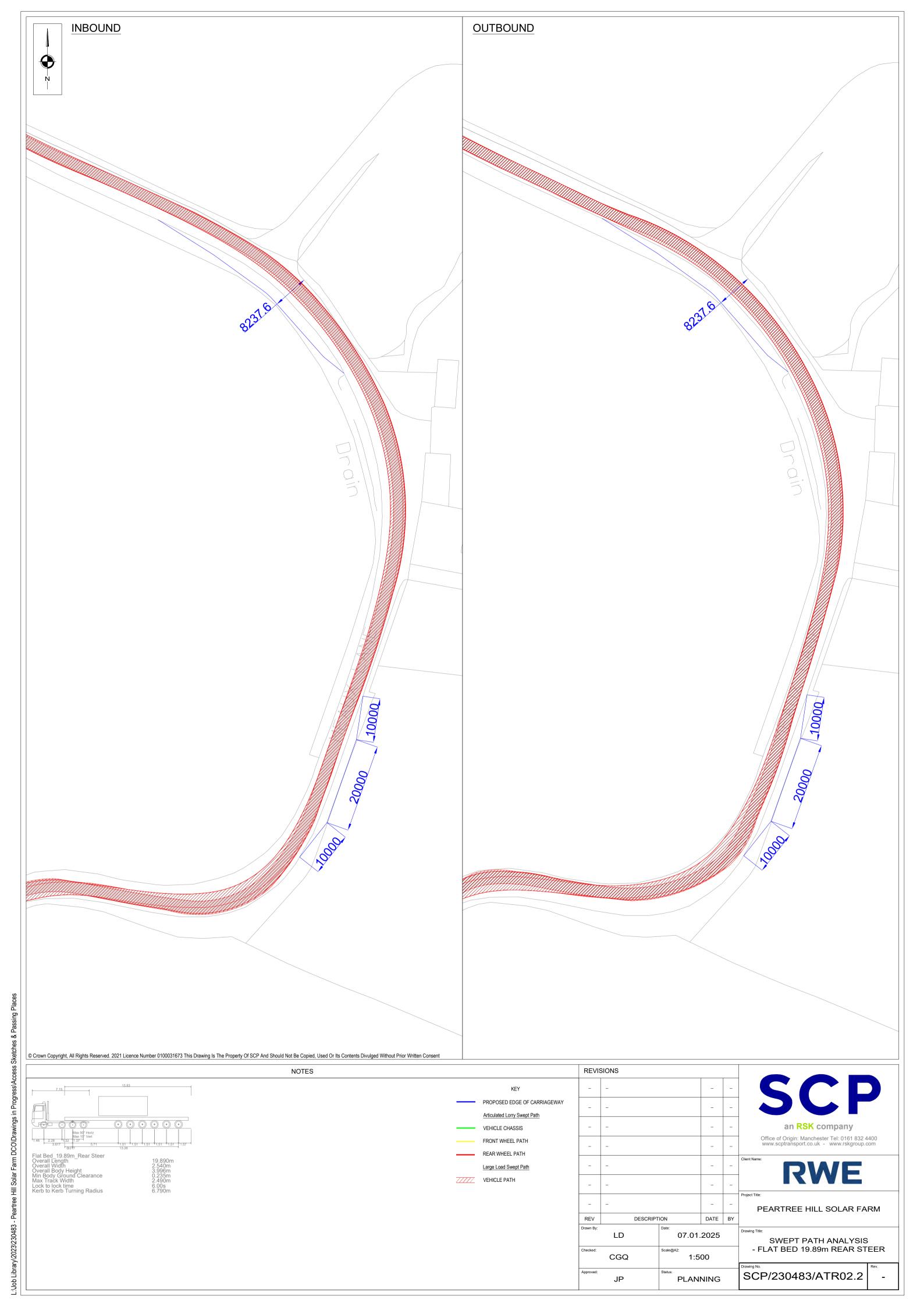


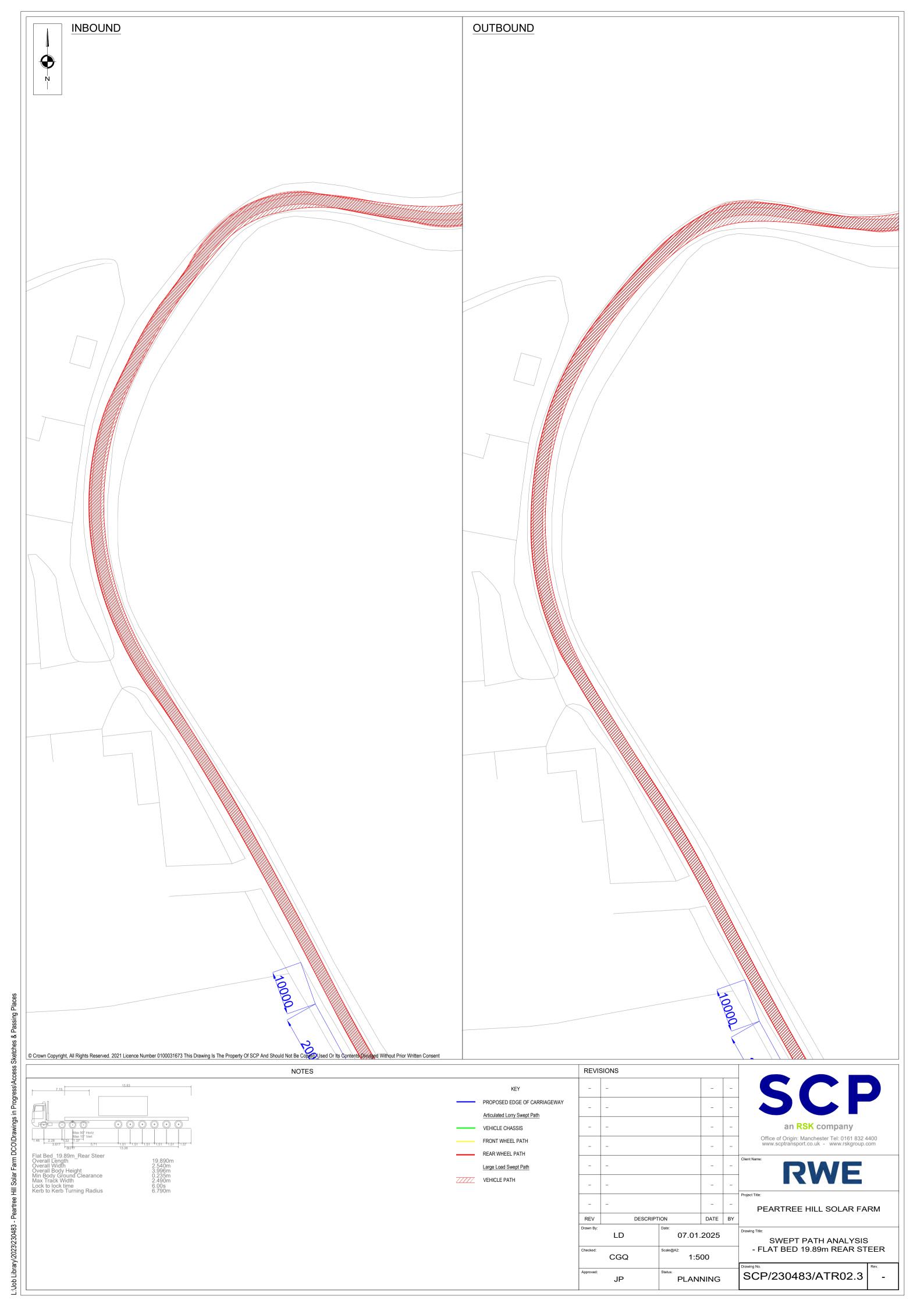
APPENDIX G

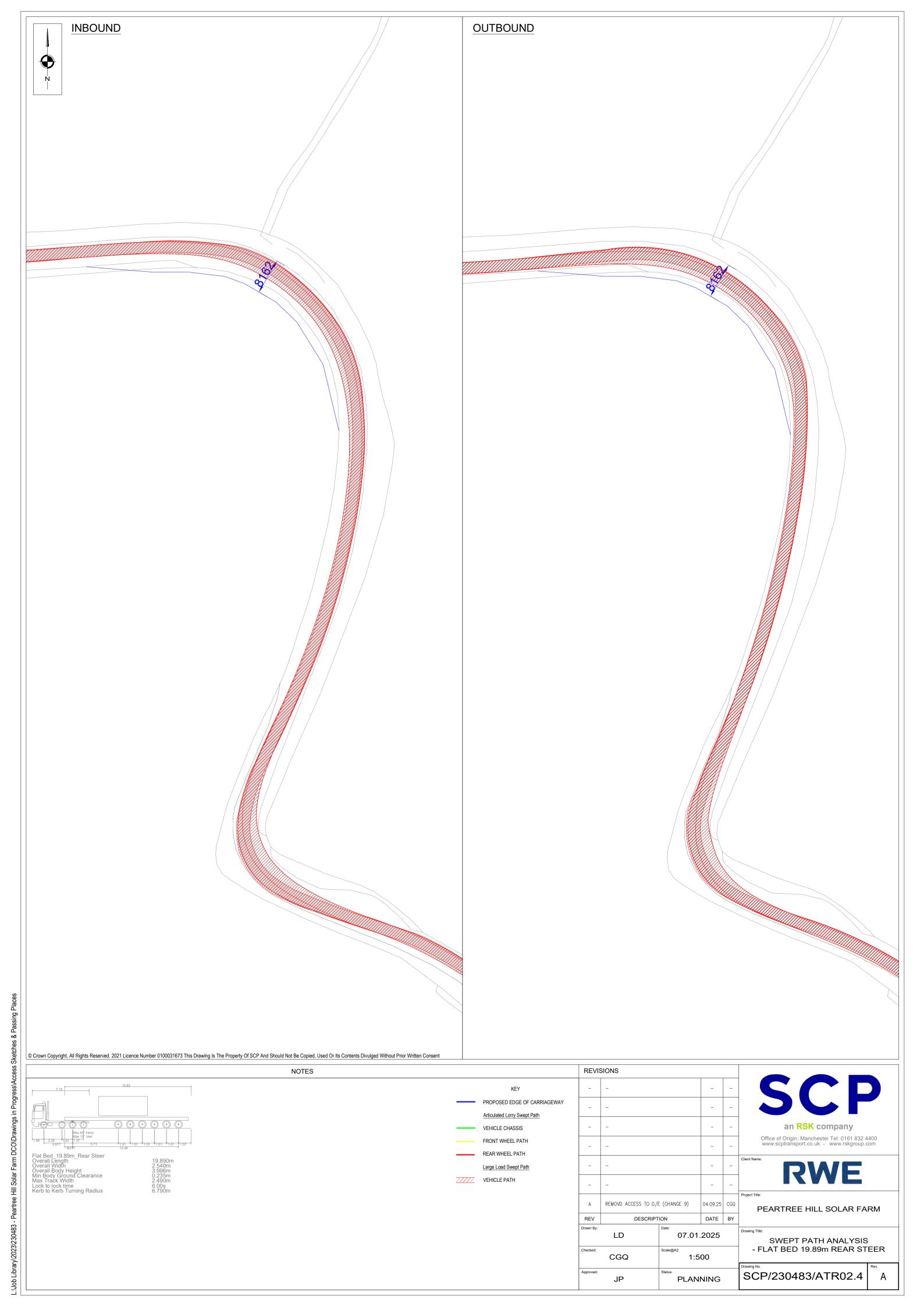
Access Junctions and Highway Mitigation Plans

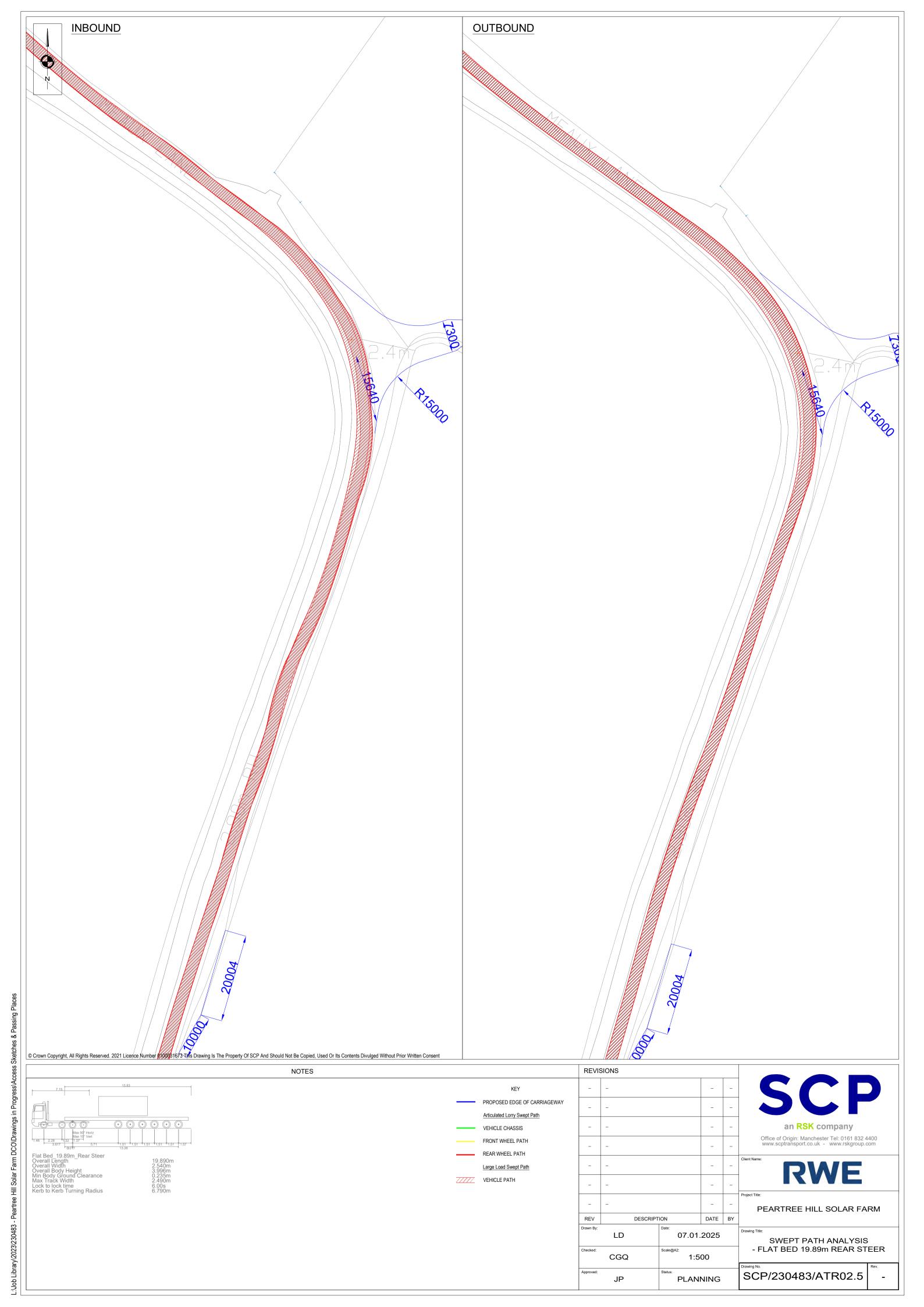


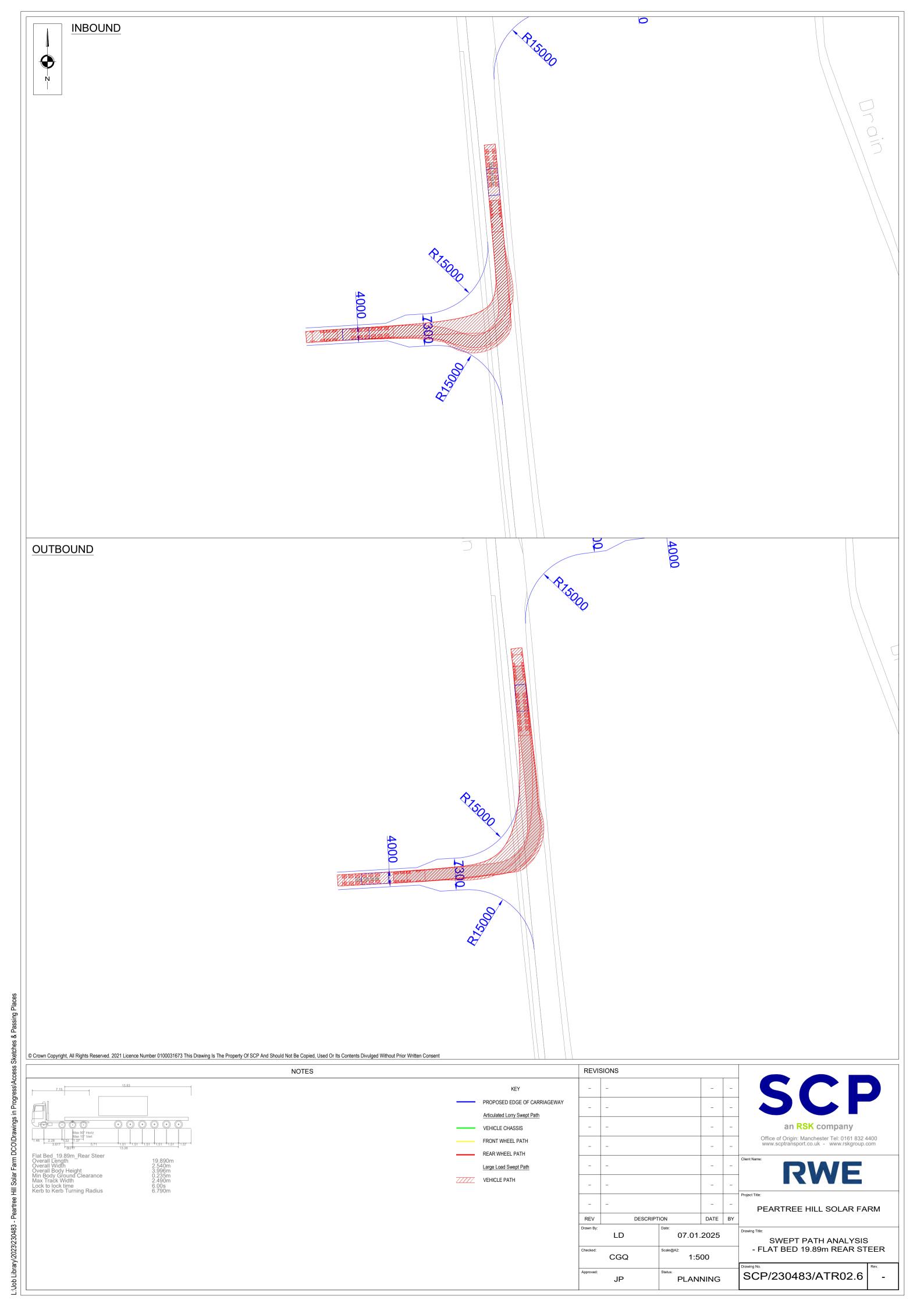


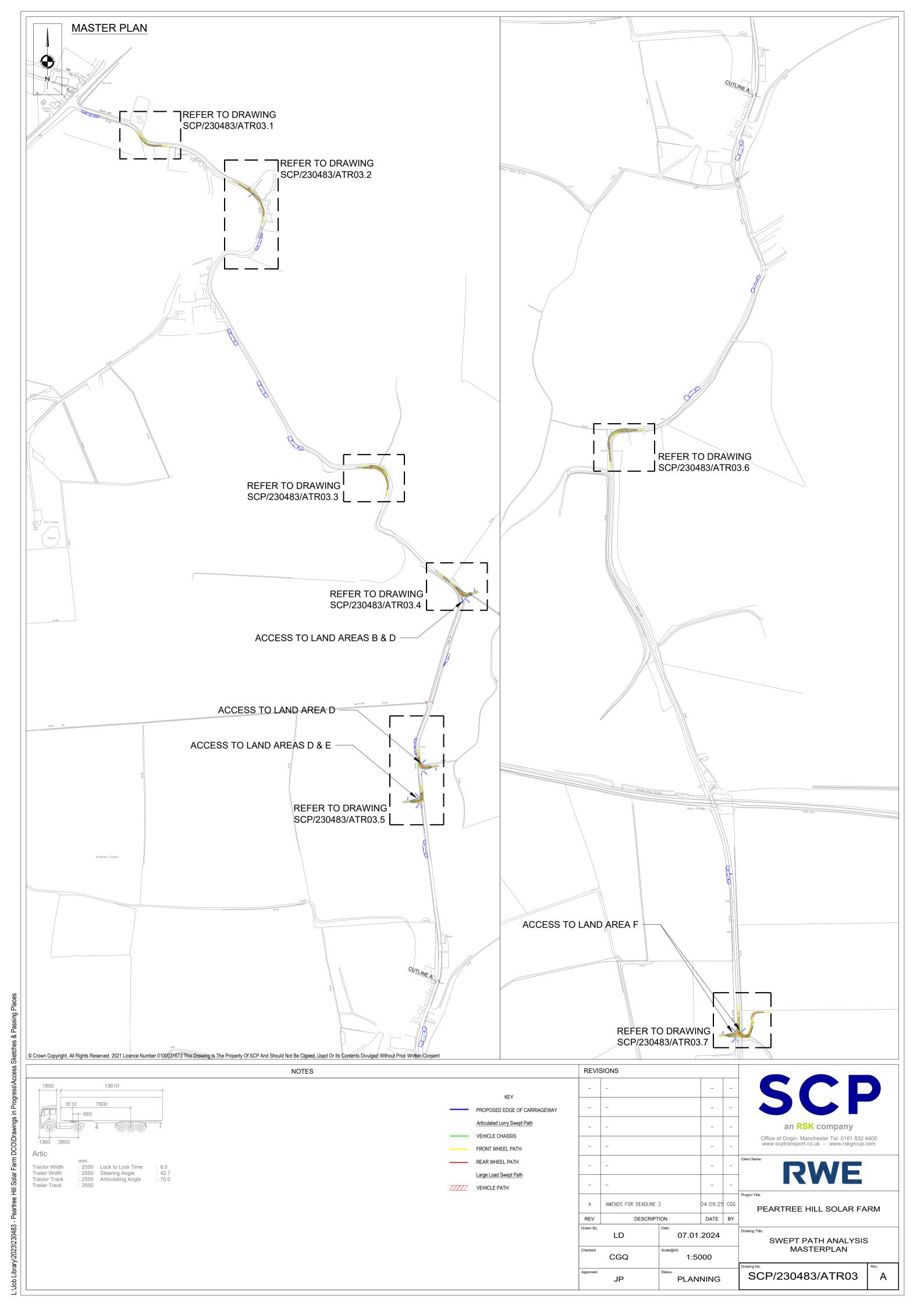


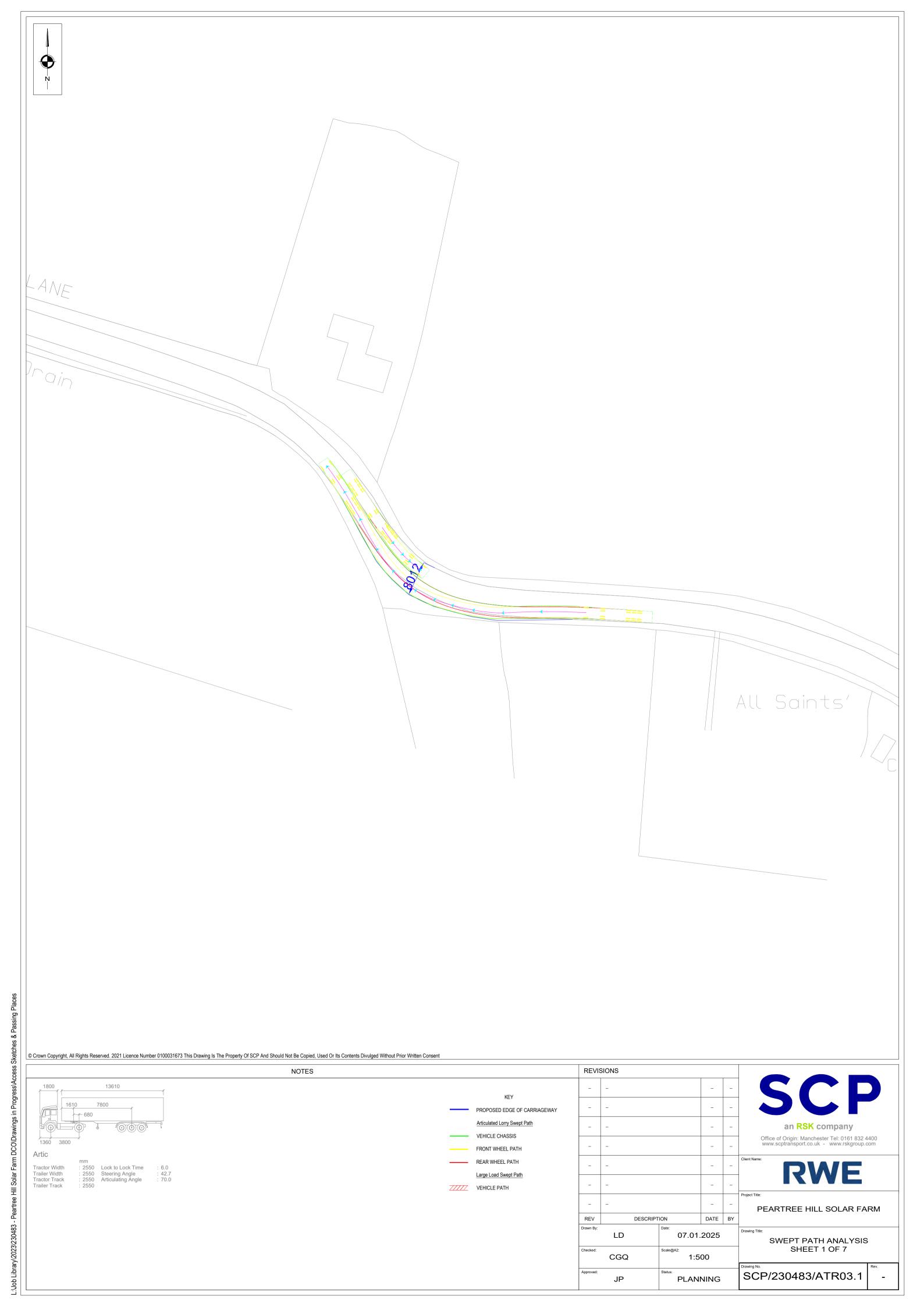


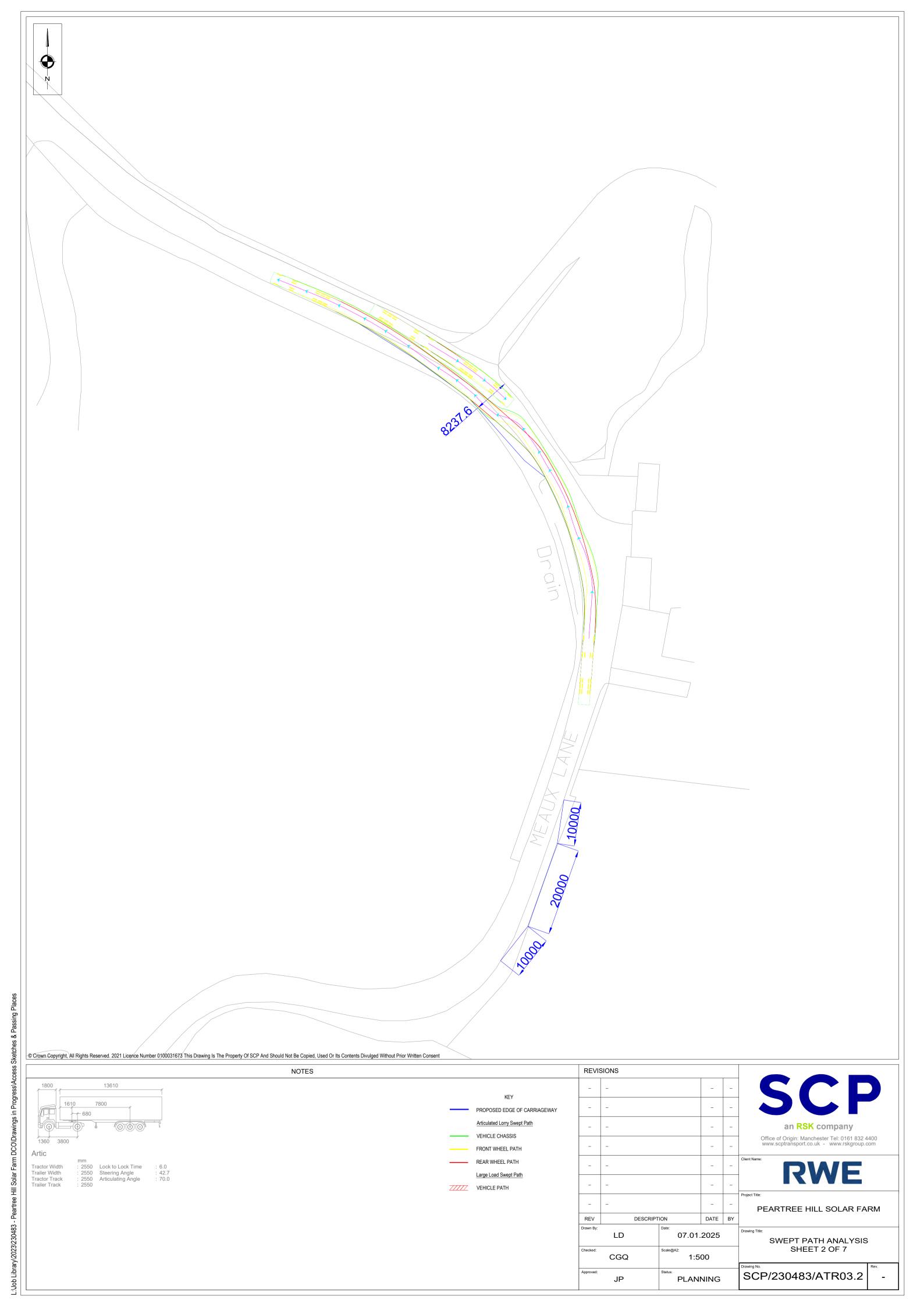


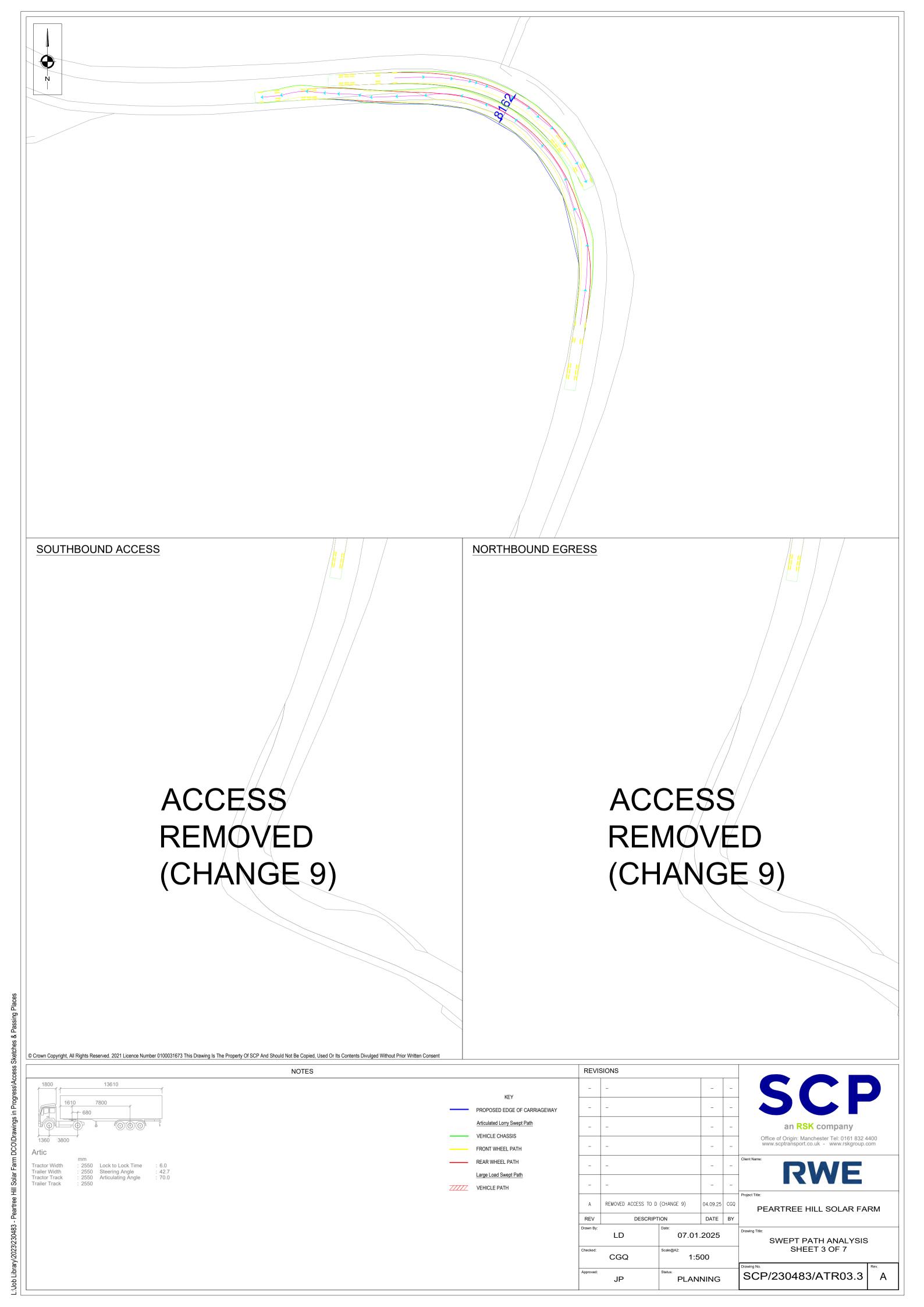


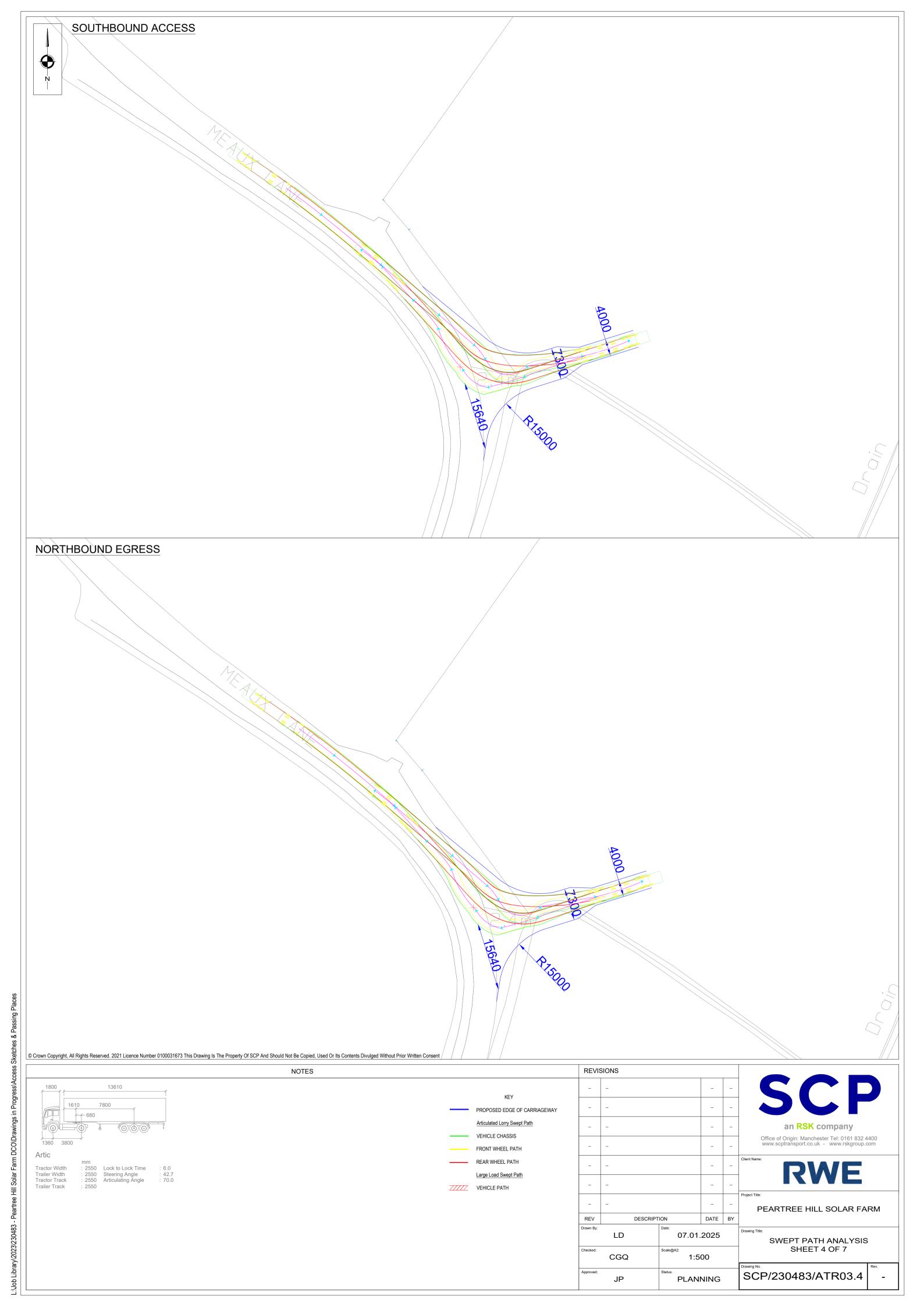


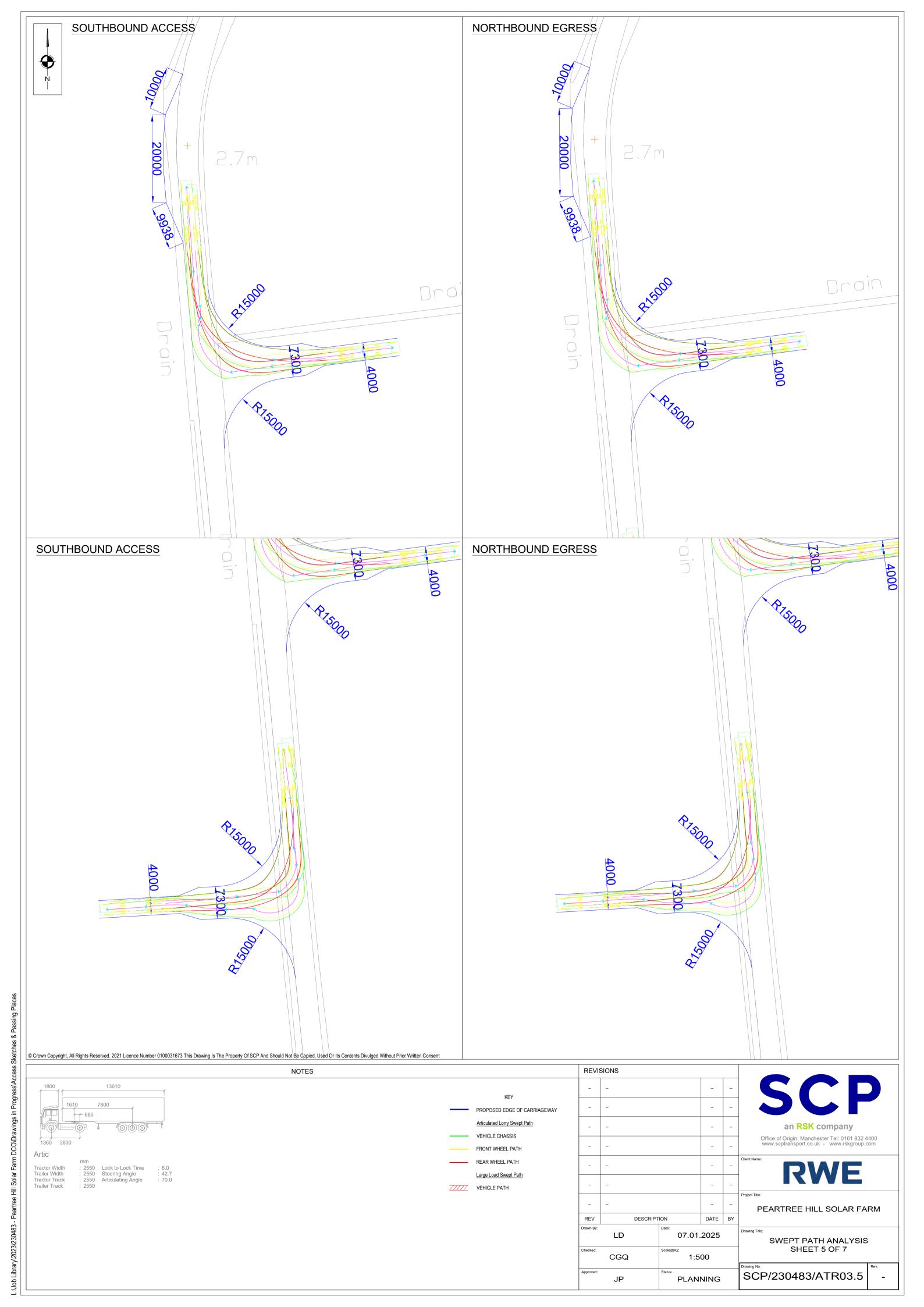


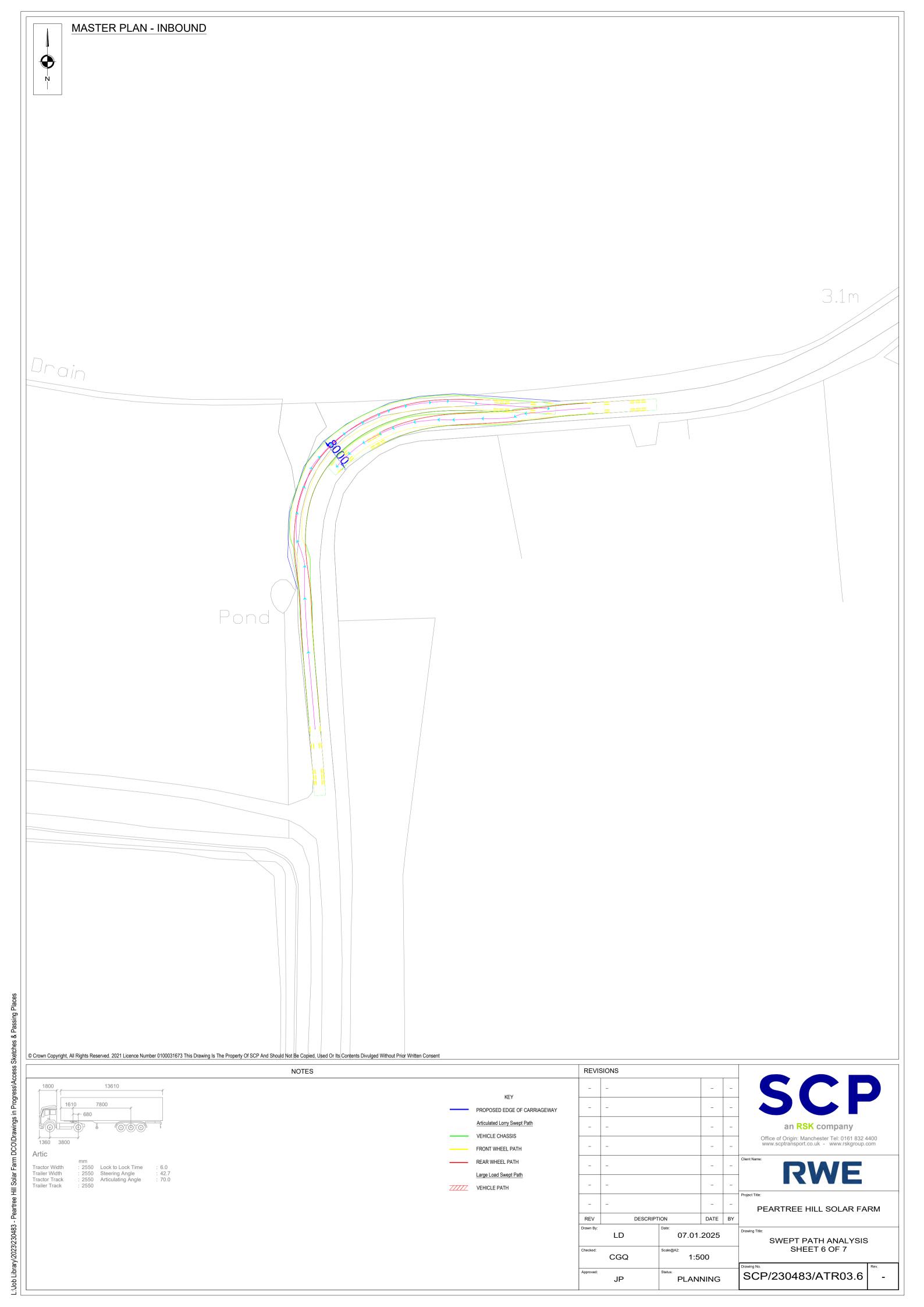


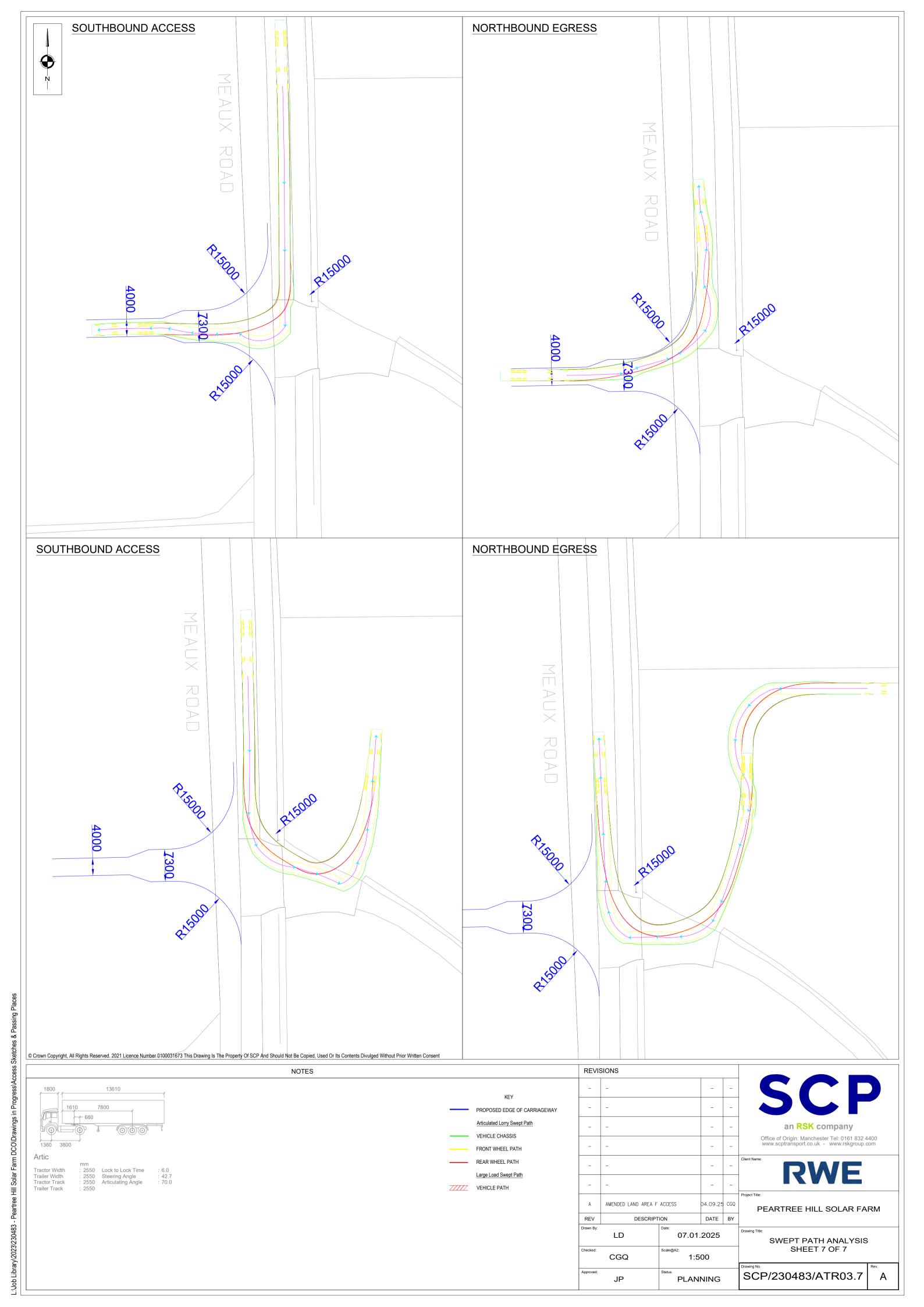


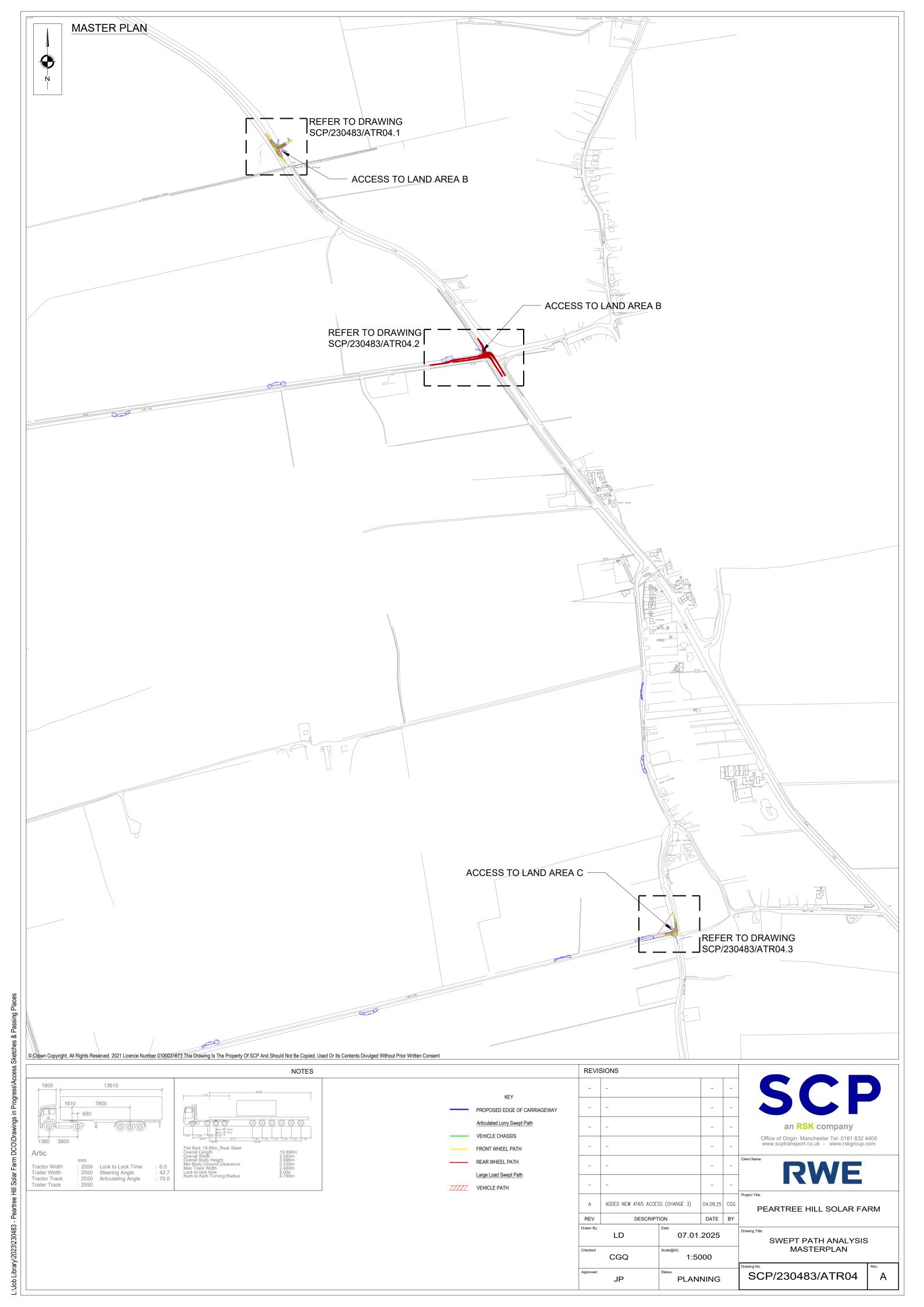


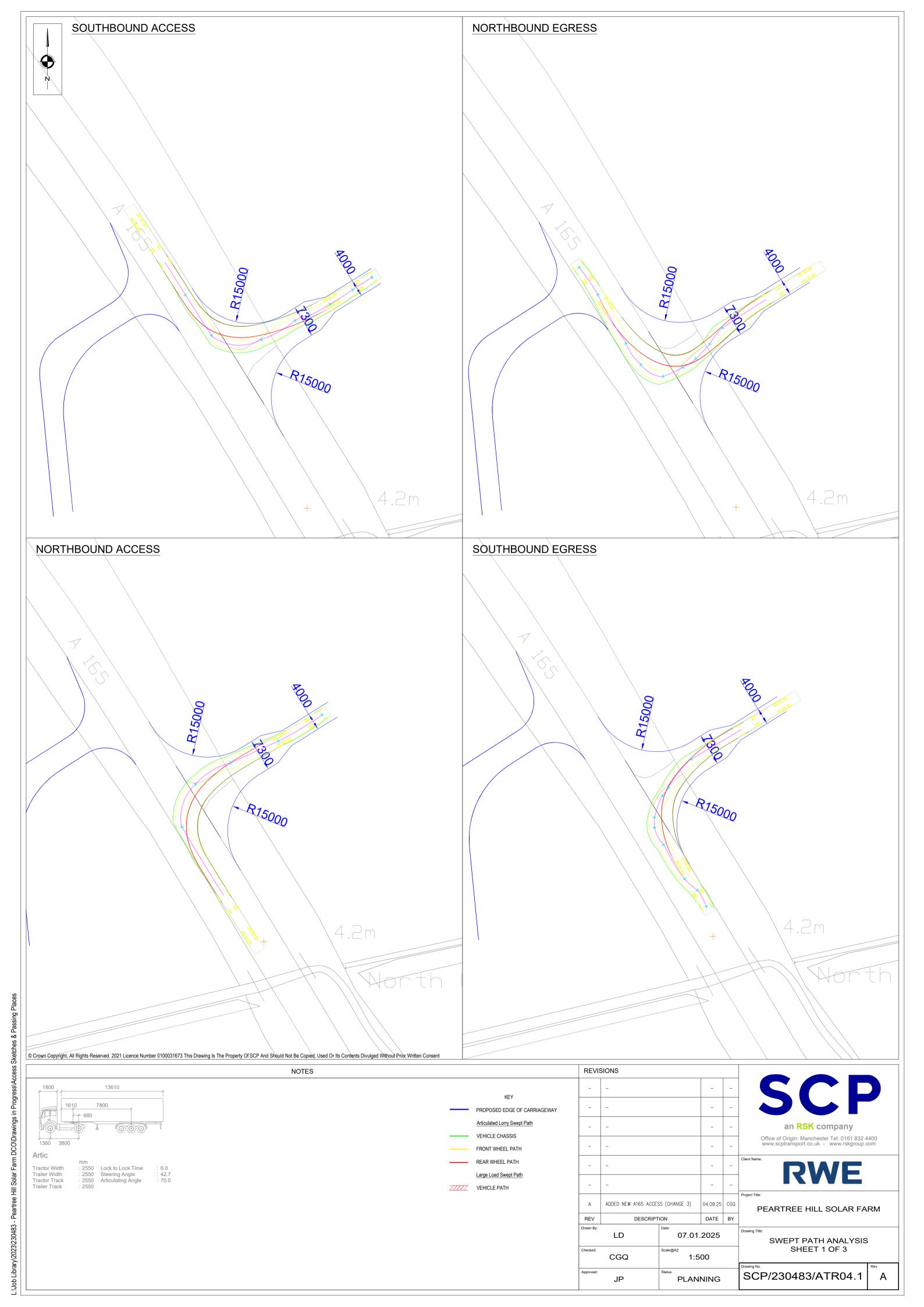


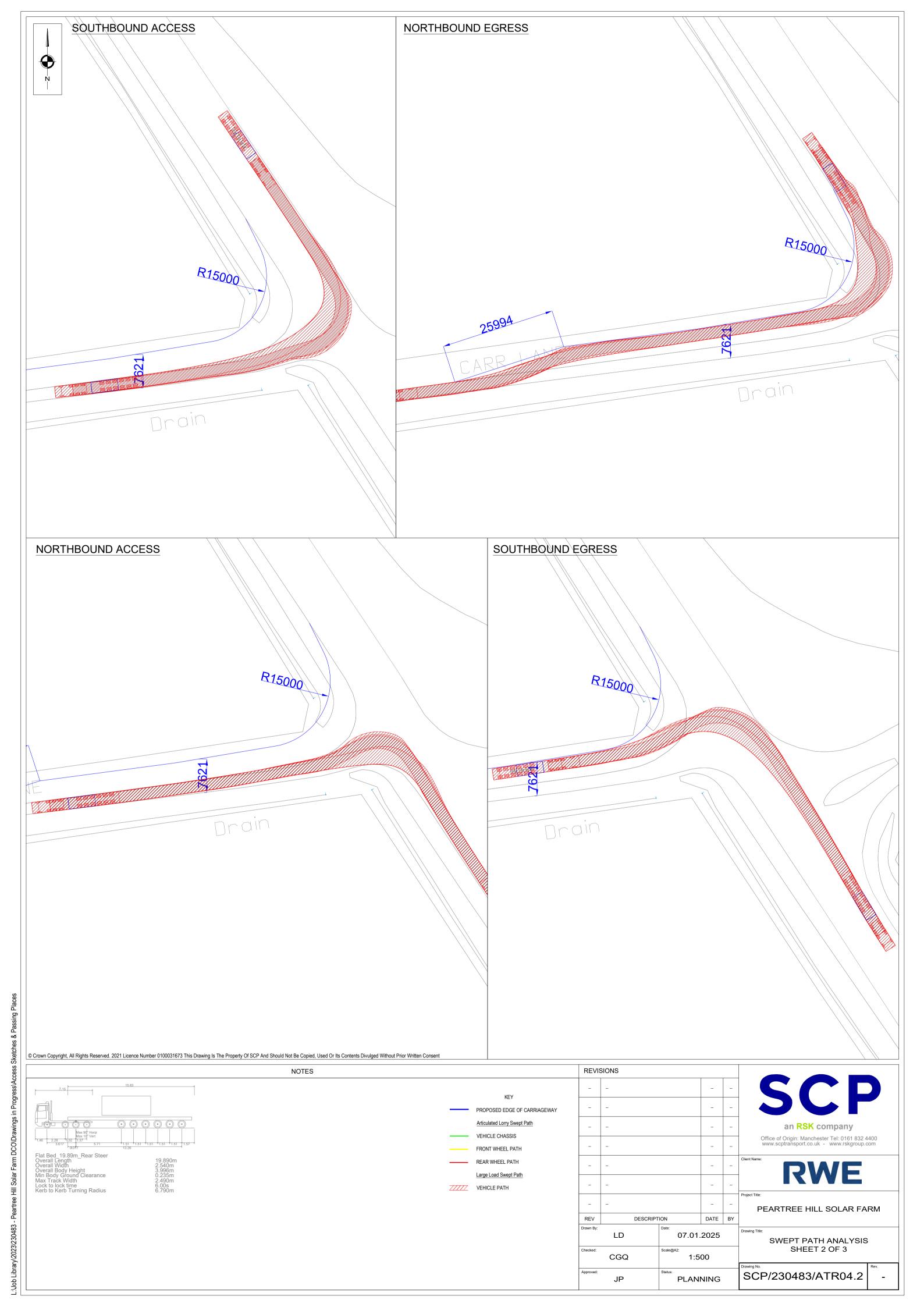


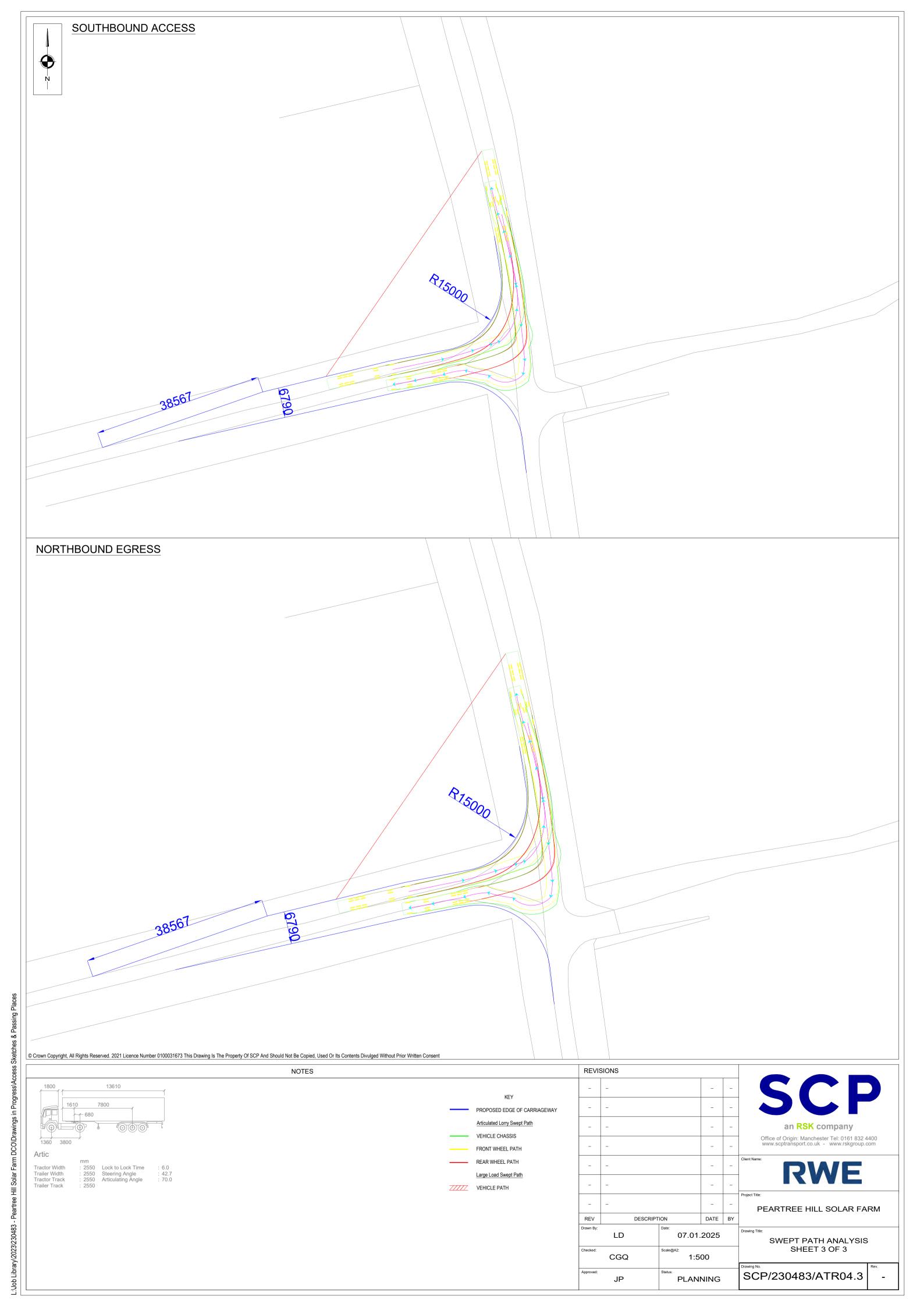


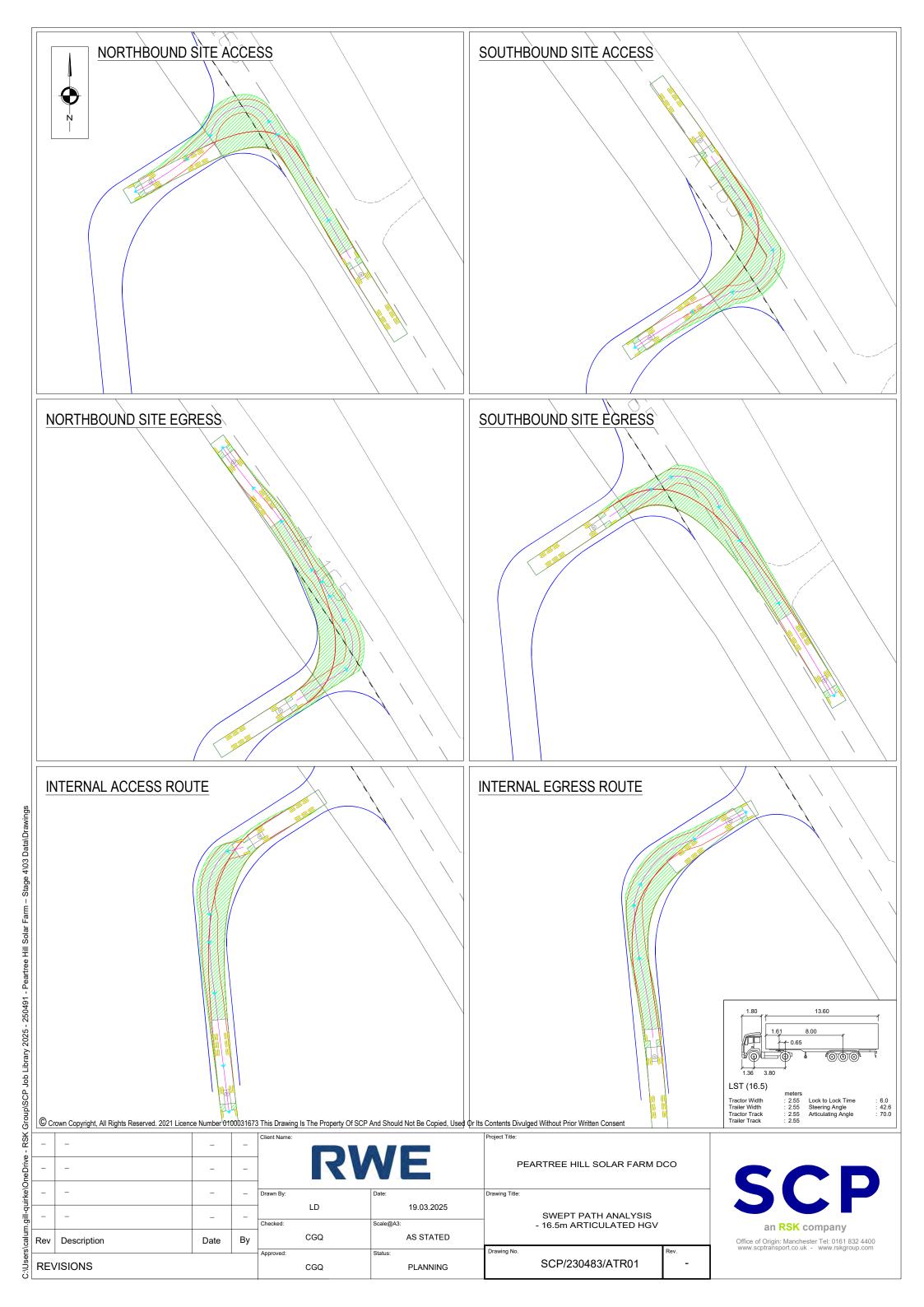


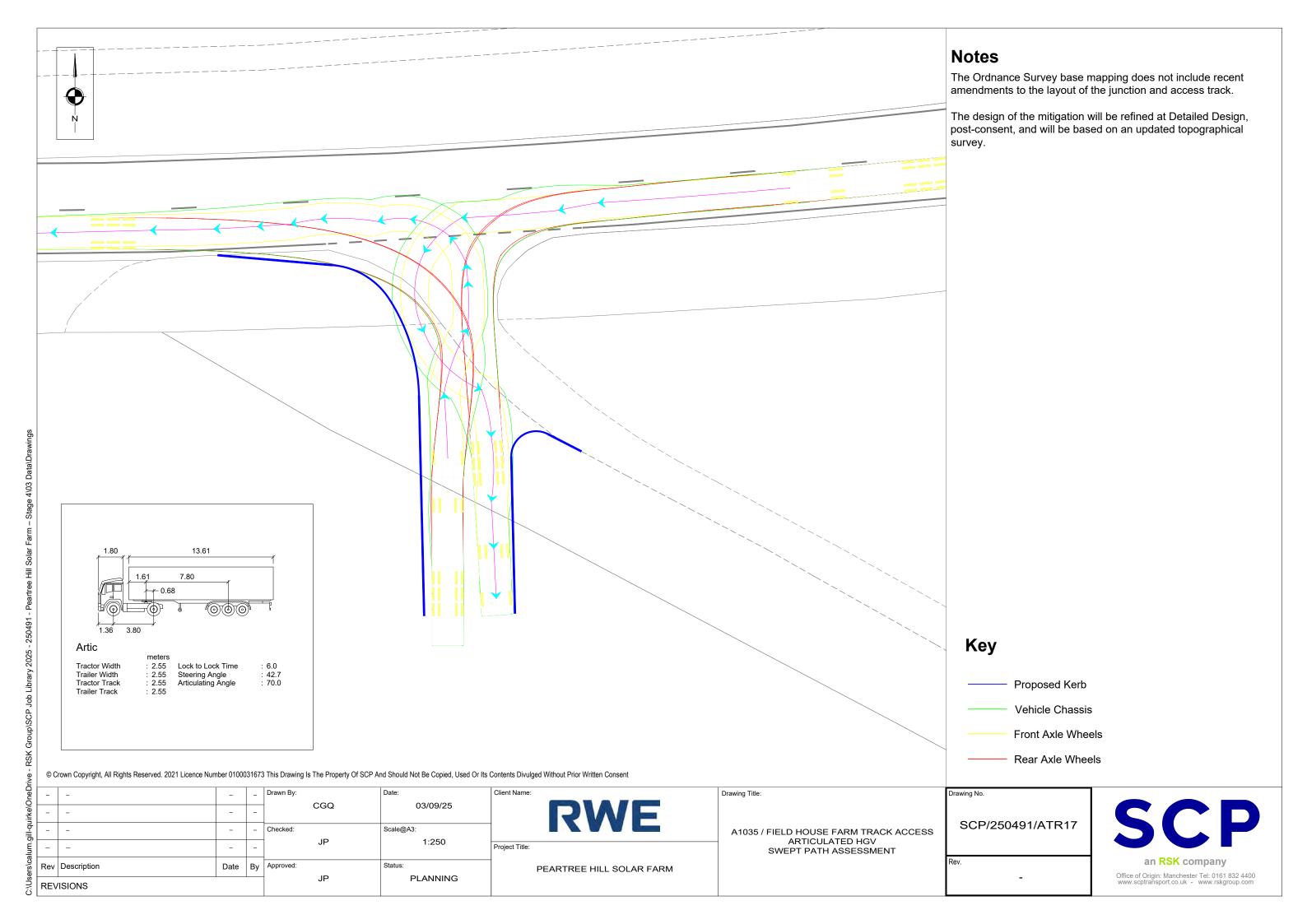


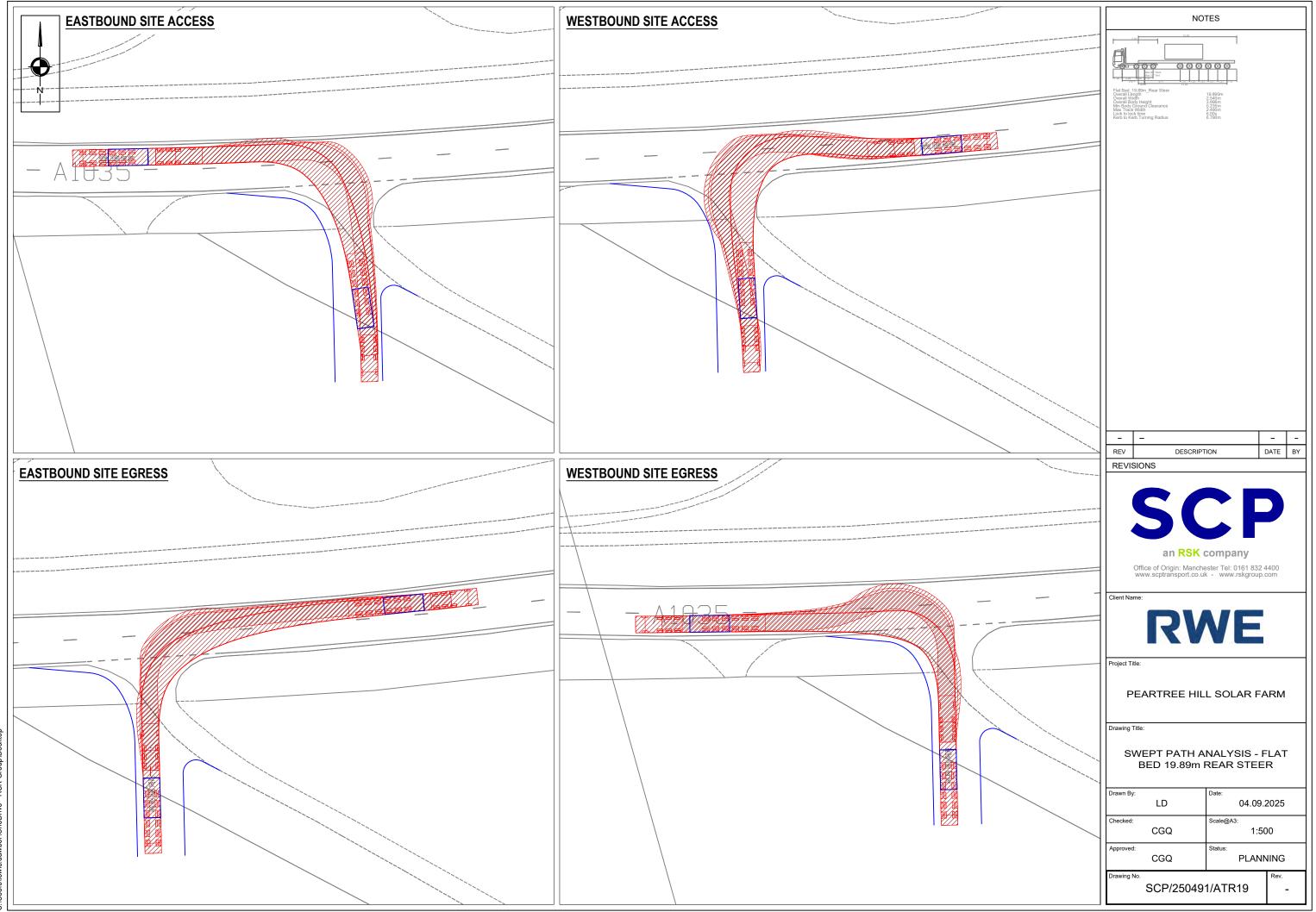


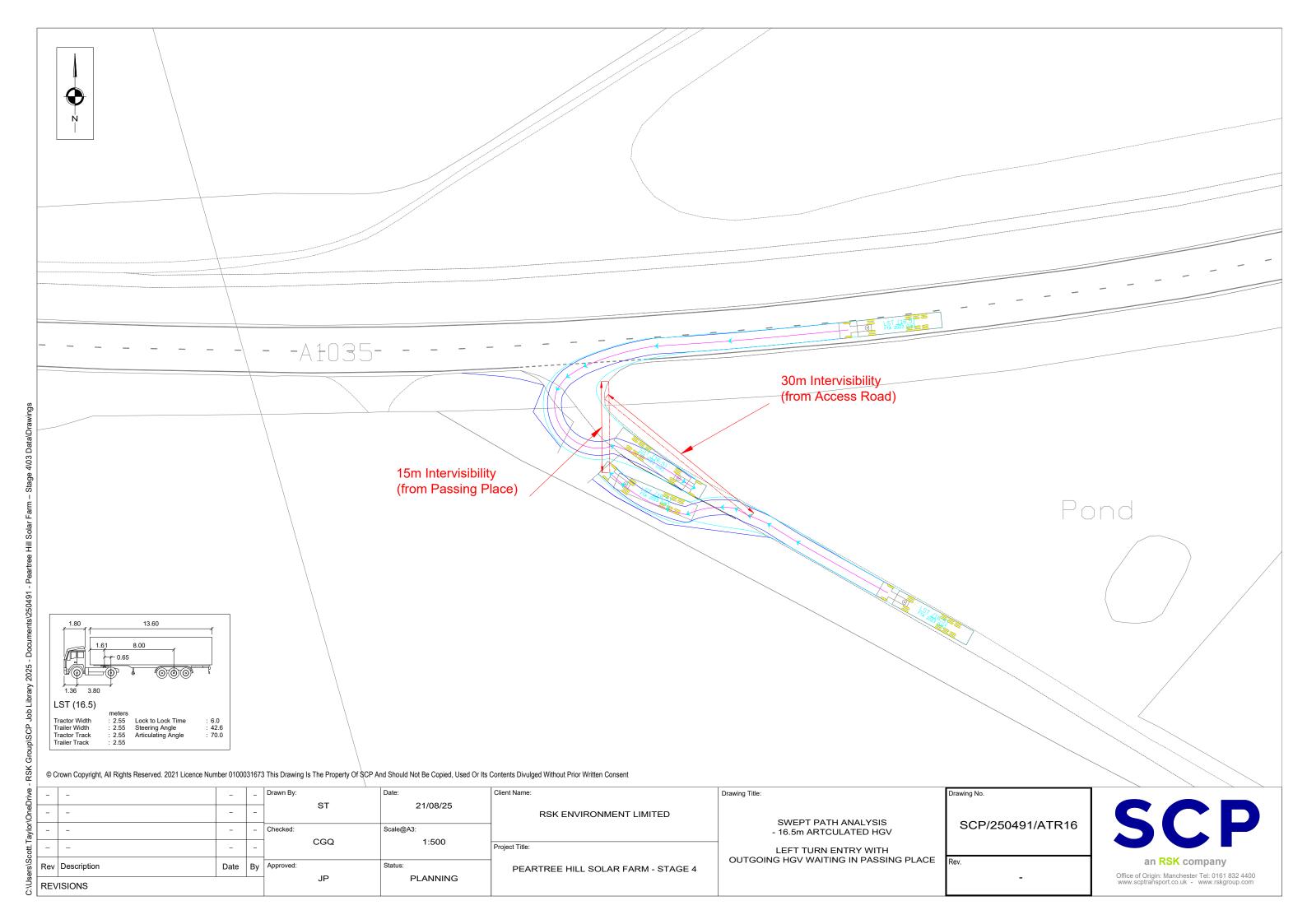


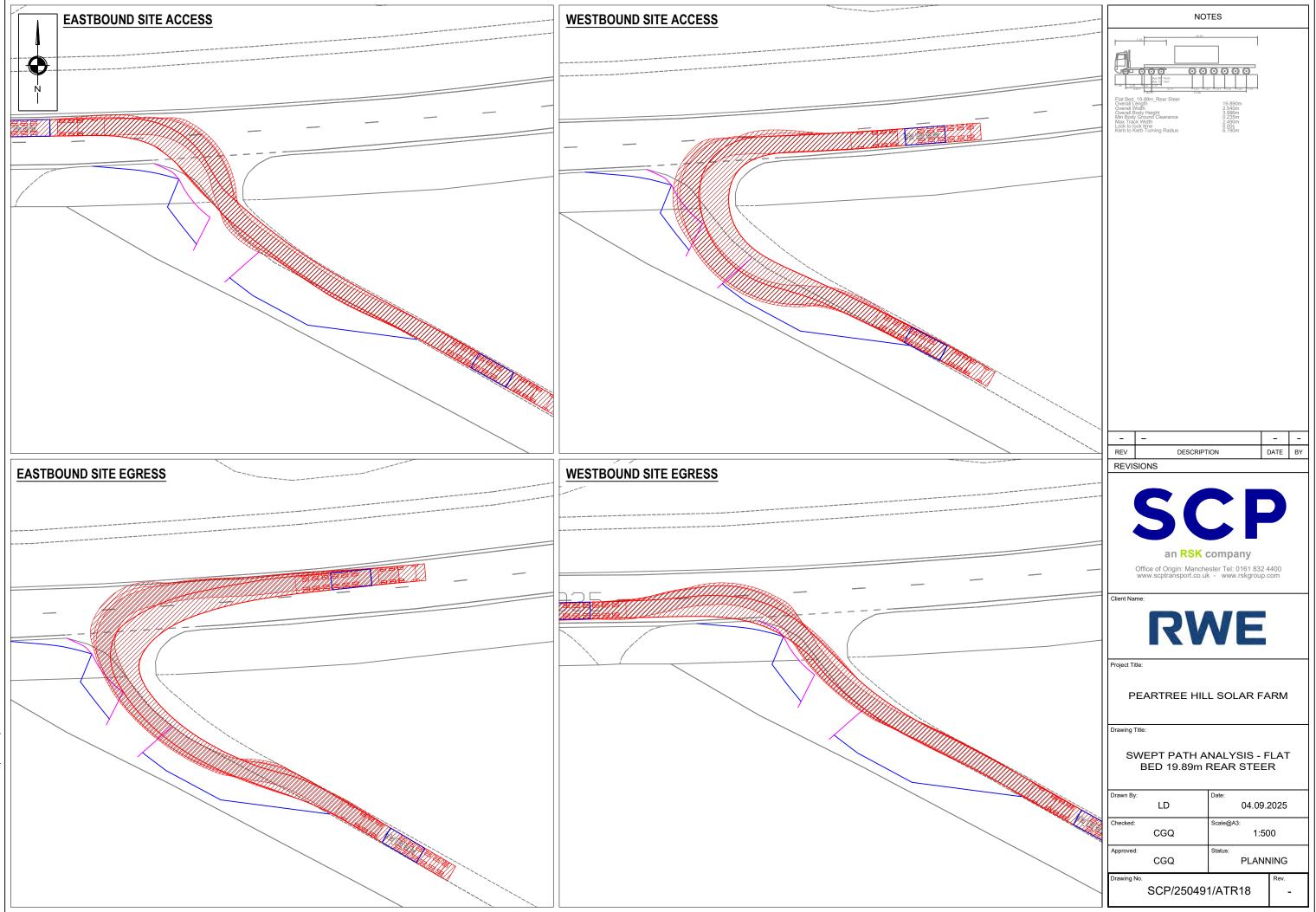


















24.03.2025

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PLANNING

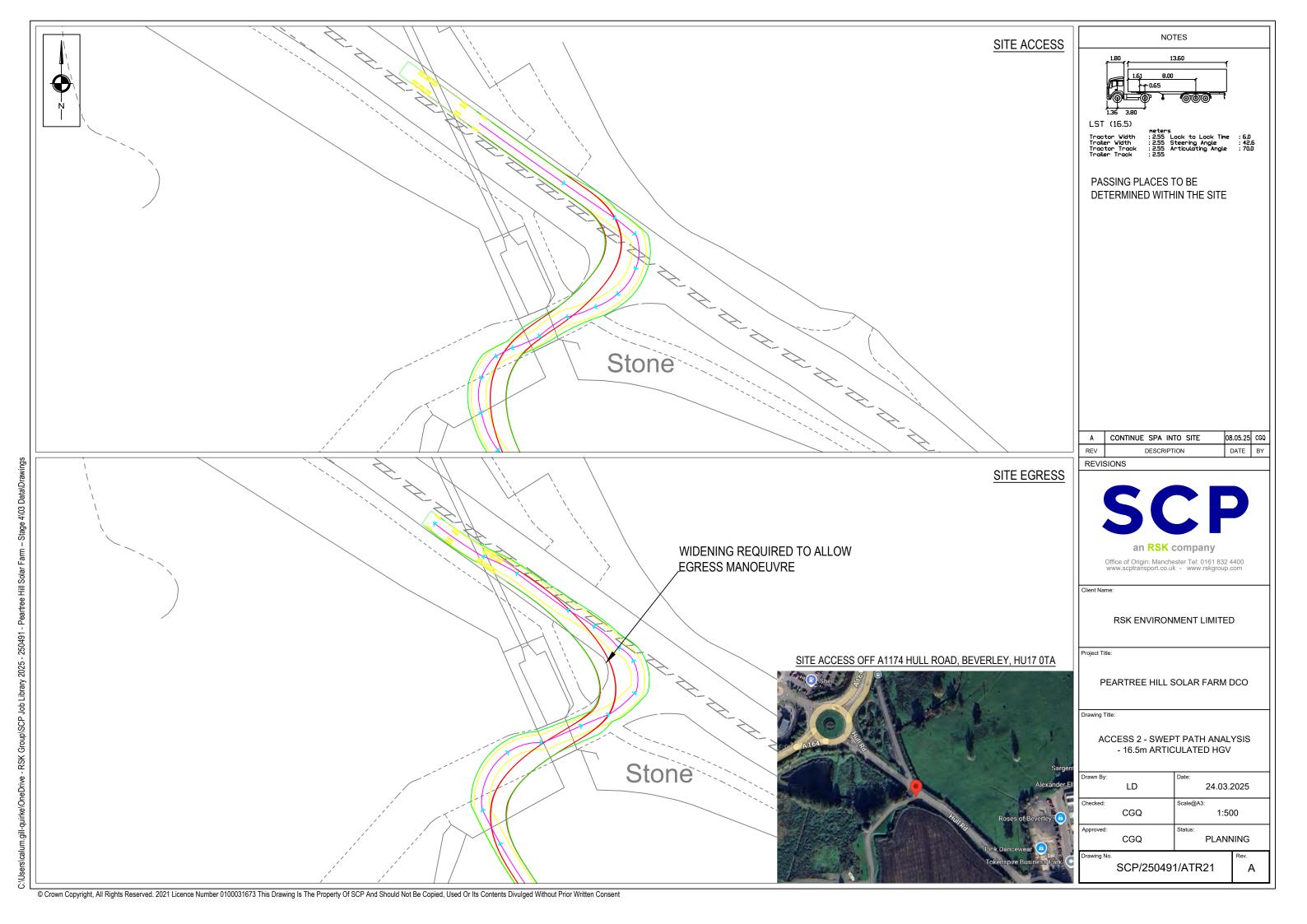
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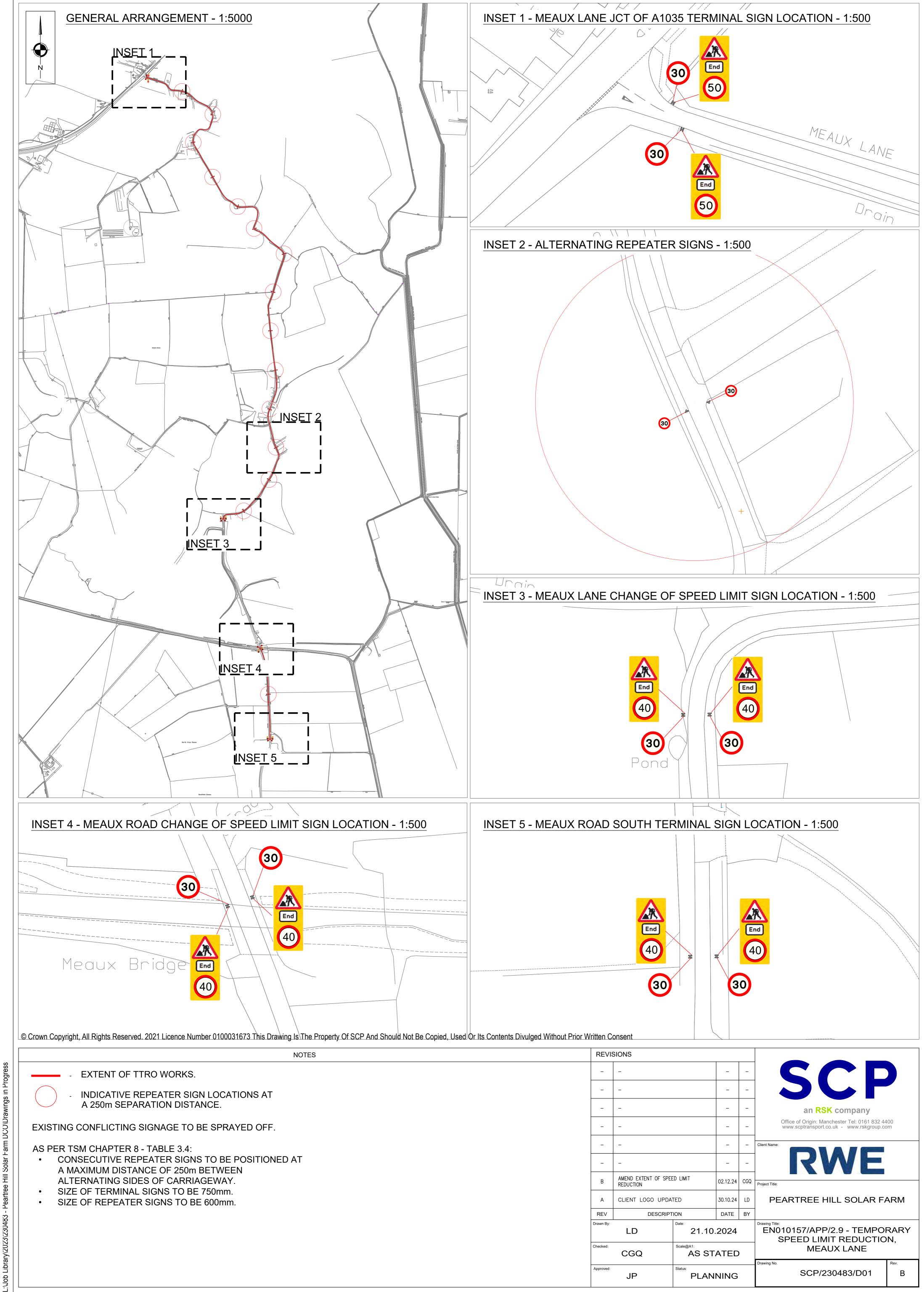
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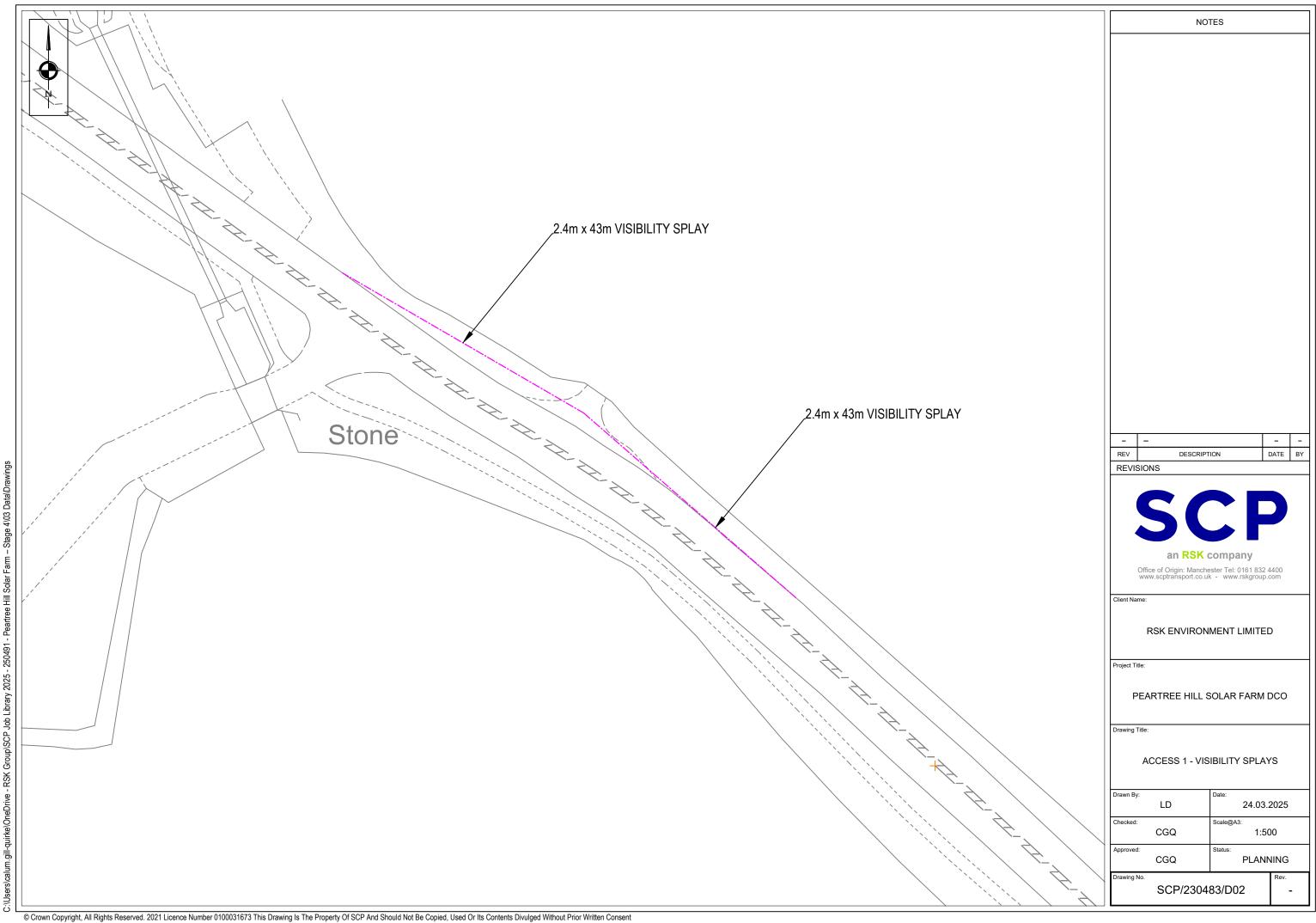
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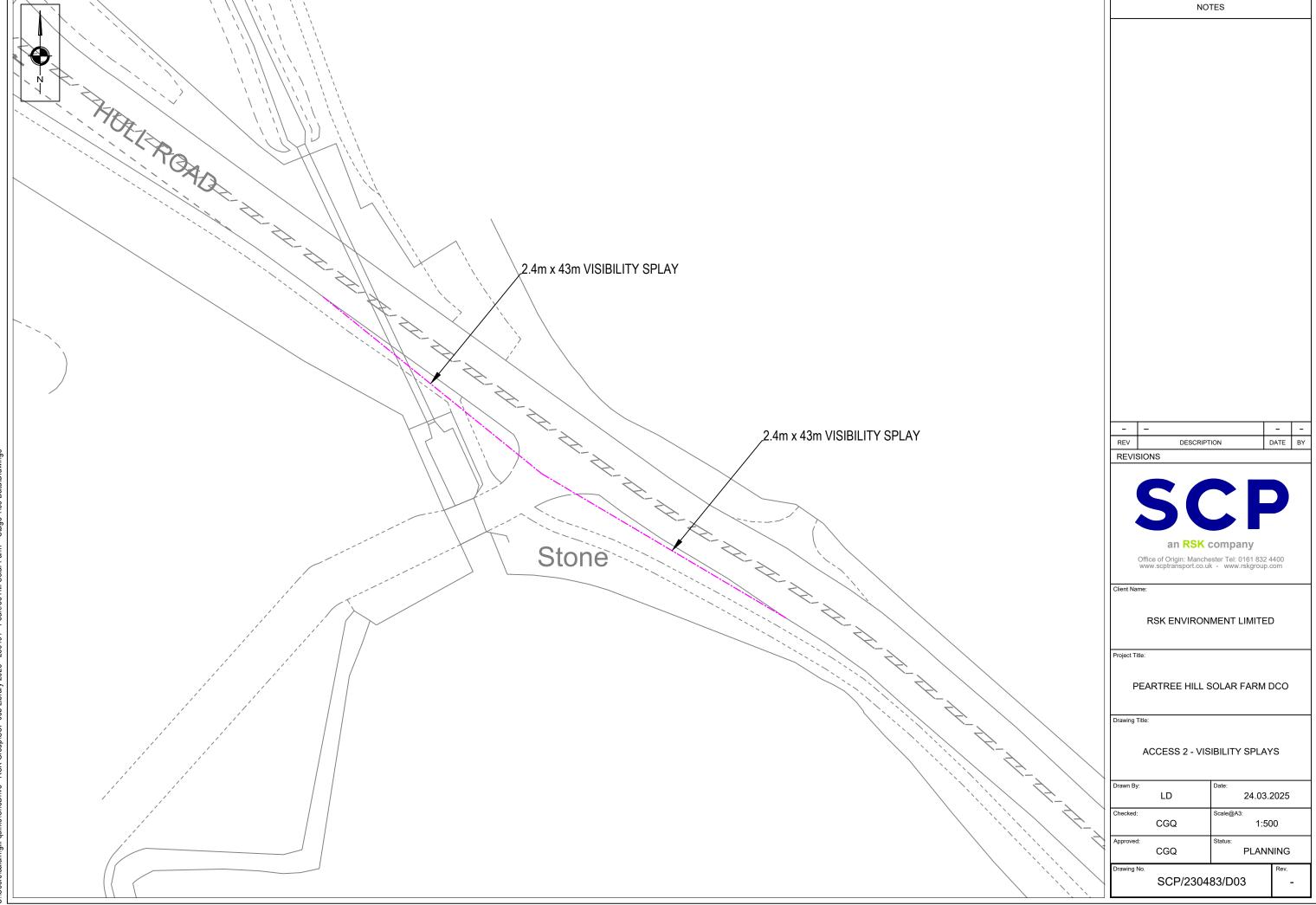
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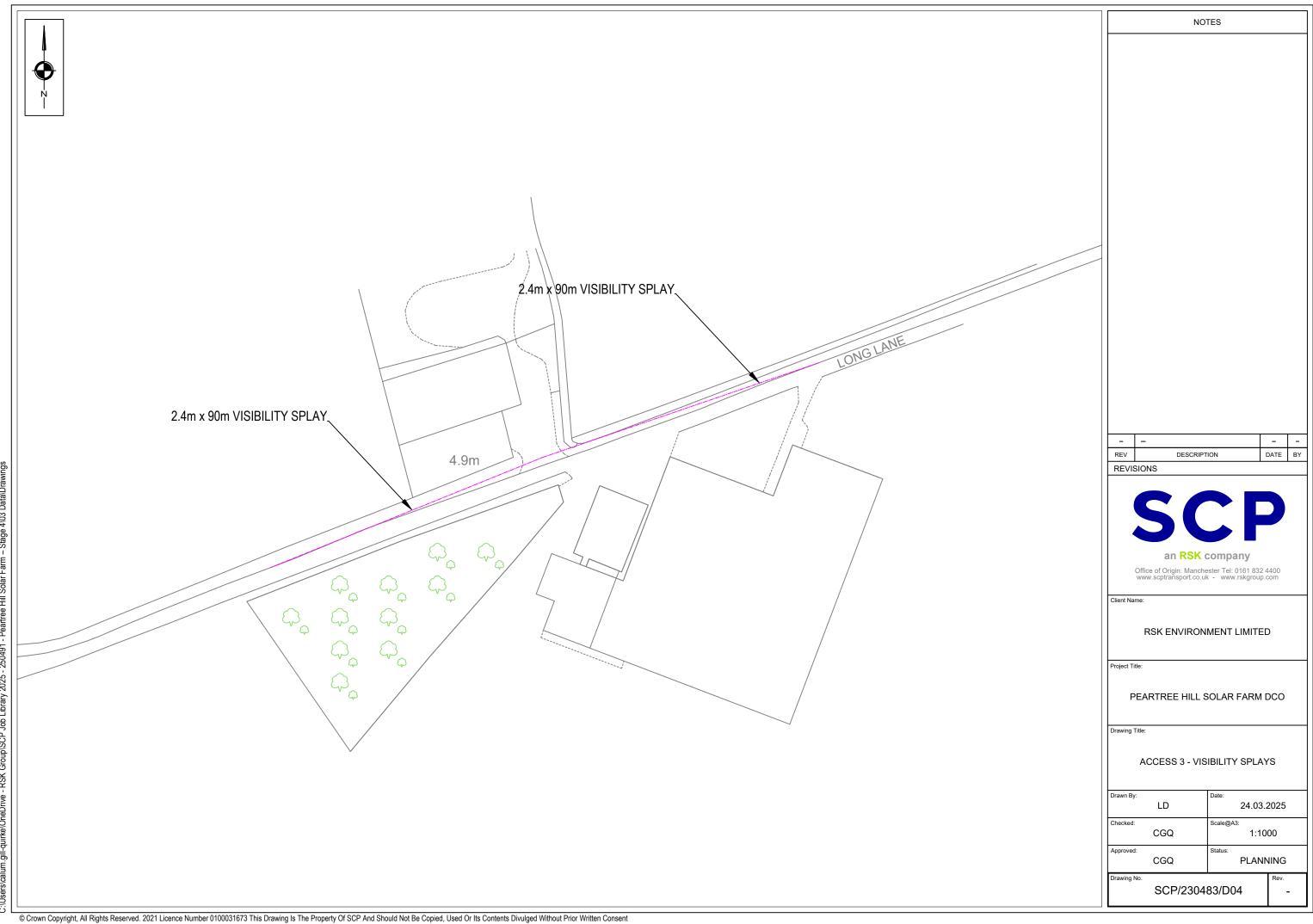
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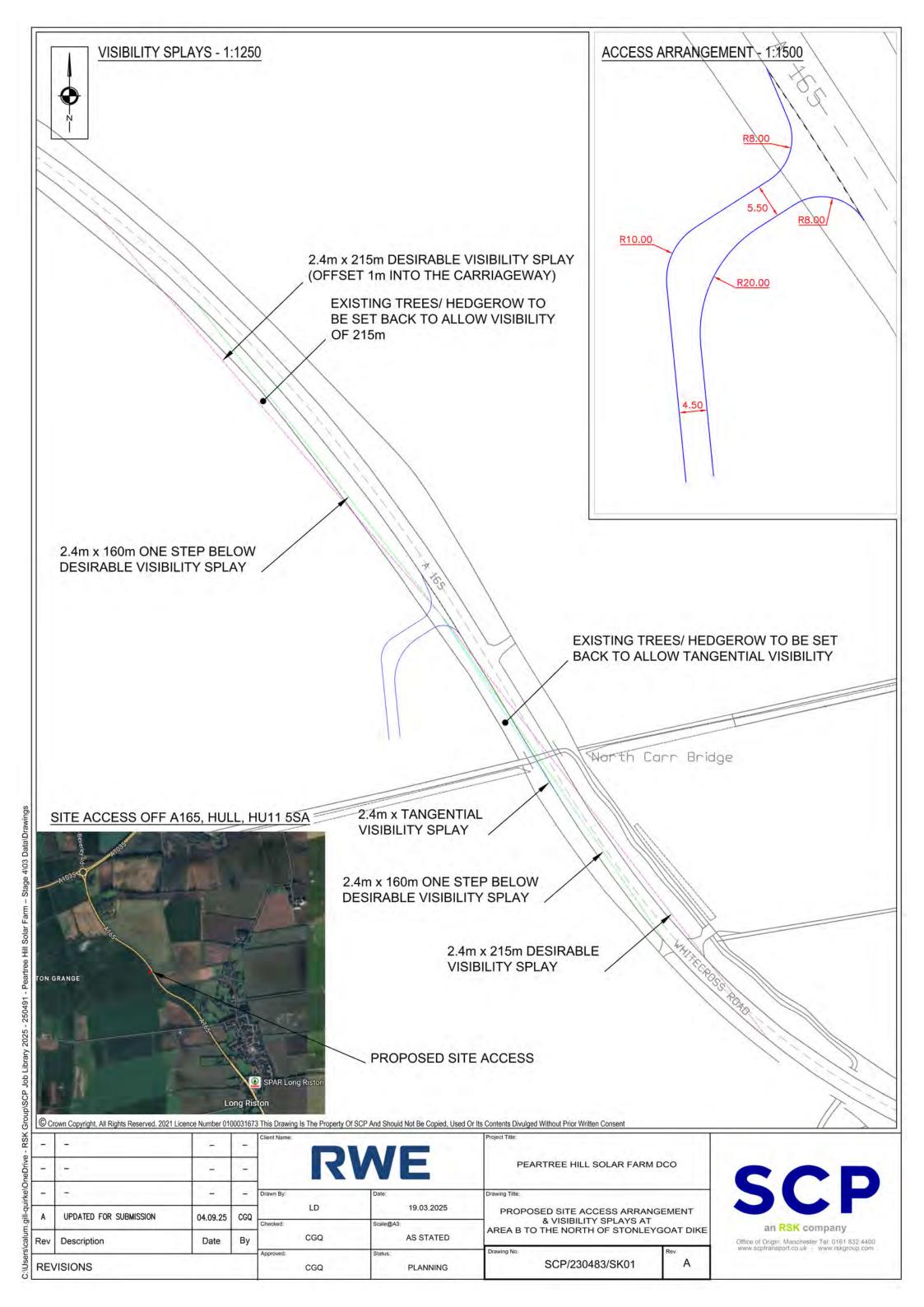


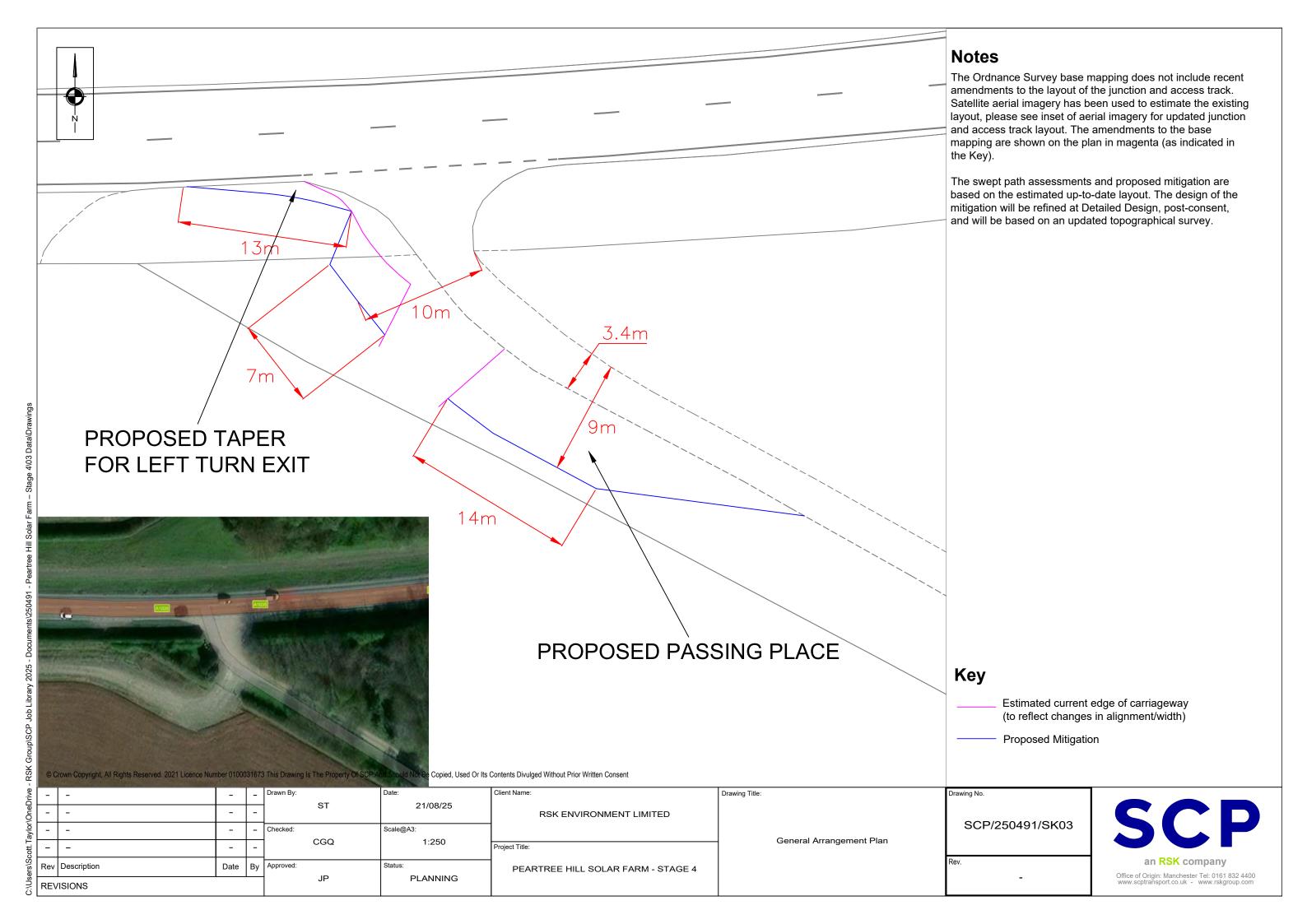


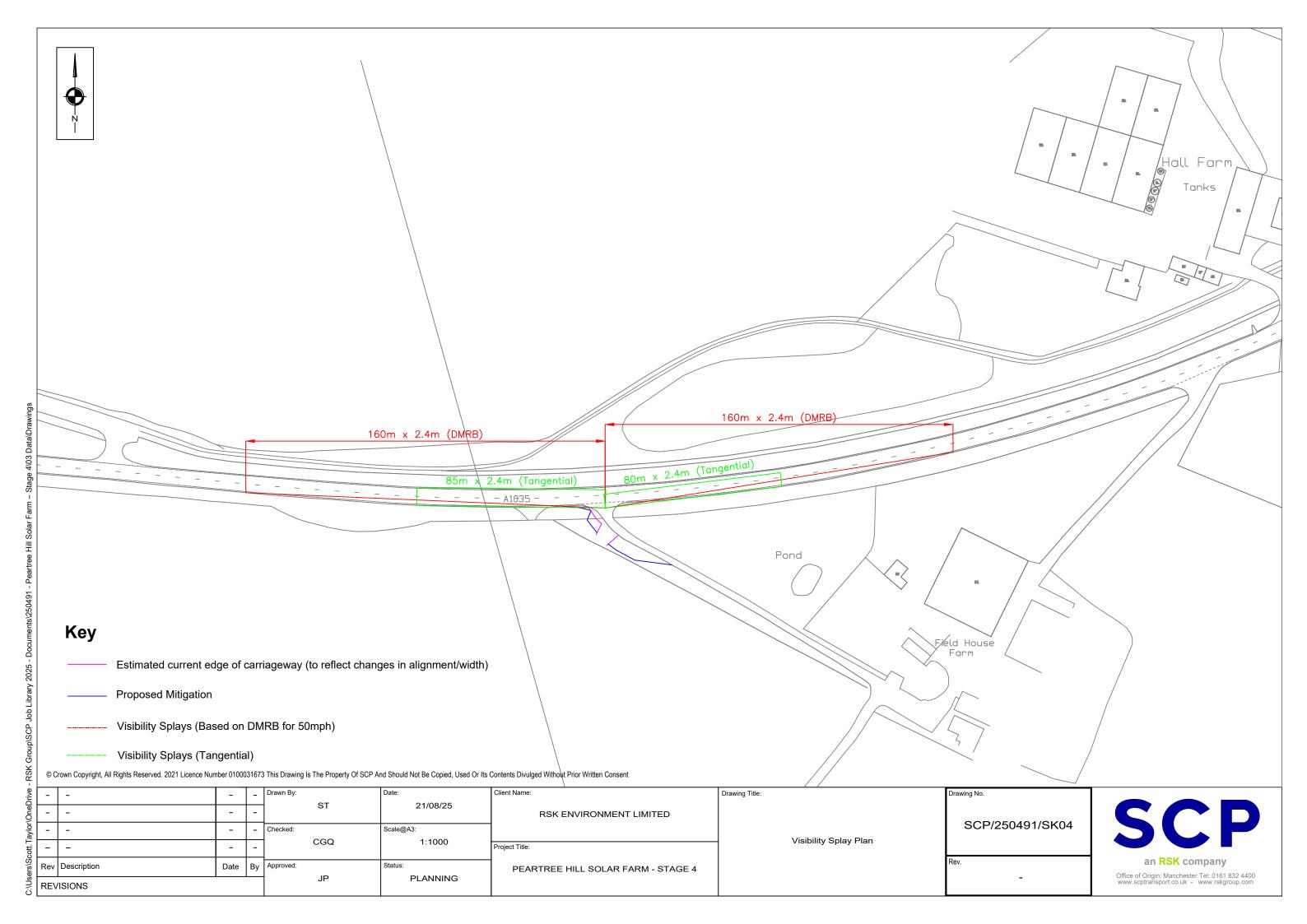


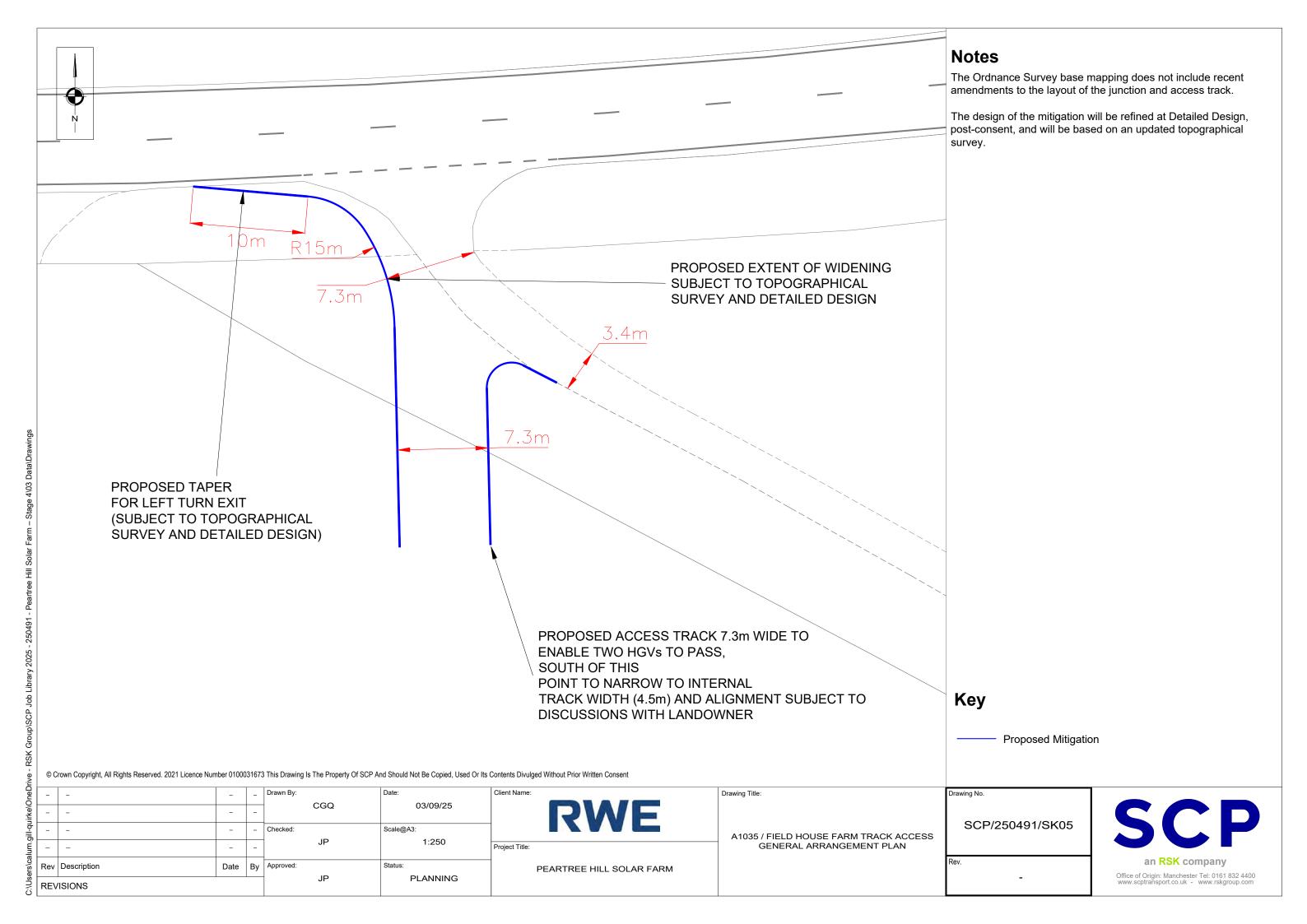


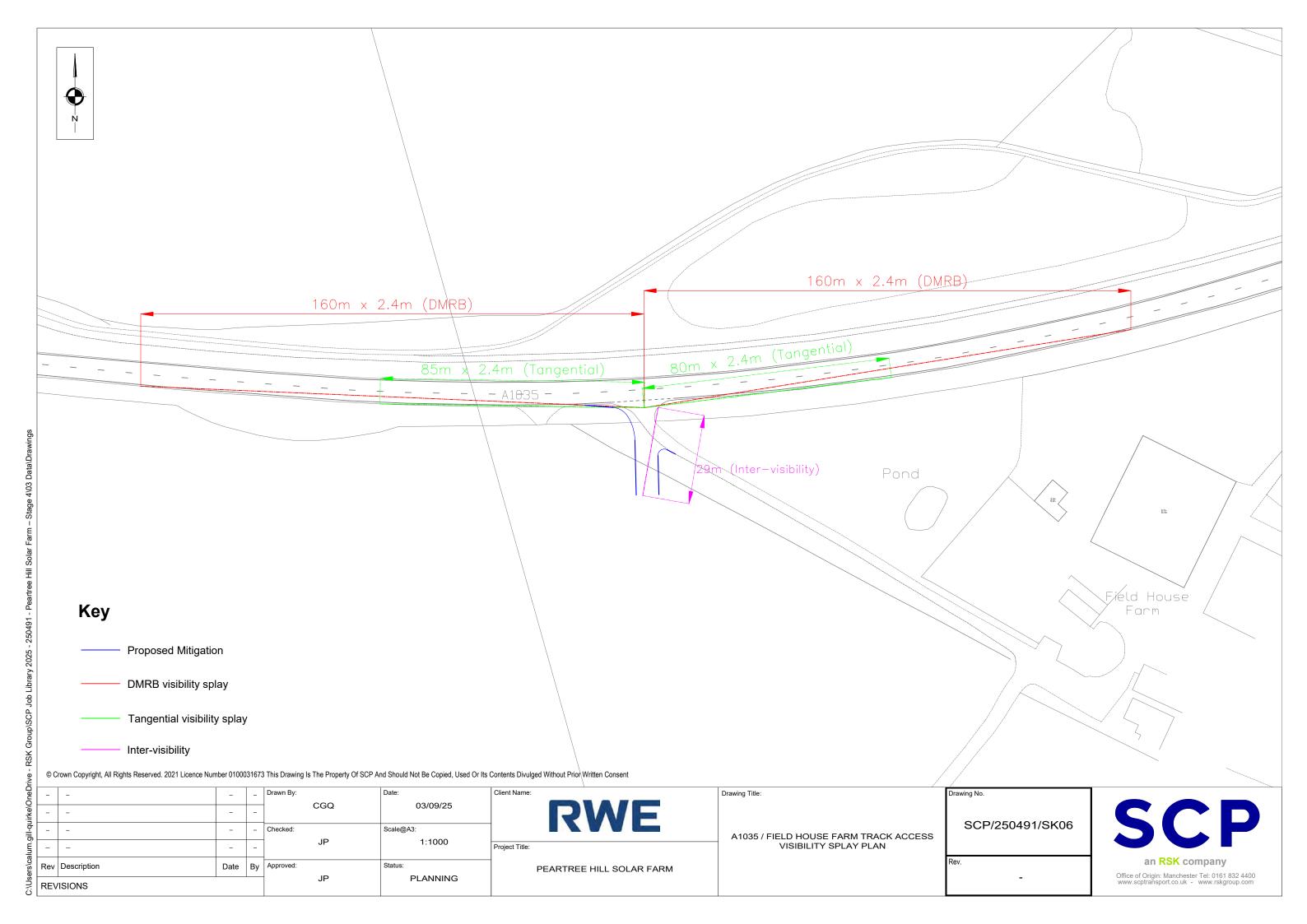


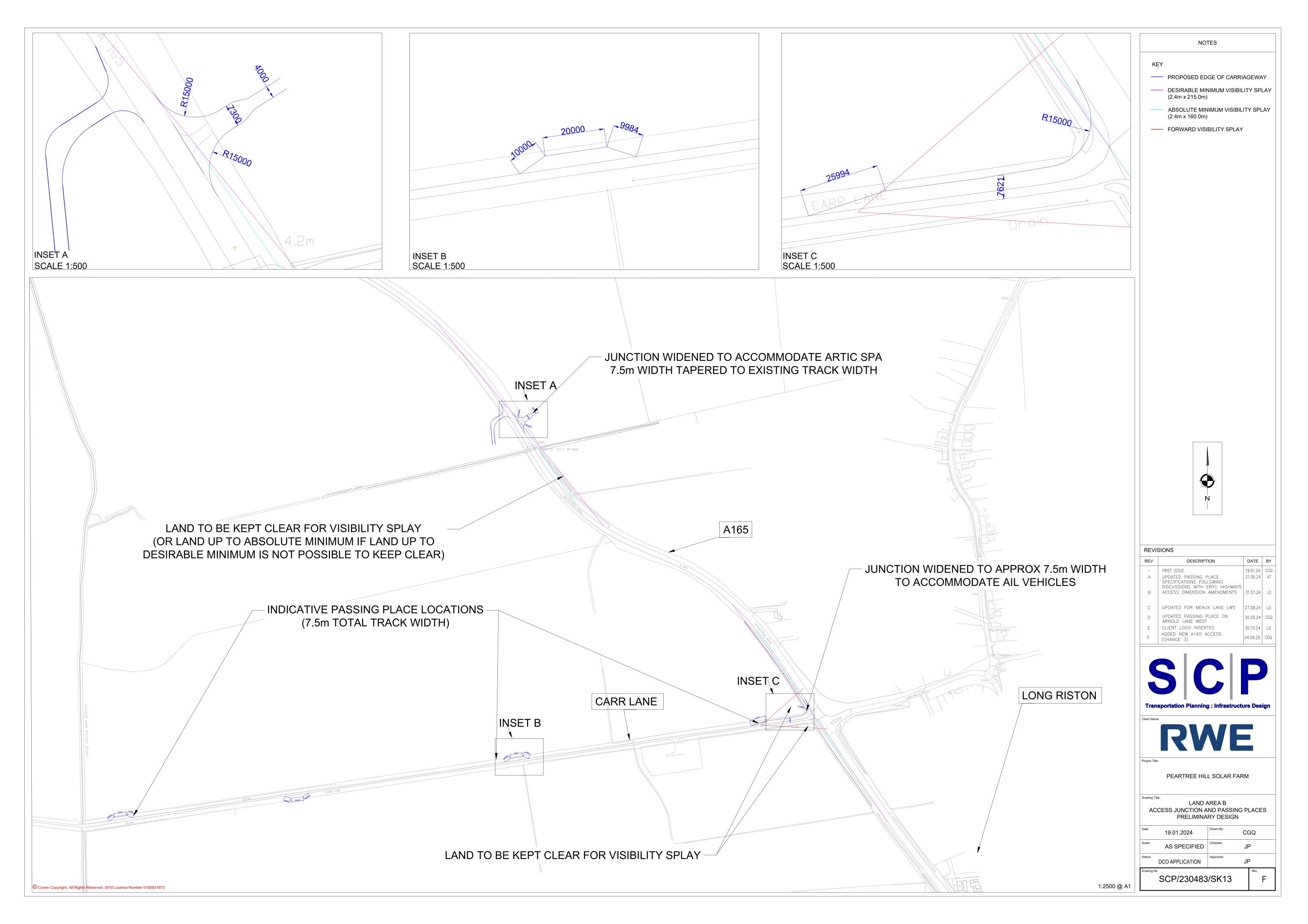




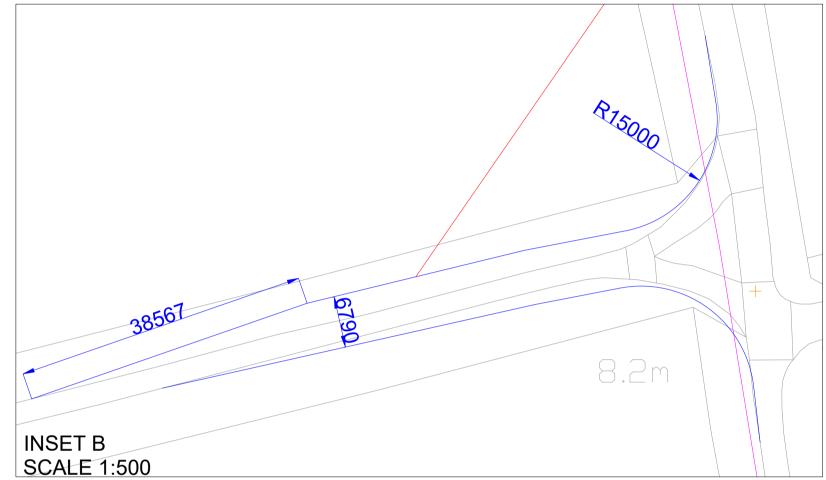


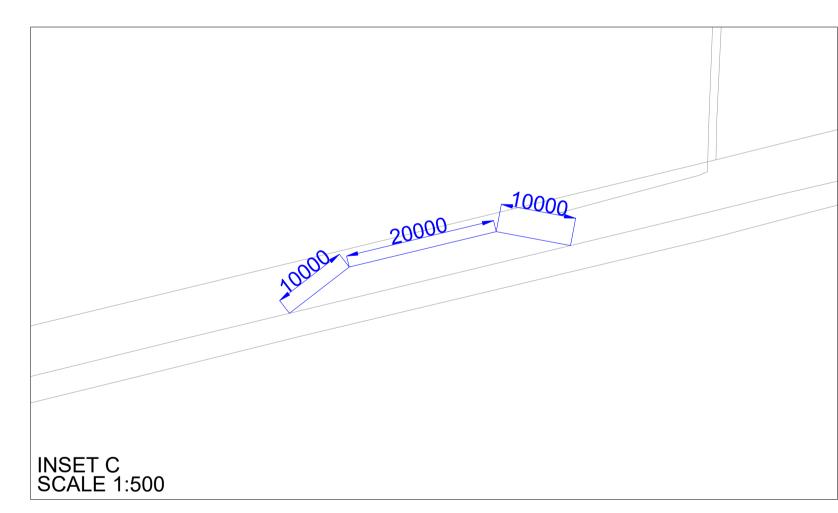


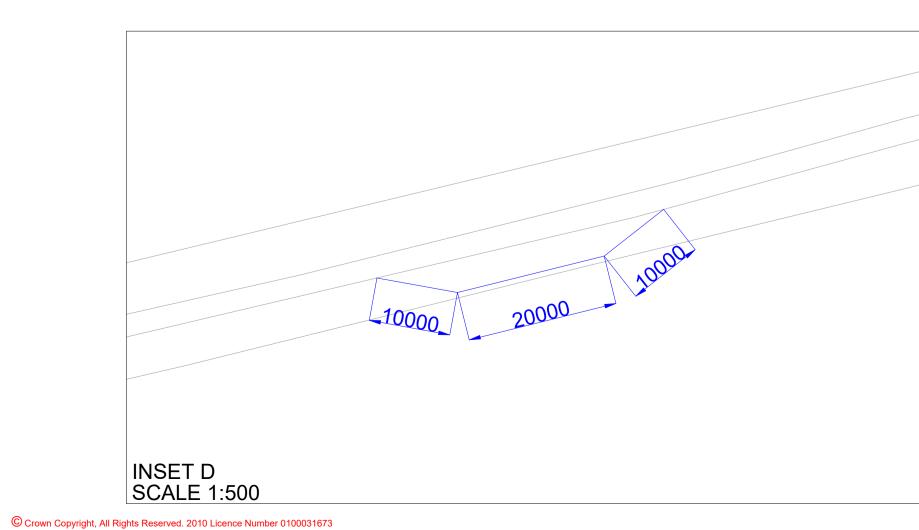


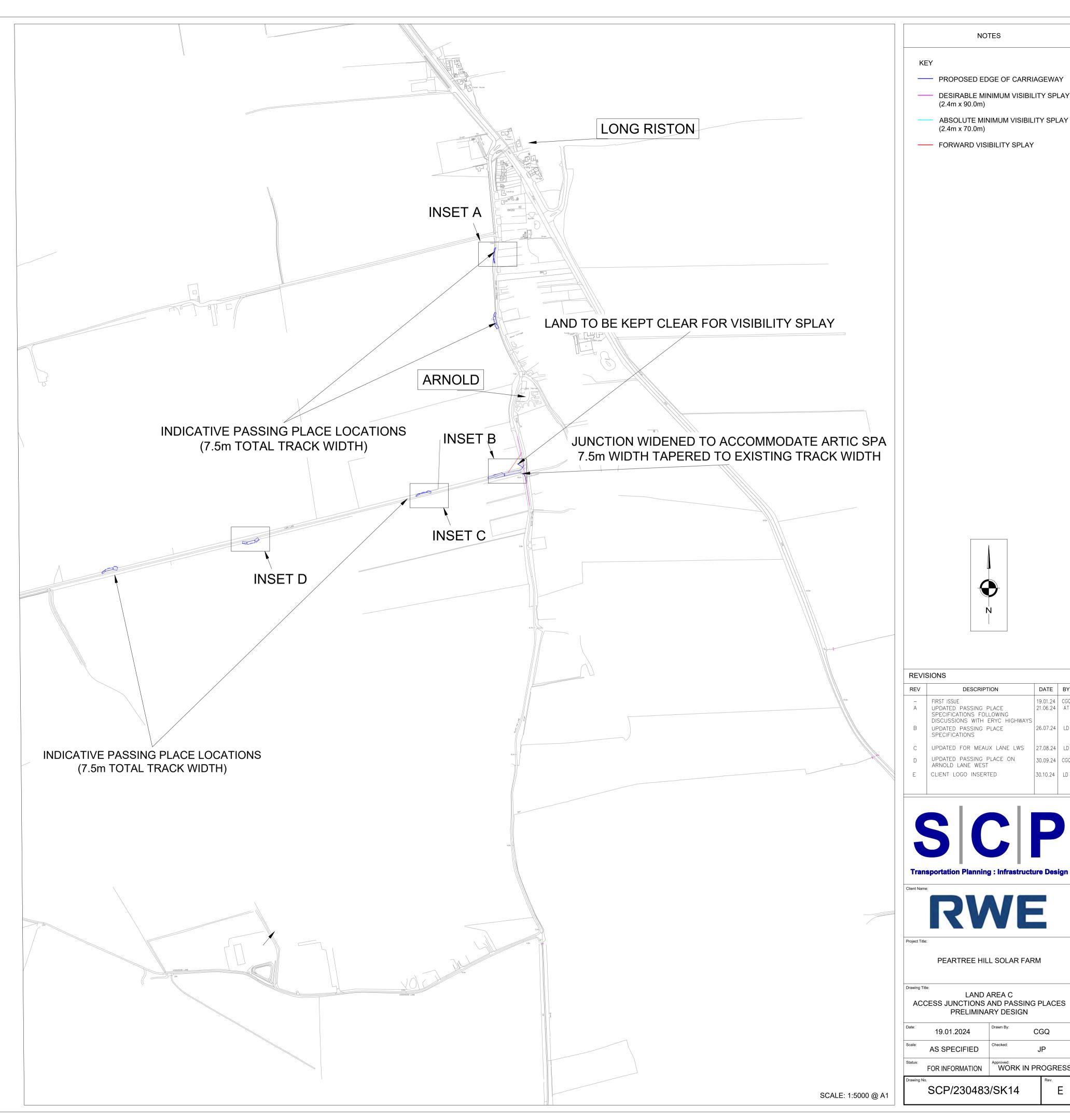












NOTES

(2.4m x 90.0m)

(2.4m x 70.0m)

DESCRIPTION

DISCUSSIONS WITH ERYC HIGHWAYS

UPDATED PASSING PLACE ON ARNOLD LANE WEST

PEARTREE HILL SOLAR FARM

PRELIMINARY DESIGN

FOR INFORMATION Approved: WORK IN PROGRESS

19.01.2024

AS SPECIFIED

SCP/230483/SK14

CLIENT LOGO INSERTED

UPDATED FOR MEAUX LANE LWS 27.08.24 LD

UPDATED PASSING PLACE SPECIFICATIONS FOLLOWING

FIRST ISSUE

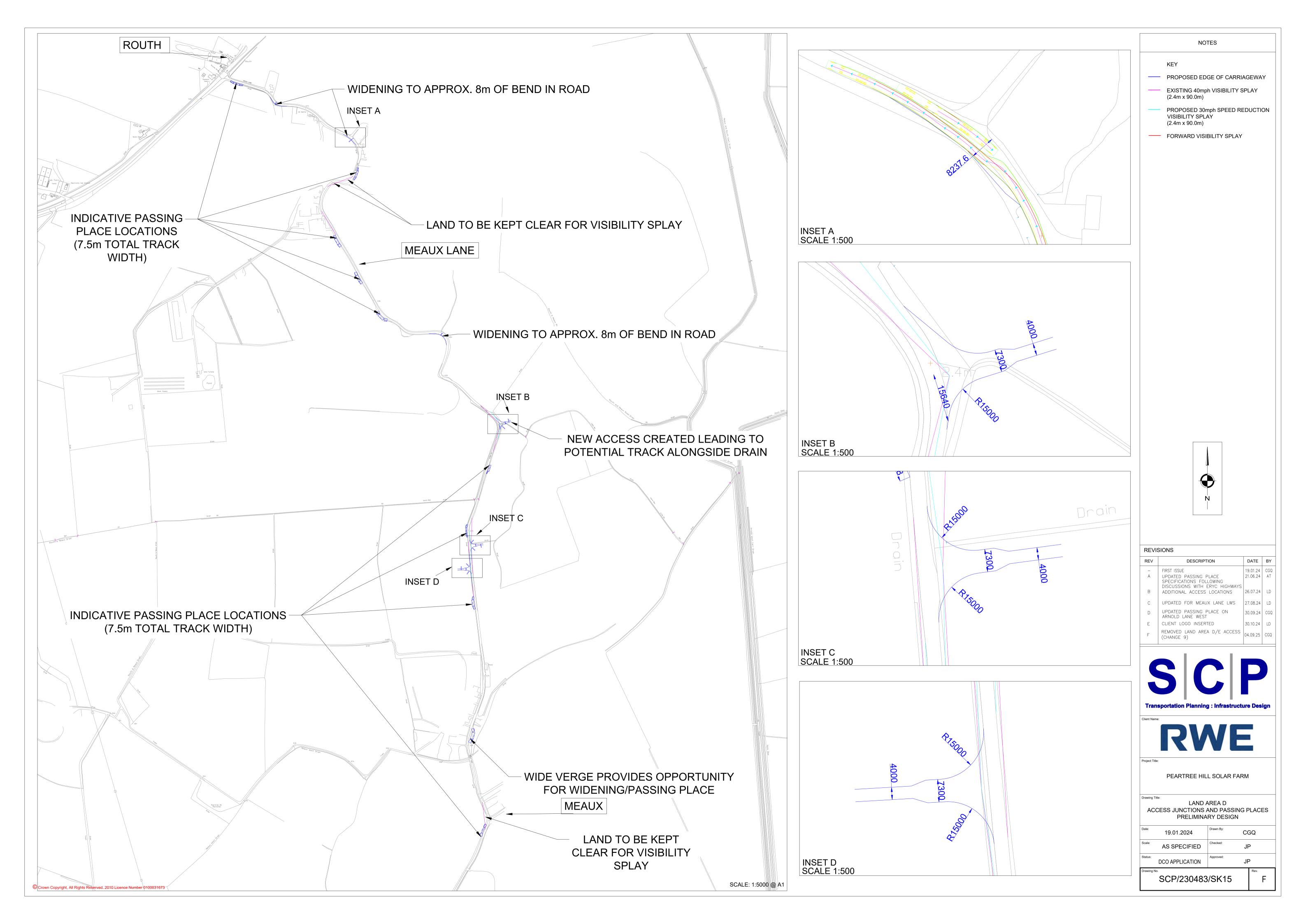
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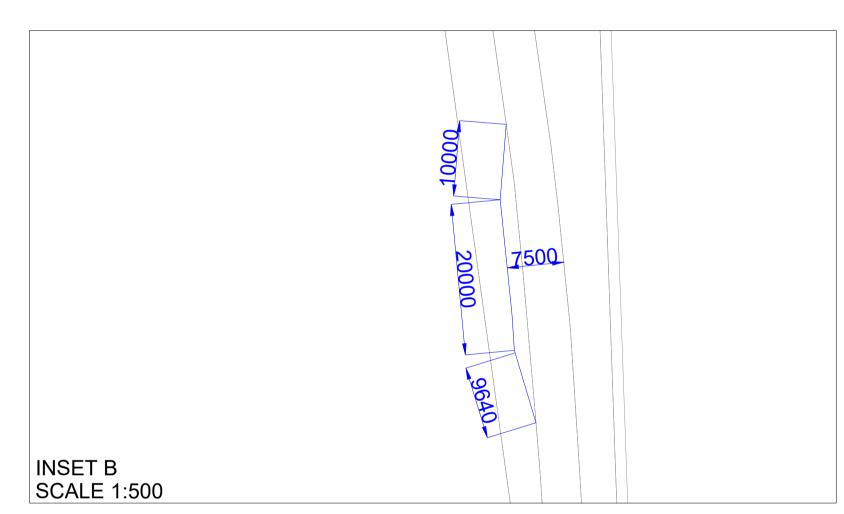
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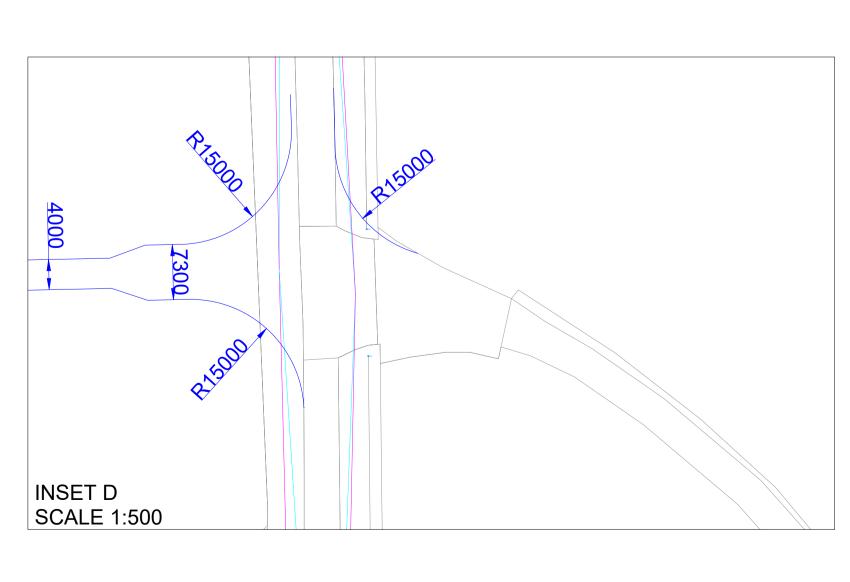
DESIRABLE MINIMUM VISIBILITY SPLAY

ABSOLUTE MINIMUM VISIBILITY SPLAY









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NOTES PROPOSED EDGE OF CARRIAGEWAY EXISTING 40mph VISIBILITY SPLAY (2.4m x 90.0m) PROPOSED 30mph SPEED REDUCTION VISIBILITY SPLAY (2.4m x 90.0m) FORWARD VISIBILITY SPLAY REVISIONS DATE BY DESCRIPTION 19.01.24 CGQ FIRST ISSUE A UPDATED PASSING PLACE
SPECIFICATIONS FOLLOWING
DISCUSSIONS WITH ERYC HIGHWAYS 21.06.24 AT B VISIBILITY SPLAY AND ACCESS DIMENSION AMENDMENTS 31.07.24 LD C UPDATED FOR MEAUX LANE LWS 27.08.24 LD UPDATED PASSING PLACE ON ARNOLD LANE WEST 30.09.24 CGQ CLIENT LOGO INSERTED 30.10.24 LD AMENDED ACCESS TO AREA F 02.12.24 CGQ





PEARTREE HILL SOLAR FARM

LAND AREA F
ACCESS JUNCTIONS AND PASSING PLACES
PRELIMINARY DESIGN

	19.01.2024	Co	GQ
Scale:	AS SPECIFIED	Checked:	D
Status:	DCO APPLICATION	Approved:	0
Drawing	No.		Rev.

SCP/230483/SK16



APPENDIX H

TEMPro Outputs

Assumptions

Future jobs reduced from 2,499 to 2,476 (baseline) to account for committed developments

2023 to 2026 All - Rural

Level Area
E02002697 East Riding of Yorkshire 014

Local Growth Figure

1.0259 AM 1.0252 PM

1.0263 AADT

Growth Factor (2026 Data/2023 Data)

Area Description		All pu	urposes
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1.0117	1.0131

Future Year (2026) - Base Year (2023)

Area Description		All p	urposes
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	20	30

Base Year (2023)

Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1,748	2,283

Future Year (2026)

Area Description		All p	urposes
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1,768	2,313

Assumptions

Future jobs reduced from 2,472 to 2,440 (baseline) to account for committed developments

Growth Factor (2026 Data/2024 Data)

Area Description		All purposes		AM	1.0095
Level	Name	Origin	Destination	PM	1.0090
E02002697	East Riding of Yorkshire 014	1.0088	1.0089	AADT	1.0089

Future Year (2026) - Base Year (2024)

- 4		-, ,		
	Area Description		All purposes	
	Level	Name	Origin	Destination
	E02002697	East Riding of Yorkshire 014	69	69

Base Year (2024)

Area Description		All p	urposes
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	7,861	7,877

Future Year (2026)

Area Description		All pu	urposes
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	7,930	7,946

Assumptions

No reduction to baseline due to lack of information about committed developments since 2016 **2016 to 2026** All - Rural



- ☐ E02002684 : East Riding of Yorkshire 001 4
- ☐ E02002585 : East Riding of Yorkshire 002 \$
- ☐ E02002686 : East Riding of Yorkshire 003 1
- E02002687 : East Riding of Yorkshire 004 &
- ☐ E02002688 : East Riding of Yorkshire 005 &
- ☐ E02002689 : East Riding of Yorkshire 006 &
- $\hfill\Box$ E02002691 : East Riding of Yorkshire 008 §
- $\hfill\Box$ E02002692 ; East Riding of Yorkshire 009 \P
- ☐ E02002693 : East Riding of Yorkshire 010 4
- \Box E02002694 $^{\circ}$ East Riding of Yorkshire 011 4
- □ E02002095 : East Riding of Yorkshine 012 \$
- ☐ E02002696 : East Riding of Yorkshire 013 \$
- ☑ E02002697 : East Riding of Yorkshire 014 \$

Level Area

Local Growth Figure

E02002697 East Riding of Yorkshire 014

1.0493 AM 1.0375 PM 1.0486 AADT

Growth Factor (2026 Data/2016 Data)

	, , , , , , , , , , , , , , , , , , , ,		
Area Description		All purposes	
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	1.0320	1.0493

Future Year (2026) - Base Year (2016)

Area Description		All pu	urposes
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	69	66

Base Year (2016)

Area Description		All p	urposes
Level	Name	Origin	Destination
E02002697	East Riding of Yorkshire 014	2,152	1,344

Future Year (2026)

	Area Description	All p	urposes	
Level	Level Name			
E02002697	East Riding of Yorkshire 014	2,221	1,410	



APPENDIX I

Junctions 10 Modelling Output Files



Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023

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Filename: A165_Arnold Lane West Priority.j10

Path: C:\Users\calum.gill-quirke\OneDrive - RSK Group\SCP Job Library 2025 - 250491 - Peartree Hill Solar Farm - Stage 4\03

Data\Traffic modelling\Junction Models (TA) Report generation date: 22/08/2025 12:16:22

»2023 Base, AM

»2023 Base, PM

»2026 Base, AM

»2026 Base, PM

»2026 + Committed, AM

»2026 + Committed, PM

»2026 + Committed + Dev, AM

»2026 + Committed + Dev, PM

Summary of junction performance

		А	.M				Р	M		
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2023	Base				
Stream B-AC	D1	0.2	12.56	0.11	В	D2	0.1	7.84	0.08	Α
Stream C-AB	Di	0.0	5.70	0.01	Α	DZ	0.0	5.40	0.02	Α
					2026	Base				
Stream B-AC	D3	0.2	12.87	0.11	В	D4	0.1	8.02	0.08	Α
Stream C-AB	DS	0.0	5.74	0.01	Α	D4	0.0	5.43	0.02	Α
				202	6 + C	ommitt	ed			
Stream B-AC	D5	0.2	17.28	0.15	С	D6	0.1	9.01	0.09	Α
Stream C-AB	DS	0.0	6.86	0.01	Α	D0	0.0	5.43	0.02	Α
			20)26 +	Com	mitted	+ Dev			
Stream B-AC	D7	0.3	17.95	0.15	С	D8	0.2	8.73	0.14	Α
Stream C-AB	57	0.1	7.24	0.05	Α	D6	0.0	5.43	0.02	Α

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.



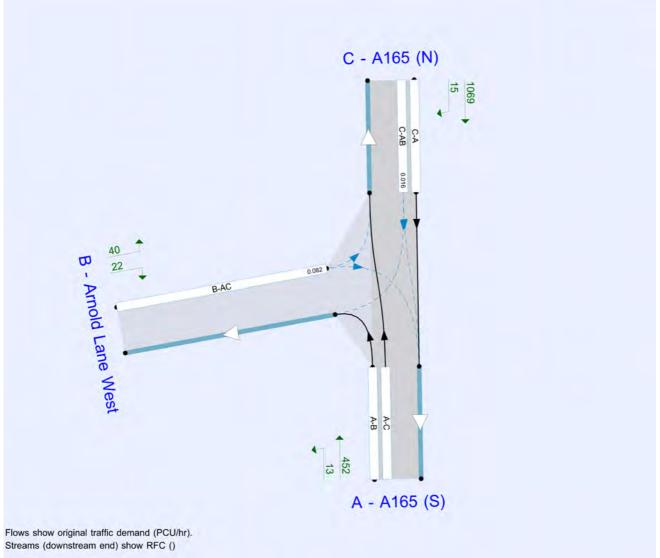
File summary

File Description

Title	
Location	
Site number	
Date	03/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75					·	0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	00:00	01:30	15	✓
D2	2023 Base	PM	ONE HOUR	00:00	01:30	15	✓
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓
D4	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓
D5	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓
D6	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓
D7	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D8	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000



2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.55	Α

Junction Network

Driving side	Lighting	Lighting Network delay (s)	
Left	Normal/unknown	0.55	Α

Arms

Arms

Arm	Name	Description	Arm type
Α	A165 (S)		Major
В	Arnold Lane West		Minor
С	A165 (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A165 (N)	10.95		✓	3.30	250.0	✓	20.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Arnold Lane West	One lane	4.98	56	54

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

				_		
Stream	Intercept (PCU/hr)	Slope Slope for for AB AC		Slope for C-A	Slope for C-B	
B-A	626	0.093	0.234	0.147	0.335	
B-C	788	0.091	0.231	-	-	
С-В	805	0.245	0.245	-	-	

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Scenario name Time Period name Traffic profile		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	00:00	01:30	15	✓



Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A165 (S)		ONE HOUR	✓	625	100.000	
B - Arnold Lane West		ONE HOUR	✓	46	100.000	
C - A165 (N)		ONE HOUR	√	441	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То								
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)					
	A - A165 (S)	0	26	599					
From	B - Arnold Lane West	29	0	17					
	C - A165 (N)	436	5	0					

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		То								
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)						
F	A - A165 (S)	0	39	9						
From	B - Arnold Lane West	69	0	13						
	C - A165 (N)	8	0	0						

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	12.56	0.2	В	42	63
C-AB	0.01	5.70	0.0	А	5	7
C-A					400	600
A-B					24	36
A-C					550	824

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	530	0.065	34	0.0	0.1	10.351	В
C-AB	4	0.94	690	0.005	4	0.0	0.0	5.248	А
C-A	328	82			328				
A-B	20	5			20				
A-C	451	113			451				



00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	501	0.083	41	0.1	0.1	11.184	В
C-AB	4	1	667	0.007	4	0.0	0.0	5.430	A
C-A	392	98			392				
A-B	23	6			23				
A-C	538	135			538				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	460	0.110	50	0.1	0.2	12.554	В
C-AB	6	1	636	0.009	5	0.0	0.0	5.705	А
C-A	480	120			480				
A-B	29	7			29				
A-C	660	165			660				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	13	460	0.110	51	0.2	0.2	12.564	В
C-AB	6	1	636	0.009	6	0.0	0.0	5.705	A
C-A	480	120			480				
A-B	29	7			29				
A-C	660	165			660				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	501	0.083	42	0.2	0.1	11.199	В
C-AB	4	1	667	0.007	5	0.0	0.0	5.430	А
C-A	392	98			392				
A-B	23	6			23				
A-C	538	135			538				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	530	0.065	35	0.1	0.1	10.380	В
C-AB	4	0.94	690	0.005	4	0.0	0.0	5.250	A
C-A	328	82			328				
A-B	20	5			20				
A-C	451	113			451				



2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.30	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	0.30	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A165 (S)		ONE HOUR	✓	454	100.000	
B - Arnold Lane West		ONE HOUR	✓	35	100.000	
C - A165 (N)		ONE HOUR	✓	679	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То								
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)						
	A - A165 (S)	0	13	441						
From	B - Arnold Lane West	16	0	19						
	C - A165 (N)	664	15	0						

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		1	Го		
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)	
F	A - A165 (S)	0	0	3	
From	B - Arnold Lane West	7	0	0	
	C - A165 (N)	3	0	0	



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.84	0.1	Α	32	48
C-AB	0.02	5.40	0.0	Α	14	21
C-A					609	914
A-B					12	18
A-C					405	607

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	576	0.046	26	0.0	0.0	6.750	A
C-AB	11	3	721	0.016	11	0.0	0.0	5.070	A
C-A	500	125			500				
A-B	10	2			10				
A-C	332	83			332				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	549	0.057	31	0.0	0.1	7.164	Α
C-AB	13	3	705	0.019	13	0.0	0.0	5.205	A
C-A	597	149			597				
A-B	12	3			12				
A-C	396	99			396				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	512	0.075	38	0.1	0.1	7.839	А
C-AB	17	4	682	0.024	16	0.0	0.0	5.405	А
C-A	731	183			731				
A-B	14	4			14				
A-C	486	121			486				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	512	0.075	39	0.1	0.1	7.841	Α
C-AB	17	4	682	0.024	17	0.0	0.0	5.405	Α
C-A	731	183			731				
A-B	14	4			14				
A-C	486	121			486				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	549	0.057	32	0.1	0.1	7.169	А
C-AB	13	3	705	0.019	14	0.0	0.0	5.208	A
C-A	597	149			597				
A-B	12	3			12				
A-C	396	99			396				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	576	0.046	26	0.1	0.0	6.756	A
C-AB	11	3	721	0.016	11	0.0	0.0	5.071	A
C-A	500	125			500				
A-B	10	2			10				
A-C	332	83			332				



2026 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.56	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	0.56	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm Linked arm		Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A165 (S)		ONE HOUR	✓	641	100.000	
B - Arnold Lane West		ONE HOUR	✓	47	100.000	
C - A165 (N)		ONE HOUR	✓	452	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То							
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)					
F	A - A165 (S)	0	27	614					
From	B - Arnold Lane West	30	0	17					
	C - A165 (N)	447	5	0					

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

	То							
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)				
F	A - A165 (S)	0	39	9				
From	B - Arnold Lane West	69	0	13				
	C - A165 (N)	8	0	0				



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	12.87	0.2	В	43	65
C-AB	0.01	5.74	0.0	А	5	7
C-A					410	615
A-B					25	37
A-C					563	845

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	525	0.067	35	0.0	0.1	10.520	В
C-AB	4	0.94	687	0.005	4	0.0	0.0	5.270	A
C-A	337	84			337				
A-B	20	5			20				
A-C	462	116			462				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	495	0.085	42	0.1	0.1	11.393	В
C-AB	4	1	664	0.007	4	0.0	0.0	5.459	А
C-A	402	100			402				
A-B	24	6			24				
A-C	552	138			552				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	453	0.114	52	0.1	0.2	12.855	В
C-AB	6	1	632	0.009	5	0.0	0.0	5.744	Α
C-A	492	123			492				
A-B	30	7			30				
A-C	676	169			676				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	453	0.114	52	0.2	0.2	12.867	В
C-AB	6	1	632	0.009	6	0.0	0.0	5.744	A
C-A	492	123			492				
A-B	30	7			30				
A-C	676	169			676				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	495	0.085	42	0.2	0.1	11.410	В
C-AB	4	1	664	0.007	5	0.0	0.0	5.459	A
C-A	402	100			402				
A-B	24	6			24				
A-C	552	138			552				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	525	0.067	36	0.1	0.1	10.544	В
C-AB	4	0.94	687	0.005	4	0.0	0.0	5.270	A
C-A	337	84			337				
A-B	20	5			20				
A-C	462	116			462				



2026 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.31	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.31	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	465	100.000
B - Arnold Lane West		ONE HOUR	✓	36	100.000
C - A165 (N)		ONE HOUR	✓	696	100.000

Origin-Destination Data

Demand (PCU/hr)

		1	Го	
		A - A165 (S) B - Arnold Lane West		C - A165 (N)
F	A - A165 (S)	0	13	452
From	B - Arnold Lane West	17	0	19
	C - A165 (N)	681	15	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		7	Го	
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)
F	A - A165 (S)	0	0	3
From	B - Arnold Lane West	7	0	0
	C - A165 (N)	3	0	0



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	8.02	0.1	А	33	50
C-AB	0.02	5.43	0.0	А	14	21
C-A					625	937
A-B					12	18
A-C					415	622

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	569	0.048	27	0.0	0.1	6.852	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.085	A
C-A	513	128			513				
A-B	10	2			10				
A-C	340	85			340				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	542	0.060	32	0.1	0.1	7.295	А
C-AB	13	3	703	0.019	13	0.0	0.0	5.224	Α
C-A	612	153			612				
A-B	12	3			12				
A-C	406	102			406				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	503	0.079	40	0.1	0.1	8.020	A
C-AB	17	4	680	0.024	16	0.0	0.0	5.429	А
C-A	750	187			750				
A-B	14	4			14				
A-C	498	124			498				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	503	0.079	40	0.1	0.1	8.024	A
C-AB	17	4	680	0.024	17	0.0	0.0	5.429	A
C-A	750	187			750				
A-B	14	4			14				
A-C	498	124			498				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	541	0.060	32	0.1	0.1	7.297	Α
C-AB	13	3	703	0.019	14	0.0	0.0	5.224	Α
C-A	612	153			612				
A-B	12	3			12				
A-C	406	102			406				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	569	0.048	27	0.1	0.1	6.859	А
C-AB	11	3	719	0.016	11	0.0	0.0	5.087	А
C-A	513	128			513				
A-B	10	2			10				
A-C	340	85			340				



2026 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.56	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.56	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	1018	100.000
B - Arnold Lane West		ONE HOUR	✓	47	100.000
C - A165 (N)		ONE HOUR	✓	452	100.000

Origin-Destination Data

Demand (PCU/hr)

	То							
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)				
F	A - A165 (S)	0	27	991				
From	B - Arnold Lane West	30	0	17				
	C - A165 (N)	447	5	0				

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		То							
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)					
F	A - A165 (S)	0	39	9					
From	B - Arnold Lane West	69	0	13					
	C - A165 (N)	8	0	0					



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	17.28	0.2	С	43	65
C-AB	0.01	6.86	0.0	А	5	7
C-A					410	615
A-B					25	37
A-C					909	1364

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	456	0.078	35	0.0	0.1	12.224	В
C-AB	4	0.94	617	0.006	4	0.0	0.0	5.867	A
C-A	337	84			337				
A-B	20	5			20				
A-C	746	187			746				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	412	0.102	42	0.1	0.2	13.925	В
C-AB	4	1	581	0.008	4	0.0	0.0	6.245	Α
C-A	402	100			402				
A-B	24	6			24				
A-C	891	223			891				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	350	0.148	51	0.2	0.2	17.241	С
C-AB	6	1	531	0.010	5	0.0	0.0	6.855	Α
C-A	492	123			492				
A-B	30	7			30				
A-C	1091	273			1091				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	350	0.148	52	0.2	0.2	17.277	С
C-AB	6	1	531	0.010	6	0.0	0.0	6.855	A
C-A	492	123			492				
A-B	30	7			30				
A-C	1091	273			1091				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	412	0.102	43	0.2	0.2	13.963	В
C-AB	4	1	581	0.008	5	0.0	0.0	6.245	А
C-A	402	100			402				
A-B	24	6			24				
A-C	891	223			891				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	456	0.078	36	0.2	0.1	12.261	В
C-AB	4	0.94	617	0.006	4	0.0	0.0	5.867	Α
C-A	337	84			337				
A-B	20	5			20				
A-C	746	187			746				



2026 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.26	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	0.26	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A165 (S)		ONE HOUR	✓	465	100.000	
B - Arnold Lane West		ONE HOUR	✓	36	100.000	
C - A165 (N)		ONE HOUR	✓	1073	100.000	

Origin-Destination Data

Demand (PCU/hr)

		1	Го		
		A - A165 (S) B -		C - A165 (N)	
F	A - A165 (S)	0	13	452	
From	B - Arnold Lane West	17	0	19	
	C - A165 (N)	1058	15	0	

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		То										
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)								
F	A - A165 (S)	0	0	3								
From	B - Arnold Lane West	7	0	0								
	C - A165 (N)	3	0	0								



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	9.01	0.1	Α	33	50
C-AB	0.02	5.43	0.0	А	14	21
C-A					971	1456
A-B					12	18
A-C					415	622

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	538	0.050	27	0.0	0.1	7.260	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.085	A
C-A	797	199			797				
A-B	10	2			10				
A-C	340	85			340				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	503	0.064	32	0.1	0.1	7.889	Α
C-AB	13	3	703	0.019	13	0.0	0.0	5.224	Α
C-A	951	238			951				
A-B	12	3			12				
A-C	406	102			406				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	452	0.088	40	0.1	0.1	9.005	A
C-AB	17	4	680	0.024	16	0.0	0.0	5.429	А
C-A	1165	291			1165				
A-B	14	4			14				
A-C	498	124			498				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	452	0.088	40	0.1	0.1	9.008	A
C-AB	17	4	680	0.024	17	0.0	0.0	5.429	A
C-A	1165	291			1165				
A-B	14	4			14				
A-C	498	124			498				



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	503	0.064	32	0.1	0.1	7.895	А
C-AB	13	3	703	0.019	14	0.0	0.0	5.224	Α
C-A	951	238			951				
A-B	12	3			12				
A-C	406	102			406				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	538	0.050	27	0.1	0.1	7.267	Α
C-AB	11	3	719	0.016	11	0.0	0.0	5.087	Α
C-A	797	199			797				
A-B	10	2			10				
A-C	340	85			340				



2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.66	Α

Junction Network

Driving side Lighting		Network delay (s)	Network LOS	
Left	Normal/unknown	0.66	Α	

Traffic Demand

Demand Set Details

I	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D	7 2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	1036	100.000
B - Arnold Lane West		ONE HOUR	✓	47	100.000
C - A165 (N)		ONE HOUR	✓	473	100.000

Origin-Destination Data

Demand (PCU/hr)

	То					
From		A - A165 (S)	B - Arnold Lane West	C - A165 (N)		
	A - A165 (S)	0	33	1003		
	B - Arnold Lane West	30	0	17		
	C - A165 (N)	447	26	0		

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)		
HV Percentages	2.00		

	То					
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)		
	A - A165 (S)	0	39	9		
From	B - Arnold Lane West	69	0	13		
	C - A165 (N)	8	0	0		



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	17.95	0.3	С	43	65
C-AB	0.05	7.24	0.1	А	24	36
C-A					410	615
A-B					30	45
A-C					920	1381

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	449	0.079	35	0.0	0.1	12.433	В
C-AB	20	5	614	0.032	19	0.0	0.0	6.053	А
C-A	337	84			337				
A-B	25	6			25				
A-C	755	189			755				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	404	0.105	42	0.1	0.2	14.257	В
C-AB	23	6	577	0.041	23	0.0	0.0	6.502	А
C-A	402	100			402				
A-B	30	7			30				
A-C	902	225			902				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	339	0.153	51	0.2	0.3	17.902	С
C-AB	29	7	526	0.054	29	0.0	0.1	7.241	А
C-A	492	123			492				
A-B	36	9			36				
A-C	1104	276			1104				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	339	0.153	52	0.3	0.3	17.945	С
C-AB	29	7	526	0.054	29	0.1	0.1	7.241	A
C-A	492	123			492				
A-B	36	9			36				
A-C	1104	276			1104				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	11	404	0.105	43	0.3	0.2	14.299	В
C-AB	23	6	577	0.041	23	0.1	0.0	6.504	Α
C-A	402	100			402				
A-B	30	7			30				
A-C	902	225			902				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	449	0.079	36	0.2	0.1	12.475	В
C-AB	20	5	614	0.032	20	0.0	0.0	6.056	A
C-A	337	84			337				
A-B	25	6			25				
A-C	755	189			755				



2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.39	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.39	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (S)		ONE HOUR	✓	465	100.000
B - Arnold Lane West		ONE HOUR	✓	62	100.000
C - A165 (N)		ONE HOUR	✓	1084	100.000

Origin-Destination Data

Demand (PCU/hr)

	То								
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)					
	A - A165 (S)	0	13	452					
From	B - Arnold Lane West	22	0	40					
	C - A165 (N)	1069	15	0					

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	То								
		A - A165 (S)	B - Arnold Lane West	C - A165 (N)					
	A - A165 (S)	0	0	3					
From	B - Arnold Lane West	7	0	0					
	C - A165 (N)	3	0	0					



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	8.73	0.2	А	57	85
C-AB	0.02	5.43	0.0	А	14	21
C-A					981	1471
A-B					12	18
A-C					415	622

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	572	0.082	46	0.0	0.1	7.009	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.085	A
C-A	805	201			805				
A-B	10	2			10				
A-C	340	85			340				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	539	0.103	56	0.1	0.1	7.623	А
C-AB	13	3	703	0.019	13	0.0	0.0	5.224	Α
C-A	961	240			961				
A-B	12	3			12				
A-C	406	102			406				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	491	0.139	68	0.1	0.2	8.718	А
C-AB	17	4	680	0.024	16	0.0	0.0	5.429	А
C-A	1177	294			1177				
A-B	14	4			14				
A-C	498	124			498				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	491	0.139	68	0.2	0.2	8.725	A
C-AB	17	4	680	0.024	17	0.0	0.0	5.429	A
C-A	1177	294			1177				
A-B	14	4			14				
A-C	498	124			498				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	14	539	0.103	56	0.2	0.1	7.632	Α
C-AB	13	3	703	0.019	14	0.0	0.0	5.224	Α
C-A	961	240			961				
A-B	12	3			12				
A-C	406	102			406				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	572	0.082	47	0.1	0.1	7.021	A
C-AB	11	3	719	0.016	11	0.0	0.0	5.087	A
C-A	805	201			805				
A-B	10	2			10				
A-C	340	85			340				



Junctions 10

PICADY 10 - Priority Intersection Module

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Filename: A165_Carr Lane Priority.j10

Path: C:\Users\calum.gill-quirke\OneDrive - RSK Group\SCP Job Library 2025 - 250491 - Peartree Hill Solar Farm - Stage 4\03

Data\Traffic modelling\Junction Models (TA) Report generation date: 22/08/2025 12:20:42

»2026 Base, AM

»2026 Base, PM

»2026 + Committed, AM

»2026 + Committed, PM

»2026 + Committed + Dev, AM

»2026 + Committed + Dev, PM

Summary of junction performance

		А	М			РМ				
	Set ID	Set ID Queue (PCU) Delay (s) RFC LOS				Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2026	Base				
Stream B-AC	D1	0.0	0.00	0.00	Α	D2	0.0	0.00	0.00	Α
Stream C-AB	וט	0.0	0.00	0.00	Α	D2	0.0	3.87	0.01	Α
				2026	6 + C	ommitt	ed			
Stream B-AC	D3	0.0	0.00	0.00	Α	D4	0.0	0.00	0.00	Α
Stream C-AB	DS	0.0	0.00	0.00	Α	D4	0.0	3.26	0.01	Α
		2026 + Committed + Dev								
Stream B-AC	D5	0.0	0.00	0.00	Α	D6	0.0	8.73	0.03	Α
Stream C-AB	סט	0.0	5.13	0.02	А	D6	0.0	3.27	0.01	Α

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

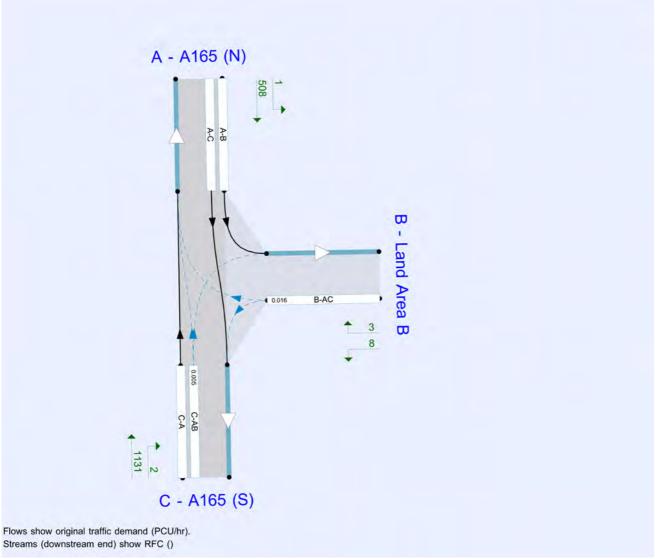
File Description

03/09/2024
(new file)
RSKHELSBY\calum.gill-quirke



Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓
D2	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓
D3	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓
D4	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓
D5	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D6	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓



Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A 1	✓	100.000	100.000



2026 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.00	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	Α

Arms

Arms

Arm	Name	Description	Arm type
Α	A165 (N)		Major
В	Land Area B		Minor
С	A165 (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A165 (S)	7.70			175.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Land Area B	One lane	4.40	45	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	578	0.098	0.248	0.156	0.354
B-C	733	0.104	0.262	-	-
С-В	675	0.242	0.242	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

I	ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
I	D1	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓



Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (N)		ONE HOUR	✓	685	100.000
B - Land Area B		ONE HOUR	✓	1	100.000
C - A165 (S)		ONE HOUR	✓	455	100.000

Origin-Destination Data

Demand (PCU/hr)

	То						
		A - A165 (N)	B - Land Area B	C - A165 (S)			
F	A - A165 (N)	0	0	685			
From	B - Land Area B	1	0	0			
	C - A165 (S)	455	0	0			

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		То								
		A - A165 (N)	B - Land Area B	C - A165 (S)						
From	A - A165 (N)	0	0	13						
	B - Land Area B	0	0	0						
	C - A165 (S)	9	0	0						

Results

Results Summary for whole modelled period

	•		•			
Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	А	0	0
C-A					418	626
A-B					0	0
A-C					629	943

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	477	0.000	0	0.0	0.0	0.000	Α
C-AB	0	0	550	0.000	0	0.0	0.0	0.000	А
C-A	343	86			343				
A-B	0	0			0				
A-C	516	129			516				



00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	443	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	526	0.000	0	0.0	0.0	0.000	А
C-A	409	102			409				
A-B	0	0			0				
A-C	616	154			616				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	395	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	493	0.000	0	0.0	0.0	0.000	А
C-A	501	125			501				
A-B	0	0			0				
A-C	754	189			754				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	395	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	493	0.000	0	0.0	0.0	0.000	Α
C-A	501	125			501				
A-B	0	0			0				
A-C	754	189			754				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	443	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	526	0.000	0	0.0	0.0	0.000	А
C-A	409	102			409				
A-B	0	0			0				
A-C	616	154			616				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	477	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	550	0.000	0	0.0	0.0	0.000	A
C-A	343	86			343				
A-B	0	0			0				
A-C	516	129			516				



2026 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.02	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.02	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (N)		ONE HOUR	✓	489	100.000
B - Land Area B		ONE HOUR	✓	2	100.000
C - A165 (S)		ONE HOUR	✓	753	100.000

Origin-Destination Data

Demand (PCU/hr)

		То										
		A - A165 (N) B - La		C - A165 (S)								
F	A - A165 (N)	0	1	488								
From	B - Land Area B	1	0	1								
	C - A165 (S)	751	2	0								

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		T	Го		
		A - A165 (N) B - Land Area		C - A165 (S)	
From	A - A165 (N)	0	0	5	
	B - Land Area B	0	0	0	
	C - A165 (S)	6	0	0	



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	А	0	0
C-AB	0.01	3.87	0.0	А	6	9
C-A					685	1028
A-B					0.92	1
A-C					448	672

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	4	0.91	967	0.004	4	0.0	0.0	3.862	A
C-A	563	141			563				
A-B	0.75	0.19			0.75				
A-C	367	92			367				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	458	0.000	0	0.0	0.0	0.000	А
C-AB	5	1	1031	0.005	5	0.0	0.0	3.639	Α
C-A	672	168			672				
A-B	0.90	0.22			0.90				
A-C	439	110			439				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	411	0.000	0	0.0	0.0	0.000	А
C-AB	8	2	1121	0.007	8	0.0	0.0	3.368	А
C-A	821	205			821				
A-B	1	0.28			1				
A-C	537	134			537				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	411	0.000	0	0.0	0.0	0.000	A
C-AB	8	2	1121	0.008	8	0.0	0.0	3.374	A
C-A	821	205			821				
A-B	1	0.28			1				
A-C	537	134			537				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	458	0.000	0	0.0	0.0	0.000	Α
C-AB	5	1	1031	0.005	5	0.0	0.0	3.659	Α
C-A	672	168			672				
A-B	0.90	0.22			0.90				
A-C	439	110			439				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	Α
C-AB	4	0.91	967	0.004	4	0.0	0.0	3.874	А
C-A	563	141			563				
A-B	0.75	0.19			0.75				
A-C	367	92			367				



2026 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.00	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	0.00	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A165 (N)		ONE HOUR	✓	1062	100.000	
B - Land Area B		ONE HOUR	✓	1	100.000	
C - A165 (S)		ONE HOUR	✓	455	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То								
		A - A165 (N)	B - Land Area B	C - A165 (S)						
F	A - A165 (N)	0	0	1062						
From	B - Land Area B	1	0	0						
	C - A165 (S)	455	0	0						

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		То							
From		A - A165 (N)	B - Land Area B	C - A165 (S)					
	A - A165 (N)	0	0	13					
	B - Land Area B	0	0	0					
	C - A165 (S)	9	0	0					



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	А	0	0
C-AB	0.00	0.00	0.0	А	0	0
C-A					418	626
A-B					0	0
A-C					975	1462

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	402	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	482	0.000	0	0.0	0.0	0.000	А
C-A	343	86			343				
A-B	0	0			0				
A-C	800	200			800				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	353	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	444	0.000	0	0.0	0.0	0.000	А
C-A	409	102			409				
A-B	0	0			0				
A-C	955	239			955				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	282	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	392	0.000	0	0.0	0.0	0.000	А
C-A	501	125			501				
A-B	0	0			0				
A-C	1169	292			1169				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	282	0.000	0	0.0	0.0	0.000	Α
C-AB	0	0	392	0.000	0	0.0	0.0	0.000	A
C-A	501	125			501				
A-B	0	0			0				
A-C	1169	292			1169				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	353	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	444	0.000	0	0.0	0.0	0.000	Α
C-A	409	102			409				
A-B	0	0			0				
A-C	955	239			955				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	402	0.000	0	0.0	0.0	0.000	Α
C-AB	0	0	482	0.000	0	0.0	0.0	0.000	A
C-A	343	86			343				
A-B	0	0			0				
A-C	800	200			800				



2026 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.02	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	0.02	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A165 (N)		ONE HOUR	✓	489	100.000	
B - Land Area B		ONE HOUR	✓	2	100.000	
C - A165 (S)		ONE HOUR	✓	1130	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То								
		A - A165 (N)	B - Land Area B	C - A165 (S)						
F	A - A165 (N)	0	1	488						
From	B - Land Area B	1	0	1						
	C - A165 (S)	1128	2	0						

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		То								
		A - A165 (N)	B - Land Area B	C - A165 (S)						
F	A - A165 (N)	0	0	5						
From	B - Land Area B	0	0	0						
	C - A165 (S)	6	0	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	А	0	0
C-AB	0.01	3.26	0.0	А	11	17
C-A					1026	1539
A-B					0.92	1
A-C					448	672

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	455	0.000	0	0.0	0.0	0.000	А
C-AB	6	1	1159	0.005	6	0.0	0.0	3.256	А
C-A	845	211			845				
A-B	0.75	0.19			0.75				
A-C	367	92			367				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	414	0.000	0	0.0	0.0	0.000	А
C-AB	9	2	1262	0.007	9	0.0	0.0	3.003	А
C-A	1007	252			1007				
A-B	0.90	0.22			0.90				
A-C	439	110			439				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	352	0.000	0	0.0	0.0	0.000	A
C-AB	18	5	1411	0.013	18	0.0	0.0	2.716	А
C-A	1226	306			1226				
A-B	1	0.28			1				
A-C	537	134			537				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	352	0.000	0	0.0	0.0	0.000	A
C-AB	18	5	1411	0.013	18	0.0	0.0	2.720	A
C-A	1226	306			1226				
A-B	1	0.28			1				
A-C	537	134			537				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	414	0.000	0	0.0	0.0	0.000	А
C-AB	9	2	1262	0.007	9	0.0	0.0	3.018	А
C-A	1007	252			1007				
A-B	0.90	0.22			0.90				
A-C	439	110			439				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	455	0.000	0	0.0	0.0	0.000	А
C-AB	6	1	1159	0.005	6	0.0	0.0	3.264	А
C-A	845	211			845				
A-B	0.75	0.19			0.75				
A-C	367	92			367				



2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.05	Α

Junction Network

Driving side Lighting		Network delay (s)	Network LOS	
Left	Normal/unknown	0.05	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm Linked arm		Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A165 (N)		ONE HOUR	✓	1068	100.000	
B - Land Area B		ONE HOUR	✓	1	100.000	
C - A165 (S)		ONE HOUR	✓	482	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То								
		A - A165 (N)	B - Land Area B	C - A165 (S)						
	A - A165 (N)	0	2	1066						
From	B - Land Area B	1	0	0						
	C - A165 (S)	476	6	0						

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	То							
From		A - A165 (N)	B - Land Area B	C - A165 (S)				
	A - A165 (N)	0	0	13				
	B - Land Area B	0	0	0				
	C - A165 (S)	9	0	0				



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	А	0	0
C-AB	0.02	5.13	0.0	А	13	20
C-A					429	643
A-B					2	3
A-C					978	1467

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	398	0.000	0	0.0	0.0	0.000	A
C-AB	9	2	743	0.012	9	0.0	0.0	5.106	A
C-A	354	89			354				
A-B	2	0.38			2				
A-C	803	201			803				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	348	0.000	0	0.0	0.0	0.000	А
C-AB	12	3	765	0.016	12	0.0	0.0	4.999	Α
C-A	421	105			421				
A-B	2	0.45			2				
A-C	958	240			958				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	275	0.000	0	0.0	0.0	0.000	Α
C-AB	19	5	801	0.024	19	0.0	0.0	4.855	Α
C-A	512	128			512				
A-B	2	0.55			2				
A-C	1174	293			1174				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	275	0.000	0	0.0	0.0	0.000	Α
C-AB	19	5	801	0.024	19	0.0	0.0	4.871	A
C-A	511	128			511				
A-B	2	0.55			2				
A-C	1174	293			1174				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	348	0.000	0	0.0	0.0	0.000	А
C-AB	12	3	765	0.016	12	0.0	0.0	5.042	А
C-A	421	105			421				
A-B	2	0.45			2				
A-C	958	240			958				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	398	0.000	0	0.0	0.0	0.000	A
C-AB	9	2	743	0.012	9	0.0	0.0	5.127	A
C-A	354	89			354				
A-B	2	0.38			2				
A-C	803	201			803				



2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.08	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.08	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

	ı				
Am	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (N)		ONE HOUR	✓	509	100.000
B - Land Area B		ONE HOUR	✓	11	100.000
C - A165 (S)		ONE HOUR	✓	1133	100.000

Origin-Destination Data

Demand (PCU/hr)

	То							
		A - A165 (N)	B - Land Area B	C - A165 (S)				
	A - A165 (N)	0	1	508				
From	B - Land Area B	3	0	8				
	C - A165 (S)	1131	2	0				

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	То							
_		A - A165 (N)	B - Land Area B	C - A165 (S)				
	A - A165 (N)	0	0	5				
From	B - Land Area B	0	0	0				
	C - A165 (S)	6	0	0				



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	8.73	0.0	А	10	15
C-AB	0.01	3.27	0.0	А	11	17
C-A					1028	1543
A-B					0.92	1
A-C					466	699

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	519	0.016	8	0.0	0.0	7.054	A
C-AB	6	1	1158	0.005	6	0.0	0.0	3.257	A
C-A	847	212			847				
A-B	0.75	0.19			0.75				
A-C	382	96			382				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	481	0.021	10	0.0	0.0	7.635	А
C-AB	9	2	1262	0.007	9	0.0	0.0	3.004	Α
C-A	1009	252			1009				
A-B	0.90	0.22			0.90				
A-C	457	114			457				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	425	0.029	12	0.0	0.0	8.726	A
C-AB	19	5	1412	0.013	19	0.0	0.0	2.715	А
C-A	1229	307			1229				
A-B	1	0.28			1				
A-C	559	140			559				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	425	0.029	12	0.0	0.0	8.726	A
C-AB	19	5	1412	0.013	19	0.0	0.0	2.722	A
C-A	1229	307			1229				
A-B	1	0.28			1				
A-C	559	140			559				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	481	0.021	10	0.0	0.0	7.639	А
C-AB	9	2	1262	0.007	9	0.0	0.0	3.018	А
C-A	1009	252			1009				
A-B	0.90	0.22			0.90				
A-C	457	114			457				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	519	0.016	8	0.0	0.0	7.057	A
C-AB	6	1	1158	0.005	6	0.0	0.0	3.266	A
C-A	847	212			847				
A-B	0.75	0.19			0.75				
A-C	382	96			382				



Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023

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Filename: A165_Land Area B Priority.j10

Path: C:\Users\calum.gill-quirke\OneDrive - RSK Group\SCP Job Library 2025 - 250491 - Peartree Hill Solar Farm - Stage 4\03

Data\Traffic modelling\Junction Models (TA) Report generation date: 22/08/2025 12:23:39

»2026 + Committed + Dev, AM

»2026 + Committed + Dev, PM

Summary of junction performance

		Α	.M				Р	М		FC LOS		
	Set ID	et ID Queue (PCU) Delay (s) RFC LOS					Queue (PCU)	Delay (s)	RFC	LOS		
		2026 + Committed + Dev										
Stream B-AC	D1	0.0	0.00	0.00	Α	Da	0.0	18.60	0.03	С		
Stream C-AB	D1	0.0	3.42	0.01	Α	D2	0.0	0.00	0.00	Α		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

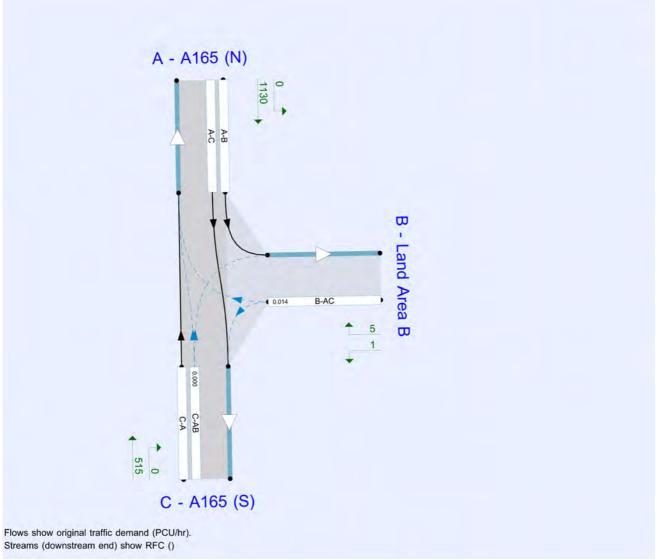
File Description

ne Bescrip	
Title	
Location	
Site number	
Date	03/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin





The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D2	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000



2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.01	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.01	Α

Arms

Arms

Arm	Name	Description	Arm type
Α	A165 (N)		Major
В	Land Area B		Minor
С	A165 (S)		Major

Major Arm Geometry

	Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
ı	C - A165 (S)	7.70			175.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Land Area B	One lane	4.40	45	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	578	0.098	0.248	0.156	0.354
B-C	733	0.104	0.262	-	-
С-В	675	0.242	0.242	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓



Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (N)		ONE HOUR	✓	487	100.000
B - Land Area B		ONE HOUR	✓	0	100.000
C - A165 (S)		ONE HOUR	✓	1065	100.000

Origin-Destination Data

Demand (PCU/hr)

	То					
		A - A165 (N)	B - Land Area B	C - A165 (S)		
F	A - A165 (N)	0	5	482		
From	B - Land Area B	0	0	0		
	C - A165 (S)	1064	1	0		

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	То				
		A - A165 (N)	B - Land Area B	C - A165 (S)	
F	A - A165 (N)	0	0	13	
From	B - Land Area B	0	0	0	
	C - A165 (S)	9	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	А	0	0
C-AB	0.01	3.42	0.0	А	5	7
C-A					972	1459
A-B					5	7
A-C					442	663

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	462	0.000	0	0.0	0.0	0.000	А
C-AB	3	0.65	1127	0.002	3	0.0	0.0	3.404	A
C-A	799	200			799				
A-B	4	0.94			4				
A-C	363	91			363				



00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	423	0.000	0	0.0	0.0	0.000	А
C-AB	4	1	1223	0.003	4	0.0	0.0	3.150	А
C-A	953	238			953				
A-B	4	1			4				
A-C	433	108			433				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	365	0.000	0	0.0	0.0	0.000	А
C-AB	8	2	1362	0.006	8	0.0	0.0	2.856	А
C-A	1165	291			1165				
A-B	6	1			6				
A-C	531	133			531				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	365	0.000	0	0.0	0.0	0.000	А
C-AB	8	2	1362	0.006	8	0.0	0.0	2.863	A
C-A	1165	291			1165				
A-B	6	1			6				
A-C	531	133			531				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	423	0.000	0	0.0	0.0	0.000	А
C-AB	4	1	1223	0.003	4	0.0	0.0	3.172	А
C-A	953	238			953				
A-B	4	1			4				
A-C	433	108			433				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	462	0.000	0	0.0	0.0	0.000	A
C-AB	3	0.65	1127	0.002	3	0.0	0.0	3.420	A
C-A	799	200			799				
A-B	4	0.94			4				
A-C	363	91			363				



2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.07	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	0.07	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Am	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A165 (N)		ONE HOUR	✓	1130	100.000
B - Land Area B		ONE HOUR	✓	6	100.000
C - A165 (S)		ONE HOUR	✓	515	100.000

Origin-Destination Data

Demand (PCU/hr)

	То								
		A - A165 (N)	B - Land Area B	C - A165 (S)					
	A - A165 (N)	0	0	1130					
From	B - Land Area B	5	0	1					
	C - A165 (S)	515	0	0					

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		То								
		A - A165 (N)	B - Land Area B	C - A165 (S)						
_	A - A165 (N)	0	0	5						
From	B - Land Area B	0	0	0						
	C - A165 (S)	6	0	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	18.60	0.0	С	6	8
C-AB	0.00	0.00	0.0	А	0	0
C-A					473	709
A-B					0	0
A-C					1037	1555

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	329	0.014	4	0.0	0.0	11.098	В
C-AB	0	0	469	0.000	0	0.0	0.0	0.000	A
C-A	388	97			388				
A-B	0	0			0				
A-C	851	213			851				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	275	0.020	5	0.0	0.0	13.338	В
C-AB	0	0	429	0.000	0	0.0	0.0	0.000	Α
C-A	463	116			463				
A-B	0	0			0				
A-C	1016	254			1016				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	200	0.033	7	0.0	0.0	18.592	С
C-AB	0	0	374	0.000	0	0.0	0.0	0.000	А
C-A	567	142			567				
A-B	0	0			0				
A-C	1244	311			1244				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	200	0.033	7	0.0	0.0	18.601	С
C-AB	0	0	374	0.000	0	0.0	0.0	0.000	A
C-A	567	142			567				
A-B	0	0			0				
A-C	1244	311			1244				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	275	0.020	5	0.0	0.0	13.343	В
C-AB	0	0	429	0.000	0	0.0	0.0	0.000	Α
C-A	463	116			463				
A-B	0	0			0				
A-C	1016	254			1016				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	329	0.014	5	0.0	0.0	11.104	В
C-AB	0	0	469	0.000	0	0.0	0.0	0.000	A
C-A	388	97			388				
A-B	0	0			0				
A-C	851	213			851				



Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023

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Filename: A1035_Meaux Lane Priority.j10

Path: C:\Users\calum.gill-quirke\OneDrive - RSK Group\SCP Job Library 2025 - 250491 - Peartree Hill Solar Farm - Stage 4\03

Data\Traffic modelling\Junction Models (TA) Report generation date: 22/08/2025 12:28:17

»2023, AM

»2023, PM

»2026 Base, AM

»2026 Base, PM

»2026 + Committed, AM

»2026 + Committed, PM

»2026 + Committed + Dev, AM

»2026 + Committed + Dev, PM

Summary of junction performance

		А	M			РМ				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					20	23				
Stream B-AC	D1	0.6	16.07	0.35	С	D2	0.3	13.03	0.22	В
Stream C-AB	וט	0.0	7.37	0.04	А	DZ	0.1	6.99	0.10	Α
	2026 Base									
Stream B-AC	D3	0.6	16.99	0.37	С	D4	0.3	13.54	0.23	В
Stream C-AB	DS	0.0	7.48	0.04	Α	D4	0.1	7.08	0.10	Α
				202	6 + C	ommitt	ed			
Stream B-AC	D5	1.1	30.98	0.52	D	D6	0.7	35.42	0.44	Е
Stream C-AB	D3	0.0	7.59	0.04	Α	D0	0.2	9.94	0.14	Α
	2026 + Committed + Dev									
Stream B-AC	D7	1.3	35.14	0.56	Е	D8	1.9	57.97	0.67	F
Stream C-AB	D/	0.1	8.09	0.08	А	D0	0.2	10.06	0.15	В

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.



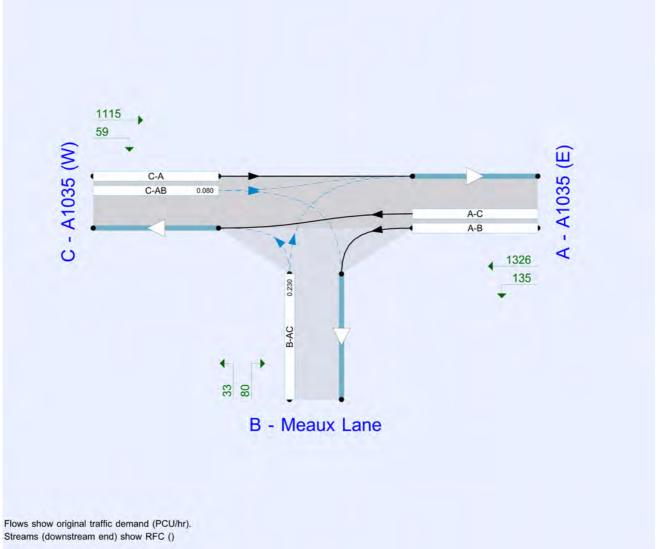
File summary

File Description

Title	
Location	
Site number	
Date	03/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.



Analysis Options

ehicle ength (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	00:00	01:30	15	✓
D2	2023	PM	ONE HOUR	00:00	01:30	15	✓
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓
D4	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓
D5	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓
D6	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓
D7	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D8	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	√

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000



2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.03	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.03	Α

Arms

Arms

Arm	Name	Description	Arm type
Α	A1035 (E)		Major
В	Meaux Lane		Minor
С	A1035 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A1035 (W)	11.75		✓	3.50	250.0	✓	10.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Meaux Lane	One lane	4.28	190	155

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	701	0.092	0.232	0.146	0.331
B-C	814	0.098	0.247	-	-
С-В	820	0.238	0.238	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	00:00	01:30	15	✓



Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1075	100.000
B - Meaux Lane		ONE HOUR	✓	115	100.000
C - A1035 (W)		ONE HOUR	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

		То							
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)					
F	A - A1035 (E)	0	80	995					
From	B - Meaux Lane	82	0	33					
	C - A1035 (W)	722	19	0					

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		•	То	
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
	A - A1035 (E)	0	1	6
From	B - Meaux Lane	4	0	3
	C - A1035 (W)	6	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.35	16.07	0.6	С	106	158
C-AB	0.04	7.37	0.0	А	17	26
C-A					663	994
A-B					73	110
A-C					913	1370

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	479	0.181	86	0.0	0.2	9.464	Α
C-AB	14	4	628	0.023	14	0.0	0.0	6.222	А
C-A	544	136			544				
A-B	60	15			60				
A-C	749	187			749				



00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	26	429	0.241	103	0.2	0.3	11.431	В
C-AB	17	4	590	0.029	17	0.0	0.0	6.658	A
C-A	649	162			649				
A-B	72	18			72				
A-C	894	224			894				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	32	359	0.353	126	0.3	0.6	15.949	С
C-AB	21	5	538	0.039	21	0.0	0.0	7.374	А
C-A	795	199			795				
A-B	88	22			88				
A-C	1096	274			1096				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	32	359	0.353	127	0.6	0.6	16.070	С
C-AB	21	5	538	0.039	21	0.0	0.0	7.374	Α
C-A	795	199			795				
A-B	88	22			88				
A-C	1096	274			1096				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	26	429	0.241	104	0.6	0.3	11.523	В
C-AB	17	4	590	0.029	17	0.0	0.0	6.659	А
C-A	649	162			649				
A-B	72	18			72				
A-C	894	224			894				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	22	479	0.181	87	0.3	0.2	9.529	А
C-AB	14	4	628	0.023	14	0.0	0.0	6.225	A
C-A	544	136			544				
A-B	60	15			60				
A-C	749	187			749				



2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.63	Α

Junction Network

Driving side	Driving side Lighting		Network LOS
Left	Normal/unknown	0.63	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A1035 (E)		ONE HOUR	✓	858	100.000	
B - Meaux Lane		ONE HOUR	✓	69	100.000	
C - A1035 (W)		ONE HOUR	✓	1097	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То									
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)						
	A - A1035 (E)	0	131	727						
From	B - Meaux Lane	54	0	15						
	C - A1035 (W)	1043	54	0						

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		То									
		A - A1035 (E) B - Meaux Lane		C - A1035 (W)							
	A - A1035 (E)	0	0	3							
From	B - Meaux Lane	0	0	0							
	C - A1035 (W)	2	4	0							



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.22	13.03	0.3	В	63	95
C-AB	0.10	6.99	0.1	А	50	74
C-A					957	1436
A-B					120	180
A-C					667	1001

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	473	0.110	51	0.0	0.1	8.523	A
C-AB	41	10	666	0.061	40	0.0	0.1	5.977	А
C-A	785	196			785				
A-B	99	25			99				
A-C	547	137			547				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	16	423	0.147	62	0.1	0.2	9.961	А
C-AB	49	12	637	0.076	48	0.1	0.1	6.366	Α
C-A	938	234			938				
A-B	118	29			118				
A-C	654	163			654				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	352	0.216	76	0.2	0.3	12.994	В
C-AB	59	15	595	0.100	59	0.1	0.1	6.984	Α
C-A	1148	287			1148				
A-B	144	36			144				
A-C	800	200			800				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	352	0.216	76	0.3	0.3	13.034	В
C-AB	59	15	595	0.100	59	0.1	0.1	6.986	A
C-A	1148	287			1148				
A-B	144	36			144				
A-C	800	200			800				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	16	423	0.147	62	0.3	0.2	9.996	А
C-AB	49	12	637	0.076	49	0.1	0.1	6.368	А
C-A	938	234			938				
A-B	118	29			118				
A-C	654	163			654				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	13	473	0.110	52	0.2	0.1	8.553	A
C-AB	41	10	666	0.061	41	0.1	0.1	5.985	A
C-A	785	196			785				
A-B	99	25			99				
A-C	547	137			547				



2026 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.09	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	1.09	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name Traffic profile type		Start time (HH:mm) Finish time (HH:mm) 1		Time segment length (min)	Run automatically
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A1035 (E)		ONE HOUR	✓	1102	100.000	
B - Meaux Lane		ONE HOUR	✓	118	100.000	
C - A1035 (W)		ONE HOUR	✓	759	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То								
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)						
	A - A1035 (E)	0	82	1020						
From	B - Meaux Lane	84	0	34						
	C - A1035 (W)	740	19	0						

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		То								
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)						
F	A - A1035 (E)	0	1	6						
From	B - Meaux Lane	4	0	3						
	C - A1035 (W)	6	6	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.37	16.99	0.6	С	108	162
C-AB	0.04	7.48	0.0	А	17	26
C-A					679	1019
A-B					75	113
A-C					936	1404

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	473	0.188	88	0.0	0.2	9.669	А
C-AB	14	4	623	0.023	14	0.0	0.0	6.271	А
C-A	557	139			557				
A-B	62	15			62				
A-C	768	192			768				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	422	0.252	106	0.2	0.3	11.792	В
C-AB	17	4	584	0.029	17	0.0	0.0	6.726	А
C-A	665	166			665				
A-B	74	18			74				
A-C	917	229			917				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	349	0.372	129	0.3	0.6	16.847	С
C-AB	21	5	531	0.039	21	0.0	0.0	7.476	А
C-A	815	204			815				
A-B	90	23			90				
A-C	1123	281			1123				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	349	0.372	130	0.6	0.6	16.994	С
C-AB	21	5	531	0.039	21	0.0	0.0	7.476	A
C-A	815	204			815				
A-B	90	23			90				
A-C	1123	281			1123				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	422	0.252	107	0.6	0.4	11.904	В
C-AB	17	4	584	0.029	17	0.0	0.0	6.727	A
C-A	665	166			665				
A-B	74	18			74				
A-C	917	229			917				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	473	0.188	89	0.4	0.2	9.738	A
C-AB	14	4	623	0.023	14	0.0	0.0	6.272	A
C-A	557	139			557				
A-B	62	15			62				
A-C	768	192			768				



2026 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		0.65	Α

Junction Network

Driving side Lighting		Network delay (s)	Network LOS	
Left	Normal/unknown	0.65	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A1035 (E)		ONE HOUR	✓	880	100.000	
B - Meaux Lane		ONE HOUR	✓	71	100.000	
C - A1035 (W)		ONE HOUR	✓	1124	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То								
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)						
F	A - A1035 (E)	0	135	745						
From	B - Meaux Lane	55	0	16						
	C - A1035 (W)	1069	55	0						

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

	То								
		A - A1035 (E) B - Meaux Lane		C - A1035 (W)					
F	A - A1035 (E)	0	0	3					
From	B - Meaux Lane	0	0	0					
	C - A1035 (W)	2	4	0					



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.23	13.54	0.3	В	65	98
C-AB	0.10	7.08	0.1	А	50	76
C-A					981	1471
A-B					124	186
A-C					684	1025

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	468	0.114	53	0.0	0.1	8.653	A
C-AB	41	10	663	0.063	41	0.0	0.1	6.022	A
C-A	805	201			805				
A-B	102	25			102				
A-C	561	140			561				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	417	0.153	64	0.1	0.2	10.184	В
C-AB	49	12	632	0.078	49	0.1	0.1	6.427	Α
C-A	961	240			961				
A-B	121	30			121				
A-C	670	167			670				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	344	0.227	78	0.2	0.3	13.497	В
C-AB	61	15	589	0.103	60	0.1	0.1	7.074	А
C-A	1177	294			1177				
A-B	149	37			149				
A-C	820	205			820				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	344	0.227	78	0.3	0.3	13.544	В
C-AB	61	15	589	0.103	61	0.1	0.1	7.077	A
C-A	1177	294			1177				
A-B	149	37			149				
A-C	820	205			820				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	417	0.153	64	0.3	0.2	10.224	В
C-AB	49	12	632	0.078	50	0.1	0.1	6.430	Α
C-A	961	240			961				
A-B	121	30			121				
A-C	670	167			670				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	468	0.114	54	0.2	0.1	8.685	A
C-AB	41	10	663	0.063	41	0.1	0.1	6.031	A
C-A	805	201			805				
A-B	102	25			102				
A-C	561	140			561				



2026 + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.47	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	1.47	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Committed	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm Linked arm		Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
A - A1035 (E)		ONE HOUR	✓	1132	100.000	
B - Meaux Lane		ONE HOUR	✓	118	100.000	
C - A1035 (W)		ONE HOUR	√	1340	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То							
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)					
	A - A1035 (E)	0	82	1050					
From	B - Meaux Lane	84	0	34					
	C - A1035 (W)	1321	19	0					

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		То								
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)						
F	A - A1035 (E)	0	1	6						
From	B - Meaux Lane	4	0	3						
	C - A1035 (W)	6	6	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.52	30.98	1.1	D	108	162
C-AB	0.04	7.59	0.0	А	17	26
C-A					1212	1818
A-B					75	113
A-C					963	1445

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	411	0.216	88	0.0	0.3	11.497	В
C-AB	14	4	617	0.023	14	0.0	0.0	6.327	A
C-A	995	249			995				
A-B	62	15			62				
A-C	790	198			790				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	345	0.307	105	0.3	0.4	15.517	С
C-AB	17	4	578	0.030	17	0.0	0.0	6.803	А
C-A	1188	297			1188				
A-B	74	18			74				
A-C	944	236			944				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	250	0.520	128	0.4	1.1	29.925	D
C-AB	21	5	523	0.040	21	0.0	0.0	7.594	А
C-A	1454	364			1454				
A-B	90	23			90				
A-C	1156	289			1156				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	32	250	0.520	130	1.1	1.1	30.981	D
C-AB	21	5	523	0.040	21	0.0	0.0	7.594	A
C-A	1454	364			1454				
A-B	90	23			90				
A-C	1156	289			1156				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	27	345	0.307	109	1.1	0.5	15.926	С
C-AB	17	4	578	0.030	17	0.0	0.0	6.807	А
C-A	1188	297			1188				
A-B	74	18			74				
A-C	944	236			944				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	411	0.216	90	0.5	0.3	11.627	В
C-AB	14	4	617	0.023	14	0.0	0.0	6.328	A
C-A	995	249			995				
A-B	62	15			62				
A-C	790	198			790				



2026 + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.14	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.14	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Committed	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1461	100.000
B - Meaux Lane		ONE HOUR	✓	71	100.000
C - A1035 (W)		ONE HOUR	✓	1154	100.000

Origin-Destination Data

Demand (PCU/hr)

		-	То	
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)
	A - A1035 (E)	0	135	1326
From	B - Meaux Lane	55	0	16
	C - A1035 (W)	1099	55	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		То							
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)					
F	A - A1035 (E)	0	0	3					
From	B - Meaux Lane	0	0	0					
	C - A1035 (W)	2	4	0					



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.44	35.42	0.7	Е	65	98
C-AB	0.14	9.94	0.2	А	50	76
C-A					1008	1513
A-B					124	186
A-C					1217	1825

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	360	0.148	53	0.0	0.2	11.680	В
C-AB	41	10	558	0.074	41	0.0	0.1	7.234	А
C-A	827	207			827				
A-B	102	25			102				
A-C	998	250			998				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	286	0.223	63	0.2	0.3	16.133	С
C-AB	49	12	507	0.097	49	0.1	0.1	8.172	A
C-A	988	247			988				
A-B	121	30			121				
A-C	1192	298			1192				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	180	0.435	76	0.3	0.7	34.338	D
C-AB	61	15	437	0.139	60	0.1	0.2	9.936	А
C-A	1210	303			1210				
A-B	149	37			149				
A-C	1460	365			1460				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	179	0.436	78	0.7	0.7	35.416	E
C-AB	61	15	437	0.139	61	0.2	0.2	9.944	A
C-A	1210	303			1210				
A-B	149	37			149				
A-C	1460	365			1460				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	286	0.223	66	0.7	0.3	16.466	С
C-AB	49	12	507	0.097	50	0.2	0.1	8.183	Α
C-A	988	247			988				
A-B	121	30			121				
A-C	1192	298			1192				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	360	0.148	54	0.3	0.2	11.773	В
C-AB	41	10	558	0.074	42	0.1	0.1	7.249	А
C-A	827	207			827				
A-B	102	25			102				
A-C	998	250			998				



2026 + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		1.73	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.73	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1173	100.000
B - Meaux Lane		ONE HOUR	✓	122	100.000
C - A1035 (W)		ONE HOUR	✓	1358	100.000

Origin-Destination Data

Demand (PCU/hr)

	То							
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)				
	A - A1035 (E)	0	107	1066				
From	B - Meaux Lane	84	0	38				
	C - A1035 (W)	1321	37	0				

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

		То								
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)						
	A - A1035 (E)	0	1	6						
From	B - Meaux Lane	4	0	3						
	C - A1035 (W)	6	6	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.56	35.14	1.3	Е	112	168
C-AB	0.08	8.09	0.1	А	34	51
C-A					1212	1818
A-B					98	147
A-C					978	1467

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	407	0.226	91	0.0	0.3	11.756	В
C-AB	28	7	610	0.046	28	0.0	0.1	6.552	A
C-A	995	249			995				
A-B	81	20			81				
A-C	803	201			803				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	339	0.324	109	0.3	0.5	16.177	С
C-AB	33	8	569	0.058	33	0.1	0.1	7.120	А
C-A	1188	297			1188				
A-B	96	24			96				
A-C	958	240			958				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	240	0.560	131	0.5	1.2	33.539	D
C-AB	41	10	513	0.079	41	0.1	0.1	8.083	А
C-A	1454	364			1454				
A-B	118	29			118				
A-C	1174	293			1174				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	240	0.560	134	1.2	1.3	35.141	E
C-AB	41	10	513	0.079	41	0.1	0.1	8.086	A
C-A	1454	364			1454				
A-B	118	29			118				
A-C	1174	293			1174				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	339	0.324	113	1.3	0.5	16.712	С
C-AB	33	8	569	0.058	33	0.1	0.1	7.126	Α
C-A	1188	297			1188				
A-B	96	24			96				
A-C	958	240			958				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	407	0.226	93	0.5	0.3	11.907	В
C-AB	28	7	610	0.046	28	0.1	0.1	6.558	A
C-A	995	249			995				
A-B	81	20			81				
A-C	803	201			803				



2026 + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A1035_Meaux Ln	T-Junction	Two-way	Two-way	Two-way		2.60	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS	
Left	Normal/unknown	2.60	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

		<u> </u>			
Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A1035 (E)		ONE HOUR	✓	1461	100.000
B - Meaux Lane		ONE HOUR	✓	113	100.000
C - A1035 (W)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

		То									
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)							
	A - A1035 (E)	0	135	1326							
From	B - Meaux Lane	80	0	33							
	C - A1035 (W)	1115	59	0							

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

	То									
		A - A1035 (E)	B - Meaux Lane	C - A1035 (W)						
	A - A1035 (E)	0	0	3						
From	B - Meaux Lane	0	0	0						
	C - A1035 (W)	2	4	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.67	57.97	1.9	F	104	156
C-AB	0.15	10.06	0.2	В	54	81
C-A					1023	1535
A-B					124	186
A-C					1217	1825

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	369	0.230	84	0.0	0.3	12.571	В
C-AB	44	11	558	0.080	44	0.0	0.1	7.276	A
C-A	839	210			839				
A-B	102	25			102				
A-C	998	250			998				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	102	25	294	0.345	101	0.3	0.5	18.535	С
C-AB	53	13	507	0.105	53	0.1	0.1	8.237	Α
C-A	1002	251			1002				
A-B	121	30			121				
A-C	1192	298			1192				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	31	185	0.673	119	0.5	1.8	51.756	F
C-AB	65	16	437	0.149	65	0.1	0.2	10.050	В
C-A	1228	307			1228				
A-B	149	37			149				
A-C	1460	365			1460				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	31	185	0.674	124	1.8	1.9	57.969	F
C-AB	65	16	437	0.149	65	0.2	0.2	10.062	В
C-A	1228	307			1228				
A-B	149	37			149				
A-C	1460	365			1460				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	102	25	294	0.346	107	1.9	0.5	19.761	С
C-AB	53	13	507	0.105	53	0.2	0.1	8.250	Α
C-A	1002	251			1002				
A-B	121	30			121				
A-C	1192	298			1192				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	369	0.231	86	0.5	0.3	12.764	В
C-AB	44	11	558	0.080	45	0.1	0.1	7.291	A
C-A	839	210			839				
A-B	102	25			102				
A-C	998	250			998				



Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023

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Filename: Swinemoor Roundabout.j10

Path: C:\Users\calum.gill-quirke\OneDrive - RSK Group\SCP Job Library 2025 - 250491 - Peartree Hill Solar Farm - Stage 4\03

Data\Traffic modelling\Junction Models (TA)

Report generation date: 22/08/2025 12:32:36

»2016 Base, AM

»2016 Base, PM

»2026 Base, AM

»2026 Base, PM

»2026 Base + Committed, AM

»2026 Base + Committed, PM

»2026 Base + Committed + Dev, AM

»2026 Base + Committed + Dev, PM

Summary of junction performance

		А	M				Р	М		
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
				:	2016	Base				
1 - A1035 (E)		0.2	1.80	0.12	Α		0.1	1.63	0.06	А
2 - Swinemoor Lane	D1	0.1	2.80	0.11	Α	D2	0.2	2.47	0.16	Α
3 - A1174 Hull Bridge Road	וט	0.2	3.61	0.11	Α	D2	0.2	2.96	0.12	Α
4 - A1035 Grange Way		0.2	2.99	0.13	Α		0.1	2.46	0.09	Α
				:	2026	Base				
1 - A1035 (E)		0.2	1.82	0.13	Α		0.1	1.64	0.06	Α
2 - Swinemoor Lane	D3	0.2	2.83	0.12	Α	D4	0.2	2.50	0.17	Α
3 - A1174 Hull Bridge Road	DS	0.2	3.64	0.12	Α	D4	0.2	2.99	0.13	Α
4 - A1035 Grange Way		0.2	3.03	0.14	Α		0.1	2.48	0.10	Α
			20)26 B	ase +	Com	nitted			
1 - A1035 (E)		0.2	1.84	0.14	Α		0.5	2.18	0.28	Α
2 - Swinemoor Lane	D5	0.5	3.34	0.30	Α	D6	0.2	2.86	0.19	Α
3 - A1174 Hull Bridge Road	סט	0.2	4.16	0.13	Α	D6	0.2	3.45	0.15	Α
4 - A1035 Grange Way		0.7	4.54	0.34	Α		0.1	2.51	0.10	Α
			2026	Base	+ Cc	ommitt	ed + Dev			
1 - A1035 (E)		0.2	1.84	0.14	Α		0.5	2.20	0.29	Α
2 - Swinemoor Lane	D7	0.5	3.42	0.32	Α	D8	0.2	2.86	0.19	Α
3 - A1174 Hull Bridge Road	"	0.2	4.22	0.13	Α	р8	0.2	3.45	0.15	Α
4 - A1035 Grange Way		0.7	4.62	0.34	Α		0.1	2.51	0.10	А

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.



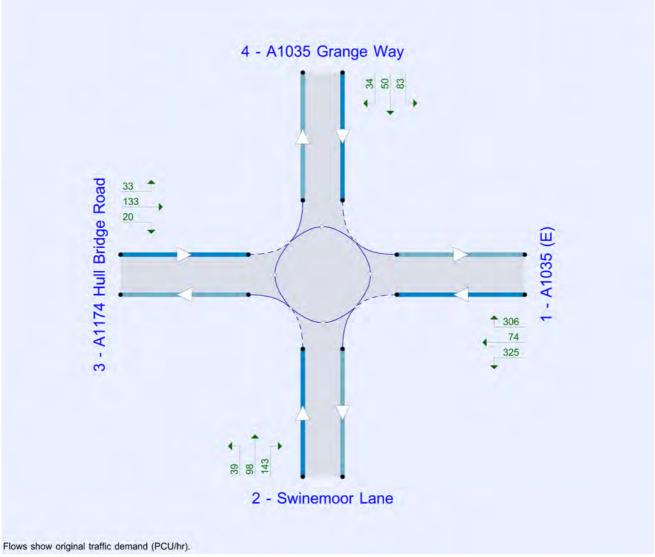
File summary

File Description

Title	
Location	
Site number	
Date	06/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 Base	AM	ONE HOUR	00:00	01:30	15	✓
D2	2016 Base	PM	ONE HOUR	00:00	01:30	15	✓
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓
D4	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓
D5	2026 Base + Committed	AM	ONE HOUR	00:00	01:30	15	✓
D6	2026 Base + Committed	PM	ONE HOUR	00:00	01:30	15	✓
D7	2026 Base + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D8	2026 Base + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report Network flow scaling factor (%)					
A1	✓	100.000	100.000			



2016 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.65	А

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.65	Α

Arms

Arms

Arm	Name	Description	No give-way line
1	A1035 (E)		
2	Swinemoor Lane		
3	A1174 Hull Bridge Road		
4	A1035 Grange Way		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A1035 (E)	5.91	11.57	25.0	41.7	60.0	32.0		
2 - Swinemoor Lane	3.69	7.00	19.7	43.5	60.0	21.0		
3 - A1174 Hull Bridge Road	4.04	7.48	10.1	42.2	60.0	45.0		
4 - A1035 Grange Way	5.04	7.98	10.1	42.2	60.0	42.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A1035 (E)	0.759	2837
2 - Swinemoor Lane	0.602	1872
3 - A1174 Hull Bridge Road	0.546	1678
4 - A1035 Grange Way	0.597	1957

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 Base	AM	ONE HOUR	00:00	01:30	15	✓



Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	297	100.000
2 - Swinemoor Lane		ONE HOUR	✓	173	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	156	100.000
4 - A1035 Grange Way		ONE HOUR	✓	223	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	82	150	65
From	2 - Swinemoor Lane	71	0	25	77
	3 - A1174 Hull Bridge Road	70	39	0	47
	4 - A1035 Grange Way	75	96	52	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

			То		
		1 - A1035 (E)	4 - A1035 Grange Way		
	1 - A1035 (E)	0	4	19	37
From	om 2 - Swinemoor Lane	4	0	36	26
	3 - A1174 Hull Bridge Road	40	18	0	57
	4 - A1035 Grange Way	44	9	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	
1 - A1035 (E)	0.12	1.80	0.2	А	273	409	
2 - Swinemoor Lane	0.11	2.80	0.1	А	159	238	
3 - A1174 Hull Bridge Road	0.11	3.61	0.2	А	143	215	
4 - A1035 Grange Way	0.13	2.99	0.2	А	205	307	

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	224	56	140	2730	0.082	223	162	0.0	0.1	1.689	Α
2 - Swinemoor Lane	130	33	201	1752	0.074	130	163	0.0	0.1	2.599	Α
3 - A1174 Hull Bridge Road	117	29	160	1590	0.074	117	171	0.0	0.1	3.374	Α
4 - A1035 Grange Way	168	42	135	1876	0.089	167	142	0.0	0.1	2.787	А



00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	267	67	168	2709	0.099	267	194	0.1	0.1	1.734	Α
2 - Swinemoor Lane	156	39	240	1728	0.090	155	195	0.1	0.1	2.680	Α
3 - A1174 Hull Bridge Road	140	35	191	1573	0.089	140	204	0.1	0.1	3.468	А
4 - A1035 Grange Way	200	50	162	1860	0.108	200	170	0.1	0.2	2.868	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	327	82	206	2681	0.122	327	238	0.1	0.2	1.799	Α
2 - Swinemoor Lane	190	48	294	1695	0.112	190	239	0.1	0.1	2.800	Α
3 - A1174 Hull Bridge Road	172	43	234	1549	0.111	172	250	0.1	0.2	3.606	А
4 - A1035 Grange Way	246	61	198	1838	0.134	245	208	0.2	0.2	2.989	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	327	82	206	2681	0.122	327	238	0.2	0.2	1.799	Α
2 - Swinemoor Lane	190	48	294	1695	0.112	190	239	0.1	0.1	2.800	А
3 - A1174 Hull Bridge Road	172	43	235	1549	0.111	172	250	0.2	0.2	3.607	Α
4 - A1035 Grange Way	246	61	198	1838	0.134	246	208	0.2	0.2	2.989	Α

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	267	67	168	2709	0.099	267	194	0.2	0.1	1.734	Α
2 - Swinemoor Lane	156	39	240	1728	0.090	156	195	0.1	0.1	2.680	А
3 - A1174 Hull Bridge Road	140	35	192	1573	0.089	140	204	0.2	0.1	3.472	А
4 - A1035 Grange Way	200	50	162	1860	0.108	201	170	0.2	0.2	2.869	А

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	224	56	141	2730	0.082	224	163	0.1	0.1	1.689	А
2 - Swinemoor Lane	130	33	201	1751	0.074	130	163	0.1	0.1	2.601	А
3 - A1174 Hull Bridge Road	117	29	160	1590	0.074	118	171	0.1	0.1	3.375	А
4 - A1035 Grange Way	168	42	136	1876	0.090	168	142	0.2	0.1	2.788	А



2016 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.41	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS		
Left	Normal/unknown	2.41	Α		

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2016 Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	155	100.000
2 - Swinemoor Lane		ONE HOUR	✓	260	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	170	100.000
4 - A1035 Grange Way		ONE HOUR	✓	151	100.000

Origin-Destination Data

Demand (PCU/hr)

			То				
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	toad 4 - A1035 Grange Way		
	1 - A1035 (E)	0	50	71	34		
From	2 - Swinemoor Lane	128	0	38	94		
	3 - A1174 Hull Bridge Road	119	19	0	32		
	4 - A1035 Grange Way	70	48	33	0		

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	2	18	47
From	2 - Swinemoor Lane	1	0	8	3
	3 - A1174 Hull Bridge Road	3	26	0	34
	4 - A1035 Grange Way	4	4	42	0



Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.06	1.63	0.1	А	142	213
2 - Swinemoor Lane	0.16	2.47	0.2	А	239	358
3 - A1174 Hull Bridge Road	0.12	2.96	0.2	А	156	234
4 - A1035 Grange Way	0.09	2.46	0.1	А	139	208

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	117	29	75	2780	0.042	116	238	0.0	0.1	1.582	Α
2 - Swinemoor Lane	196	49	104	1810	0.108	195	88	0.0	0.1	2.289	Α
3 - A1174 Hull Bridge Road	128	32	192	1572	0.081	128	107	0.0	0.1	2.741	Α
4 - A1035 Grange Way	114	28	200	1837	0.062	113	120	0.0	0.1	2.306	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	139	35	90	2769	0.050	139	285	0.1	0.1	1.603	А
2 - Swinemoor Lane	234	58	124	1798	0.130	234	105	0.1	0.2	2.363	Α
3 - A1174 Hull Bridge Road	153	38	230	1552	0.098	153	128	0.1	0.1	2.830	А
4 - A1035 Grange Way	136	34	239	1814	0.075	136	144	0.1	0.1	2.369	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	171	43	110	2753	0.062	171	349	0.1	0.1	1.632	А
2 - Swinemoor Lane	286	72	152	1781	0.161	286	129	0.2	0.2	2.472	А
3 - A1174 Hull Bridge Road	187	47	282	1524	0.123	187	156	0.1	0.2	2.963	Α
4 - A1035 Grange Way	166	42	293	1782	0.093	166	176	0.1	0.1	2.460	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	171	43	110	2753	0.062	171	349	0.1	0.1	1.632	А
2 - Swinemoor Lane	286	72	152	1781	0.161	286	129	0.2	0.2	2.473	А
3 - A1174 Hull Bridge Road	187	47	282	1524	0.123	187	156	0.2	0.2	2.963	Α
4 - A1035 Grange Way	166	42	293	1782	0.093	166	176	0.1	0.1	2.461	Α



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	139	35	90	2768	0.050	139	285	0.1	0.1	1.603	Α
2 - Swinemoor Lane	234	58	124	1798	0.130	234	105	0.2	0.2	2.365	Α
3 - A1174 Hull Bridge Road	153	38	230	1552	0.098	153	128	0.2	0.1	2.831	А
4 - A1035 Grange Way	136	34	239	1814	0.075	136	144	0.1	0.1	2.371	Α

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	117	29	75	2780	0.042	117	239	0.1	0.1	1.585	А
2 - Swinemoor Lane	196	49	104	1810	0.108	196	88	0.2	0.1	2.290	Α
3 - A1174 Hull Bridge Road	128	32	193	1572	0.081	128	107	0.1	0.1	2.744	А
4 - A1035 Grange Way	114	28	200	1837	0.062	114	121	0.1	0.1	2.307	Α



2026 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.68	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.68	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	311	100.000
2 - Swinemoor Lane		ONE HOUR	✓	182	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	163	100.000
4 - A1035 Grange Way		ONE HOUR	✓	235	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	86	157	68
From	2 - Swinemoor Lane	75	0	26	81
	3 - A1174 Hull Bridge Road	73	41	0	49
	4 - A1035 Grange Way	79	101	55	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	4	19	37
From	2 - Swinemoor Lane	4	0	36	26
	3 - A1174 Hull Bridge Road	40	18	0	57
	4 - A1035 Grange Way	44	9	83	0



Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.13	1.82	0.2	А	285	428
2 - Swinemoor Lane	0.12	2.83	0.2	А	167	251
3 - A1174 Hull Bridge Road	0.12	3.64	0.2	А	150	224
4 - A1035 Grange Way	0.14	3.03	0.2	А	216	323

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	234	59	148	2725	0.086	234	170	0.0	0.1	1.700	А
2 - Swinemoor Lane	137	34	210	1746	0.078	137	171	0.0	0.1	2.618	А
3 - A1174 Hull Bridge Road	123	31	168	1586	0.077	122	179	0.0	0.1	3.395	А
4 - A1035 Grange Way	177	44	142	1872	0.095	176	149	0.0	0.1	2.810	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	280	70	177	2702	0.103	279	204	0.1	0.1	1.747	Α
2 - Swinemoor Lane	164	41	252	1721	0.095	164	205	0.1	0.1	2.704	Α
3 - A1174 Hull Bridge Road	147	37	201	1568	0.093	146	214	0.1	0.1	3.495	Α
4 - A1035 Grange Way	211	53	170	1855	0.114	211	178	0.1	0.2	2.897	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	342	86	217	2672	0.128	342	250	0.1	0.2	1.817	Α
2 - Swinemoor Lane	200	50	308	1687	0.119	200	251	0.1	0.2	2.833	Α
3 - A1174 Hull Bridge Road	179	45	246	1543	0.116	179	262	0.1	0.2	3.643	Α
4 - A1035 Grange Way	259	65	208	1832	0.141	259	218	0.2	0.2	3.026	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	342	86	217	2672	0.128	342	250	0.2	0.2	1.817	Α
2 - Swinemoor Lane	200	50	308	1687	0.119	200	251	0.2	0.2	2.833	Α
3 - A1174 Hull Bridge Road	179	45	247	1543	0.116	179	262	0.2	0.2	3.643	Α
4 - A1035 Grange Way	259	65	208	1832	0.141	259	218	0.2	0.2	3.026	А



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	280	70	177	2702	0.103	280	204	0.2	0.1	1.748	А
2 - Swinemoor Lane	164	41	252	1721	0.095	164	205	0.2	0.1	2.707	Α
3 - A1174 Hull Bridge Road	147	37	202	1567	0.093	147	214	0.2	0.1	3.499	А
4 - A1035 Grange Way	211	53	170	1855	0.114	211	178	0.2	0.2	2.898	Α

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	234	59	148	2724	0.086	234	171	0.1	0.1	1.700	Α
2 - Swinemoor Lane	137	34	211	1745	0.079	137	172	0.1	0.1	2.619	Α
3 - A1174 Hull Bridge Road	123	31	169	1585	0.077	123	179	0.1	0.1	3.396	Α
4 - A1035 Grange Way	177	44	142	1872	0.095	177	149	0.2	0.1	2.811	A



2026 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
Г	1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.43	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.43	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	ime Period name Traffic profile type		Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Base	PM	ONE HOUR 00:00		01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	161	100.000
2 - Swinemoor Lane		ONE HOUR	✓	270	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	176	100.000
4 - A1035 Grange Way		ONE HOUR	✓	157	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	52	74	35
From	2 - Swinemoor Lane	133	0	39	98
	3 - A1174 Hull Bridge Road	123	20	0	33
	4 - A1035 Grange Way	73	50	34	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

			То		
		1 - A1035 (E) 2 - Swinemoor Lane		3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	2	18	47
From	2 - Swinemoor Lane	1	0	8	3
	3 - A1174 Hull Bridge Road	3	26	0	34
	4 - A1035 Grange Way	4	4	42	0



Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.06	1.64	0.1	А	148	222
2 - Swinemoor Lane	0.17	2.50	0.2	А	248	372
3 - A1174 Hull Bridge Road	0.13	2.99	0.2	А	162	242
4 - A1035 Grange Way	0.10	2.48	0.1	А	144	216

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	121	30	78	2778	0.044	121	247	0.0	0.1	1.586	Α
2 - Swinemoor Lane	203	51	107	1808	0.112	203	92	0.0	0.1	2.303	Α
3 - A1174 Hull Bridge Road	133	33	200	1568	0.084	132	110	0.0	0.1	2.758	А
4 - A1035 Grange Way	118	30	207	1833	0.064	118	125	0.0	0.1	2.317	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	145	36	93	2766	0.052	145	296	0.1	0.1	1.607	Α
2 - Swinemoor Lane	243	61	129	1795	0.135	243	110	0.1	0.2	2.381	Α
3 - A1174 Hull Bridge Road	158	40	239	1547	0.102	158	132	0.1	0.1	2.852	А
4 - A1035 Grange Way	141	35	248	1809	0.078	141	149	0.1	0.1	2.383	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	177	44	114	2750	0.064	177	362	0.1	0.1	1.637	А
2 - Swinemoor Lane	297	74	157	1778	0.167	297	134	0.2	0.2	2.496	А
3 - A1174 Hull Bridge Road	194	48	293	1518	0.128	194	162	0.1	0.2	2.992	Α
4 - A1035 Grange Way	173	43	304	1775	0.097	173	183	0.1	0.1	2.479	А

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	177	44	115	2750	0.064	177	362	0.1	0.1	1.637	Α
2 - Swinemoor Lane	297	74	157	1778	0.167	297	134	0.2	0.2	2.496	Α
3 - A1174 Hull Bridge Road	194	48	293	1518	0.128	194	162	0.2	0.2	2.992	Α
4 - A1035 Grange Way	173	43	304	1775	0.097	173	183	0.1	0.1	2.479	Α

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Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	145	36	94	2766	0.052	145	296	0.1	0.1	1.607	Α
2 - Swinemoor Lane	243	61	129	1795	0.135	243	110	0.2	0.2	2.381	Α
3 - A1174 Hull Bridge Road	158	40	239	1547	0.102	158	132	0.2	0.1	2.853	А
4 - A1035 Grange Way	141	35	248	1808	0.078	141	149	0.1	0.1	2.383	Α

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	121	30	78	2777	0.044	121	248	0.1	0.1	1.586	Α
2 - Swinemoor Lane	203	51	108	1808	0.112	203	92	0.2	0.1	2.306	Α
3 - A1174 Hull Bridge Road	133	33	200	1568	0.085	133	111	0.1	0.1	2.761	Α
4 - A1035 Grange Way	118	30	208	1832	0.065	118	125	0.1	0.1	2.318	A



2026 Base + Committed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	3.50	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.50	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Base + Committed	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	341	100.000
2 - Swinemoor Lane		ONE HOUR	✓	455	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	163	100.000
4 - A1035 Grange Way		ONE HOUR	✓	506	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	96	167	78
From	2 - Swinemoor Lane	348	0	26	81
	3 - A1174 Hull Bridge Road	73	41	0	49
	4 - A1035 Grange Way	350	101	55	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	4	19	37
From	2 - Swinemoor Lane	4	0	36	26
	3 - A1174 Hull Bridge Road	40	18	0	57
	4 - A1035 Grange Way	44	9	83	0



Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.14	1.84	0.2	А	313	469
2 - Swinemoor Lane	0.30	3.34	0.5	А	418	626
3 - A1174 Hull Bridge Road	0.13	4.16	0.2	А	150	224
4 - A1035 Grange Way	0.34	4.54	0.7	А	464	696

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	257	64	148	2725	0.094	256	578	0.0	0.1	1.716	Α
2 - Swinemoor Lane	343	86	225	1737	0.197	341	179	0.0	0.3	2.807	А
3 - A1174 Hull Bridge Road	123	31	381	1470	0.084	122	186	0.0	0.1	3.688	А
4 - A1035 Grange Way	381	95	347	1750	0.218	379	156	0.0	0.4	3.632	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	307	77	177	2703	0.113	306	693	0.1	0.2	1.768	Α
2 - Swinemoor Lane	409	102	270	1710	0.239	409	214	0.3	0.3	3.011	Α
3 - A1174 Hull Bridge Road	147	37	455	1429	0.103	146	223	0.1	0.2	3.874	А
4 - A1035 Grange Way	455	114	415	1709	0.266	454	187	0.4	0.5	3.969	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	375	94	217	2672	0.140	375	848	0.2	0.2	1.844	А
2 - Swinemoor Lane	501	125	330	1674	0.299	500	262	0.3	0.5	3.338	А
3 - A1174 Hull Bridge Road	179	45	558	1373	0.131	179	273	0.2	0.2	4.163	Α
4 - A1035 Grange Way	557	139	508	1653	0.337	556	229	0.5	0.7	4.538	А

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	375	94	217	2672	0.141	375	849	0.2	0.2	1.844	Α
2 - Swinemoor Lane	501	125	330	1674	0.299	501	262	0.5	0.5	3.341	Α
3 - A1174 Hull Bridge I	Road 179	45	558	1373	0.131	179	273	0.2	0.2	4.164	Α
4 - A1035 Grange Way	557	139	509	1653	0.337	557	229	0.7	0.7	4.544	Α

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Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	307	77	177	2702	0.113	307	694	0.2	0.2	1.771	Α
2 - Swinemoor Lane	409	102	270	1710	0.239	410	214	0.5	0.3	3.016	Α
3 - A1174 Hull Bridge Road	147	37	456	1428	0.103	147	223	0.2	0.2	3.879	А
4 - A1035 Grange Way	455	114	416	1708	0.266	456	187	0.7	0.5	3.978	Α

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	257	64	148	2724	0.094	257	581	0.2	0.1	1.720	Α
2 - Swinemoor Lane	343	86	226	1736	0.197	343	179	0.3	0.3	2.814	А
3 - A1174 Hull Bridge Road	123	31	382	1469	0.084	123	187	0.2	0.1	3.693	А
4 - A1035 Grange Way	381	95	348	1749	0.218	381	157	0.5	0.4	3.645	А



2026 Base + Committed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.54	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.54	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Base + Committed	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	705	100.000
2 - Swinemoor Lane		ONE HOUR	✓	280	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	186	100.000
4 - A1035 Grange Way		ONE HOUR	✓	167	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	325	74	306
From	2 - Swinemoor Lane	143	0	39	98
	3 - A1174 Hull Bridge Road	133	20	0	33
	4 - A1035 Grange Way	83	50	34	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	2	18	47
From	2 - Swinemoor Lane	1	0	8	3
	3 - A1174 Hull Bridge Road	3	26	0	34
	4 - A1035 Grange Way	4	4	42	0



Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.28	2.18	0.5	А	647	970
2 - Swinemoor Lane	0.19	2.86	0.2	А	257	385
3 - A1174 Hull Bridge Road	0.15	3.45	0.2	А	171	256
4 - A1035 Grange Way	0.10	2.51	0.1	А	153	230

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	531	133	78	2778	0.191	530	269	0.0	0.3	1.915	Α
2 - Swinemoor Lane	211	53	311	1685	0.125	210	297	0.0	0.1	2.503	Α
3 - A1174 Hull Bridge Road	140	35	411	1453	0.096	140	110	0.0	0.1	3.005	А
4 - A1035 Grange Way	126	31	222	1824	0.069	125	328	0.0	0.1	2.331	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	634	158	93	2766	0.229	633	323	0.3	0.4	2.019	Α
2 - Swinemoor Lane	252	63	372	1648	0.153	252	355	0.1	0.2	2.644	Α
3 - A1174 Hull Bridge Road	167	42	491	1409	0.119	167	132	0.1	0.1	3.178	Α
4 - A1035 Grange Way	150	38	266	1798	0.084	150	393	0.1	0.1	2.402	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	776	194	114	2750	0.282	776	395	0.4	0.5	2.180	А
2 - Swinemoor Lane	308	77	456	1598	0.193	308	435	0.2	0.2	2.863	А
3 - A1174 Hull Bridge Road	205	51	602	1349	0.152	205	162	0.1	0.2	3.449	Α
4 - A1035 Grange Way	184	46	326	1762	0.104	184	481	0.1	0.1	2.508	А

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	776	194	115	2750	0.282	776	395	0.5	0.5	2.181	Α
2 - Swinemoor Lane	308	77	456	1598	0.193	308	435	0.2	0.2	2.864	А
3 - A1174 Hull Bridge Road	205	51	602	1349	0.152	205	162	0.2	0.2	3.450	Α
4 - A1035 Grange Way	184	46	326	1762	0.104	184	481	0.1	0.1	2.508	Α



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	634	158	94	2766	0.229	634	323	0.5	0.4	2.021	Α
2 - Swinemoor Lane	252	63	372	1648	0.153	252	355	0.2	0.2	2.646	Α
3 - A1174 Hull Bridge Road	167	42	492	1409	0.119	167	132	0.2	0.1	3.179	А
4 - A1035 Grange Way	150	38	266	1798	0.084	150	393	0.1	0.1	2.403	Α

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	531	133	78	2777	0.191	531	270	0.4	0.3	1.918	А
2 - Swinemoor Lane	211	53	312	1685	0.125	211	298	0.2	0.1	2.508	Α
3 - A1174 Hull Bridge Road	140	35	412	1452	0.096	140	111	0.1	0.1	3.010	А
4 - A1035 Grange Way	126	31	223	1823	0.069	126	329	0.1	0.1	2.333	Α



2026 Base + Committed + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	3.56	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.56	Α

Traffic Demand

Demand Set Details

	ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
ſ	D7	2026 Base + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	341	100.000
2 - Swinemoor Lane		ONE HOUR	✓	483	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	163	100.000
4 - A1035 Grange Way		ONE HOUR	✓	506	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	96	167	78
From	2 - Swinemoor Lane	376	0	26	81
	3 - A1174 Hull Bridge Road	73	41	0	49
	4 - A1035 Grange Way	350	101	55	0

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	4	19	37
From	2 - Swinemoor Lane	4	0	36	26
	3 - A1174 Hull Bridge Road	40	18	0	57
	4 - A1035 Grange Way	44	9	83	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.14	1.84	0.2	А	313	469
2 - Swinemoor Lane	0.32	3.42	0.5	Α	443	665
3 - A1174 Hull Bridge Road	0.13	4.22	0.2	А	150	224
4 - A1035 Grange Way	0.34	4.62	0.7	А	464	696

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	257	64	148	2725	0.094	256	599	0.0	0.1	1.716	А
2 - Swinemoor Lane	364	91	225	1737	0.209	362	179	0.0	0.3	2.841	Α
3 - A1174 Hull Bridge Road	123	31	402	1458	0.084	122	186	0.0	0.1	3.719	А
4 - A1035 Grange Way	381	95	368	1737	0.219	379	156	0.0	0.4	3.665	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	307	77	177	2703	0.113	306	718	0.1	0.2	1.768	А
2 - Swinemoor Lane	434	109	270	1710	0.254	434	214	0.3	0.4	3.062	А
3 - A1174 Hull Bridge Road	147	37	481	1415	0.104	146	223	0.1	0.2	3.916	Α
4 - A1035 Grange Way	455	114	440	1694	0.269	454	187	0.4	0.5	4.018	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	375	94	217	2672	0.140	375	879	0.2	0.2	1.844	Α
2 - Swinemoor Lane	532	133	330	1674	0.318	531	262	0.4	0.5	3.418	А
3 - A1174 Hull Bridge Road	179	45	588	1356	0.132	179	273	0.2	0.2	4.222	А
4 - A1035 Grange Way	557	139	539	1635	0.341	556	229	0.5	0.7	4.615	А

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	375	94	217	2672	0.141	375	880	0.2	0.2	1.844	Α
2 - Swinemoor Lane	532	133	330	1674	0.318	532	262	0.5	0.5	3.422	Α
3 - A1174 Hull Bridge Road	179	45	589	1356	0.132	179	273	0.2	0.2	4.223	Α
4 - A1035 Grange Way	557	139	539	1634	0.341	557	229	0.7	0.7	4.622	А



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	307	77	177	2702	0.113	307	719	0.2	0.2	1.771	Α
2 - Swinemoor Lane	434	109	270	1710	0.254	435	214	0.5	0.4	3.067	Α
3 - A1174 Hull Bridge Road	147	37	481	1414	0.104	147	223	0.2	0.2	3.919	Α
4 - A1035 Grange Way	455	114	441	1693	0.269	456	187	0.7	0.5	4.026	А

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	257	64	148	2724	0.094	257	602	0.2	0.1	1.717	Α
2 - Swinemoor Lane	364	91	226	1736	0.209	364	179	0.4	0.3	2.849	Α
3 - A1174 Hull Bridge Road	123	31	403	1457	0.084	123	187	0.2	0.1	3.722	Α
4 - A1035 Grange Way	381	95	369	1736	0.219	381	157	0.5	0.4	3.679	А



2026 Base + Committed + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Swinemoor Roundabout	Standard Roundabout		1, 2, 3, 4	2.54	Α

Junction Network

Driving side	Lighting	Lighting Network delay (s)			
Left	Normal/unknown	2.54	Α		

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Base + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A1035 (E)		ONE HOUR	✓	734	100.000
2 - Swinemoor Lane		ONE HOUR	✓	280	100.000
3 - A1174 Hull Bridge Road		ONE HOUR	✓	186	100.000
4 - A1035 Grange Way		ONE HOUR	✓	167	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	354	74	306
From	2 - Swinemoor Lane	143	0	39	98
	3 - A1174 Hull Bridge Road	133	20	0	33
	4 - A1035 Grange Way	83	50	34	0

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То		
		1 - A1035 (E)	2 - Swinemoor Lane	3 - A1174 Hull Bridge Road	4 - A1035 Grange Way
	1 - A1035 (E)	0	2	18	47
From	2 - Swinemoor Lane	1	0	8	3
	3 - A1174 Hull Bridge Road	3	26	0	34
	4 - A1035 Grange Way	4	4	42	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A1035 (E)	0.29	2.20	0.5	А	674	1010
2 - Swinemoor Lane	0.19	2.86	0.2	Α	257	385
3 - A1174 Hull Bridge Road	0.15	3.45	0.2	А	171	256
4 - A1035 Grange Way	0.10	2.51	0.1	А	153	230

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	553	138	78	2778	0.199	551	269	0.0	0.3	1.920	А
2 - Swinemoor Lane	211	53	311	1685	0.125	210	318	0.0	0.1	2.503	Α
3 - A1174 Hull Bridge Road	140	35	411	1453	0.096	140	110	0.0	0.1	3.005	А
4 - A1035 Grange Way	126	31	222	1824	0.069	125	328	0.0	0.1	2.331	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	660	165	93	2766	0.239	660	323	0.3	0.4	2.030	Α
2 - Swinemoor Lane	252	63	372	1648	0.153	252	381	0.1	0.2	2.644	А
3 - A1174 Hull Bridge Road	167	42	491	1409	0.119	167	132	0.1	0.1	3.178	Α
4 - A1035 Grange Way	150	38	266	1798	0.084	150	393	0.1	0.1	2.402	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	808	202	114	2750	0.294	808	395	0.4	0.5	2.201	Α
2 - Swinemoor Lane	308	77	456	1598	0.193	308	467	0.2	0.2	2.863	Α
3 - A1174 Hull Bridge Road	205	51	602	1349	0.152	205	162	0.1	0.2	3.449	А
4 - A1035 Grange Way	184	46	326	1762	0.104	184	481	0.1	0.1	2.508	А

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	808	202	115	2750	0.294	808	395	0.5	0.5	2.201	Α
2 - Swinemoor Lane	308	77	456	1598	0.193	308	467	0.2	0.2	2.864	Α
3 - A1174 Hull Bridge Road	205	51	602	1349	0.152	205	162	0.2	0.2	3.450	А
4 - A1035 Grange Way	184	46	326	1762	0.104	184	481	0.1	0.1	2.508	А



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	660	165	94	2766	0.239	660	323	0.5	0.4	2.031	Α
2 - Swinemoor Lane	252	63	372	1648	0.153	252	381	0.2	0.2	2.646	Α
3 - A1174 Hull Bridge Road	167	42	492	1409	0.119	167	132	0.2	0.1	3.179	Α
4 - A1035 Grange Way	150	38	266	1798	0.084	150	393	0.1	0.1	2.403	А

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A1035 (E)	553	138	78	2777	0.199	553	270	0.4	0.3	1.923	Α
2 - Swinemoor Lane	211	53	312	1685	0.125	211	319	0.2	0.1	2.508	Α
3 - A1174 Hull Bridge Road	140	35	412	1452	0.096	140	111	0.1	0.1	3.010	Α
4 - A1035 Grange Way	126	31	223	1823	0.069	126	329	0.1	0.1	2.333	А



Junctions 10

ARCADY 10 - Roundabout Module

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Filename: White Cross Roundabout.j10

Path: C:\Users\calum.gill-quirke\OneDrive - RSK Group\SCP Job Library 2025 - 250491 - Peartree Hill Solar Farm - Stage 4\03

Data\Traffic modelling\Junction Models (TA) Report generation date: 22/08/2025 12:36:30

»2023 Base, AM

»2023 Base, PM

»2026 Base, AM

»2026 Base, PM

»2026 Base + Committed, AM

»2026 Base + Committed, PM

»2026 Base + Committed + Dev , AM

»2026 Base + Committed + Dev, PM

Summary of junction performance

		А	M			PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2023	Base				
1 - A165 (E)		0.4	1.80	0.29	Α		0.5	1.90	0.34	Α
2 - A165 White Cross Road	D1	1.0	4.88	0.48	Α	D2	0.5	3.46	0.33	Α
3 - A1035	וטן	1.2	4.99	0.53	Α	DZ	2.3	7.20	0.70	Α
4 - Beverley Road		0.3	3.55	0.23	Α		0.2	3.16	0.14	Α
				:	2026	Base				
1 - A165 (E)		0.5	1.83	0.30	Α		0.6	1.93	0.35	Α
2 - A165 White Cross Road	D3	1.1	5.08	0.49	Α	D4	0.5	3.53	0.34	Α
3 - A1035	Do	1.3	5.18	0.55	Α	D4	2.6	7.70	0.72	Α
4 - Beverley Road		0.3	3.64	0.24	Α		0.2	3.22	0.14	Α
			20)26 B	ase +	Comr	nitted			
1 - A165 (E)		0.5	1.82	0.30	Α		2.4	4.23	0.70	Α
2 - A165 White Cross Road	D5	3.5	11.12	0.77	В	D6	0.8	5.36	0.44	Α
3 - A1035	סט	66.4	139.78	1.08	F	D6	2.8	8.27	0.74	Α
4 - Beverley Road		0.6	7.08	0.38	Α		0.2	3.27	0.14	Α
		2026 Base + Committed + Dev								
1 - A165 (E)		0.5	1.84	0.30	Α		2.4	4.28	0.70	Α
2 - A165 White Cross Road	D7	3.8	11.85	0.78	В	D8	0.9	5.54	0.46	Α
3 - A1035	01	72.7	151.14	1.09	F	D0	3.1	8.97	0.76	Α
4 - Beverley Road		0.7	7.20	0.39	А		0.2	3.32	0.14	Α

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.



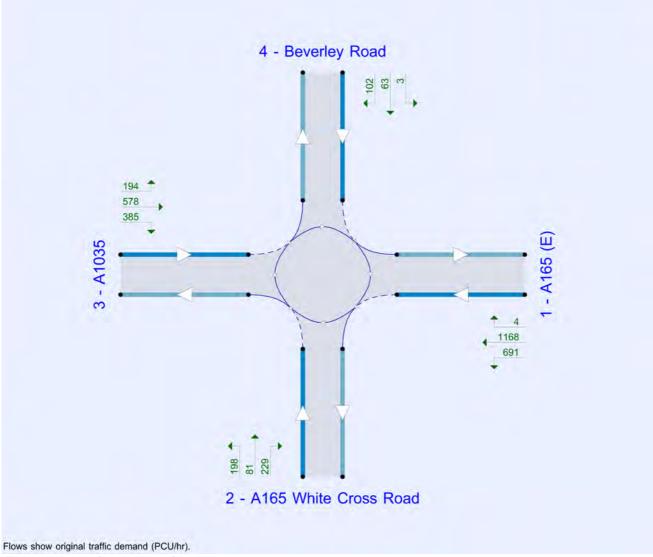
File summary

File Description

Title	
Location	
Site number	
Date	06/09/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	RSKHELSBY\calum.gill-quirke
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	00:00	01:30	15	✓
D2	2023 Base	PM	ONE HOUR	00:00	01:30	15	✓
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓
D4	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓
D5	2026 Base + Committed	AM	ONE HOUR	00:00	01:30	15	✓
D6	2026 Base + Committed	PM	ONE HOUR	00:00	01:30	15	✓
D7	2026 Base + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓
D8	2026 Base + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

3



2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.80	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.80	Α

Arms

Arms

Arm	Name	Description	No give-way line
1	A165 (E)		
2	A165 White Cross Road		
3	A1035		
4	Beverley Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A165 (E)	8.70	10.60	77.0	41.0	70.0	16.0		
2 - A165 White Cross Road	4.20	7.20	32.7	33.0	70.0	30.0		
3 - A1035	3.40	6.80	37.8	25.0	70.0	27.0		
4 - Beverley Road	4.40	7.90	23.5	20.0	70.0	37.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A165 (E)	0.791	3403
2 - A165 White Cross Road	0.559	2013
3 - A1035	0.537	1867
4 - Beverley Road	0.547	2002

The slope and intercept shown above include any corrections and adjustments.



Traffic Demand

Demand Set Details

ID	Scenario name	rio name Time Period name Traffic p		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	793	100.000
2 - A165 White Cross Road		ONE HOUR	✓	668	100.000
3 - A1035		ONE HOUR	✓	798	100.000
4 - Beverley Road		ONE HOUR	✓	289	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	202	563	28
From	2 - A165 White Cross Road	308	0	317	43
	3 - A1035	556	182	0	60
	4 - Beverley Road	48	60	181	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	11	7	8
From	2 - A165 White Cross Road	14	0	4	10
	3 - A1035	6	7	0	3
	4 - Beverley Road	4	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.29	1.80	0.4	А	728	1092
2 - A165 White Cross Road	0.48	4.88	1.0	A	613	919
3 - A1035	0.53	4.99	1.2	А	732	1098
4 - Beverley Road	0.23	3.55	0.3	А	265	398



Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	597	149	317	3152	0.189	596	684	0.0	0.3	1.521	Α
2 - A165 White Cross Road	503	126	580	1689	0.298	501	333	0.0	0.5	3.293	Α
3 - A1035	601	150	284	1715	0.350	599	797	0.0	0.6	3.411	А
4 - Beverley Road	218	54	785	1572	0.138	217	98	0.0	0.2	2.760	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	713	178	380	3103	0.230	713	819	0.3	0.3	1.626	Α
2 - A165 White Cross Road	601	150	694	1625	0.369	600	399	0.5	0.6	3.817	Α
3 - A1035	717	179	340	1684	0.426	717	953	0.6	0.8	3.939	Α
4 - Beverley Road	260	65	939	1488	0.175	260	118	0.2	0.2	3.047	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	873	218	465	3035	0.288	873	1002	0.3	0.4	1.797	А
2 - A165 White Cross Road	735	184	849	1538	0.478	734	488	0.6	1.0	4.861	А
3 - A1035	879	220	417	1644	0.535	877	1167	0.8	1.2	4.966	Α
4 - Beverley Road	318	80	1149	1373	0.232	318	144	0.2	0.3	3.549	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	873	218	466	3035	0.288	873	1004	0.4	0.4	1.798	Α
2 - A165 White Cross Road	735	184	850	1538	0.478	735	489	1.0	1.0	4.880	Α
3 - A1035	879	220	417	1643	0.535	879	1168	1.2	1.2	4.990	Α
4 - Beverley Road	318	80	1152	1371	0.232	318	144	0.3	0.3	3.553	Α

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	713	178	381	3102	0.230	713	822	0.4	0.3	1.627	Α
2 - A165 White Cross Road	601	150	695	1625	0.370	602	400	1.0	0.6	3.835	Α
3 - A1035	717	179	341	1684	0.426	719	955	1.2	0.8	3.961	Α
4 - Beverley Road	260	65	943	1486	0.175	260	118	0.3	0.2	3.054	Α

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	597	149	319	3151	0.189	597	688	0.3	0.3	1.522	А
2 - A165 White Cross Road	503	126	582	1688	0.298	504	335	0.6	0.5	3.307	А
3 - A1035	601	150	286	1714	0.351	602	799	0.8	0.6	3.435	Α
4 - Beverley Road	218	54	789	1570	0.139	218	99	0.2	0.2	2.767	Α



2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.43	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS		
Left	Normal/unknown	4.43	Α		

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	
D2	2023 Base	PM	ONE HOUR	00:00	01:30	15	✓	

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
1 - A165 (E)		ONE HOUR	✓	913	100.000	
2 - A165 White Cross Road		ONE HOUR	✓	477	100.000	
3 - A1035		ONE HOUR	✓	1073	100.000	
4 - Beverley Road		ONE HOUR	✓	164	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То												
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road								
	1 - A165 (E)	0	336	573	4								
From	2 - A165 White Cross Road	219	0	181	77								
	3 - A1035	554	335	0	184								
	4 - Beverley Road	3	62	99	0								

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road	
	1 - A165 (E)	0	5	3	0	
From	2 - A165 White Cross Road	5	0	2	0	
	3 - A1035	2	1	0	3	
	4 - Beverley Road	0	2	1	0	

Results

Results Summary for whole modelled period

Arm	Arm Max RFC		Max Delay (s) Max Queue (PCU)		Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	
1 - A165 (E)	0.34	1.90	0.5	A	838	1257	
2 - A165 White Cross Road	0.33	3.46	0.5	А	438	657	
3 - A1035	0.70	7.20	2.3	A	985	1477	
4 - Beverley Road	0.14	3.16	0.2	A	150	226	

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	687	172	372	3109	0.221	686	582	0.0	0.3	1.541	А
2 - A165 White Cross Road	359	90	508	1729	0.208	358	550	0.0	0.3	2.705	Α
3 - A1035	808	202	225	1746	0.463	804	641	0.0	0.9	3.879	Α
4 - Beverley Road	123	31	831	1547	0.080	123	199	0.0	0.1	2.562	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	821	205	445	3051	0.269	820	697	0.3	0.4	1.673	А
2 - A165 White Cross Road	429	107	607	1674	0.256	428	658	0.3	0.4	2.978	А
3 - A1035	965	241	269	1722	0.560	963	766	0.9	1.3	4.816	Α
4 - Beverley Road	147	37	995	1457	0.101	147	238	0.1	0.1	2.784	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1005	251	545	2972	0.338	1005	852	0.4	0.5	1.897	Α
2 - A165 White Cross Road	525	131	744	1597	0.329	525	805	0.4	0.5	3.455	Α
3 - A1035	1181	295	330	1690	0.699	1177	938	1.3	2.3	7.095	Α
4 - Beverley Road	181	45	1216	1336	0.135	180	291	0.1	0.2	3.157	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1005	251	546	2971	0.338	1005	854	0.5	0.5	1.898	Α
2 - A165 White Cross Road	525	131	744	1597	0.329	525	807	0.5	0.5	3.459	Α
3 - A1035	1181	295	330	1690	0.699	1181	939	2.3	2.3	7.205	А
4 - Beverley Road	181	45	1220	1334	0.135	181	292	0.2	0.2	3.162	Α

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Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	821	205	447	3049	0.269	821	700	0.5	0.4	1.675	Α
2 - A165 White Cross Road	429	107	608	1673	0.256	429	661	0.5	0.4	2.982	А
3 - A1035	965	241	270	1722	0.560	969	768	2.3	1.3	4.894	А
4 - Beverley Road	147	37	1000	1455	0.101	148	239	0.2	0.1	2.791	Α

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	687	172	374	3107	0.221	688	585	0.4	0.3	1.545	А
2 - A165 White Cross Road	359	90	509	1728	0.208	359	553	0.4	0.3	2.709	Α
3 - A1035	808	202	226	1746	0.463	810	643	1.3	0.9	3.923	А
4 - Beverley Road	123	31	836	1544	0.080	124	200	0.1	0.1	2.568	Α

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2026 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
I	1	untitled	Standard Roundabout		1, 2, 3, 4	3.93	Α

Junction Network

Driving side Lighting		Network delay (s)	Network LOS	
Left	Normal/unknown	3.93	Α	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Base	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	814	100.000
2 - A165 White Cross Road		ONE HOUR	✓	685	100.000
3 - A1035		ONE HOUR	✓	818	100.000
4 - Beverley Road		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	207	578	29
From	2 - A165 White Cross Road	316	0	325	44
	3 - A1035	570	187	0	61
	4 - Beverley Road	49	62	186	0

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



		То									
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road						
	1 - A165 (E)	0	11	7	8						
From	2 - A165 White Cross Road	14	0	4	10						
	3 - A1035	6	7	0	3						
	4 - Beverley Road	4	7	3	0						

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.30	1.83	0.5	А	747	1120
2 - A165 White Cross Road	0.49	5.08	1.1	Α	629	943
3 - A1035	0.55	5.18	1.3	А	751	1126
4 - Beverley Road	0.24	3.64	0.3	А	273	409

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	613	153	326	3145	0.195	612	701	0.0	0.3	1.535	А
2 - A165 White Cross Road	516	129	596	1680	0.307	514	342	0.0	0.5	3.352	Α
3 - A1035	616	154	292	1710	0.360	613	818	0.0	0.6	3.471	Α
4 - Beverley Road	224	56	805	1561	0.143	223	101	0.0	0.2	2.795	А

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	732	183	391	3094	0.237	731	840	0.3	0.3	1.645	А
2 - A165 White Cross Road	616	154	713	1615	0.381	615	410	0.5	0.7	3.915	Α
3 - A1035	735	184	349	1680	0.438	734	978	0.6	0.8	4.034	Α
4 - Beverley Road	267	67	963	1474	0.181	267	120	0.2	0.2	3.099	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	896	224	478	3025	0.296	896	1027	0.3	0.5	1.826	Α
2 - A165 White Cross Road	754	189	873	1525	0.494	753	501	0.7	1.1	5.058	Α
3 - A1035	901	225	427	1638	0.550	899	1198	0.8	1.3	5.152	А
4 - Beverley Road	327	82	1179	1356	0.241	327	147	0.2	0.3	3.635	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	896	224	479	3024	0.296	896	1029	0.5	0.5	1.826	Α
2 - A165 White Cross Road	754	189	873	1525	0.495	754	502	1.1	1.1	5.080	Α
3 - A1035	901	225	428	1637	0.550	901	1199	1.3	1.3	5.179	А
4 - Beverley Road	327	82	1181	1355	0.241	327	148	0.3	0.3	3.639	Α

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Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	732	183	392	3093	0.237	732	843	0.5	0.3	1.646	Α
2 - A165 White Cross Road	616	154	713	1614	0.381	617	411	1.1	0.7	3.934	А
3 - A1035	735	184	351	1679	0.438	737	980	1.3	0.8	4.059	Α
4 - Beverley Road	267	67	967	1472	0.181	267	121	0.3	0.2	3.108	А

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	613	153	328	3144	0.195	613	705	0.3	0.3	1.536	А
2 - A165 White Cross Road	516	129	597	1679	0.307	516	344	0.7	0.5	3.369	Α
3 - A1035	616	154	293	1710	0.360	617	821	0.8	0.6	3.493	А
4 - Beverley Road	224	56	809	1559	0.143	224	101	0.2	0.2	2.803	Α



2026 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

I	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
ſ	1	untitled	Standard Roundabout		1, 2, 3, 4	4.66	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.66	Α

Traffic Demand

Demand Set Details

I	ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
I	D4	2026 Base	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	935	100.000
2 - A165 White Cross Road		ONE HOUR	✓	488	100.000
3 - A1035		ONE HOUR	✓	1099	100.000
4 - Beverley Road		ONE HOUR	✓	168	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	344	587	4
From	2 - A165 White Cross Road	224	0	185	79
	3 - A1035	568	343	0	188
	4 - Beverley Road	3	63	102	0

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	5	3	0
From	2 - A165 White Cross Road	5	0	2	0
	3 - A1035	2	1	0	3
Ī	4 - Beverley Road	0	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.35	1.93	0.6	А	858	1287
2 - A165 White Cross Road	0.34	3.53	0.5	А	448	672
3 - A1035	0.72	7.70	2.6	А	1008	1513
4 - Beverley Road	0.14	3.22	0.2	А	154	231

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	704	176	381	3102	0.227	703	596	0.0	0.3	1.556	А
2 - A165 White Cross Road	367	92	521	1722	0.213	366	563	0.0	0.3	2.732	Α
3 - A1035	827	207	230	1743	0.475	824	657	0.0	0.9	3.971	Α
4 - Beverley Road	126	32	851	1536	0.082	126	203	0.0	0.1	2.588	А

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	841	210	456	3042	0.276	840	714	0.3	0.4	1.694	Α
2 - A165 White Cross Road	439	110	623	1665	0.263	438	674	0.3	0.4	3.023	Α
3 - A1035	988	247	276	1719	0.575	986	785	0.9	1.4	4.991	Α
4 - Beverley Road	151	38	1019	1444	0.105	151	243	0.1	0.1	2.821	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1029	257	558	2962	0.348	1029	873	0.4	0.6	1.931	Α
2 - A165 White Cross Road	537	134	763	1587	0.339	537	824	0.4	0.5	3.530	Α
3 - A1035	1210	303	338	1686	0.718	1205	962	1.4	2.5	7.557	Α
4 - Beverley Road	185	46	1246	1320	0.140	185	297	0.1	0.2	3.213	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1029	257	559	2961	0.348	1029	875	0.6	0.6	1.933	Α
2 - A165 White Cross Road	537	134	763	1587	0.339	537	826	0.5	0.5	3.533	Α
3 - A1035	1210	303	338	1686	0.718	1210	962	2.5	2.6	7.698	Α
4 - Beverley Road	185	46	1250	1318	0.140	185	298	0.2	0.2	3.220	Α



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	841	210	458	3041	0.276	841	717	0.6	0.4	1.699	А
2 - A165 White Cross Road	439	110	623	1665	0.264	439	676	0.5	0.4	3.030	Α
3 - A1035	988	247	276	1719	0.575	993	786	2.6	1.4	5.082	Α
4 - Beverley Road	151	38	1024	1441	0.105	151	245	0.2	0.1	2.828	А

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	704	176	383	3100	0.227	704	600	0.4	0.3	1.558	А
2 - A165 White Cross Road	367	92	522	1721	0.213	368	565	0.4	0.3	2.742	Α
3 - A1035	827	207	231	1743	0.475	829	658	1.4	0.9	4.022	Α
4 - Beverley Road	126	32	856	1533	0.083	127	204	0.1	0.1	2.593	Α



2026 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

ı	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
	1	untitled	Standard Roundabout		1, 2, 3, 4	59.06	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	59.06	F

Traffic Demand

Demand Set Details

	ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
h	D5	2026 Base + Committed	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	814	100.000
2 - A165 White Cross Road		ONE HOUR	✓	1062	100.000
3 - A1035		ONE HOUR	✓	1399	100.000
4 - Beverley Road		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (PCU/hr)

			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	207	578	29
From	2 - A165 White Cross Road	663	0	355	44
	3 - A1035	1151	187	0	61
	4 - Beverley Road	49	62	186	0

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	11	7	8
From	2 - A165 White Cross Road	14	0	4	10
	3 - A1035	6	7	0	3
	4 - Beverley Road	4	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.30	1.82	0.5	A	747	1120
2 - A165 White Cross Road	0.77	11.12	3.5	В	975	1462
3 - A1035	1.08	139.78	66.4	F	1284	1926
4 - Beverley Road	0.38	7.08	0.6	A	273	409

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	613	153	326	3146	0.195	612	1393	0.0	0.3	1.534	А
2 - A165 White Cross Road	800	200	596	1680	0.476	796	342	0.0	1.0	4.469	Α
3 - A1035	1053	263	551	1571	0.670	1045	840	0.0	2.1	7.142	А
4 - Beverley Road	224	56	1496	1183	0.189	223	100	0.0	0.2	3.893	А

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	732	183	389	3095	0.236	731	1664	0.3	0.3	1.644	Α
2 - A165 White Cross Road	955	239	712	1615	0.591	952	408	1.0	1.6	5.975	А
3 - A1035	1258	314	660	1513	0.831	1247	1005	2.1	4.8	13.810	В
4 - Beverley Road	267	67	1787	1024	0.261	267	120	0.2	0.4	4.940	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	896	224	460	3039	0.295	896	1937	0.3	0.5	1.814	А
2 - A165 White Cross Road	1169	292	872	1525	0.767	1162	484	1.6	3.4	10.700	В
3 - A1035	1540	385	805	1435	1.073	1408	1229	4.8	38.0	65.921	F
4 - Beverley Road	327	82	2071	868	0.377	326	141	0.4	0.6	6.893	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	896	224	464	3036	0.295	896	1958	0.5	0.5	1.816	Α
2 - A165 White Cross Road	1169	292	873	1525	0.767	1169	487	3.4	3.5	11.123	В
3 - A1035	1540	385	810	1432	1.075	1427	1232	38.0	66.4	139.781	F
4 - Beverley Road	327	82	2094	856	0.382	327	143	0.6	0.6	7.081	Α



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	732	183	422	3069	0.238	732	1869	0.5	0.3	1.666	А
2 - A165 White Cross Road	955	239	714	1614	0.591	962	441	3.5	1.6	6.163	Α
3 - A1035	1258	314	667	1509	0.833	1488	1009	66.4	8.9	97.485	F
4 - Beverley Road	267	67	2024	894	0.299	268	131	0.6	0.4	5.983	Α

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	613	153	332	3141	0.195	613	1426	0.3	0.3	1.538	Α
2 - A165 White Cross Road	800	200	598	1679	0.476	802	347	1.6	1.0	4.539	Α
3 - A1035	1053	263	556	1569	0.671	1080	844	8.9	2.2	8.214	А
4 - Beverley Road	224	56	1534	1162	0.192	224	102	0.4	0.2	3.993	А



2026 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.59	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS		
Left	Normal/unknown	5.59	Α		

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
De	2026 Base + Committed	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm Linked		Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
1 - A165 (E)		ONE HOUR	✓	1863	100.000	
2 - A165 White Cross Road		ONE HOUR	✓	488	100.000	
3 - A1035		ONE HOUR	✓	1129	100.000	
4 - Beverley Road		ONE HOUR	✓	168	100.000	

Origin-Destination Data

Demand (PCU/hr)

			То			
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road	
From	1 - A165 (E)	0	691	1168	4	
	2 - A165 White Cross Road	224	0	185	79	
	3 - A1035	568	373	0	188	
	4 - Beverley Road	3	63	102	0	

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	5	3	0
From	2 - A165 White Cross Road	5	0	2	0
	3 - A1035	2	1	0	3
	4 - Beverley Road	0	2	1	0

Results

Results Summary for whole modelled period

Arm	Arm Max RFC		Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E) 0.70		4.23	2.4	А	1710	2564
2 - A165 White Cross Road	0.44	5.36	0.8	А	448	672
3 - A1035	0.74	8.27	2.8	А	1036	1554
4 - Beverley Road	0.14	3.27	0.2	А	154	231

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	403	3084	0.455	1399	596	0.0	0.9	2.211	А
2 - A165 White Cross Road	367	92	957	1478	0.249	366	846	0.0	0.3	3.330	Α
3 - A1035	850	212	230	1744	0.488	846	1093	0.0	1.0	4.068	Α
4 - Beverley Road	126	32	873	1524	0.083	126	203	0.0	0.1	2.610	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	483	3021	0.554	1673	713	0.9	1.3	2.766	А
2 - A165 White Cross Road	439	110	1144	1373	0.319	438	1012	0.3	0.5	3.963	А
3 - A1035	1015	254	276	1719	0.590	1013	1307	1.0	1.4	5.176	Α
4 - Beverley Road	151	38	1045	1430	0.106	151	243	0.1	0.1	2.853	Α

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	590	2936	0.699	2047	872	1.3	2.4	4.180	Α
2 - A165 White Cross Road	537	134	1400	1230	0.437	536	1237	0.5	0.8	5.332	Α
3 - A1035	1243	311	337	1686	0.737	1238	1599	1.4	2.8	8.081	Α
4 - Beverley Road	185	46	1278	1302	0.142	185	297	0.1	0.2	3.264	А

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	592	2935	0.699	2051	875	2.4	2.4	4.226	А
2 - A165 White Cross Road	537	134	1403	1229	0.437	537	1241	0.8	0.8	5.363	Α
3 - A1035	1243	311	338	1686	0.737	1243	1602	2.8	2.8	8.268	А
4 - Beverley Road	185	46	1283	1300	0.142	185	298	0.2	0.2	3.272	А



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	486	3019	0.555	1679	718	2.4	1.3	2.795	Α
2 - A165 White Cross Road	439	110	1148	1371	0.320	440	1017	0.8	0.5	3.988	Α
3 - A1035	1015	254	277	1719	0.591	1020	1311	2.8	1.5	5.287	А
4 - Beverley Road	151	38	1052	1426	0.106	151	245	0.2	0.1	2.862	А

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	406	3082	0.455	1404	600	1.3	0.9	2.227	А
2 - A165 White Cross Road	367	92	960	1476	0.249	368	850	0.5	0.3	3.350	Α
3 - A1035	850	212	231	1743	0.488	852	1097	1.5	1.0	4.124	Α
4 - Beverley Road	126	32	879	1521	0.083	127	204	0.1	0.1	2.617	Α



2026 Base + Committed + Dev , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
ſ	1	untitled	Standard Roundabout		1, 2, 3, 4	63.51	F

Junction Network

I	Driving side	Lighting	Network delay (s)	Network LOS	
	Left	Normal/unknown	63.51	F	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Base + Committed + Dev	AM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	829	100.000
2 - A165 White Cross Road		ONE HOUR	✓	1074	100.000
3 - A1035		ONE HOUR	✓	1412	100.000
4 - Beverley Road		ONE HOUR	✓	304	100.000

Origin-Destination Data

Demand (PCU/hr)

	in (i com)										
			То								
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road						
	1 - A165 (E)	0	212	588	29						
From	2 - A165 White Cross Road	663	0	367	44						
	3 - A1035	1151	200	0	61						
	4 - Beverley Road	49	64	191	0						

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	11	7	8
From	2 - A165 White Cross Road	14	0	4	10
	3 - A1035	6	7	0	3
	4 - Beverley Road	4	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.30	1.84	0.5	A	761	1141
2 - A165 White Cross Road	0.78	11.85	3.8	В	986	1478
3 - A1035	1.09	151.14	72.7	F	1296	1944
4 - Beverley Road	0.39	7.20	0.7	А	279	418

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	624	156	340	3134	0.199	623	1393	0.0	0.3	1.548	Α
2 - A165 White Cross Road	809	202	607	1674	0.483	804	357	0.0	1.0	4.543	Α
3 - A1035	1063	266	551	1571	0.677	1054	860	0.0	2.2	7.268	А
4 - Beverley Road	229	57	1505	1178	0.194	228	100	0.0	0.2	3.936	А

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	745	186	407	3081	0.242	745	1664	0.3	0.3	1.664	Α
2 - A165 White Cross Road	966	241	726	1607	0.601	963	426	1.0	1.6	6.135	А
3 - A1035	1269	317	660	1513	0.839	1258	1029	2.2	5.0	14.348	В
4 - Beverley Road	273	68	1798	1018	0.269	273	120	0.2	0.4	5.022	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	913	228	480	3024	0.302	912	1929	0.3	0.5	1.841	Α
2 - A165 White Cross Road	1182	296	889	1516	0.780	1174	503	1.6	3.7	11.334	В
3 - A1035	1555	389	805	1435	1.083	1411	1258	5.0	41.0	69.899	F
4 - Beverley Road	335	84	2075	866	0.386	334	141	0.4	0.6	7.012	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	913	228	483	3021	0.302	913	1948	0.5	0.5	1.843	Α
2 - A165 White Cross Road	1182	296	890	1516	0.780	1182	506	3.7	3.8	11.853	В
3 - A1035	1555	389	810	1432	1.085	1428	1262	41.0	72.7	151.136	F
4 - Beverley Road	335	84	2096	855	0.392	335	142	0.6	0.7	7.197	Α



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	745	186	441	3055	0.244	746	1858	0.5	0.3	1.686	А
2 - A165 White Cross Road	966	241	727	1607	0.601	974	459	3.8	1.7	6.352	Α
3 - A1035	1269	317	667	1509	0.841	1487	1034	72.7	18.2	114.446	F
4 - Beverley Road	273	68	2024	894	0.306	274	130	0.7	0.5	6.047	A

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	624	156	352	3124	0.200	624	1456	0.3	0.3	1.557	А
2 - A165 White Cross Road	809	202	609	1673	0.483	811	368	1.7	1.0	4.620	А
3 - A1035	1063	266	556	1569	0.678	1127	864	18.2	2.3	9.890	Α
4 - Beverley Road	229	57	1579	1138	0.201	230	104	0.5	0.3	4.126	Α



2026 Base + Committed + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A165 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A165 White Cross Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A1035 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
ſ	1	untitled	Standard Roundabout		1, 2, 3, 4	5.88	Α

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.88	Α

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Base + Committed + Dev	PM	ONE HOUR	00:00	01:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A165 (E)		ONE HOUR	✓	1863	100.000
2 - A165 White Cross Road		ONE HOUR	✓	508	100.000
3 - A1035		ONE HOUR	✓	1157	100.000
4 - Beverley Road		ONE HOUR	✓	168	100.000

Origin-Destination Data

Demand (PCU/hr)

	ia (i 33/iii)				
			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	691	1168	4
From	2 - A165 White Cross Road	229	0	198	81
	3 - A1035	578	385	0	194
	4 - Beverley Road	3	63	102	0

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



			То		
		1 - A165 (E)	2 - A165 White Cross Road	3 - A1035	4 - Beverley Road
	1 - A165 (E)	0	5	3	0
From	2 - A165 White Cross Road	5	0	2	0
	3 - A1035	2	1	0	3
	4 - Beverley Road	0	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A165 (E)	0.70	4.28	2.4	А	1710	2564
2 - A165 White Cross Road	0.46	0.46 5.54 0.9		А	466	699
3 - A1035	0.76		3.1	А	1062	1593
4 - Beverley Road	0.14	3.32	0.2	A	154	231

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	412	3077	0.456	1399	607	0.0	0.9	2.221	А
2 - A165 White Cross Road	382	96	957	1478	0.259	381	855	0.0	0.4	3.375	А
3 - A1035	871	218	236	1741	0.500	867	1102	0.0	1.0	4.177	А
4 - Beverley Road	126	32	893	1513	0.084	126	209	0.0	0.1	2.631	Α

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	494	3013	0.556	1673	727	0.9	1.3	2.784	А
2 - A165 White Cross Road	457	114	1144	1373	0.333	456	1023	0.4	0.5	4.040	А
3 - A1035	1040	260	282	1716	0.606	1038	1318	1.0	1.5	5.390	Α
4 - Beverley Road	151	38	1070	1416	0.107	151	250	0.1	0.1	2.883	А

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	603	2926	0.701	2047	888	1.3	2.4	4.227	Α
2 - A165 White Cross Road	559	140	1400	1230	0.455	558	1250	0.5	0.8	5.504	Α
3 - A1035	1274	318	345	1682	0.757	1268	1613	1.5	3.1	8.723	А
4 - Beverley Road	185	46	1307	1287	0.144	185	306	0.1	0.2	3.311	Α

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	2051	513	605	2924	0.701	2051	892	2.4	2.4	4.277	Α
2 - A165 White Cross Road	559	140	1403	1229	0.455	559	1254	0.8	0.9	5.538	Α
3 - A1035	1274	318	346	1682	0.758	1274	1616	3.1	3.1	8.972	А
4 - Beverley Road	185	46	1312	1284	0.144	185	307	0.2	0.2	3.320	А



Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1675	419	497	3010	0.556	1679	732	2.4	1.3	2.814	А
2 - A165 White Cross Road	457	114	1148	1371	0.333	458	1028	0.9	0.5	4.067	Α
3 - A1035	1040	260	283	1715	0.606	1046	1323	3.1	1.6	5.530	Α
4 - Beverley Road	151	38	1077	1412	0.107	151	252	0.2	0.1	2.893	Α

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A165 (E)	1403	351	415	3075	0.456	1404	611	1.3	0.9	2.238	А
2 - A165 White Cross Road	382	96	960	1476	0.259	383	859	0.5	0.4	3.396	Α
3 - A1035	871	218	237	1740	0.501	873	1107	1.6	1.0	4.241	Α
4 - Beverley Road	126	32	900	1509	0.084	127	211	0.1	0.1	2.638	Α

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