Construction Traffic Management Plan and Transport Statement

Land to the west of West Leake Lane, Ratcliffe-on-Soar, Nottinghamshire

On behalf of Renewable Energy Systems

Date: December 2024 | Pegasus Ref: P23-1398-TRO1B

Document Management

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Contents

1. Introduction 1

Scoping 1
CTMP Report Structure 2

2. Site Characteristics and Context 3

Site Location and Description 3
Planning History 4
Local Highway Network 4
Public Rights of Way 5
Local Highway Safety 5
Baseline Traffic Conditions 5

3. Development Proposals and Access 7

Development Proposals 7
Construction Vehicular Site Access 7
Emergency Site Access 8
Operational / Maintenance Site Access 9
Construction Compound 9
Proposed Mitigation 9

4. Construction Traffic Routing 11

5. Vehicle Trip Attraction 12

Construction Phase 12
Operational Phase 14
Summary 14

6. Summary and Conclusions 15

Appendices Contents

Appendix A – Site Layout Plan 16

Appendix B - NCC Emergency Site Access Approval 17

Appendix C - NCC PIC Data 18

Appendix D – Baseline Summary Traffic Survey Data 19

Appendix E – Access Sketch (Pegasus Drawing P23-1398-SK05A) 20

Appendix F – 16.5m HGV Swept Path Analysis (Pegasus Drawing P23-1398-SK06A) 21

Appendix G - Crane Swept Path Analysis (Pegasus Drawing P23-3198-SK07A) 22

Appendix H – Construction Traffic Routing Plan 23

1. Introduction

1.1. This Construction Traffic Management Plan (CTMP) has been prepared by Pegasus Group on behalf of Renewable Energy Systems Limited to address the transport matters associated with the construction and operation of a proposed Energy Storage Scheme (ESS) on land to the west of West Leake Lane, Ratcliffe-on-Soar, Nottinghamshire. This CTMP has been prepared further to a site visit undertaken on 21 September 2023.

1.2. The proposals comprise the installation of an ESS scheme with a total export capacity likely to be capable of 99.9 Megawatts (MW). The scheme is proposed to be served from an existing junction off West Leake Lane which provides access to Winking Hill farm, approximately 200 metres to the southeast of the West Lake Lane / A453 (Remembrance Way) roundabout junction.

1.3. Within this area, Rushcliffe Borough Council are the Local Planning Authority (LPA), and Nottinghamshire County Council is the Local Highway Authority (LHA).

1.4. Further details of the ESS scheme proposal are provided on the Site Layout Plan drawing reference: 04875-RES-LAY-DR-PT-001 rev4 provided as **Appendix A**.

Scoping

1.5. Pre-application advice was sought via the LPA, Rushcliffe Borough Council (RBC) in October 2023 in relation to the above development proposals. It is understood that NCC, as the LHA for the area are a consultee of the LPA and therefore it has been assumed that the LHA were / would be consulted on this pre-application.

1.6. The pre-application submission included brief information in relation to transport and access.

1.7. It is additionally understood that National Highways (NH) would be consulted via the LPA with regards to the A435 which forms part of the Strategic Road Network.

1.8. It is understood that no response has been received to date from RBC/NCC nor NH on this pre-application advice request, at the time of writing this report.

1.9. Separately from the pre-application submission to the LPA, NCC (as the LHA) was specifically asked by the client via email, to provide advice on the suitability of the proposed emergency access.

1.10. NCC responded to the client on 24 May 2024, stating that the proposed access is “likely to be satisfactory”. The email response from NCC which received by the client, can be found at **Appendix B**.

1.11. It is understood that no response has been received to date from NH relating to the suitability of the emergency site access, at the time of writing this report.

Report Structure

1.12. The structure of the remainder of this CTMP following this introduction is set out below:

- **Section 2** - A summary of the site context including the local highway network, any existing Public Rights of Way and highway safety review;
- **Section 3 –** A comprehensive description of the proposed site including access and internal site arrangements;
- **Section 4 –** Sets out the proposed construction traffic routing to / from the site;
- **Section 5** – Sets out vehicle numbers, size and frequency during construction and to a lesser extent operation; and
- **Section 6 –** A conclusion reviewing the contents of the document.

1.13. It will be the responsibility of the applicant and appointed contractor to comply with all statutory regulations and guidelines as appropriate, in relation to construction and operation movement activities.

1.14. The appointed contractors will be provided with a copy of this CTMP and will adhere to it as part of the planning consent. The CTMP will form part of the information provided as part of construction personnel's on-site induction processes. The contact details of the contractor and those of the highway department at Nottinghamshire County Council (NCC) will be exchanged before commencement of the works on site.

2. Site Characteristics and Context

Site Location and Description

2.1. The site is located to the west of West Leake Lane, circa 1.8 kilometres east of Ratcliffe-on-Soar and circa 2.5 kilometres to the west of Gotham. The site location and proposed access location in the context of the wider area is shown at **Plate 2.1**, with an indicative site layout plan attached as **Appendix A**.

2.2. The site is located with the A453 to the north, bound by West Leake Lane to the east, arable land to south and the Ratcliffe Solar Local Development Order site (22/01339/LDO) to the west. The Ratcliffe-on-Soar Power Station has now ceased operation and closed at the end of September 2024 in line with government policy to stop coal fired power generation (as stated on the Rushcliffe Borough Council Website[1]). Virtually opposite the proposed ESS site and to the east of West Leake Lane, a planning application (23/01285/FUL) which was refused and is currently awaiting an appeal decision for a 300MW capacity ESS.

Plate 2.1 – Site Location

[1] https://www.rushcliffe.gov.uk/news-area/ratcliffe-on-soar-power-station-site-granted-planning-permission-to-fast-track-investment/

Planning History

2.3. The site previously benefits from a consented planning permission for the construction of an agricultural field access served from the west of West Leake Lane located approximately 50 metres to the south of the West Leake Lane / A453 southern roundabout junction. Consent was sought to provide a relocated field access to Winking Hill Farm, adjacent to the A453 widening scheme. It is understood that the existing access to Winking Hill Farm from was proposed to be relocated as a result of construction of the southern dumbbell junction arrangement on the A453.

2.4. The access arrangements submitted as part of the application comprised of an approximate 12-metre-wide bell mouth and 4-metre-wide internal carriageway width which could accommodate a 19.02 metre farm tractor and hay wagon. The planning application (13/02216/FUL) was granted on the 6 November 2013 but has now since lapsed.

Local Highway Network

West Leake Lane

2.5. West Leake Lane is a single carriageway road which measures approximately six metres wide within the vicinity of the proposed site access. West Leake Lane is subject to the National Speed Limit of 60mph and to the north connects to a roundabout junction with the A453 and to the south becomes Dark Lane.

2.6. West Leake Lane provides access to Winking Hill Farm to the west (via an unnamed access track), and previously provided access (to the east) to a temporary construction compound between 2009 and 2016 associated with the 'A453 Widening M1 Junction 24 to A52' scheme.

2.7. North of the A453/West Leake Lane roundabout junction, the continuation of West Leake Lane (unnamed road) provides access to Ratcliffe-on-Soar Power Station to the west.

2.8. From a site visit undertaken on 21 September 2023 it was observed that West Leake Lane was frequently used by large vans and HGV's.

A453 (Remembrance Way)

2.9. The A453 is a dual carriageway road which is subject to a 60mph signed speed limit. The A453 forms part of the Strategic Road Network (SRN) managed by National Highways. This section of the A453 provides access to the M1 (via Junction 24 - Kegworth Interchange) approximately 4.2km to the south-west of the site and the A52 approximately 8.2km to the north-east of the site.

2.10. The A453 has recently been subject to a widening scheme as part of National Highways major project in Nottinghamshire between the M1 Junction 24 and the A52 in Nottingham. It opened to traffic in July 2015. The scheme provides an 11.5km long section of dual carriageway in replacement of the previous single carriageway road.

Public Rights of Way

2.11. There are no Public Rights of Way (PRoWs), which run through or within the immediate vicinity of the site.

Local Highway Safety

2.12. Personal Injury Collision (PIC) data has been obtained from NCC for a study area comprising approximately 450m length of West Leake Lane south of the A453, and the double roundabout junction arrangement which provide access onto and off the A453. Data has been obtained for the most recent five-year period between 1 January 2018 and 31 May 2023.

2.13. NCC have confirmed that there was only one "slight" accident within the search area within the five-year study period. A summary report of the data received from NCC is included at **Appendix C.**

2.14. The slight incident occurred on the 11 November 2018 at 11:10 along West Leake Lane approximately 880 metres northwest of the West Leake Lane / Gotham Road junction (circa 190m south of the proposed access junction location). Road conditions were wet, and weather conditions were fine. The incident occurred when a vehicle hit the kerb with the vehicle's offside and overturned.

2.15. It is concluded from the recorded PICs that there is no evident collision pattern on the local highway network with no accident clusters in the vicinity of the site that could be anticipated to be exacerbated by the forecast construction or operational trips.

Baseline Traffic Conditions

2.16. Two Automatic Traffic Count (ATC) surveys were undertaken on West Leake Lane for a period of seven days from Friday 13 October and including Thursday 19 October 2023 to record volume of traffic and vehicle speeds within the vicinity of the proposed site access point. One ATC was undertaken on West Leake Lane circa 160m to the north of the proposed access, and one circa 120m to the south of the proposed access.

2.17. A summary of the ATC data is included at **Appendix D**.

2.18. The recorded weekday speeds on West Leake Lane are summarised at **Table 2.1**. These recorded speeds have been used to calculate the five-day 85th percentile speed with consideration to guidance set out within DMRB CA 185 and have accounted for wet weather conditions for robustness.

Table 2.1 - Summary of 85th Percentile Vehicle Speeds

ATC Location	Direction of Traffic	Average 5-day recorded speeds (mph)	Average 5-day 85th percentile calculated speeds (mph)	85th percentiles calculated speeds - wet weather adjusted (mph)	Average of northbound and southbound 85th percentiles calculated speeds - wet weather adjusted (mph)
West Leake Lane (North of access point)	Northbound	35.2	42.0	44.5	44.3
	Southbound	35.2	41.6	44.1	
West Leake Lane (South of access point)	Northbound	36.9	42.3	44.8	44.5
	Southbound	37.6	43.7	44.2	

Note: Vehicle speeds in wet weather including periods after rainfall when the road surface is still wet can be lower than speeds in dry conditions, the adjustment therefore results in a higher speed to be considered when setting speed limits and visibility splays at junctions.

2.19. The recorded traffic speeds from the traffic survey confirms that vehicles travel at significantly lower speeds than the posted 60mph speed limit. Furthermore, the calculated 5-day (excluding the weekends) 85th percentile speeds (adjusted for wet weather to be robust) are also lower than the signed 60mph speed limit in the vicinity of the site access point.

3. Development Proposals and Access

Development Proposals

3.1. The proposed development will comprise the installation of an ESS scheme off West Leake Lane, approximately 4.2 kilometres to the northeast of Junction 24 of the M1 which forms part of the Strategic Road Network.

3.2. The Point of Connection (POC) is proposed within the northeast of the site (within the site's red line boundary) therefore not affecting highways.

Construction Vehicular Site Access

3.3. It is proposed that access for construction vehicles will be provided from the location of an existing access junction to the west of West Leake Lane to Winking Hill Farm, circa 200m south of the A453 / Barton Lane / West Leak Lane double roundabout junction. There is an existing simple priority junction at this location, circa 25m wide at the bell mouth, with a circa 4.2m track which continues for approximately 200m west to Winking Hill Farm.

3.4. As set out further in **Chapter 5**, it is anticipated that construction will generate a maximum total of 1,483 two-way trips by HGVs throughout the 18-month construction period.

3.5. The proposed access arrangement is shown on Pegasus drawing P23-1398-SK05B (provided at **Appendix E**). This plan demonstrates that the access junction would retain the geometry of the bell mouth of the existing junction off West Leake Lane. Within the site boundary a passing place will be provided (a widened portion of internal access track) to allow two large vehicles to pass on the internal access route. This access design was chosen as appropriate for this development, as following construction, the traffic generated by this site will be minimal.

3.6. As set out in more detail in **Chapter 4** it is proposed that construction vehicles will route to and from the site via the A453 and West Leake Lane only (turning right (west) into the site and turning left (north) out of the site).

3.7. It is anticipated that the proposed access is suitable to accommodate the future construction vehicles which are anticipated to require access to the site, as the existing access is currently fit for agricultural purposes and frequented by large agricultural vehicles.

3.8. Visibility splays have been informed by the ATC surveys undertaken on West Leake Lane between Friday 13 October and Thursday 19 October 2023. It should be noted that the posted speed limit is National Speed Limit (60mph) however the 85th percentile calculated speeds were below this (maximum 44.3mph to the north of the access and 44.5mph to the south of the access).

3.9. Based on the wet weather adjusted 85th percentile speed of 44.3mph to the north of the access point, visibility splays of 2.4m x 160m would be required in accordance with DMRB CD 109 guidance.

3.10. Based on the wet weather adjusted 85th percentile speed of 44.5mph to the south, visibility splays of 2.4m x 160m would be required in accordance with DMRB CD 109 guidance.

3.11. Pegasus drawing P23-1398-SK05A shows that these visibilities are achievable within land owned by the applicant or under the control of the LHA, subject to some potential vegetation removal.

3.12. A Swept Path Analysis (SPA) for a 16.5m Heavy Goods Vehicle (HGV) has been undertaken and is included on Pegasus drawing P23-1398-SK06B included as **Appendix F.** This is the largest vehicle to regularly access the site. The vehicle is shown to be able to access and egress the site in a forward gear. A turning area will be provided within the construction compound. If considered necessary bankspeople will be deployed at the site access to guide vehicles into and out of the site.

3.13. Additionally, the applicant has confirmed that the largest vehicle anticipated to require access to the development is a 'Mobile Crane'. This vehicle is 19.065m in length and has an overall width of 3.0m. This vehicle has been demonstrated on Pegasus Drawing P23-3198-SK07B entering and exiting the site, provided within **Appendix G**.

3.14. The access junction has been designed to allow for one crane to enter and exit the site at a time, but not concurrently. This methodology was chosen so that the junction design did not become over-engineered, particularly as the junction is to be retained for operational traffic following construction. It is anticipated that the crane will be bought onto site at the start on construction and depart following completion on construction on the site. The arrival(s) and departure(s) of the crane will be managed on a case-by-case basis, and banks-persons used as necessary to guide vehicles into and out of the site, as required.

Emergency Site Access

3.15. In accordance with the National Fire Chiefs Council (NFCC) Gridscale Battery Energy Storage System planning – Guidance for FRS document a secondary emergency access will be provided to serve the site from an alternate direction to the main site access. In the event of an emergency the site may be accessed from West Leake Lane from the southeast and also the northeast.

3.16. The emergency access will be provided from West Leake Lane solely for the use of emergency vehicles in the event of an incident, located in the northeastern corner of the site, circa 150m north of the proposed main site access as shown on the indicative Site Layout Plan (**Appendix A**).

3.17. The location of the secondary access point has been agreed in principle with NCC Highways and the correspondence related to the emergency access is provided in **Appendix B**.

3.18. The emergency site access is proposed to be implemented during the construction phase of the site and will remain in situ for the full lifecycle of the project.

3.19. Neither construction nor operational traffic associated with the site are permitted to use the emergency site access. The emergency site access is not intended to provide access for pedestrians or cycles and will not be promoted as a such.

3.20. The access will be managed by a gate such that its use is limited to emergency vehicles only.

Operational / Maintenance Site Access

3.21. The access from West Leake Lane, shown on Pegasus drawing P23-1398-SK05B (included as **Appendix E**), which is proposed for construction access will be retained for use by maintenance vehicles once the site is operational. The access point is proposed in the location of an existing access to Winking Hill Farm.

3.22. As set out further in **Chapter 5**, once operational, it is anticipated that maintenance vehicles will access the site on an ad-hoc basis, when required. The operational trip generation of the site will therefore be low, typically only one two-way vehicle trip per week. Maintenance trips will generally be made by 4x4 or a small van type vehicle.

3.23. It is not anticipated that any vehicles larger than a 7.5t Transit Van will require access to the site during operation, except in the potential event of a replacement of a large component.

3.24. Whilst the contractor's compound will have been removed, space will remain within the site for vehicles to turn around to ensure that reversing will not occur onto the adjacent carriageway.

Construction Compound

3.25. A temporary construction compound will be located within the site. The compound will be of a suitable size for an articulated vehicle to enter and exit in a forward gear. The compound will include areas for the storage of plant and equipment.

3.26. A temporary car parking area (including spaces for minibuses) will be provided on the site within a contractor's compound. Parking will therefore be contained within the site and no unnecessary parking will occur on the local highway network. Arrivals and departures of HGVs will be managed to ensure that no HGVs wait on the public highway (incoming vehicles to the site will be given priority over exiting vehicles).

Proposed Mitigation

3.27. The arrival and departure of HGVs at the site will be strictly managed by the site manager. Drivers will adhere to a delivery schedule and will be required to call ahead to ensure that any emerging HGVs can be held within the construction compound. No HGVs will be permitted to wait on the access track or public highway.

3.28. If considered necessary by the highway authority, deliveries to the site can be restricted to set hours outside of the typical highway peaks. However, the proposed construction route does not route past any sensitive locations (such as schools), and it is therefore considered that no delivery timing restrictions are necessary.

3.29. Temporary signage will be erected in the vicinity of the site and local highway network during the construction phase. Diagram 7301 'WORKS TRAFFIC ONLY' in the Traffic Signs Regulations and General Directions (TSRGD) will be used to indicate that heavy construction vehicles are turning. Signage will be white text and red background 1050 x 750mm mounted in 'A' frames, as illustrated at **Plate 3.1** below**.**

Plate 3.1 – Diagram 7301

1. Temporary Construction Traffic signage (Diagram 7301 'WORKS TRAFFIC' in the TSRGD)

3.30. As set out at **paragraph 3.12,** if considered necessary, bankspeople will be located at the site access to Winking Hill Farm to assist HGVs entering and exiting the site. Non-construction traffic on West Leake Lane will be given priority over construction traffic at all times, and as referenced above, incoming vehicles to the site will be given priority over exiting vehicles.

3.31. Wheel washing facilities will be provided within the site prior to the exit of the construction compound if ground conditions require this. This will mitigate spoil entering the public highway. A road sweeper can also be provided, if / when necessary. This can be secured by an appropriately worded planning condition.

4. Construction Traffic Routing

4.1. It is proposed that the designated route for all traffic associated with the construction phase of the development is taken from the Strategic Road Network as follows:

i. Routing from the M1 Junction 24 onto Kegworth Interchange.

ii. Vehicles will exit the Kegworth Interchange, routing east onto A453 (Remembrance Way).

iii. Vehicles will then continue eastbound for approximately 4.2 kilometres before exiting the carriageway, turning right at the A453 double roundabout junction with Barton Lane / West Leake Lane.

iv. Vehicles will then continue southbound on to West Leake Lane, from which access is served to the site. Vehicles will turn right into the site.

4.2. Vehicles exiting the site will turn left out of the site and use the reverse of the construction route outlined above.

4.3. This route ensures that construction vehicles associated with the site will use A-roads as far as practicable and that construction vehicles associated with the site will not unnecessarily pass-through small villages or sensitive locations to access the site.

4.4. It was confirmed from a site visit that West Leake Lane is already used by HGV vehicles (assumed to be associated with local agricultural units).

4.5. The proposed construction traffic route is shown on Pegasus drawing P23-1298-SK01A included as **Appendix H**.

4.6. The construction route also replicates where possible the one that was proposed as part of the proposed Energy Storage Facility scheme (23/01285/FUL) located to the east of West Leake Lane.

4.7. Construction vehicles will only access the site via the designated construction route identified in this CTMP. An appropriate signage scheme will be put in place from the M1 Junction 24 for HGV drivers to follow. On this basis drivers will be informed of the route prior to departing for the site and will be advised not to use Sat-Nav for navigation.

5. Vehicle Trip Attraction

Construction Phase

5.1. From the Client's (Applicant) experience of constructing ESS elsewhere in the UK, the Applicant has confirmed that the construction period is likely to take up to 18 months to complete.

5.2. The applicant has confirmed that the largest vehicle size to regularly access the site during the construction phase is a 16.5m articulated lorry. Associated goods such as smaller components, tools and other equipment will be delivered on smaller flatbed trucks and low loaders.

5.3. As referenced previously, a crane will also be required access to the site on a less regular basis. This vehicle is 19.065m in length and has been demonstrated to enter and exit the site appropriately on Pegasus drawing P23-3198-SK07B at **Appendix G**.

5.4. The below vehicle numbers have been based on 16.5m HGV movements to and from the site. This has been used to provide a robust assessment. However, not all vehicles will be of this size and the smallest vehicle size possible will be used for the movement of construction materials, plant and equipment.

5.5. RES is committed to ensuring that, wherever possible, local contractors and employees are used in all aspects of BESS development. The major opportunities arise during the construction phase when suitably qualified local firms are often invited to bid for different aspects of construction. We encourage our contractors to source construction materials locally (i.e. within the county) and to use local transport and plant hire companies where possible, in addition to local services and amenities. Should either a local or non-local workforce be hired, the number of car trips to the site will be minimised wherever possible by shared transport.

5.6. Throughout the construction phase there will be a combination of HGVs (for the component and material deliveries) and cars/vans/minibuses (for construction staff), on site. HGV movements are expected to be most intense throughout the first few weeks of construction whilst car/van movements are expected to be regular throughout.

5.7. **Table 5.1** below shows the estimated number of HGV movements for the main infrastructure. The applicant has forecasted the heavy goods movements which could be associated with the entire construction period.

5.8. The table also indicates during which month(s) of the construction period each delivery / vehicle movement is expected to occur and outlines the expected maximum daily two-way trips for deliveries during these months.

Table 5.1 – Forecasted Heavy Goods Vehicle Movements

Delivery Type	Estimate total two-way trips over an 18 - month construction period	Indicative spread of vehicle movements during the construction phase	Maximum daily two-way trips
Site Welfare Setup	10	Month 1	5
Tipper truck (Stone Delivery)	1,000	Months 1 - 5	30
Onsite energy storage enclosures, PCS and Transformer Unit Delivery.	112	Months 6 - 14	10
Electrical Equipment Delivery	20	Months 9 - 14	5
Substation Building Deliveries	30	Months 6 - 14	10
Substation Equipment Delivery	20	Months 9 - 14	2
Cable Delivery	40	Months 10 - 16	5
Concrete Delivery	70	Months 5 - 8	8
Duct / Cable Ladder Delivery	80	Months 5 - 9	5
Temporary Fence Delivery	50	Month 1	5
Permanent Fence Delivery	50	Month 16	5
Spares Container Delivery	1	Month 16	1
Total	**1,483**	**18 months**	**91**

Source: Client (Applicant) estimates of construction movements.

5.9. Assuming an 18-month construction period and a six-day working week, it is considered that circa 742 deliveries (1,483 two-way movements) could be made by HGVs associated with construction of the ESS scheme, over the entire construction period.

5.10. Month five of the construction period is associated with the peak number of HGV movements (circa 43 daily two-way trips[2]).

5.11. On average there will be 27 daily two-way trips throughout the construction period[3].

[2] 30 (Tipper Truck (Stone Delivery)) + 8 (Concrete Delivery) + 5 (Duct / Cable Ladder Delivery).

[3] Average of calculated maximum daily two-way trips throughout construction period.

5.12. There may also be a small number of construction movements associated with smaller vehicles such as the collection of skips for waste management which are not included at **Table 5.1**.

5.13. Additionally, it was suggested by the applicant that construction personnel would generate a maximum of 50 two-way trips per day throughout the 18-month construction period.

Operational Phase

5.14. After commissioning, it is anticipated that the vehicle trip generation of the site will be low, typically one to two two-way vehicle trips per week for equipment maintenance. This would typically be made by light van or 4x4 type vehicles. Whilst the contractor's compound will have been removed, space will remain within the site for such a vehicle to turn around to ensure that reversing will not occur onto the adjacent highway.

5.15. It is not anticipated that any vehicles larger than a 7.5t Transit Van will require access to the site during operation, except in the potential event of a replacement of a large component.

Summary

5.16. While exact vehicle movement figures would be dependent upon arrangements made by the end contractor, it is anticipated that there will be an average of 27 two-way HGV movements per day throughout the construction period. There will also be a small number of construction movements associated with smaller vehicles such as the collection of skips for waste management, the transport of construction workers and sub-contractors, although the numbers involved are forecast to be relatively low on a day-to-day basis and minibuses could be provided for general operatives.

5.17. The level of traffic during the temporary construction phase is not considered to be material and it is considered that this will not have a detrimental impact on the safety or operation of the local or strategic highway network.

6. Summary and Conclusions

6.1. This Construction Traffic Management Plan (CTMP) has been prepared by Pegasus Group on behalf of Renewable Energy Systems Ltd Limited to address the transport matters associated with the construction and operation of a proposed Energy Storage Scheme (ESS) on land to the west of West Leake Lane, Ratcliffe-on-Soar, Nottinghamshire.

6.2. This CTMP has been prepared further to a site visit undertaken on 21 September 2023.

6.3. The proposals comprise the installation of a ESS scheme with a total export capacity of 100 Megawatts (MW). The scheme is proposed to be served from West Leake Lane, approximately 200 metres to the southeast of the West Lake Lane / A453 (Remembrance Way) roundabout junction.

6.4. It is proposed that access for construction vehicles will be provided from the location of the existing access junction to the west of West Leake Lane to Winking Hill Farm, circa 200m south of the A453 / Barton Lane / West Leak Lane double roundabout junction. There is an existing simple priority junction at this location, circa 25m wide at the bell mouth, with a circa 4.2m track which continues for approximately 200m west to Winking Hill Farm. The proposed access arrangement is shown in Pegasus drawing P23-1398-SK05B (provided at **Appendix E**).

6.5. All construction traffic would approach the site via the M1, exiting at Kegworth Interchange (Junction 24), continue east on the A453 for circa 4.2km before exiting the A453 / Barton Lane roundabout towards West Leake Lane in the south from which access is promoted. Vehicles egressing the site will utilise the same route in reverse to exit the site towards the Strategic Road Network (M1). Vehicles will turn right into the site and turn left out of the site.

6.6. Additional HGV traffic on the local highway network generated during the construction phase is expected to reach a peak of 43 daily two-way trips per day, with an average of 27 daily two-way trips per day. There will additionally be a maximum number of 50 two-way trips generated per day by construction personnel arriving to site during the construction period.

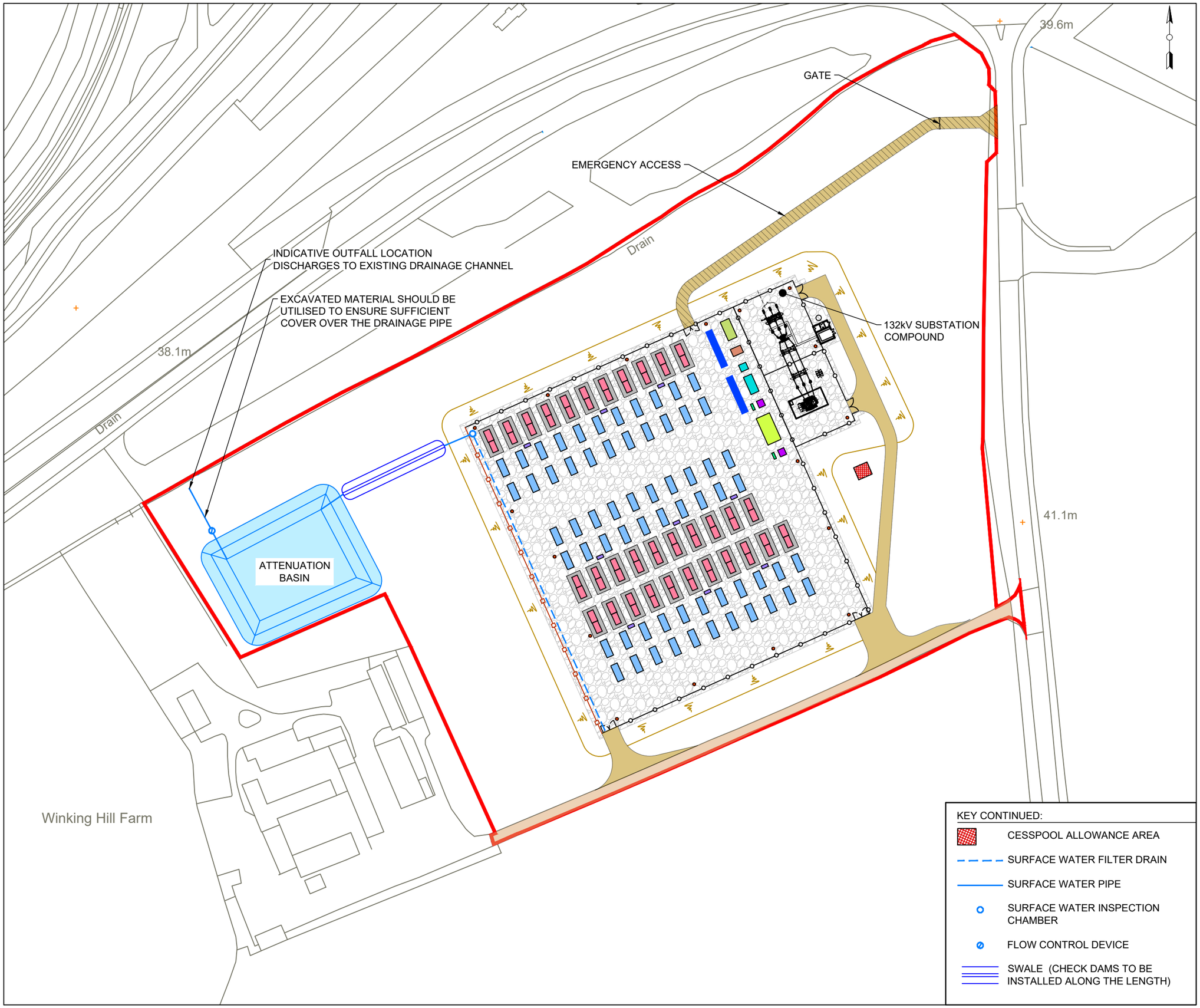
6.7. It is considered that the proposed access arrangements are suitable to accommodate the number of temporary construction trips and low operational trips associated with the proposed development.

6.8. The routes to and from the site from the nearest Strategic Road Network at the A453 are already frequented by HGVs, therefore the construction route detailed in this report is considered appropriate.

6.9. Mitigation measures, where necessary, will be agreed between the appointed contractor and Nottinghamshire County Council as the Local Highway Authority for the proposed development. Typical measures are set out at **Section 3** above including examples of appropriate signage and details of the site compound.

6.10. The recorded PICs conclude that there is no collision pattern on the local highway in the vicinity of the site that would be exacerbated by the forecast construction or operational trips. In summary, it is concluded that there are no valid highway or transportation reasons which would prevent the proposed development of the site.

Appendix A – Site Layout Plan



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KEY:

- DEVELOPMENT BOUNDARY (OUTSIDE OF LINE DENOTES BOUNDARY)
- SECURITY FENCE
- ACOUSTIC FENCE
- BATTERY STORAGE ENCLOSURE (BSE)
- POWER CONVERSION SYSTEM (PCS) WITH SINGLE MV SKID AND APRON SLAB
- BESS SUBSTATION BUILDING
- AUXILIARY TRANSFORMER
- LV DISTRIBUTION EQUIPMENT
- AGGREGATION PANEL WITH LV PILLAR
- PRE-INSERTION RESISTOR
- CAPACITOR BANK
- HARMONIC FILTER AND RESISTOR
- SPARES CONTAINER
- LIGHTING / CCTV COLUMN
- SURFACE TO COMPRISE COMPACTED AGGREGATE, GRAVEL OR ASPHALT FINISH TO SUIT DETAILED EARTHING DESIGN
- ACCESS TRACK
- EMERGENCY ACCESS TRACK
- EARTHWORK AREA

CONTINUED...

KEY CONTINUED:

- CESSPOOL ALLOWANCE AREA
- SURFACE WATER FILTER DRAIN
- SURFACE WATER PIPE
- SURFACE WATER INSPECTION CHAMBER
- FLOW CONTROL DEVICE
- SWALE (CHECK DAMS TO BE INSTALLED ALONG THE LENGTH)

ISSUE	DRAWN	CHKD	APPD	DATE	REVISION NOTES
4	BM	WM	MAS	2024-12-13	UPDATED SUBSTATION COMPOUND & UPDATED PURPOSE
3	BM	VM	MAS	2024-08-16	ADDED EMERGENCY ACCESS TRACK TO KEY
2	BM	VM	MAS	2024-07-26	UPDATED DEVELOPMENT BOUNDARY
1	BM	WM	VM	2024-05-14	FIRST ISSUE

PURPOSE: PLANNING	COORDINATES: OSGB 1936
SCALE: 1:1,250 @A3	DATUM: N/A
LAYOUT DRAWING: N/A	T-LAYOUT NO: N/A

PROJECT TITLE
WINKING HILL

DRAWING TITLE
INFRASTRUCTURE LAYOUT

RES DRAWING NUMBER	REV
04875-RES-LAY-DR-PT-001	4

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HERTS WD4 8LR. UK
TEL +44 (0) 1923 299200
WWW.RES-GROUP.COM

Appendix B – NCC Emergency Site Access Approval

From: Daniel Sullivan
To: Milo Amsbury-Savage
Subject: RE: 23/01867 - Winking Hill Energy Storage Project
Date: 24 May 2024 11:34:16
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
0.png
04875-RES-LAY-DR-PT-001.pdf

Good afternoon Milo,

The secondary access point is likely to be satisfactory as an alternative to the main junction to serve the site in emergencies.

Regards,

Daniel Sullivan

Principal Development Control Officer |Highways Development Control
Place Department | Nottinghamshire County Council
County Hall | West Bridgford | Nottingham | NG2 7QP
Tel: 0115 9773991

From: Milo Amsbury-Savage <milo.amsburysavage@res-group.com>
Sent: Thursday, May 16, 2024 2:59 PM
To: Daniel Sullivan <daniel.sullivan@nottscc.gov.uk>
Subject: 23/01867 - Winking Hill Energy Storage Project

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Hi Daniel,

I hope you've been well since we last spoke. if you remember, we discussed the requirements for including an alternate access to our proposed energy storage project off West Leake Lane. This was following a request from the Nottingham Fire Department. I'm emailing with an updated infrastructure layout which includes an alternate access route for emergency vehicles.

This alternate entrance would only be used by emergency vehicles during an emergency and would not be used during construction or operation of the project. The new entrance joins West Leake Lane in the same location as a previously approved application made by the landowner for a new field entrance (13/02216/FUL).

We plan to submit a second pre-app, on recommendation from the council, in the next two weeks. If you're able to review this new proposed access and inform me of any comments, that would be much appreciated.

Kind regards,
Milo

Milo Amsbury-Savage
Development Project Manager

milo.amsburysavage@res-group.com
D +44 1923 299 277
Kibdib, United Kingdom

www.res-group.com

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Registered Office: Beaufort Court, Egg Farm Lane, Kings Langley, Hertfordshire WD4 8LR
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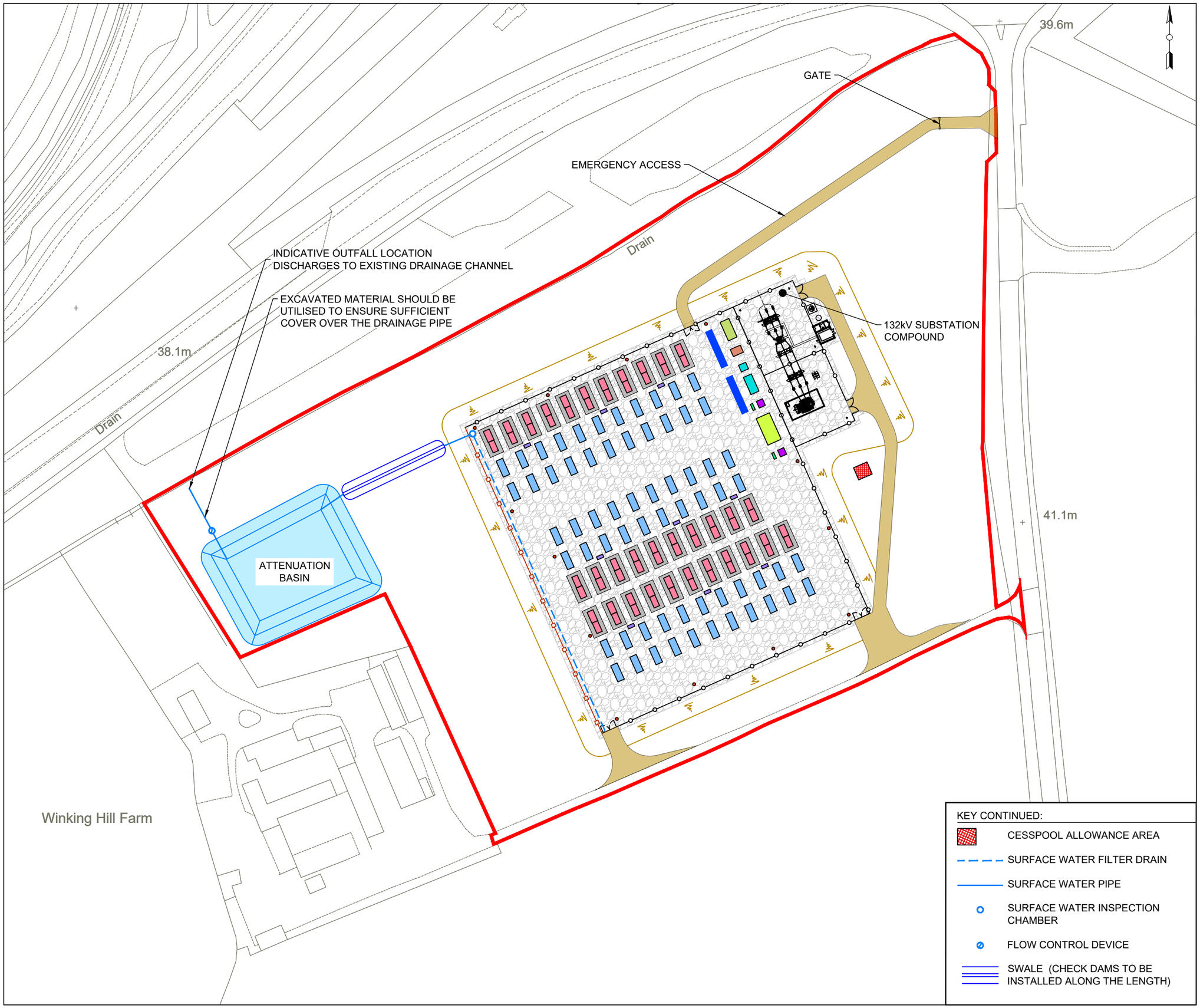

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2024 LICENCE NUMBER 0100031673.

KEY:

- DEVELOPMENT BOUNDARY (OUTSIDE OF LINE DENOTES BOUNDARY)
- SECURITY FENCE
- ACOUSTIC FENCE
- BATTERY STORAGE ENCLOSURE (BSE)
- POWER CONVERSION SYSTEM (PCS) WITH SINGLE MV SKID AND APRON SLAB
- BESS SUBSTATION BUILDING
- AUXILIARY TRANSFORMER
- LV DISTRIBUTION EQUIPMENT
- AGGREGATION PANEL WITH LV PILLAR
- PRE-INSERTION RESISTOR
- CAPACITOR BANK
- HARMONIC FILTER AND RESISTOR
- SPARES CONTAINER
- LIGHTING / CCTV COLUMN
- SURFACE TO COMPRISE COMPACTED AGGREGATE, GRAVEL OR ASPHALT FINISH TO SUIT DETAILED EARTHING DESIGN
- ACCESS TRACK
- EARTHWORK AREA

KEY CONTINUED:

- CESSPOOL ALLOWANCE AREA
- SURFACE WATER FILTER DRAIN
- SURFACE WATER PIPE
- SURFACE WATER INSPECTION CHAMBER
- FLOW CONTROL DEVICE
- SWALE (CHECK DAMS TO BE INSTALLED ALONG THE LENGTH)

ISSUE	DRAWN	CHKD	APPD	DATE	REVISION NOTES
1	BM	WM	VM	2024-05-14	FIRST ISSUE

PURPOSE: PRELIMINARY	COORDINATES: OSGB 1936
SCALE: 1:1,250 @A3	DATUM: N/A
LAYOUT DRAWING: N/A	T-LAYOUT NO: N/A

PROJECT TITLE: WINKING HILL

DRAWING TITLE: INFRASTRUCTURE LAYOUT

RES DRAWING NUMBER	REV
04875-RES-LAY-DR-PT-001	1

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WWW.RES-GROUP.COM

Appendix C – NCC PIC Data

Accident Details Report

West Leake Lane, near Winking Hill Farm, Ratcliffe-on-Soar
01.01.2018 – 31.05.2023

VIA Ref DR4784

Total number of reports = **1**

Total number of pages (including this page) = **2**

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

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

No. **1**	District Rushcliffe	# Accident Details	VRUs	Grid Reference 451256 / 329601
SEVERITY **SLIGHT**	Ref.No 2D214218			Police Officer Attend: Yes

Date	11/11/2018	Day Sunday	ROAD U
Time	11:10		LOCATION U/C WEST LEAKE LANE, 879 metres northwest of GOTHAM ROAD, RATCLIFFE-ON-SOAR
Weather	Fine		
Road Surface	Wet		
Street Lighting	Daylight		

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

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 1

Veh.No.	1	Vehicle type	Car		
Manoeuvre	Going ahead right hand bend				
Direction from	South east to North west	Towing?	No		
Skidded	Overturned				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Left c'way offside and rebounded				
Hit object in c'way?	Kerb				
Hit object off c'way?	None				
First point of impact	Offside				
Drivers age	24 yrs	Sex	Male	Other veh.hit (ref.) 0	Hit and run No
Foreign vehicle	Not foreign				Breath test Negative
Journey purpose	Other/Not known				

CASUALTIES INVOLVED 1

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

Appendix D – Baseline Summary Traffic Survey Data

Ratcliffe on Soar ATC, West Leake Lane (Middle Site) - Flow Summary

Direction: Northbound

Hour Beginning	Fri 13/10/2023	Sat 14/10/2023	Sun 15/10/2023	Mon 16/10/2023	Tue 17/10/2023	Wed 18/10/2023	Thu 19/10/2023	5-Day Ave.	7-Day Ave.
00:00	10	17	7	8	17	9	14	12	12
01:00	20	16	11	9	12	7	18	13	13
02:00	16	28	5	12	21	18	12	16	16
03:00	28	16	12	17	23	24	24	23	21
04:00	37	13	9	39	32	45	28	36	29
05:00	75	37	16	95	62	67	85	77	62
06:00	106	36	16	135	144	142	142	134	103
07:00	222	59	54	296	271	295	283	273	211
08:00	212	107	54	295	350	292	259	282	224
09:00	167	136	100	179	195	163	172	175	159
10:00	142	137	109	156	159	132	132	144	138
11:00	127	144	115	143	149	138	133	138	136
12:00	165	143	142	130	145	167	145	150	148
13:00	108	149	107	175	142	149	138	142	138
14:00	147	120	117	153	164	169	173	161	149
15:00	201	88	89	212	197	218	201	206	172
16:00	239	91	75	252	315	298	281	277	222
17:00	203	62	64	203	257	241	219	225	178
18:00	125	70	85	126	104	130	97	116	105
19:00	64	50	52	66	51	64	62	61	58
20:00	35	21	34	48	41	36	33	39	35
21:00	39	20	21	37	30	31	30	33	30
22:00	30	19	18	35	36	28	32	32	28
23:00	33	12	8	14	23	23	16	22	18
Total									
12H(7-19)	2058	1306	1111	2320	2448	2392	2233	2290	1981
16H(6-22)	2302	1433	1234	2606	2714	2665	2500	2557	2208
18H(6-24)	2365	1464	1260	2655	2773	2716	2548	2611	2254
24H(0-24)	2551	1591	1320	2835	2940	2886	2729	2788	2407
AM Peak	07:00	11:00	11:00	07:00	08:00	07:00	07:00	08:00	08:00
	222	144	115	296	350	295	283	282	224
PM Peak	16:00	13:00	12:00	16:00	16:00	16:00	16:00	16:00	16:00
	239	149	142	252	315	298	281	277	222

Paul Castle Associates

Direction: Southbound

Hour Beginning	Fri 13/10/2023	Sat 14/10/2023	Sun 15/10/2023	Mon 16/10/2023	Tue 17/10/2023	Wed 18/10/2023	Thu 19/10/2023	5-Day Ave.	7-Day Ave.
00:00	27	42	22	10	17	21	26	20	24
01:00	12	40	11	5	33	12	9	14	17
02:00	26	45	10	6	28	34	32	25	26
03:00	53	37	13	17	34	60	38	40	36
04:00	37	37	9	33	35	31	40	35	32
05:00	55	25	3	69	71	65	59	64	50
06:00	94	39	28	133	121	126	108	116	93
07:00	192	67	48	254	260	245	240	238	187
08:00	253	80	69	328	388	414	298	336	261
09:00	157	106	83	230	230	216	205	208	175
10:00	134	100	79	155	131	126	123	134	121
11:00	110	98	85	141	112	127	139	126	116
12:00	136	87	95	182	129	119	152	144	129
13:00	155	102	117	151	150	147	143	149	138
14:00	166	115	97	143	123	160	175	153	140
15:00	195	103	103	171	188	186	154	179	157
16:00	235	94	87	235	248	217	217	230	190
17:00	205	89	102	238	236	285	247	242	200
18:00	128	80	72	159	165	190	157	160	136
19:00	104	63	66	109	92	110	79	99	89
20:00	52	38	41	51	47	41	38	46	44
21:00	43	25	31	43	63	53	43	49	43
22:00	48	32	19	39	48	37	51	45	39
23:00	21	12	24	19	29	34	17	24	22
Total									
12H(7-19)	2066	1121	1037	2387	2360	2432	2250	2299	1950
16H(6-22)	2359	1286	1203	2723	2683	2762	2518	2609	2219
18H(6-24)	2428	1330	1246	2781	2760	2833	2586	2678	2281
24H(0-24)	2638	1556	1314	2921	2978	3056	2790	2877	2465
AM Peak	08:00	09:00	11:00	08:00	08:00	08:00	08:00	08:00	08:00
	253	106	85	328	388	414	298	336	261
PM Peak	16:00	14:00	13:00	17:00	16:00	17:00	17:00	17:00	17:00
	235	115	117	238	248	285	247	242	200

Paul Castle Associates

Direction: Total Flow

Hour Beginning	Fri 13/10/2023	Sat 14/10/2023	Sun 15/10/2023	Mon 16/10/2023	Tue 17/10/2023	Wed 18/10/2023	Thu 19/10/2023	5-Day Ave.	7-Day Ave.
00:00	37	59	29	18	34	30	40	32	35
01:00	32	56	22	14	45	19	27	27	31
02:00	42	73	15	18	49	52	44	41	42
03:00	81	53	25	34	57	84	62	64	57
04:00	74	50	18	72	67	76	68	71	61
05:00	130	62	19	164	133	132	144	141	112
06:00	200	75	44	268	265	268	250	250	196
07:00	414	126	102	550	531	540	523	512	398
08:00	465	187	123	623	738	706	557	618	486
09:00	324	242	183	409	425	379	377	383	334
10:00	276	237	188	311	290	258	255	278	259
11:00	237	242	200	284	261	265	272	264	252
12:00	301	230	237	312	274	286	297	294	277
13:00	263	251	224	326	292	296	281	292	276
14:00	313	235	214	296	287	329	348	315	289
15:00	396	191	192	383	385	404	355	385	329
16:00	474	185	162	487	563	515	498	507	412
17:00	408	151	166	441	493	526	466	467	379
18:00	253	150	157	285	269	320	254	276	241
19:00	168	113	118	175	143	174	141	160	147
20:00	87	59	75	99	88	77	71	84	79
21:00	82	45	52	80	93	84	73	82	73
22:00	78	51	37	74	84	65	83	77	67
23:00	54	24	32	33	52	57	33	46	41
Total									
12H(7-19)	4124	2427	2148	4707	4808	4824	4483	4589	3932
16H(6-22)	4661	2719	2437	5329	5397	5427	5018	5166	4427
18H(6-24)	4793	2794	2506	5436	5533	5549	5134	5289	4535
24H(0-24)	5189	3147	2634	5756	5918	5942	5519	5665	4872
AM Peak	08:00	09:00	11:00	08:00	08:00	08:00	08:00	08:00	08:00
	465	242	200	623	738	706	557	618	486
PM Peak	16:00	13:00	12:00	16:00	16:00	17:00	16:00	16:00	16:00
	474	251	237	487	563	526	498	507	412

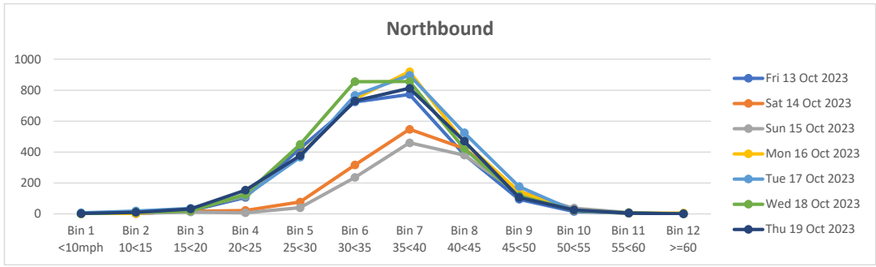
Paul Castle Associates

Ratcliffe on Soar ATC, West Leake Lane (Middle Site) - Speed Summary (0-24hr)

Direction: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Fri 13 Oct 2023	2551	41.4	34.8	6.3	1	2	21	107	424	725	773	383	94	16	5	0
Sat 14 Oct 2023	1591	44.8	38.2	6.4	0	3	18	23	77	316	547	423	146	31	4	3
Sun 15 Oct 2023	1320	45.4	39.0	6.2	0	3	13	7	40	236	460	380	134	38	9	0
Mon 16 Oct 2023	2835	42.4	35.5	6.6	0	3	34	115	378	744	920	463	145	23	4	6
Tue 17 Oct 2023	2940	42.8	35.5	7.0	8	19	36	116	367	767	896	525	177	23	4	2
Wed 18 Oct 2023	2886	41.6	34.9	6.5	0	10	19	126	449	855	856	422	117	24	7	1
Thu 19 Oct 2023	2729	42.1	35.0	6.8	3	11	33	153	377	731	812	471	107	26	5	0
5 Day Ave.	2788	42.0	35.2	6.6	2	9	29	123	399	764	851	453	128	22	5	2
7 Day Ave.	2407	42.9	36.1	6.5	2	7	25	92	302	625	752	438	131	26	5	2

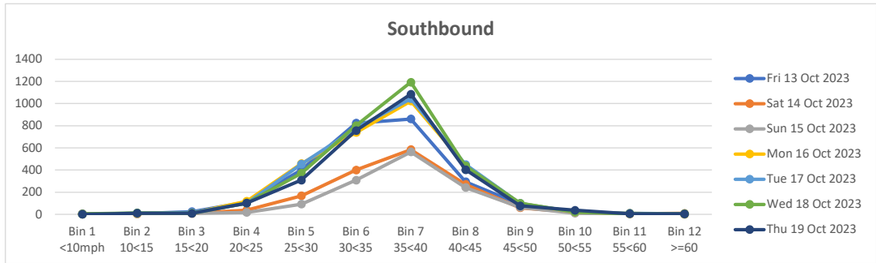
Paul Castle Associates



Direction: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Fri 13 Oct 2023	2638	41.0	34.5	6.3	5	7	24	110	400	824	861	293	90	17	7	0
Sat 14 Oct 2023	1556	42.8	36.2	6.3	2	2	8	37	167	400	584	269	58	18	3	8
Sun 15 Oct 2023	1314	43.1	37.0	5.9	0	2	9	16	91	308	563	241	63	10	5	6
Mon 16 Oct 2023	2921	41.6	35.2	6.2	0	8	11	117	458	739	1022	442	97	18	9	0
Tue 17 Oct 2023	2978	41.8	35.3	6.3	0	11	15	98	452	776	1043	449	98	21	10	5
Wed 18 Oct 2023	3056	41.8	35.5	6.1	3	12	10	101	371	801	1192	436	100	21	4	5
Thu 19 Oct 2023	2790	41.9	35.6	6.0	0	10	8	101	308	756	1085	402	76	36	5	3
5 Day Ave.	2877	41.6	35.2	6.2	2	10	14	105	398	779	1041	404	92	23	7	3
7 Day Ave.	2465	42.0	35.6	6.2	1	7	12	83	321	658	907	362	83	20	6	4

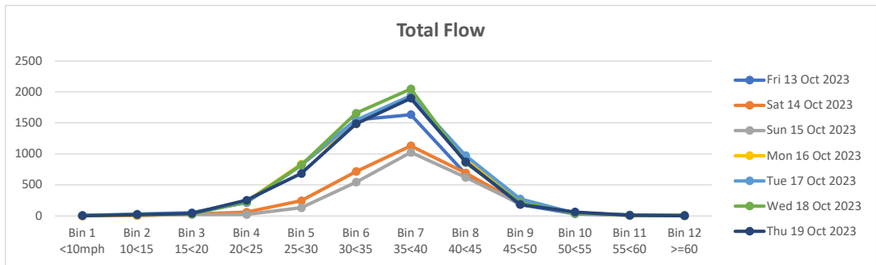
Paul Castle Associates



Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Fri 13 Oct 2023	5189	41.2	34.7	6.3	6	9	45	217	824	1549	1634	676	184	33	12	0
Sat 14 Oct 2023	3147	43.9	37.2	6.4	2	5	26	60	244	716	1131	692	204	49	7	11
Sun 15 Oct 2023	2634	44.4	38.0	6.1	0	5	22	23	131	544	1023	621	197	48	14	6
Mon 16 Oct 2023	5756	42.0	35.3	6.4	0	11	45	232	836	1483	1942	905	242	41	13	6
Tue 17 Oct 2023	5918	42.3	35.4	6.6	8	30	51	214	819	1543	1939	974	275	44	14	7
Wed 18 Oct 2023	5942	41.7	35.2	6.3	3	22	29	227	820	1656	2048	858	217	45	11	6
Thu 19 Oct 2023	5519	42.0	35.3	6.4	3	21	41	254	685	1487	1897	873	183	62	10	3
5 Day Ave.	5665	41.8	35.2	6.4	4	19	42	229	797	1544	1892	857	220	45	12	4
7 Day Ave.	4872	42.5	35.9	6.4	3	15	37	175	623	1283	1659	800	215	46	12	6

Paul Castle Associates



Ratcliffe on Soar ATC, West Leake Lane (Southern Site) - Flow Summary

Direction: Northbound

Hour Beginning	Fri 13/10/2023	Sat 14/10/2023	Sun 15/10/2023	Mon 16/10/2023	Tue 17/10/2023	Wed 18/10/2023	Thu 19/10/2023	5-Day Ave.	7-Day Ave.
00:00	12	20	6	8	18	9	12	12	12
01:00	24	16	11	9	11	8	16	14	14
02:00	14	35	8	12	20	14	13	15	17
03:00	32	15	9	18	21	27	25	25	21
04:00	40	16	9	37	35	42	33	37	30
05:00	77	30	14	84	64	66	85	75	60
06:00	109	36	13	141	146	146	140	136	104
07:00	218	60	48	292	280	299	283	274	211
08:00	198	108	52	310	347	295	264	283	225
09:00	161	137	103	180	192	171	182	177	161
10:00	148	135	108	168	150	138	143	149	141
11:00	138	140	125	147	150	147	143	145	141
12:00	177	144	139	128	134	153	157	150	147
13:00	95	156	102	175	147	138	125	136	134
14:00	150	119	116	149	164	175	179	163	150
15:00	202	80	97	219	183	220	196	204	171
16:00	240	103	64	245	329	302	278	279	223
17:00	212	56	71	191	245	222	204	215	172
18:00	121	74	83	121	97	137	90	113	103
19:00	60	40	61	60	51	66	56	59	56
20:00	38	21	38	49	46	32	31	39	36
21:00	35	15	16	31	25	31	28	30	26
22:00	34	17	17	36	36	34	31	34	29
23:00	34	15	9	17	19	18	12	20	18
Total									
12H(7-19)	2060	1312	1108	2325	2418	2397	2244	2289	1981
16H(6-22)	2302	1424	1236	2606	2686	2672	2499	2553	2204
18H(6-24)	2370	1456	1262	2659	2741	2724	2542	2607	2251
24H(0-24)	2569	1588	1319	2827	2910	2890	2726	2784	2404
AM Peak	07:00	11:00	11:00	08:00	08:00	07:00	07:00	08:00	08:00
	218	140	125	310	347	299	283	283	225
PM Peak	16:00	13:00	12:00	16:00	16:00	16:00	16:00	16:00	16:00
	240	156	139	245	329	302	278	279	223

Paul Castle Associates

Direction: Southbound

Hour Beginning	Fri 13/10/2023	Sat 14/10/2023	Sun 15/10/2023	Mon 16/10/2023	Tue 17/10/2023	Wed 18/10/2023	Thu 19/10/2023	5-Day Ave.	7-Day Ave.
00:00	24	40	22	14	20	18	21	19	23
01:00	11	43	14	4	37	16	7	15	19
02:00	26	43	13	4	31	39	28	26	26
03:00	60	31	9	19	37	55	34	41	35
04:00	32	36	8	28	34	27	48	34	30
05:00	51	32	3	71	72	61	66	64	51
06:00	93	32	22	137	131	118	121	120	93
07:00	180	76	43	240	270	265	258	243	190
08:00	245	86	62	340	404	426	313	346	268
09:00	157	114	82	244	220	219	200	208	177
10:00	139	91	84	149	135	142	117	136	122
11:00	114	105	81	142	115	127	147	129	119
12:00	138	99	89	192	139	122	160	150	134
13:00	155	107	124	152	153	151	159	154	143
14:00	171	121	94	132	122	160	162	149	137
15:00	213	97	93	170	185	194	153	183	158
16:00	228	91	76	231	255	217	220	230	188
17:00	209	93	118	235	233	294	265	247	207
18:00	137	78	74	147	156	177	156	155	132
19:00	103	55	75	120	97	99	77	99	89
20:00	52	43	40	45	51	36	31	43	43
21:00	37	23	39	46	60	45	52	48	43
22:00	53	35	22	32	56	30	50	44	40
23:00	17	15	29	15	23	30	16	20	21
Total									
12H(7-19)	2086	1158	1020	2374	2387	2494	2310	2330	1976
16H(6-22)	2371	1311	1196	2722	2726	2792	2591	2640	2244
18H(6-24)	2441	1361	1247	2769	2805	2852	2657	2705	2305
24H(0-24)	2645	1586	1316	2909	3036	3068	2861	2904	2489
AM Peak	08:00	09:00	10:00	08:00	08:00	08:00	08:00	08:00	08:00
	245	114	84	340	404	426	313	346	268
PM Peak	16:00	14:00	13:00	17:00	16:00	17:00	17:00	17:00	17:00
	228	121	124	235	255	294	265	247	207

Paul Castle Associates

Direction: Total Flow

Hour Beginning	Fri 13/10/2023	Sat 14/10/2023	Sun 15/10/2023	Mon 16/10/2023	Tue 17/10/2023	Wed 18/10/2023	Thu 19/10/2023	5-Day Ave.	7-Day Ave.
00:00	36	60	28	22	38	27	33	31	35
01:00	35	59	25	13	48	24	23	29	32
02:00	40	78	21	16	51	53	41	40	43
03:00	92	46	18	37	58	82	59	66	56
04:00	72	52	17	65	69	69	81	71	61
05:00	128	62	17	155	136	127	151	139	111
06:00	202	68	35	278	277	264	261	256	198
07:00	398	136	91	532	550	564	541	517	402
08:00	443	194	114	650	751	721	577	628	493
09:00	318	251	185	424	412	390	382	385	337
10:00	287	226	192	317	285	280	260	286	264
11:00	252	245	206	289	265	274	290	274	260
12:00	315	243	228	320	273	275	317	300	282
13:00	250	263	226	327	300	289	284	290	277
14:00	321	240	210	281	286	335	341	313	288
15:00	415	177	190	389	368	414	349	387	329
16:00	468	194	140	476	584	519	498	509	411
17:00	421	149	189	426	478	516	469	462	378
18:00	258	152	157	268	253	314	246	268	235
19:00	163	95	136	180	148	165	133	158	146
20:00	90	64	78	94	97	68	62	82	79
21:00	72	38	55	77	85	76	80	78	69
22:00	87	52	39	68	92	64	81	78	69
23:00	51	30	38	32	42	48	28	40	38
Total									
12H(7-19)	4146	2470	2128	4699	4805	4891	4554	4619	3956
16H(6-22)	4673	2735	2432	5328	5412	5464	5090	5193	4448
18H(6-24)	4811	2817	2509	5428	5546	5576	5199	5312	4555
24H(0-24)	5214	3174	2635	5736	5946	5958	5587	5688	4893
AM Peak	08:00	09:00	11:00	08:00	08:00	08:00	08:00	08:00	08:00
	443	251	206	650	751	721	577	628	493
PM Peak	16:00	13:00	12:00	16:00	16:00	16:00	16:00	16:00	16:00
	468	263	228	476	584	519	498	509	411

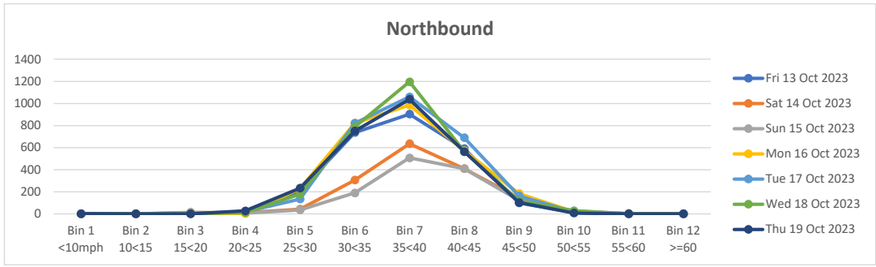
Paul Castle Associates

Ratcliffe on Soar ATC, West Leake Lane (Southern Site) - Speed Summary (0-24hr)

Direction: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Fri 13 Oct 2023	2569	42.2	36.8	5.2	0	1	2	11	210	737	903	592	99	12	2	0
Sat 14 Oct 2023	1588	44.2	38.4	5.6	0	1	13	12	43	306	635	409	144	22	3	0
Sun 15 Oct 2023	1319	45.0	39.0	5.7	0	0	15	8	36	190	507	409	122	28	4	0
Mon 16 Oct 2023	2827	42.7	37.0	5.5	0	0	5	4	229	822	985	573	184	19	4	2
Tue 17 Oct 2023	2910	42.7	37.3	5.2	0	1	5	19	134	822	1060	689	164	16	0	0
Wed 18 Oct 2023	2890	42.2	37.0	5.0	0	0	3	12	180	789	1196	564	118	28	0	0
Thu 19 Oct 2023	2726	42.0	36.5	5.2	2	0	1	28	233	750	1037	564	103	8	0	0
5 Day Ave.	2784	42.3	36.9	5.2	0	0	3	15	197	784	1036	596	134	17	1	0
7 Day Ave.	2404	43.0	37.4	5.4	0	0	6	13	152	631	903	543	133	19	2	0

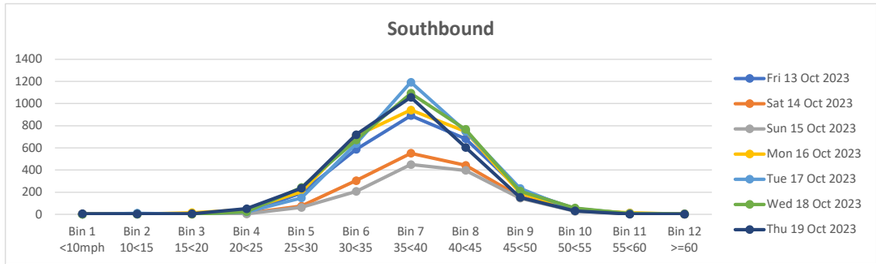
Paul Castle Associates



Direction: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Fri 13 Oct 2023	2645	44.1	38.0	5.9	1	1	3	15	192	586	891	682	218	50	6	0
Sat 14 Oct 2023	1586	45.0	38.7	6.0	2	4	0	8	74	304	551	442	159	33	5	4
Sun 15 Oct 2023	1316	45.7	39.1	6.3	0	7	6	3	62	207	449	396	146	27	9	4
Mon 16 Oct 2023	2909	43.8	37.5	6.1	1	2	14	42	203	708	942	748	195	40	13	1
Tue 17 Oct 2023	3036	43.8	38.0	5.6	0	10	2	21	147	638	1192	749	233	35	7	2
Wed 18 Oct 2023	3068	43.8	37.8	5.8	1	0	0	23	241	671	1093	767	208	56	6	2
Thu 19 Oct 2023	2861	42.9	36.8	5.8	5	3	4	50	235	719	1056	604	153	30	1	1
5 Day Ave.	2904	43.7	37.6	5.9	2	3	5	30	204	664	1035	710	201	42	7	1
7 Day Ave.	2489	44.2	38.0	5.9	1	4	4	23	165	548	882	627	187	39	7	2

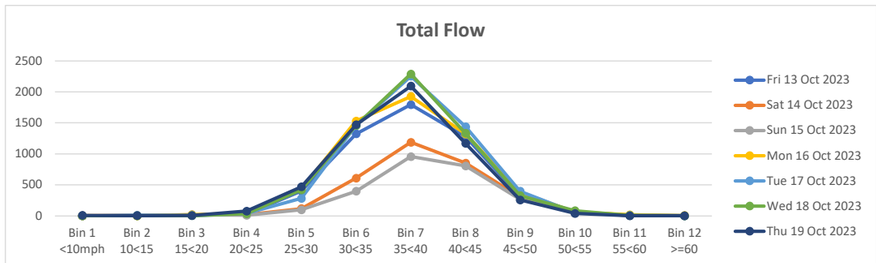
Paul Castle Associates



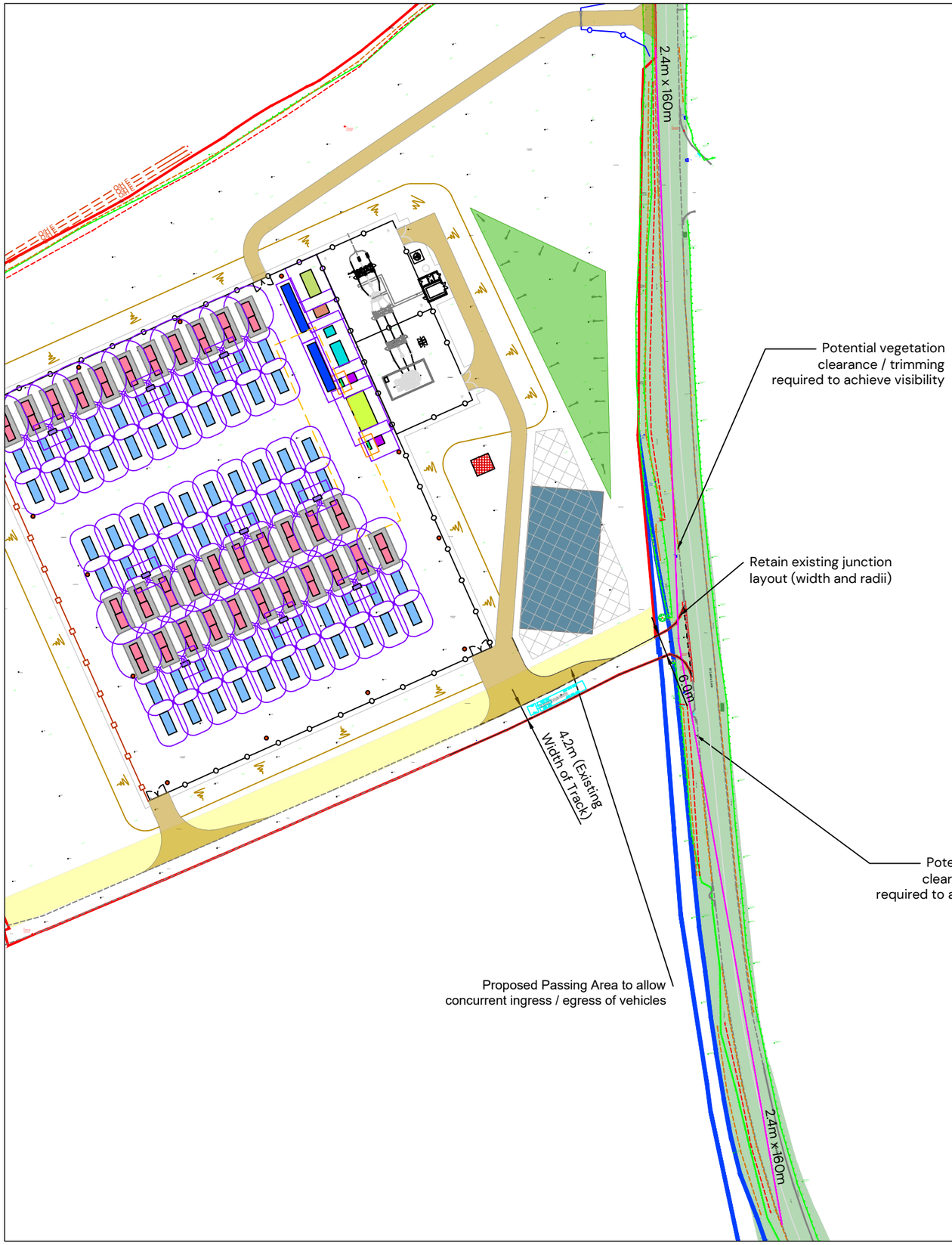
Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Fri 13 Oct 2023	5214	43.2	37.4	5.6	1	2	5	26	402	1323	1794	1274	317	62	8	0
Sat 14 Oct 2023	3174	44.6	38.6	5.8	2	5	13	20	117	610	1186	851	303	55	8	4
Sun 15 Oct 2023	2635	45.3	39.1	6.0	0	7	21	11	98	397	956	805	268	55	13	4
Mon 16 Oct 2023	5736	43.3	37.3	5.8	1	2	19	46	432	1530	1927	1321	379	59	17	3
Tue 17 Oct 2023	5946	43.3	37.7	5.4	0	11	7	40	281	1460	2252	1438	397	51	7	2
Wed 18 Oct 2023	5958	43.0	37.4	5.5	1	0	3	35	421	1460	2289	1331	326	84	6	2
Thu 19 Oct 2023	5587	42.4	36.7	5.5	7	3	5	78	468	1469	2093	1168	256	38	1	1
5 Day Ave.	5688	43.0	37.3	5.6	2	4	8	45	401	1448	2071	1306	335	59	8	2
7 Day Ave.	4893	43.6	37.7	5.7	2	4	10	37	317	1178	1785	1170	321	58	9	2

Paul Castle Associates



Appendix E – Access Sketch (Pegasus Drawing P23-1398-SK05B)



N

1:1250
0 25m

KEY

- Visibility Splays (2.4 x 160m in accordance with DMRB guidance for 50mph carriageway)
- Adopted Highway Boundary
- Site Boundary
- Land outside Applicant's ownership (which has been agreed with the landowner for use)
- Existing Vegetation

NOTES

1. THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND SHOULD NOT BE USED FOR COSTING OR CONSTRUCTION. PEGASUS GROUP ACCEPT NO LIABILITY FOR THE MISUSE OF THIS DRAWING FROM ITS INTENDED PURPOSE.
2. THIS DRAWING IS BASED UPON DRAWING x_04875-RES-MAP-DR-XX-002 PRODUCED BY RES ON 24 OCTOBER 2024.
3. THE CLIENT HAS CONFIRMED THE USE OF 16.5m ARTICULATED HGB TO ACCESS THE SITE FOR DELIVERIES, WITH THIS BEING THE MOST ONEROUS VEHICLE TO ACCESS THE SITE

REV	DATE	DESCRIPTION	REVISED BY	APPROVED BY
B	17.12.2024	UPDATED BASE PLAN	AJ	JK/KE
A	19.08.24	RED LINE BOUNDARY UPDATED	EC	KE

Winking Hill Farm Proposed Access Junction Geometry & Visibility Splays

Land to the west of West Leake Lane, Ratcliffe on Soar, Nottinghamshire NG11 0DP

CLIENT:
Renewable Energy Systems

DATE:	SCALE:	DRAWN BY:	APPROVED BY:
22.02.2024	1:1250@A3	EH	KE

DRAWING NUMBER: P23-1398-SK05 REV B

PG OFFICE: BIR

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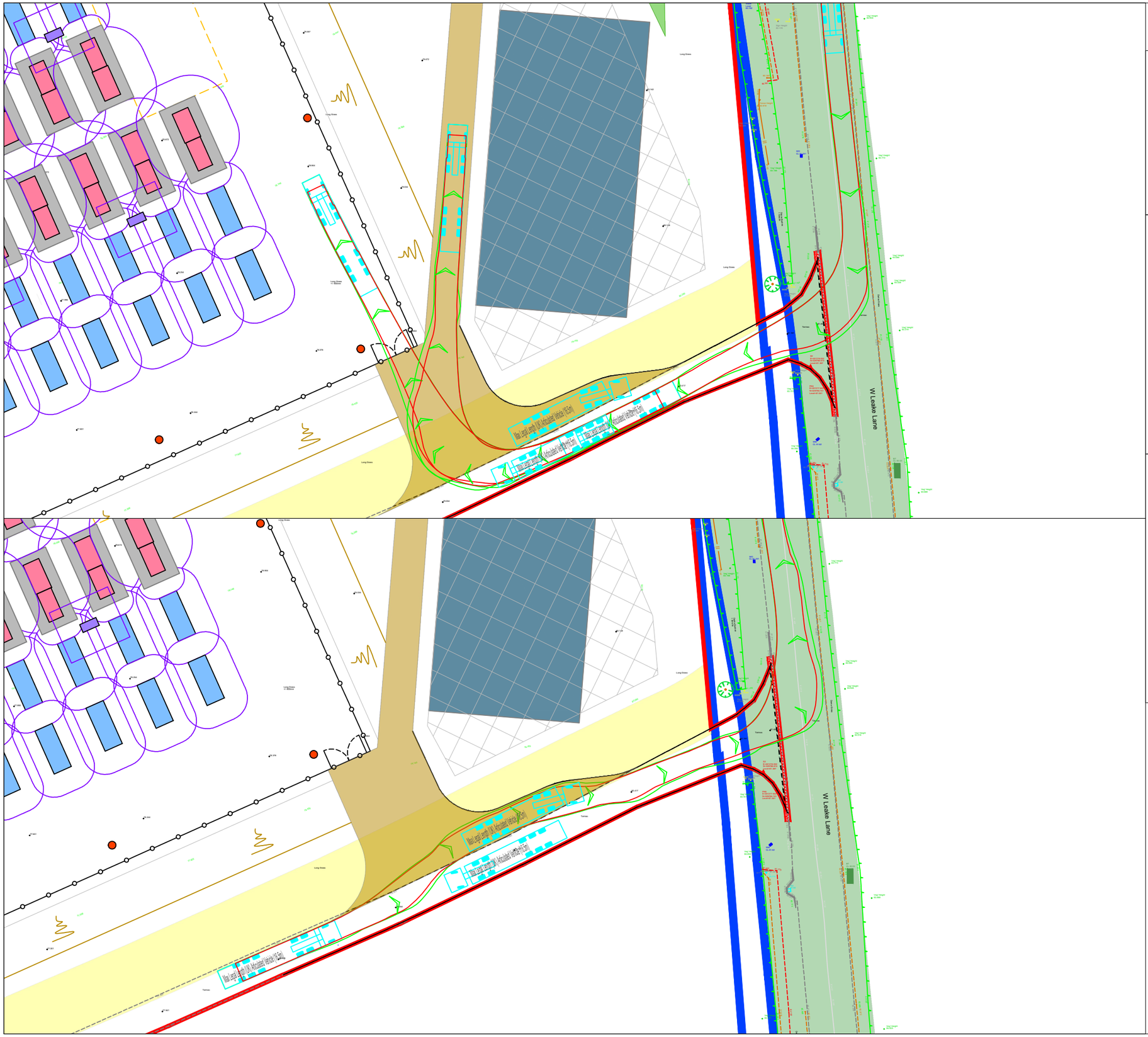
Appendix F – 16.5m HGV Swept Path Analysis (Pegasus Drawing P23-1398-SK06B)



N

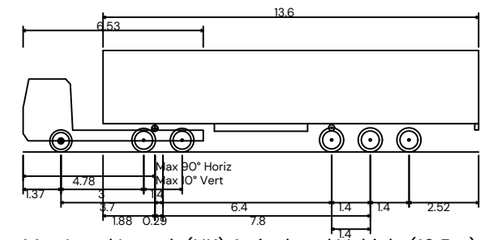
1:500
0 12.5m

Key:

- Adopted Highway Boundary
- Site Boundary
- Land outside Applicant's ownership (which has been agreed with the landowner for use)
- Existing Vegetation

NOTES

1. THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND SHOULD NOT BE USED FOR COSTING OR CONSTRUCTION. PEGASUS GROUP ACCEPT NO LIABILITY FOR THE MISUSE OF THIS DRAWING FROM ITS INTENDED PURPOSE.
2. THIS DRAWING IS BASED UPON DRAWING x_04875-RES-MAP-DR-XX-002 PRODUCED BY RES ON 24 OCTOBER 2024.
3. THE CLIENT HAS CONFIRMED THE USE OF 16.5m ARTICULATED HGB TO ACCESS THE SITE FOR DELIVERIES, WITH THIS BEING THE MOST ONEROUS VEHICLE TO ACCESS THE SITE



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

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

REV	DATE	DESCRIPTION	REVISED BY	APPROVED BY
B	17.12.2024	UPDATED BASE PLAN	AJ	JK/KE
A	21.08.24	RED LINE BOUNDARY UPDATED	EC	KE

Winking Hill Farm Proposed Access Junction Swept Path Analysis (HGV)

Land to the west of West Leake Lane, Ratcliffe on Soar, Nottinghamshire (NG11 0DP)

CLIENT:
Renewable Energy Systems

DATE:	SCALE:	DRAWN BY:	APPROVED BY:
22.02.2024	1:500@A3	EH	KE

DRAWING NUMBER: P23-1398-SK06 REV B

PG OFFICE: BIR

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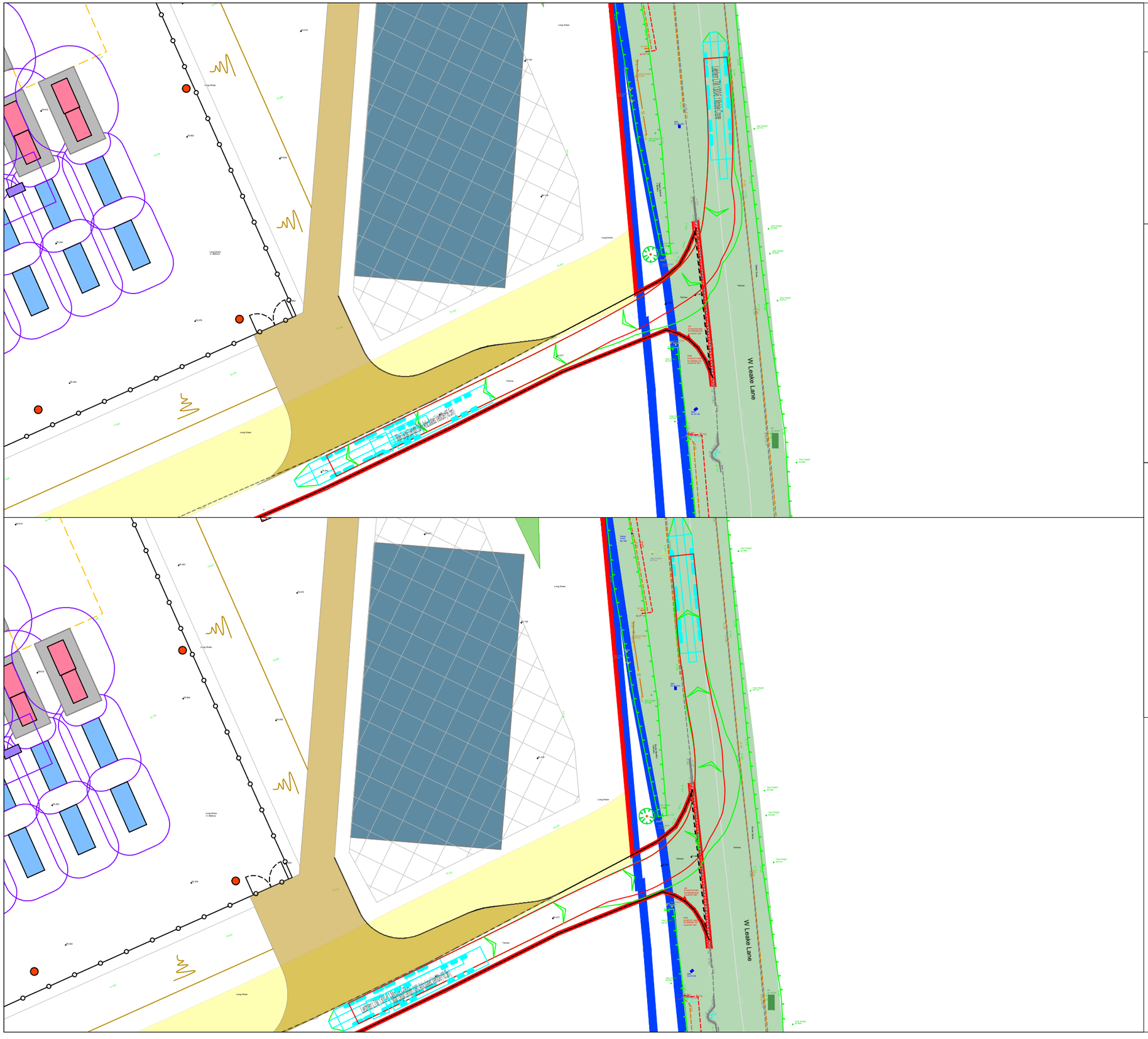
Appendix G - Crane Swept Path Analysis (Pegasus Drawing P23-3198-SK07B)



N

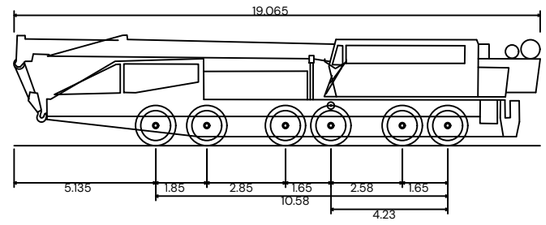
1:500
0 12.5m

Key:

- Adopted Highway Boundary
- Site Boundary
- Land outside Applicant's ownership (which has been agreed with the landowner for use)
- Existing Vegetation

NOTES

1. THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND SHOULD NOT BE USED FOR COSTING OR CONSTRUCTION. PEGASUS GROUP ACCEPT NO LIABILITY FOR THE MISUSE OF THIS DRAWING FROM ITS INTENDED PURPOSE.
2. THIS DRAWING IS BASED UPON DRAWING x_04875-RES-MAP-DR-XX-002 PRODUCED BY RES ON 24 OCTOBER 2024.
3. THE CLIENT HAS CONFIRMED THE USE OF 16.5m ARTICULATED HGB TO ACCESS THE SITE FOR DELIVERIES, WITH THIS BEING THE MOST ONEROUS VEHICLE TO ACCESS THE SITE



Liebherr LTM 1300-6.1 Mobile Crane

Overall Length	19.065m
Overall Width	3.000m
Overall Body Height	4.000m
Min Body Ground Clearance	0.330m
Track Width	3.000m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	11.624m

REV	DATE	DESCRIPTION	REVISED BY	APPROVED BY
B	17.12.2024	UPDATED BASE PLAN	AJ	JK/KE
A	21.08.24	RED LINE BOUNDARY UPDATED	EC	KE

Winking Hill Farm Proposed Access Junction Swept Path Analysis (Crane)

Land to the west of West Leake Lane, Ratcliffe on Soar, Nottinghamshire (NG11 0DP)

CLIENT:
Renewable Energy Systems

DATE:	SCALE:	DRAWN BY:	APPROVED BY:
22.02.2024	1:500@A3	EH	KE

DRAWING NUMBER: P23-1398-SK07 REV B

PG OFFICE: BIR

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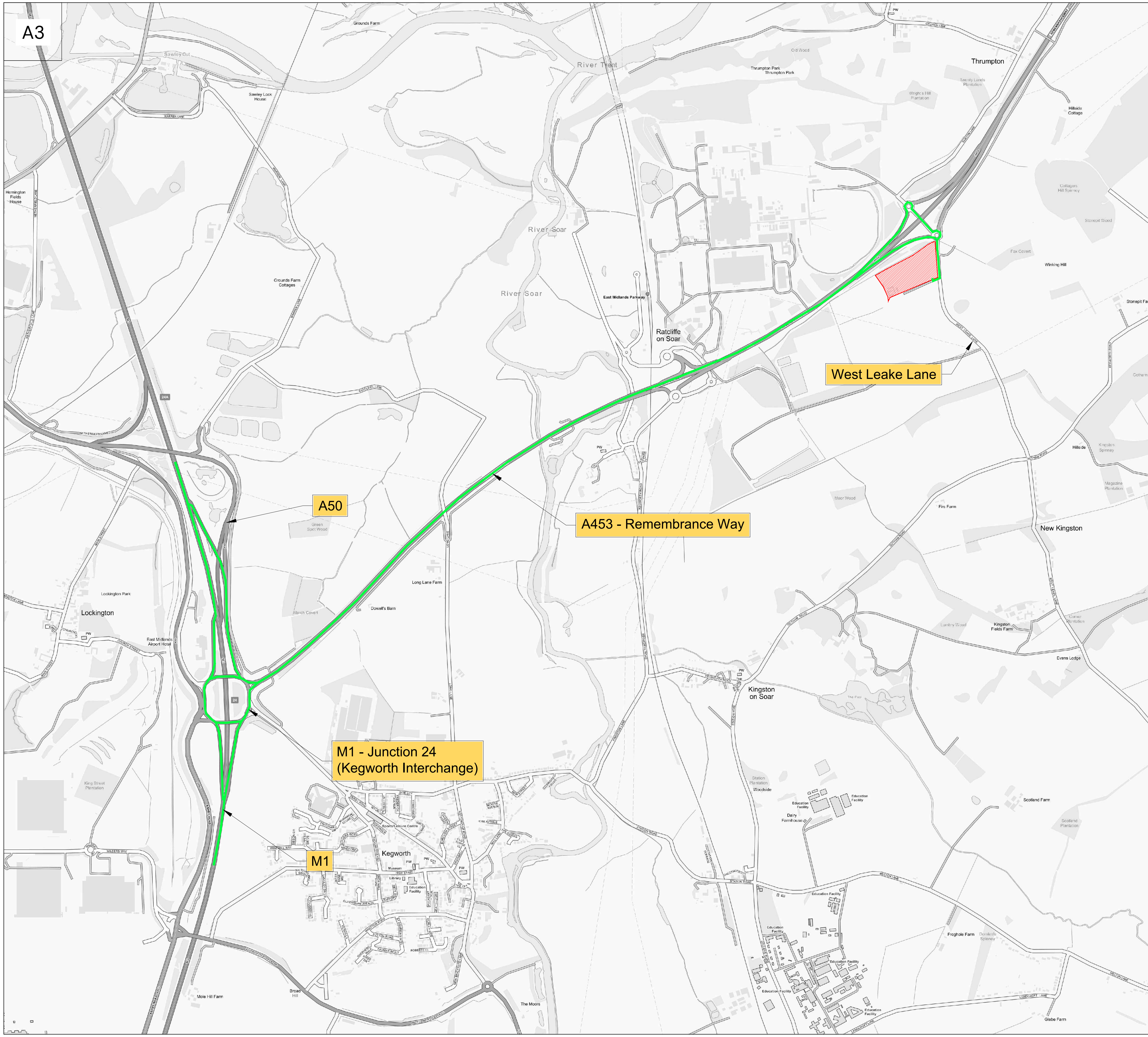
Appendix H – Construction Traffic Routing Plan

A3



N

1:20,000
0 500mm

Key

Approximate Site Boundary

Two-Way Construction Traffic Route

REV	DATE	DESCRIPTION	REVISED BY	APPROVED BY
A	15.12.23	Construction Route Updated	EH	KE

CONSTRUCTION TRAFFIC ROUTING PLAN

LAND TO THE WEST OF WEST LEAKE LANE RATCLIFFE ON SOAR, NOTTINGHAMSHIRE

CLIENT:
RENEWABLE ENERGY SYSTEMS

DATE:	SCALE:	DRAWN/CHECKED BY:	APPROVED BY:
20/11/2023	1:20,000	AG/TR	KE

DRAWING NUMBER: P23-1398 - SK01

REVISION No: A

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