Technical Appendix 2.4: Transport Statement

Kirknewton Solar & BESS EIA Report

Trio Power Limited

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Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	30 September 2025	IL	GK	GK
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Basis of Report

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1 Introduction

Background

1.1 Trio Power Limited (hereafter referred to as 'the Applicant'), is applying for permission to construct and operate a solar photovoltaic (PV) array and Battery Energy Storage System (BESS) on land near Leyden Road, Kirknewton (hereafter referred to as the 'Proposed Development') in West Lothian Council's (WLC's) area. The location of the Proposed Development is shown in Graphic 1.1 of the EnviornEIA Report, which shows that the Proposed Development would be located on land on each side of Leyden Road, to the north of the A70 this is hereafter referred to as the 'Site'.

1.2 A formal Environmental Impact Assessment (EIA) Screening Opinion was requested from WLC on 30 July 2025 (reference 0717/EIA/25). A Screening Opinion (Technical Appendix 2.1 of the Environmental Impact Assessment (EIA) Report) was received on the 9th October screening the Proposed Development into EIA.

1.3 SLR has been commissioned to advise the Applicant on various aspects of the Proposed Development, including transport matters.

1.4 WLC provided pre-application advice regarding the Proposed Development (reference 0421/PAC/25). It advised that a Transport Statement / Assessment would be required to accompany the application and suggested agreeing the scope of the assessment with WLC's Roads and Transportation Team.

1.5 SLR agreed with an officer in WLC's Roads and Transportation team that a Transport Statement would be appropriate to consider the transport aspects of the Proposed Development and that the statement would cover the following:

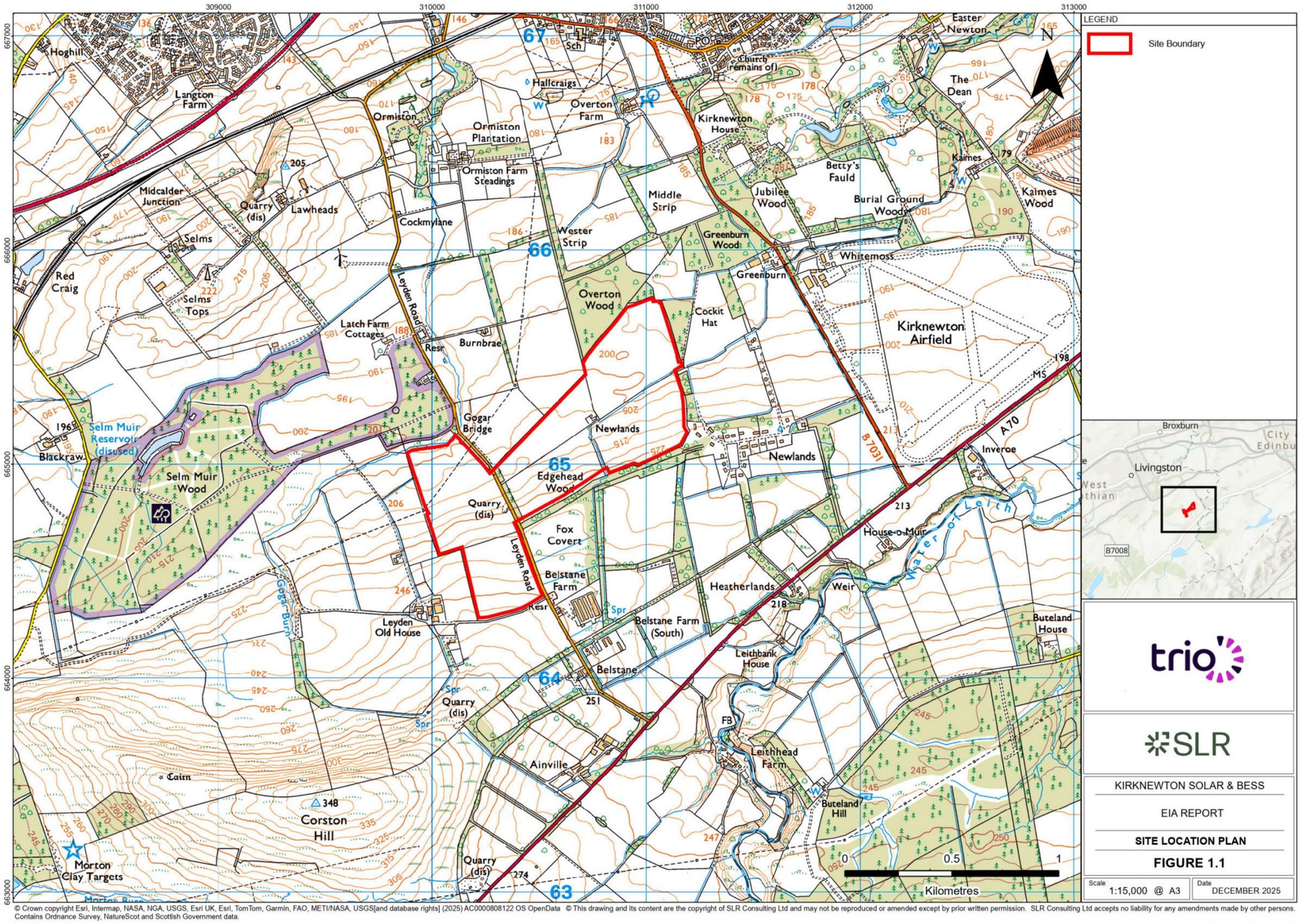
- A description of the surrounding transport network;
- A description of the Proposed Development, including estimates of the likely number of vehicle movements during construction and operation;
- A description of the access arrangements for the Proposed Development;
- Qualitative comment on the increase in traffic on Leyden Road arising from the Proposed Development and comment on the existing passing opportunities on Leyden Road; and
- A summary of measures that could be included in a Construction Traffic Management Plan (CTMP).

This Report

1.6 This report forms the Transport Statement and considers the transport aspects of the Proposed Development. After this introduction, this report has the following chapters:

- Section 2: describes the surrounding existing transport network.
- Section 3: describes the transport aspects of the Proposed Development.
- Section 4: summarises measures that could be included in a CTMP; and.
- Section 5: presents the conclusions.

Graphic 1.1: Location of Proposed Development



2 Existing Transport Network

Introduction

2.1 This section describes the location of the Proposed Development and the surrounding existing transport network. The transport network has been described following the hierarchy in National Planning Framework (NPF) 4, namely: walking, wheeling, cycling, public transport, taxis and shared transport, and private car.

Site Location

2.2 The Site of the Proposed Development is currently undeveloped farmland. The Site is bisected by Leyden Road (also referred to as the U32 by WLC), which meets the A70 around 1.1 km to the south of the Proposed Development.

2.3 There have been no relevant planning applications covering the Site, and there are an no site-specific designations covering the site in WLC's Local Development Plan (LDP2).

Walking, Wheeling and Cycling

2.4 There are no footways on Leyden Road as it passes the Proposed Development. The extract from WLC's Core Path plan[1] in **Graphic 2.1** shows that there are no Core Paths crossing the Proposed Development, nor are there any crossing Leyden Road. The nearest Core Path would be Core Path 1, which uses the footways on the B7031 as it passes through Kirknewton around 2 km to the north-east. There are no specific cycling facilities in the vicinity and the nearest part of the National Cycle Network[2] is the B7031 as it passes through Kirknewton.

Public Transport

2.5 There are no scheduled bus services on Leyden Road or on the A70 in the vicinity of Leyden Road. The nearest bus stops are on the B7031 in Kirknewton. At the time of writing, these are served by the X28 service which links Edinburgh and Bathgate and has a typical weekday frequency of two services per hour in each direction.

2.6 Kirknewton is the nearest railway station. At the time of writing, it is served by trains linking Edinburgh and Glasgow with a typical weekday frequency of one train per hour in each direction.

[1] West Lothian's Core Paths Plan - West Lothian Council

[2] Detailed maps & routes to explore across the UK | OS Maps

Graphic 2.1: Core Path Network Around Proposed Development

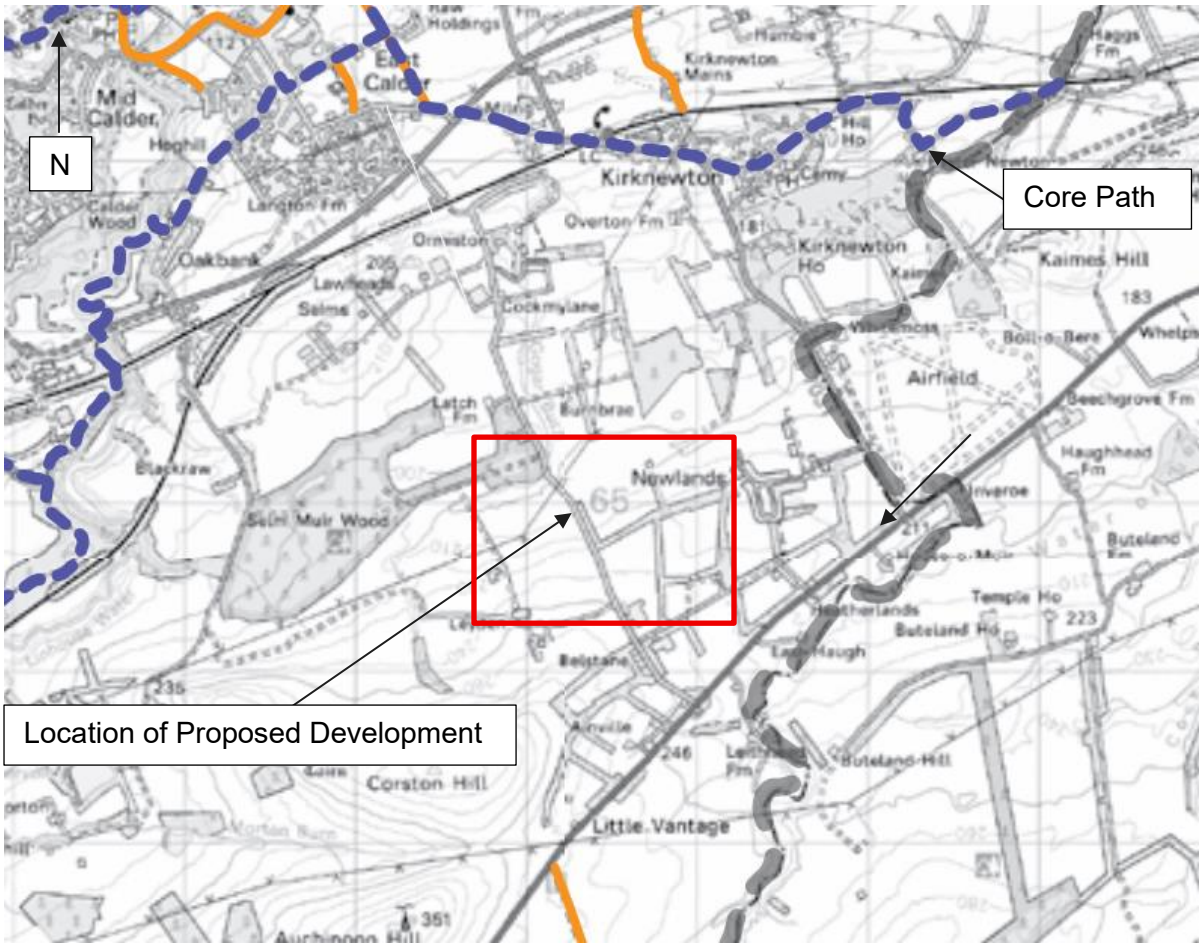


Image source: WLC

Road Network

2.7 Leyden Road is a single-track road as shown in **Photo 1**. Near the Proposed Development, it is subject to a 60 mph speed limit (with lower limits applying for some vehicle types)[3]. There are several passing opportunities along Leyden Road where features such as field or property accesses allow opposite-direction vehicles to pass. Photographs of several of these features are provided in **Annex A**.

2.8 There is a 4.1 m height restriction on Leyden Road at a point around 2 km to the north of the Proposed Development where Leyden Road passes under the Edinburgh – Mid Calder Junction railway line.

2.9 SLR commissioned an Automatic Traffic Counter (ATC) survey on Leyden Road in the vicinity of the Proposed Development. The ATC recorded speeds, vehicle types and number of vehicle movements for a week from 26 August 2025.

2.10 Data from the ATC showed that during the period 0700 – 1900 on the average weekday there were 284 vehicle movements of which 39 were Heavy Goods Vehicles (HGVs). The 284 vehicle movements equate to an average of 24 vehicles per hour and an average of over two and a half minutes between successive vehicle movements. The 85th percentile speeds recorded by the survey were 40.8 mph northbound and 36.5 mph southbound.

[3] Speed limits - GOV.UK

Photo 1: View of Leyden Road in Vicinity of the Proposed Development

Image source: SLR

2.11 Data from the Department for Transport's Mapping Application for Visualising Road Injury Casualties (MAVRIC) tool shows no injury-causing accidents have been recorded in the five years to the end of 2024 (the last full year for which data is available at the time of writing).

3 Transport Aspects of Proposed Development

Introduction

3.1 This section describes the transport infrastructure that would be provided as part of the Proposed Development and presents an estimate of its likely transport demand.

Transport Infrastructure

3.2 A drawing showing the layout of the Proposed Development is provided in **Annex B.** The drawing shows that the solar panels would be located to the east and to the west of Leyden Road while the BESS would be located to the east of Leyden Road.

3.3 Access would be from two existing field accesses on Leyden Road. A view of the existing access to the eastern part of the proposed development is shown in **Photo 2**, while a view of the existing access to the western part is shown in **Photo 3**.

Photo 2: View of Existing Eastern Access on Leyden Road

Image source: SLR

Photo 3: View of Existing Western Access on Leyden Road

Image source: SLR

3.4 Both accesses would be improved to make them suitable for access to the Proposed Development. **Drawing 405-065786-00001-TRA-0001a** in **Annex B** shows the proposed improvements to the access on the eastern side of Leyden Road and **Drawing 405-065786-00001-TRA-0001b** in **Annex B** shows the proposed improvements to the access on the western side of Leyden Road**.**

3.5 Both drawings show that visibility splays of 2.4 m by 120 m would be provided. The 120 m distance is in accordance with the guidance in Table 8 of the National Roads Design Guidance (NRDG). That guidance states that visibility splays of 120 m would be appropriate for 85th percentile speeds of up to 44 mph and so would be appropriate for the maximum 85th percentile speed observed on Leyden Road of 40.8 mph (see **Paragraph 2.9**).

3.6 Both drawings also show each access could accommodate the swept path of a standard 12 m long fire tender and a 16.5 m long articulated vehicle entering and exiting the Proposed Development. The swept path drawings show both vehicles entering and exiting each access from both the north and the south. It is expected that all construction-related vehicles would enter and exit each access only to and from the south, but the swept paths have been undertaken for vehicles entering and exiting to and from the north to show that such manoeuvres could be feasibly undertaken should the need arise.

3.7 The layout drawing in **Annex B** shows that a temporary compound would be provided on the part of the Proposed Development to the east of Leyden Road for use during construction. Sufficient temporary vehicle parking would be provided at this compound to cater for likely demand and no parking would occur on Leyden Road. Suitable temporary turning areas would be provided within the Proposed Development during construction to allow vehicles to turn around and all vehicles would enter and leave Leyden Road in forward gear.

3.8 The layout of the access tracks within the operational layout would allow vehicles to turn internally and enter and leave Leyden Road in forward gear.

Transport Demand

Construction

3.9 Construction of the Proposed Development would generate vehicle movements as staff travel to and from it and materials and items such as plant are delivered to and removed from it. All construction materials and components are expected to be delivered by HGVs complying with the Road Vehicles (Construction and Use) Regulations 1986 and no Abnormal Indivisible Load Vehicles (AILVs) are expected to be required.

3.10 Construction is expected to take around a year. Working hours would likely be 0700 to 1800 Monday to Friday and 0800 to 1300 on Saturdays.

3.11 The number of vehicle movements during construction has been estimated based on the likely number of staff, volume of materials and items of plant and equipment that would be required and on experience of other projects. The main elements of construction of the Proposed Development that would generate vehicle movements are:

- Access tracks. Around 2,416 m of access tracks would be required, which equates to around 3,866m^3 of material based on a typical width of 4 m and depth of 0.4 m. That volume of material equates to 483 HGV loads (based on 8 m^3 per vehicle) and hence 966 HGV movements.
- Battery Components . The Proposed Development will require 48 battery components to be delivered. Six components could be accommodated on one HGV, meaning that there would eight HGV deliveries and hence 16 HGV movements for these items.
- Inverters, frames and panels. 267 inverters and 77,000 panels will be required and around 100 loads of frames will be required. Four inverters could be accommodated per HGV and 400 panels could be accommodated per HGV. There would therefore be around 67 loads of inverters, 193 loads of panels and 100 loads of frames, equating to 720 HGV movements.
- Substation and BESS area. Hardstanding areas of approximately 3,594 m^2, 2,088 m^2 and 3,600 m^2 will be constructed for the BESS, substation and temporary construction compound respectively. Each will be built to a depth of 0.40 m, which will require approximately 3,713 m^3 of aggregate. That volume of material equates to 464 HGV loads (based on 8 m^3 per vehicle) and hence 928 HGV movements. A further 30 HGV loads has been assumed for materials to be imported to form the foundations of the structure and internal electrical cabling, resulting in an additional 60 HGV movements.

3.12 The number of construction staff will vary through the construction period depending on the operations being undertaken. It is anticipated that 40 staff will be present each working day during the peak period of construction, reducing to 20 staff at other times. Many staff would likely share a vehicle and for the purpose of this report it has been assumed that there would be an average of 1.5 staff per vehicle. There would therefore be around 27 staff vehicles arriving during each working day in the peak months and the same number departing, reducing to 13 arriving and 13 departing outwith the peak months.

3.13 Estimated vehicle movements during each month of the construction period are provided in **Table 3.1**. **Table 3.1** also presents estimated daily vehicle movements for each month of the construction period, based on there being 20 working days per month (i.e. four weeks per month of five working days). There would likely be more than 20 working days in any one month (given activities would take place 0800 – 1300 on Saturdays) so the actual daily vehicle movements during construction would likely be lower than that shown in **Table 3.1**.

3.14 The data in **Table 3.1** shows that there would be a maximum of 80 vehicle movements (of which 27 would be HGVs) each working day during month five of the construction period. There would be an average of 52 vehicle movements (of which 12 would be HGVs) each working day across the entire construction period.

3.15 The additional 80 vehicle movements during each working day during the busiest month of the construction period would represent an increase of 28% over the observed number of vehicle movements on Leyden Road (from **Paragraph 2.9**). However, in absolute terms, the increase would mean around nine minutes between each additional vehicle (on average over the working day). Such increases are unlikely to cause noticeable effects on other users of Leyden Road and the increases during the other months of the construction period would be lower.

3.16 All vehicle movements during construction would be expected to use the section of Leyden Road between the accesses and the A70. The site management would require that contractors inform them of expected HGV arrival times. If an HGV was about to depart the site at around the time an HGV was due to arrive, then the departing HGV would be held within the site until the arrival HGV had entered the site to avoid two opposite-direction HGVs related to the Proposed Development meeting each other on Leyden Road.

Operation

3.17 There would be fewer vehicle movements during operation than during construction, as once operational there would be only the occasional maintenance or inspection vehicle. There would likely be no more than a handful of such vehicle movements during any typical week and they would typically be Light Goods Vehicles (LGVs) or pick-up trucks. There may be the occasional need for an HGV to visit once operational to, for example, replace a defective item.

Decommissioning

3.18 The Proposed Development would be decommissioned at the end of its operational life. Once decommissioned, the Site would be reinstated and this would involve similar access requirements as the construction phase. The number of vehicle movements during decommissioning would likely be less than that generated during construction as some elements (such as sub-surface infrastructure) may be left in place after decommissioning.

Table 3.1: Estimated Vehicle Movements During Construction Period

Activity	Vehicle Type	Vehicle Movements in Month[4]											
		1	2	3	4	5	6	7	8	9	10	11	12
Site Mobilisation	HGV	40											
Miscellaneous Deliveries	HGV	10	10	10	10	10	10	10	10	10	10	10	10
Fuel	HGV	4	4	4	4	4	4	4	4	4	4	4	4
Access Tracks	HGV		242	242	242	242							
Frames, Inverters and Storage Containers	HGV				121	121	121						
Substation and BESS	HGV				161	161	161	161	161	161			
Panels	HGV						64	64	64	64	64	64	
Battery Components	HGV							4	4	4	4		
Site Demobilisation	HGV												40
Staff Movements	Car and LGVs	534	534	534	534	1,067	1,067	1,067	1,067	1,067	1,067	534	534
Total Vehicle Movements		588	790	790	1,072	1,605	1,427	1,306	1,306	1,306	1,145	612	588
Total HGV Movements		54	256	256	538	538	360	240	240	240	78	78	54
Total Car and LGV Movements		534	534	534	534	1,067	1,067	1,067	1,067	1,067	1,067	534	534
Average Vehicle Movements per Working Day		**29**	**39**	**39**	**53**	**80**	**71**	**66**	**66**	**66**	**57**	**31**	**29**
Average HGV Movements per Working Day		3	13	13	27	27	18	12	12	12	4	4	3
Average Car and LGV Movements per Working Day		27	27	27	27	53	53	53	53	53	53	27	27

[4] A movement is an arrival or a departure. For example, a vehicle arriving, unloading and departing would represent two movements.

4 Measures to Manage Traffic

Introduction

4.1 This section of the report describes the measures proposed to manage construction-related traffic to and from the Proposed Development. Full details of the construction would not be known until nearer the time of construction (should consent be granted) and once a Principal Contractor (PC) was appointed. Submission of a full CTMP by the PC prior to construction could be made a condition of any consent granted.

Parking and Turning

4.2 Suitable parking and turning facilities would be provided as described in **Paragraph 3.4**. A banksman would be employed to ensure that any vehicles that must reverse within the site would do so under supervision. Heavy site traffic would be equipped with audible reversing warning equipment with additional visual aids (e.g. reversing cameras or mirrors) used on all plant. All safety features would be inspected daily with faults immediately reported and repaired.

Control of Mud and Debris

4.3 Wheel washing facilities would be provided during construction to reduce the risk of mud or debris being deposited on Leyden Road. All relevant vehicles would be sheeted to limit the spread of dust.

Site Arrival Procedures

4.4 All non-staff vehicles arriving at the Site would be required to report to site security where they would obtain clear instructions. The site speed limit would be 15 mph and speed limit signs would be erected within the site.

Travel Demand Measures

4.5 The PC would encourage car sharing among staff. When a new member of staff was appointed, the PC would put him or her in touch with others who live nearby to encourage car sharing. The PC would identify the feasibility of running a minibus to transport staff to and from the site.

Induction and Training

4.6 Staff would be made aware of the measures in the CTMP upon their induction. Contractors would be made aware of the measures in the CTMP when appointed and it would be a contractual requirement that they adhere to the CTMP measures. Adherence to the specific measures in this plan would be made a condition of the contract with all contractors and suppliers.

Traffic Signage

4.7 Temporary signage would be provided in the vicinity of the junction of the A70 and Leyden Road and of the accesses from Leyden Road to direct arriving vehicles towards the site.

Updating and Reviewing the CTMP

4.8 The PC would review this CTMP as the design and construction progresses and update the CTMP as necessary. The PC would nominate a member of staff to act as a liaison officer to be responsible for the co-ordination of all elements of transport during the construction

process. This person would provide their contact details to the local area roads officer in WLC and the chair of Kirknewton Community Council. This would ensure that the local community has a direct point of contact to discuss matters pertaining to traffic management or site operation.

Dealing with Complaints

4.9 The PC would record all comments, complaints or queries received during the construction period. Any comments, complaints or queries which required a response would be replied to within five working days.

5 Conclusions

5.1 This report has considered the transport aspects of the Proposed Development. The report concludes that:

- Suitable accesses can be provided from Leyden Road and there are several existing passing opportunities on Leyden Road.
- Construction is expected to last up to 12 months and generate, at most, around 80 vehicle movements per working day.
- Those additional vehicle movements are unlikely to cause any noticeable effects on users of the Leyden Road, but HGV departures from the site would be managed to reduce the risk of two opposing-direction HGVs meeting on Leyden Road.
- Only the occasional maintenance and inspection vehicle would be generated once operational.
- Satisfactory submission of a CTMP could be made a condition of any consent granted. Measures that could be included in such a CTMP have been identified in this report.

Annex A Passing Opportunities on Leyden Road

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SLR Project No.: 405.065786.00001

25 November 2025

Passing Opportunity 1: approximately 50m north of A70

Passing Opportunity 2: approximately 260m north of A70

Passing Opportunity 3: approximately 520m north of A70

Passing Opportunity 4: approximately 650m north of A70

Passing Opportunity 5: approximately 700m north of A70

Passing Opportunity 6: approximately 770m north of A70

Passing Opportunity 7: approximately 1.1km north of A70

Annex B Drawings

Technical Appendix 2.4: Transport Statement

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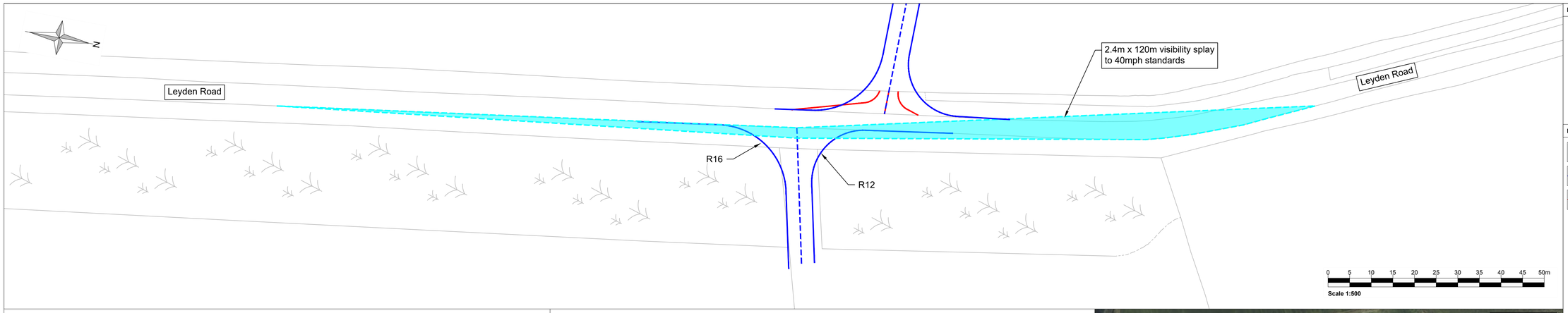
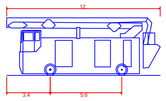
25 November 2025



Notes:

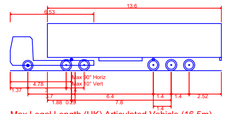
Legend:

- 2.4m visibility splay
- Proposed access junction
- Existing access junction



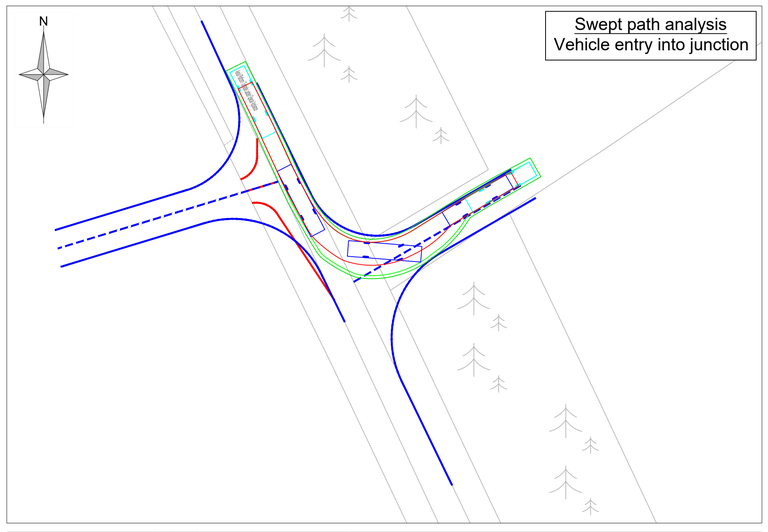
Aerial Platform/ Turntable Ladder/ Special Appliance

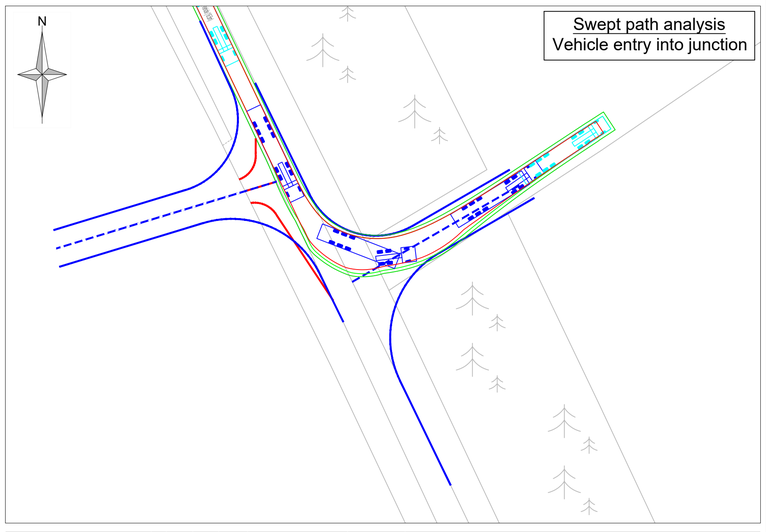
Overall Length	12.000m
Overall Width	2.550m
Overall Body Height	4.500m
Min Body Ground Clearance	0.130m
Track Width	2.550m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	13.750m

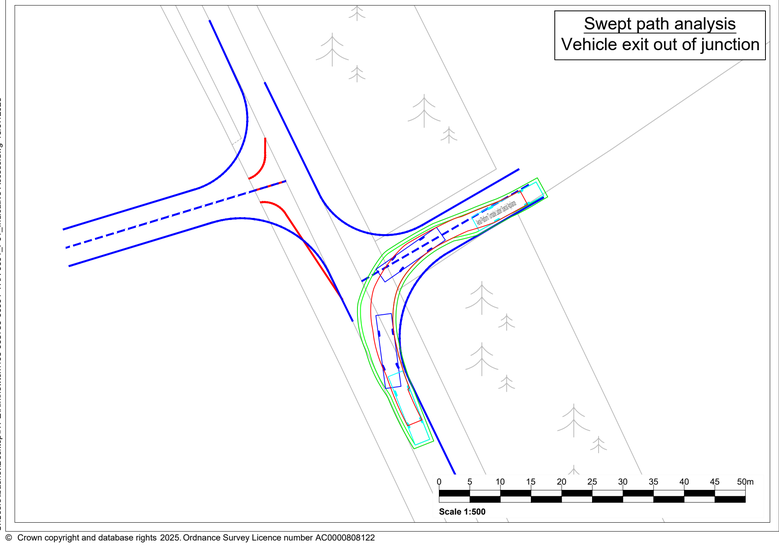


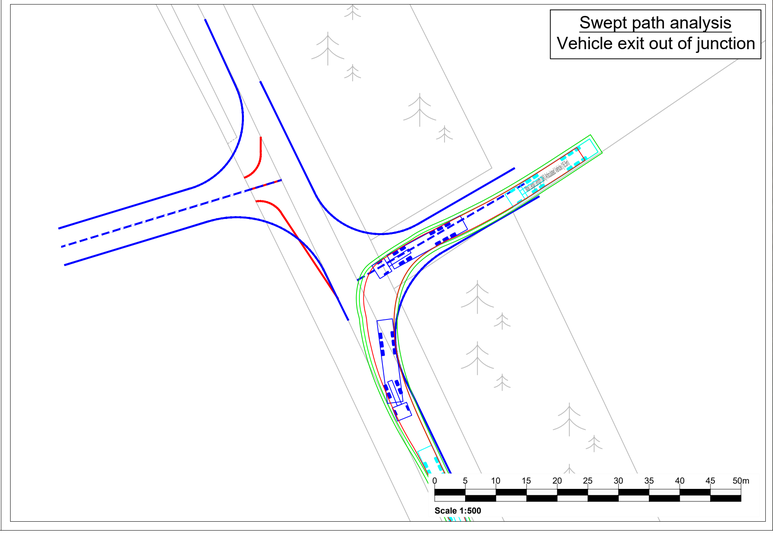
Max Legal Length (UK) Articulated Vehicle (16.5m)

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	Amendments	Date	By	Chk	Auth
P01	Initial Issue	18/07/25	LB	IL	SC

SLR

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Drawing Purpose

Suitability Code

Client: Trio Power Limited

Project: Kirknewton Solar and BESS

Drawing Title: Indicative Layout of Access from Leyden Road Junction 1

Scale	SLR Project No.
As shown @ A1	405.065786.00001

Designed	Drawn	Checked	Authorised
N/A	LB	IL	SC
Date	Date	Date	Date
N/A	18/07/2025	18/07/2025	18/07/2025

Drawing Number: 405-065786-00001-TRA-0001a

Rev.: P01

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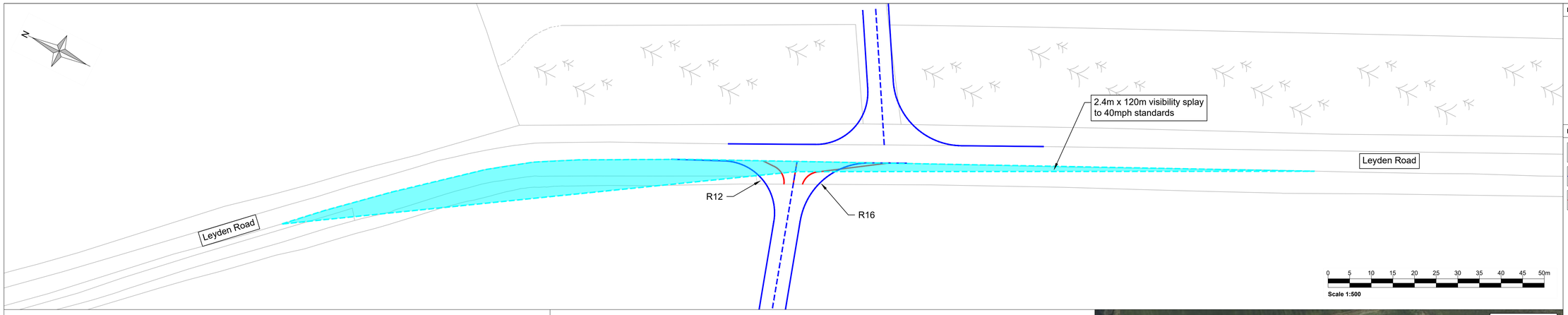
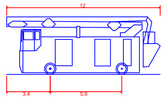


Notes:

Legend:

- 2.4m visibility splay
- Proposed access junction
- Existing access junction



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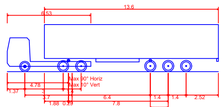

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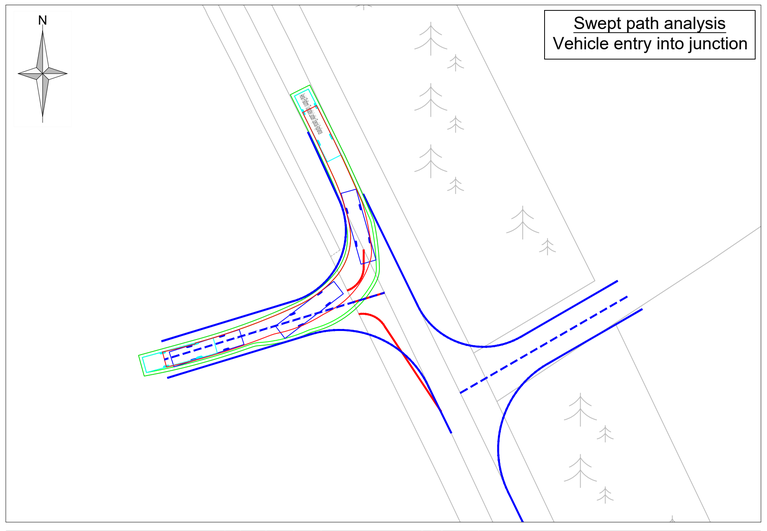

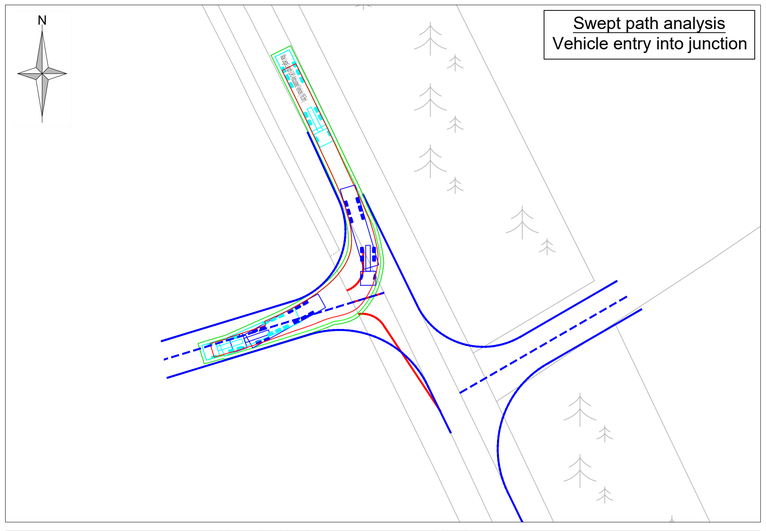

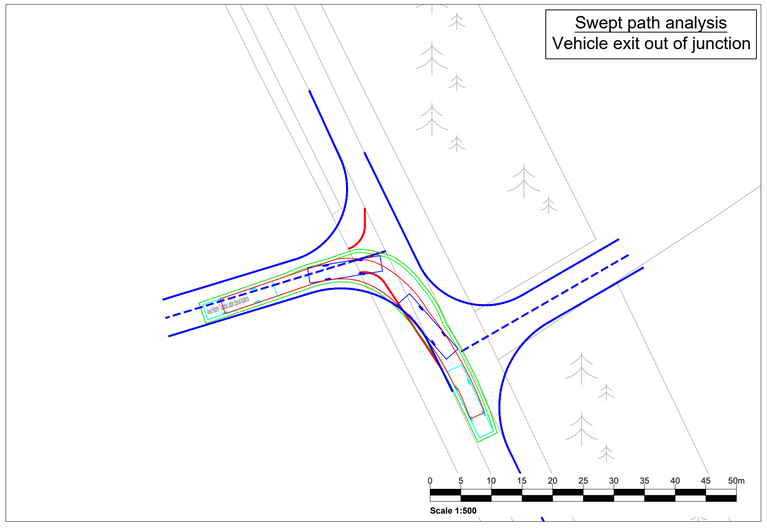

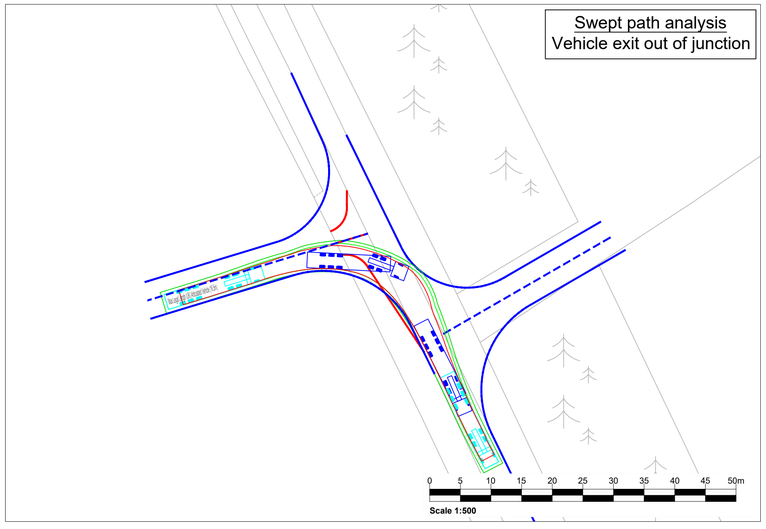

Rev	Amendments	Date	By	Chk	Auth
P01	Initial Issue	18/07/25	LB	IL	SC

SLR

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Drawing Purpose	Suitability Code
Client: Trio Power Limited	
Project: Kirknewton Solar and BESS	
Drawing Title: Indicative Layout of Access from Leyden Road Junction 2	
Scale: As shown @ A1	SLR Project No.: 405.065786.00001

Designed	Drawn	Checked	Authorised
N/A	LB	IL	SC
Date: N/A	Date: 18/07/2025	Date: 18/07/2025	Date: 18/07/2025

Drawing Number: **405-065786-00001-TRA-0001b** Rev.: **P01**

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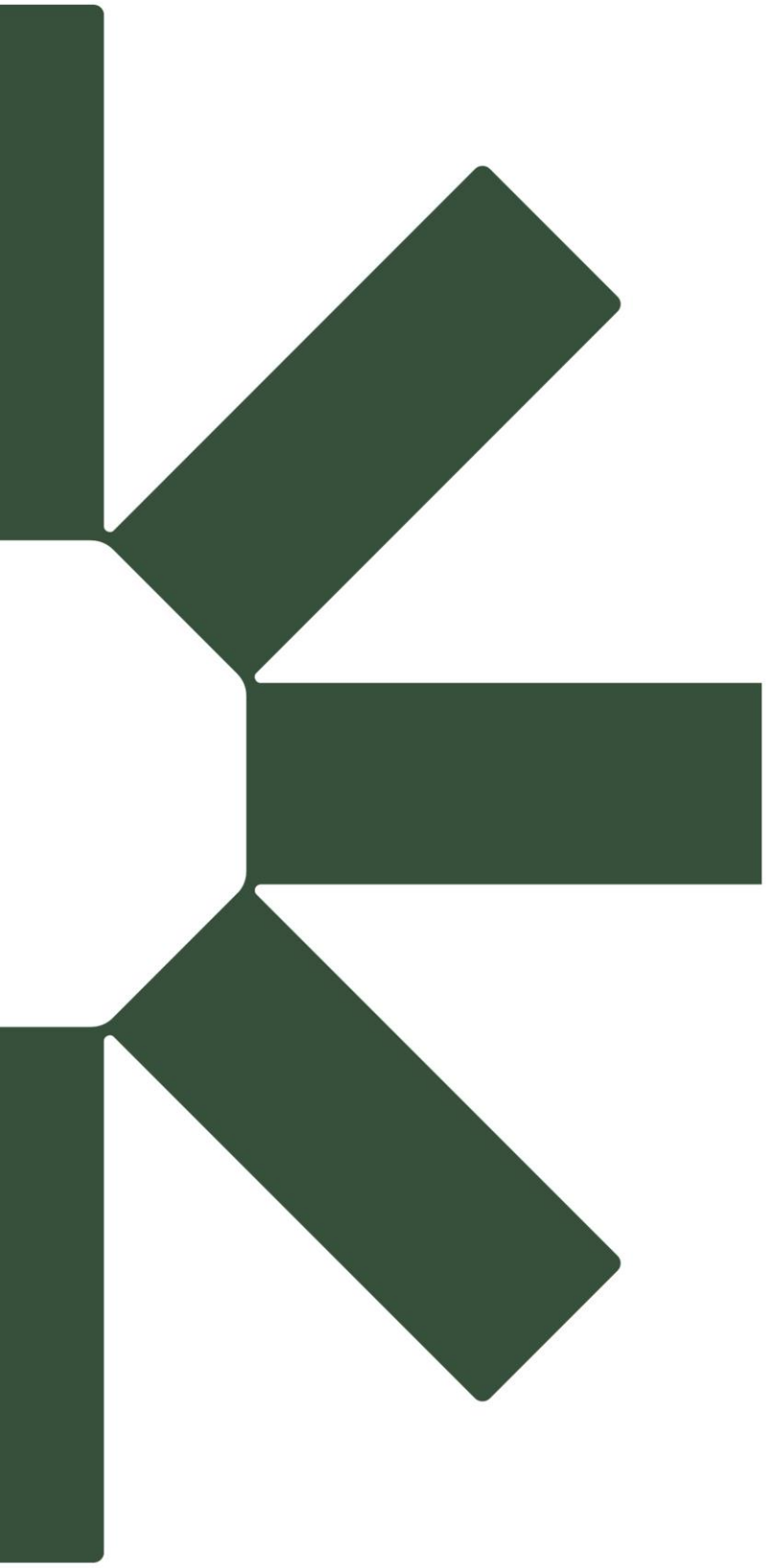

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