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Harmony FL Ltd

Proposed Battery Energy Storage System Land North of Longside Road, Flushing Transport Statement

June 2025

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June 2025

Client Commission			
Client:	Harmony FL Ltd	Date Commissioned:	July 2024

LTP Quality Control					
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Issue	**Revision**	**Description**	**Author**	**Checked**	**Date**
1	-	Final issue for planning	KB	MR	23/06/2025
			Authorised for Issue:		SW

LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown and CVs are available upon request to demonstrate our experience and credentials.

Team Member	LTP Designation	Qualifications
Steven Windass	*Technical Director (Developments)*	*BSc(Hons) MSc(Eng) CEng FIHE MCIHT*
Mike Raynor	*Associate*	*BA(Hons) MIHE*
Katy Bentley	*Senior Transport Planner*	*BSc(Hons) MIHE*

PROPOSED BATTERY ENERGY STORAGE SYSTEM LAND NORTH OF LONGSIDE ROAD, FLUSHING TRANSPORT STATEMENT

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1. INTRODUCTION

1.1 Background

1.1.1 This Transport Statement (TS) is prepared and submitted on behalf of Harmony FL Ltd. ('the Applicant') and in support of an application for consent under S36 of the Electricity Act 1989 ('the application') and also comprises a request that Scottish Ministers give a direction under section 57(2) of the Town and Country Planning (Scotland) Act 1997 that planning permission for the development be deemed to be granted. It addresses matters referred to in Schedule 9 to the Electricity Act, to development plan and policy guidance and to consideration of material matters.

1.1.2 The application comprises land within Aberdeenshire Council (AC) Area – 20.72ha ('Application Site'). A plan of the proposed site layout is attached as Appendix 1.

1.1.3 The description of the proposed development which is the subject of this application is as follows:

'*Construction and operation of a 400MW Battery Energy Storage System (BESS) with associated infrastructure including, access roads, sub-station buildings, supporting equipment, fencing, drainage infrastructure and landscaping.*' at Land North of Longside Road, Flushing, Peterhead (GR: 405524, 847560).

1.1.4 This TS is part of a suite of documents submitted with the application, as outlined below. These supporting documents are in addition to the formal application documents comprising the accompanying plans, sections, and elevations. The full suite of supporting documents is as follows:

- Planning Design and Access Statement (PDAS)
- Community Wealth Building Plan (CWBP)
- Pre-Application Consultation Report (PACR)
- Confidential Ecological Survey Report
- Confidential Protected Species Report
- Archaeological Desk-Based Assessment (ADBA)
- Landscape and Visual Impact Assessment (LVIA) and Landscape Strategy
- Noise Impact Assessment (NIA)
- Flood Risk & Drainage Assessment Report (FRDAR)
- Fire Water Management Plan (FWMP)
- Private Water Supply Impact Assessment
- Topographical Surveys
- Construction Traffic Management Plan
- Transport Statement
- Outline Battery Safety Management Plan (OBSMP)

1.1.5 The Electricity Works Environmental Impact Assessment (Scotland) Regulations 2017 are also relevant to the proposal as the proposal comprises development falling within Schedule 2 of those Regulations. A Screening request has been submitted to the ECU and the Decision was received on 17th March 2025. It confirmed that, *"Scottish Ministers adopt the opinion that* ***the proposal does not constitute EIA development and that the application submitted for this development does not require to be accompanied by an EIA report.****"*

1.1.6 The purpose of this report is to provide an appraisal of the expected transport impacts of the proposals. As outlined above, LTP has also been commissioned to produce a Construction Traffic Management Plan (CTMP) (LTP, 2025) to support the application, with the CTMP outlining the approach to mitigating the impact of construction traffic at the site.

1.2 Scope

1.2.1 This report has been informed by pre-application discussions with AC Roads and is written in accordance with local and national guidance, particularly Transport Scotland's *'Transport Assessment Guidance'* (TS, 2012), with the scope outlined below:

- ***Introduction & Description of Proposals:***
  - Description of the development site, including location and any existing access arrangements;
  - Summary of relevant planning and allocation history for the site;
  - Description of the proposed development including site layout and proposed access arrangements.
- ***Site Assessment:*** Site assessments to determine existing traffic conditions, such as posted speed limits, road restrictions, road geometry, on-street parking restrictions and any other relevant features of the local area.
- ***Road Casualty Appraisal:*** Examination of road collision records (5-year study period) and assessment of the road safety impact of the proposed development on the local road network.
- ***Traffic Impact:***
  - Calculation of the projected construction and operational trip generation for the proposed development;
  - Assessment of the likely traffic impact of the proposed development on the operation of the local road network.
- ***Access Appraisal:*** Assessment of the suitability of the proposed access from the public road network, based on swept path analysis of the largest vehicle expected to visit the site.
- ***Conclusions:*** Conclusions summarising the outcomes of the TS, including a commentary on the suitability of the proposals in terms of traffic impact and road safety.

1.2.2 This TS report has been prepared in accordance with the above scope and reference has been made to the following documents where appropriate:

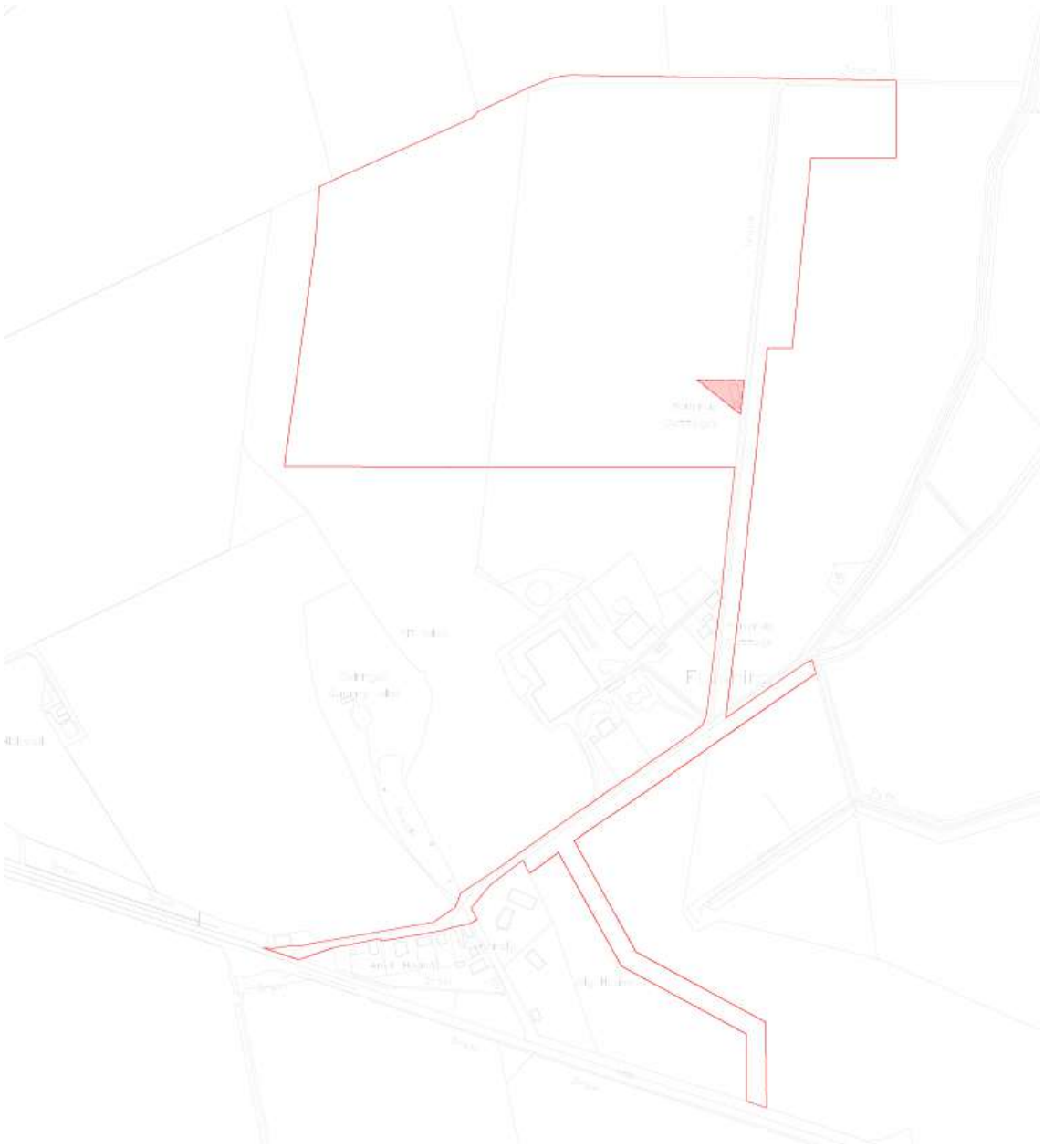
- Aberdeenshire Local Development Plan 2023 (AC, 2023);
- Draft Our Fourth National Planning Framework – Scotland 2045 (SG, 2021);
- National Planning Framework 3 (NPF3) (SG, 2014a);
- Scottish Planning Policy (SPP) (SG, 2014b);
- National Roads Development Guide (SG, 2014c);
- Development Planning – Planning Circular 6/2013 (SG, 2013);
- Transport Assessment Guidance (TS, 2012);
- Designing Streets (SG, 2010); and
- Planning Advice Note 75 (PAN 75) (SG, 2005).

2. SITE BACKGROUND

2.1 Site Location, Existing Use & Planning History

2.1.1 The proposed BESS development is to be installed on exiting agricultural land to the north of Longside Road in Flushing, Peterhead. The site is bound on all sides by agricultural land with an existing access track providing access to Tarred Road located on the south-eastern boundary of the site. The approximate location and red line boundary of the site is highlighted in Figure 1.

Figure 1: Site Location



Source: Red Line Boundary Plan provided by Applicant.

2.1.2 It is understood that there have been no recent pertinent planning applications relating to the application site.

2.2 Development Proposals & Access Arrangements

2.2.1 This report is based upon the proposals outlined on the site layout plan attached as Appendix 1. The proposals will be seeking full planning consent to provide a 400MW BESS development contained within a fenced compound, with further details expected to be submitted as part of the planning application.

2.2.2 The delivery and construction/installation period of the proposed BESS is anticipated to take place over a 20-month period. The trip generation projections associated with the proposed development are presented in Section 6 of this report.

2.2.3 Vehicular access to the site is to be provided via the existing access track on the south-eastern boundary of the site which connects with Tarred Road to the south. The existing access track is expected to currently accommodate large agricultural vehicle movements, with two access points set to be provided with then northern access forming an emergency access and the southern access forming the primary access during the construction, installation and maintenance periods.

Photo 1: Existing Access Track

2.2.4 Vehicle parking for site workers during all stages of construction and operation will be accommodated on-site with no vehicles allowed to park or wait on the adjoining road network or access track during any stage of the development.

2.3 Local Development Scheme

Netherton Hub

2.3.1 A planning application (ref: APP/2024/1714) was submitted in October 2024 and is yet to be determined associated with the *'… Erection of a Strategic Electricity Transmission Hub Including 400kV AC Substation, 132kV AC Substation, 2 HVDC Converter Stations, Transmission Hall, Spares Warehouse, Operations Base and Associated Works'*. An Outline CTMP (SLR, 2024) was submitted in support of the application and has been referenced where applicable in this TS, as well as *'Chapter 11 – Traffic and Transport'* of the Environmental Impact Assessment Report (EIA Report) (SSEN, 2024). The cumulative traffic impact has been considered in Section 6.4 of this TS, as requested by AC Roads during pre-application discussions.

3. SITE ASSESSMENT

3.1 Local Road Network

3.1.1 As previously mentioned in Section 2.2, the site is to be accessed via an existing access track which is approximately 3m in width and provides access to several fields to the north, serving three residential properties, and forms Tarred Road to the south of the site. Tarred Road is a two-way single-track road which measures between approximately 4.0m and 4.5m in width and is subject to a derestricted speed limit (60mph), although vehicle speeds are expected to be considerably below 60mph due to the nature of the road. There are not any existing waiting or parking restrictions on Tarred Road.

Photo 2: Tarred Road

3.1.2 Approximately 500m to the south-west of the existing access track, Tarred Road meets Longside Road at a simple priority T-junction. Longside Road is a two-way single carriageway that forms part of the A950 and measures approximately 6.3m in width and is subject to a derestricted speed limit (60mph) in the vicinity of the site.

Photo 3: Tarred Road/Longside Road Priority Junction

3.1.3 Longside Road provides access to the town of Peterhead to the east and forms West Road at the four-arm priority controlled roundabout with Windmill Road and Meethill Road. Approximately 5.7km to the west of the Tarred Road junction, Longside Road provides access to the village of Mintlaw and forms Station Road at The Square roundabout.

Photo 4: Longside Road

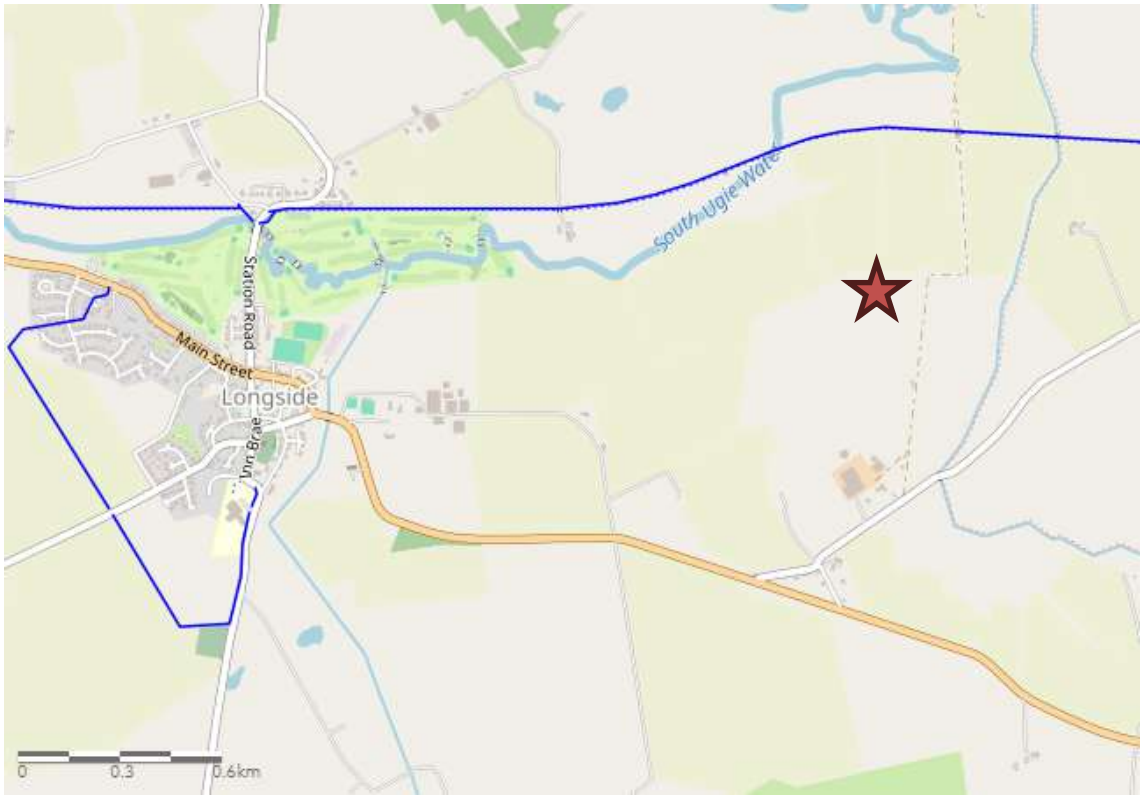
3.1.4 Longside Road provides access to the A90 at Howe o'Buchan Roundabout approximately 5.4km to the east of the Tared Road junction. The A90 forms part of the Trunk Road Network (TRN) managed by Transport Scotland (TS).

3.2 Access Via Sustainable Modes

3.2.1 Due to the rural nature of the site, the sustainable transport provision (e.g. walking, cycling and public transport) is limited within the vicinity of the site. Furthermore, the nature of a BESS development means that trips by construction staff via sustainable modes are unlikely to be feasible, except for car sharing.

3.2.2 Figure 2 shows the core paths within the vicinity of the site (site location indicated by the red star) with core paths highlighted in blue. There is a core path that is accessible approximately 520m to the north of the site which forms part of the *'Formartine & Buchan Way'*, a walking and cycling route linking Fraserburgh to the north and Dyce to the south and runs east-west between Peterhead and Maud.

Figure 2: Extract of Core Paths Map



Source: NatureScot, 2025

4. ROAD COLLISION APPRAISAL

4.1 Collision Record

4.1.1 Personal Injury Collision (PIC) data for the road network local to the site for the most recent available five-year study period (01/01/2019 to 31/12/2023) was obtained via a search of the Department for Transport's (DfT) road safety data (DfT, 2024). No collisions occurred within the study area which includes sections of Tarred Road, Longside Road and the Tarred Road/Longside Road priority junction. The study area extents are shown on the plan attached as Appendix 2.

4.2 Road Safety Impact

4.2.1 No collisions occurred within the study area during the five-year study period. Therefore, analysis has not revealed any identifiable existing collision issues associated with the expected movements of the proposed development, therefore it is considered that there are no existing road safety issues pertinent to the development of the site.

4.2.2 If the access junctions and internal roads are designed with due consideration to road safety, with appropriate road design features incorporated into the detailed design, then the proposals should not have a detrimental road safety impact on the local road network and should not adversely affect the safety of other road users.

5. ACCESS APPRAISAL

5.1 Proposed Routeing

5.1.1 The likely constraints relating to the routeing of Heavy Goods Vehicles (HGVs) and Abnormal Indivisible Load Vehicles (AILVs) associated with the construction of the site have been considered, with the proposed routeing for all large construction vehicles accessing/egressing the site during the construction phase outlined below. All large vehicles would be expected to utilise this route, with no HGVs travelling to/from the west of the site. Large vehicles arriving at the site will be required to arrive via the following route:

- A90 – Longside Road (A950) – Tarred Road

5.1.2 The route back to the primary road network (described as travelling away from the site) is the above routeing reversed. The proposed construction traffic route is highlighted in purple within Figure 3.

Figure 3: Construction Traffic Routeing

Map Data: Google, Airbus, Maxar Technologies © 2025

5.1.3 Construction staff trips made by car and/or Light Goods Vehicles (LGVs) would also generally be expected to utilise the route outlined above to access/egress the site. However, it is acknowledged that there are not expected to be any constraints relating to cars/LGVs utilising other routes locally.

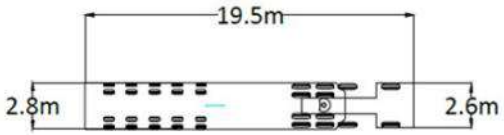
5.1.4 All relevant parties involved in making deliveries of construction materials, once the construction of the site commences, will be instructed on the above routeing arrangements before arriving/departing the site. This arrangement is to be strictly enforced, and all sub-contractors and suppliers are to be monitored to ensure that they use the defined route.

5.1.5 Distances to overhead structures or cables have not been measured and have generally been assumed to permit the safe passage of vehicle/load combinations up to 4.95m high, unless signing is in place indicating otherwise, in accordance with *'Prevention of Strikes on Bridges over Highways'* (NR, 2014). Any signed low bridges (i.e. with a headroom of less than 5.03m) have been noted within the route assessment. Similarly, the route assessment does not consider the load bearing capacity of any bridges or structures along the proposed route, although any signed weight limits have been noted.

5.2 Swept Path Analysis

5.2.1 Swept path analysis for the site has been undertaken to establish whether the largest vehicles expected to access/egress the site can adequately navigate the site access, existing access track, Tarred Road, and the Tarred Road/Longside Road priority junction, with the results provided as Appendix 3. Information supplied by the Applicant outlines that the largest vehicle to access the site would be an AILV, a Semi Low-Loader, as shown in Figure 4 below.

Figure 4: Swept Path Analysis Test Vehicle (AILV)

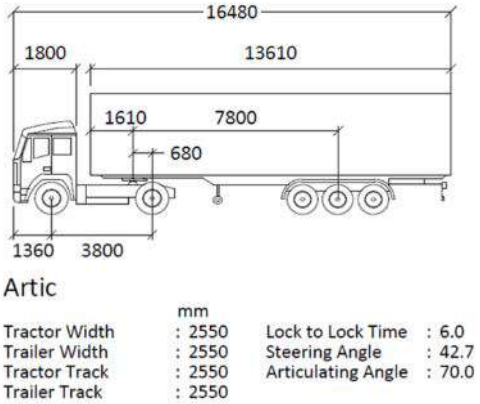


Semi Low-Loader (Rear Steer)

Tractor Width	2.55m	Lock to Lock Time	6sec
Tractor Track	2.55m	Steering Angle	24.5deg
Trailer Width	2.75m	Articulating Angle	70deg
Trailer Track	2.75m		

5.2.2 A standard HGV has also been tested along the route, with the profile of the vehicle shown in Figure 5.

Figure 5: Swept Path Analysis Test Vehicle (HGV)



5.2.3 The results of the swept path analysis demonstrate that AILVs/HGVs can adequately access/egress the site via the existing access track, Tarred Road, and the Tarred Road/Longside Road junction, subject to some minor widening/surfacing upgrades at the access track/Tarred Road junction, with the existing hedgerow on the eastern side of the access track to be suitably maintained during the construction period to ensure the full width of the existing carriageway can be utilised by large construction vehicles. Vehicles are expected to continue on the A950 before connecting with the TRN via the A90.

5.2.4 The AILV movements will require specific traffic management (e.g., escort vehicles and banksmen at the access track/Tarred Road and Tarred Road/Longside Road junctions) and any abnormal load movements on the road network would be undertaken in accordance with the local road authority, TS and Police Scotland guidelines, with appropriate notification and consultation with stakeholders.

5.2.5 Any traffic management or safety implications associated with AILV movements requiring use of the full width of the carriageway will need to be considered by suitably qualified and experienced personnel when planning the transit of the abnormal loads.

5.2.6 It is considered that if an AILV/HGV is able to traverse the identified access route between the site and the 'A' road network, then other smaller vehicles (e.g. LGVs) would also be able to adequately access and egress the site.

6. VEHICLE TRIP GENERATION

6.1 Introduction

6.1.1 This section outlines the number of vehicle trips that the proposed development is expected to generate. Due to the bespoke nature of the proposals, the level of vehicle trips expected to be generated by the proposed development has been 'built up' from a first principles approach through input from the Applicant.

6.1.2 The use of a first principles approach accords with previous DfT guidance which recommended that *"unless there is a clear valid comparable situation, the assessment trips should be constructed from first principles based on a detailed analysis of the daily operation of the proposed development"* (DfT, 2007a).

6.1.3 The traffic generation of the proposed BESS is likely to consist of two main elements:

- Construction phase traffic; and
- Operational phase traffic.

6.2 Construction Phase Traffic Generation

6.2.1 The delivery and construction/installation period of the proposed BESS is anticipated to take place over a 20-month period, and consist of six phases:

- ***Phase 1***: Site mobilisation, including access;
- ***Phase 2****:* Site civils and earthworks;
- ***Phase 3***: BESS equipment deliveries;
- ***Phase 4****:* Mechanical installation;
- ***Phase 5***: Electrical installation; and
- ***Phase 6***: Demobilisation and Site Clearance.

6.2.2 During the above construction period there would be trips associated with the arrival and departure of construction staff as well as the delivery of parts and construction materials.

6.2.3 The frequency of construction vehicle movements will depend on the individual activities undertaken; however, it is not anticipated that this would have a significant impact on the local road network.

6.2.4 Construction traffic generation over the 20-month period will total approximately 5,040 two-way HGV movements (arrivals and departures). Table 1 summarises the estimated construction traffic based on information provided by the Applicant. Details of the average weekly and daily HGV movements have also been provided.

Table 1: Estimated HGV Construction Phase Traffic Generation (Two-Way)

Month /Phase	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Total	HGV Movements per week*	HGV Movements per day**	Number of staff on-site
1	320						**320**	**74**	**15**	**8**
2		310					**310**	**72**	**14**	**8**
3		310					**310**	**72**	**14**	**8**
4		310					**310**	**72**	**14**	**8**
5		310					**310**	**72**	**14**	**9**
6		310					**310**	**72**	**14**	**9**
7		310					**310**	**72**	**14**	**9**
8		310					**310**	**72**	**14**	**9**
9			160				**160**	**37**	**7**	**9**
10			160				**160**	**37**	**7**	**9**
11			160	130			**290**	**67**	**13**	**12-15**
12			160	130			**290**	**67**	**13**	**12-15**
13			80	130	140		**350**	**81**	**16**	**12-15**
14				130	140		**270**	**63**	**13**	**12-15**
15				60	140		**200**	**47**	**9**	**12-15**
16				60	140		**200**	**47**	**9**	**12-15**
17					140		**140**	**33**	**7**	**12-15**
18					140		**140**	**33**	**7**	**12-15**
19					140		**140**	**33**	**7**	**12-15**
20						240	**240**	**56**	**11**	**12-15**
Total	**320**	**2,170**	**720**	**640**	**980**	**240**	**5,070**			

*Based on an average of 4.3 weeks per month.

**Based on an average of 5 working days (Monday-Friday).

6.2.5 A maximum of 16 two-way daily HGV movements (8 HGVs) are expected to be generated during the construction period. It is expected that the maximum number of construction staff on-site will vary subject to the construction phase as outlined above, with a maximum of 15 staff expected to be working on site at any one time. Staff trips will be made by cars, minibuses or vans/small LGVs. Staff vehicle movements would typically occur at the start and end of the working day and generally not coincide with the movement of large construction vehicles.

6.2.6 Car sharing amongst staff is to be promoted and will be a realistic travel mode for those staff who are employed by the same service company/sub-contractor (for example, civils contractor, electrical engineer). Vehicle parking for site workers during all stages of construction will be accommodated on-site. No vehicles will park on the adjoining road network at any stage.

6.2.7 It is also noted that vehicle trips generated during the construction phase are temporary and would cease upon completion of the works at the site.

6.3 Operational Phase Traffic Generation

6.3.1 Generally, the BESS would operate on an unmanned basis. It is understood that the BESS development would generate approximately between 10 and 15 visits per month (20-30 two-way vehicle movements) to support site operations and general maintenance activities at the facility. These trips will be typically made by cars or LGVs (e.g. vans). Whilst the temporary construction compound will be removed following construction completion, space will be retained on-site for LGVs to turn around, ensuring vehicles can enter and exit in a forward gear.

6.4 Traffic Impact

6.4.1 The existing daily traffic movements on Longside Road to the east of the site (where all construction vehicle movements will be routed), shows an annual average daily traffic flow of 7,241 vehicles, of which 346 are HGVs (DfT, 2023).

6.4.2 As mentioned in Section 6.2, at the peak of construction, the site could be expected to generate 16 additional two-way HGV movements and assuming a worst-case of 15 staff trips (30 two-way car/LGV movements), which would equate to a circa 0.6% increase in overall traffic flows on the A950 to the east of the site, and specifically a 4.6% increase in HGV movements.

6.4.3 Given that the traffic movements associated with construction will be temporary, and at the peak of construction, the traffic impact of the development is expected to represent less than 1% increase in overall traffic flows on the A950, the impact of the development on the local road network is expected to be negligible.

6.4.4 It is considered that the projected operational vehicle trip generation associated with the development does not represent a significant amount of movement, with between 10 and 15 visits per month (20-30 two-way vehicle movements) generated by the BESS development associated with site operations and maintenance activities, and a low number of daily/peak hour movements associated with construction. The proposed development should therefore only have a negligible impact on the operation of the local road network.

6.4.5 As requested by AC Roads, the cumulative impact of the proposals alongside the Netherton Hub (subject to planning approval) have been considered. Based on information contained within the Netherton Hub Outline CTMP (SLR, 2024), at the peak of construction (between months 20-24), there will be 216 daily two-way HGV movements and 269 car/LGV movements, equating to a total of 485 two-way vehicle movements. When considering the existing traffic flows on the A950, this is predicted to increase traffic flows on the A950 at the peak of construction by 3.0%, with a 62.4% increase in HGV movements.

6.4.6 In terms of the cumulative impact, the daily traffic movements associated with the proposed BESS development and also the Netherton Hub at the peak of construction (assuming a worst-case scenario whereby both construction peaks would occur at the same time) would represent an increase of 3.2% in overall vehicle movements on the A950, which is not expected to represent a severe traffic impact.

7. CONCLUSIONS

7.1.1 Local Transport Projects Ltd (LTP) has been commissioned to produce a Transport Statement (TS) in support of a full planning application for a proposed Battery Energy Storage System (BESS) on land to the north of Longside Road in Flushing, Peterhead.

7.1.2 The proposals will be seeking full planning consent to provide a 400MW BESS development contained within a fenced compound, with further details expected to be submitted as part of the planning application.

7.1.3 Vehicular access to the site is to be provided via the existing access track on the south-eastern boundary of the site which connects with Tarred Road to the south. The existing access track is expected to currently accommodate large agricultural vehicle movements, with two access points set to be provided with then northern access forming an emergency access and the southern access forming the primary access during the construction, installation and maintenance periods.

7.1.4 Vehicle parking for site workers during all stages of construction and operation will be accommodated on-site with no vehicles allowed to park or wait on the adjoining road network during any stage of the development.

7.1.5 A road casualty study has identified that no Personal Injury Collisions (PICs) occurred within the study area during the five-year study period covering 01/01/2019 to 31/12/2023. It is therefore considered that there are not any existing road safety issues pertinent to the proposed development and that the proposals should not adversely affect the safety of other road users. If the access junctions and proposed internal layout are designed with due consideration to road safety, with appropriate design features incorporated into the detailed design, then the proposals should not have a detrimental road safety impact on the local road network and should not adversely affect the safety of other road users.

7.1.6 Swept path analysis for the site has been undertaken to establish whether the largest vehicles expected to access/egress the site can adequately navigate the site access, existing access track, Tarred Road, and the Tarred Road/Longside Road priority junction. The results of the swept path analysis demonstrate that Abnormal Indivisible Load Vehicles (AILVs)/Heavy Goods Vehicles (HGVs) can adequately access/egress the site via the existing access track, Tarred Road, and the Tarred Road/Longside Road junction, subject to some minor widening/surfacing upgrades at the access track/Tarred Road junction, with the existing hedgerow on the eastern side of the access track to be suitably maintained during the construction period to ensure the full width of the existing carriageway can be utilised by large construction vehicles. Vehicles are expected to continue on the A950 before connecting with the Trunk Road Network (TRN) via the A90.

7.1.7 The delivery and installation period of the proposed BESS will take place over a 20-month period. During this period, there would be trips associated with the arrival and departure of construction staff and the delivery of parts and construction materials. The BESS would operate, generally, on an unmanned basis, however it is understood the facility will generate between 10 and 15 visits per month (20-30 two-way vehicle movements) to support site operations and maintenance activities. These trips will be made by car and/or Light Goods Vehicles (LGVs).

7.1.8 It is considered that the projected operational vehicle trip generation associated with the development does not represent a significant amount of movement, with between 10 and 15 visits per month (20-30 two-way vehicle movements) generated by the BESS development associated with site operations and maintenance activities, and a low number of daily/peak hour movements associated with construction. The proposed development should therefore only have a negligible impact on the operation of the local road network.

7.1.9 It is concluded from the assessments of this TS that the proposed development would not be expected to have a significant impact in terms of road safety and traffic impact.

8. REFERENCES

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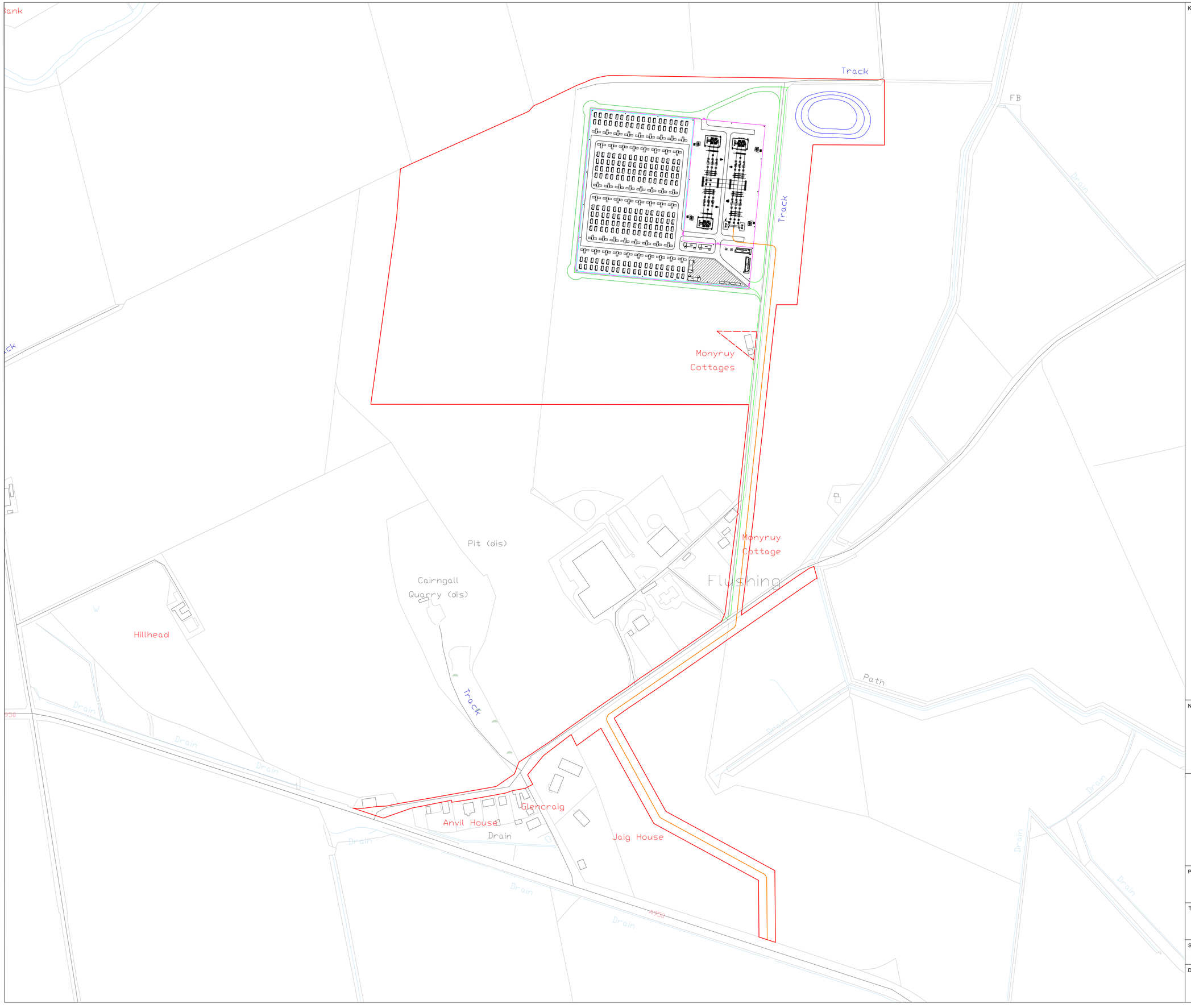
Appendix 1 – Proposed Site Layout Plan



KEY:

- INTERNAL BESS ROAD
- EXTERNAL EMERGENCY ACCESS
- EXISTING SITE ACCESS
- STORAGE AREA
- LANDOWNER CONTROLLED, TO BE VACANT BY CONSTRUCTION PERIOD
- SuDS ATTENUATION POND
- RED LINE BOUNDARY
- 2.4m HIGH PALISADE FENCE
- 4.5m HIGH ACOUSTIC FENCE
- INDICATIVE CABLE ROUTE
- ACCESS GATES
- AUXILIARY TRANSFORMER
- BESS / KNAN TRANSFORMER / PCS
- CONTROL ROOM
- CCTV
- HV SWITCHROOM
- STORAGE CONTAINER
- TRANSFORMER

N

0m 50m 100m 175m

NOTES:

1. DESIGN INTENDED FOR PLANNING PURPOSES ONLY. NOT FOR CONSTRUCTION.
2. OS MAPPING PROVIDED BY STREETWISE.

HARMONY ENERGY
10 St James Business Park,
Grimbald Crag Court,
Knaresborough, HG5 8QD

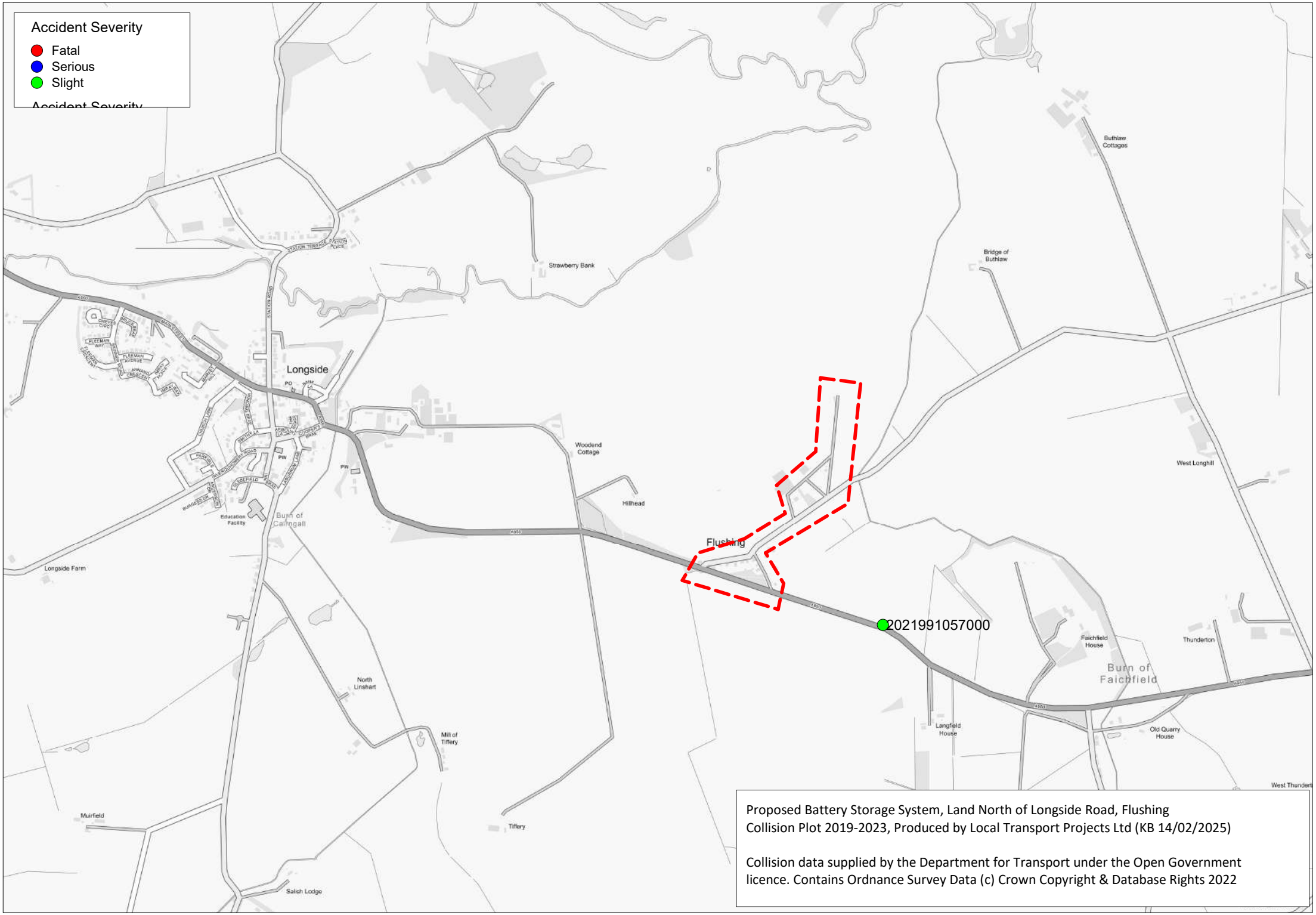
PROJECT: FLUSHING

TITLE: PROPOSED SITE PLAN

SCALE:	DATE:	DRAWN:	CHECKED:
A0 @ 1:1500	19/06/2025	SW	HC

DRAWING NO:	REVISION:
PA_70_PSP	C

Appendix 2 – Collision Plot



Proposed Battery Storage System, Land North of Longside Road, Flushing
Collision Plot 2019-2023, Produced by Local Transport Projects Ltd (KB 14/02/2025)

Appendix 3 – Swept Path Analysis

CUTLINE 1

CUTLINE 1

CUTLINE 2

Surfacing upgrades to be provided to ensure that construction vehicles can adequately access and egress the site

Proposed Widening

CUTLINE 3

CUTLINE 3

Existing hedgerow will be suitably maintained during the construction period to ensure the full width of the existing carriageway can be utilised by construction vehicles

CUTLINE 3

CUTLINE 3

CUTLINE 1

CUTLINE 2

CUTLINE 2

10mm

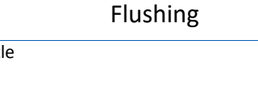
A3

Key:-

	Outer Wheel Track
	Vehicle Swept Path
	Vehicle Centreline and Direction
	Potential Access Track Widening

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.



Semi Low-Loader (Rear Steer)

Tractor Width	2.55m	Lock to Lock Time	6sec
Tractor Track	2.55m	Steering Angle	24.5deg
Trailer Width	2.75m	Articulating Angle	70deg
Trailer Track	2.75m		

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vi. Based on topographical survey and Flushing Planning Drawing 1.dwg provided by client.

Rev.	Date	By	Chk	Description
C	20 06 25	JWH	MR	Updated Site Plan Vehicle Tracking
B	11 06 25	JWH	MR	Updated Vehicle Tracking
A	22 04 25	JWH	MR	Updated Site Layout

Client

Harmony FL Ltd

Project

Proposed Battery Energy Storage System
Land North of Longside Road, Flushing

Title

Low Loader Entering Site
Swept Path Analysis

local transport projects
traffic engineering and transport planning

Armstrong House,
The Flemingate Centre,
Beverley,
East Riding of Yorkshire.
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Registered No. 5295328

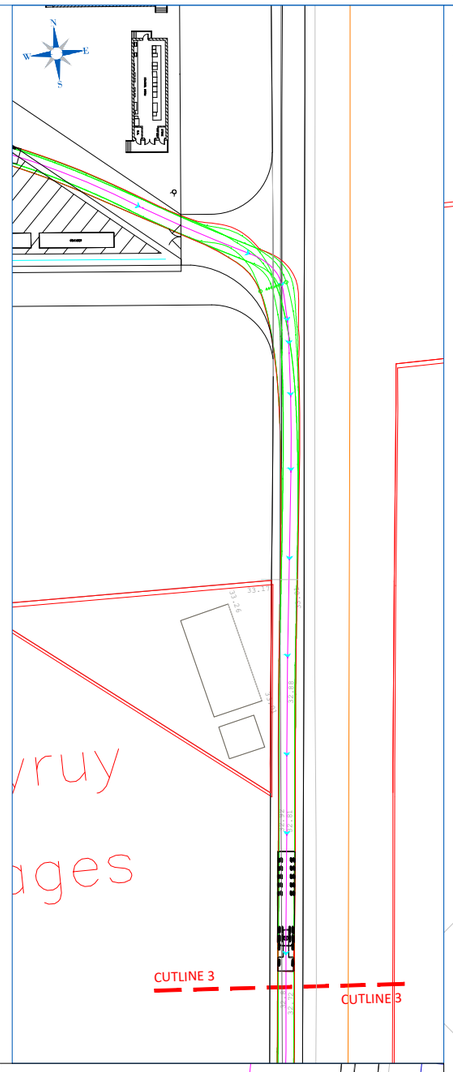
Drawn	Date
JWH	21 02 25
Scale: 1 : 1000	Checked: MR / Approved: SW

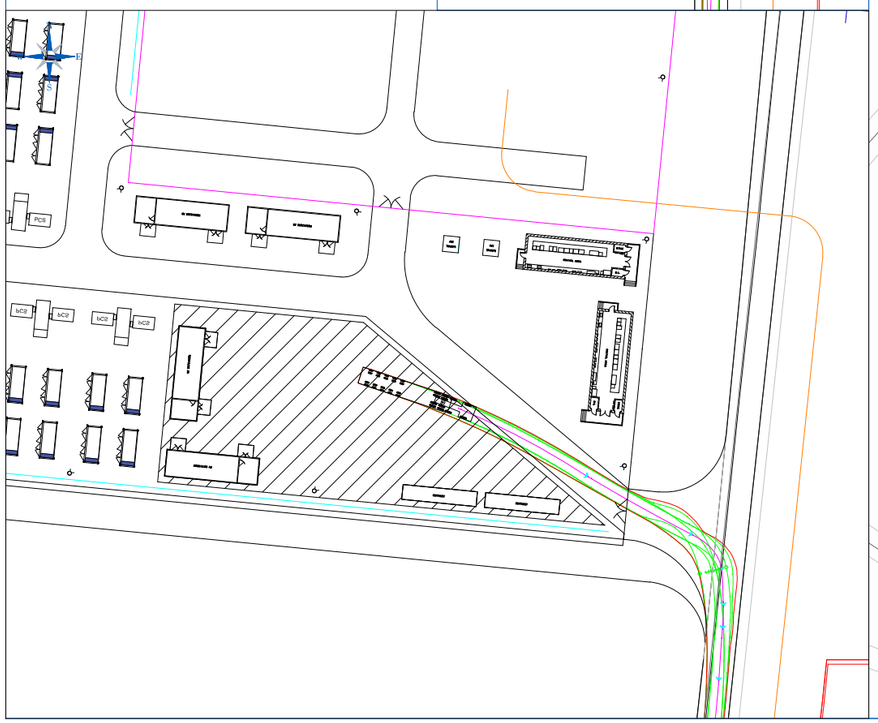
Status

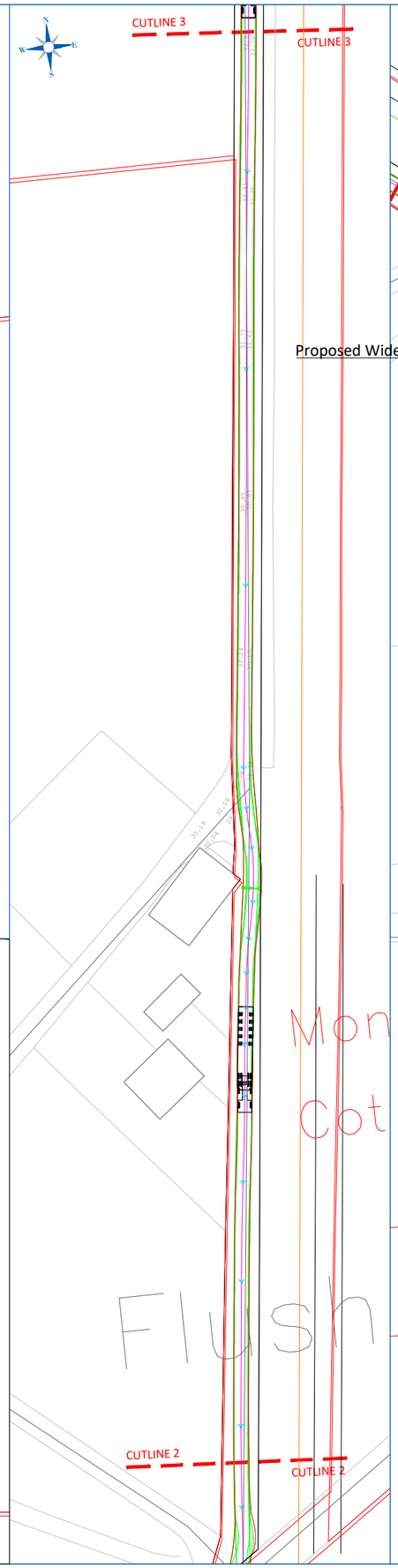
SITE TESTING

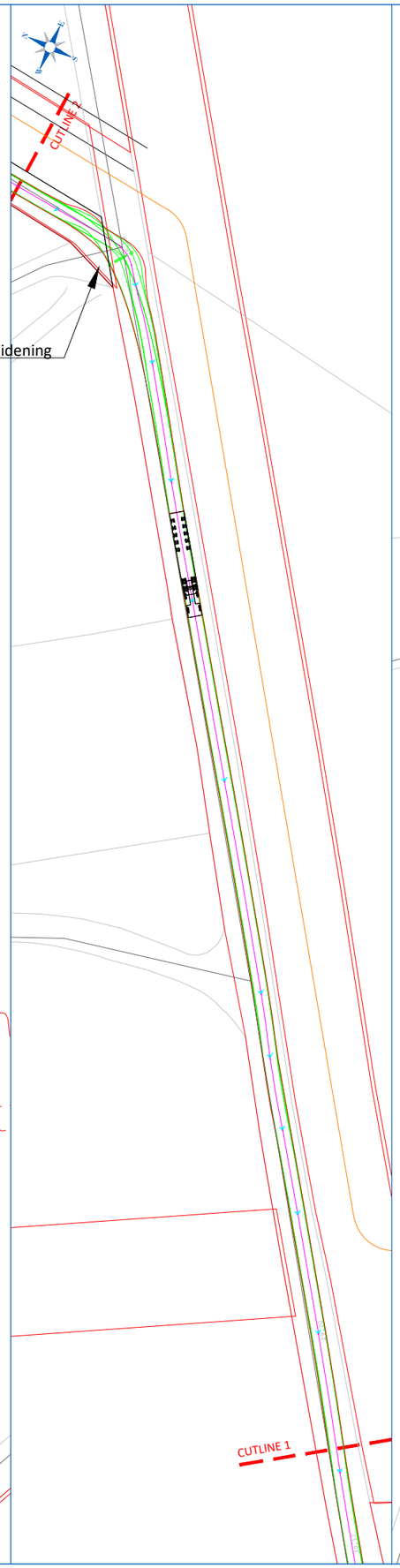
Drawing number

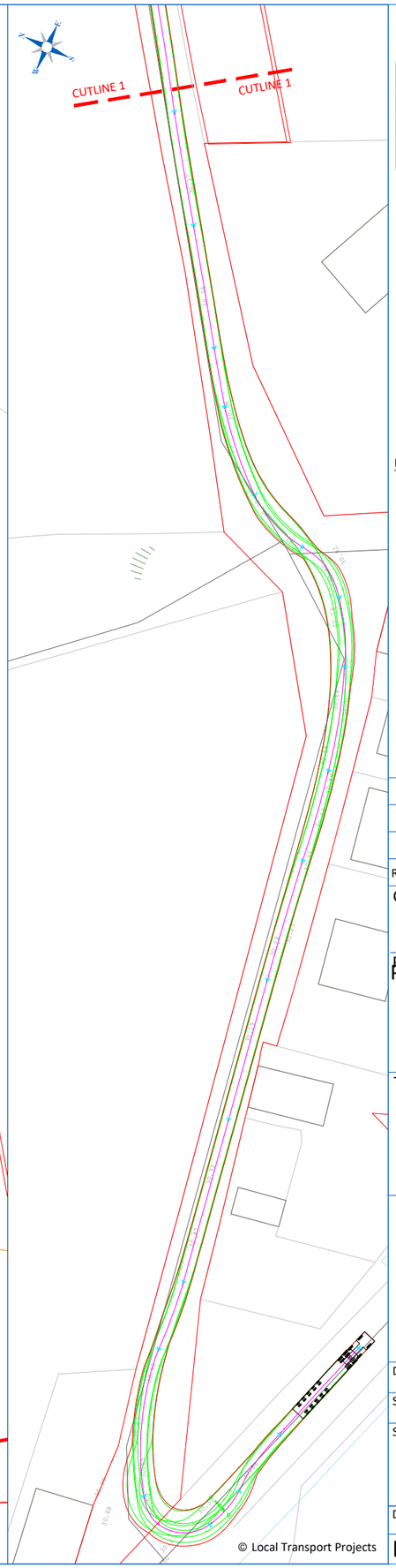
Project	Job	Drawing	Sheet	Revision
LTP/ 6089 /	T2 /	01	01	C











10mm

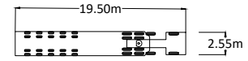
A3

Key:-

	Outer Wheel Track
	Vehicle Swept Path
	Vehicle Centreline and Direction
	Potential Access Track Widening

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.



Semi Low-Loader (Rear Steer)

Tractor Width	2.55m	Lock to Lock Time	6sec
Tractor Track	2.55m	Steering Angle	24.5deg
Trailer Width	2.75m	Articulating Angle	70deg
Trailer Track	2.75m		

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vi. Based on topographical survey and Flushing Planning Drawing 1.dwg provided by client.

Rev.	Date	By	Chk	Description
C	20 06 25	JWH	MR	Updated Site Plan Vehicle Tracking
B	11 06 25	JWH	MR	Updated Vehicle Tracking
A	22 04 25	JWH	MR	Updated Site Layout

Client

Harmony FL Ltd

Project

Proposed Battery Energy Storage System,
Land North ofLongside Road,
Flushing

Title

Low Loader Exiting Site
Swept Path Analysis

local transport projects
traffic engineering and transport planning

Armstrong House,
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Registered No. 5295328

Drawn	Date	
RC	30/08/24	
Scale	Checked	Approved
1 : 1000	MR	SW

Status

SITE TESTING

Drawing number

Project	Job	Drawing	Sheet	Revision
LTP/ 6089 /	T2 /	01	02	C

10mm

A3

CUTLINE 1

CUTLINE 1

CUTLINE 1

Proposed Widening

CUTLINE 3

CUTLINE 3

CUTLINE 3

CUTLINE 3

CUTLINE 1

CUTLINE 2

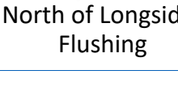
CUTLINE 2

Key:-

	Outer Wheel Track
	Vehicle Swept Path
	Vehicle Centreline and Direction
	Potential Access Track Widening

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.



Artic

mm

Tractor Width	: 2550	Lock to Lock Time	: 6.0
Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
Trailer Track	: 2550		

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JWH	24 02 25	
Scale	Checked	Approved
1 : 1000	MR	SW

Status

SITE TESTING

Drawing number

Project	Job	Drawing	Sheet	Revision
LTP/ 6089 /	T2 /	02	.01	C

CUTLINE 3

CUTLINE 3

Proposed Widening

CUTLINE 1

CUTLINE 1

CUTLINE 3

CUTLINE 3

CUTLINE 2

CUTLINE 2

CUTLINE 1

10mm

A3

Key:-

	Outer Wheel Track
	Vehicle Swept Path
	Vehicle Centreline and Direction
	Potential Access Track Widening

Notes:-

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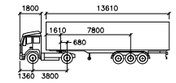

Artic

	mm		
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Trailer Width	: 2550	Steering Angle	: 42.7
Tractor Track	: 2550	Articulating Angle	: 70.0
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C	20 06 25	JWH	MR	Updated Site Plan Vehicle Tracking
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Client

Harmony FL Ltd

Project

Proposed Battery Energy Storage System,
Land North of Longside Road,
Flushing

Title

Artic Exiting Site
Swept Path Analysis

local transport projects
traffic engineering and transport planning

Armstrong House,
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Drawn	Date		
JWH	24 02 25		
Scale	Checked	Approved	
1 : 1000	MR	SW	

Status

SITE TESTING

Drawing number

Project	Job	Drawing	Sheet	Revision
LTP/	6089 /	T1 /	02	02	C

CUTLINE 1

CUTLINE 1

CUTLINE 1

Proposed Widening

CUTLINE 3

CUTLINE 3

CUTLINE 3

CUTLINE 3

CUTLINE 1

CUTLINE 2

CUTLINE 2

10mm

A3

Key:-

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	Vehicle Swept Path
	Vehicle Centreline and Direction
	Potential Access Track Widening

Notes:-

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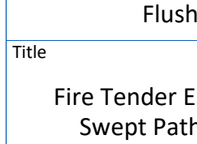

Fire Appliance Scania Emergency One

	mm
Width	: 2450
Track	: 2450
Lock to Lock Time	: 6.0
Steering Angle	: 33.7

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Rev.	Date	By	Chk	Description
C	20 06 25	JWH	MR	Updated Site Plan Vehicle Tracking
B	11 06 25	JWH	MR	Updated Vehicle Tracking
A	24 04 25	JWH	MR	Updated Site Layout

Client

Harmony FL Ltd

Project

Proposed Battery Energy Storage System,
Land North of Longside Road,
Flushing

Title

Fire Tender Entering Site
Swept Path Analysis

local transport projects
traffic engineering and transport planning

Armstrong House,
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Registered No. 5295328

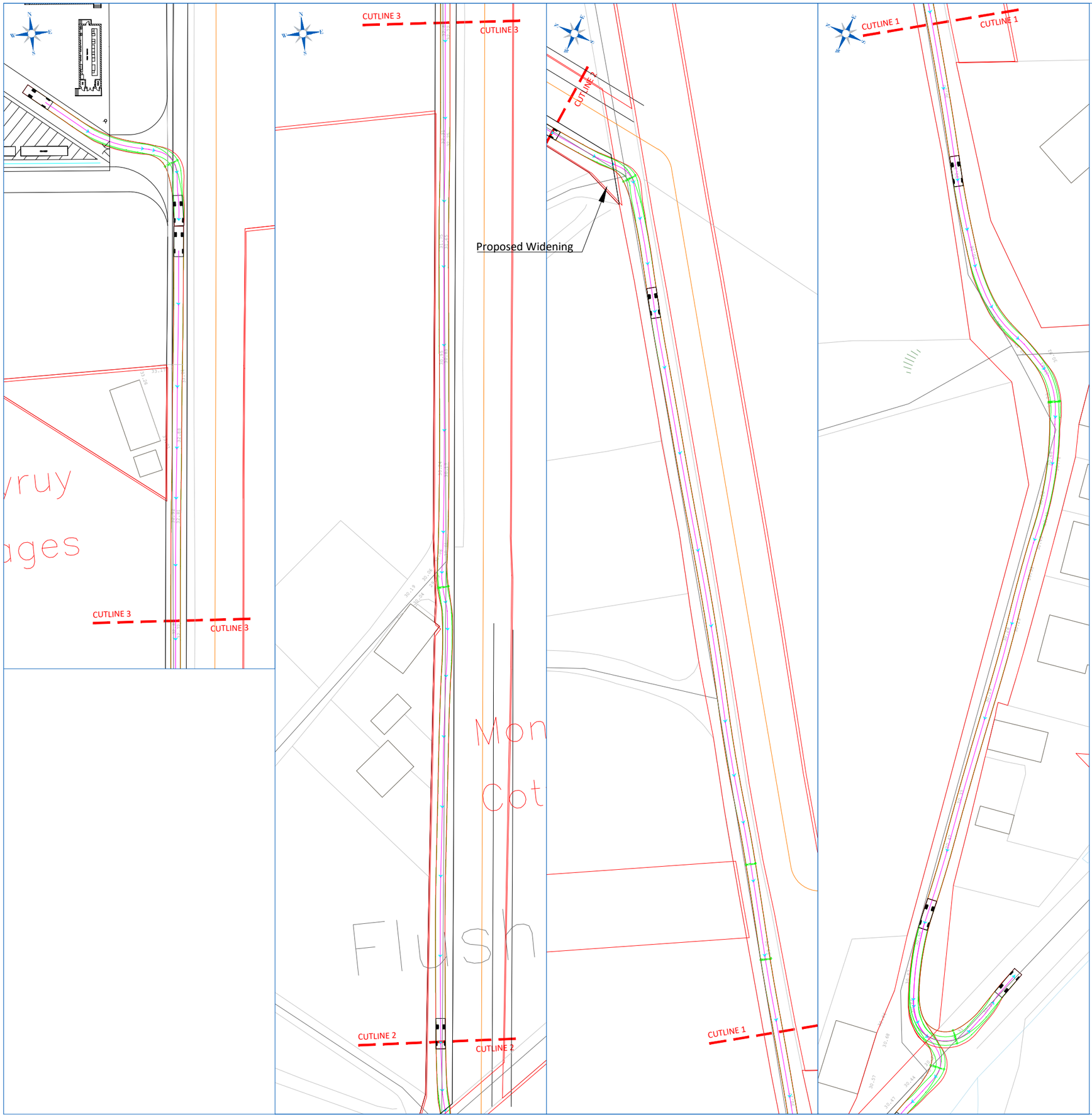
Drawn	Date	
JWH	21 02 25	
Scale	Checked	Approved
1 : 1000	MR	SW

Status

SITE TESTING

Drawing number

Project	Job	Drawing	Sheet	Revision
LTP/ 6089 /	T2 /	03	01	C



10mm

A3

Key:-

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	Vehicle Centreline and Direction
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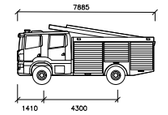

Fire Appliance Scania Emergency One

	mm
Width	: 2450
Track	: 2450
Lock to Lock Time	: 6.0
Steering Angle	: 33.7

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Flushing

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Swept Path Analysis

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Drawing number

Project	Job	Drawing	Sheet	Revision
LTP/ 6089 /	T2 /	03	.02	C

10mm

A3

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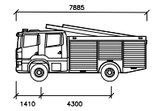

Fire Appliance Scania Emergency One

	mm
Width	: 2450
Track	: 2450
Lock to Lock Time	: 6.0
Steering Angle	: 33.7

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Rev.	Date	By	Chk	Description
A	20 06 25	JWH	MR	Updated Site Plan Vehicle Tracking

Client

Harmony FL Ltd

Project

Proposed Battery Energy Storage System,
Land North of Longside Road,
Flushing

Title

Fire Tender Internal Layout
Swept Path Analysis

local transport projects
traffic engineering and transport planning

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Drawn	Date		
JWH	25 04 25		
Scale	Checked	Approved	
1 : 1000	MR	SW	

Status

SITE TESTING

Drawing number

Project	Job	Drawing	Sheet	Revision
LTP/6089/	T2 /	03	.03	A