Reference number GB01T23A19







BONNYKNOX SOLAR FARM

TRANSPORT STATEMENT

IDENTIFICATION TABLE	
Client/Project owner	Arthian Limited
Project	Bonnyknox Solar Farm
Study	Transport Statement
Type of document	Report V8
Date	04/08/2025
Reference number	GB01T23A19
Number of pages	27



APPROV	AL				
Version	Name		Position	Date	Modifications
	Author	C Gow	Consultant	04/08/2025	
1	Checked by	A DeVenny	Projects Director	04/08/2025	V8 – Minor update
	Approved by	A DeVenny	Projects Director	04/08/2025	·

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025

Page 3/32



TABLE OF CONTENTS

1.	INTRODUCTION	6
1.2	THE PROPOSED DEVELOPMENT	7
1.3	POLICY AND GUIDANCE	8
1.4	REPORT STRUCTURE	8
2.	EXISITING TRANSPORT NETWORK	9
2.1	Introduction	9
2.2	SUSTAINABLE MODES OF TRANSPORT	9
2.3	Surrounding Road Network	11
2.4	ACCIDENT STATISTICS	15
2.5	Accessibility and Baseline Summary	16
3.	PROPOSED DEVELOPMENT AND ASSOCIATED TRAVEL CHARACTERISITICS	17
3.1	PROPOSED DEVELOPMENT	17
3.2	SITE LAYOUT	17
3.3	SITE ACCESS	18
3.4	SITE ACCESS ROUTE	19
3.5	CONSTRUCTION STAGE	20
3.6	DESIGNATED ROUTE FOR CONSTRUCTION TRAFFIC	23
3.7	OPERATIONAL PHASE	24
3.8	DECOMMISSIONING PHASE	24
4.	FRAMEWORK CONSTRUCTION STAGE TRAFFIC MANAGEMENT PLAN (CTMP)	25
4.2	MEASURES TO MINIMISE AND MITIGATE CONSTRUCTION TRAFFIC IMPACTS	25
4.3	DESIGNATED CONSTRUCTION VEHICLE ROUTE TO SITE	26
4.4	STAFF INDUCTION & CODE OF CONDUCT	26
4.5	Sustainability	27
4.6	CONTRACTS AND EMERGENCY PROCEDURES	27
4.7	IMPLEMENTATION OF THE CTMP	27
4.8	MONITORING OF THE CTMP	28
5.	SUMMARY AND CONCLUSIONS	29

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



LIST OF FIGURES

Figure 1.	General Site Location	6
Figure 2.	Site Location and Red Line Boundary	7
Figure 3.	Existing Conditions on Bonnyton Road	9
Figure 4.	Cycle Infrastructure Adjacent to A92	10
Figure 5.	Bus Stops in Vicinity of Site	11
Figure 6.	Local Road Network	12
Figure 7.	General Characteristics of the A92	13
Figure 8.	A92 / Bonnyton Road Junction Layout	13
Figure 9.	General Characteristics of Bonnyton Road	14
Figure 10.	General Characteristics of Unclassified Road	15
Figure 11.	Road Accident Locations	15
Figure 12.	Site Layout	17
Figure 13.	Site Access Junction	18
Figure 14.	Site Access Junction Visibility Splays	19
Figure 15.	Diversion on Private Access Road	20
Figure 16.	Proposed Passing Place Scheme	23
Figure 17.	Designated Construction Route	24
LIST OF T	ΓΔRIFS	
LIST OF I	IADLLS	
Table 1.	Summary of Accident Statistics	16



1. INTRODUCTION

1.1.1 SYSTRA LTD (SYSTRA) has been appointed by Arthian Limited on behalf of RES Limited to prepare a Transport Statement (TS) in support of an application for planning permission for a Solar Farm at Bonnyknox, near Arbroath. The proposed development is located to the west of Arbroath in what is a rural area within the Angus Council (AC) administrative boundaries. The general site location is indicated by **Figure 1** below.



Figure 1. General Site Location

- 1.1.2 The purpose of this TS is to evaluate the existing transport infrastructure in the vicinity of the Site, detail the development proposals and set out the key transportation impacts that may occur during the construction phase of the development and when the Proposed Development becomes operational. Any required mitigation will be identified and detailed.
- 1.1.3 The report seeks to confirm that the proposed development at this location can be constructed with an acceptable transport impact and can be integrated into the surrounding network without detriment to existing users and local residents. It is noted that the nature of a solar farm is that once operational, it will be largely autonomous with no on-site staff. The focus of this Transport Statement is therefore on the construction stage of the development.



1.2 The Proposed Development

- 1.2.1 The Applicant is proposing to construct and operate a Solar Farm with all associated works, equipment, necessary infrastructure and biodiversity enhancements. The development will have a generating capacity of up to 49.9MW.
- 1.2.2 The proposed development is situated on land currently used for agricultural purposes, west of Arbroath and to the north of the A92 road which is the main road link in the area linking Arbroath to Dundee.
- 1.2.3 The red line boundary plan is indicated by **Figure 2** below. Bonnyton Road lies on the south of the site. It is noted that the red line boundary also includes the road link between the site and the A92 where some improvements are proposed. These improvements are detailed later in this Transport Statement.

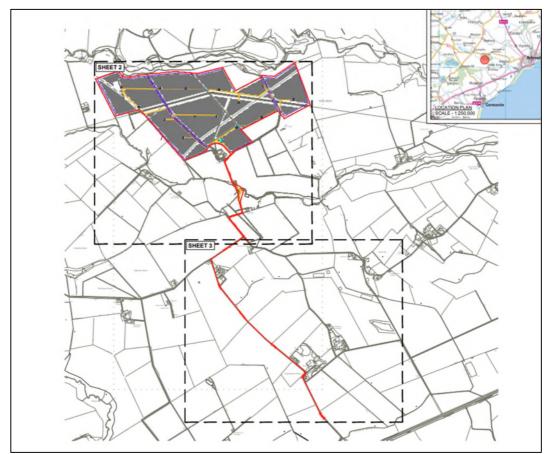


Figure 2. Site Location and Red Line Boundary



1.3 Policy and Guidance

- 1.3.1 The TS has been undertaken in accordance with the following local and national transportation policy documents:
 - National Planning Framework 4 (NPF4);
 - Angus Local Development Plan (ALDP);
 - Angus Local Transport Strategy;
 - Guidelines for Traffic Impact Assessment (1994) Institution of Highways and Transportation (IHT); and
 - Guidelines for the Environmental Assessment of Traffic and Movement (2023), Institute of Environmental Management and Assessment (IEMA)
- 1.3.2 All new or improved transport infrastructure for the development will be designed in accordance with the standards provided in the Design Manual for Roads and Bridges (DMRB), local development design guidelines and to the agreement of AC.

1.4 Report Structure

- 1.4.1 Following this introductory chapter, the TS report structure is as follows:
 - Chapter 2 Existing Transport Network;
 - O Chapter 3 Proposed Development and Associated Travel Characteristics; and
 - Chapter 4 Framework Construction Stage Traffic Management Plan.
 - O Chapter 5 Summary and Conclusions



2. EXISITING TRANSPORT NETWORK

2.1 Introduction

2.1.1 Due to the nature of the proposed development, it is likely that the majority of trips to the site during the construction phase will be by vehicle. Notwithstanding this, a full review of the accessibility of the site by a range of transport modes such as walking, cycling and public transport has been undertaken in line with policy and is summarised below.

2.2 Sustainable Modes of Transport

Walking

2.2.1 The proposed development is more than 5km west of the Arbroath Settlement which is the nearest residential centre from the proposed development. There is a likelihood that some of the construction workforce may be drawn from Arbroath but the distance to the site and the lack of any direct walking routes means that the proposed site is not really accessible by walking. The access route to the site will be via the A92 and then the Unclassified Road network heading north from the site which includes Bonnyton Road. There are no footways adjacent to the carriageway along the sections of the road that bound the site. The existing characteristics associated with Bonnyton Road are illustrated by Figure 3 below. It is noted that some walking activity currently takes place on the road for leisure purposes so consideration of this is required in relation to the movement of construction vehicles.



Figure 3. Existing Conditions on Bonnyton Road

Source: Google Maps



Cycling

2.2.2 There is a dedicated cycle path that runs parallel with the A92, to the south of the site which can be reached via Bonnyton Road. The path sits to the south of the A92 carriageway to the south of the site and provides a link to Arbroath to the east and to Dundee to the southwest. The link between the A92 and the site is conducive to cycling so it can be considered that the site is accessible by cycle although very few cycle trips are expected. Figure 4 indicates the cycle infrastructure adjacent to the A92.



Figure 4. Cycle Infrastructure Adjacent to A92

Public Transport

2.2.3 The nearest bus stops to the site are located on the A92 to the south of the site and are some 3.5km from the site access which is well beyond what is considered to be an acceptable walking distance. **Figure 5** indicates the location of the bus stops in relation to the site.





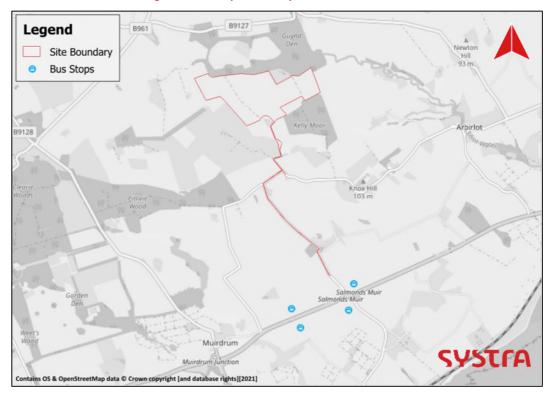


Figure 5. Bus Stops in Vicinity of Site

- 2.2.4 There are 2 buses per hour serving the A92 bus stops linking to Dundee, Perth and Arbroath but the services are only likely to be used by construction workers associated with the proposed site if they are provided with a drop-off and pick-up facility from the site. This may be possible but would be on an ad-hoc basis.
- 2.2.5 Given the above, it can be concluded that the vast majority of trips to the site during the construction phase would be made by vehicle as a result of tools and equipment needing to be carried and due to the rural location of the development. This should not, however, be seen as a barrier to development at this location given that the proposed land use is commensurate with rural locations.

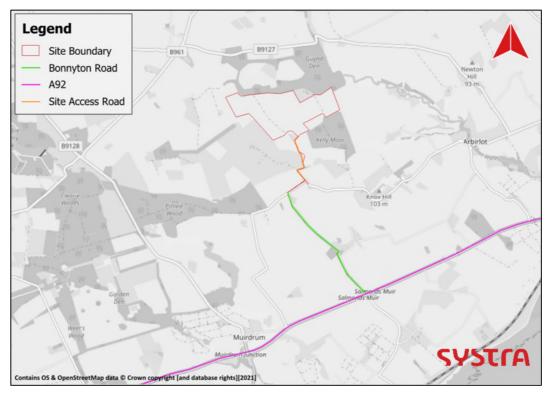
2.3 Surrounding Road Network

2.3.1 The Application Site is located to the west of the town of Arbroath and has good connections to wider road network. The key road links in the area are indicted by Figure
6. The route to the site from the A92 involves joining Bonnyton Road and heading in a generally northwest direction for approximately 2.25km before turning east onto an unclassified road. The route runs east for 360m on the Unclassified Road before turning northwest again onto a Private Access Track. Vehicles would follow the private access track for just over 1km to reach the main part of the Proposed Development site.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



Figure 6. Local Road Network



A92

- 2.3.2 The **A92** lies to the south of the proposed development site and provides a main road link between Dundee and Arbroath. The A92 is fairly strategic in nature but the section between Dundee and Arbroath is not part of the trunk road network.
- 2.3.3 In the vicinity of the site, the A92 is a dual carriageway road with 2 lanes in each direction subject to national speed limit. The road provides a distributor road function and is suitable for HGVs. Access for the development would be taken from the "Salmond's Muir" junction which is grade-separated in nature with slip roads to and from Bonnyton Road which runs underneath the A92. The junction incorporates all turning movements east and west.
- 2.3.4 The general characteristics of the A92 are demonstrated by **Figure 7** below whilst the layout of the A92 / Bonnyton Road Junction are indicated by **Figure 8**.

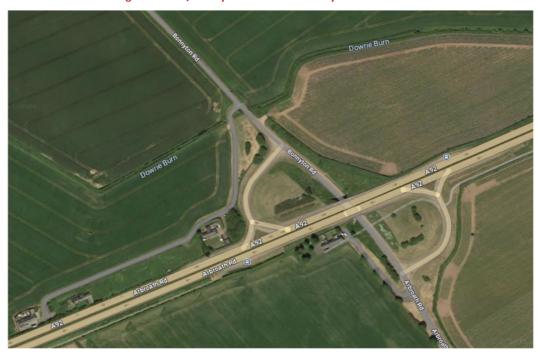






Source: Google Maps

Figure 8. A92 / Bonnyton Road Junction Layout





Bonnyton Road

- 2.3.5 Bonnyton Road lies to the south of the proposed development site and provides a road link in a northeast / southwest axis. It connects the A92 from the south to another Unclassified Road to the southwest of the site.
- 2.3.6 It is a single-track road subject to the national speed limit and it varies in width between 3.6 and over 4m on bends. There are locations where two HGVs could potentially pass each other but there are other significant sections where two HGVs could not pass each other at present so mitigation will require to be delivered on Bonnyton Road in order to support the construction phase of the proposed development. The road is generally flanked by relatively wide grass verges. The road serves three farms as well as some private residencies but is in general, relatively lightly trafficked.
- 2.3.7 The general characteristics of Bonnyton Road on the route to site are demonstrated by **Figure 9** below.



Figure 9. General Characteristics of Bonnyton Road

Source: Google Maps

Unclassified Road

2.3.8 The Unclassified Road on the access route to the site extends eastwards from Bonnyton Road for a distance of approximately 360m to a junction with the private access road that will be used to access the site. The road then extends eastwards towards the small hamlet of Braeside. The road is single track with a width of approximately 3.5m.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



2.3.9 There are grass verges on both sides of the road and the route is subject to the national speed limit. It is recognised that there are no passing places on this section of road so improvements will be required if it is to be used for two-way HGV movements. The general characteristics of the route are indicated by **Figure 10** below.



Figure 10. General Characteristics of Unclassified Road

2.4 Accident Statistics

2.4.1 The most recent available data from the CrashMap (www.crashmap.co.uk) website has been used to establish the number of road traffic accidents that have occurred in the past five years (2018-2022) in the vicinity of the site. These are indicated by **Figure 11** below.

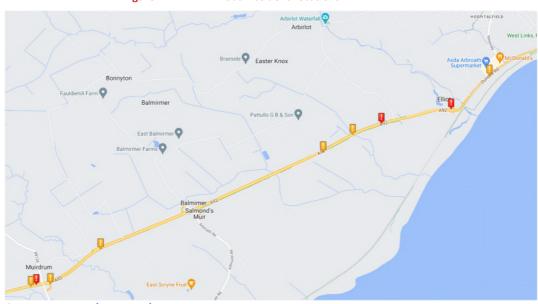


Figure 11. Road Accident Locations

Source: www.crashmap.co.uk



2.4.2 The figure above indicates that there have been 9 accidents on the road network that would be used to access the site in the last 5 years. These are summarised in **Table 1**.

Table 1. Summary of Accident Statistics

LOCATION	SLIGHT	SERIOUS	FATAL	COMMENT
A92	6	3	-	There have been three serious accidents, and six slight accidents on the A92 in the vicinity of the study area in the previous five years.

2.4.3 Based upon the summary above, there have been a total of nine (mostly slight) accidents on the A92, but the accident history is fairly typical of busy "A" roads of this nature. There do not appear to be any accident "clusters" or issues that require special consideration as part of the application, providing that construction traffic is suitably managed. Proposed construction traffic management measures are set out in **Chapter 4**.

2.5 Accessibility and Baseline Summary

- 2.5.1 Due to the nature of the proposed development and its rural location it is likely that the majority of trips to the site will be by vehicle over the temporary construction period. No staff will be based at the site once operational, so these trips are concerned with the construction period only.
- 2.5.2 The site will generally be accessed from the A92, Bonnyton Road and a short section of an Unclassified Road at the south of the main site boundary. The A92 is a good standard dual carriageway providing strategic access and links to the wider road network. The standard of the route from the A92 to the site is reasonable but it has been identified that some improvement will be required to support two-way HGV movements to and from the site associated with the construction of the development. Further information of the level of required mitigation is provided later in this Transport Statement.



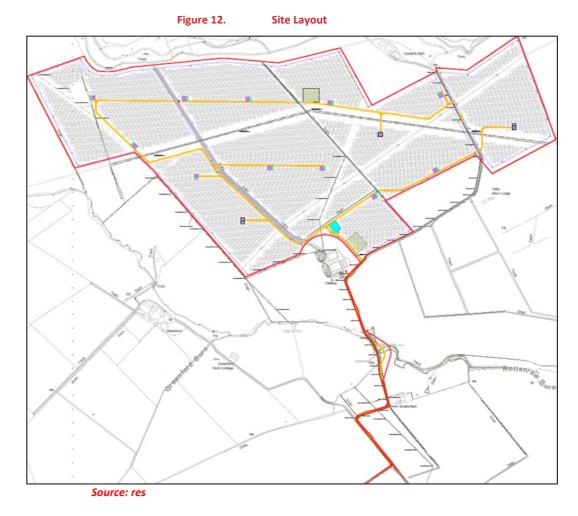
3. PROPOSED DEVELOPMENT AND ASSOCIATED TRAVEL CHARACTERISITICS

3.1 Proposed Development

3.1.1 The Applicant is proposing to construct and operate a Solar PV Farm with associated infrastructure, with a generation capacity of approximately 49.9MW. The proposed development is situated on land currently used for agricultural activities which lies to the west of Arbroath.

3.2 Site Layout

3.2.1 The layout for the proposed solar development is indicated by **Figure 12** below, with the full development drawing pack included at a larger scale within **Appendix A**.





3.3 Site Access

3.3.1 The site access road is shown below in **Figure 13**, at a priority junction with Bonnyton Road.

Figure 13. Site Access Junction

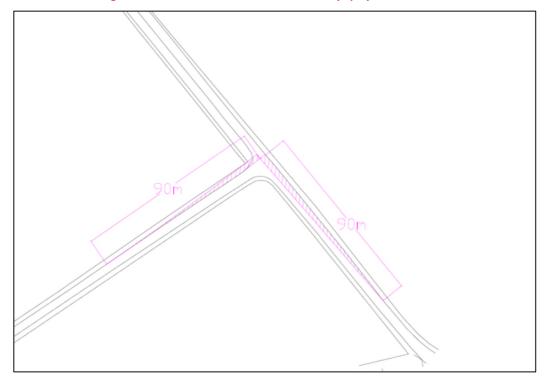


- 3.3.2 In order to assess the suitability of the existing access junction in relation to visibility splays, SYSTRA commissioned an ATC survey from the 4th 10th December 2024 adjacent to the development site in order to look at the speed of vehicles on the proposed site access road.
- 3.3.3 The survey revealed the following statistics in relation to vehicle speeds and traffic flows:
 - The average speed of eastbound traffic is 23.7mph
 - The 85th percentile speed of eastbound traffic is 29.5mph
 - The average speed of westbound traffic is 21.9mph
 - The 85th percentile speed of westbound traffic is 27.5mph
- 3.3.4 Based on the measured design speed, there is a requirement for visibility splays to be provided at the junction that measure 2.4m by 90m.
- 3.3.5 These visibility splays can be delivered and are indicated by **Figure 14** below.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



Figure 14. Site Access Junction Visibility Splays



3.4 Site Access Route

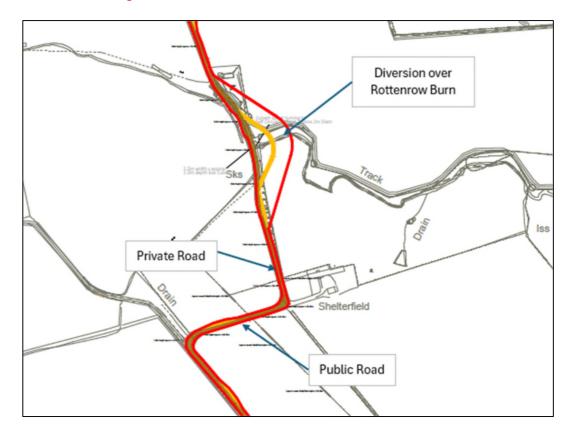
3.4.1 The route from the public road to the site has to divert from the private access road, as seen in Figure 15.







Diversion on Private Access Road



3.4.2 A water crossing across the Rottenraw Burn to the north of Shelterfield in the form of a bridge is proposed for vehicles during all project phases, construction, operation and decommissioning phases. This alternative access route is to ensure that vehicles can access the project for its lifetime on land that the applicant has full control over. The water crossing is likely to consist of a reinforced concrete culvert with a top dressing of stone (subject to detail design).

3.5 Construction Stage

- 3.5.1 Due to the nature of the Proposed Development being largely autonomous in nature, the vehicle trip generation is expected to be negligible at the operational stage. Furthermore, it is not possible to obtain appropriate data regarding trip generation form the TRICS database for developments of this type.
- 3.5.2 Taking the above into account, any concentration of vehicle trips to the Proposed Development will be during the construction phase of the development, and as such, a first principles approach has been applied using forecasted data provided by the applicant to quantify the level of vehicle trip generation during the construction phase. This information is largely based on experience gained from the construction of other solar farm developments.

Site Working Hours

3.5.3 Work hours are expected to be between:

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



- o 7:00 to 19:00 on weekdays;
- O7:00 to 16:00 on Saturdays;
- No work will occur on a Sunday or Bank Holidays.

Construction Programme

3.5.4 The construction phase will take place over a 12-month period. Any temporary hardstanding areas will be removed and the site reinstated at the end of the construction period.

Traffic Generation

- 3.5.5 The construction phase of the Proposed Development is anticipated to last approximately 12 months. During this time, there are expected to be approximately 6,800 vehicle trips associated with the construction phase, including deliveries, staff travel and visitors to site. It is anticipated that ~1,880 one-way HGV vehicle movements will be associated with the construction phase over the 12-month period. The balance of trips will be by small and medium delivery vans will be delivering small construction materials as well as site consumables. The cars and small work vans will be carrying site staff and their tools to site.
- 3.5.6 Staff will be expected to arrive on site by 07:00 and will typically depart between 15:00 and 18:00. The arrival and departure of workers is unlikely to coincide with 'traditional' network AM and PM peak periods. Given the expected level of traffic generation, it is not anticipated that the development will create additional congestion or delay on the strategic or local road network.
- 3.5.7 As indicated above, it is anticipated that there will be approximately 1,880 one-way HGV trips over the 12-month construction period. Assuming an equal split of HGV journeys it is anticipated that there will be 160 one-way HGV journeys a month. Assuming a 6-day working week and 4 and a half weeks in a month this equates to approximately 27 working days a month, 12 two-way HGV trips per day and 72 two-way HGV trips per week.
- 3.5.8 The HGVs will generally be a mix of articulated low loader vehicles and flat bed lorries delivering plant, equipment and the solar panels themselves. No abnormal loads are anticipated to be required at this stage but if a requirement was to arise then the required highway permits would be obtained.

Traffic Impact

3.5.9 Overall, the traffic volumes associated with the Proposed Development are expected to be modest and are not expected to have any significant impacts on the road links in terms of capacity although it is recognised that improvements are required to the road network between the site and the A92 and construction traffic (particularly HGVs) will require to be managed to ensure safe passage to the site along the local road network. The impact on the A92 road link itself is expected to be negligible.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



Construction Compounds

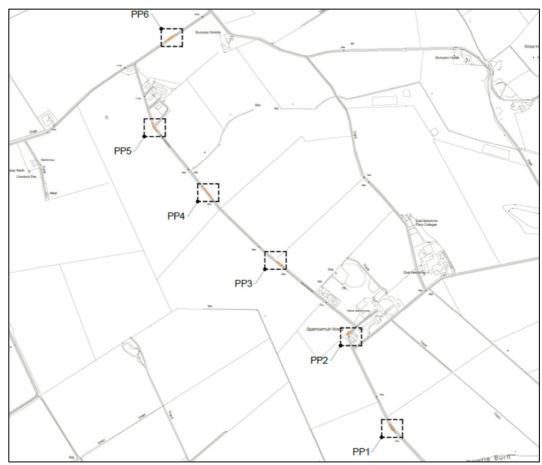
- 3.5.10 Two construction compounds would be located within the site boundary to facilitate the construction of the proposed development. The compounds will provide sufficient space for:
 - Staff welfare facilities:
 - Storage of site vehicles and materials;
 - O The safe loading and unloading of materials; and
 - Staff vehicle parking.
- 3.5.11 In relation to car parking, all vehicles will be accommodated on site and no parking offsite will be permitted. The site is not constrained so no issues are anticipated.

Mitigation Scheme for Access Route

- 3.5.12 As highlighted in the baseline section of this TS, the width of Bonnyton Road and the Unclassified Road that links Bonnyton Road to the site access point does not allow for two HGVs to pass each other. Notwithstanding that there are just 12 two-way HGV trips per day during the construction period, it is considered that mitigation is required to facilitate two-way working on the access route from the A92.
- 3.5.13 The proposal for mitigation takes the form of providing additional passing places along the route. Indicative passing place locations have been drawn up and are illustrated by Figure 16 and the drawings within Appenidx B. These passing place locations would be constructed either within the adopted road verge areas or within land under the Applicant's control. This is subject to discussions with the Roads Authority.







3.5.14 In addition to the physical mitigation scheme, it is proposed to have a "book in" system for deliveries so that deliveries are given a timeslot for accessing the site. Coupled with a "call ahead" protocol on approach to the site, it will be possible to better manage deliveries to the site by spacing them out and trying to avoid any instances of vehicles meeting each other on the route between the A92 and the site access point.

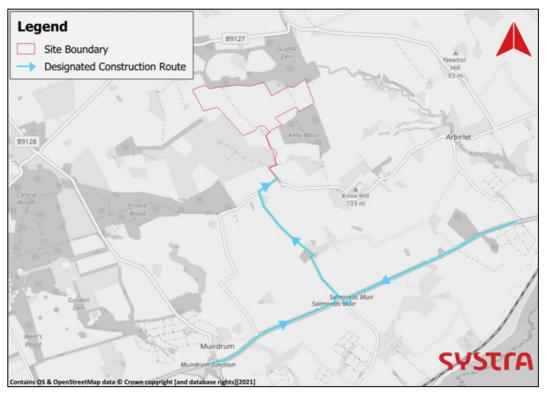
3.6 Designated Route for Construction Traffic

3.6.1 A designated construction route has been identified for this development in order to minimise construction traffic impacts, which is via the A92, Bonnyton Road and a short length of an Unclassified Road between the junction with Bonnyton Road and the site access point. It is proposed that the construction access road will be designated with use of other routes such as the unclassified road network to the southeast of the site prohibited in order to keep construction vehicles on appropriate routes. The Designated Route will be identified within the CTMP that will support the construction stage and measures will be put in place to prevent traffic from using other routes which are prohibited. The designated construction route is indicated by **Figure 17** below.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025







3.7 Operational Phase

- 3.7.1 During operation, the proposed development will be largely autonomous and does not require resident staff. There will be a small number of regular trips to site, comprising of deliveries, regular maintenance visits and associated parts deliveries. These trips will generally be undertaken by van or by pick-up trunk rather than HGVs.
- 3.7.2 It is therefore considered that the operational stage of the development will not give rise to a significant number of additional vehicle trips. As such, the impact on traffic levels on the road network surrounding the site will be negligible.

3.8 Decommissioning Phase

- 3.8.1 Planning permission is being sought for a 40-year operational period, at which point the development would be decommissioned.
- 3.8.2 In terms of traffic generation and on-site activity, the decommission stage is expected to be similar to the construction stage. It is usual for a decommissioning CTMP to be provided ahead of this operation which would look at the transport baseline around at the time of decommissioning and would contain an accurate estimate of traffic movements associated with decommissioning activities.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



4. FRAMEWORK CONSTRUCTION STAGE TRAFFIC MANAGEMENT PLAN (CTMP)

- 4.1.1 The following section sets out a framework for the CTMP that would be put in place to support the construction of the proposed Bonnyknox Solar development. The final CTMP (normally submitted when the contractor has been appointed and in advance of construction) will confirm the measures to mitigate the impact of vehicles during the construction period and will build on this framework plan.
- 4.1.2 The CTMP will confirm the programme of works, the agreed construction routes to Site and details of a Site Liaison Officer who would have responsibilities for managing traffic and transport impacts and associated environmental effects. The CTMP will also identify measures to reduce and manage construction staff travel by private car, particularly single occupancy trips.

4.2 Measures to Minimise and Mitigate Construction Traffic Impacts

4.2.1 There are a number of traffic management measures which can be implemented to reduce the impact of HGVs. These measures are described below.

Minimise the Volume of Imported and Exported Materials

4.2.2 In order to minimise the volume of imported material it is anticipated that a proportion of materials (topsoil etc) would be sourced/re-used from within the boundaries of the Proposed Development site especially where hardstanding areas are created involving the removal of top soil and later reinstatement.

Delivery Control

- 4.2.3 The appointed contractor for the Proposed Development will be required to plan and manage deliveries and collections from the site to minimise the impact on the surrounding road network and to minimise the impact on the local community.
- 4.2.4 The contractor will ensure the following measures during the construction period:
 - As far as possible, delivery of materials will not be within the morning and evening road network peaks;
 - The number of delivery trips will be minimised through a combination of consolidated ordering, rationalising suppliers and consolidated delivers;
 - A delivery booking system will be in operation to plan deliveries and prevent instances of HGVs meeting each other on the access route from the A92;
 - A "call ahead" system will be employed on site to ensure that the site is ready for the incoming delivery to prevent multiple deliveries on site and to prevent HGVs meeting each ither on the access route:
 - On-site waste will be minimised through recycling and re-use.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



Dust and Debris

4.2.5 In order to reduce dust and debris being deposited onto the local road network in the vicinity of the Proposed Development access point, a wheel cleaning facility will be installed. A road sweeper can also be deployed if needed to ensure that the adjacent public road is kept free of dust and dirt.

4.3 Designated Construction Vehicle Route To Site

- 4.3.1 Construction traffic will generally arrive via the A92 and then route to site via the designated construction route which is identified in **Figure 17** above.
- 4.3.2 Vehicles will be prohibited from accessing the site via other routes. This will be written into the principal contractor's contract obligations and all site personnel and delivery drivers will be briefed on the designated access route to site.

4.4 Staff Induction & Code of Conduct

- 4.4.1 All site staff will be informed about traffic management arrangements and procedures via site induction packs.
- 4.4.2 Transportation of materials to and from the site will be conducted by HGV vehicles operated by drivers with an in-date Driver Certificate of Professional Competence (CPC) qualification.
- 4.4.3 In addition to the Driver CPC qualification, regular 'in-house' coaching will be provided to ensure drivers maintain best practice when operating HGVs.
- 4.4.4 Drivers will be fully inducted and enrolled into a code of conduct which outlines how driving duties should be undertaken. The driver's code of conduct should include guidance on the following:
 - Required license categories;
 - General vehicle operation and highway code;
 - O Drivers working hours / fatigue management;
 - Breakdowns / RTC / Emergencies;
 - Use of electronic devices;
 - O Drug and Alcohol policy; and
 - Behavioural expectations.
- 4.4.5 The items listed above are not exhaustive and are only indicative of the elements that should be included in the driver's code of conduct document.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



4.5 Sustainability

- 4.5.1 The appointed contractor will plan and execute the construction of the Proposed Development with a demonstrably high regard to sustainability. In particular the following objectives will be put in place:
 - Minimisation of vehicle movements to / from the site;
 - Promotion of shared transport arrangements for site operatives;
 - O Thorough pre-planning of operations on-site to optimise the redistribution of any earthworks materials together with minimisation of haul distances;
 - Reduction in the amount of aggregates used on-site by means of alternative construction techniques although aggregate use on this site is expected to be low;
 - Application of a reduce-reuse-recycle philosophy to all waste producing activities;
 and
 - Conforming to construction / building codes of practice in relation to sustainability objectives and procedures.

4.6 Contracts And Emergency Procedures

- 4.6.1 The main contractor will be responsible for creating a final list of stakeholder contacts and ensuring this list is kept up to date on an on-going basis. Stakeholder contacts would include the roads authority, emergency services, and local businesses and residents.
- 4.6.2 The principal contractor will be responsible for preparing an Emergency Plan for the site. The Emergency Plan will contain information and details of procedures in the event of emergencies. Construction staff would be informed of the Plan and information provided in relation to the location of the nearest hospital, fire assembly points and inclement weather procedures.

4.7 Implementation Of The CTMP

- 4.7.1 The implementation of the CTMP will be the responsibility of the appointed principal contractor. Further evolution of the CTMP may be required during the construction period itself.
- 4.7.2 The main contractor may employ a number of sub-contractors on the Site, and all will fall under the umbrella of the CTMP and will have an obligation to adhere to the CTMP.
- 4.7.3 A Site Liaison Officer will require to be identified for the project who will be the key point of contact for the CTMP.
- 4.7.4 The Liaison Officer will be responsible for the co-ordination of all elements of traffic and transport during the construction process. This person will liaise with the local community so that the community have a direct point of contact within the Developer's organisation who they may contact for information purposes or to discuss matters pertaining to traffic management or site operation.

Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



4.8 Monitoring Of The CTMP

4.8.1	The CTMP will be monitored by the Liaison Officer who in turn will report to the Highways
	Authority (Angus Council) in relation to any required changes to the CTMP.



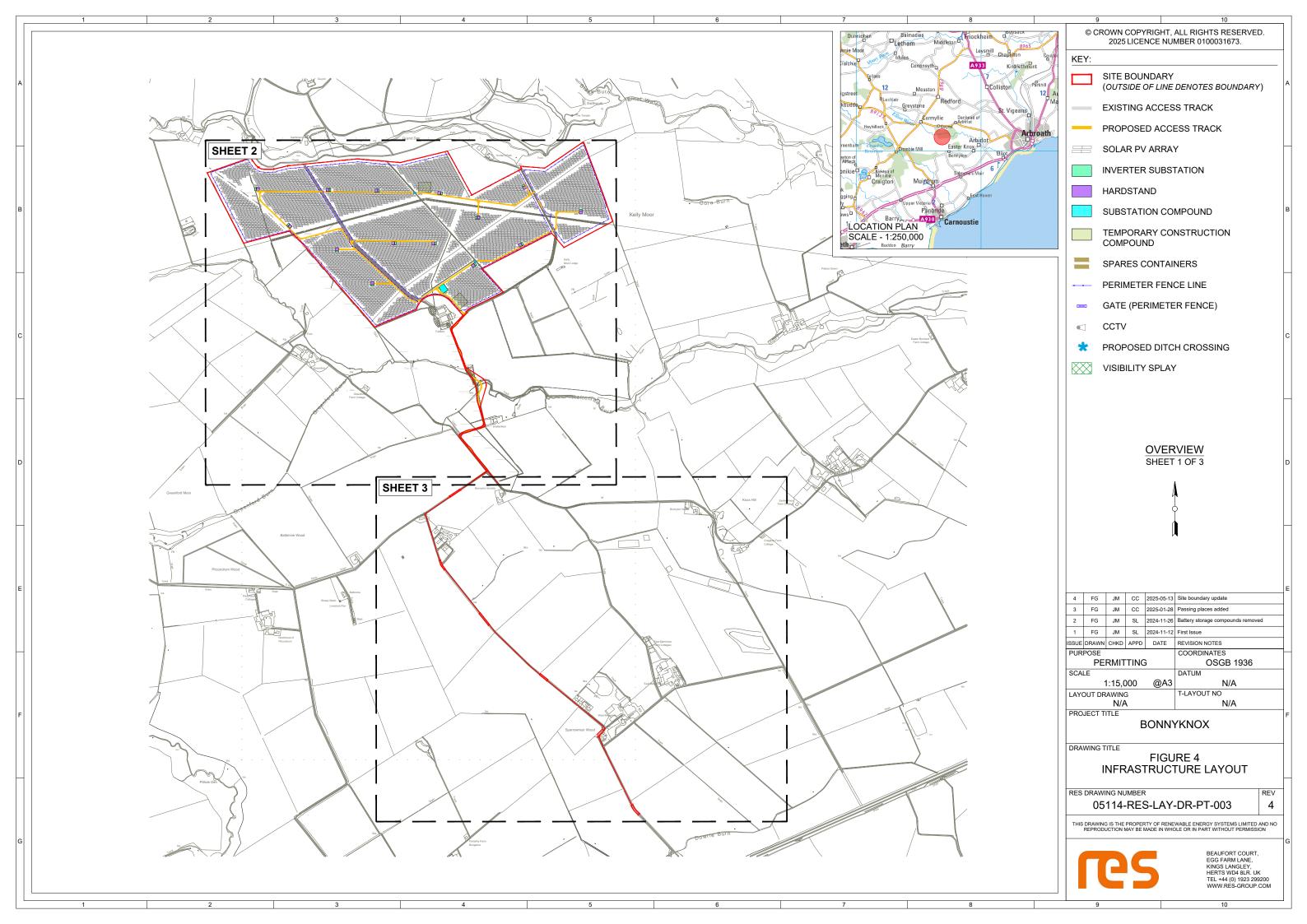
5. SUMMARY AND CONCLUSIONS

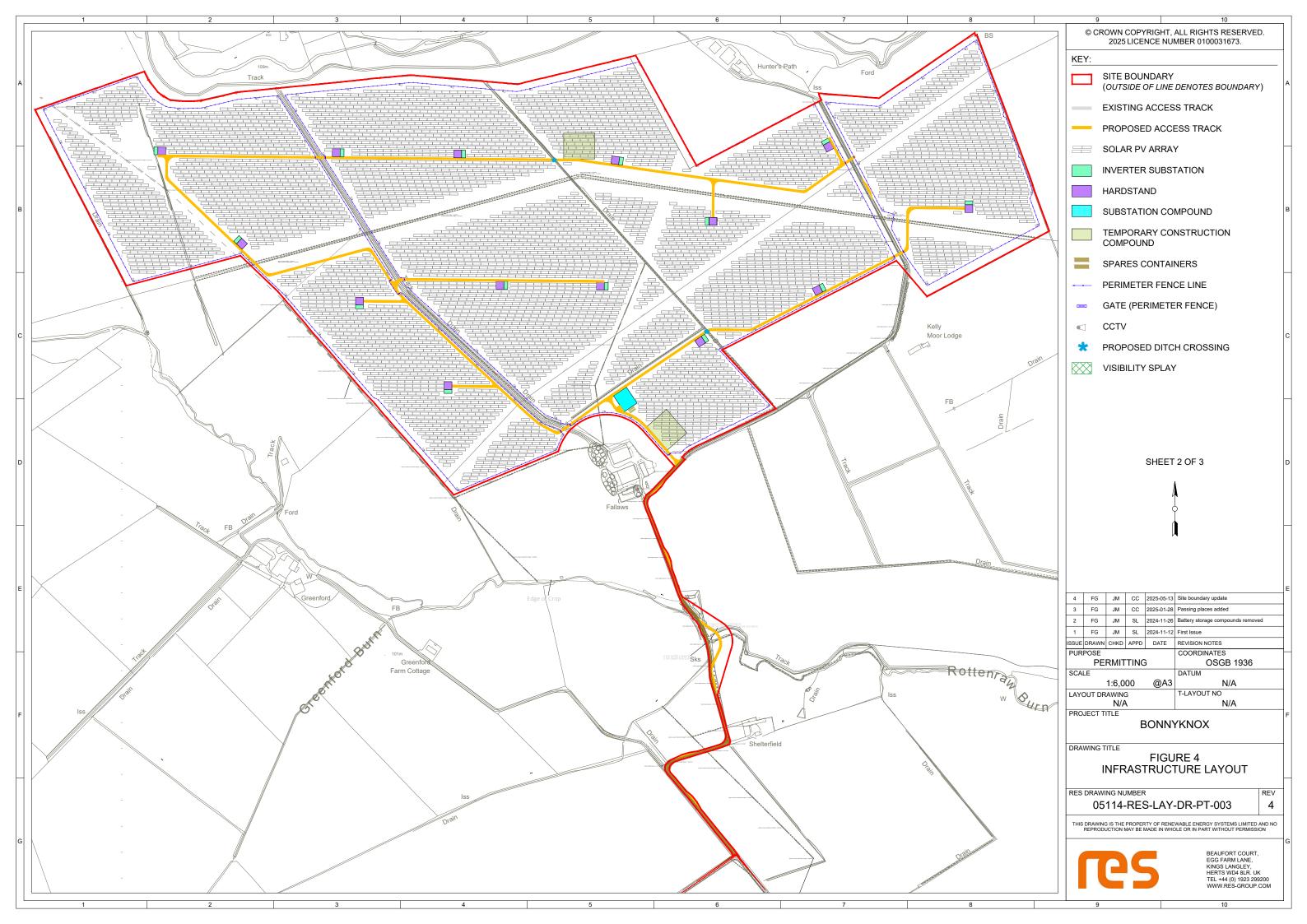
- 5.1.1 SYSTRA Ltd (SYSTRA) has been appointed by Arthian Ltd on behalf of RES to prepare a Transport Statement (TS) in support of an application for planning permission for Bonnyknox Solar Farm near Arbroath.
- 5.1.2 This Transport Statement has considered the access strategy for the development as well as the suitability of the road network around the site to serve the development. The impact of the proposed solar farm on the transport network has been considered and mitigation is proposed in the form of both physical mitigation works and the implementation of a Construction Stage Traffic Management Plan (CTMP) chapter within this report. The physical mitigation works relate to the construction of 6 no. passing places on the local road network between the A92 and the site access point which will be taken from an Unclassified Local Road.
- 5.1.3 Preliminary design information has been submitted for the scheme of passing places and the applicant would accept a planning condition in relation to delivering this infrastructure. The passing places can be temporary in nature with removal following construction of the Solar development or they can be left in-situ if the council think that there is merit in the infrastructure becoming permanent.
- 5.1.4 Given the nature of the development, the majority of the construction stage trips are expected to be made by private vehicle.
- 5.1.5 The construction period is expected to last for 12 months. There are approximately 6,800 vehicle trips to the site anticipated throughout the construction period (including approximately 1,880 one-way HGV trips). These trips will be relatively well spaced and are not likely to occur during peak periods. The impact of these trips is not considered to be significant in terms of capacity of the road network.
- 5.1.6 Once operational, only maintenance visits will be required. The TS concludes that the development proposals can be accommodated without detriment to the local road network at both the construction and operational stages.
- 5.1.7 With the physical mitigation proposed implemented along with the support of the CTMP, it is considered that the impacts associated with the construction of the proposed development can be managed appropriately without significant impacts on local residents and other users of the road network.

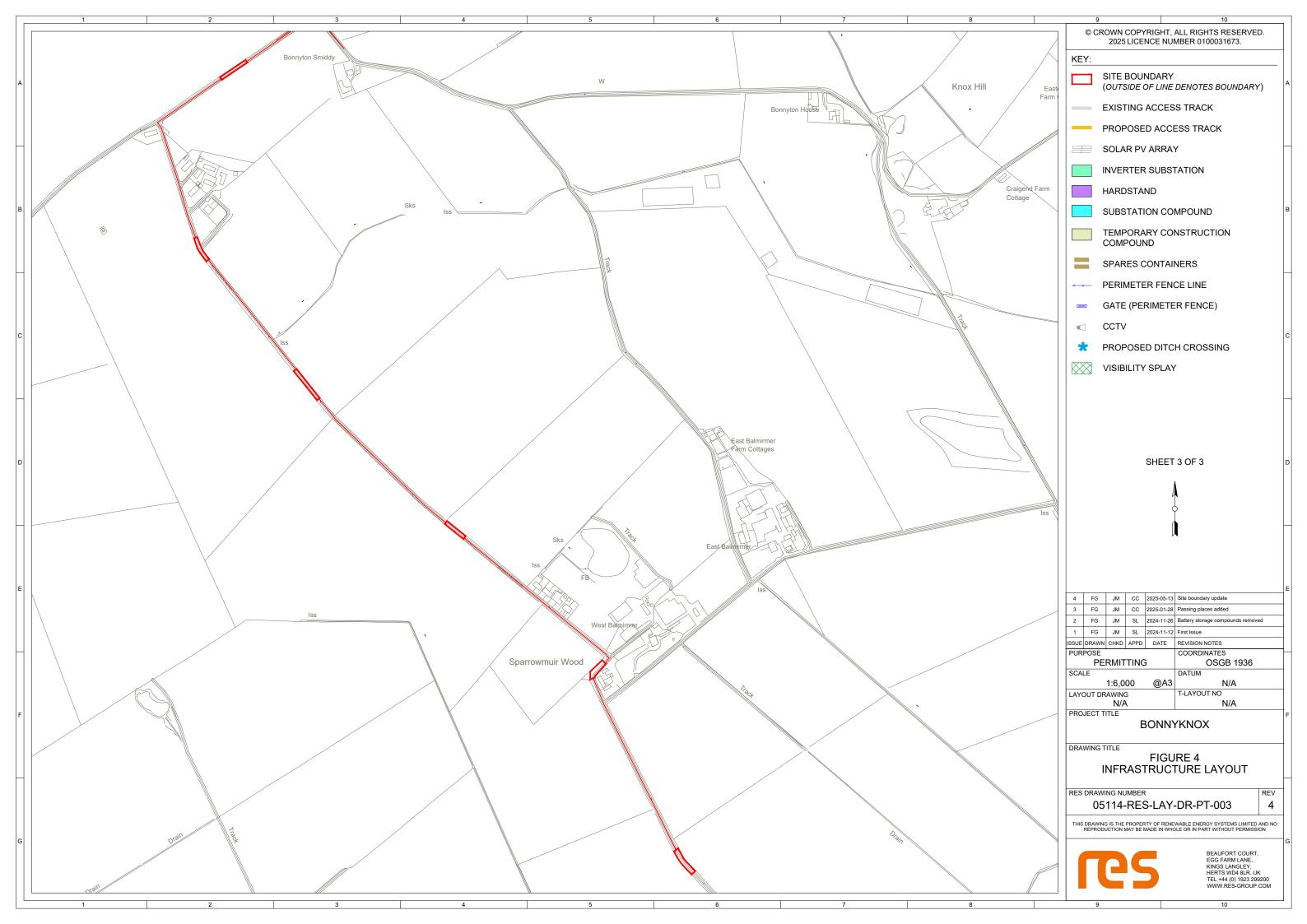
Bonnyknox Solar Farm	
Transport Statement	GB01T23A19
	04/08/2025



APPENDIX A – Site Layout Plan

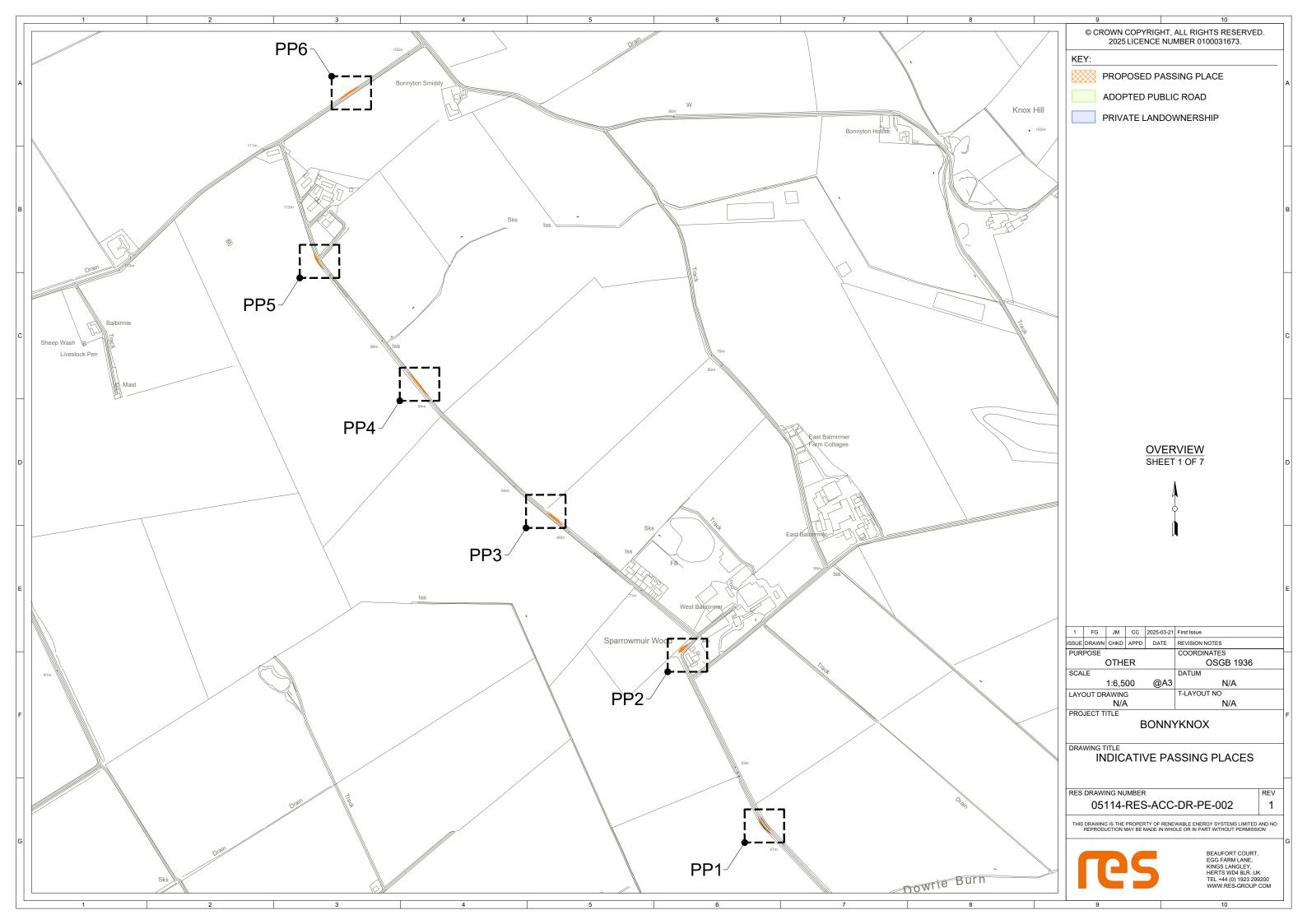


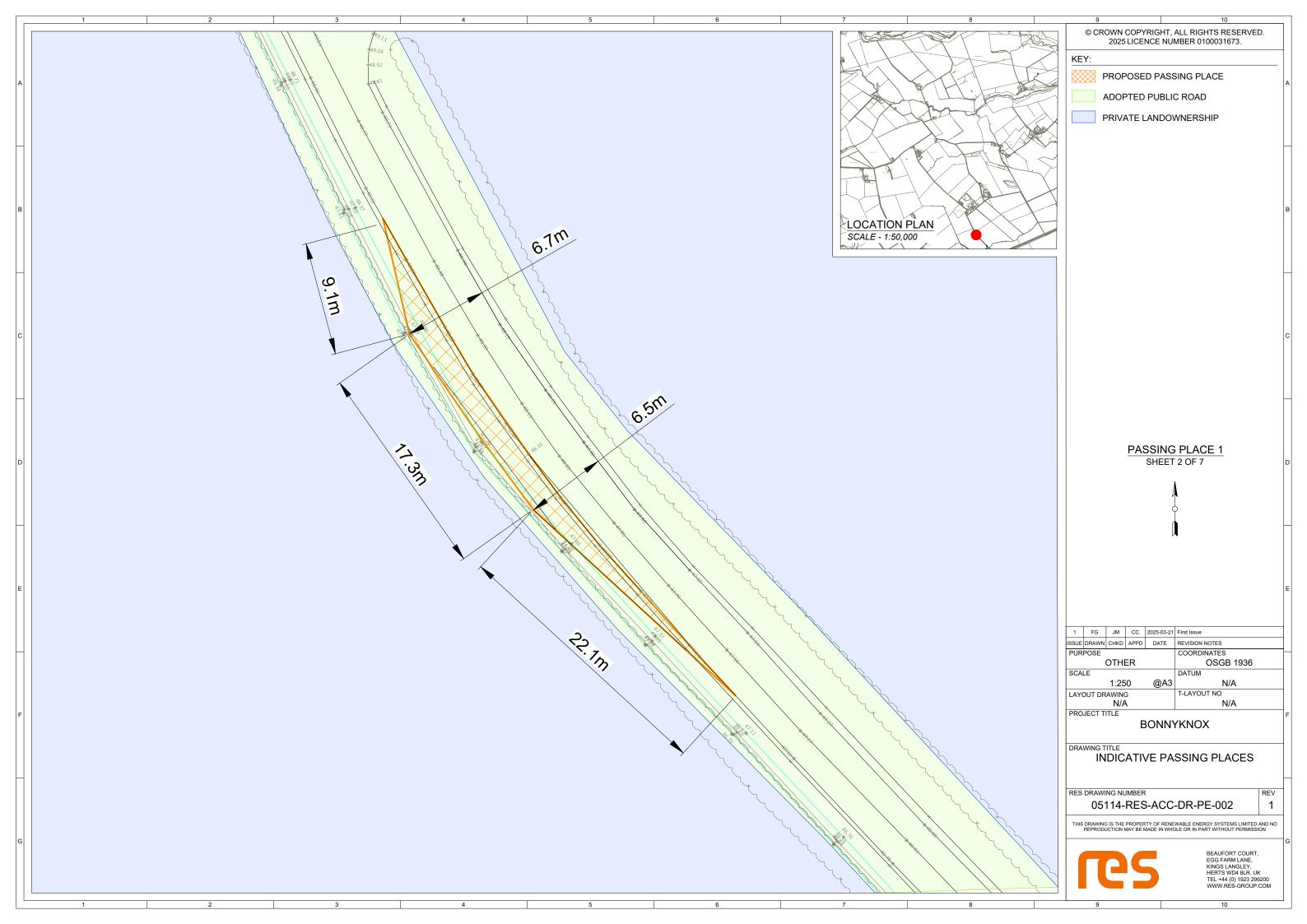




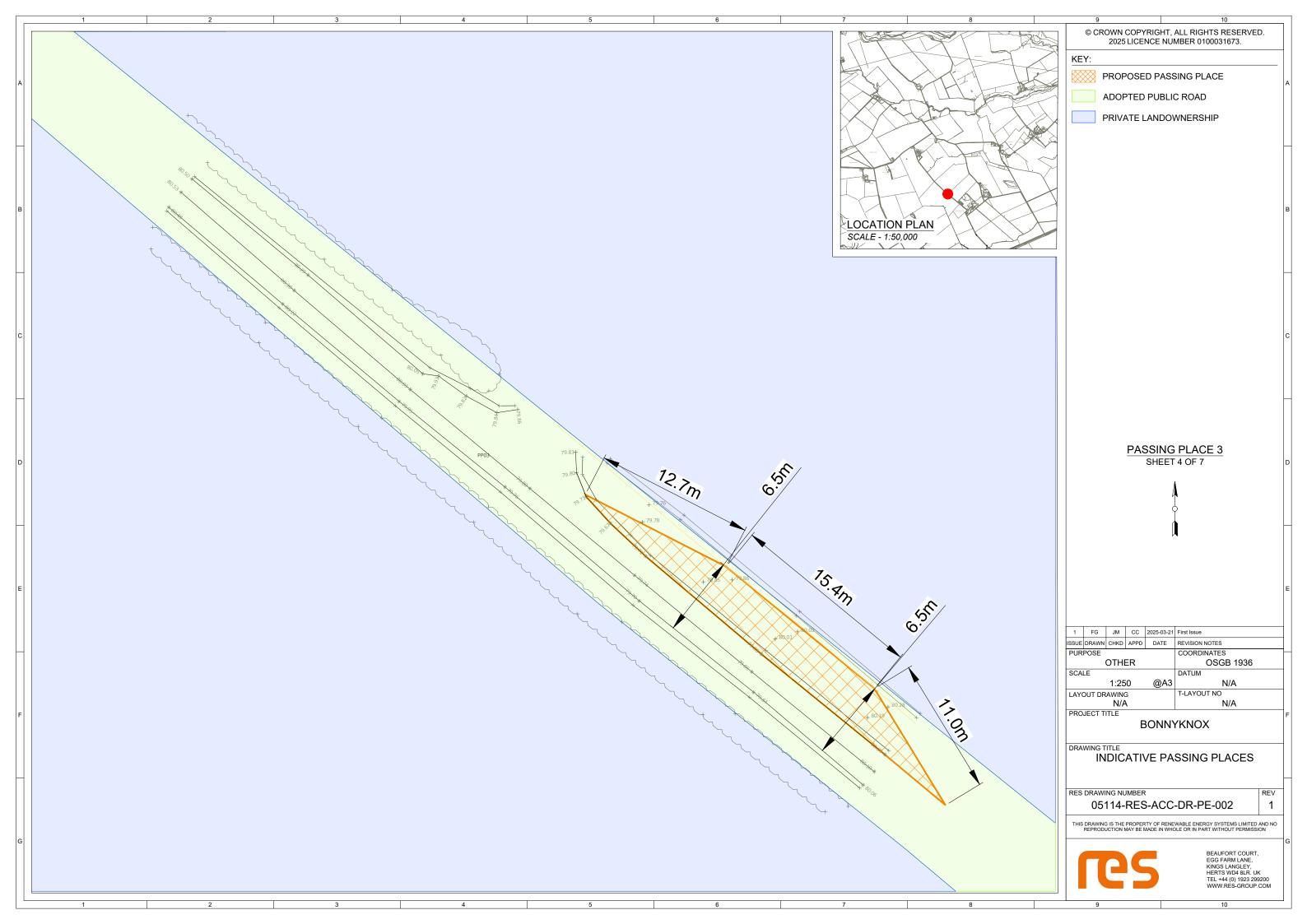


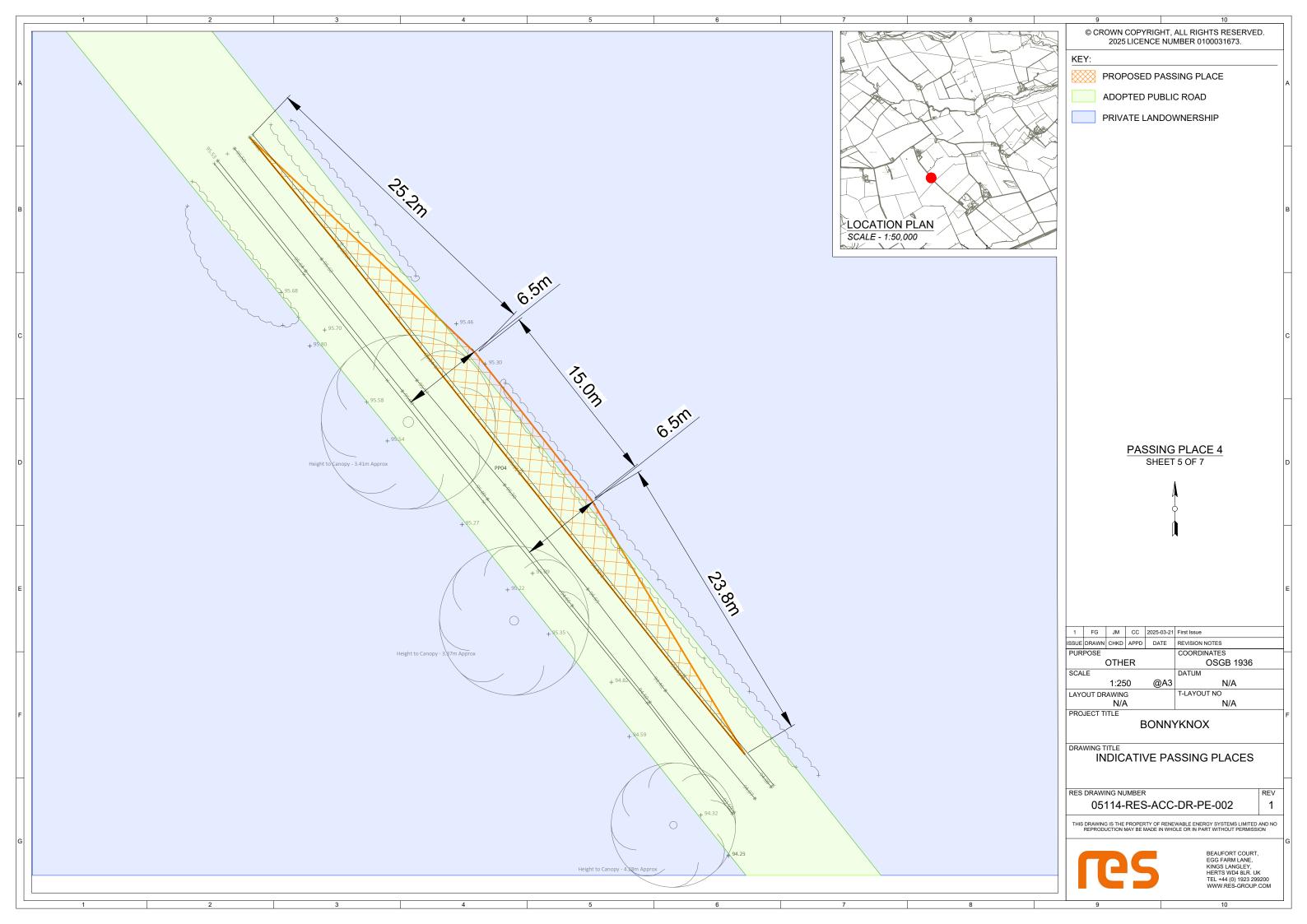
APPENDIX B Proposed Passing Place Scheme

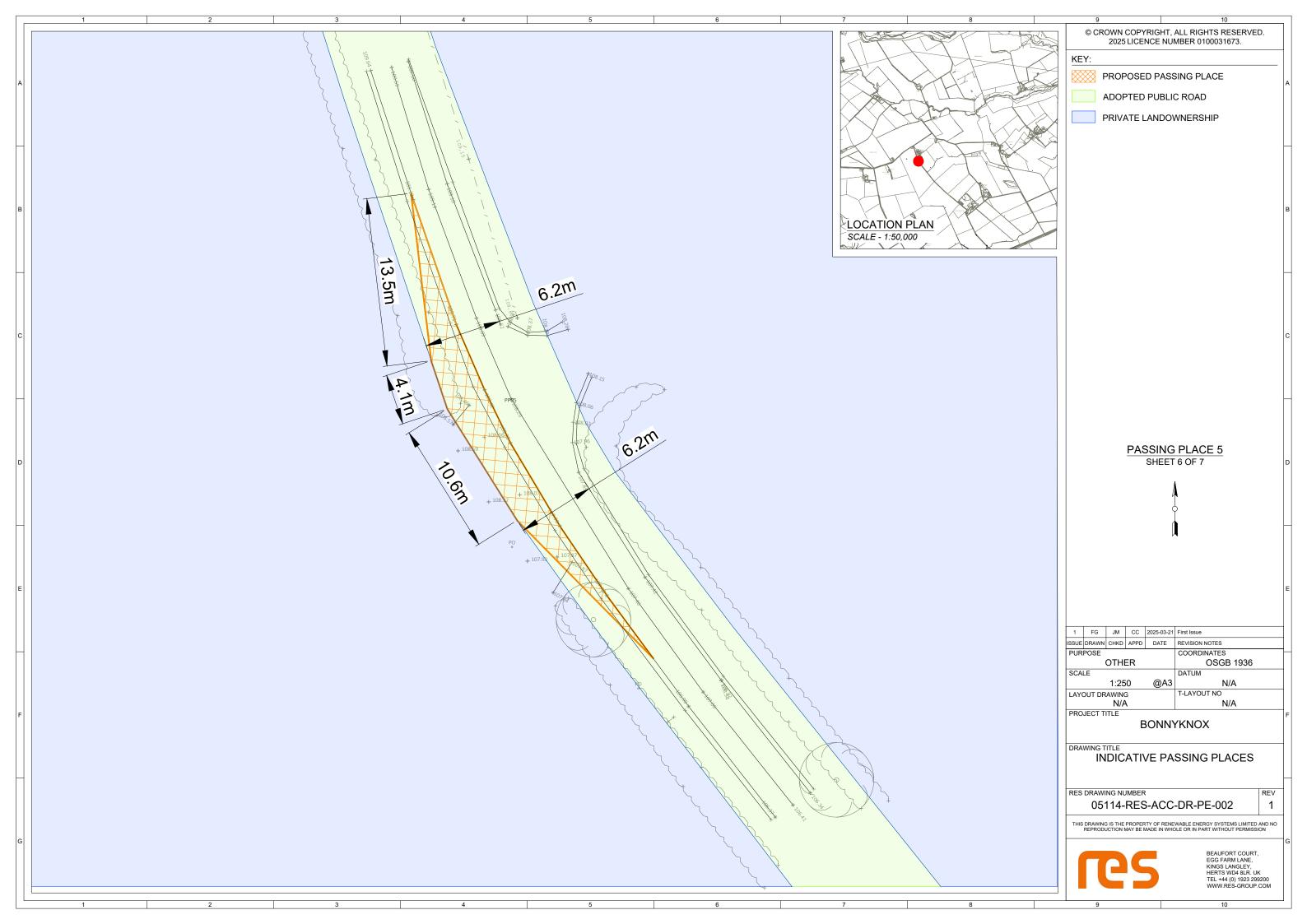


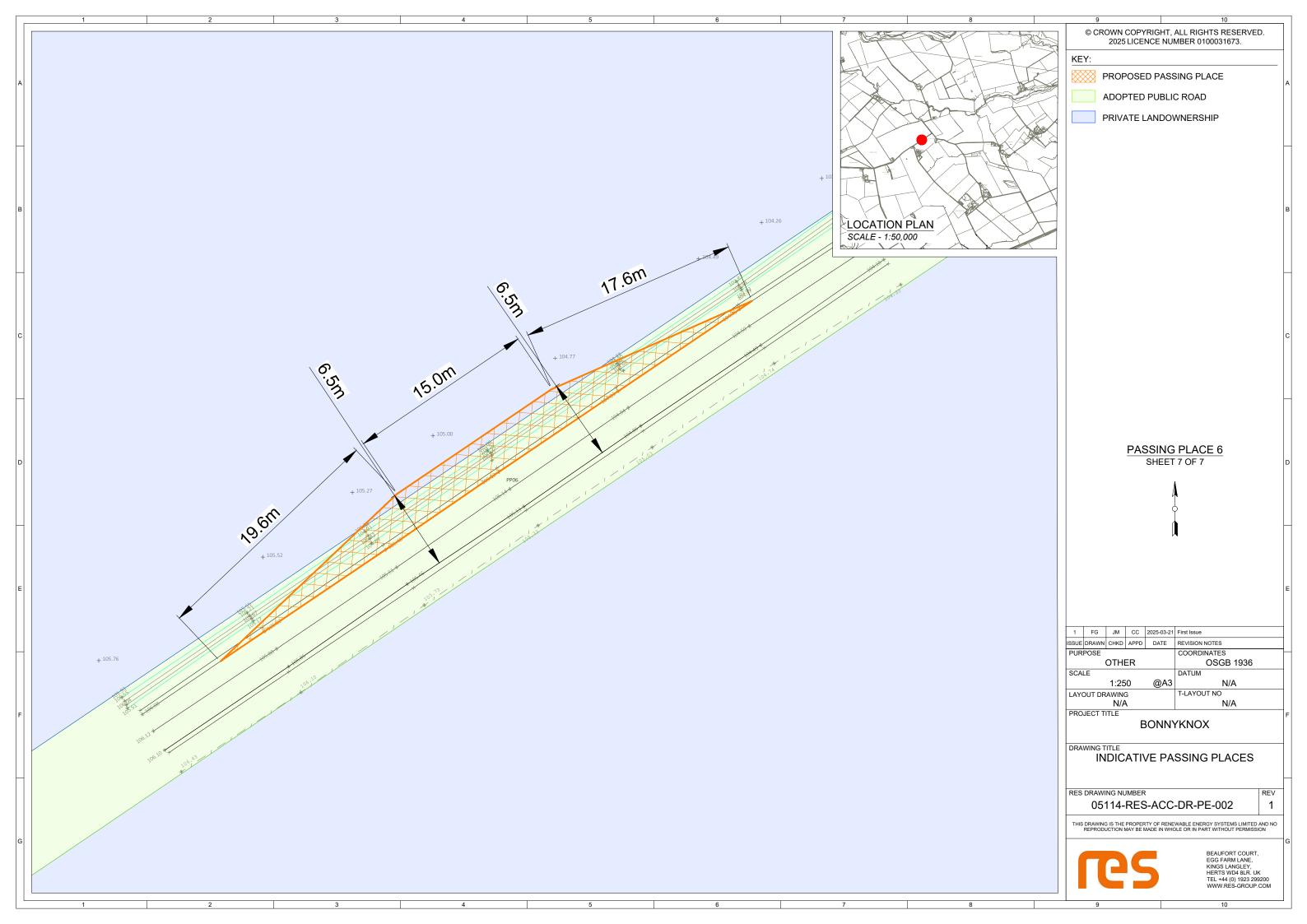












SYSTRA provides advice on transport, to central, regional and local government, agencies, developers, operators and financiers.

A diverse group of results-oriented people, we are part of a strong team of professionals worldwide. Through client business planning, customer research and strategy development we create solutions that work for real people in the real world.

For more information visit www.systra.co.uk

Birmingham

Alpha Tower, Crowne Plaza, Suffolk Street Birmingham, B1 1TT T: +44 (0)121 393 4841

Bristol

33 Colston Avenue, Bristol, BS1 4UA

Cork

City Quarter, Lapps Quay, Cork City Cork, T12 WY42, Republic of Ireland

Dublin

2nd Floor, Riverview House, 21-23 City Quay Dublin D02 AY91, Republic of Ireland T: +353 (0) 1 566 2028

Edinburgh

Ground Floor, 18 Charlotte Square, Edinburgh, EH2 4DF T: +44 (0)131 460 1847

Glasgow

The Centrum Business Centre Limited, 38 Queen Street, Glasgow, G1 3DX

T: +44 (0)141 468 4205

Leeds

100 Wellington Street, Leeds, LS1 1BA T: +44 (0)113 360 4842

London

One Carey Lane, London, England EC2V 8AE T: +44 (0)20 3855 0079

Manchester

5th Floor, Four Hardman Street, Spinningfields Manchester, M3 3HF Tel: +44 (0)161 504 5026

Newcastle

Block C, First Floor, Portland House, New Bridge Street West, Newcastle, NE1 8AL Tel: +44 191 249 3816

Reading

Davidson House, Forbury Square, Reading, RG1 3EU T: +44 118 208 0111

Woking

Dukes Court, Duke Street Woking, Surrey GU21 5BH T: +44 (0)1483 357705

York

Meridian House, The Crescent York, YO24 1AW Tel: +44 1904 454 600

Other locations:

France:

Bordeaux, Lille, Lyon, Marseille, Paris

Northern Europe:

Astana, Copenhagen, Kiev, London, Moscow, Riga, Wroclaw

Southern Europe & Mediterranean: Algiers, Baku, Bucharest, Madrid, Rabat, Rome, Sofia, Tunis

Middle East:

Cairo, Dubai, Riyadh

Asia Pacific:

Bangkok, Beijing, Brisbane, Delhi, Hanoi, Hong Kong, Manila, Seoul, Shanghai, Singapore, Shenzhen, Taipei

Africa:

Abidjan, Douala, Johannesburg, Kinshasa, Libreville, Nairobi

Latin America:

Lima, Mexico, Rio de Janeiro, Santiago, São Paulo

North America:

Little Falls, Los Angeles, Montreal, New-York, Philadelphia, Washington

