

# Rampion 2 Wind Farm Category 7: Other Documents

**Outline Construction Traffic Management Plan (tracked)** 



## **Document revisions**

Revision	Date	Status/reason for issue	Author	Checked by	Approved by
Α	04/08/2023	Final for DCO Application	WSP	RED	RED
В	16/01/2024	Updates to Table 4-3 (speed limits), 4-4, 5-2, 5-3 and 6-2. Updates to correct cropping in Figures.	WSP	RED	RED
С	28/02/2024	Updates to working hours, figures, Table 5-1 and inclusion of communication strategy	WSP	RED	RED
D	25/04/2024	Deadline 3 submission	WSP	RED	RED



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**Traffic Management Strategies** 



# **Executive Summary**

This Outline Construction Traffic Management Plan (CTMP) (Document Reference: 7.6) has been prepared to manage impacts of construction traffic for the onshore elements of the Proposed Development. This is part of a suite of plans supporting onshore construction works for Rampion 2.

The Outline CTMP has developed following traffic modelling and assessment carried out in the **Chapter 23: Transport**, **Volume 2** (Document Reference: 6.2.23). This process has identified the embedded environmental measures secured within these documents.

This Outline CTMP includes information on accesses, routing and traffic management. It also sets out the environmental measures including signage, working hours and timing of movements to manage impact on construction traffic as a result of the Proposed Development.

Stage specific CTMPs will be produced by the appointed Contractor(s) following the grant of the Development Consent Order (DCO) and prior to the relevant stage of construction. This will be produced in accordance with this Outline CTMP for approval of the relevant highway authority, prior to the commencement of that stage of works.



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# 1. Introduction

#### 1.1 Overview

- Rampion Extension Development Limited (hereafter referred to as 'RED') (the Applicant) is developing the Rampion 2 Offshore Wind Farm ('the Proposed Development') located adjacent to the existing Rampion Offshore Wind Farm ('Rampion 1') in the English Channel.
- This Outline Construction Traffic Management Plan (CTMP) (Document Reference: 7.6) outlines the management of construction traffic for the Proposed Development. This Outline CTMP is submitted alongside the Development Consent Order (DCO) Application. This Outline CTMP should be read in conjunction with the description of the onshore elements of the Proposed Development provided in Chapter 4: The Proposed Development, Volume 2 (Document Reference: 6.2.4).
- This Outline CTMP is focused on the construction of the onshore elements of the Proposed Development. Measures for the management of workforce travel associated to and from the construction port are considered as part of the Outline Construction Workforce Travel Plan.
- Rampion 2 will be located between 13km and 26km from the Sussex Coast in the English Channel and the offshore array area will occupy an area of approximately 160km<sup>2</sup>.
- 1.1.5 The key offshore elements of the Proposed Development will be as follows:
  - up to 90 offshore wind turbine generators (WTGs) and associated foundations;
  - blade tip of the WTGs will be up to 325m above Lowest Astronomical Tide (LAT) and will have a 22m minimum air gap above Mean High Water Springs (MHWS);
  - inter-array cables connecting the WTGs to up to three offshore substations;
  - up to two offshore interconnector export cables between the offshore substations;
  - up to four offshore export cables each in its own trench, will be buried under the seabed within the final cable corridor; and
  - the export cable circuits will be High Voltage Alternating Current (HVAC), with a voltage of up to 275kV.
- 1.1.6 The key onshore elements of the Proposed Development will be as follows:
  - a single landfall site near Climping, Arun District, connecting offshore and onshore cables using Horizontal Directional Drilling (HDD) installation techniques;
  - buried onshore cables in a single corridor for the maximum route length of up to 38.8km using:



- trenching and backfilling installation techniques; and
- trenchless and open cut crossings.
- a new onshore substation, proposed near Cowfold, Horsham District, which will connect to an extension to the existing National Grid Bolney substation, Mid Sussex, via buried onshore cables; and
- extension to and additional infrastructure at the existing National Grid Bolney substation, Mid Sussex District to connect Rampion 2 to the national grid electrical network.
- During construction, the onshore elements of the Proposed Development would be supported with Temporary Construction Compounds (TCCs) (and HDD compounds), accesses and haul roads. There will also be some traffic during the construction phase associated with the construction management base in Shoreham, from where crew transfer onto vessels.
- This Outline CTMP has evolved throughout the DCO pre-application process as the onshore elements of the Proposed Development have been further defined through the design process and following feedback from stakeholders. Consultation has been undertaken with West Sussex County Council (WSCC), National Highways (NH)¹ and The South Downs National Park Authority (SDNPA) to develop an agreed management and mitigation strategy for heavy goods vehicles (HGVs) and light goods vehicles (LGVs) during the construction of the Proposed Development.
- An Outline CTMP is required to address the impacts of the onshore infrastructure elements of the Proposed Development which could have a direct effect on local roads through crossings of the network and the conveyance of construction traffic.

# 1.2 Purpose and structure of the Outline CTMP

- The purpose of this Outline CTMP is to establish the environmental measures which can be implemented in relation to traffic generated during the construction phase for the onshore elements of the Proposed Development. This Outline CTMP has been prepared to ensure that the management and mitigation measures detailed within this document minimise the likely effects on existing road users during the construction phase. This also satisfies commitment C-201 (in the Commitments Register (Document Reference: 7.22), which states that 'Construction Traffic Management Plans (CTMP) will be developed in consultation with the highway's authorities (WSCC and NH) for stages of the works. These will be developed in accordance with the Outline CTMP and include the stage specific details for managing the impact of the construction traffic on the transport network.' The Outline CTMP also relates to the Outline Construction Workforce Travel Plan (Document Reference: 7.7) which sets out the measures which will be used to manage staff travel across all modes.
- 1.2.2 The primary objectives of this Outline CTMP are as follows:

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<sup>&</sup>lt;sup>1</sup> Formally Highways England April 2015 – August 2021



- ensuring the movement of people and materials in a safe, efficient, timely, and sustainable manner:
- keep construction traffic to a minimum during peak network periods to reduce the impact on the highway network;
- ensure that effects and disruption on local communities is minimised;
- minimise vehicle trips where possible; and
- limit the impacts on the natural and built environment.
- The draft Development Consent Order (DCO) (Document Reference: 3.1) includes a requirement to submit a stage specific CTMP (which accords with the Outline CTMP) for approval by WSCC and consultation with the relevant planning authority and National Highways (where appropriate) before that stage can commence.
- The stage specific CTMP will be developed prior to commencement of the relevant stage of works, but will be produced in accordance with the principles, objectives and guidance provided in this Outline CTMP.
- 1.2.5 The stage specific CTMP should contain details of:
  - HGVs used during construction, including their routing which should avoid the Air Quality Management Area in Cowfold and the A24 through Findon wherever possible;
  - management of junctions and crossings of the public highway; and
  - measures for laying cables in the highway by either single lane control or short road closure depending on the location.
- 1.2.61.2.5 This Outline CTMP interfaces with the following documents accompanying the DCO Application and should be read in conjunction with:
  - the Outline Construction Workforce Travel Plan (Document Reference: 7.7)
    which outlines measures to mitigate and manage effects on the local transport
    network which may be caused by the daily movement of the construction
    workforce:
  - The Outline Public Rights of Way Management Plan (PRoWMP) (Document Reference: 7.8) which sets out the scale and nature of these effects together with an outline management strategy to help minimise disruption to PRoW users.
  - Commitments Register (Document Reference: 7.22) which contains the embedded environmental measures associated with the Proposed Development;
  - Appendix 4.1: Crossing schedule, Volume 4 of the ES (Document Reference: 6.4.4.1) which sets out all crossings associated with the Proposed Development;
  - Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23);



- Appendix 23.1, Abnormal Indivisible Load assessment, Volume 4 of the ES (Document Reference: 6.4.23.1) which sets out the specific routes required for Abnormal Indivisible Loads (AlLs) and the mitigation required including Swept Path Assessments (SPAs) at identified pinch points; and
- Appendix 23.2: Traffic Generation Technical Note, Volume 4 of the ES
   (Document Reference: 6.4.23.2) which sets out the detailed construction traffic
   generation methodology, assumptions, materials required and other matters
   that have informed the construction traffic generation output.

1,2,71,2.6 The remainder of this Outline CTMP is set out as follows:

- Section 2: Stakeholder consultation and engagement to-date;
- Section 3: The onshore elements of the Proposed Development sets out
  the description of the onshore elements of the Proposed Development and the
  components and vehicles that will be used to inform the Outline CTMP;
- **Section 4: Proposed Access Strategy** sets out the Access Strategy proposed during the construction phase of the Proposed Development;
- Section 5: HGV Access Strategy sets out the construction HGV Access Strategy;
- Section 6: LGV Access Strategy sets out the construction LGV Access Strategy;
- Section 7: Crossing Schedule sets out how the onshore cable corridor crosses the highway and rail network;
- Section 8: Potential Mitigation Strategies summarises the proposed measures to manage LGV and HGV movements during the construction;
- Section 9: Management of the CTMP and enforcement sets out the proposed management and enforcement structure for the CTMP;
- Section 10: Glossary of terms and abbreviations;
- Section 11: References;
- Appendix A: Proforma;
- Appendix B: Figures;
- Appendix C: RSA Requirements; and
- Appendix D: Technical Note Construction Accesses A-26, A-28, A-61 and A-64 Traffic Management Strategies



# 2. Stakeholder Consultation and Engagement to-date

## 2.1 Introduction

This section outlines the stakeholder consultation and engagement that has taken place since 2020 to inform this Outline CTMP. The stakeholders will continue to be consulted in preparation of the stage specific CTMP, as well as any other landowners, authorities or councils as relevant.

## 2.2 Scoping Report

RED submitted a Scoping Report (RED, 2020) and request for a Scoping Opinion to the Secretary of State (SoS) (administered by the Planning Inspectorate) on 2 July 2020. A Scoping Opinion was received on 11 August 2020 (Planning Inspectorate, 2020). The Scoping Report (RED, 2020) set out the proposed transport assessment methodologies, outline of the baseline data collected to date and proposed, and the scope of the environmental assessment. Planning Inspectorate comment ID number 5.6.8 of the Scoping Opinion (Planning Inspectorate, 2020) sets out:

"The Inspectorate welcomes the commitment to produce a CTMP, Abnormal Indivisible Load (AIL) (AIL, Appendix 23.3, Volume 4) access study and Public Rights of Way Management Plan (PROWMP, Appendix 23.2, Volume 4). Drafts of these documents should be provided with the DCO Application. It should be clear how the implementation of such plans would be secured in the DCO and the Applicant should consider how this plan would interact with the COCP and other relevant plans"

# 2.3 Evidence Plan Process (EPP)

#### **Overview**

- 2.3.1 The Evidence Plan Process (EPP) has been set up to provide a formal, non-legally binding, independently chaired forum to agree the scope of the EIA and Habitats Regulations Assessment (HRA), and the evidence required to support the DCO Application. The EPP commenced in January 2020 and has continued throughout the EIA helping to inform the ES.
- For transport, further engagement has been undertaken via the EPP Expert Topic Group (ETG) 'Traffic, Air Quality, Noise, Health and Socio-economics' meetings alongside additional meetings with specific stakeholders such as West Sussex County Council (WSCC) and National Highways (NH).



#### 27 October 2020

- Initial details of the emerging access strategy underpinning the Outline CTMP were presented to key stakeholders as part of the Evidence Plan Process (EPP) Expert Topic Group (ETG) 'Traffic, Air Quality, Noise, Health and Socioeconomics' meeting held via a conference call on the 27 October 2020. The conference call was attended by the following stakeholders:
  - WSCC;
  - Highways England (now National Highways);
  - South Downs National Park Authority (SDNPA);
  - Arun District Council;
  - Mid Sussex District Council; and
  - East Sussex County Council.
- The transport section of the ETG meeting covered the scope of the transport assessment, the baseline data, and accompanying assessments to be used to undertake the assessment, proposed environmental measures, proposed HGV access proposals and the assessment methodology. The engagement also presented the proposed approach to address the Scoping Opinion (Planning Inspectorate, 2020) comments detailed in Table 23-3 in Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23). An outline of the approach to the following documents was covered in the presentation and discussions:
  - Transport chapter in the Environmental Impact Assessment (EIA);
  - Outline Construction Traffic Management Plan;
  - Outline Public Right of Way Management Plan; and
  - AIL Assessment: and
  - Traffic data collection.
- 2.3.5 Key discussion points in relation to transport during this meeting was to learn the lessons of Rampion 1 and to produce a schedule of transport infrastructure to be crossed by the onshore cable corridor. This has been addressed within this Outline CTMP with full schedules presented in **Section 6**.
- SDNPA also raised at the ETG meeting that the CTMP should include construction staff movements as well as HGVs and that the CTMP should include an approach to enforcement of HGV routes. This has been addressed in the ES chapter assessments where environmental assessment of the impacts of staff movements and HGVs has been included. This Outline CTMP sets out the routing proposed for HGVs, as well as details on staffing required and how this is proposed to be addressed during the construction phase.

#### 16 March 2021

A second ETG meeting was held for Traffic, Air Quality, Noise and Socioeconomics on 16 March 2021 with the same key stakeholders as the meeting in



October 2020. The transport section of the ETG meeting covered an update on baseline data, consultation progress, construction traffic generation, public rights of way (PRoW) impacts, the Outline CTMP, the Abnormal Indivisible Load (AIL) assessment (Appendix 23.1: Abnormal Indivisible Load assessment, Volume 4 of the ES (Document Reference: 6.4.23.2)) and some of the initial findings of the environmental assessment.

- 2.3.8 Key discussion points raised at the ETG meeting on 16 March 2021 were as follows:
  - HGV construction route enforcement;
  - locations of Highways Links assessed as part of the transport assessment at PEIR stage;
  - time restrictions for construction traffic;
  - helicopters and use during the construction phase;
  - interactions with the proposed A27 Arundel Bypass project;
  - horizontal directional drill (HDD) proposals in relation to the Strategic Road Network (SRN);
  - additional speed surveys to inform access visibility requirements; and
  - AlLs during the decommissioning phase.
- HGV construction route enforcement has been addressed within this Outline CTMP and is included within embedded environmental measures C-157, C-158 and C-159 (set out in the **Commitments Register** (Document Reference: 7.22)). This has become a requirement of the DCO following discussion with WSCC and NH. This Outline CTMP includes details on timings on the local highways network for all construction vehicles including HGVs as well as HDD proposals, contractors will be required to comply as set out in **Section 9**. The document also sets out the initial considerations and details on visibility splays (**Section 3**) at the proposed accesses. Visibility splays are areas of clear visibility required from a point an "x distance" back from the give way line.

#### **25 November 2022**

- The third ETG meeting was held for traffic and socio-economics stakeholders on 25 November 2022. Key stakeholders were present including WSCC, NH and SDNPA.
- A project update was provided to stakeholders including regarding the alternatives and modifications assessed within the Preliminary Environmental Information Report (PEIR, 2021) Supplementary Information Report (SIR) (RED, 2022) as part of RED's second Statutory Consultation exercise (October to November 2022). It was also noted that the Oakendene substation had now been selected by RED.
- A review of the Section 42 comments received from Rampion 2's second Statutory Consultation exercise (October to November 2022), and progression of subsequent actions, was also provided, as well as a summary of publication of the PEIR and PEIR SIR reports (RED, 2021; 2022) and associated traffic counts.



- 2.3.13 Clarification was sought by the South Downs National Park Authority (SDNPA) regarding certain impacts on the South Downs National Park (SDNP), for example in relation to inter-site trips: it was clarified that these would be covered as part of the ES.
- An update in regards to surveys was provided at the meeting confirming that since November 2021 automatic traffic counter (ATC) surveys had been undertaken in April / May 2022 at a further four locations including:
  - Ferry Road;
  - Long Furlong;
  - A283; and
  - B2118.
- 2.3.15 It was confirmed at the meeting that Crossbush Lane had not been surveyed as the area was not expected to be impacted by the Proposed Development.
- 2.3.16 It was confirmed that an Outline Travel Plan would be prepared as part of the DCO Application submission and that further information would be provided in the ES in relation to access and visibility, including road safety audits and speed assessments.

## 21 February 2023

- A fourth ETG meeting for traffic and socio-economics was held on 21 February 2023. Attendance of key stakeholders was similar to that of the meeting held in November 2022.
- The transport section of the fourth ETG included an update on Rampion 2's second Statutory Consultation exercise (October to November 2022) including a review of comments received with respect to the PEIR SIR (RED, 2022). In addition, an update on the consultation process was provided, together with details on the preparation of the documents which would accompany the ES chapter within the DCO Application submission. It was outlined and agreed that the Traffic Generation Technical Note (Appendix 23.2: Traffic Generation Technical Note, Volume 4 of the ES (Document Reference: 6.4.23.2) would include a level of detail considered to be proportionate to the volume of traffic predicted to be generated by the Proposed Development.
- A request was made by SDNPA for further detail with regards to the port chosen to transport materials offshore; it was confirmed by RED that, at the time of the meeting, there was not a named port, and that one might not be included at the time of DCO Application submission. However, it was confirmed that the TGTN would include details of traffic to and from the port, depending on the level of detail available by the time of the DCO Application submission.

## 19 April 2023

2.3.20 On 19 April 2023, a follow-up meeting to expand upon issues raised in the February 2023 ETG was held via Microsoft Teams, attended by representatives from WSCC and NH.



- WSCC and NH provided feedback with regards to a number of proposed accesses to be used during construction and/or operation and maintenance. These included accesses at Michelgrove Lane, Longfurlong Lane and Tolmare Farm, all on the A280 Long Furlong. Stakeholders raised potential issues with large and / or slow-moving traffic using the accesses, particularly during the construction phase. In response, RED stated that further work would be undertaken to verify whether access use could be rationalised in cases where several accesses exist in close proximity.
- In order to facilitate the detailed design of proposed accesses, as well as the targeted assessment of impacts, consultees also requested further information about accesses' usage, particularly during the construction phase. RED proposed to provide further information based on which accesses would be the most heavily used during the construction phase.
- Speed surveys, road safety audits (RSAs) and Walking, Cycling and Horse-Riding Assessment and Reviews (WCHARs) were also discussed. It was agreed to assess the proposed usage and characteristics of the accesses in order to inform the potential need for the various surveys at each location.
- Previously agreement had been reached to use traffic data for a 5-year period. WSCC confirmed they were satisfied that this could include years during the COVID-19 pandemic related restrictions, however NH stated that the 5 years should exclude COVID-19 pandemic years. It was agreed that, in view of the extensive accident analysis already undertaken, targeted analysis for a further two-year period in proximity only of the proposed accesses would also be undertaken.
- 2.3.25 Stakeholders noted that the temporary construction compound site at Washington was proposed to be accessed from the inside of a bend. RED took note of this feedback, and confirmed this would be considered as part of the detailed design of the access.

#### 20 June 2023

- 2.3.26 On 20 June 2023, a further ETG meeting was held via Microsoft Teams, attended by representatives including from WSCC and NH.
- During this call, attendees were updated regarding progress on the application and the transport technical documents.

## 13 July 2023

- 2.3.28 On 13 July 2023, a targeted meeting was held with attendees from NH, SDNPA and WSCC.
- 2.3.29 Items discussed included progress made on the application, the transport technical documents, and the design of accesses.

## 20 July 2023

2.3.30 On 20 July 2023, a targeted meeting was held with attendees from NH, SDNPA and WSCC.



2.3.31 Items discussed included progress made on the application and its likely submission date, together with when the transport documents would be made available for review by consultees. Further discussion was held around speed surveys, visibility splays and road safety audits (RSAs). Appendix C includes a list of the RSA requirements.

## 2.4 Non-statutory consultation and further engagement

## Non-statutory consultation exercise – January/February 2021

2.4.1 RED carried out a consultation exercise for a period of four weeks from 14
January 2021 to 11 February 2021. This exercise aimed to engage with a range of stakeholders including the prescribed and non-prescribed consultation bodies, local authorities, Parish Councils, and general public with a view to introducing the Proposed Development and seeking early feedback on the emerging designs. One of the key themes from the non-statutory consultation exercise relating to the Outline CTMP was the need for traffic management during the construction phase and the capacity of the local roads. Capacity of local roads has been assessed within Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23) and junction capacity assessments were not deemed to be required by WSCC due to the negligible uplift in traffic at junctions.

## **West Sussex County Council (WSCC)**

- Following the non-statutory consultation exercise in February 2021, further engagement with WSCC was carried out in relation to local roads regarding specific issues related to access design and the use of the Design Manual for Road and Bridges (DMRB) and Manual for Streets (MfS) to inform the following:
  - access design;
  - types of accesses;
  - permanent operational accesses; and
  - visibility requirements.
- Details on access design and visibility requirements have been included in **Section 3** and **Section 4** sets out the details of the differing type of accesses associated with the Proposed Development.

# National Highways

2.4.4 Engagement has also been undertaken with National Highways (NH) with regards to the Strategic Road Network (SRN) on a range of topics. The key discussions in relation to the Outline CTMP have focused on the avoidance of direct effects on the SRN by limiting or avoiding new accesses to the network and the use of trenchless construction methods (for example HDD) to avoid the need for traffic management on the SRN. This Outline CTMP shows that NH comments have been addressed in that there are no new accesses proposed to the SRN and the SRN will be crossed by HDD so there are no surface impacts of the Proposed Development on the SRN.



The A27 Arundel Bypass is being promoted by NH. With no direct impacts of onshore elements of the Proposed Development across the proposed route of the A27 Arundel Bypass, the only effects of the onshore elements of the Proposed Development on the bypass will be the additional traffic generated during the construction phase. The Department for Transport (DfT) has confirmed that the A27 Arundel Bypass scheme will be deferred to Road Investment Strategy (RIS3) (covering 2025 to 2030) to allow time for stakeholders' views to be fully considered. The A27 Arundel Bypass therefore is not part of the baseline assessment but has been considered as part of the wider highway context.

## 2.5 Stakeholder Feedback

- The consultation and engagement feedback provided by the key stakeholders outlined above has informed the need for an Outline CTMP to accompany the DCO Application and helped inform this document.
- Further to this, WSCC submitted a number of requested amendments to the Outline CTMP as part of their Local Impact Report [REP1-046]. These requested amendments are detailed in Table 2-1 along with the subsequent update made to this Outline CTMP.



<u>Table 2-1 West Sussex County Council (WSCC) Local Impact Report (LIR) [REP1-046] responses and associated Outline CTMP updates</u>

WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
The three bullet points refer to matters to be agreed as part of Stage Specific Construction Traffic Management Plans. However, the subjects covered are matters that are included within and are understood to be agreed as part of the Outline Construction Traffic Management Plan.	Confirm where the matters covered within the three bullet points are to be agreed. If these matters are not being agreed as part of the OCTMP, this must be made quite clear within these documents.	The Outline Construction Traffic Management Plan [REP1- 010] will be updated at Deadline 3 to provide clarity on where information associated with each item is included within the Outline Construction Traffic Management Plan [REP1-010] for agreement.	Paragraph 1.2.5 has been removed to avoid confusion.
3.6.1 and 3.6.3  The 4-year construction programme quoted is contradicted within 3.6.3, which implies 4.5 years with further references to these being minimum durations.	Identify the duration of the construction programme	The anticipated worst-case total construction duration for all onshore infrastructure to be complete, operational and for full landscape reinstatement is approximately four years. This is detailed in Section 4.7 of Chapter 4: The Proposed Development, Volume 2 of the Environmental Statement [APP 045].	Additional wording added to Pparagraph 3.6.1 which is in accordance with Section 4.7 of Chapter 4: The Proposed Development, Volume 2 of the Environmental Statement [APP-0-45].



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
The final sentence of this paragraph concerning vehicle movements is noted. It is not apparent how this will be controlled, as once the construction access is in place, the presumption is that it will be used for all required purposes.	Intended use of individual construction accesses should be detailed as part of Stage Specific CTMPs. This requirement should be referenced in the OCTMP.	This is noted and the Applicant will update the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3 to reflect his request.	Additional wording added to Pparagraph 4.1.2 to state that the intended use of individual construction accesses will be detailed as part of sStage Sspecific CTMPs.
A.1.4  The intended use of the 'Light Construction Accesses' is noted. It should be clearly set out in the OCTMP that these accesses are not being used by HGVs. The design should not accommodate HGVs.	The OCTMP should include a restriction on the vehicles intended to use the 'Light Construction Accesses'.	This is noted and the Applicant will update the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3 to reflect his request.	Additional wording added to Pparagraph 4.1.3 and Paragraph 4.1.4 edited as requested.
4.4.1  The application of DMRB standards (intended for trunk roads) is not always necessary or desirable. Manual for Streets	The wording within this point should be altered to allow for flexibility in terms of the design standards to be applied.	This is noted and the Applicant will update the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3 to reflect his request.	Added Manual for Streets to Pparagraphs 4.4.1, 4.7.3 and 5.4.4 and Tables 4.2 and 4.3.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
may be more appropriate in certain lower speed locations.			
Those light construction accesses covered within the first bullet point will need to be identified as such, otherwise suitable visibility splays will be required. From 4.6.3, it is known which accesses will fall within this category.	The OCTMP and Stage Specific CTMPs are to identify those accesses that are to be used infrequently for the purposes of checking the progress of trenchless crossings.	This is noted and the Applicant will update the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3 to reflect his request.	The light construction accesses are identified in Pparagraph  4.6.3Additional text has been added to ensure that these are also identified as part of stage specific CTMPs.
As noted within 4.4.1, it is not always necessary or desirable to comply with the DMRB especially on lightly trafficked, low speed roads. Some flexibility should be included to enable other design standards to be applied in agreement with WSCC.	Additional wording is to be included to enable alternate design standards to be used in agreement with WSCC.	This is noted and the Applicant will update the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3 to reflect his request.	Added Manual for Streets to Pparagraphs 4.4.1, 4.7.3 and 5.4.4. As well as Tables 4.2 and 4.3.



# WSCC Local Impact Report Comment

#### **Recommended Action**

# Applicant's Response to WSCC Local Impact Report

# Applicant's amendment to the Outline CTMP

4.8.4

There are locations where it's questioned whether the necessary standard of visibility can be achieved due to constraints imposed by the existing road layout. The accesses have been further reviewed in Table 1a below.

The Applicant is to review visibility splays at all accesses and identify those locations where the required visibility splays cannot be achieved. If the necessary visibility splay standard cannot be met, the applicant will need to identify suitable alternate measures to safely manage traffic entering and exiting the access.

The Applicant is currently preparing preliminary designs for each of the proposed temporary construction compound locations (A-05, A-39 and A-63) and Oakendene substation (A-62), which will be designed in accordance with Design Manual for Roads and Bridges (DMRB) guidance and subject to an independent Road Safety Audit. The aim is to reach agreement in principle on the lavout of each of these access junctions prior to the end of the Examination. Noting, West Sussex County Council's comments 4.4.1 and 4.8.3, the Applicant will review all proposed access junctions to confirm the appropriate visibility splay standard for each location (DMRB or Manual for Streets) through an update to the **Outline Construction Traffic** Management Plan [REP1-010] at Deadline 3. The requirement for the implementation of traffic

The Applicant has reviewed all access junctions and confirmed the appropriate visibility splay standard in **Tables 4.2** and **4.3**.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
		management measures will be confirmed as part of stage specific Construction Traffic Management Plans as per Requirement 24 of the Draft Development Consent Order [PEPD-009].	
5.4.4, first and second bullet points The commitment to avoid major settlements where possible is welcomed. However, routing plans still show HGVs using the A272 through Cowfold and the A281 through Henfield. It is accepted that these -are A roads and therefore should be used over other road classifications and that it would be necessary for some HGVs to use these routes. It would be appropriate for the OCTMP to identify the scenarios (i.e. where materials are coming in from local sources or to access specific cable route -accesses) in which HGVs are permitted to	OCTMP to be updated to indicate appropriate use of routes by HGVs for given scenarios.	The Applicant will review this request and provide an update to the Outline Construction Traffic Management Plan [REP1- 010] at Deadline 3 where appropriate.	Additional text added to C-157 and C-158 to state that routing through Cowfold will only be for access A-56 and or A-57 or where use of locally sourced materials / equipment make its avoidance impracticable.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP

use routes particularly through Cowfold and Henfield, and situations where HGVs should not approach or leave via these routes (e.g. HGVs associated with the Oakendene substation)

#### 5.4.4, 6th bullet

It is not always necessary or desirable to comply with the DMRB especially on lightly trafficked, low speed roads.
Some flexibility should be included to -enable other design

Additional wording to be included to enable alternate design standards to be used in agreement with WSCC

This is noted and the Applicant will update the Outline
Construction Traffic
Management Plan [REP1-010]
at Deadline 3 to reflect this request.

Added Manual for Streets to
Pparagraphs 4.4.1, 4.7.3 and
5.4.4. As well as Table 4.2 and
Table 4.3.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
standards to be applied in agreement with WSCC.	·		·

#### 5.5.1, Table 5.2, number 1.

Reference is made to HGVs avoiding key settlements including the Cowfold AQMA. It is unclear what this means as the routing plans still indicate these routes being used without any controls or restriction. It is accepted in principle that some HGVs may need to use these routes given the lack of suitable alternatives.

# <u>Include more specific controls in</u> terms of routing

The Applicant will review this request and provide an update to the Outline Construction
Traffic Management Plan
[REP1- 010] at Deadline 3
where appropriate.

Additional wording added to

Table 5.2 point number 1,
specifying how traffic will avoid
Cowfold. Added wording to
match text amendments made
to Commitment C-158.

#### 8.2.6

The B2116 is indicated to be subject to traffic management whilst the cable is being installed. The draft DCO

Update the OCTMP and/or draft DCO to be consistent.

This is noted and the Applicant will update the Outline
Construction Traffic
Management Plan [REP1-010]

Additional text added to

Pparagraph 8.2.7 to include
temporary full road closure as a
traffic management option for
the B2116.



WSCC Local Impact Report	Recommended Action	Applicant's Response to	Applicant's amendment to
Comment	<u> </u>	WSCC Local Impact Report	the Outline CTMP
indicates the B2116 will be the subject of a road closure. The OCTMP and draft DCO contradict -each other.		at Deadline 3 to reflect his request.	
The wording seems to imply that the highway condition survey would apply only to the access point. The extent of the condition survey may need to cover a length of highway used to provide local access from a classified road through to a development access. The scope, -extent and requirement for any survey should be agreed with -WSCC. These requirements may vary from location to location.	The wording should be clearer to reflect that the scope and extent of any condition survey would need to be agreed with WSCC prior to works commencing.	The Applicant will review this request and provide an update to the Outline Construction Traffic Management Plan [REP1- 010] at Deadline 3 where appropriate.	Additional wording and detail added to Highway Condition Survey Section (Ssection (8.4.27 to 8.4.29).
8.4.23  Again, similar to 8.4.22, the extent of the restoration/making good would need to be agreed	The wording should be updated to reflect that additional works other than the restoration of temporary accesses may be	The Applicant will review this request and provide an update to the Outline Construction  Traffic Management Plan	Additional wording and detail added to Highway Condition Survey Section (Section 8.4.27 to 8.4.29).



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
on a site-by site basis. There may be further works to reinstate within the highway beyond just temporary accesses.	required once works are complete.	[REP1- 010] at Deadline 3 where appropriate.	
Appendix B, Figure 7.6.4b — Temporary Construction and Operational Accesses  A26 (construction and operational) makes use of Michelgrove Lane, a singletrack road. There are concerns in terms of how construction traffic would be managed along this route. The design of the Michelgrove Lane/A280 junction is limited and not suited to HGV movements. Concerns include the restricted visibility to both the north and south in light of the posted speed limit and the restricted kerb radii on the northern side, making it likely that exiting HGVs would	If this access is required, additional mitigation would be required to Michelgrove Lane. This could include HGVs laying up with drivers phoning ahead to ensure they will encounter no Rampion 2 vehicles exiting or arriving, or physical works to create passing places on Michelgrove Lane. Temporary traffic management measures would be required at the Michelgrove Lane/A280 junction to enable vehicles to safely exit. It is suggested that HGVs only turn left in and left out to minimise the impact of delivery traffic on A280 traffic flows.	The Applicant is currently reviewing traffic management options for the junction of A280 Long Furlong and Michelgrove Lane to facilitate the safe access and egress of construction traffic. These options will take account of traffic surveys being undertaken on the A280 Long Furlong and Michelgrove Lane, swept path analysis and visibility splay assessments. The outcomes of this review will be discussed with West Sussex County Council at the earliest opportunity with the aim of reaching an agreement in principle to the traffic management strategy.	A Traffic Management Strategy for access A-26 and A-28 has been produced as summarised in Section 8.4. The full Traffic Management Strategy is provided in Appendix D.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
overrun the centreline when exiting to the north.		This would then be secured through inclusion within an update to the Outline Construction Traffic Management Plan [REP1-010] which will be certified pursuant to Schedule 16 of the Draft Development Consent Order [PEPD-009], and a stage specific Construction Traffic Management Plan secured pursuant to requirement 24 (1) (a).	
Appendix B, Figure 7.6.4c – Temporary Construction and Operational Accesses.  A43 and A43a are indicated as providing construction access onto the A283. Visibility to the east appears restricted by the road alignment. Specific measures would be required to control and restrict vehicle movements. The track leading	Appropriate visibility splays would need to be demonstrated. Ideally traffic would arrive from the west and depart to the east thereby avoiding right turning traffic obstructing flows on the A283. Specific traffic management measures may be required if vehicles (HGVs) will be required to turn right. The existing access track would need to be widened.	Noting, West Sussex County Council's (WSCC) comment 4.4.1 and 4.8.3, the Applicant will review all proposed access junctions to confirm the appropriate visibility splay standard for each location (Design Manual for Roads and Bridges (DMRB) or Manual for Streets) through an update to the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3. Whilst it is noted that the	Additional wording added to Appendix A under Access- A- 43.  Additional wording added to Pparagraph 4.4.2 that traffic management measures will be included in stage specific CTMPs.  Reference also provided for the provision of a temporary 40mph



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
northwards from the access is singletrack.		requirement for the implementation of traffic management measures will be confirmed as part of stage specific CTMPs as per Requirement 24 of the Draft Development Consent Order [PEPD-009] the Applicant will include additional wording to reflect WSCC's comments within Appendix B of the Outline Construction Traffic Management Plan [REP1-010]. This will be included in an update to the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3.	speed limit on the A283 in Section 8.2.
Appendix B, Figure 7.6.4c – Temporary Construction and Operational Accesses  A46 (light construction and operational) is onto Spithandle Lane, a single -track road.	Measures will be required to manage, and ideally minimise, traffic using the single-track road.	Whilst it is noted that the requirement for the implementation of traffic management measures will be confirmed as part of stage specific Construction Traffic Management Plans (CTMPs) as per Requirement 24 of the Draft Development Consent Order	This request is not agreed. The access will be used by up to 1 LGVs over the course of the construction programme. Give the minor use traffic management will not be required.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
		[PEPD-009] the Applicant will include additional wording to reflect West Sussex County Council's comments within Appendix B of the Outline Construction Traffic Management Plan [REP1-010]. This will be included in an update to the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3.	
Appendix B, Figure 7.6.4d Temporary Construction and Operational Accesses  The access tracks leading from the B2135 at A56 and A57 (construction and operational) are narrow. This could cause vehicles to queue back onto the highway.	Passing places should be provided on the access tracks to enable two vehicles to pass. Alternately traffic management measures may be required to avoid conflicting movements.	At peak construction access A-56 will serve approximately 40 construction traffic movements per day (20 in and 20 out) or 3-4 vehicles per hour and access A-57 will serve approximately 44 construction traffic movements per day (22 in and 22 out) or 3-4 vehicles per hour. Based on these peak construction traffic flows, it therefore considered unlikely that vehicles will need to queue back onto the highway. Notwithstanding this and whilst	Additional wording added to Appendix A under Access A-56 and A-57.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
		the requirement for the implementation of traffic management measures will be confirmed as part of stage specific Construction Traffic Management Plans as per Requirement 24 of the Draft Development Consent Order [PEPD-009], the Applicant will include additional wording traffic management / passing place may be required within Appendix B of the Outline Construction Traffic Management Plan [REP1-010]. This will be included in an update to the Outline Construction Traffic Management Plan [REP1-010] at Deadline 3.	



# WSCC Local Impact Report Comment

#### **Recommended Action**

# Applicant's Response to WSCC Local Impact Report

# Applicant's amendment to the Outline CTMP

Appendix B, Figure 7.6.4d
Temporary Construction and
Operational Accesses

A67 (construction and operational) and A68 (construction) are both existing. There are no concerns with the accesses themselves, but measures will be required along Wineham Lane to mitigate the additional construction traffic. This may also require measures at the A272 Wineham Lane junction.

Measures will be required to control and avoid conflicting vehicle movements along Wineham Lane Additional measures should be included to assist exiting HGVs both at the Wineham Lane accesses but also at the A272 Wineham Lane junction. Signage may also be required to alert drivers on the A272 to the presence of exiting/turning HGVs. HGV movements should be timed to avoid the network peak hours where possible.

At peak construction the Proposed will generate approximately 40 heavy goods vehicle (HGV) movements per day, which is the equivalent of 3-4 vehicles per hour or one every 15-20 minutes. Based on these peak construction traffic estimates, it is unlikely that the majority of existing traffic will meet an HGV traveling between the A272 and construction site. It is also noted that Wineham Lane has a suitable carriageway width to allow general traffic to pass HGVs on the rare occurrences this occurs. Notwithstanding the above, the Applicant will review this request and provide an update to the **Outline Construction Traffic Management Plan [REP1-010]** at Deadline 3 where

appropriate.

Additional wording added to
Appendix A under Access A67 and A-68 to reference the
requirement for a temporary
40mph speed limit on Wineham
Lane, which is also included in
Section 8.2.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
Appendix B, Figure 7.6.6c  The plan indicates HGV routing along the A272 through  Cowfold from the west and using the A281 to the south.  Some HGV activity through  Cowfold is considered acceptable but in light of the Air Quality Management Area and existing traffic congestion, movements should be restricted. The majority of HGVs should arrive from the A23 to the east.	The plan should be updated to indicate HGV routing through Cowfold only where strictly necessary.	The Applicant will review this request and provide an update to the Outline Construction Traffic Management Plan [REP1- 010] at Deadline 3 where appropriate	Additional text added to C-157 and C-158 to state that routeing through Cowfold will only be for access A-56 and or A-57 or where use of locally sourced materials / equipment make its avoidance impracticable.  In addition, vehicles restrictions are now proposed within  Pparagraphs 8.4.18 to 8.4.21.  These will be implemented through the Delivery  Management System and use of bookable delivery slots.
Table 1b: Road Safety Audit Requirements		The Applicant notes these requirements and will update the Outline Construction  Traffic Management Plan  [REP1-010] at Deadline 3 to reflect this information. It should also be noted that the Applicant is currently preparing preliminary designs for each of the proposed compound locations (A-05, A-39 and A-63) and Oakendene substation (A-	Table 1b Road Safety Audit Requirements of the WSCC LIR have been added to -Appendix C of this Outline CTMP.



WSCC Local Impact Report Comment	Recommended Action	Applicant's Response to WSCC Local Impact Report	Applicant's amendment to the Outline CTMP
		62), which will be designed in accordance with Design Manual for Roads and Bridges (DMRB) guidance whilst a traffic management strategy is being developed for Kent Street (A-61 and A-64). Each of these will be subject to an independent Road Safety Audit. The aim is to reach agreement in principle on the layout and / or traffic management strategy of each of these access junctions prior to the end of the Examination.	



# 3. The onshore elements of the Proposed Development

## 3.1 Introduction

- The onshore elements of the Proposed Development will include the construction of an onshore cable corridor from landfall at Climping to a new onshore substation, at Oakendene near Cowfold, that will connect to the existing National Grid Bolney substation, Mid Sussex, via buried onshore cables and additional infrastructure at the existing National Grid Bolney substation to connect Rampion 2 to the National Grid electrical network.
- Figure 7.6.1, Appendix B sets out the onshore part of the proposed DCO Order Limits that has defined the scope of the Outline CTMP. The proposed DCO Order Limits includes for all the specific elements outlined of the onshore elements of the Proposed Development including temporary construction and operational accesses.
- A full overview of the onshore elements of the Proposed Development are outlined in **Chapter 4: The Proposed Development**, **Volume 2** of the ES (Document Reference: 6.2.4).

#### 3.2 Landfall

A landfall site is required at Climping. This will be accessed from Ferry Road by HGV and LGV traffic during both the Construction and Operational phases.

#### 3.3 Onshore cable corridor

- The onshore cable corridor will cover an approximate distance of 38.8km and the cable circuits will be buried along its entire length. For construction purposes, a nominal working width of up to 40m will be required for a majority of the onshore cable corridor, with some larger working areas required at key areas while constraints may restrict the working width in other areas.
- The onshore cable corridor commences at landfall and then crosses under the A259, rail network and River Arun via trenchless crossing before also crossing by trenchless method under the A27 near Crossbush. From here the onshore cable corridor will head northeast across the South Downs to Washington, West Sussex and under the A24 and A283 via a trenchless crossing. The onshore cable corridor continues northeast through a rural area and to new onshore substation at Oakendene, that will connect to the existing National Grid Bolney substation, Mid Sussex, via buried onshore cables Additional infrastructure at the existing National Grid Bolney substation is required to connect Proposed Development to the National Grid electrical network.
- The onshore cable corridor has numerous crossings of roads including Ferry Road, A259, A284, A27, A24, A283, Chanctonbury Ring Road, Spithandle Lane,



B2135, B2116, A281, King's Lane, Kent Street, and Wineham Lane. There is also one crossing of the River Arun and two crossings of the National Rail network west of Littlehampton and Wick. The onshore cable will be installed by trenchless crossing (e.g. HDD) to avoid major roads at specific locations, operating railway lines and watercourses. Details of the highways crossings are included in **Appendix 4.1: Crossing schedule, Volume 4** of the ES (Document Reference: 6.4.4.1).

## 3.4 Onshore substation and extension to the existing National Grid Bolney substation

The Proposed Development includes a new onshore substation, at Oakendene near Cowfold, that will connect to the existing National Grid Bolney substation, Mid Sussex, via buried onshore cables; and additional infrastructure at the existing National Grid Bolney substation to connect Rampion 2 to the National Grid electrical network.

## 3.5 Temporary Construction Compounds

- A number of temporary construction compounds (TCCs) will be required in support of the construction of the onshore elements of the Proposed Development. TCCs will store materials and plant as well as form a base for traffic travelling to and from the various construction site locations. The three TCCs which will serve the onshore elements of the Proposed Development are as follows:
  - Climping compound, off Church Lane;
  - Washington compound, north of Washington, West Sussex (accessed from A283); and
  - Oakendene west compound, west of the Oakendene Industrial Estate (accessed from A272).
- There are also two additional construction compounds associated with the new onshore substation at Oakendene and the extension works at the existing National Grid Bolney substation. All five TCC locations are shown in **Figure 7.6.2**.

## 3.6 Construction phase

- The anticipated worst-case total construction duration for all onshore infrastructure to be complete, operational and for landscape reinstatement is approximately four years. This is aligned with the construction programme detailed within Chapter 4:

  The Proposed Development, Volume 2 of the Environmental Statement [APP-045] and Appendix 23.2: Traffic Generation Technical Note, Volume 4 of the Environmental Statement [REP1-008].
- 3.6.1 The construction of the onshore elements of the Proposed Development is proposed to occur over an approximate four-year construction programme.
- During the construction phase, there will be several stages of onshore works and some of these will have effects on differing elements of the highways network at differing times. It is estimated that the peak of construction works will occur in



2026/2027/2028 as set out in **Chapter 23: Transport, Volume 2** of the ES (Document Reference: 6.2.23) and Chapter 32: ES Addendum, Volume 2 of the ES (Document Reference: 6.2.32) which has been submitted at the Deadline 1 submission.

- This comprises the onshore elements of the Proposed Development being built out in a single phase and all components built simultaneously, or overlapping across multiple components. Onshore construction works could result in a minimum duration of approximately 3.5 years allocated for the onshore substation (circa 3 years) and trenchless crossing compounds (circa 3.5 years) across an approximately 4.5 year period, although activities may be spatially distinct and will be preceded by pre-construction activities such as borehole investigations at trenchless crossing locations.
- As outlined in the Chapter 4: The Proposed Development, Volume 2 of the ES (Document Reference: 6.2.4) and Outline Code of Construction Practice (Document Reference: 7.2), indicative core working hours for the construction work and any construction-related traffic movements to or from onshore elements of the Proposed Development are as follows:
  - 08:00 to 18:00 hours Monday to Friday; and
  - 08:00 to 13:00 hours on Saturday.
- 3.6.53.6.4 No activity outside of these indicative hours, including on Sundays, public holidays, or bank holidays, apart from under the following circumstances:
  - where continuous periods (up to 24 hours, 7 days per week) of construction work are required for HDD<sup>2</sup>;
  - for other works requiring extended working hours such as concrete pouring which will require the relevant planning authority to be notified at least 72 hours in advance;
  - for the delivery of abnormal loads to the connection works, which may cause congestion on the local road network, and will require the relevant highway authority to be notified at least 72 hours in advance; or
  - as otherwise agreed in writing with the relevant planning authority.
- Prior to and following the core working hours Monday to Friday, a 'shoulder hour' for mobilisation and shut down will be applied (07:00 to 08:00 and 18:00 to 19:00). The activities permitted during the shoulder hours include staff arrivals and departures, briefings and toolbox talks, deliveries to site and unloading, and activities including site and safety inspections and plant maintenance. Such activities shall not include use of heavy plant or activity resulting in impacts, ground breaking or earthworks.

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<sup>&</sup>lt;sup>2</sup> HDD is a continuous activity and cannot be paused once started.



## 3.7 Operation and maintenance phase

This is an Outline CTMP which is focused on the construction phase only and although mentioned, no operation and maintenance effects are included.

## 3.8 Decommissioning phase

- The operational lifetime of the Proposed Development is assumed to be around 30 years. A decommissioning plan and programme will be developed prior to construction and updated during operation of Proposed Development to account for any changes to decommissioning best-practice and developments in technology.
- The decommissioning phase is anticipated to involve the removal of offshore infrastructure above the seabed, the removal and reinstatement of the Oakendene substation site and the extension to Bolney. The onshore cable will be left in situ during the decommissioning phase. The decommissioning works are likely to be undertaken in reverse to the sequence of construction works and involve similar levels of equipment but much reduced numbers of vehicles for decommissioning. Further detail will be provided in a Decommissioning Plan which will be prepared in advance of the decommissioning works.

## 3.9 Outline CTMP Study Area

- The Study Area in the Outline CTMP covers that presented in **Chapter 23:**Transport, Volume 2 of the ES (Document Reference: 6.2.23). The Study Area is outlined as **Figure 7.6.3**, **Appendix B**.
- The spatial scope of the Outline CTMP is based on the most probable routes for construction traffic generated by the onshore elements of the Proposed Development. The construction traffic generated covers the movement of deliveries, equipment and of construction staff. Identification of most probable construction routes takes into consideration the following:
  - restrictions such as weight and height limits;
  - advisory HGV routes as identified in the West Sussex Transport Plan 2022-2036 (WSCC 2011); and
  - suitability of routes based on a review of road types and widths.
- The Study Area includes for roads operated and maintained by WSCC and National Highways as local and strategic road authorities.



## 4. Proposed Access Strategy

#### 4.1 Overview

- During the construction phase of the onshore elements of the Proposed Development, temporary construction access will be required both onto and from the public highway network. There will also be a requirement for permanent access during the operation and maintenance phase to allow routine maintenance and inspection of the onshore elements of the Proposed Development. The management of accesses used during the construction phase are covered within this Outline CTMP.
- Different temporary construction and operational access designs are proposed across the onshore elements of the Proposed Development which will reflect the volume of movements as well as the physical size of the vehicles anticipated to use the respective access points. The construction phase access points will not all be accesses that will attract significant amounts of traffic. The intended use of individual construction accesses will be detailed as part of Stage Specific CTMPs, which will be developed in compliance with this Outline CTMP as secured by Requirement 24 of the Draft Development Consent Order [REP2-002].
- Therefore, there are two types of construction access, "Construction Accesses" and "Light Construction Accesses." The Construction Accesses provide access to trenchless crossing (e.g. HDD) sites, onshore cable sites, TCCs, the new Oakendene onshore substation, existing National Grid Bolney substation extension works and the landfall site and will need to be operational for longer periods of time with more significant numbers of arrivals and departures over the construction phase. The Light Construction Accesses will not be designed to accommodate HGVs.
- The Light Construction Accesses will only need to be accessed by a small number of light construction vehicles (and not HGVs) usually no larger than vans and light goods vehicles) during the construction phase. Light construction accesses will be to work sites where only minor construction works are needed such as access to fields to monitor the direction of trenchless crossing drilling.
- It should also be noted that some construction access types are also locations where permanent access is required for a maintenance right. To this end, there are four types of temporary construction accesses required for the onshore elements of the Proposed Development which are as follows:
  - temporary construction access only for all types of construction traffic;
  - temporary construction and operational access a temporary construction access for all types of construction traffic with future operational use;
  - light temporary construction access only <u>access a temporary construction</u> access with light construction vehicles only;
  - light temporary construction and operational access a temporary construction access with light construction vehicles only with future operational use; and



- There are an additional 21 accesses which will be included for operational access only. Operational accesses will provide access to the onshore elements of the Proposed Development for maintenance during the operational phase. As these operational accesses will not be used during the construction phase, they are referenced but not considered further in this Outline CTMP.
- On this basis, it is not appropriate to have a single standard of access arrangement for the different access types. Therefore, a proposed hierarchy of temporary construction access designs has been developed, details of which are set out in **Section 4.3** onwards.
- Lt is also noted that, as set out in Table 4-1 below, certain routes are identified for use by light construction vehicles specifically, while others can be used by all construction vehicles.
- 4.1.8

  As part of WSCC's Local Impact Report [REP1-046], a recommendation was provided on the requirement and timing of Road Safety Audits of construction access junctions associated with the Proposed Development. Noting that the detailed of construction accesses will primarily be completed during detailed design as part of stage specific CTMPs, these recommendations have been incorporated into this Outline CTMP as outlined in Appendix C.

# 4.2 Location of proposed temporary construction and operational accesses

During the construction phase, temporary construction and operational access is required across the onshore elements of the Proposed Development which spans a large geographical area across West Sussex. Temporary construction and operational access will be from a range of A, B and C/Unclassified roads as appropriate to provide access to all locations of the onshore elements of the Proposed Development. **Figure 7.6.4, Appendix B** shows all temporary operational and construction access locations. Table 4-1 sets each of the temporary construction and operational accesses including identification (ID) numbers, the type of access required, whether it is new or existing and grid reference. The visibility splays for each access are outlined in **Section 4.7**.

Table 4-14-1 Temporary construction and operational accesses

Access ID*	Type of access	New / Existing	Grid Reference
A-01	Construction & operational	Existing	50.80732, -0.56318
A-02	Light construction	Existing	50.80788, -0.5603
A-03	Light construction	Existing	50.80804, -0.56773
A-04	Operational	Existing	50.80684, -0.57485



Access ID*	Type of access	New / Existing	Grid Reference
A-05	Construction & operational	New	50.81069, -0.57675
A-06	Operational	Existing	50.81141, -0.57712
A-08	Light construction	Existing	50.8178, -0.55939
A-09	Construction & operational	Existing	50.81842, -0.55905
A-10	Operational	Existing	50.82006, -0.55775
A-11	Operational	Existing	50.83099, -0.54532
A-12	Construction	New	50.83135, -0.54536
A-13	Construction & operation	Existing	50.83099, -0.54513
A-14	Light construction & operational	Existing	50.83332, -0.54073
A-15	Construction & operational	Existing	50.83239, -0.53848
A-16	Construction & operational	New	50.83254, -0.53772
A-17	Operational	Existing	50.8382, -0.51546
A-18	Operational	Existing	50.8382, -0.51535
A-20	Light Construction	Existing	50.84103, -0.49522
A-21	Construction	New	50.84179, -0.49237
A-22	Construction	Existing	50.84143, -0.48742
A-23	Operational	Existing	50.84147, -0.48595
A-24	Light construction & operational	Existing	50.84343, -0.47936
A-25	Light construction & operational	Existing	50.85594, -0.51543



Access ID*	Type of access	New / Existing	Grid Reference
A-26	Construction & operational	Existing	50.85482, -0.44965
A-27	Operational	Existing	50.863192410449884, - 0.4478784667599155
A-28	Construction	Existing	50.86838, -0.42352
A-29	Operational	Existing	50.87716, -0.41031
A-30	Operational	Existing	50.90498, -0.44822
A-31	Operational	Existing	50.90631, -0.4387
A-32	Operational	Existing	50.9126, -0.42823
A-33	Construction	New	50.91176, -0.42453
A-34	Operational	Existing	50.91046, -0.41773
A-35	Construction	New	50.91036, -0.41521
A-36	Operational	Existing	50.90445, -0.4125
A-37	Light construction	New <u>Existing</u>	50.90577, -0.40732
A-38	Light construction	Existing	50.90673, -0.40546
A-39	Construction & operational	Existing	50.90613, -0.40214
A-40	Construction & operational	Existing	50.90673, -0.39651
A-41	Construction & operational	Existing	50.909, -0.38736
A-42	Construction & operational	Existing	50.90971, -0.37919
A-43	Construction & operational	Existing	50.90961, -0.36387
A-43a	Construction	Existing	50.91072, -0.36418



Access ID*         Type of access         New / Existing         Grid Reference           A-43b         Operational         Existing         50.91079, -0.36433           A-44         Operational         Existing         50.92003, -0.35335           A-45         Operational         Existing         50.92166, -0.34693           A-46         Light construction & operational operational         Existing         50.92419, -0.32463           A-47         Construction & operational         Existing         50.9221, -0.32463           A-48         Construction & operational         Existing         50.94145, -0.31486           A-49         Light construction & Existing         50.94767, -0.3065           A-50         Construction & operational         Existing         50.94767, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94767, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96072, -0.29179           A-55         Operational         Existing				
A-44         Operational         Existing         50.92003, -0.35335           A-45         Operational         Existing         50.92166, -0.34693           A-46         Light construction & operational         New         50.92419, -0.33472           A-47         Construction & operational         Existing         50.9221, -0.32463           A-48         Construction & operational         Existing         50.9336, -0.32152           A-49         Light construction & operational         Existing         50.94145, -0.31486           A-50         Construction & operational         Existing         50.94791, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94767, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96754, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96761, -0.27975           A-56         Construction & operational         Existing <th>Access ID*</th> <th>Type of access</th> <th>New / Existing</th> <th>Grid Reference</th>	Access ID*	Type of access	New / Existing	Grid Reference
A-45         Operational         Existing         50.92166, -0.34693           A-46         Light construction & operational         New operational         50.92419, -0.33472           A-47         Construction & operational         Existing         50.9221, -0.32463           A-48         Construction & operational         Existing         50.9336, -0.32152           A-49         Light construction & operational         Existing         50.94145, -0.31486           A-50         Construction & operational         Existing         50.94791, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94767, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational </th <th>A-43b</th> <th>Operational</th> <th>Existing</th> <th>50.91079, -0.36433</th>	A-43b	Operational	Existing	50.91079, -0.36433
A-46         Light construction & operational         New operational         50.92419, -0.33472           A-47         Construction & operational         Existing         50.9221, -0.32463           A-48         Construction & operational         Existing         50.9336, -0.32152           A-49         Light construction & perational         Existing         50.94145, -0.31486           A-50         Construction & operational         Existing         50.94791, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94767, -0.30546           A-51         Operational         Existing         50.94772, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96075, -0.29701           A-54         Operational         Existing         50.96076, -0.28852           A-55         Operational         Existing         50.96076, -0.28852           A-56         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational	A-44	Operational	Existing	50.92003, -0.35335
A-47         Construction & operational         Existing         50.9221, -0.32463           A-48         Construction & operational         Existing         50.9336, -0.32152           A-49         Light construction & operational         Existing         50.94145, -0.31486           A-50         Construction & operational         Existing         50.94791, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94772, -0.30546           A-51         Operational         Existing         50.94772, -0.30546           A-52         Construction & operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.96157, -0.29367           A-53         Construction         Existing         50.96072, -0.29370           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96076, -0.28852           A-56         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.98084, -0.25061           A-60         Operational         Existing <th>A-45</th> <th>Operational</th> <th>Existing</th> <th>50.92166, -0.34693</th>	A-45	Operational	Existing	50.92166, -0.34693
A-48         Construction & operational         Existing         50.9336, -0.32152           A-49         Light construction & operational         Existing         50.94145, -0.31486           A-50         Construction & operational         Existing         50.94791, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94772, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96076, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.98873, -0.27936           A-58         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98004, -0.25009           A-61         Construction & operational         New	A-46	•	New	50.92419, -0.33472
A-49         Light construction & operational         Existing         50.94145, -0.31486           A-50         Construction & operational         Existing         50.94791, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94772, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96873, -0.27936           A-57         Construction & operational         Existing         50.98873, -0.27936           A-58         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98957, -0.25742	A-47	Construction & operational	Existing	50.9221, -0.32463
A-50         Construction & operational         Existing         50.94791, -0.3065           A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94772, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98957, -0.25742	A-48	Construction & operational	Existing	50.9336, -0.32152
A-50a         Construction         Existing         50.94767, -0.30563           A-50b         Operational         Existing         50.94772, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-49	•	Existing	50.94145, -0.31486
A-50b         Operational         Existing         50.94772, -0.30546           A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-50	Construction & operational	Existing	50.94791, -0.3065
A-51         Operational         Existing         50.95324, -0.30743           A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-50a	Construction	Existing	50.94767, -0.30563
A-52         Construction & operational         Existing         50.95594, -0.28367           A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-50b	Operational	Existing	50.94772, -0.30546
A-53         Construction         Existing         50.96157, -0.29701           A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-51	Operational	Existing	50.95324, -0.30743
A-54         Operational         Existing         50.96072, -0.29179           A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-52	Construction & operational	Existing	50.95594, -0.28367
A-55         Operational         Existing         50.96056, -0.28852           A-56         Construction & operational         Existing         50.96761, -0.27975           A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-53	Construction	Existing	50.96157, -0.29701
A-56       Construction & operational       Existing       50.96761, -0.27975         A-57       Construction & operational       Existing       50.96873, -0.27936         A-58       Operational       Existing       50.97862, -0.27852         A-59       Operational       Existing       50.98008, -0.25061         A-60       Operational       Existing       50.98064, -0.25009         A-61       Construction & operational       New       50.98494, -0.24674         A-62       Construction       Existing       50.98957, -0.25742	A-54	Operational	Existing	50.96072, -0.29179
A-57         Construction & operational         Existing         50.96873, -0.27936           A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-55	Operational	Existing	50.96056, -0.28852
A-58         Operational         Existing         50.97862, -0.27852           A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-56	Construction & operational	Existing	50.96761, -0.27975
A-59         Operational         Existing         50.98008, -0.25061           A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-57	Construction & operational	Existing	50.96873, -0.27936
A-60         Operational         Existing         50.98064, -0.25009           A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-58	Operational	Existing	50.97862, -0.27852
A-61         Construction & operational         New         50.98494, -0.24674           A-62         Construction         Existing         50.98957, -0.25742	A-59	Operational	Existing	50.98008, -0.25061
<b>A-62</b> Construction Existing 50.98957, -0.25742	A-60	Operational	Existing	50.98064, -0.25009
,	A-61	Construction & operational	New	50.98494, -0.24674
A-63 Construction & operational New 50.99104, -0.24763	A-62	Construction	Existing	50.98957, -0.25742
	A-63	Construction & operational	New	50.99104, -0.24763



Access ID*	Type of access	New / Existing	Grid Reference
A-64	Construction & operational	Existing	50.98917, -0.24653
A-65	Operational	Existing	50.98235, -0.23342
A-66	Light construction & operational	New	50.98069, -0.2348
A-67	Construction & operational	Existing	50.98023, -0.23523
A-68	Construction	Existing	50.97613, -0.23849
A-69	Operational	Existing	50.97571, -0.23872

<sup>\*</sup>The accesses on the list in the table are not consecutive as some accesses previously identified have been removed as the Proposed Development design has been refined.

- In developing the temporary construction access strategy, a balance has been struck between the need to access each construction location, and over-provision of new accesses onto the highway network, and/or providing numerous accesses onto the same section of road. To satisfactorily address this requirement, a haul road is proposed along large sections of the cable corridor, linking numerous construction sites, particularly over the South Downs where access is restricted.
- The temporary construction and operational access designs differ dependent on the construction activity and the type and size of vehicle requiring access, further details of which are provided in **Section 4.3**.

# 4.3 Standard temporary construction and operational access design / hierarchy

The design of the accesses to the onshore elements of the Proposed Development has developed in line with stakeholder consultation and a better understanding of the number of movements that will use each temporary construction access and the size of the vehicles that will be use them. This has enabled a final identification of the four types of temporary construction access (paragraph 4.1.5) considered appropriate for each access point. Access designs will be implemented to provide temporary construction access points of appropriate size and standard. A brief overview of each temporary construction access type is provided further in **Section 4.4** onwards.

## 4.4 Temporary construction accesses

Temporary construction accesses will be designed to follow standard construction practice (DMRB or Manual for Streets (MfS)) and to meet the relevant WSCC requirements as detailed in the following Section. The specific access arrangements for temporary construction accesses have been discussed with WSCC for the local highway network, so that detailed measures at each access



can be agreed in the stage specific CTMP. All vehicle types will be able to use this access.

- Following discussions with WSCC in the development of this Outline CTMP (set out in **Section 2**), agreement has been reached for temporary construction access requirements for the use of existing tracks / farm accesses and where access is taken from the end of the publicly maintainable highway (before it becomes a private road / access). Details of temporary construction access requirements which have been discussed with WSCC are as follows:
  - Where it is proposed to use existing tracks / private farm accesses which are already provided with suitable visibility splays, no changes to the existing access layouts will be made but the access will be supplemented with traffic management and signage.
  - Where it is proposed to use existing field gate accesses or farm tracks where
    there is no existing visibility splay, a visibility splay will be provided through the
    medium of coppicing (to below 1m as set out in DMRB Figure 3.3 (Standards
    for Highways, 2021)). At this stage, these visibility splays have been provided
    to design standards for the speed limit of the road and not aligned to DMRB
    CD123 Figure 3.3 "Direct Accesses" (Standards for Highways, 2021).
  - Where it is proposed to use an existing field gate access or farm tracks where there are no existing visibility splays or where visibility splays are not appropriate (for example for ecological reasons such as the presence of woodlands) then these will be managed though traffic management <a href="measures which will be confirmed in the Stage Specific CTMPs">measures which will be confirmed in the Stage Specific CTMPs</a>. There are two temporary construction accesses in this category and these are the only locations where temporary speed limit reductions will be considered.
  - Where temporary construction access is taken from the end of a highway leading directly into a private farm track there will not be a need for a visibility splay.
  - Where a new temporary construction access is proposed, a standard bell mouth access design appropriate to the vehicles using it will be used with implementation of a visibility splay appropriate expected vehicles speeds.
  - Post-construction temporary construction accesses will be removed or reinstated to existing layouts / condition.
- Temporary construction accesses have been appraised though a desktop review and site visit. An overview of the temporary construction accesses and their locations are provided in an access proforma included within **Appendix A**. There are 11 temporary construction accesses for all types of vehicle included in the Proposed Development.

## 4.5 Temporary construction and operational accesses

There is one access, A-63 at the onshore substation, that will be newly built for construction and retained as an operational access. This will be designed to the same standards as detailed in **Section 4.4** and post-construction some or all elements of the access design will be retained, to enable access during the



- operation and maintenance phase. All vehicle types will use this access during construction phase.
- Temporary construction and operational accesses have been appraised though a desktop review and an overview of the temporary construction and operational accesses and their locations are provided in an access proforma included within in **Appendix A**. There are 22 temporary construction and operational accesses included in the Proposed Development. It is noted any works undertaken to facilitate improvements for temporary construction access will be removed and the land reinstated, except in the instance of A-63.

## 4.6 Temporary light construction accesses

- Where less intensive site work related to the proposed infrastructure is being undertaken as part of the onshore elements of the Proposed Development, light temporary construction access designs will be implemented. Following engagement with WSCC, agreement has been reached for the provision of light temporary construction accesses. WSCC has agreed:
  - light temporary construction accesses are where access is needed for a small number of light vehicles such as the occasional van for workers to check progress of trenchless crossing (e.g., HDD), there is no requirement to implement visibility splays as these are likely to be rarely used; and
  - for light temporary construction accesses where access is taken from the end
    of a highway leading directly into a private farm track there will not be a need
    for a visibility splay.
- Post-construction these light temporary construction accesses will be removed or reinstated to existing layouts / condition.
- There are six light construction access included in the Proposed Development namely A-02, A-03, A-08, A-20, A-37 and A-38. These light construction accesses will be identified within stage specific CTMPs in accordance with the Outline CTMP as required by Requirement 24 of the -Draft Development Consent Order [REP2-002].
- 4.6.44.6.3 Temporary light construction and operational accesses
- 4.6.54.6.4 Light temporary construction accesses with a requirement for future operational use will be designed to the same standards as light temporary construction accesses as detailed in **Section 4.6**. Post-construction some or all elements of the access design will be retained to provide access during the operation and maintenance phase of the Proposed Development. There are six light temporary construction and operational accesses included in the Proposed Development namely A-14, A-24, A-25, A-46, A-49 and A-66.

## **Proposed DCO Order Limits and visibility standards**

4.6.64.6.5 Each of the identified temporary construction and operational accesses has been included in the proposed DCO Order Limits. The proposed DCO Order Limits includes access tracks to the adopted public highway with an allowance for a temporary construction access as well as any required visibility splays, so that any



clearance required to achieve these splays can be undertaken. It is assumed that coppicing of hedgerows that may be required to facilitate temporary construction accesses can be achieved from the carriageway under traffic management as with standard farm hedgerow maintenance.

4.6.74.6.6 The visibility splays applied have been based on the guidance and standards set out the in DMRB (Standards for Highways 2020 and 2021), MfS (2007) and Table 4-2. Within the proposed DCO Order Limits, these visibility standards have been taken for the speed limit of the roads on which the temporary construction and operational accesses join thus providing a robust assessment.

4.6.84.6.7 **Table 4-2** sets out the stopping sight distances based on design speed of the road which are used to determine the visibility "y" distance. The "y" distance is the distance along the carriageway from the temporary construction and operational access in either direction that can be seen.

Table 4-2 Visibility standards

Design Speed of Road (Kph)	Signed Speed Limit of Road (Mph)	<u>DMRB</u> Visibility "y" distance (m)	MfS Visibility "y" distance (m)*
50	20	70	<u>25</u>
60	30	90	<u>43</u>
70	40	120	<u>65</u>
85	50	160	<u>z</u>
100	60	215	5
120	70	295	Ξ

<sup>\*</sup> This y distance accounts for bonnet length typically 2.4m,

distance (the setback distance from the edge of the existing carriageway) of 2.4m (Standards for Highways, 2021) and a "y" distance as set out in **Table 4-2** based on the speed limit of the road. These visibility splays have been provided for all temporary construction accesses with the exception of light construction accesses, noting that it has been agreed with WSCC that implementation of visibility splays is not required at these locations owing to their very occasional use (see **Section 4.6**).

4.6.104.6.9 **Table 4-3** below shows the visibility splay required for each of the accesses (excluding light construction accesses).



Table 4-3 Access Visibility Splays

Access	Туре	Speed limit (mph)	"y" Distance (m) (based on speed limit)	Guidance: MfS or DMRB
A-01	Construction & operational	60	215	<u>DMRB</u>
A-04	Operational	30	<del>90</del> 43	<u>MfS</u>
A-05	Construction & operational	40	<del>120</del> 65	<u>MfS</u>
A-06	Operational	40	<del>120</del> 65	<u>MfS</u>
A-09	Construction & operation	60	215	<u>DMRB</u>
A-10	Operational	60	215	<u>DMRB</u>
A-11	Operational	30	<del>90</del> 43	<u>MfS</u>
A-12	Construction	30	<del>90<u>43</u></del>	<u>MfS</u>
A-13	Construction & operational	30	<del>90<u>43</u></del>	MfS
A-14	Light construction & operational	30	<del>90<u>43</u></del>	<u>MfS</u>
A-15	Construction & operational	50	160	<u>DMRB</u>
A-16	Construction & operational	50	160	<u>DMRB</u>
A-17	Operational	60	215	<u>DMRB</u>
A-18	Operational	60	215	<u>DMRB</u>
A-21	Construction	70	295	<u>DMRB</u>
A-22	Construction	70	295	<u>DMRB</u>
A-23	Operational	30	<del>90<u>43</u></del>	<u>MfS</u>



Access	Туре	Speed limit (mph)	"y" Distance (m) (based on speed limit)	Guidance: MfS or DMRB
A-24	Light construction & operational	30	9043	MfS
A-25	Light construction & operational	60	215	<u>DMRB</u>
A-26	Construction & operational	60	215	<u>DMRB</u>
A-27	Operational	60	215	<u>DMRB</u>
A-28	Construction	60	215	<u>DMRB</u>
A-29	Operational	70	295	<u>DMRB</u>
A-30	Operational	30	<del>90</del> 43	<u>MfS</u>
A-31	Operational	60	215	<u>DMRB</u>
A-32	Operational	40	<del>120</del> 65	<u>MfS</u>
A-33	Construction	40	<del>120</del> 65	MfS
A-34	Operational	40	<del>120</del> 65	MfS
A-35	Construction	40	<del>120</del> 65	MfS
A-36	Operational	70	295	<u>DMRB</u>
A-39	Construction & operational	50	160	<u>DMRB</u>
A-40	Construction & operational	50	160	<u>DMRB</u>
A-41	Construction & operational	50	160	<u>DMRB</u>
A-42	Construction & operational	60	215	<u>DMRB</u>
A-43	Construction & operational	60	215	<u>DMRB</u>
A-44	Operational	60	215	<u>DMRB</u>



	Access	Туре	Speed limit (mph)	"y" Distance (m) (based on speed limit)	Guidance: MfS or DMRB
		•			
	A-45	Operational	60	215	<u>DMRB</u>
	A-46	Light construction & operational	60	215	<u>DMRB</u>
	A-47	Construction & operational	60	215	<u>DMRB</u>
	A-48	Construction & operational	30	<del>90</del> 43	<u>MfS</u>
	A-49	Light construction & operational	60	<del>215</del> 65*	MfS DMRB
	A-50	Construction & operational	60	215	<u>DMRB</u>
	A-50a	Construction	60	215	<u>DMRB</u>
	A-50b	Operational	60	215	<u>DMRB</u>
	A-51	Operational	60	215	<u>DMRB</u>
	A-52	Construction & operational	40	<del>120</del> 65	<u>MfS</u>
	A-53	Construction	40	<del>120</del> 65	<u>MfS</u>
	A-54	Operational	40	<del>120</del> 65	<u>MfS</u>
	A-55	Operational	40	<del>120</del> 65	<u>MfS</u>
	A-56	Construction & operational	60	215	<u>DMRB</u>
	A-57	Construction & operational	60	215	<u>DMRB</u>
<u>'</u>	A-58	Operational	60	215	<u>DMRB</u>
	A-59	Operational	60	215	<u>DMRB</u>



Access	Туре	Speed limit (mph)	"y" Distance (m) (based on speed limit)	Guidance: MfS or DMRB
A-60	Operational	60	215	<u>DMRB</u>
A-61	Construction & operational	60	215	<u>DMRB</u>
A-62	Construction	60	<del>215</del> 43**	<u>MfS</u>
A-63	Construction & operational	60	215	<u>DMRB</u>
A-64	Construction & operational	60	<u>43215**</u>	<u>MfS</u>
A-65	Operational	60	215	<u>DMRB</u>
A-66	Light construction & operational	60	215	<u>DMRB</u>
A-67	Construction & operational	60	215	<u>DMRB</u>
A-68	Construction	60	215	<u>DMRB</u>
A-69	Operational	60	215	<u>DMRB</u>

<sup>\*</sup>MfS visibility splays to be applied on the anticipated maximum speed on Spithandle Lane in vicinity of construction access being 40mph.

### 4.7 Vehicle classification

A number of vehicle types will be used for the construction of the onshore elements of the Proposed Development. **Table 4-4** provides a list of the classification of vehicles required during construction of the onshore elements of the Proposed Development. -Light Goods Vehicles (LGVs) refers to Goods Vehicles which are less than 3.5 tonnes (T) and Heavy Goods Vehicles (HGVs) refers to Good Vehicles that are heavier than 3.5 T.

<sup>\*\*</sup>MfS visibility splay to be based upon 85<sup>th</sup> percentile traffic speed of 30 mph recorded on Kent Street as part of the Enso Battery Storage System CTMP.



Table 4-4 Vehicle classifications

Light Goods Vehicles (LGVs)	Heavy Goods Vehicles (HGVs)
Car	Trucks > 7.5T, e.g. 40T tipper
Minibus	Grab Wagons
4x4 pick up	Flatbed HGV
Transit Type Van	Articulated HGVs
Mini HIAB (crane truck)	Crane
Tractor	AILs
Towed Elements	Excavator
All-Terrain Vehicles (ATVs)	2 or 2 axle truck with HIAB
	Concrete Mixers

- The list of vehicle types provided in **Table 4-4** is not exhaustive and has been based on projects of a similar type / scale / complexity.
- 4.7.3 Construction machinery and onsite plant, vehicles and generator fuel tanks will be re-fuelled on site.

#### 4.8 Abnormal Indivisible Loads

- During the construction phase, there is a requirement for delivery of large loads to the onshore substation, for example transformers. These are Abnormal Indivisible Loads (AILs).
- Given the breadth of assessment required, the movement of AILs has been presented and assessed in **Chapter 23: Transport, Volume 2** of the ES (Document Reference: 6.2.23) and **Appendix 23.1: Abnormal Indivisible Load assessment, Volume 4** of the ES (Document Reference: 6.4.23.1).



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## 5. HGV Access Strategy

#### 5.1 Introduction

The onshore elements of the Proposed Development require construction HGVs to access numerous site accesses within urban and rural environments. Both these environments have challenges to construction HGV access. Urban area HGV routes bring construction HGVs into high traffic volume areas which are used by pedestrians wishing to cross the carriageway where there may be highway safety issues. The rural environment has roads that are less suitable for HGV traffic such as single track roads or roads with poor visibility. To address potential limitations presented by both urban and rural HGV routing, an HGV Access Strategy has been developed within **Section 5.2** for implementation during the construction of the onshore elements of the Proposed Development.

## 5.2 HGV Access Strategy

- To aid development of this HGV Access Strategy, two types of routes have been considered as follows:
  - Strategic The strategic element of this HGV Access Strategy uses the SRN
    which links the wider UK highway network with the transport study area for the
    onshore elements of the Proposed Development. The A27 and A23 are the key
    SRN routes taken into consideration in this HGV Access Strategy and these
    routes are operated by National Highways; and
  - Local Local elements of the HGV Access Strategy are A/B/C/Unclassified roads that link from the SRN to each of the proposed temporary construction and operational accesses. The local roads taken into consideration in this HGV Access Strategy are all public highways managed by WSCC ranging from A roads to single track rural roads.
- Access to each of the temporary construction accesses will utilise strategic elements of the highways network as far as possible before routing onto the local highway network.

## 5.3 Strategic Road Network access

- The A27 and A23 are two roads as part of the Strategic Road Network (SRN) that link the wider UK highways network to the study area and local roads. The A27 routes between Pevensey in East Sussex to Cosham, Portsmouth where the A27 becomes the M27. The A27 connects numerous coastal towns along the south coast as well as connecting the cities of Portsmouth and Brighton. Within the Study Area, the A27 has key junctions with the local road network at several locations:
  - A27/A284 access to areas west of Littlehampton;
  - A27/A280 access to Washington and the South Downs;



- A27/A24 access to Washington and the South Downs;
- A27/A283 access to Washington and the South Downs; and
- A27/A23 access to areas west of the A23.
- 5.3.2 The A23 routes from the M23 south of Crawley to the A27 on the northern periphery of Brighton. Within the proposed development study area the A23 has junctions with two major roads including:
  - A23/A27 access to areas west of the A23; and
  - A23/A272 access to areas north of the South Downs.
- From these two key strategic routes, there are four strategic access routes into the study area:
  - A23 north strategic access route;
  - A23 south strategic access route;
  - A27 west strategic access route; and
  - A27 east strategic access route.
- The strategic access routes described are illustrated in **Figure 7.6.5**, **Appendix B**.

#### 5.4 Local access

- From the SRN are a series of access routes on local roads that would provide HGV access to the temporary construction accesses of the onshore elements of the Proposed Development.
- 5.4.2 These local access routes have been considered based on the following:
  - height restrictions;
  - weight restrictions;
  - road classification;
  - road layout;
  - existing pedestrian crossing facilities;
  - existing traffic calming measures;
  - sensitive receptors adjacent to the public highway;
  - visibility constraints;
  - speed limits and traffic speeds;
  - areas prone to congestion;
  - significant changes in gradient; and
  - presence vulnerable road users (pedestrians, cyclists, and equestrians).



- 5.4.3 Where some of these considerations exist on the several local access roads and they could not all be avoided the HGV Access Strategy has considered the routes with the least of these considerations which has informed the development of the HGV Access Strategy.
- Based on the considerations outlined above, relevant embedded environmental measures outlined in **Chapter 23: Transport, Volume 2** of the ES (Document Reference: 6.2.23) and the **Commitments Register** (Document Reference: 7.22) have been incorporated into the routing of the onshore elements of the Proposed Development as follows:
  - C-157 The proposed HGV routing during the construction period to individual
    accesses will be developed to avoid major settlements such as Storrington,
    Cowfold, Steyning, Wineham, Henfield, Woodmancote and other smaller
    settlements where possible. For Cowfold, this means that HGVs will only route
    through the village centre for trips related to accesses A-56 or A-57 or where
    use of locally sourced materials / equipment make its avoidance impracticable;
  - C-158 The proposed HGV routing during the construction period to individual accesses will avoid the Air Quality Management Area (AQMA) in Cowfold where possible. This means that HGVs will only route through the village centre for trips related to accesses A-56 or A-57 or where use of locally sourced materials / equipment make its avoidance impracticable;
  - C-159 The proposed HGV routing during the construction period to individual accesses will avoid the A24 through Findon as advised from the WSCC Freight Action Plan where possible;
  - C-162 Public Rights of Way (PRoWs) that cross the onshore cable corridor will be managed or diverted over the shortest distance possible with potential to provide adjacent crossings;
  - C-163 Public Rights of Way (PRoWs) condition surveys will be undertaken before, during and after the Construction phase. If damage has been identified during construction phase, the damage will be repaired. Post-construction, all PRoWs will be returned to their pre-construction condition;
  - C-165 Construction access will be provided with visibility splays designed to Design Manual for Bridges (DMRB) and Manual for Streets (MfS) design standards as agreed with West Sussex County Council (WSCC); and
  - C-201 Construction Traffic Management Plans (CTMP) will be developed in consultation with West Sussex County Council for stages of the works. These will be developed in accordance with the Outline CTMP and include the stage specific details for managing the impact of the construction traffic on the transport network.
- The HGV Access Strategy considering all the local constraints, access locations requiring access and embedded environmental measures has identified three local HGV access routes which are shown in **Figure 7.6.6, Appendix B**.
- The three local HGV access routes are set out in **Table 5-1**. The locations of the accesses are set out in **Section 3.2**. HGVs will be required to adhere to these routes wherever possible, with certain exceptions, for example, when materials are



required to be delivered to accesses along a different route. This will also be incorporated into the CoCP.

Table 5-1 Local access routes

Route	HGV access route	Accesses served
1	A27, A259, A284,Ferry Road	A-1
2	A27, A259, A284,- Church Road	A-5
3	A27, A259, A284,	A-9
4	A27, A284,	A-12, A-13, A-15, A-16
5	A27	A-21, A-22
6	A27, A280	A-26, A-28
7	A27, A280, A24, A283	A-33, A-35, A-39, A-40, A-41, A-42, A-43
8	A27, A280, A283, B2135, Spithandle Lane	A-47
9	A27, A280, A283, B2135	A-48, A-50
10	A27, A280, A283, A2037, A281	A-52
11	A27, A280, A283, A2037, A281, B2116	A-53
12	A23, A272, A281,	A-56, A-57
13	A23, A24, A272	A-62, A-63
14	A23, A272, Kent Street	A-61, A-64
15	A23, A24, A272, Wineham Lane	A-67, A-68

## 5.5 HGV local access routes issues / constraints

The local access routes encompass the HGV routes to be used between the onshore elements of the Proposed Development and the SRN. A number of common issues and constraints have been identified that are consistent across these routes and the mitigation proposed is set out in **Table 5-2** below.



#### Table 5-2 Issues and constraints management

No.	Issue / Constraint	Mitigation
1	Sensitive, built-up areas (villages, towns) to be avoided by temporary construction traffic due to impacts on congestion, highway safety and air and noise pollution.	The HGV Access Strategy and selection of temporary construction accesses, complemented with onsite haul roads so that several key settlements will be avoided by construction HGV traffic. These key settlements include Washington, Storrington, Findon, Littlehampton, Angmering, Steyning, Henfield, Woodmancote, Wineham, Partridge Green and Cowfold.  Construction HGVs have also been routed in the HGV Access Strategy away from the AQMA in Cowfold as far as possible. This means that HGVs will only route through the village centre for trips related to accesses A-56 or A-57 or where use of locally sourced materials / equipment make its avoidance impracticable.
		C-157, C-158 and C-159 <b>Commitments Register</b> (Document Reference: 7.22)
2	Avoidance, if possible, of built-up areas to avoid conflict with parking areas, local roads, and streetscapes.	The HGV Access Strategy and selection of temporary construction accesses, complimented with onsite temporary construction haul roads so that several key settlements will be avoided by significant construction HGV traffic. These key settlements include Washington, Storrington, Findon, Littlehampton, Angmering, Steyning, Henfield, Woodmancote, Wineham, Partridge Green and Cowfold.
		Embedded environmental measures: C-157, C-158 and C-159 Commitments Register (Document Reference: 7.22)
3	Avoidance of narrow rural roads.	The HGV Access Strategy has avoided the use of small single-track roads as much as possible.  The only elements of single track roads required for construction HGV access are as follows:
		<ul> <li>Michelgrove Lane – access A-26;</li> <li>Kent Street (South of A272) – accesses A-61 and A-64; and</li> <li>Spithandle Lane – access A-47.</li> </ul>
4	Limited visibility at temporary	Selected temporary construction accesses have a series of design options set out in <b>Section 4.3</b> .



No.	Issue / Constraint	Mitigation
	construction access junctions.	All access designs to be agreed with WSCC.
		Embedded environmental measure: C-165 Commitments Register (Document Reference: 7.22)
5	Impacts on pedestrian (PRoW), cyclist (National Cycle Network, Sustrans	An Outline Public Rights of Way Management Plan (Document Reference: 7.8) has been prepared alongside Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23).
	and local routes) and equestrians (local routes).	The Outline Public Rights of Way Management Plan (Document Reference: 7.8) outlines the impacts on PRoW from the onshore elements of the Proposed Development and the mitigation proposals for helping to minimise / limit disruption to the users of PRoWs.
		Embedded environmental measures: C-162 and C-163 Commitments Register (Document Reference: 7.22)
6	Construction traffic impacts on capacity of junctions and links on the construction routes (SRN and	The assessment of construction traffic generation of the onshore elements of the Proposed Development on 35 highways links has been set out in <b>Chapter 23: Transport</b> , <b>Volume 2</b> of the ES (Document Reference: 6.2.23). The environmental measures required to mitigate the impact of construction traffic are also provided.
	local highway network).	The traffic predictions in <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23) indicated low daily traffic flows across a majority of the links assessed and discussions with WSCC and NH identified no need for detailed junction assessment or the provision of a Transport Assessment for the DCO Application.

## 5.6 Summary of HGV construction traffic distribution

Table 5-3 provides a summary of HGV construction traffic distribution across all temporary construction access junctions, taking into account the routing defined in Section 5.3 and Table 5-1 and the constraints identified in Table 5-2. Light construction accesses and light construction and operational accesses have been included in Table 5-3 for clarity.



**Table 5-3 HGV Construction Traffic Distribution** 

From	HGV distribution (to access)	To (Access)	Total HGV movements (2- way*)
Section 1 –	28% from	A-01	1812
Climping compound (Access	A27(W)	A-02	0 (Light construction access)
A-05)	21% from A27(E)	A-03	0 (Light construction access)
	28% from A23(N)	A-05	9342
	24% from A24(S)	A-08	0 (Light construction access)
		A-09	1338
		A-12	878
		A-13	Up to 562 (shared access with A-15)
		A-14	0 (Light construction and operational access)
		A-15	Up to 562 (shared access with A-13)
		A-16	3520
		A-20	0 (Light construction access)
		A-21	1302 (access may be split
		A-22	between A-21 and A-22)
		A-24	0 (Light construction and operational access)
		A-25	0 (Light construction and operational access)
		A-26	4892 (access may be split
		A-28	between A-26 and A-28)
Section 2 –		A-33	2646
Washington compound (Access		A-35	160
A-39)		A-37	0 (Light construction access)
		A-38	0 (Light construction access)



From	HGV distribution (to access)	To (Access)	Total HGV movements (2-way*)
		A-39	7660
		A-40	1468 (access may be split
		A-41	between A-40 and A-41)
		A-42	318
		A-43	3134
		A-46	0 (Light construction and operational access)
		A-47	900
		A-48	1416
		A-49	0 (Light construction and operational access)
		A-50	1248
Section 3 –		A-52	1550 (access may be split
Oakendene West compound (Access		A-53	between A-52 and A-53)
A-62)		A-56	56
		A-57	1816
		A-61	1320
		A-62	5778
		A-64	892
		A-66	0 (Light construction and operational access)
		A-67	644
Section 3 -		A-63	11438
Oakendene East compound (Access A-63)		A-68	986



## 6. LGV Access Strategy

#### 6.1 Introduction

- The onshore elements of the Proposed Development will generate three types of construction light vehicle traffic as follows:
  - LV construction staff traffic direct to TCCs; and
  - LGV construction deliveries direct to TCCs; and
  - LGV construction traffic traffic from temporary construction compound locations to proposed construction work sites along the onshore cable corridor.
- Section 6 sets out how the light vehicle Access Strategy has been developed.

#### 6.2 LV construction staff traffic

- This element of the LV construction traffic generation will be comprised of staff travelling to and from their home / overnight accommodation to one of the TCCs to commence work for the day which will be required across the entire construction phase.
- These trips to the TCCs will take place largely in private cars but some could be in work vans. Construction staff will gather in teams at the temporary construction compound and then, following sufficient work briefings and collection of materials/plant, they will travel to the relevant area of construction works related to the onshore cable corridor using minibus, work vans or other site/work related vehicles. This element is described in **Section 6.3** below and in more detail in the **Outline Construction Workforce Travel Plan** (Document Reference: 7.7).
- It should be noted that the only exception to staff travelling into and out of TCCs will be those doing construction works at the onshore substation site. These staff will route directly to the onshore substation site and stay onsite for the workday before leaving at the end of the work and traveling home or to overnight accommodation.

#### 6.3 LGV construction deliveries

6.3.1 This element of the LGV construction traffic generation will be comprised of deliveries by LGV directly to the TCCs or offshore port.

#### 6.4 LGV staff traffic

This element of the light vehicle (LV) construction traffic generation will be comprised of construction staff leaving the TCCs and traveling in a site vehicle to a proposed work site along the onshore cable corridor for their workday and then returning to the temporary construction compound at the end of the day.



These trips will take place in Light Goods Vehicles (LGV) predominantly however trips may also be undertaken in 4X4 vehicles and private cars (for management staff).

## 6.5 LGV Access Strategy

#### LGV construction staff traffic

- To aid development of the LGV Access Strategy, a prediction of the construction traffic generation of all onshore elements of the Proposed Development has been carried out. The construction traffic generation has been applied to the four year construction schedule. This has resulted in construction vehicle movement predictions per vehicle type on a weekly basis per access point, split into HGV and LGVs, the latter further split into construction staff vehicles and construction LGVs.
- The detailed methodology and construction traffic calculations undertaken to inform this output are presented Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23) and Appendix 23.2: Traffic Generation Technical Note, Volume 4 of the ES (Document Reference: 6.4.23.2). Appendix 23.2: Traffic Generation Technical Note, Volume 4 of the ES (Document Reference: 6.4.23.2) sets out the detailed construction traffic generation methodology, assumptions, materials required and other matters that have informed the construction traffic generation output.
- To understand the routing of LGV construction traffic generated by the onshore elements of the Proposed Development, calculations were undertaken to derive a LGV construction traffic distribution for the various types of LGVs. The calculations comprised:
  - LGV construction staff traffic This has been calculated from journey to work data from the 2011 census for three local areas associated with the three sections of the onshore elements of the Proposed Development (outlined in Section 1.1). Figure 7.6.7, Appendix B sets out the locations of the three sections used to inform construction staff distribution;
  - LGV construction delivery traffic this also followed the same method as the LGV construction staff traffic, on the basis that suppliers were more likely to be small businesses and therefore follow the same spatial distributions as the census data; and
  - LGV construction traffic Understanding the most appropriate routes for LGV construction traffic between the TCCs and proposed works site temporary construction accesses along the onshore cable corridor set out in Table 4-1. This was undertaken using Google journey planning software and considering any local constraints.

#### LGV construction staff traffic distribution

The resultant LGV construction staff traffic assignment based on appropriate journey to work data from the 2011 census that has been applied is set out in **Table 6-1** for the three sections of the onshore elements of the Proposed



Development. **Figure 7.6.8, Appendix B** sets out the exit points from the transport Study Area.

- 6.5.5 In Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23), the entire onshore cable corridor was split into three sections which are described below and **Table 6-2** outlines the compounds associated with each section.
  - Section 1 which runs north from landfall, across the A259, the River Arun and the two railway lines before crossing the A27 near the edge of the South Downs at Hammerpot. This section is rural but runs along the edge of the settlements of Littlehampton, Wick, Lyminster and Crossbush;
  - Section 2 which runs north east from the Section 1 boundary to a crossing of the A24 near Washington, West Sussex. Between the A27 and A24, the onshore cable corridor has minimal interaction with the local highways network and due to the nature of access options, will make use of a continuous temporary construction haul road; and
  - Section 3 which runs from the Section 2 boundary along the A283 corridor before turning north east to Partridge Green and further east to Wineham / Bolney. This section is flat and rural in character but with more crossings of roads.

Table 6-1 LGV construction staff traffic distribution

Entry / Exit points from highways	Construction staff traffic distribution by temporary construction compound / onshore substation			
network scope	Section 1	Section 2	Section 3	
A259 East	21%	3%	2%	
A284 South	33%	2%	1%	
A259 West	16%	3%	0%	
A23 North	1%	2%	17%	
A23 South	3%	3%	6%	
A24 North	3%	15%	21%	
A3021 south	4%	17%	9%	
A27 East	1%	2%	3%	
A27 West	9%	2%	0%	
A284 North	4%	1%	0%	
A283 East	0%	12%	8%	
A283 North	0%	0%	0%	



Entry / Exit points from highways	Construction staff traffic distribution by temporary construction compound / onshore substation			
network scope	Section 1	Section 2	Section 3	
A283 West	0%	29%	13%	
A272 East	1%	1%	9%	
A272 West	0%	2%	3%	
A270	3%	6%	6%	
A273	0%	0%	0%	
A2300	0%	0%	3%	
Total	100%	100%	100%	

As this LGV construction staff traffic is travelling to and from TCCs and the onshore substation site, no routing restrictions will be applied to these trips (as usual for any LGV construction staff traffic routing to and from a place of work). This is explained further in the Outline Construction Workforce Travel Plan (Document Reference: 7.7) which describes the measures set out to reduce reliance on private car use. In calculating the traffic effects provided in Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23) the trips have been distributed onto the network based on the logical route using Google journey planning software from TCCs, onshore substation site and/or to and from home or overnight accommodation.

#### LGV construction traffic

- Whilst no routing restrictions have been applied to the construction staff traffic (as set out in **Paragraph 6.5.6**), it is considered that all LGV construction traffic including deliveries, will first travel to the TCC and then if needed onto individual work sites / accesses using a Multi-Occupancy Vehicle (MOV). This limits the amount of traffic using the accesses and also number of vehicles parking at the work sites.
- For each of the TCCs, routes have been identified from there to all temporary construction accesses within that section. **Figure 7.6.9**, **Appendix B** sets out the temporary construction access routes identified for each of the TCCs, and these are set out in **Table 6-2**. It should be noted that the traffic flows presented in this table are totals for the entire construction programme, rather for a particular week or year.
- The routes provided in **Table 6-2** generally follow the construction HGV access routes, which assists in limiting traffic related to the onshore elements of the Proposed Development to a limited number of roads across West Sussex. This limits any effects on other roads outside those already used for HGV construction traffic.



As noted in **Section 4.6**, light construction accesses and light construction and operational accesses will be used by only a very small number of LGVs on a very occasional basis. To avoid omitting access junctions these have been included in **Table 6-2** with the assumption that these accesses will serve less than 10 LGV movements over the construction period.

Table 6-2 LGV Construction Traffic Distribution

Section 1 - Climping compound (Access A-05)	From	LGV distribution (from home to compound)	MOV circular route (from compound to access)	To (Access)	Total LGV movements (2- way*)
operational access with minor usage	Climping compound	16% from A259 (W) 58% from A259 (E) Littlehampton 9% from A27 (W) 13% from A27 (E), A24, A23 4% from A284	(S), A259(E), A284(N), A27(E), A280(N), A24(S), A27(W), A284(S), A259(W), Church	A-02 A-03 A-05 A-08 A-09 A-12 A-13	Light construction access with minor usage (<10 LGVs)  Light construction access with minor usage (<10 LGVs)  33900  Light construction access with minor usage (<10 LGVs)  1026  456  Up to 480 (shared access with A-15)  Light construction and operational access with



From	LGV distribution (from home to compound)	MOV circular route (from compound to access)	To (Access)	Total LGV movements (2- way*)
			A-15	Up to 480 (shared access with A-13)
			A-16	2358
			A-20	Light construction access with usage (<10 LGVs)
			A-21	750 (access
			A-22	may be split between A-21 and A-22)
			A-24	Light construction and operational access with minor usage (<10 LGVs)
			A-25	Light construction and operational access with minor usage (<10 LGVs)
			A-26	2238 (access may be split
			A-28	between A-26 and A-28)
Section 2 – Washington	20% from A24	TCC 2, A283(W),	A-33	1416
compound	(N)	A283(E), B2135(N), A24(S), A283(W)	A-35	60
(Access A-39)	A-39) 28% from A259, A27 (W) 22% from A27		A-37	Light construction access with
	(W), A23			minor usage (<10 LGVs)



From	LGV distribution (from home to compound)	MOV circular route (from compound to access)	To (Access)	Total LGV movements (2- way*)
	29% from A283 (W)		A-38	Light construction access with minor usage (<10 LGVs)
			A-39	54546
			A-40	966 (access
			A-41	may be split between A-40 and A-41)
			A-42	192
			A-43	1728
			A-46	Light construction and operational access with minor usage (<10 LGVs)
			A-47	648
			A-48	672
			A-49	Light construction and operational access with minor usage (<10 LGVs)
			A-50	708
Section 3 – Oakendene West	43% from A272(W), A24, A27(W)	TCC 3, A272(W), A281(S), B2116(E), Wineham Lane(N), Kent Street(N), Wineham Lane(S), Bolney Substation,	A-52	642 (access may be split between A-52
compound (Access A-62)	) 57% from A272(E), A23, A27(E)		A-53	and A-53)
,			A-56	780
	(_/		A-57	1116



From	LGV distribution (from home to compound)	MOV circular route (from compound to access)	To (Access)	Total LGV movements (2- way*)
		Wineham Lane (N),	A-61	828
		A272(W)	A-62	16338
			A-64	468
			A-66	Light construction and operational access with minor usage (<10 LGVs)
			A-67	444
Section 3 -	43% from	Route same as TCC	A-63	52254
Oakendene East	A272(W), A24, A27(W)	3, given it passes A- 63, A-68	A-68	7182
compound (Access A-63)	57% from A272(E), A23, A27(E)			

<sup>\*</sup>A two way movement refers to the combined traffic volume occurring in both directions along the road or corridor. A return trip from source to site is counted as two movements.



## 7. Crossing schedule

#### 7.1 Introduction

- 7.1.1 In addition to the HGV and LGV construction traffic routing this Outline CTMP also considers the effects of all onshore cable corridor crossings of the local and strategic highways network as well as proposals for rail network crossings.
- In addition to the impacts on the local and strategic highways network and rail networks, the onshore elements of the Proposed Development will also impact upon the PRoW network. The effects on PRoWs are covered in the Outline Public Rights of Way Management Plan (Document Reference: 7.8) which sets out the scale and nature of these effects together with an outline management strategy to help minimise disruption to PRoW users.

## 7.2 Crossing schedule

#### Introduction

The installation of underground cables has an impact on both the SRN and local road network where the respective infrastructure passes under the highway. This Section sets out the locations of the crossing points where an underground cable is being installed. The full crossing schedule which details all crossings is provided in Appendix 4.1: Crossing schedule, Volume 4 (Document Reference: 6.4.4.1).

## Highways crossing schedule

- A total of 20 highways crossing locations have been identified within the proposed DCO Order Limits where an underground cable is proposed to be installed and crossed under the highway.
- It is proposed that all major crossings (A or B class roads) will be undertaken using trenchless construction methods (HDD assumed). This construction method involves crossing underneath a feature and therefore prevents the disturbance of the road surface infrastructure during cable crossing installation. This removes the need for shuttle working, road closures and/or traffic management.
- For smaller classification roads, a mixture of trenchless or open cut crossing is proposed. Some smaller single track roads are also proposed to be crossed by trenchless method due to environmental constraints around the road rather than the nature of the highways crossing.
- 7.2.5 **Table 7-1** below details all 20 highways crossing locations as shown in **Figure 7.6.10**, **Appendix B**, and the roads which they affect. **Table 7-1** also outlines the crossing schedule reference number, type of crossing method required (trenchless crossing (HDD) or open cut) at each crossing location, and whether the highway authority responsible for maintaining the road is NH or WSCC.



Table 7-1 Crossing Schedule of the Highway

No	Crossing Schedule Reference	Road affected	Crossing type	Highway Authority
1	RDX-1dw- 01	Ferry Road	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
2	RDX-1dw- 02	A259	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
3	RDX-1dw- 03	A284	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
4	RDX-1dw- 04	A284 (Lyminster Bypass)	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
5	RDX-1dw- 05	Poling Street	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
6	RDX-1dw- 06	Decoy Lane	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
7	RDX-1dw- 07	A27	Trenchless crossing (HDD) proposed – no surface effects to carriageway	NH
8	RDX-1dw- 08	Michelgrove Lane	Open cut trench crossing – traffic management / diversion required – Single track road	WSCC
9	RDX-1dw- 09	A24	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
10	RDX-1dw- 10	London Road	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
11	RDX-1dw- 11	A283	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
12	RDX-1dw- 12	A283	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
13	RDX-1dw- 13	A283	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
14	RDX-1dw- 14	Water Lane	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
15	RDX-1dw- 15	Spithandle Lane	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC



No	Crossing Schedule Reference	Road affected	Crossing type	Highway Authority
16	RDX-1dw- 16	B2135	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
17	RDX-1dw- 17	B2116	Open cut trench crossing – traffic management required – single carriageway (one lane in each direction) or temporary road closure	WSCC
18	RDX-1dw- 18	A281	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
19	RDX-OD- 01	Kent Street	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC
20	RDX-OD- 02	Wineham Lane	Trenchless crossing (HDD) proposed – no surface effects to carriageway	WSCC

- As shown in **Table 7-1**, of the 20 highway crossings identified, 18 of these would be installed using trenchless crossing methods (e.g. HDD) bringing about no surfaced-based effects on highway users. Both of the NH SRN crossings are of the trenchless crossing methods (e.g. HDD).
- There are two highways crossings proposed which would require to be crossed by open cut trench method and require traffic management measures. Details of mitigation proposals are set out in **Section 8**.

# 7.3 Rail network crossing schedule

- The alignment of the onshore elements of the Proposed Development requires underground cable to be installed underneath the rail network at two locations. The two locations, west of Littlehampton and west of Wick, are shown in **Figure 7.6.11**, **Appendix B**.
- Both rail crossings will be crossed by trenchless crossing methods (e.g. HDD) with no surfaced based effects experienced on the rail network.
- Consultation and engagement with Network Rail will continue to take place to discuss the requirements of the trenchless crossings of rail network beyond DCO Application submission. It is expected that there will be no additional management requirements of the rail network crossings during the construction of the onshore elements of the Proposed Development.



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# 8. Potential mitigation strategies

#### 8.1 Introduction

- This section of the Outline CTMP explains the types of construction traffic management measures that may be required across the onshore elements of the Proposed Development to allow for safe and convenient working practices and access to temporary construction sites.
- RED will implement a number of the mitigation measures as set out in **Section 8**. These mitigation measures are included within embedded environmental measures (set out in the **Commitments Register** (Document Reference: 7.22)). Discussions with NH, WSCC and South Downs National Park Authority have been undertaken to inform matters such as traffic management proposals and, if required, the need for short road closures and diversions.
- The traffic management measures for laying cables under the highway documented in this section of the Outline CTMP will be adopted and inform the preparation of the stage specific CTMP. It is the stage specific CTMP where the final details would be agreed with the Highways Authorities (as part of the discharge of Requirements) prior to commencement.

# 8.2 Site specific mitigation

# Michelgrove Lane (Access A-26 and A-28)

- A Traffic Management Strategy has been prepared to facilitate safe access by construction traffic to / from access A-26 and A-28 located on the A280 Long Furlong. This Traffic Management Strategy is based upon the following principles.
- 8.2.2 During enabling / reinstatement works:
  - Access for construction HGV traffic from the A280 Long Furlong will be taken
    as a left-turn into access A-26 Michelgrove Lane or A-28 Tolmare Farm. HGVs
    arriving from the north will therefore be required to travel south to the Clapham
    Roundabout to complete a U-turn;
  - Exit for HGV construction traffic out onto the A280 Long Furlong will be taken from access A-28 Tolmare Farm where possible, noting that it will be necessary for tipper HGVs to use access A-26 for enabling and reinstatement works (e.g. haul road construction and removal respectively);
  - Access A-28 junction will be controlled by temporary traffic signals to facilitate the safe movement of vehicles out of the junction;
  - LGV access will be via A-26 Michelgrove Lane where possible, with entry and exit at the A280 / Michelgrove Lane access junction permitted from both directions; and
  - Where required LGVs will be permitted to enter A-28 Tolmare Farm from the south but exit both directions (under traffic signal control).



#### 8.2.3 During cable installation construction works:

- Access for construction HGV traffic from the A280 Long Furlong will be taken as a left-turn into access A-26 Michelgrove Lane or A-28 Tolmare Farm. HGVs arriving from the north will therefore be required to travel south to the Clapham Roundabout to complete a U-turn;
- Exit for HGV construction traffic out onto the A280 Long Furlong will be taken solely from access A-28 Tolmare Farm;
- Access A-28 junction will be controlled by temporary traffic signals to facilitate the safe movement of vehicles out of the junction;
- LGV access will be permitted to enter and exit Michelgrove Lane access junction from both directions; and
- Limited LGV entry and exit will be permitted via A-28 Tolmare Farm. Entry will be permitted only from the south (left-in) and exit will be controlled by traffic signals.
- 8.2.4 The following traffic management measures will also be applied for the entirety of the construction programme:
  - A temporary 40mph speed limit will be applied along the full length of the A280
     Long Furlong as a reduction to the existing national speed limit, forming an approximate 4.7km extension of the existing 40mph speed limit at the southern end of A280 Long Furlong; and
  - To facilitate access along Michelgrove Lane by construction traffic up to eight passing places will be installed to provide adequate highway width for two-way traffic as shown on sheet 12 of the Onshore Works Plans [APP-009].
- 8.2.5 Full details of the proposed Traffic Management Strategy for A-26 and A-28 is provided in **Appendix D**.

# Kent Street (Access A-61 and A-64)

- 8.2.6 A Traffic Management Strategy has been prepared to facilitate safe access by construction traffic to / from access A-61 and A-64 located on Kent Street. This Traffic Management Strategy is based upon the following principles:
  - To facilitate access along Kent Street by construction traffic up to four passing places will be installed to provide adequate highway width for two-way traffic;
  - HGV entry will be controlled via the Oakendene temporary construction compound at access A-62;
  - HGV and LGV exit will be coordinated to ensure that they do not occur at the same time as HGVs entering Kent Street;
  - HGV entry and exit will be controlled by banksman along Kent Street, up to and including accesses A-61 and A-64;
  - General traffic will also be controlled by banksman whilst HGVs are entering or existing access A-61 or A-64; and
  - A temporary speed limit reduction from the current national speed limit to 40mph along the A272, between east of Cowfold to Bolney, a distance of approximately 4km.



8.2.7 Full details of the proposed Traffic Management Strategy for A-61 and A-64 is provided in **Appendix D**.

# Traffic management of open cut trench highway crossings (single track carriageways)

#### Potential road closures and diversions

- As set out in **Table 7-1**, there are two highway crossing locations that have been identified within the proposed DCO Order Limits that are required to be crossed by open cut trench method. Of these two highway crossing locations, one is located on a single track road, crossing 8 (RDX-1dw-08) on Michelgrove Lane outlined in **Figure 7.6.10, Appendix B**.
- 8.2.28.2.9 At this location, a temporary construction traffic management solution would be applied and the need to close the road and provide a diversion is considered to be unnecessary.
- 8.2.38.2.10 A review of this highway crossing location indicates that for any necessary temporary road closures that should be required, alternative routes are available for temporary diversions. If possible, temporary closures and diversions for this limited highway crossing locations would be accommodated.

#### Temporary diversion signage

- 8.2.48.2.11 In highway crossing locations where temporary road closures and diversions are required, temporary signage will be installed by the appointed contractor in accordance with Traffic Signs Regulations and General Directions (TSRGD), Department for Transport (DfT) (2016).
- 8.2.58.2.12 The proposed temporary diversion routes and associated signage will be prescribed as part of details to be approved by the relevant highway authority in accordance with the requirements of Outline CTMP.

# Traffic management of open cut trench highway crossings (single carriageway roads)

- 8.2.63.2.13 As set out in **Table 7-1**, there are two highway crossing locations that have been identified within the proposed DCO Order Limits that are required to be crossed by open cut trench method. Of these two highway crossing locations, one is located on a single carriageway road, with one lane per direction. This is crossing 17 (RDX-1dw-17), on the B2116.
- 8.2.78.2.14 At this highway crossing location, temporary construction traffic management will be deployed. This will involve either the use of The temporary construction traffic management is envisaged to be a solution that allows for the road to remain open with temporary traffic signals or manned stop/go boards to allow the road to remain open or temporary full road closure. and one lane of the two used for the conveyance of traffic. The preferred temporary traffic management strategy for the B2116 will be confirmed during detailed design as part of a stage specific CTMP.



All temporary construction traffic management implementation plans will need to be approved by WSCC and will be applied in accordance with guidance and procedures as defined within Section 14 of the Road Traffic Regulation Act 1984.

# **Use of Temporary Speed Limits**

- 8.2.16 To support the safe movement of construction traffic to and from construction access junctions the following temporary speed limit requirements have been identified:
  - A270 Long Furlong: Provision of a temporary 40mph speed limit whilst access A-26 and A-28 are in use by construction traffic;
  - A283 East of Washington Roundabout: Provision of a temporary 40mph speed limit in the vicinity of access junctions A-39, A-40, A-41, A-42 and A-43 when they are in use by construction traffic;
  - A281: Provision of a temporary 40mph speed limit in the vicinity of access A-56 and A-57 whilst in use by construction traffic;
  - A272 between Cowfold and Bolney: Provision of a temporary 40mph speed limit for the duration of the construction programme. Appropriate signage will be put in place to warn drivers of construction traffic; and
  - Wineham Lane: Provision of a temporary 40mph speed limit between Wineham and the A272 whilst access A-67 and A-68 are in use by construction traffic.

8.2.88.2.17 This list is not exhaustive and other requirements for additional temporary speed limits may be identified as part of stage specific CTMPs in agreement with WSCC.

# 8.3 Other locations requiring traffic management

- Additional temporary construction traffic management will be deployed throughout the construction phase at various locations (including junctions if necessary) beyond that implemented as part of highways crossings. Construction activities that may require temporary construction traffic management include but are not limited to:
  - proposed temporary construction access locations (including junctions);
  - in proximity to TCCs and the onshore substation site; and
  - roads being used for the delivery of construction materials to the temporary construction work areas.
- The type of temporary construction traffic management deployed will vary and could include temporary traffic signals, manned stop /go boards, road narrowing / widening and temporary speed restrictions.
- All temporary construction traffic management implementation plans will need to be approved by National Highways or WSCC (location dependant) and will be applied in accordance with guidance and procedures as defined within the Act (Section 14 of the Road Traffic Regulation Act 1984). There may also be a need for directional signage on the SRN network to assist with diversions, HGV routing or highlight traffic management.



Temporary construction traffic management arrangements will be included as part of the design submission for each of the temporary construction sites and TCCs.

# 8.4 General construction traffic management/mitigation

## **Traffic signage overview**

Where temporary traffic management measures are required, these will be agreed in advance with the NH for the SRN and WSCC for the local highways network. Any temporary road closures / diversions will be advertised in advance and alternative routes indicated through signage.

# Construction access route and point signage

- Temporary signage will be erected along construction traffic routes on the WSCC local highway network to provide directional routeing information for construction vehicles, to ease navigation between the SRN and the temporary construction sites and TCCs.
- Temporary signage warning other road users of the likely presence of construction vehicles will also be provided in the vicinity of each temporary construction access location. Where necessary warning signs at 'short cuts' and 'rat runs' will be erected to remind construction HGV drivers to utilise the prescribed construction traffic routes. This signage will be in accordance with TSRGD (DfT, 2016).

# Onsite access road/haul road signage

In addition to the above, temporary road signage will be erected along the proposed onsite construction access roads where necessary. The temporary signage will provide construction vehicle drivers with information on the distances to construction sites (destinations) and warning (hazard) information related to potential vehicle conflict or pedestrian conflict areas. Further information on the strategy for signage of pedestrian crossing areas is contained within the **Outline Public Rights of Way Management Plan** (Document Reference: 7.8). This signage will be in accordance with TSRGD (DfT, 2016).

# Other signage

- 8.4.5 All other signage will be provided in accordance with TSRGD (DfT, 2016). Other signage to be erected includes:
  - traffic warning signs for road closures;
  - traffic warning signs with contact details of the relevant contractors so the public can request information / updates; and
  - advanced warning signs of road closures.



# **Core working hours**

- 8.4.6 Construction work will take place in accordance with set 'core working hours' which will be secured within the **Code of Construction Practice** (COCP) (Document Reference: 7.2).
- The core working hours for construction of the onshore components will be 08:00 to 18:00 Monday to Friday, and 08:00 to 13:00 on Saturdays, unless otherwise approved by WSCC/NH/SDNP and other key local authorities (as set out in paragraph 3.6.3).
- Prior to and following the core working hours Monday to Friday, a 'shoulder hour' for mobilisation and shut down will be applied (07:00 to 08:00 and 18:00 to 19:00). The activities permitted during the shoulder hours include staff arrivals and departures, briefings and toolbox talks, deliveries to site and unloading, and activities including site and safety inspections and plant maintenance. Such activities shall not include use of heavy plant or activity resulting in impacts, ground breaking or earthworks.
- It is not proposed there will be construction activity outside of these indicative hours, including on Sundays, public holidays or bank holidays, other than in exceptional circumstances that will be agreed with WSCC/NH/SDNP and other key local authorities (as set out in **paragraph 3.6.3**).
- Except in the case of emergency, any construction work required to be undertaken outside of the core working hours (not including repairs or maintenance) will be agreed with the WSCC and/or National Highways (where relevant) prior to undertaking the works so that traffic management can be considered.

#### **HGV** and **LGV** construction vehicle records

All construction HGV and LGV movements associated with the onshore elements of the Proposed Development will be recorded and timed as vehicles enter and leave all TCCs and sites as part of a delivery management system (DMS). DMS records will be compiled and stored centrally so that any complaints received concerning driver / vehicle conduct can be first referenced against the DMS to confirm whether the vehicle in question is associated with Rampion 2. Poor conduct / management by the contractor will be addressed by the Transport Coordination Officer (TCO) as per Section 9.2.

#### **HGV** emissions

8.4.12 All road based vehicles used in the construction of the onshore elements of the Proposed Development will be to a EURO standard VI class or better wherever possible.

# Banksmen or presence of qualified personnel at access

Qualified personnel (banksmen) will be placed at access locations when necessary, during the construction of the onshore elements of the Proposed Development. These locations are likely to include temporary construction accesses and at the PROW crossing points during busy periods particularly



related to the crossings of the South Downs Way. Qualified personnel can also be provided at other sensitive locations where conflict with the construction vehicles may arise.

# Timing of HGV movements

- 8.4.14 Construction HGV movements associated with the onshore elements of the Proposed Development will normally take place during the core working hours, and for the hour before and after these core working hours, as defined in paragraphs 8.4.6 and 8.4.7 and 8.4.8.
- A booking system (included in the DMS) will be used so that construction deliveries to the construction sites are spread across the working day (where feasible). This will minimise the impact of construction HGV traffic during the peak periods. The booking schedule will also form part of and inform the monitoring processes of the CTMP.
- 8.4.16 If delivery vehicles are associated with the 24 <u>hour HDD</u> working they will work outside the core hours. For aAII other deliveries they will be restricted to core working hours.
- The stage specific CTMP will provide further details regarding the management of deliveries in such a way as to minimise the impact from vehicles queuing or travelling at unsociable times, noting the location specific restrictions described below which will be applied.

#### Location Specific HGV Restrictions]

- 8.4.18 In order to avoid the traffic sensitive areas during the network peak hours, HGVs travelling to / from access A-56 and A-57 through Cowfold will be subject to the following limits:
  - During the weekday morning peak hour / school opening period (08:00 to 09:00), school closing period (15:00 to 16:00) and evening peak hour (17:00 to 18:00) HGV deliveries to:
    - A-56 will be limited to 1 HGV delivery; and
    - A-57 will be limited to 2 HGV deliveries;
- These peak hour limits will be applied to all HGV movements (including waste) from the wider highway network arriving at/departing from the sites and will be monitored via the Delivery Management System (DMS) as set out in Paragraphs 8.4.30 to 8.4.36.
- 8.4.19 The DMS will control bookings of HGV deliveries to / from sites accessed via A-33, A-35, A-56 and A-57 as well as track HGVs to monitor compliance with the HGV routes to/from the sites. Peak hour HGV movements to these locations will be controlled by the provision of limited HGV delivery slots within the DMS.
- 8.4.20 In addition to the timing restrictions noted above, all construction traffic movements to Access A-37 in Washington will be restricted to avoid school start and end time at access A-37 in Washington.



## **Exceptional circumstances**

There may be exceptional circumstances when construction traffic routes on the SRN or the local road network are impacted by local traffic conditions such as accidents or temporary road closures which will impact on construction vehicles not being able to use these routes. A non-exhaustive list of exceptional circumstances is defined as one or more of the following:

- where continuous periods of construction work are required, such as concrete pouring or HDD, and WSCC and the SDNPA (for any works within the South Downs National Park) has been notified prior to such works 72 hours in advance;
- for the delivery of AILs to the connection works, where the relevant highway authority has been notified prior to such works 72 hours in advance;
- as otherwise agreed in writing with WSCC and the SDNPA within the South Downs National Park:
- where a road traffic collision or other similar incident on the highway network that disrupts the normal operation of the highway network or results in a highway closure;
- where a breakdown of a construction LGV / HGV en-route to a temporary construction site or temporary construction compound occurs and then arrives later due to time critical reasons;
- where work is requested to be completed out of hours by WSCC, National Highways and / or Network Rail;
- where there is a need for emergency health and safety requirements (incident);
   and
- where there is a need to implement urgent mitigation activities such as emergency flood prevention works.

8.4.198.4.22 In the event of an exceptional circumstance, the following impacts need to be considered and acted upon with regards to highways and construction safety of the onshore elements of the Proposed Development:

- incidents on the highway network could result in stoppage (at previously agreed locations) or rescheduling of deliveries;
- incidents on the highway network causing delays, resulting in construction vehicles travelling outside of approved movement hours; and
- impacts of deliveries not being made, which could have impacts on health and safety due to a lack of equipment or materials or require a stop to construction works leading to delays to construction programme.

#### **Abnormal Indivisible Loads**

For the construction of the onshore substation, abnormal loads are required to deliver larger components such as transformers. **Appendix 23.1: Abnormal Indivisible Load assessment, Volume 4** of the ES (Document Reference:



6.4.23.3) has been prepared to support Chapter 23: Transport, Volume 2 of the ES (Document Reference: 6.2.23). Appendix 23.1: Abnormal Indivisible Load assessment, Volume 4 of the ES (Document Reference: 6.4.23.3) sets out the specific routes required for AILs and the mitigation required including Swept Path Assessments (SPAs) at identified pinch points assuming use of Shoreham Port.

- 8.4.24 It is noted however that it is not possible to fully commit to Shoreham Port at this point, as the final specification of the electrical equipment will be undertaken during the detailed design process and in cooperation with equipment manufacturers and contractors. Port suitability in terms of lifting capacity and access restrictions along the transport route will need to be reviewed in detail once the equipment specifications are defined. Alternative ports in proximity to the Proposed Development are considered well connected to the major and strategic road networks which are suitable for the transport of AlLs.
- 8.4.208.4.25 Regardless of the final AIL route selected, the contractor responsible for completion of AIL deliveries will be required to comply with the statutory regulations in terms of consulting with the highway authority and police prior to undertaking the works. The notification requirements and process are provided in the Road Vehicles (Authorisation of Special Types) (General) Order 2003.

# Cleaning of vehicles

All vehicles exiting from a construction access bell mouth will be checked and cleaned manually (or if it is deemed necessary, will pass through the wheel cleaning facility) prior to using the public highway to prevent the debris from being transferred off the site onto the road network. If required, a road sweeper will be utilised to further demonstrate that the WSCC road network remains safe and clear of debris. It is assumed at this stage, that this would only ever be required at the larger temporary construction sites such as the onshore substation, landfall, HDD, and temporary construction compound sites.

# **Highway condition surveys**

- Highway condition surveys would be undertaken prior to the commencement of construction and after completion of construction works. The surveys would may include all local access routes, access junctions and verges used by construction traffic -but the scope, extent and requirement of any survey may vary from location to location and will be agreed with WSCC / NH as applicable.
  - In addition to undertaking surveys prior to, and on completion of the construction works, the contractor would also undertake regular inspections of the highway network to identify any emerging issues (such as damage to verges or potholes forming).
- Where emerging issues are identified as a result of the Proposed Development, the contractor would notify WSCC / NH and either repair the issue or ask WSCC / NH to undertake the repairs (with costs being recharged to the contractor).
- 8.4.22 access points to any public highway by any temporary construction access road or track utilised as part of the onshore elements of the Proposed Development will be inspected. These inspections will take place before first use, at frequent



- intervals during the construction phase and following final use, so that the surface of the highway remains in good repair. The frequent inspections will also enable any repairs to be made in a timely manner throughout the construction phase.
- 8.4.23 At the end of the construction phase, the temporary construction accesses and crossing points shall be inspected and a programme of works to restore them to the condition they were in before the construction phase commenced will be agreed with NH as the strategic road authority and WSCC as the local highway authority.
- Any works within the highway limits will be reinstated to a standard commensurate to that prior to the commencement of the construction works and agreed with the relevant highways' authority (NH / WSCC), as per commitment C-160 (Commitments Register (Document Reference: 7.22)) which covers both the condition surveys and subsequent repairs.

# **Delivery management systems (DMS)**

- 8.4.258.4.30 A DMS is a system used on construction projects for tracking all construction movements into and out of construction sites. It can also track personnel located at temporary construction access locations. The DMS will enable the management of construction deliveries and allow the number of vehicles accessing/egressing to be recorded.
- This information will be collated by the contractor and retained for reference.

  The objectives of the DMS are:
  - to control the delivery of materials and equipment in line with the construction programme;
  - to minimise the number of construction vehicles on the road;
  - to ensure that construction vehicles do not exceed any agreed restrictions, for example peak period traveling through certain towns / villages / junctions; and
  - effectively plan all HGV movements to/from the construction sites in accordance with the construction programme to maximise construction and site efficiency.
- 8.4.32 Contractors will be required to pre-book all HGV deliveries to the construction sites through the DMS by providing details of the planned delivery. Bookings will be able to be made by contractors up to a predefined period in advance of the delivery day.
- 8.4.33 The details of the planned delivery to be recorded in the DMS will include:
  - Delivery date and time;
  - Driver details (e.g. name, driving licence number, expiry date and country);
  - Vehicle details (e.g. vehicle classification, vehicle registration, haulage company, vehicle emission standards); and
  - Movement details (e.g. origin, destination, HGV route).



- 8.4.34 Bookings will require approval by the Transport Coordination Officer and contractors will be issued with confirmation and a unique reference code for their booking. The specifics of the DMS will include:
  - mandatory advance booking (i.e. no booking, no admittance to the main development site);
  - confirmed booking to relate to a specific vehicle (i.e. vehicle registration number); and
  - capability to amend bookings in advance of the delivery (up to a predefined period in advance of the delivery day).
- 8.4.35 The DMS will provide the delivery team with a daily schedule of the expected HGV deliveries to the main temporary construction compounds on a specified day.
- 8.4.36 The DMS will record the planned and actual arrival time HGV deliveries as well as the actual departure time.

# Information packs and communication

- 8.4.278.4.37 Information packs will be provided to all contractors which will form part of the contractual agreement between the contractors and RED. The information pack will contain the following means of information and communication which can be included in the stage specific CTMP to be worked up by the contractor(s) prior to commencement:
  - proposed HGV Access Strategy;
  - proposed LGV Access Strategy;
  - non-compliance guidance;
  - complaints procedure;
  - the CTMP protocols and indications required for all contractors including a code of good practice;
  - guidance on standard communication procedures between contractors; and
  - CTMP contacts (emergency and non-emergency).
- 8.4.288.4.38 Information packs and communications details will be shared with the highway authorities (WSCC and NH) ahead of any construction works.

# **Communication Strategy**

- A targeted strategy will be developed outlining the methodology for informing key stakeholders of upcoming works. Information could include:
  - Duration of works;
  - Timing of the works;
  - Traffic management including road closures



- 8.4.308.4.40 The objective of this strategy will be to ensure road users are notified of any proposed road closures, diversions, and/or alternative access arrangements at least one month prior to commencement.
- 8.4.318.4.41 Stakeholders identified include directly affected Local Planning Authorities and Parish Councils and bodies identified as Statutory Consultees (e.g. National Highways and Royal Mail).



# 9. Management of the CTMP and enforcement

### 9.1 Introduction

- This Section reviews the management structure that will oversee the finalised CTMP. It is important that a strong management structure is in place so that the objectives outlined in the Outline CTMP are met, and that the objectives are continually monitored and reviewed.
- 9.1.2 A Transport Coordination Officer (TCO) will be appointed by the contractors to implement the CTMP (approved by NH as the strategic highways authority and WSCC as the local highway authority). While it is likely that several contractors will be appointed to undertake the varying construction works, it is unknown whether one TCO will be required for Proposed Development, or each contractor will appoint an individual TCO. This will be agreed as part of the CTMP process and it is likely that a single TCO will be expected to co-ordinate and oversee all TCOs. The TCO would be employed by RED, and they would be responsible for liaison with stakeholders and the contractor(s).
- The TCO will be employed prior to commencement of the works and will have the following transport related responsibilities:
  - monitor contractor obligations with regards the CTMP;
  - liaise with and report to the local highway authorities (WSCC) and NH about mitigation and remedial measures as required;
  - update the CTMP as required; and
  - resolve issues and problems through the liaison with relevant stakeholders.

# 9.2 Monitoring and review

# **Monitoring strategy**

- 9.2.1 The TCO and/or TCOs appointed by the contractors will undertake monitoring as necessary to comply with the requirements of the CTMP and this will include the maintenance of records and construction traffic management measures.
- The contractor will employ a suitable, qualified, member of staff is employed to conduct surveys and monitor construction vehicle activity at specific locations along the construction route network to adhere to the CTMP. This will include the monitoring of construction vehicles on the local road network and speed enforcement monitoring.



#### **Review**

9.2.3 The TCO will monitor and review the CTMP. These reviews are required so that the CTMP delivers on the commitments and achieves the agreed goals as set out in this document.

# Compliance

- As part of the CTMP, a series of mechanisms will be established to provide all parties with a clear understanding of the enforcement procedures that will be applied if the requirements contained within the CTMP are not achieved. It is anticipated that these mechanisms will be determined prior to construction and will include:
  - Risk Assessment Method Statement (RAMS) procedures The contractor, through the TCO, will implement the CTMP, adhere to the requirements and meet the goals through management practices. This will include site inductions for contractors, briefing on the obligations of the RED Construction Contractor standards, induction, and adherence to RAMS procedures, DMS briefing, driver inductions and compliance guidance;
  - Contractual conditions To be employed as part of the CTMP compliance methodology and will be built into the contractor's contract, this will be subject to a performance review by RED; and
  - Actions To be employed if the commitments of the CTMP are breached.

#### **Enforcement and corrective measures**

- 9.2.5 RED will ensure that appropriate measures are taken to monitor contractor behaviour and performance and where appropriate corrective measures are taken to resolve, redress and enhance service performance, which is in breach of the standard within the Outline CTMP.
- 9.2.6 RED will require that the appointed contractor's disciplinary procedures incorporate the Proposed Development commitments (**Commitments Register**, Document Reference: 7.22), including this Outline CTMP, and these items are reflected in the contract between RED and the relevant contractor. RED will have the power to remove person(s) should it be required and deemed appropriate.



# 10. Glossary of terms and abbreviations

Table 10-1 Glossary of terms and abbreviations

Term	Definition		
AIL	Abnormal Indivisible Load		
ATV	All-Terrain Vehicles		
COCP	Code of Construction Practice		
СТМР	Construction Traffic Management Plan		
DCO	Development Consent Order		
DfT	Department for Transport		
DMS	Delivery Management Systems		
DRMB	Design Manual for Roads and Bridges		
EIA	Environmental Impact Assessment		
EPP	Evidence Plan Process		
ETG	Expert Topic Group		
HDD	Horizontal Directional Drill		
HGV	Heavy Goods Vehicle		
kph	Kilometres per hour		
Light Construction Accesses	Construction access only used by small LGVs when minor construction works are required		
LGV	Light Goods Vehicles		
mph	Miles per hour		
NH	National Highways		
os	Ordnance Survey		
PEIR	Preliminary Environmental Information Report		
PRoW	Public Right of Way		
PRoWMP	Public Rights of Way Management Plan		



Term	Definition
RAMS	Risk Assessment and Method Statement
RED	Rampion Extension Development Limited
SDNPA	South Downs National Park Authority
SoS	Secretary of State
SPA	Swept Path Analysis
SRN	Strategic Road Network
тсо	Transport Coordination Officer
TSRGD	Traffic Signs Regulation and General Directions
wscc	West Sussex County Council



# 11. References

Department for Transport (DfT), (2016). *Traffic Signs Regulations and General Directions* 2016. [Online] Available at: <a href="https://www.gov.uk/government/publications/traffic-signs-regulations-and-general-directions-2016-an-overview">https://www.gov.uk/government/publications/traffic-signs-regulations-and-general-directions-2016-an-overview</a> [Accessed 30 June 2023].

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https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000045-EN010117 Scoping Opinion.pdf [Accessed 30 June 2023].

Rampion Extension Development Limited (RED), (2020). *Proposed Development Offshore Wind Farm – Environmental Impact Assessment Scoping Report*. [online]. Available at: <a href="https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000006-EN010117%20-%20Scoping%20Report.pdf">https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000006-EN010117%20-%20Scoping%20Report.pdf</a> [Accessed 30 June 2023]

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Department for Transport and Ministry of Housing, Communities & Local Government, Manual for Streets, (2007), [online]. Available at:

https://assets.publishing.service.gov.uk/media/5a7e0035ed915d74e6223743/pdfmanforstreets.pdf

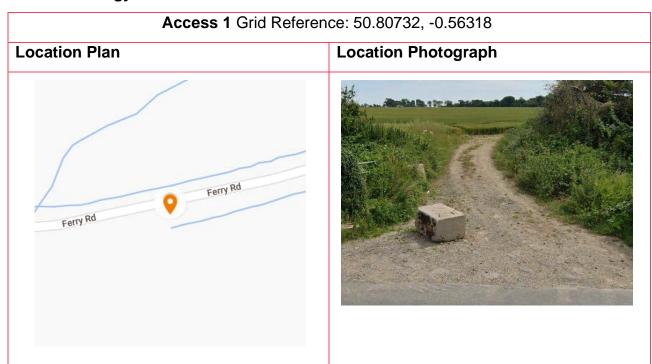


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# **Appendix A Access Proposals**

# **Access Strategy**



Type of Access – Construction and Operational

Road Accessed - Ferry Road

Width of Access Road - N/A



# New temporary construction bellmouth required

#### Road at site location

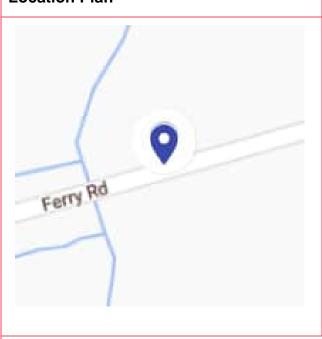


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 2 Grid Reference: 50.80788, -0.5603

#### Location Plan



# **Location Photograph**



Type of Access – Light Construction

Road Accessed - Ferry Road

Width of Access Road - N/A



No accommodation works required – existing access

#### Road at site location



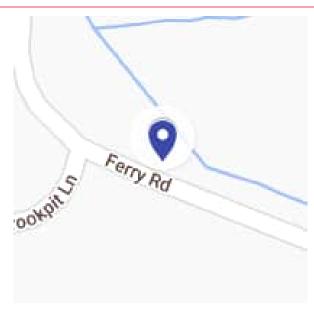
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 3 Grid Reference: 50.80804, -0.56773

#### **Location Plan**







Type of Access – Light Construction

Road Accessed - Ferry Road

Width of Access Road - N/A



New temporary construction bellmouth required

#### Road at site location



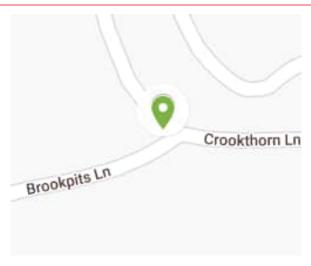
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 4 Grid Reference: 50.80684, -0.57485

#### **Location Plan**







Type of Access – Operational

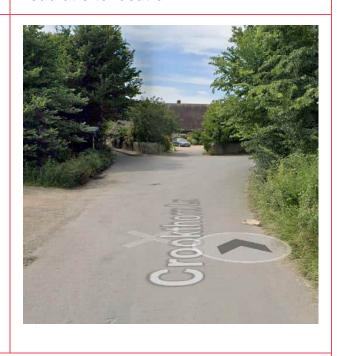
Road Accessed - Crookthorn Lane

Width of Access Road - N/A



No accommodation works required – existing access

#### Road at site location



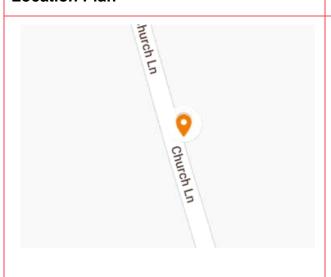
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 5 Grid Reference: 50.81069, -0.57675

#### **Location Plan**

# **Location Photograph**





Type of Access - Construction and operational

Road Accessed - Church Lane

Width of Access Road - N/A



New temporary construction bellmouth required

#### Road at site location



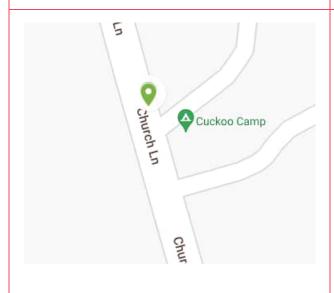
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 6 Grid Reference: 50.81141, -0.57712

#### **Location Plan**

### **Location Photograph**





Type of Access – Operational

Road Accessed - Church Lane

Width of Access Road - 5m



No accommodation works required – existing access

#### Road at site location

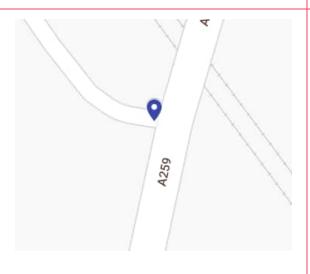


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 8 Grid Reference: 50.8178, -0.55939

# **Location Plan**



# **Location Photograph**



Type of Access - Light Construction

Road Accessed - A259

Width of Access Road - 3m



No accommodation works required – existing access

#### Road at site location



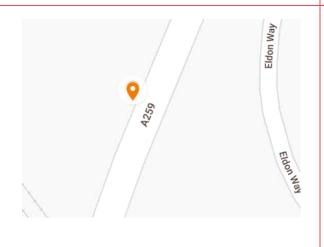
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 9 Grid Reference: 50.81842, -0.55905

#### **Location Plan**

# Location Photograph





Type of Access - Construction and Operational

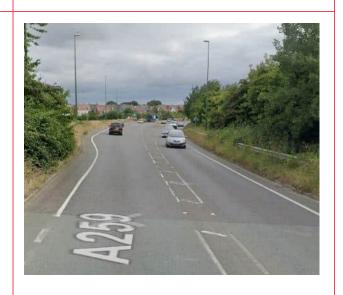
Road Accessed - A259

Width of Access Road - N/A



No accommodation works required – existing access

#### Road at site location

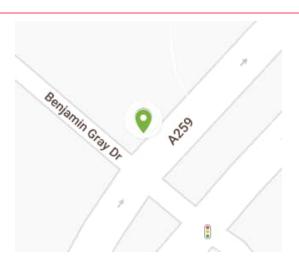


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 10 Grid Reference: 50.82006, -0.55775

# **Location Plan**



# Location Photograph



Type of Access - Operational

Road Accessed - A259

Width of Access Road - 11m

Width of Main Carriageway – 23.4m



No accommodation works required – existing access

#### Road at site location



# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 11 Grid Reference: 50.83099, -0.54532

#### **Location Plan**

# **Location Photograph**





Type of Access – Operational

Road Accessed - A284

Width of Access Road - N/A



# New temporary construction bellmouth required

#### Road at site location



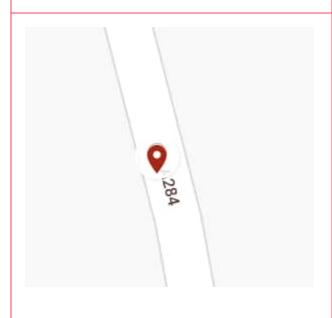
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 12 Grid Reference: 50.83135, -0.54536

#### **Location Plan**

# **Location Photograph**





Type of Access – Construction

Road Accessed - A284

Width of Access Road - N/A



# New temporary construction bellmouth required

#### Road at site location

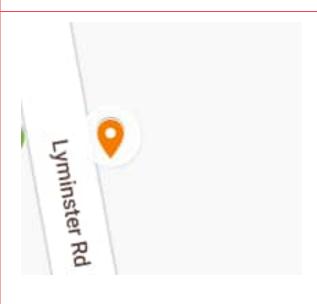


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 13 Grid Reference: 50.83099, -0.54513

# **Location Plan**



# **Location Photograph**



Type of Access – Construction and operational

Road Accessed - A284

Width of Access Road - N/A



New temporary construction bellmouth required

#### Road at site location

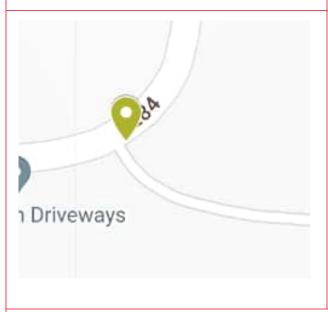


#### **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 14 Grid Reference: 50.83332, -0.54073

#### Location Plan



# **Location Photograph**



Type of Access – Light construction and operational

Road Accessed - A284

Width of Access Road - 3m



No accommodation works required – existing access

#### Road at site location



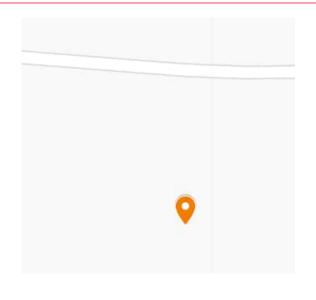
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 15 Grid Reference: 50.83239, -0.53848

#### **Location Plan**







Type of Access - Construction and operational

Road Accessed - A284

Width of Access Road - 3m



New temporary construction bellmouth required

#### Road at site location



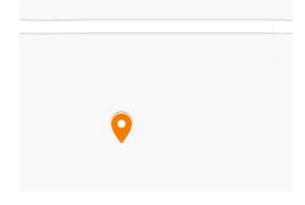
### **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 16 Grid Reference: 50.83254, -0.53772

#### **Location Plan**

# **Location Photograph**





Type of Access – Construction and operational

Road Accessed - A284

Width of Access Road - 3m



# New temporary construction bellmouth required

#### Road at site location



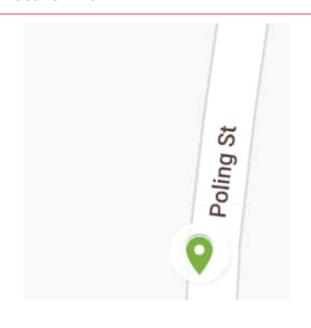
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 17 Grid Reference: 50.8382, -0.51546

#### **Location Plan**

# **Location Photograph**





Type of Access – Operational

Road Accessed - Poling Street

Width of Access Road - N/A



New temporary construction bellmouth required

## Road at site location



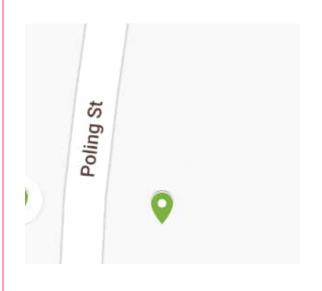
# **Access Visibility Requirements**

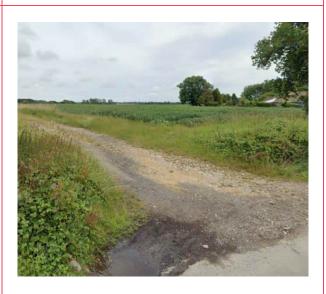
To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 18 Grid Reference: 50.8382, -0.51535

# **Location Plan**

# **Location Photograph**





Type of Access – Operational

Road Accessed - Poling Street

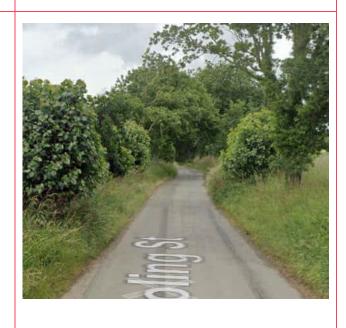
Width of Access Road – 3m

Width of Main Carriageway – 3m



# New temporary Construction bellmouth required

## Road at site location



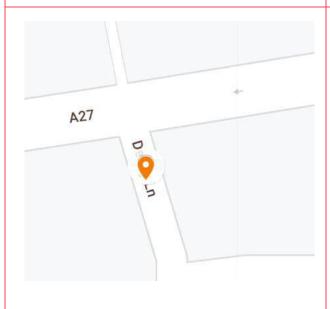
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 20 Grid Reference: 50.84103, -0.49522

# **Location Plan**







Type of Access – Light construction

Road Accessed - A27

Width of Access Road - 3m

Width of Main Carriageway - 29m



# Accommodation Works No accommodation works required – existing access Road at site location

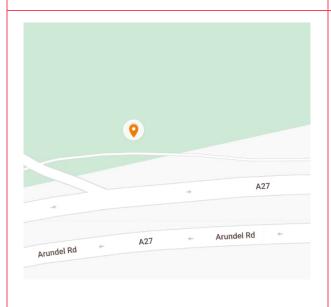
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 21 Grid Reference: 50.84179, -0.49237

# **Location Plan**

# **Location Photograph**





Type of Access - Construction

Road Accessed - A27

Width of Access Road - N/A

Width of Main Carriageway - 29m



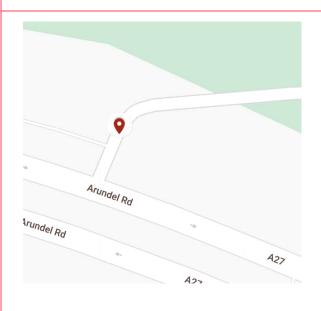
# Accommodation Works New temporary construction bellmouth required Road at site location

# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 22 Grid Reference: 50.84143, -0.48742

# **Location Plan**



# **Location Photograph**



Type of Access - Construction

Road Accessed - A27

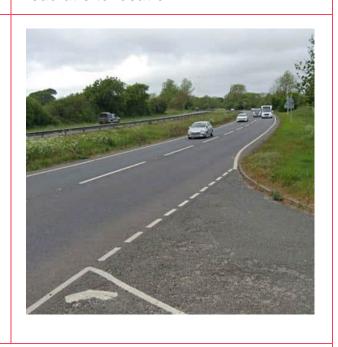
Width of Access Road - 6m

Width of Main Carriageway – 29m



# New temporary construction bellmouth required

#### Road at site location

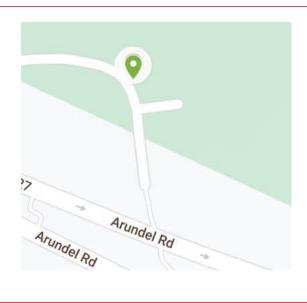


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 23 Grid Reference: 50.84147, -0.48595

#### **Location Plan**



# **Location Photograph**



Type of Access – Operational

Road Accessed - A27

Width of Access Road – 5m

Width of Main Carriageway – 29m



No accommodation works required – existing access

## Road at site location

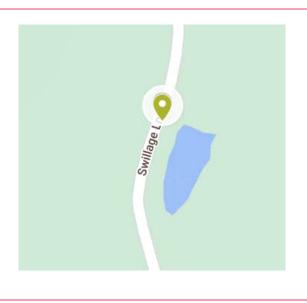


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 24 Grid Reference: 50.84343, -0.47936

# Location Plan



# **Location Photograph**



Type of Access – Light construction and operational

Road Accessed - Swillage Lane

Width of Access Road - N/A

Width of Main Carriageway – 3m



No accommodation works required – existing access

#### Road at site location

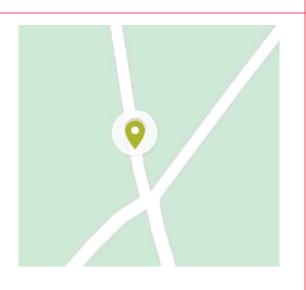


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 25 Grid Reference: 50.85594, -0.51543

# **Location Plan**



# **Location Photograph**



Type of Access – Light Construction and Operational

Road Accessed - Blakehurst Lane

Width of Access Road - 5m

Width of Main Carriageway – 5m



No accommodation works required – existing access

#### Road at site location

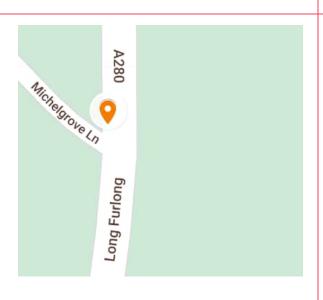


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

**Access 26** Grid Reference: 50.85482, -0.44965

# Location Plan



# **Location Photograph**



Type of Access - Construction and operational

Road Accessed - A280

Width of Access Road - 3m

Width of Main Carriageway - 8m



No accommodation works required – existing access

#### Road at site location

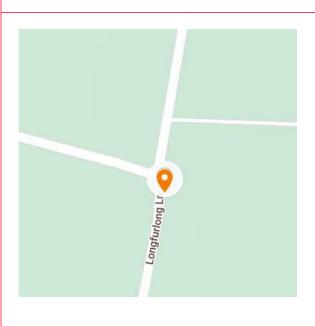


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 27 Grid Reference: 50.863192410449884, -0.4478784667599155

#### **Location Plan**



# **Location Photograph**



Type of Access – Operational

Road Accessed – Long Furlong Lane

Width of Access Road - 4m

Width of Main Carriageway - 4m



No accommodation works required – existing access

#### Road at site location



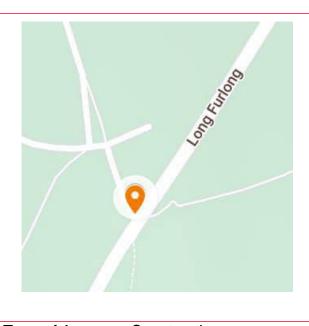
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 28 Grid Reference: 50.86838, -0.42352

# **Location Plan**

# **Location Photograph**





Type of Access – Construction

Road Accessed - Long Furlong

Width of Access Road - 6m

Width of Main Carriageway - 7m



No accommodation works required – existing access

## Road at site location

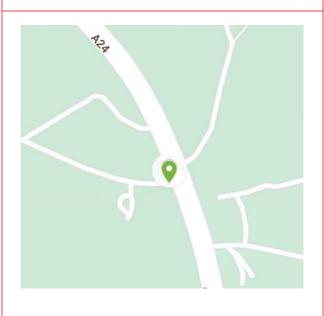


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 29 Grid Reference: 50.87716, -0.41031

# **Location Plan**



# **Location Photograph**



Type of Access – Operational

Road Accessed - A24

Width of Access Road - 4m

Width of Main Carriageway - 17m



No accommodation works required – existing access

#### Road at site location



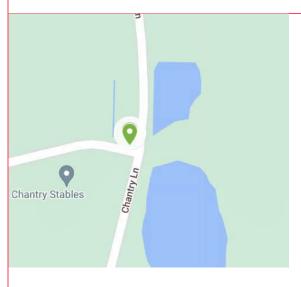
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 30 Grid Reference: 50.90498, -0.44822

# **Location Plan**

# **Location Photograph**



Type of Access – Operational

Road Accessed - Chantry Lane

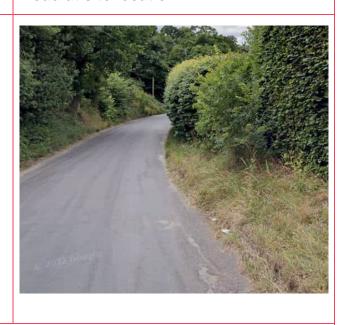
Width of Access Road - 5m

Width of Main Carriageway - 5m



No accommodation works required – existing access

## Road at site location



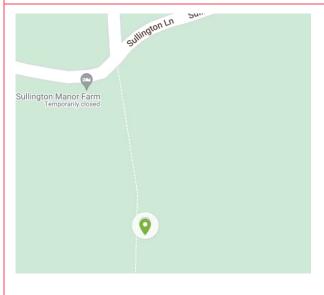
# **Access Visibility Requirements**

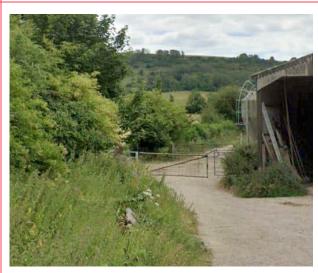
To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 31 Grid Reference: 50.90631, -0.4387

# **Location Plan**

# Location Photograph





Type of Access – Operational

Road Accessed - Sullington Lane

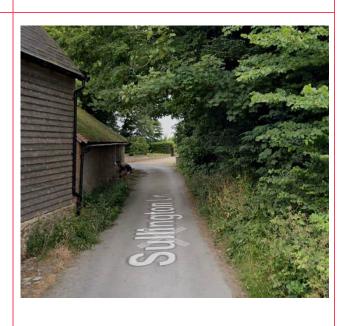
Width of Access Road - 3m

Width of Main Carriageway - 3m



No accommodation works required – existing access

#### Road at site location



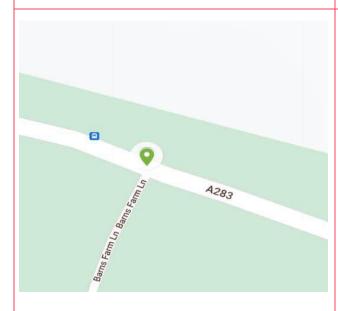
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 32 Grid Reference: 50.9126, -0.42823

# **Location Plan**

# **Location Photograph**





Type of Access – Operational

Road Accessed - A283

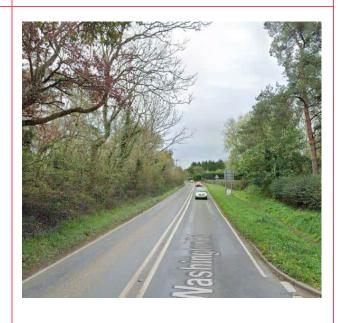
Width of Access Road - 4m

Width of Main Carriageway - 6.5m



No accommodation works required – existing access

#### Road at site location

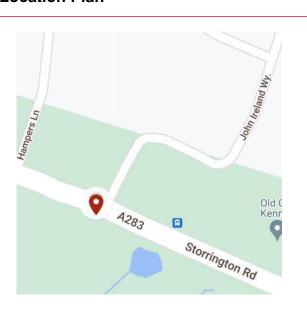


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 33 OS Grid Reference - 50.91176, -0.42453

#### Location Plan



# **Location Photograph**



Type of Access - Construction

Road Accessed - A283

Width of Access Road - N/A

Width of Main Carriageway - 6.5m



# New temporary construction bellmouth required

## Road at site location



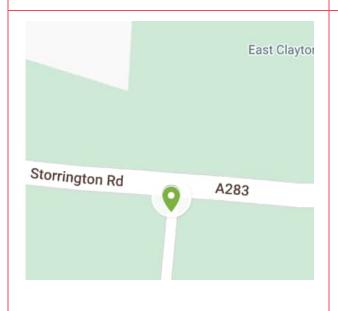
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 34 Grid Reference: 50.91046, -0.41773

# **Location Plan**

# **Location Photograph**





Type of Access - Operational

Road Accessed - A283

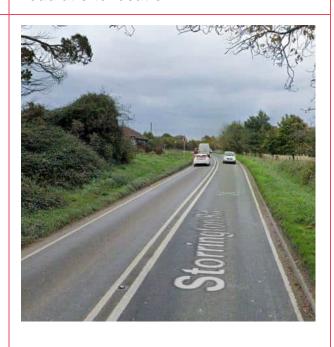
Width of Access Road - 3m

Width of Main Carriageway – 6.5m



No accommodation works required – existing access

#### Road at site location



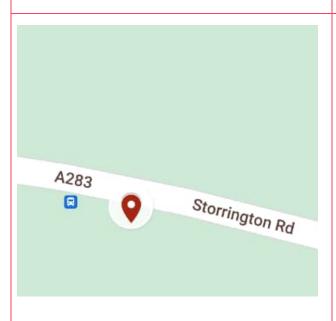
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 35 Grid Reference: 50.91036, -0.41521

# **Location Plan**

# **Location Photograph**





Type of Access – Construction

Road Accessed - A283

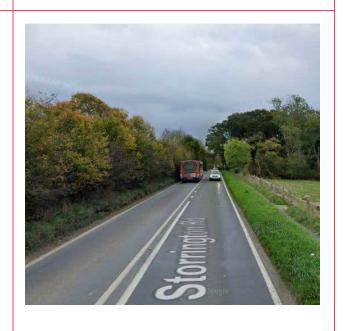
Width of Access Road - N/A

Width of Main Carriageway – 6.5m



# New temporary construction bellmouth required

#### Road at site location

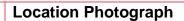


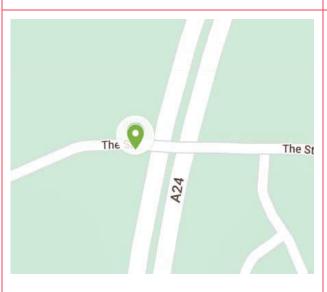
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 36 Grid Reference: 50.90445, -0.4125

# **Location Plan**







Type of Access – Operational

Road Accessed - A24

Width of Access Road - 3m

Width of Main Carriageway - 17m



No accommodation works required – existing access

#### Road at site location



# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 37 Grid Reference: 50.90577, -0.40732

## **Location Plan**



# **Location Photograph**



Type of Access – Light Construction

Road Accessed - School Lane

Width of Access Road - N/A

Width of Main Carriageway – 5m



No accommodation works required – existing access

#### Road at site location

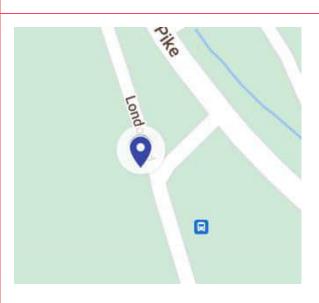


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 38 Grid Reference: 50.90673, -0.40546

# **Location Plan**



# **Location Photograph**



Type of Access – Light Construction

Road Accessed - London Road

Width of Access Road - N/A

Width of Main Carriageway – 4m



No accommodation works required – existing access

## Road at site location



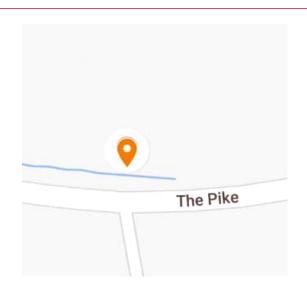
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 39 Grid Reference: 50.90613, -0.40214

# **Location Plan**

# **Location Photograph**





Type of Access - Construction and operational

Road Accessed - A283

Width of Access Road - N/A

Width of Main Carriageway - 6.5m



New temporary construction bellmouth required\_

Temporary 40mph speed limit to be applied whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

Banksman may be required to support specific turning movements.

#### Road at site location



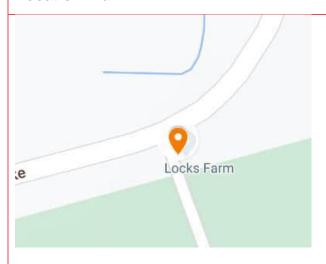
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 40 Grid Reference: 50.90673, -0.39651

# Location Plan

# **Location Photograph**





Type of Access – Construction and Operational

Road Accessed - A283

Width of Access Road – 3m

Width of Main Carriageway – 6.5m



No accommodation works required – existing access.

Temporary 40mph speed limit to be applied whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

Banksman may be required to support specific turning movements.

#### Road at site location



# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 41 Grid Reference: 50.909, -0.38736

#### **Location Plan**







Type of Access – Construction and Operational

Road Accessed - A283

Width of Access Road - 3m

Width of Main Carriageway – 6.5m



No accommodation works required – existing access.

Temporary 40mph speed limit to be applied whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

Banksman may be required to support specific turning movements.

#### Road at site location

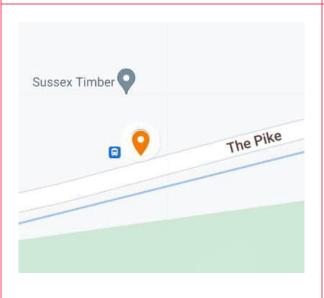


# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 42 Grid Reference: 50.90971, -0.37919

## **Location Plan**



# **Location Photograph**



Type of Access – Construction and Operational

Road Accessed - A283

Width of Access Road - N/A

Width of Main Carriageway – 6.5



New temporary construction bellmouth required\_

Temporary 40mph speed limit to be applied whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

Banksman may be required to support specific turning movements.

#### Road at site location



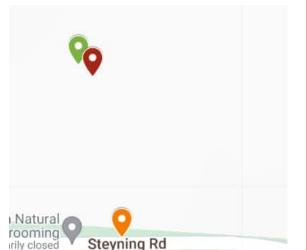
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

# Access 43, 43a & 43b Grid Reference:

50.90961, -0.36387, 50.91072, -0.36418, 50.91079, -0.36433

#### **Location Plan**



# **Location Photograph**



Type of Access – Construction and operational

Road Accessed - A283

Width of Access Road - 3m

Width of Main Carriageway – 6.5m



No accommodation works required – existing access.

The access tracks leading from the A283 at-are narrow. Passing places should be provided considered on the access tracks to enable two vehicles to pass. Alternately traffic management measures may be required to avoid conflicting movements.

Temporary 40mph speed limit to be applied whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

Banksman may be required to support specific turning movements.

#### Road at site location



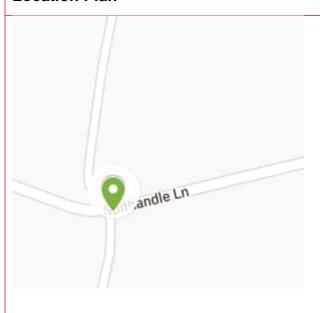
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 44 Grid Reference: 50.92003, -0.35335

#### **Location Plan**

# **Location Photograph**





Type of Access – Operational

Road Accessed – Spithandle Lane

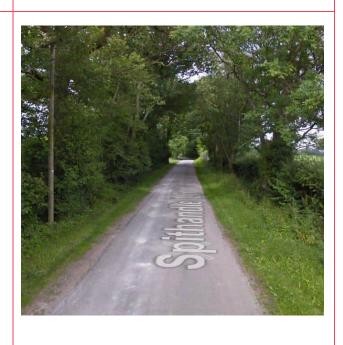
Width of Access Road - 3m

Width of Main Carriageway – 5m



No accommodation works required – existing access

#### Road at site location



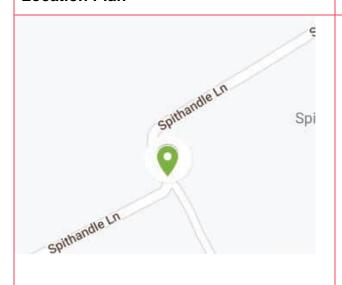
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 45 Grid Reference: 50.92166, -0.34693

#### Location Plan

# **Location Photograph**





Type of Access - Operational

Road Accessed - Spithandle Lane

Width of Access Road - 3m

Width of Main Carriageway - 5m



No accommodation works required – existing access

#### Road at site location



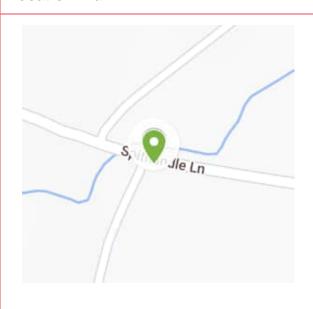
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 46 Grid Reference: 50.92419, -0.33472

## **Location Plan**







Type of Access – Light Construction and Operational

Road Accessed - Spithandle Lane

Width of Access Road - 3m

Width of Main Carriageway - 5m



No accommodation works required – existing access

## Road at site location



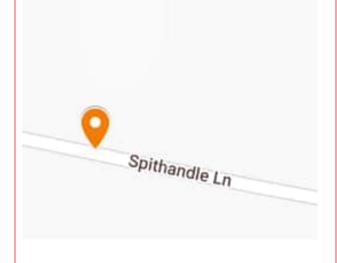
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 47 Grid Reference: 50.9221, -0.32463

# Location Plan

# **Location Photograph**





Type of Access – Construction and operational

Road Accessed - Spithandle Lane

Width of Access Road - N/A

Width of Main Carriageway – 5m

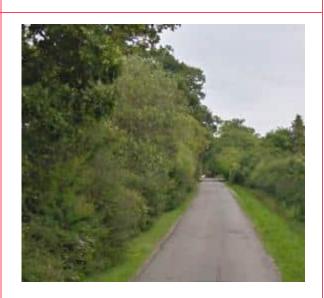


New temporary construction bellmouth required\_

Appropriate signage will be put in place to warn drivers of construction traffic.

Temporary 40mph speed limit to be applied whilst construction access is in use.

#### Road at site location



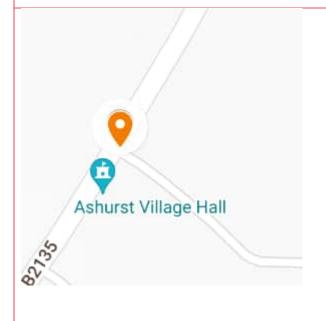
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 48 Grid Reference: 50.9336, -0.32152

#### **Location Plan**







Type of Access - Construction and operational

Road Accessed - B2135

Width of Access Road - 3m

Width of Main Carriageway – 6m



No accommodation works required – existing access

## Road at site location



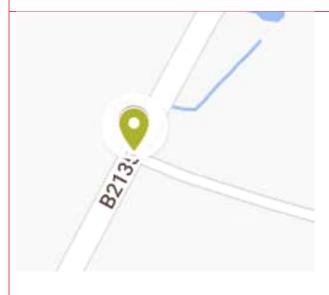
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 49 Grid Reference: 50.94145, -0.31486

# **Location Plan**







Type of Access – Light Construction and Operational

Road Accessed - B2135

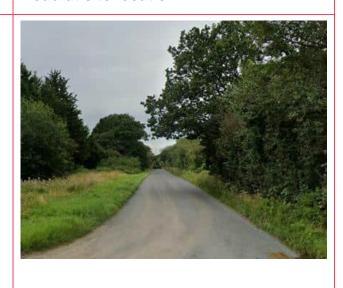
Width of Access Road - 3m

Width of Main Carriageway - 6m



No accommodation works required – existing access

#### Road at site location



# **Access Visibility Requirements**

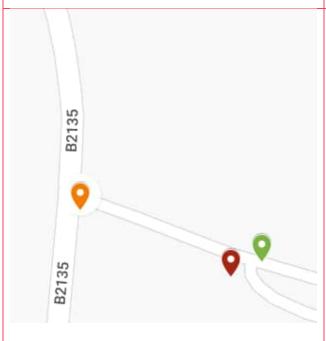
To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

# Access 50, 50a & 50b Grid Reference:

50.94791, -0.3065, 50.94767, -0.30563, 50.94772, -0.30546

# **Location Plan**

# **Location Photograph**





Type of Access – Construction and Operational

Road Accessed - B2135

Width of Access Road - 4m

Width of Main Carriageway - 6m



No accommodation works required – existing access

#### Road at site location



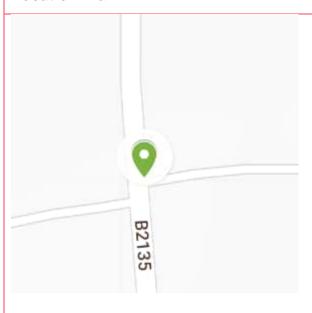
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 51 Grid Reference: 50.95324, -0.30743

# **Location Plan**

# **Location Photograph**





Type of Access – Operational

Road Accessed - B2135

Width of Access Road - 5m

Width of Main Carriageway – 6m



No accommodation works required – existing access

#### Road at site location



# **Access Visibility Requirements**

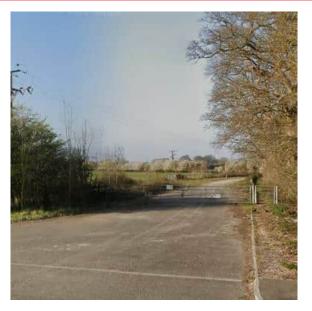
To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 52 Grid Reference: 50.95594, -0.28367

# **Location Plan**

# **Location Photograph**





Type of Access - Construction and operational

Road Accessed - A281

Width of Access Road - 4m

Width of Main Carriageway - 6.3m



No accommodation works required – existing access

#### Road at site location



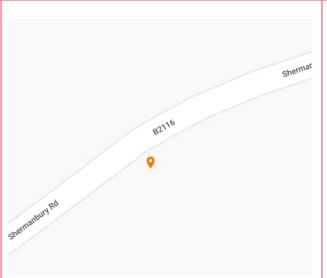
# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 53 Grid Reference: 50.96157, -0.29701

# **Location Plan**

# **Location Photograph**





Type of Access – Construction

Road Accessed - B2116

Width of Access Road - 5m

Width of Main Carriageway - 6m



No accommodation works required – existing access

#### Road at site location



# **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 54 Grid Reference: 50.96072, -0.29179

# Location Plan

# **Location Photograph**





Type of Access – Operational

Road Accessed - B2116

Width of Access Road - 5m

Width of Main Carriageway - 8m



No accommodation works required – existing access

#### Road at site location



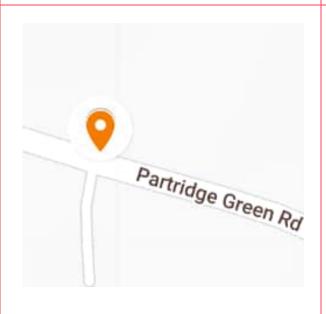
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 55 Grid Reference: 50.96056, -0.28852

## **Location Plan**

# **Location Photograph**





Type of Access – Operational

Road Accessed - B2116

Width of Access Road - N/A



No accommodation works required – existing access

## Road at site location



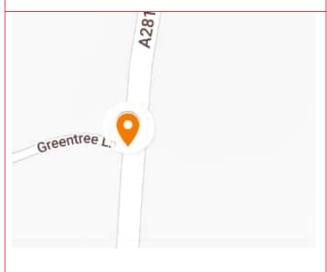
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 56 Grid Reference: 50.96761, -0.27975

## **Location Plan**

## **Location Photograph**





Type of Access - Constructional and operational

Road Accessed - A281

Width of Access Road - 3m



No accommodation works required – existing access.

The access tracks leading from the B2135 at are narrow. Passing places should be provided considered on the access tracks to enable two vehicles to pass. Alternately traffic management measures may be required to avoid conflicting movements.

Temporary 40mph speed limit to be applied whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

#### Road at site location



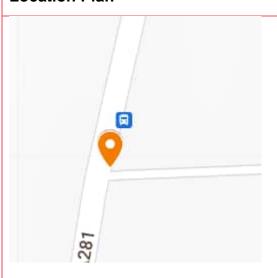
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) -requirement.

Access 57 Grid Reference: 50.96873, -0.27936

#### **Location Plan**

# **Location Photograph**





Type of Access – Construction and operational

Road Accessed - A281

Width of Access Road - 3m



No accommodation works required – existing access.

The access tracks leading from the B2135 at are narrow. Passing places should be provided considered on the access tracks to enable two vehicles to pass. Alternately traffic management measures may be required to avoid conflicting movements.

Temporary 40mph speed limit to be applied whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

#### Road at site location



## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 58 Grid Reference: 50.97862, -0.27852

#### **Location Plan**

## **Location Photograph**





Type of Access – Operational

Road Accessed - A281

Width of Access Road - 5m



No accommodation works required – existing access

#### Road at site location

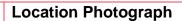


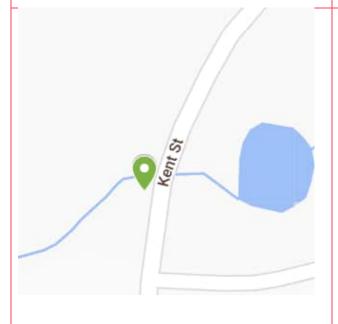
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 59 Grid Reference: 50.98008, -0.25061

## **Location Plan**







Type of Access – Operational

Road Accessed - Kent Street

Width of Access Road - N/A



No accommodation works required existing access

#### Road at site location



## **Access Visibility Requirements**

To be provided as per the draft Development Consent Order (DCO) (Document Reference: 3.1) requirement.

Access 60 Grid Reference: 50.98064, -0.25009

## **Location Plan**







Type of Access – Operational

Road Accessed - Kent Street

Width of Access Road - 3m



No accommodation works required – existing access

#### Road at site location

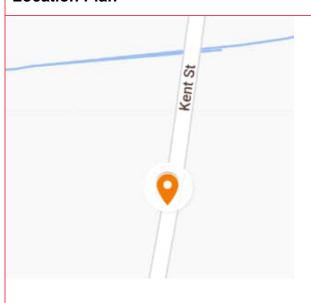


## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 61 Grid Reference: 50.98494, -0.24674

## **Location Plan**



## **Location Photograph**



Type of Access - Construction and operational

Road Accessed - Kent Street

Width of Access Road - 3m



New temporary construction bellmouth required

#### Road at site location



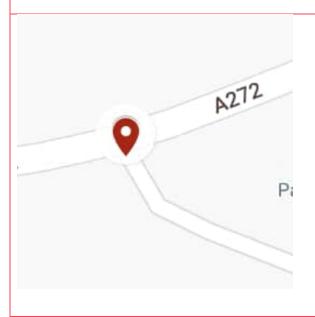
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 62 Grid Reference: 50.98957, -0.25742

## **Location Plan**

## **Location Photograph**





Type of Access - Construction

Road Accessed – A272

Width of Access Road - 6m



No accommodation works required – existing access

## Road at site location



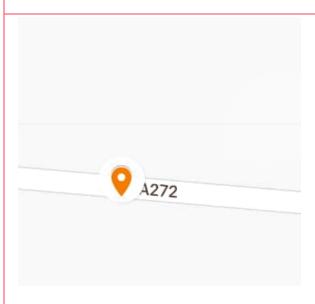
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 63 Grid Reference: 50.99104, -0.24763

## **Location Plan**

## **Location Photograph**





Type of Access - Construction and operational

Road Accessed - A272

Width of Access Road - N/A



New temporary construction bellmouth required

#### Road at site location



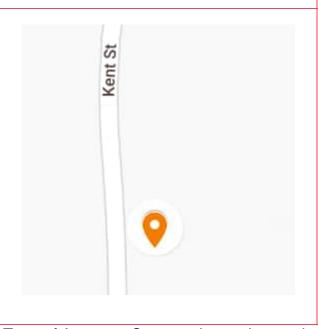
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 64 Grid Reference: 50.98917, -0.24653

## **Location Plan**

## **Location Photograph**





Type of Access – Construction and operational

Road Accessed - Kent Street

Width of Access Road - 4m



No accommodation works required – existing access

#### Road at site location

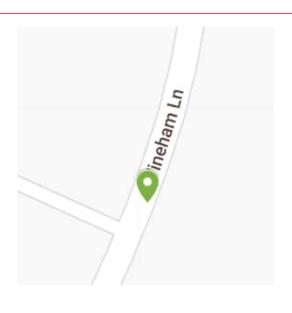


## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 65 Grid Reference: 50.98235, -0.23342

## **Location Plan**



## **Location Photograph**



Type of Access – Operational

Road Accessed - Wineham Lane

Width of Access Road - N/A



New temporary construction bellmouth required

#### Road at site location



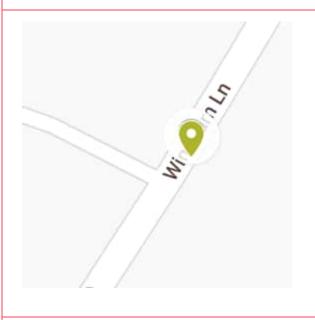
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 66 Grid Reference: 50.98069, -0.2348

## **Location Plan**

# **Location Photograph**





Type of Access - Light Construction and Operational

Road Accessed - Wineham Lane

Width of Access Road - N/A



New temporary construction bellmouth required\_

Temporary 40mph speed limit to be applied on Wineham Lane whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

#### Road at site location



## **Access Visibility Requirements**

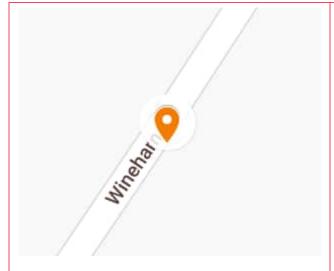
To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 67 Grid Reference: 50.98023, -0.23523

**Location Plan** 

**Location Photograph** 







Type of Access – Construction and operational

Road Accessed - Wineham Lane

Width of Access Road - N/A



New temporary construction bellmouth required.

No accommodation works required – existing access.

Temporary 40mph speed limit to be applied on Wineham Lane whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

#### Road at site location



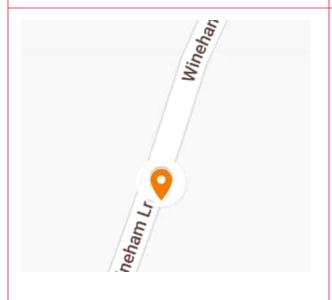
## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 68 Grid Reference: 50.97613, -0.23849

## **Location Plan**







Type of Access – Construction

Road Accessed - Wineham Lane

Width of Access Road - 6m



No accommodation works required – existing access.

Temporary 40mph speed limit to be applied on Wineham Lane whilst construction access is in use.

Appropriate signage will be put in place to warn drivers of construction traffic.

#### Road at site location



## **Access Visibility Requirements**

To be provided as per the **draft Development Consent Order (DCO)** (Document Reference: 3.1) requirement.

Access 69 Grid Reference: 50.97571, -0.23872

#### Location Plan

## **Location Photograph**





Type of Access – Operational

Road Accessed – Wineham Lane

Width of Access Road - 5m

Width of Main Carriageway - 5.5m

**Accommodation Works** 

Road at site location



No accommodation works required – existing access



# **Access Visibility Requirements**

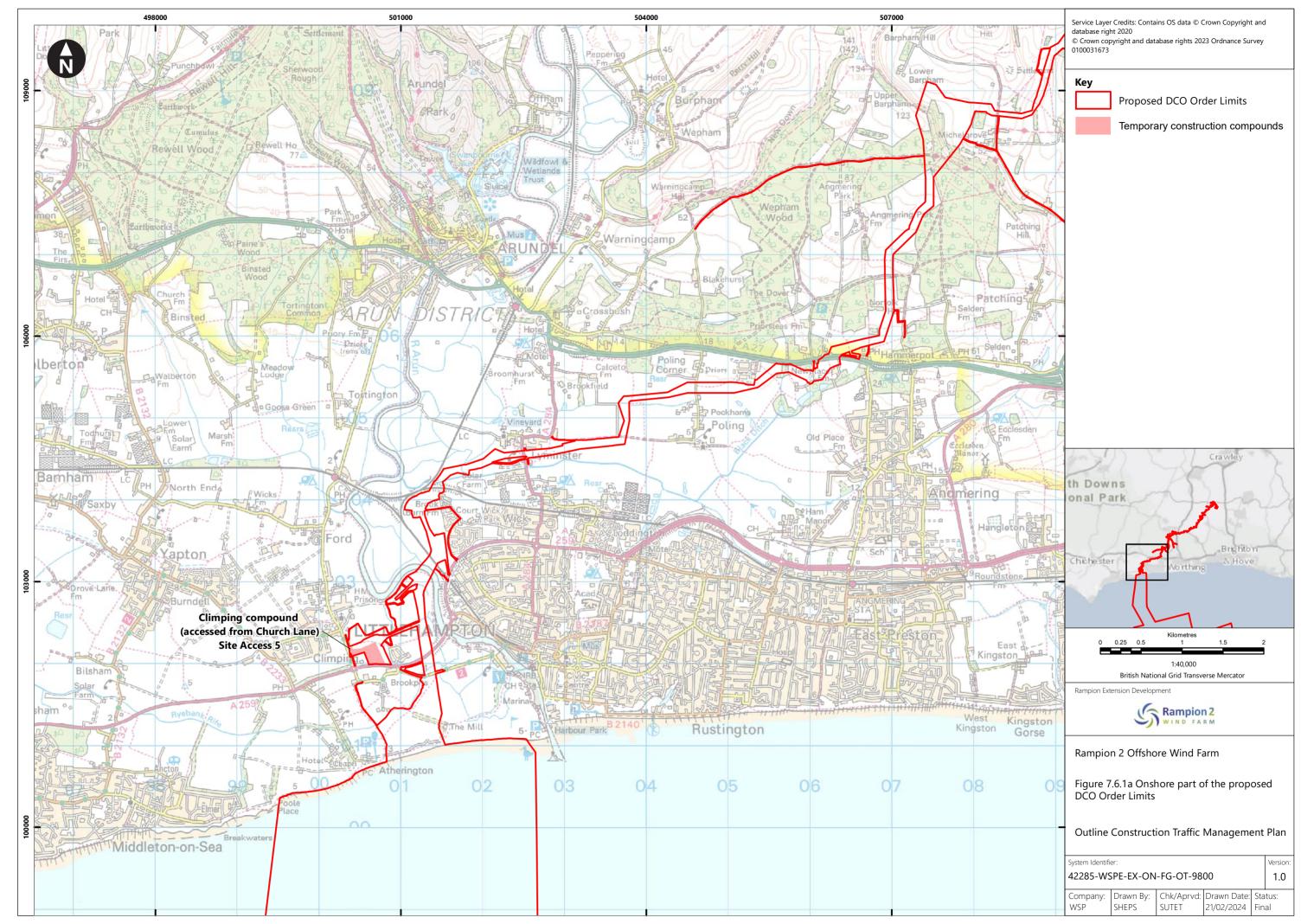
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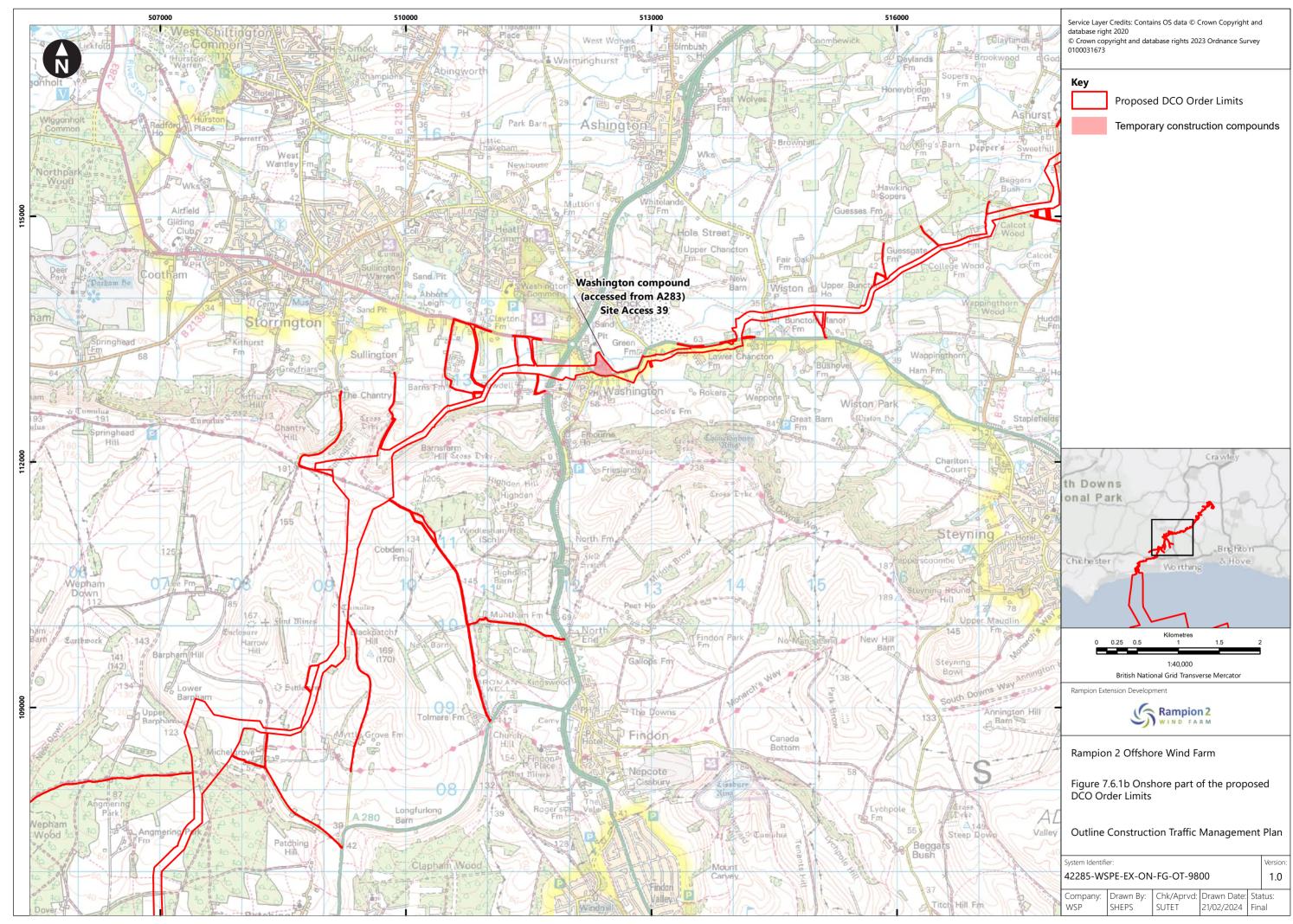


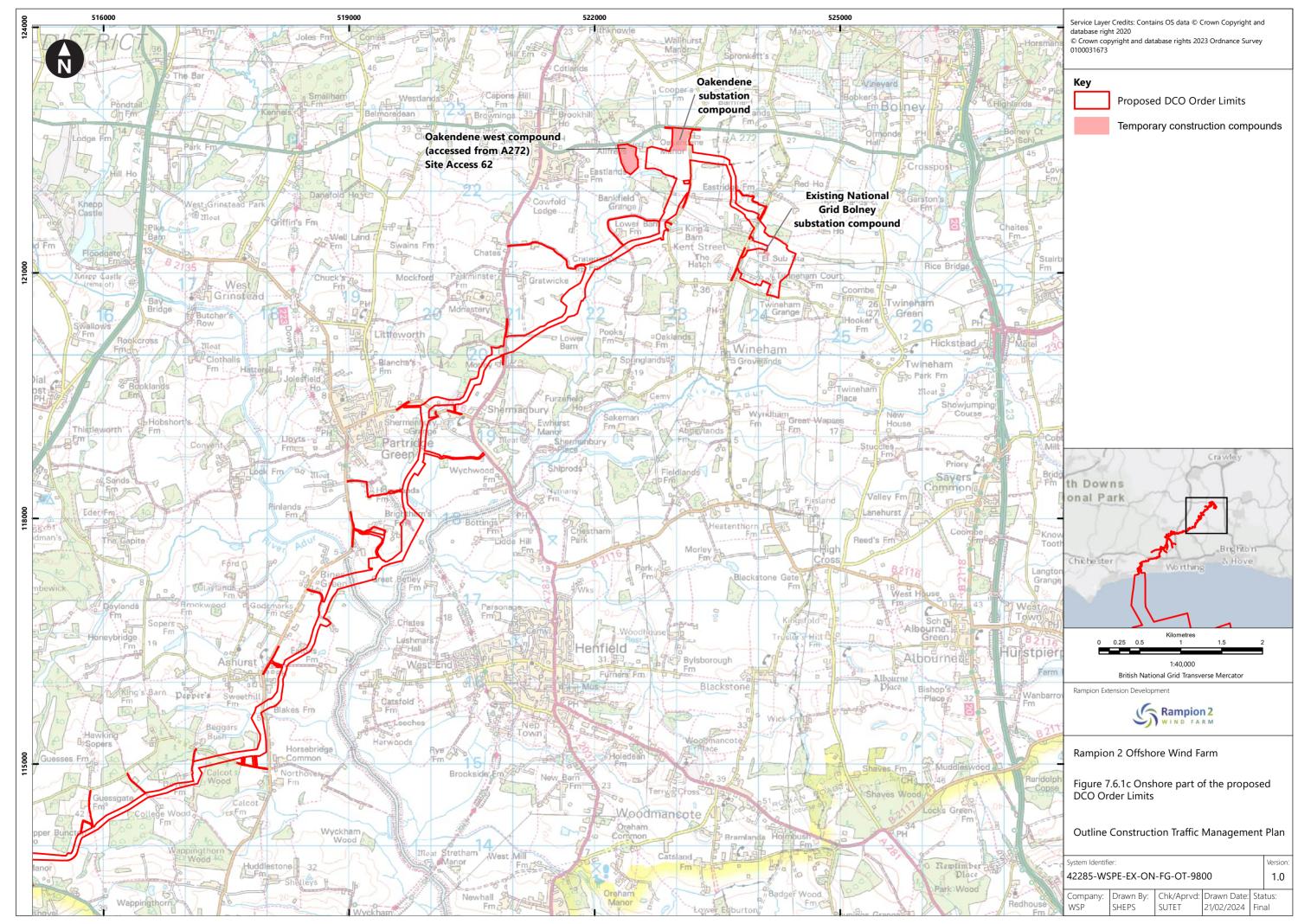
# Appendix B Figures

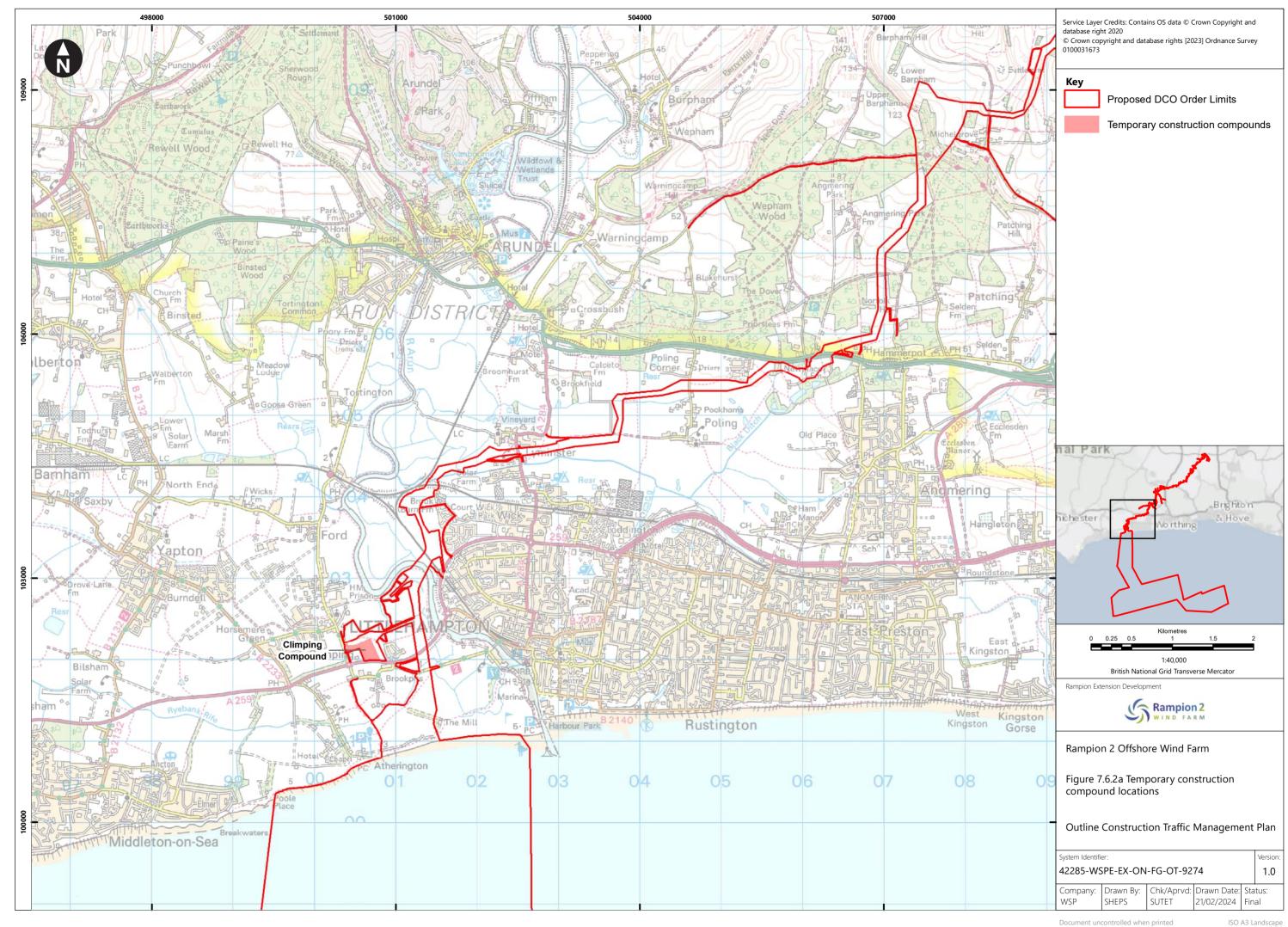


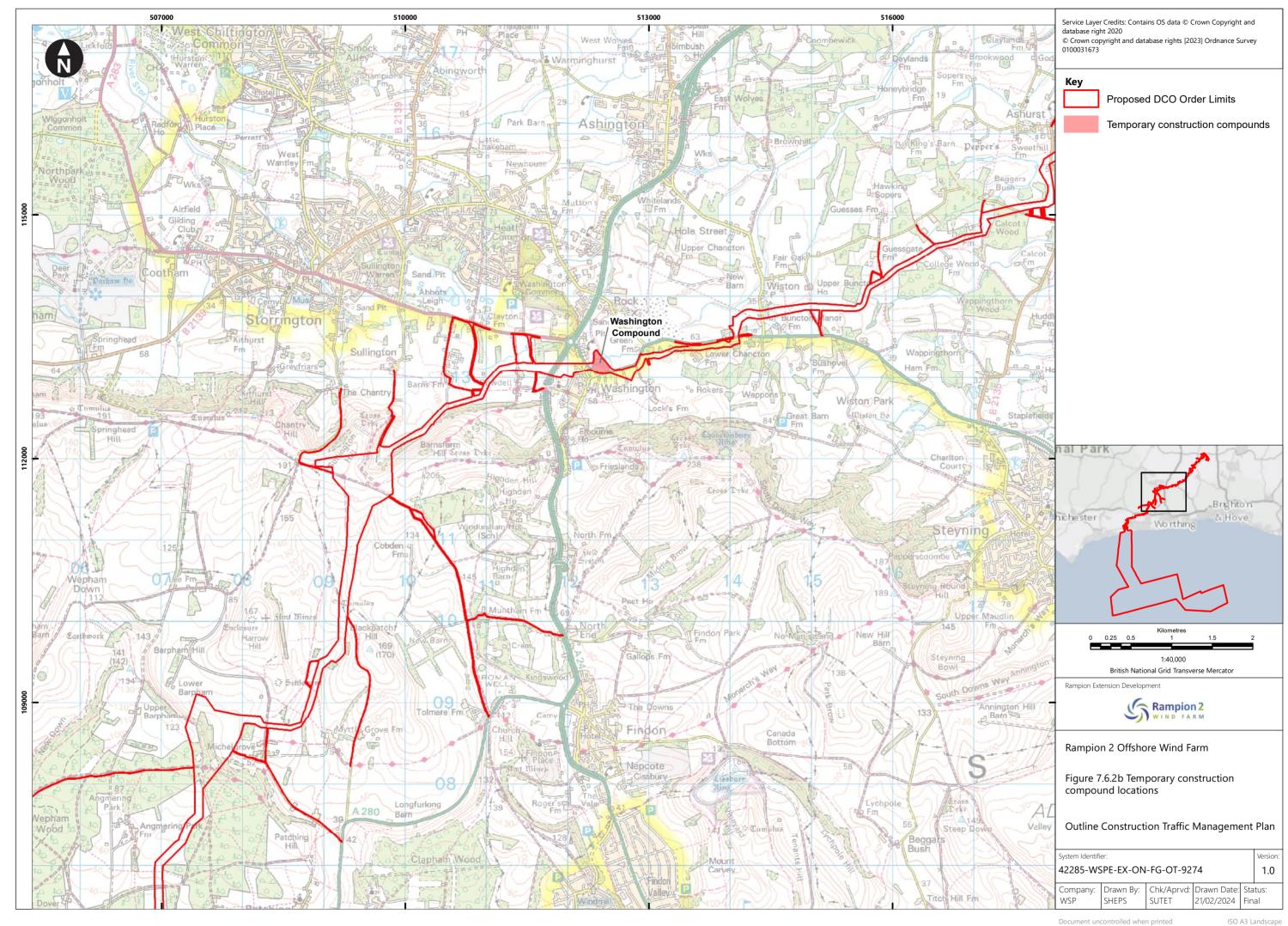
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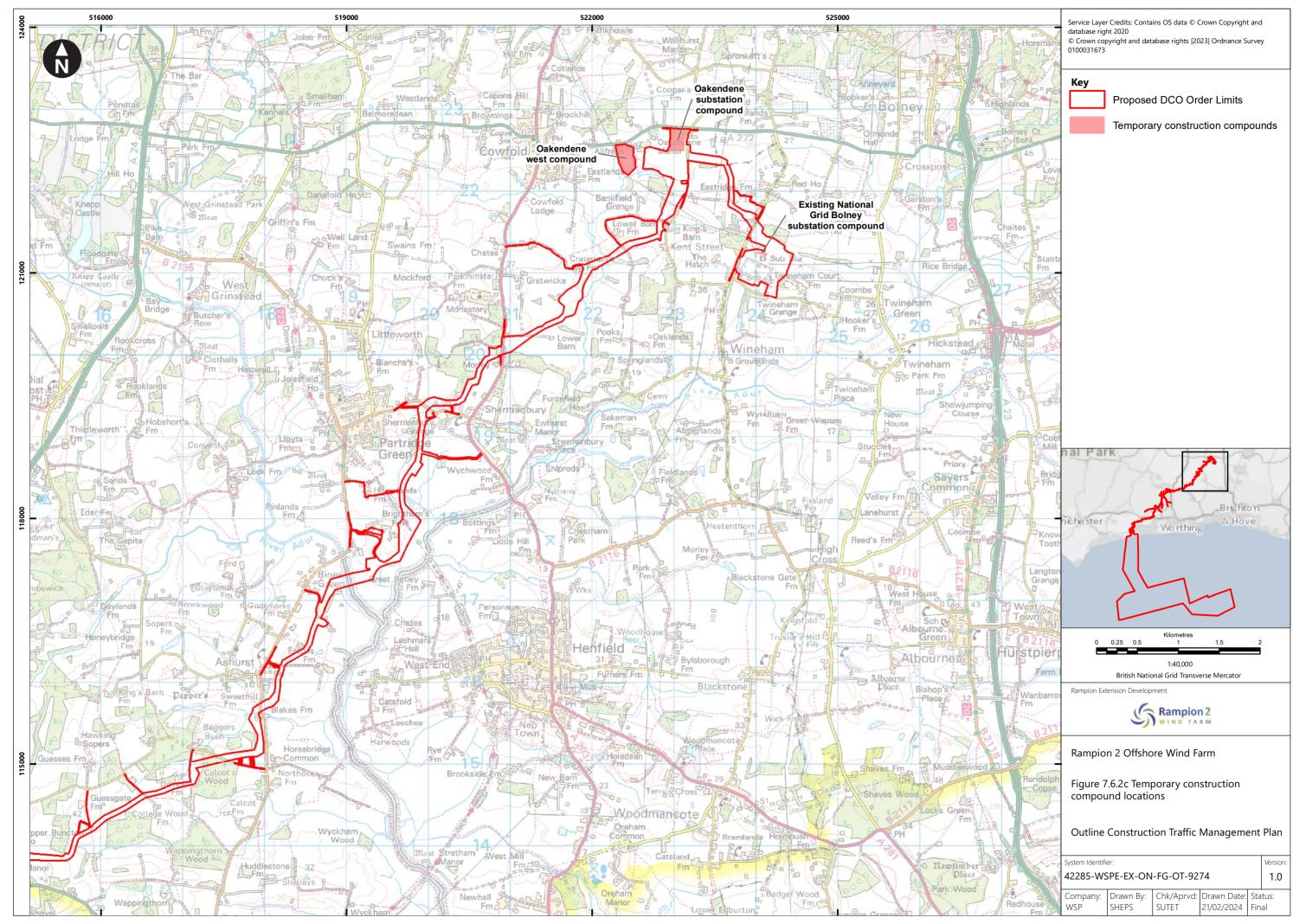


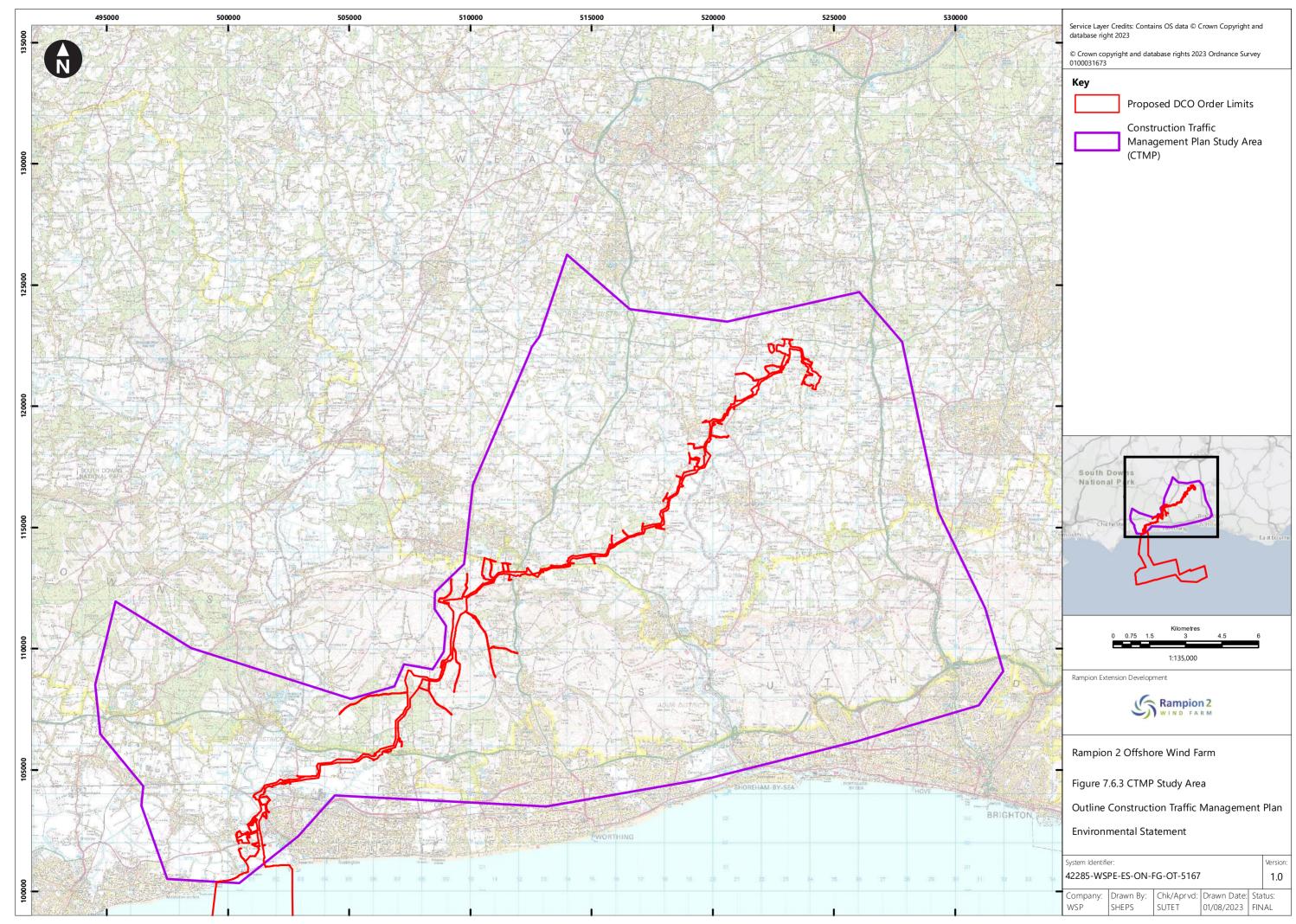


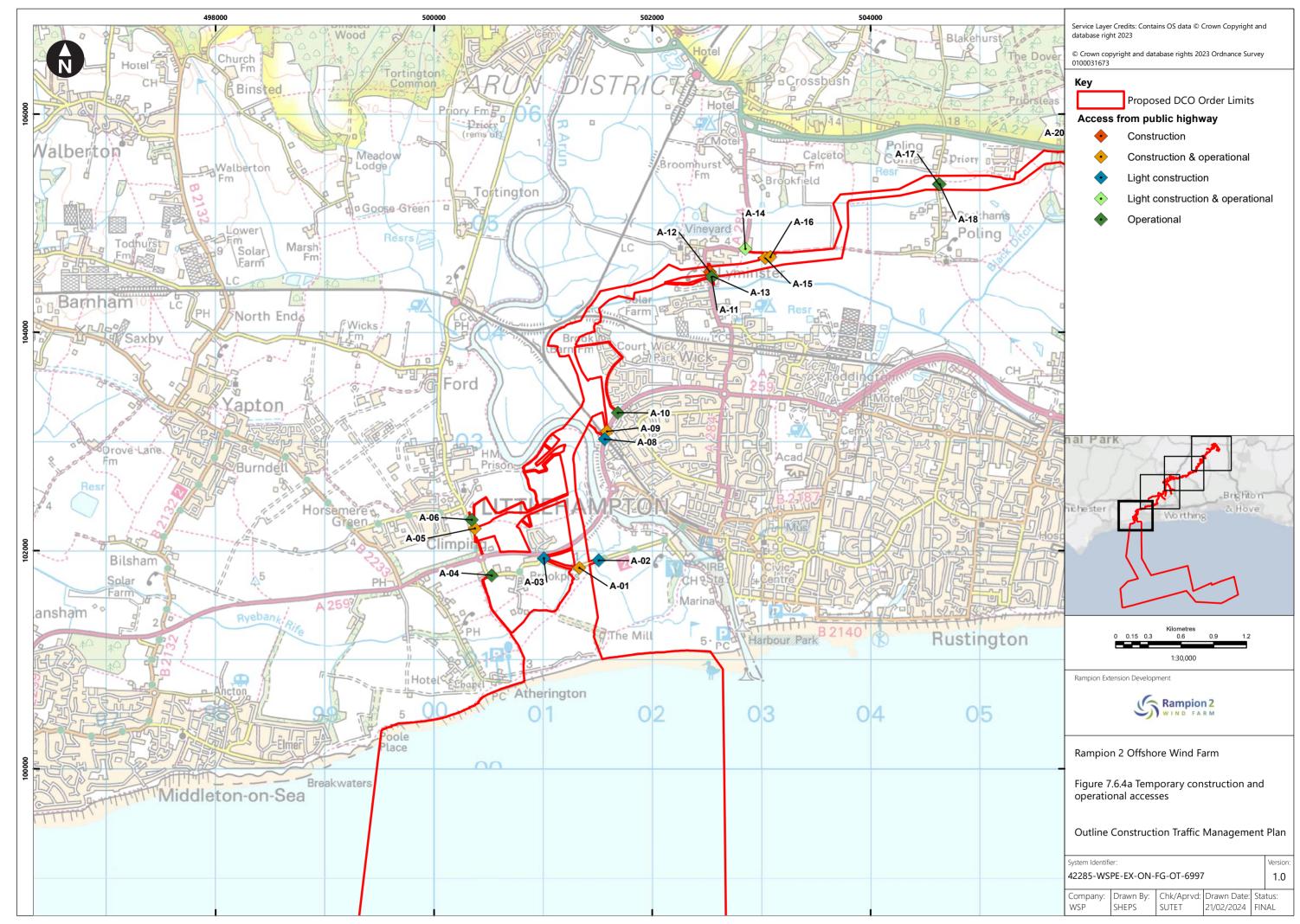


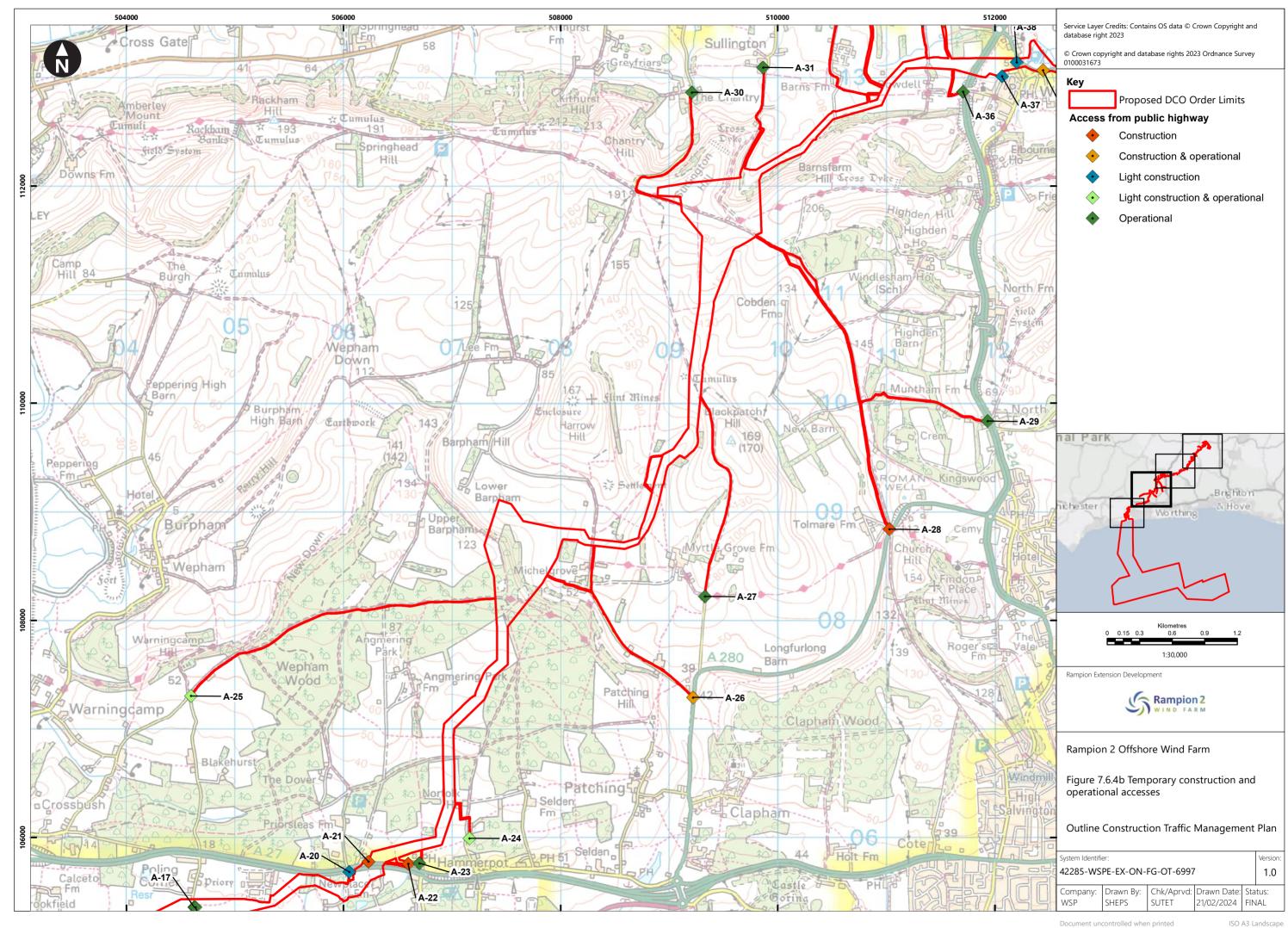


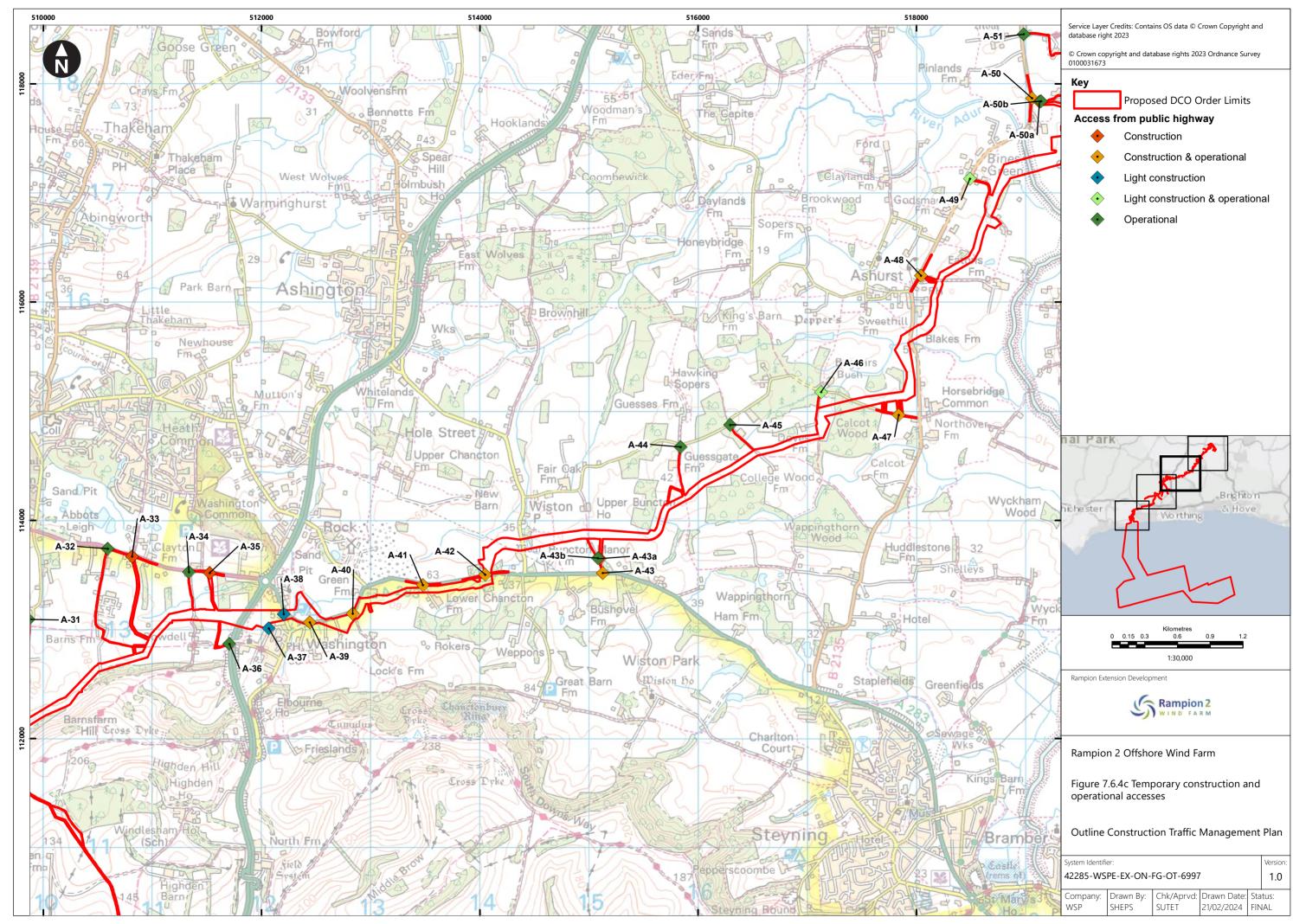


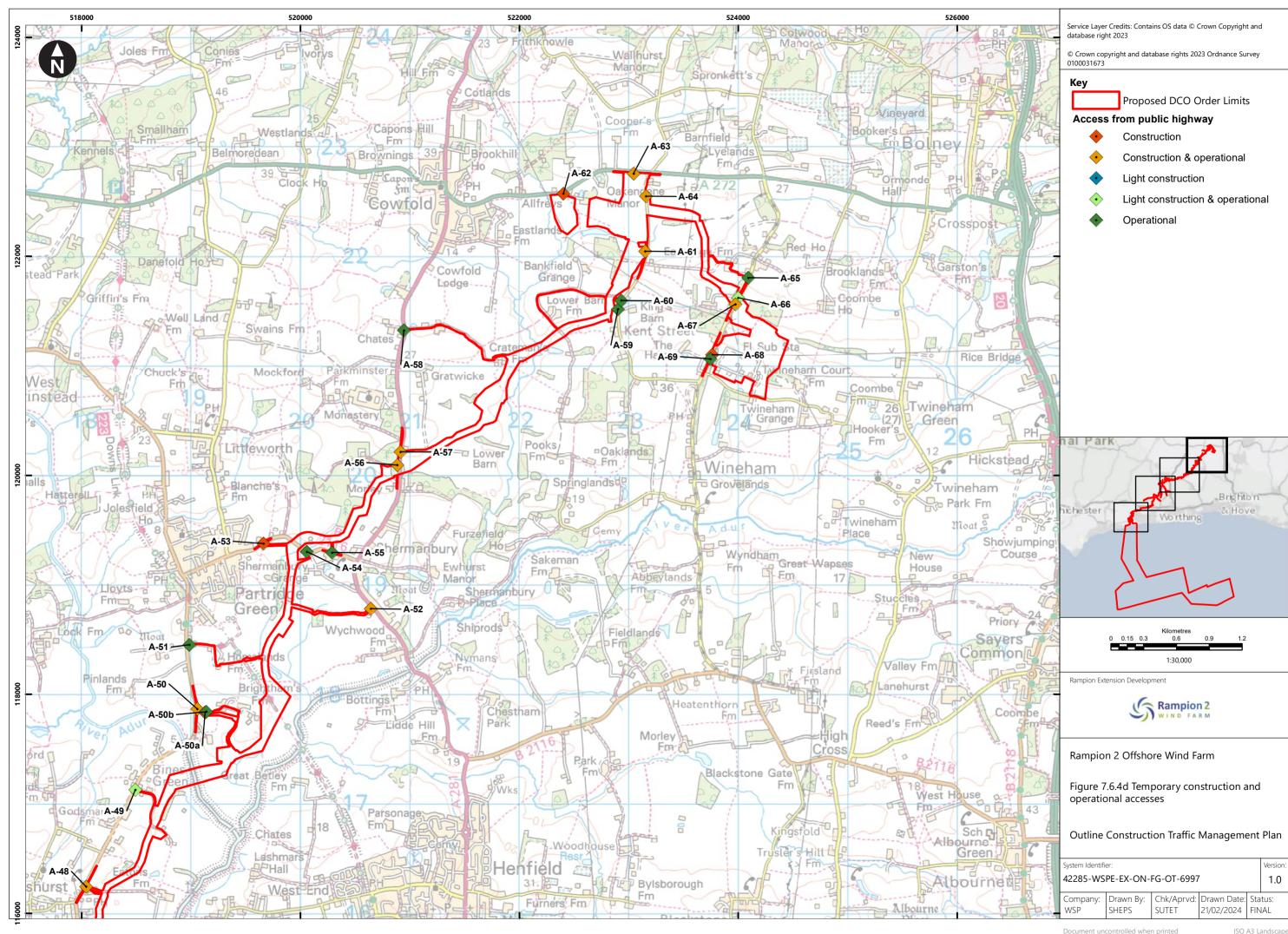


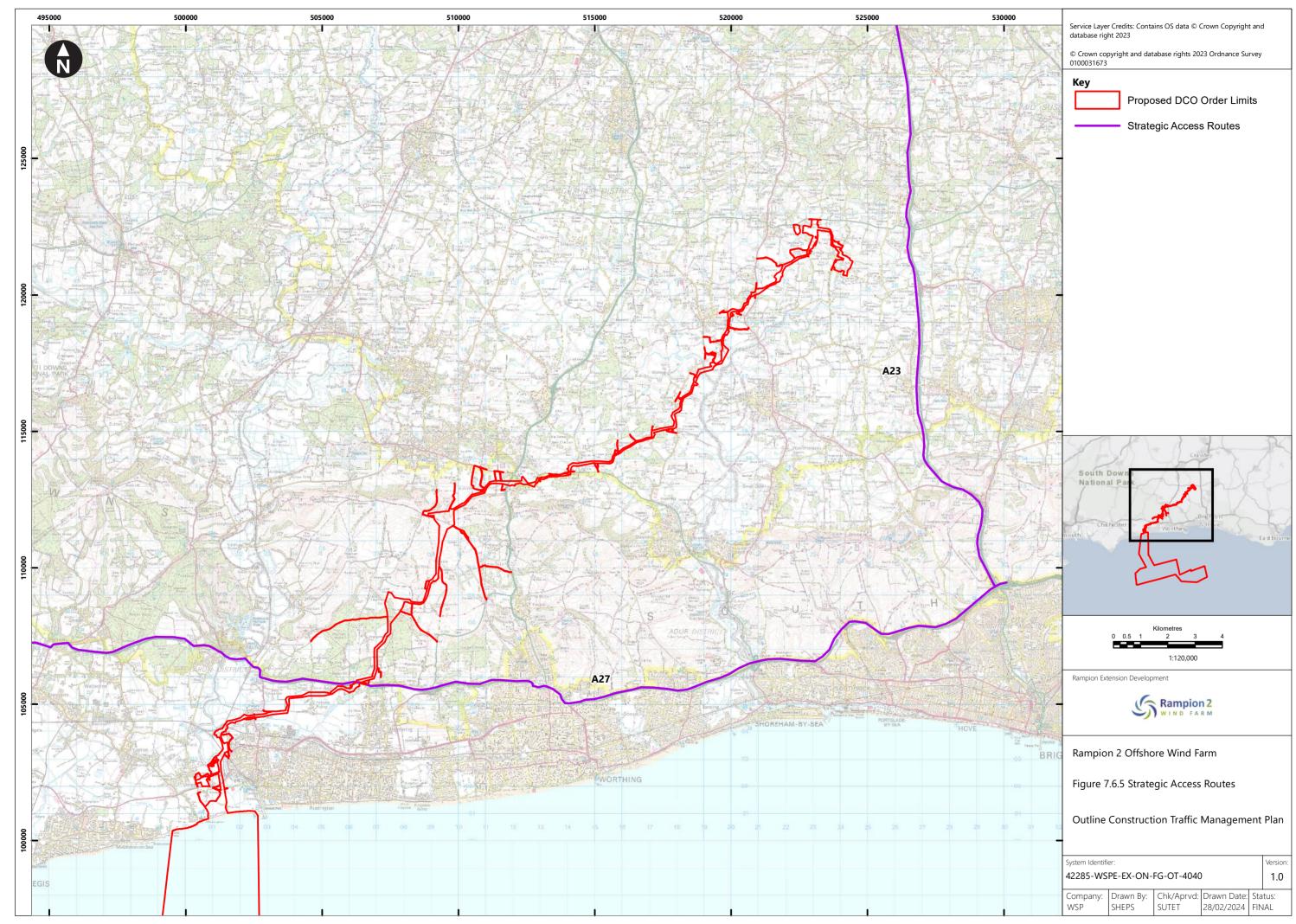


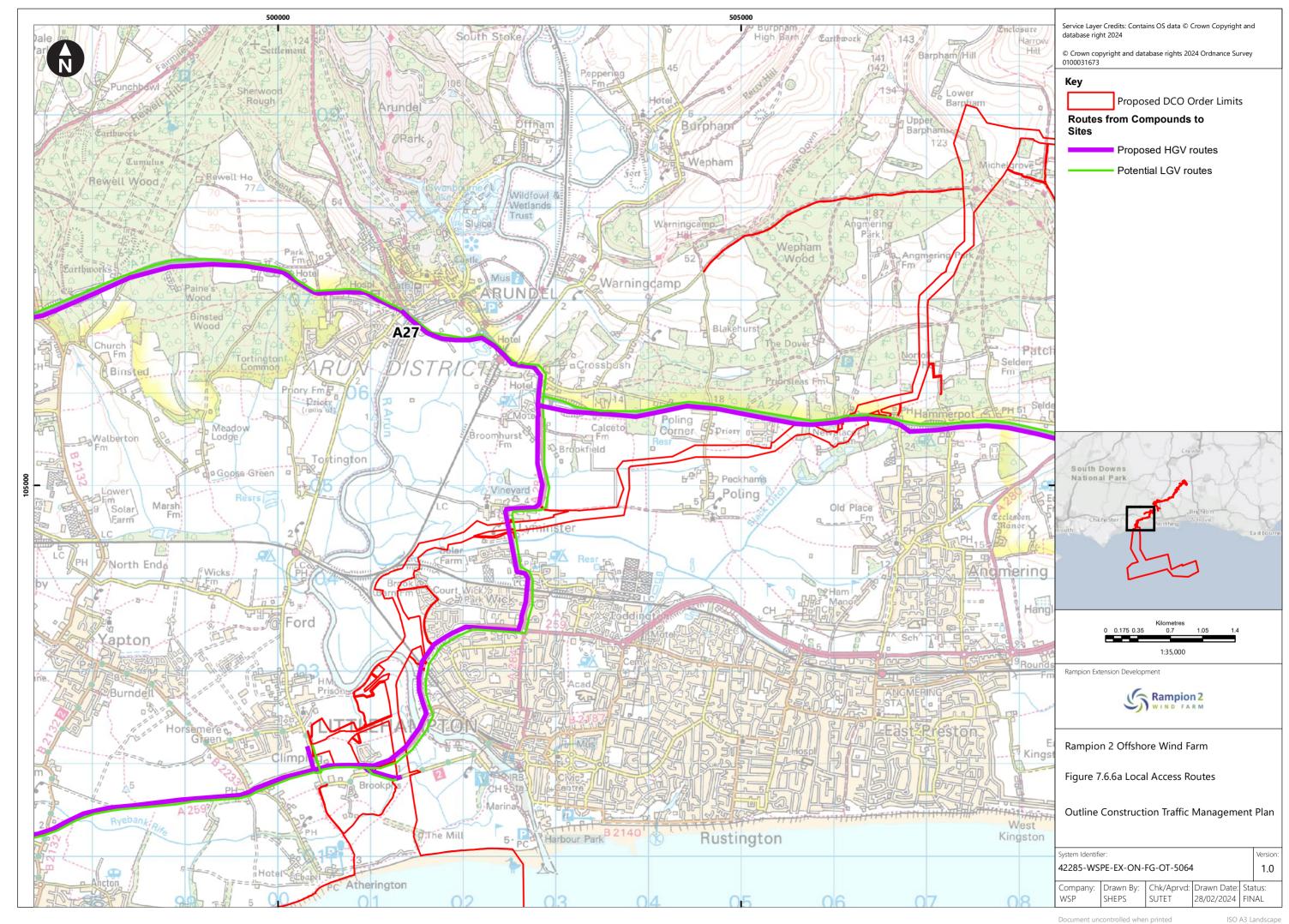


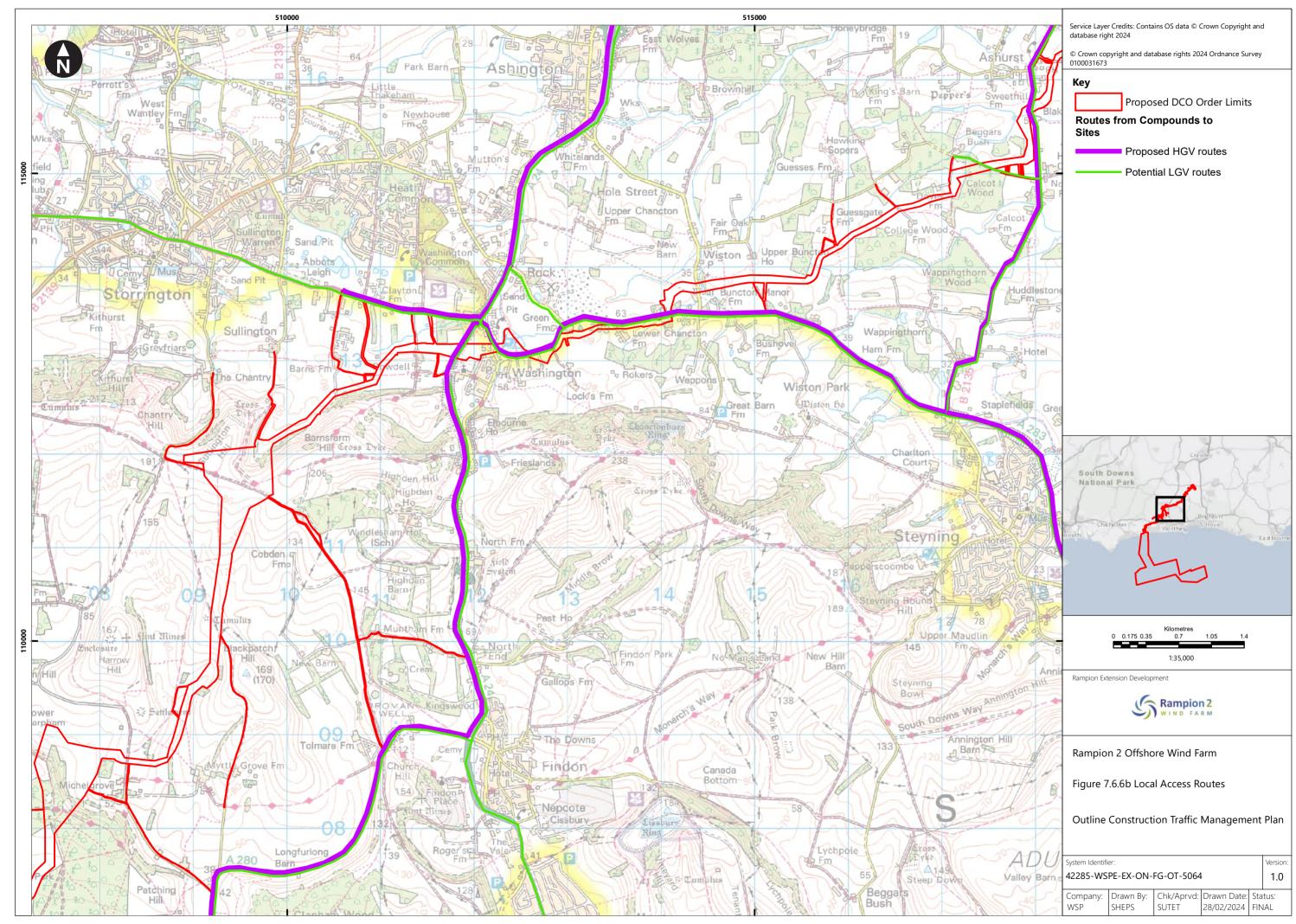


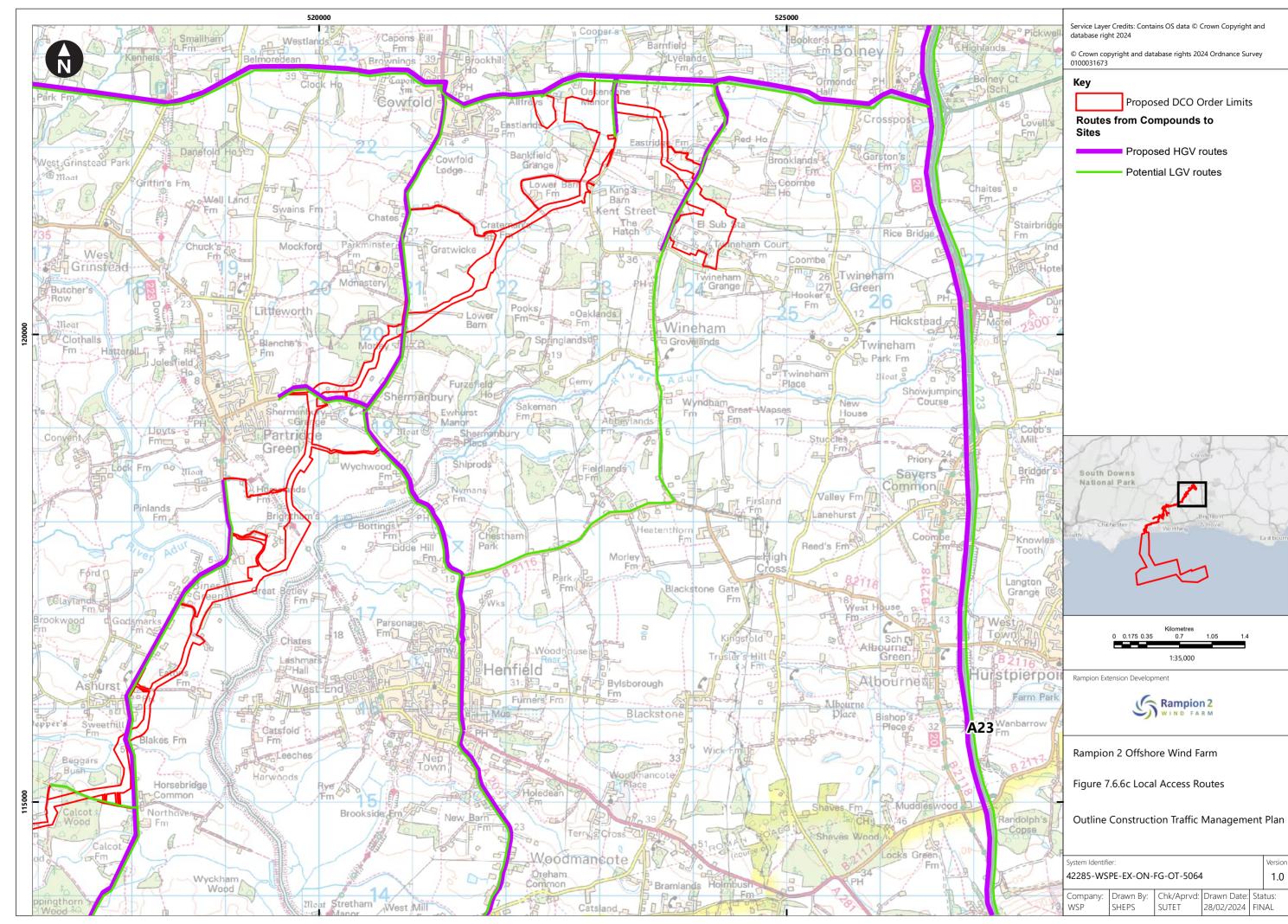


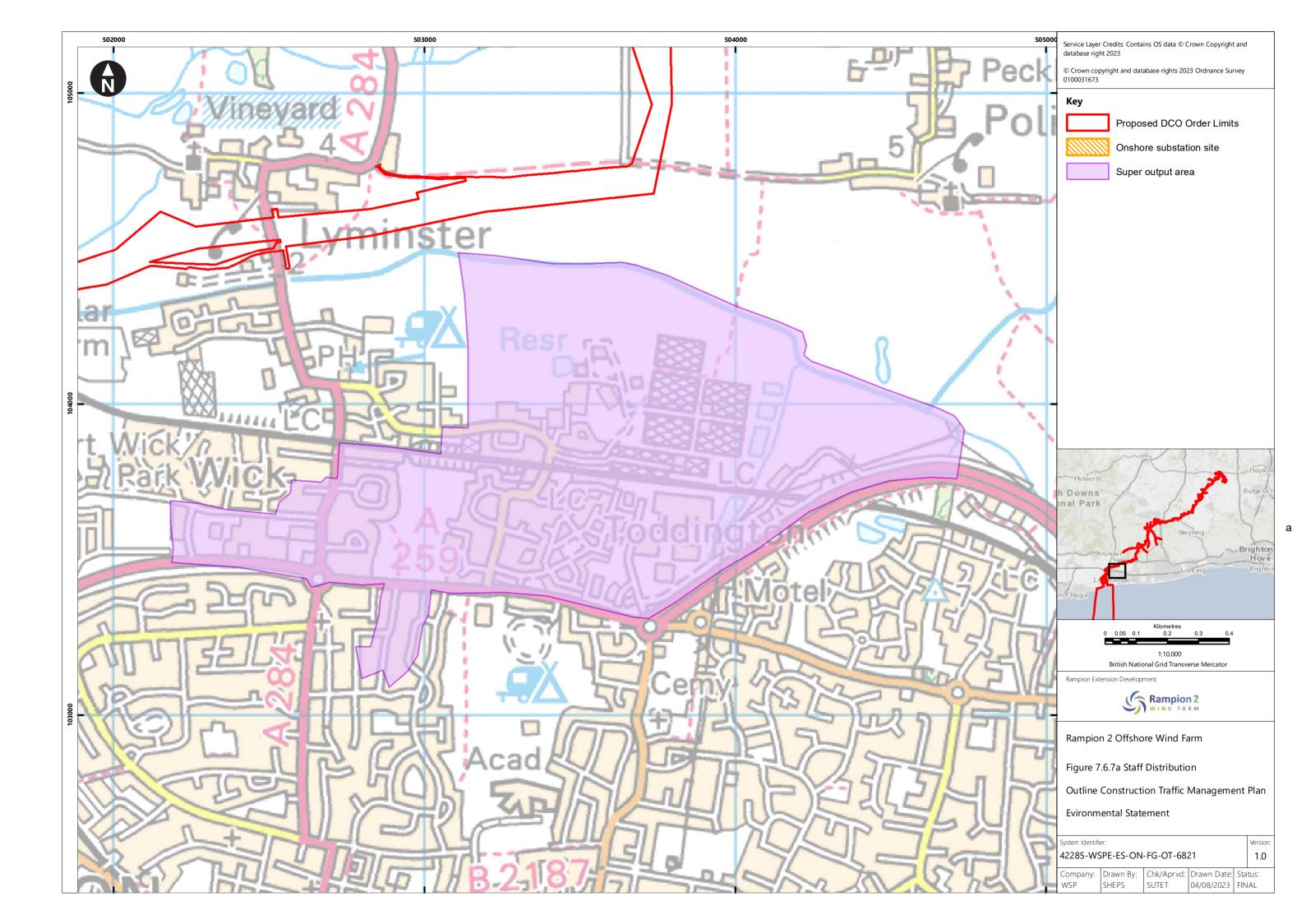


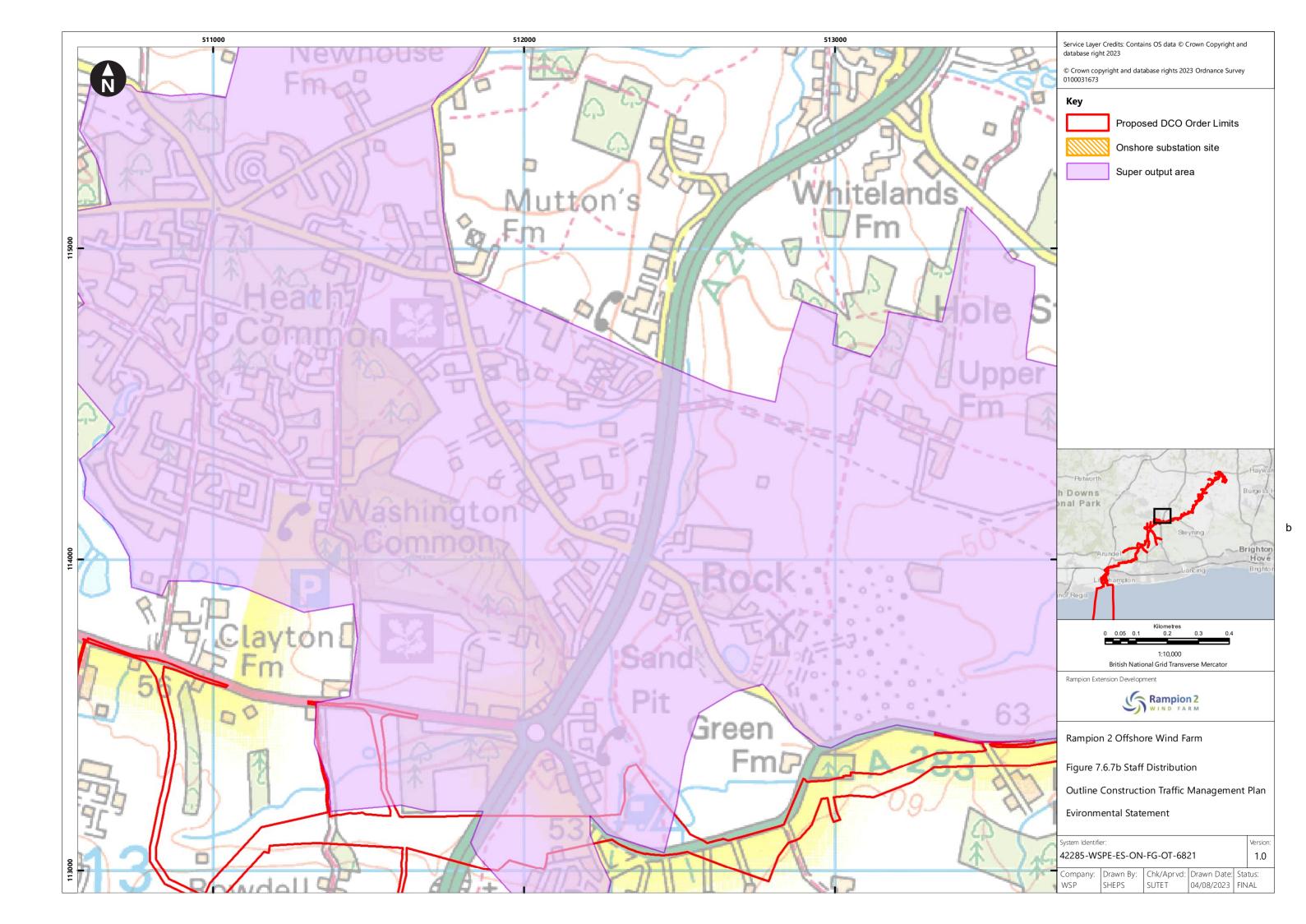


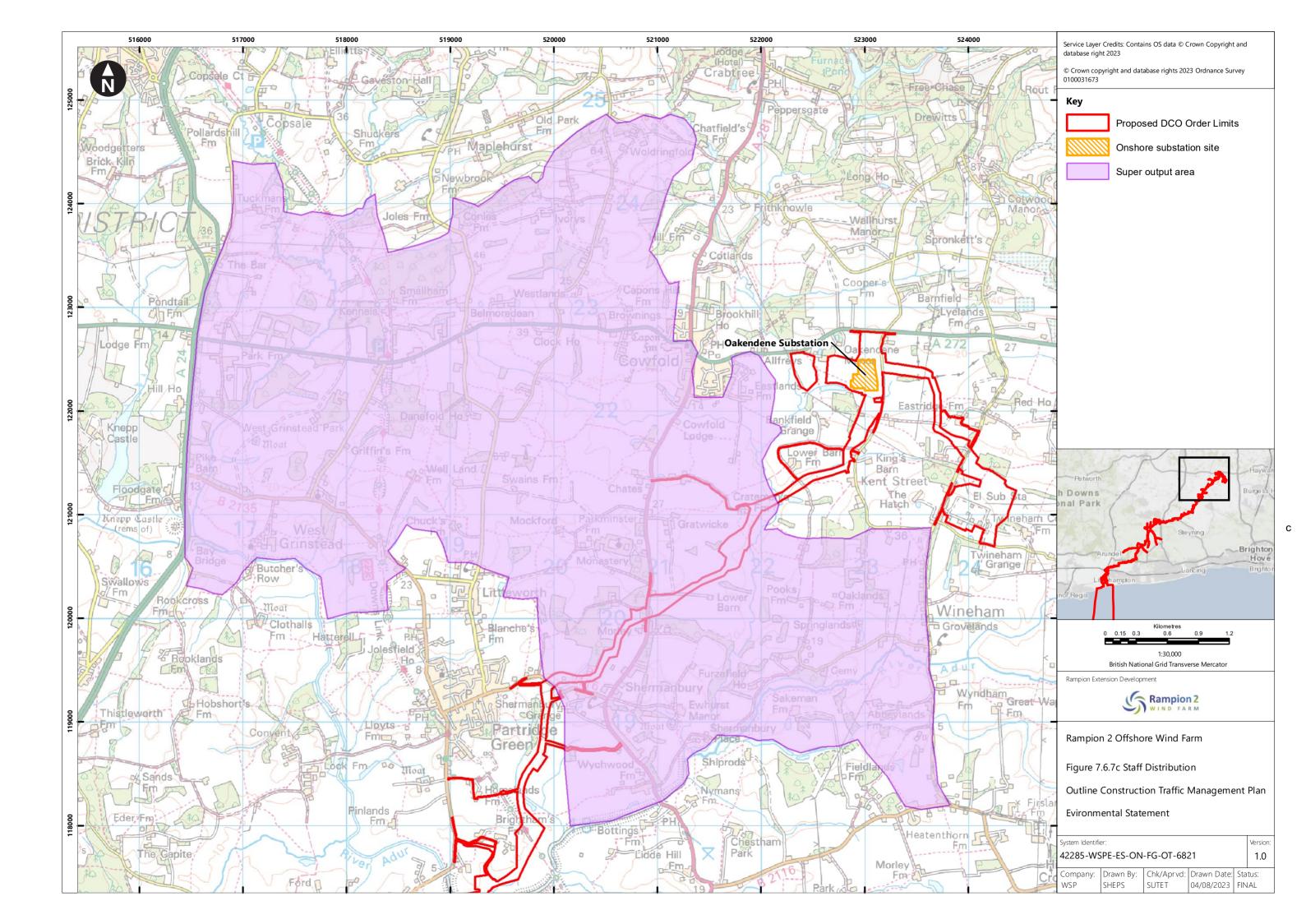


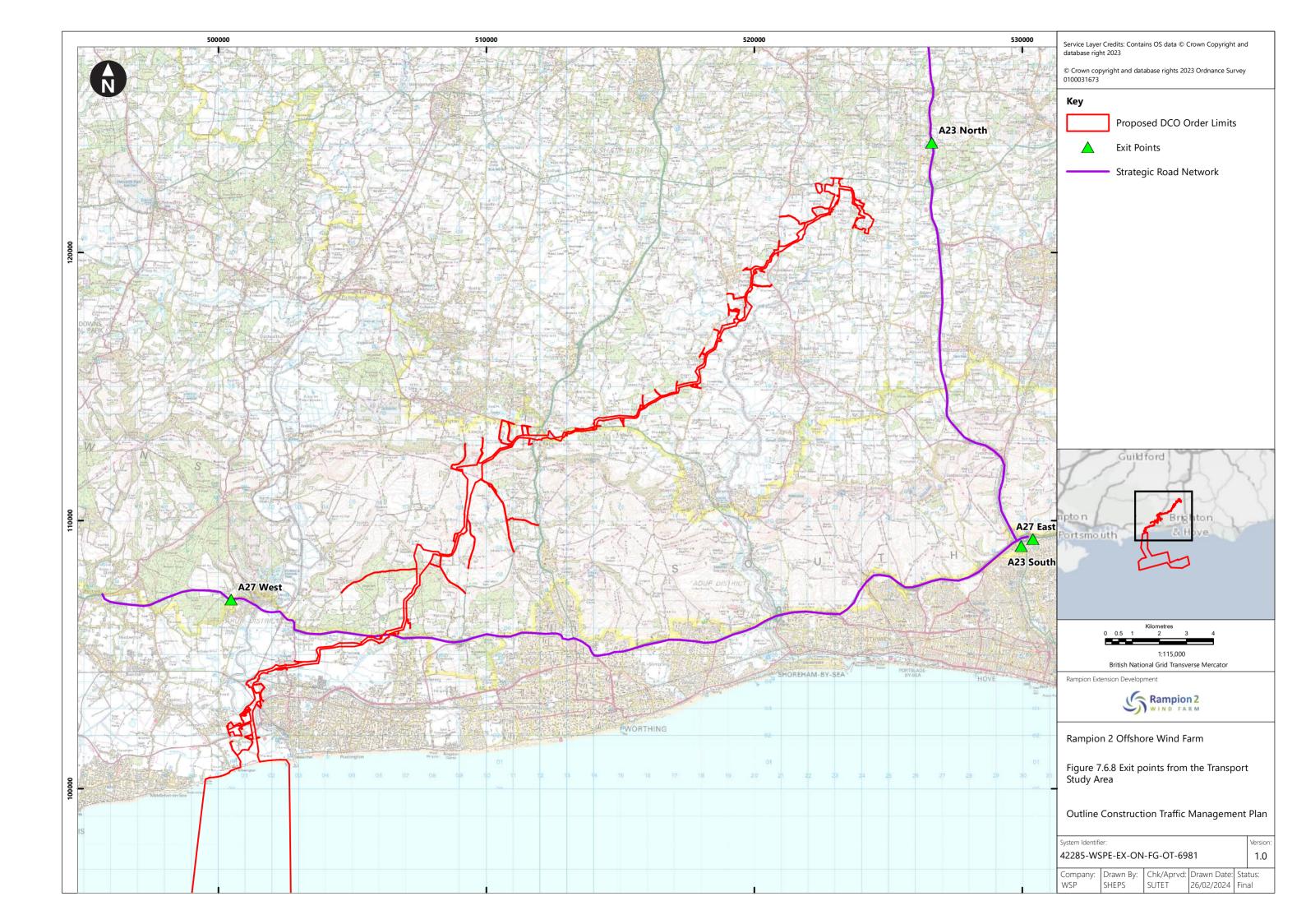


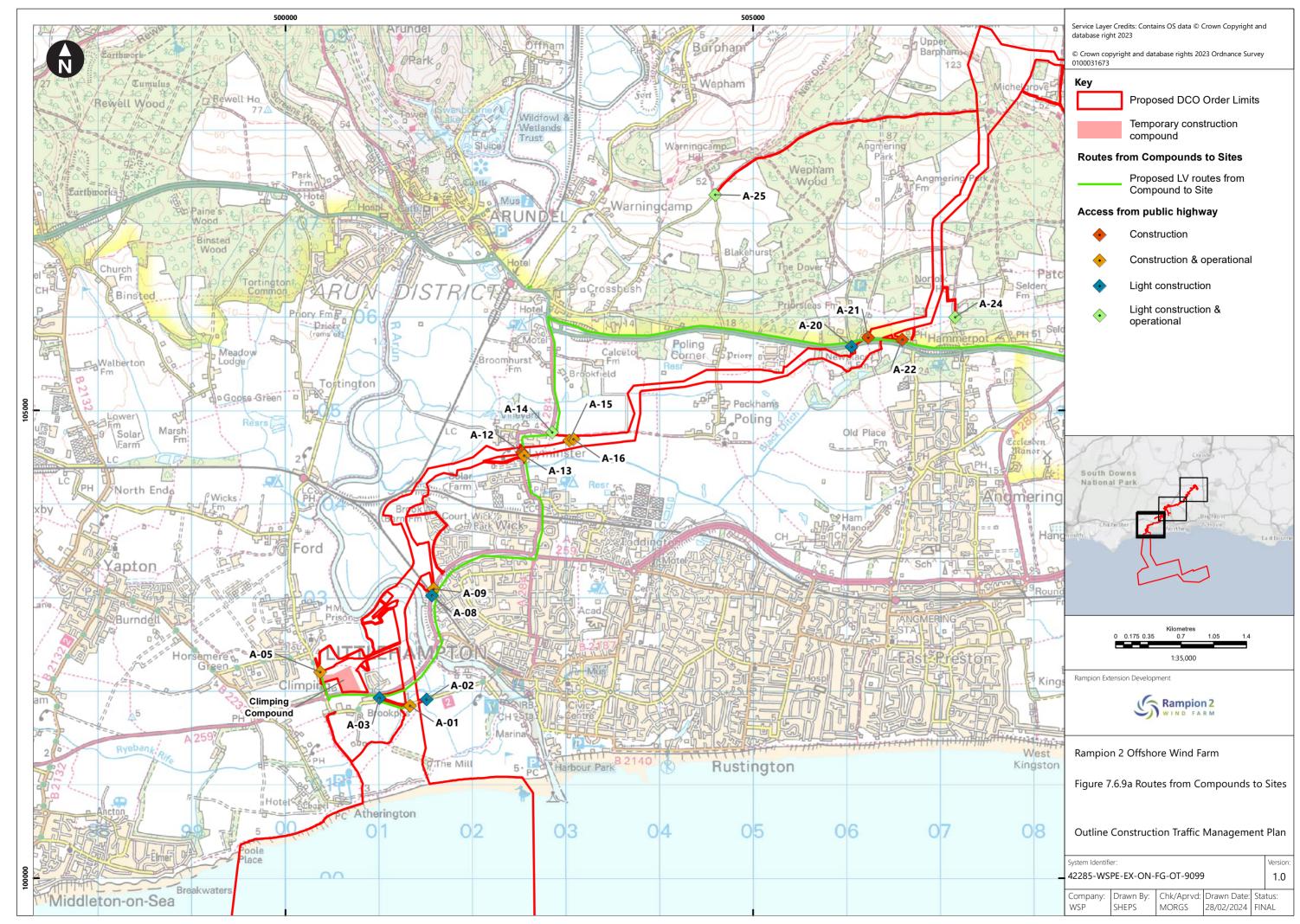


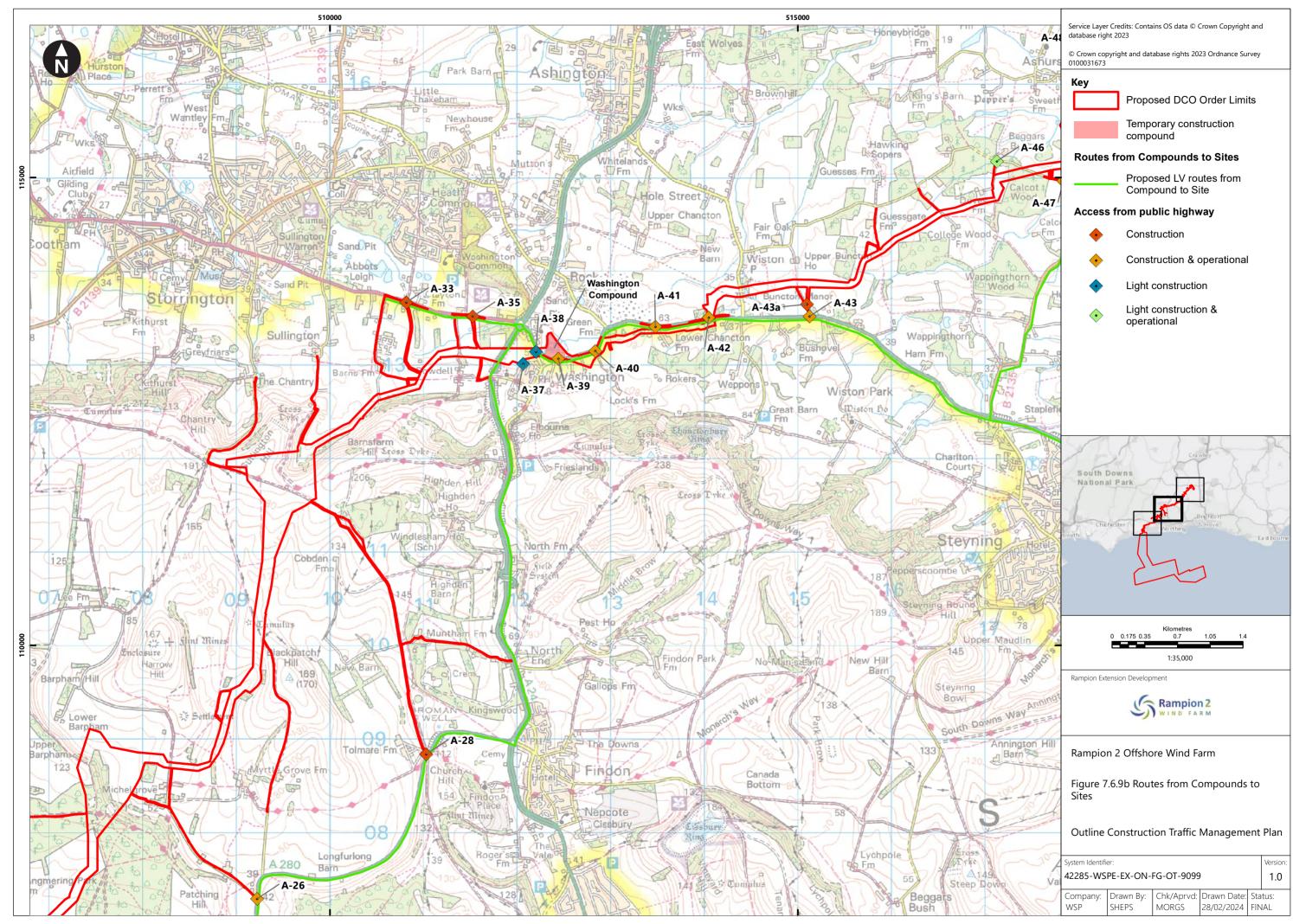


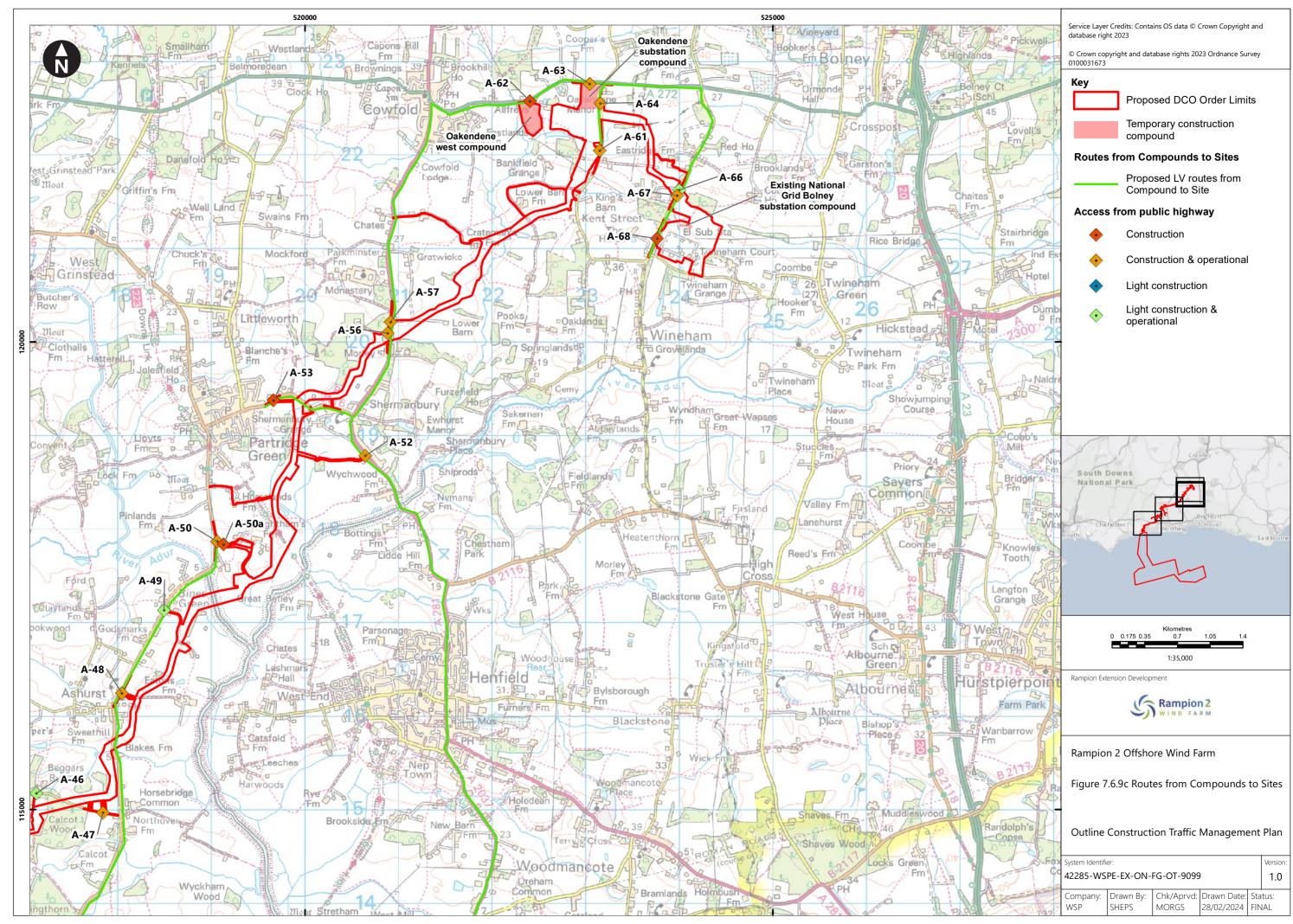


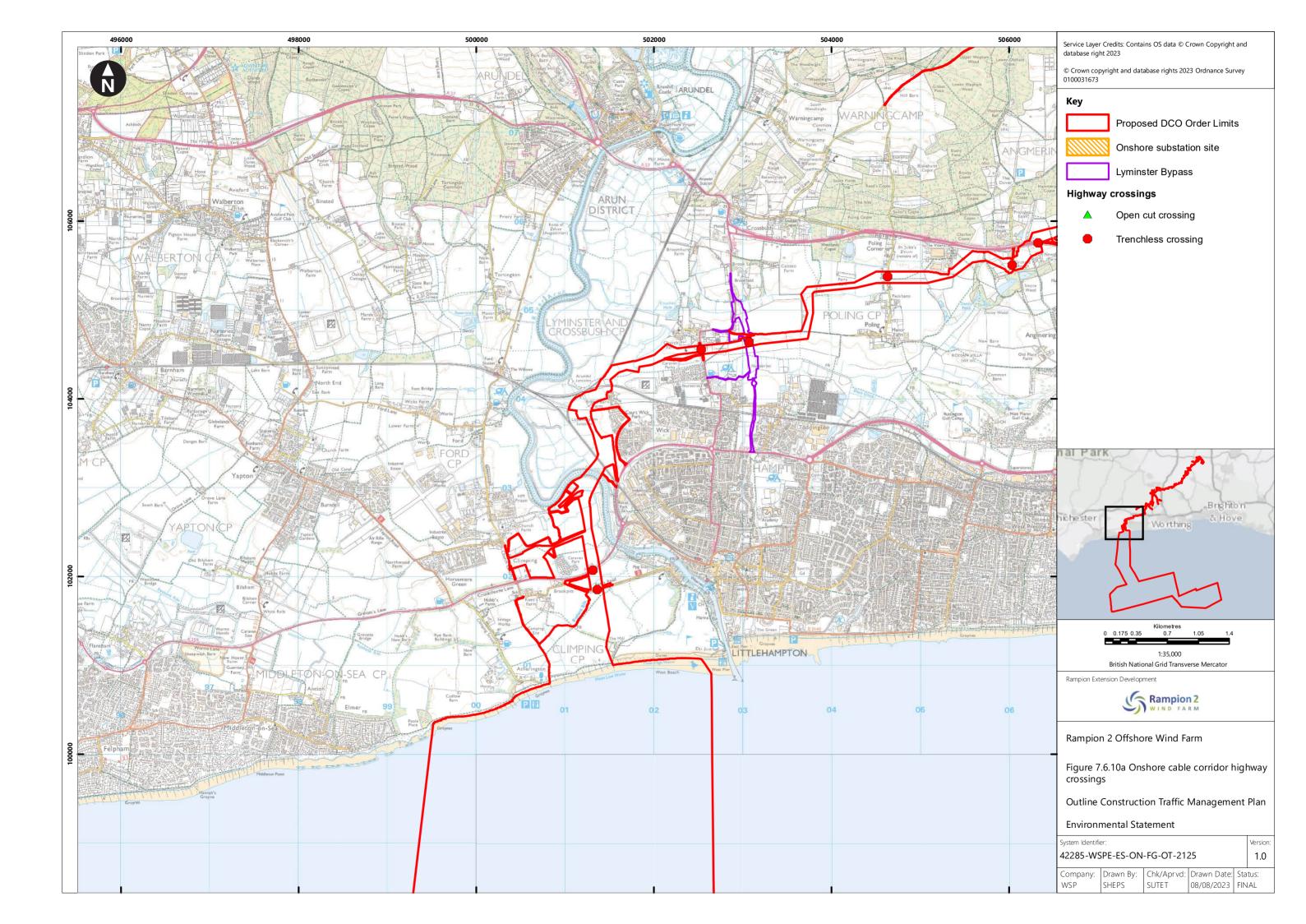


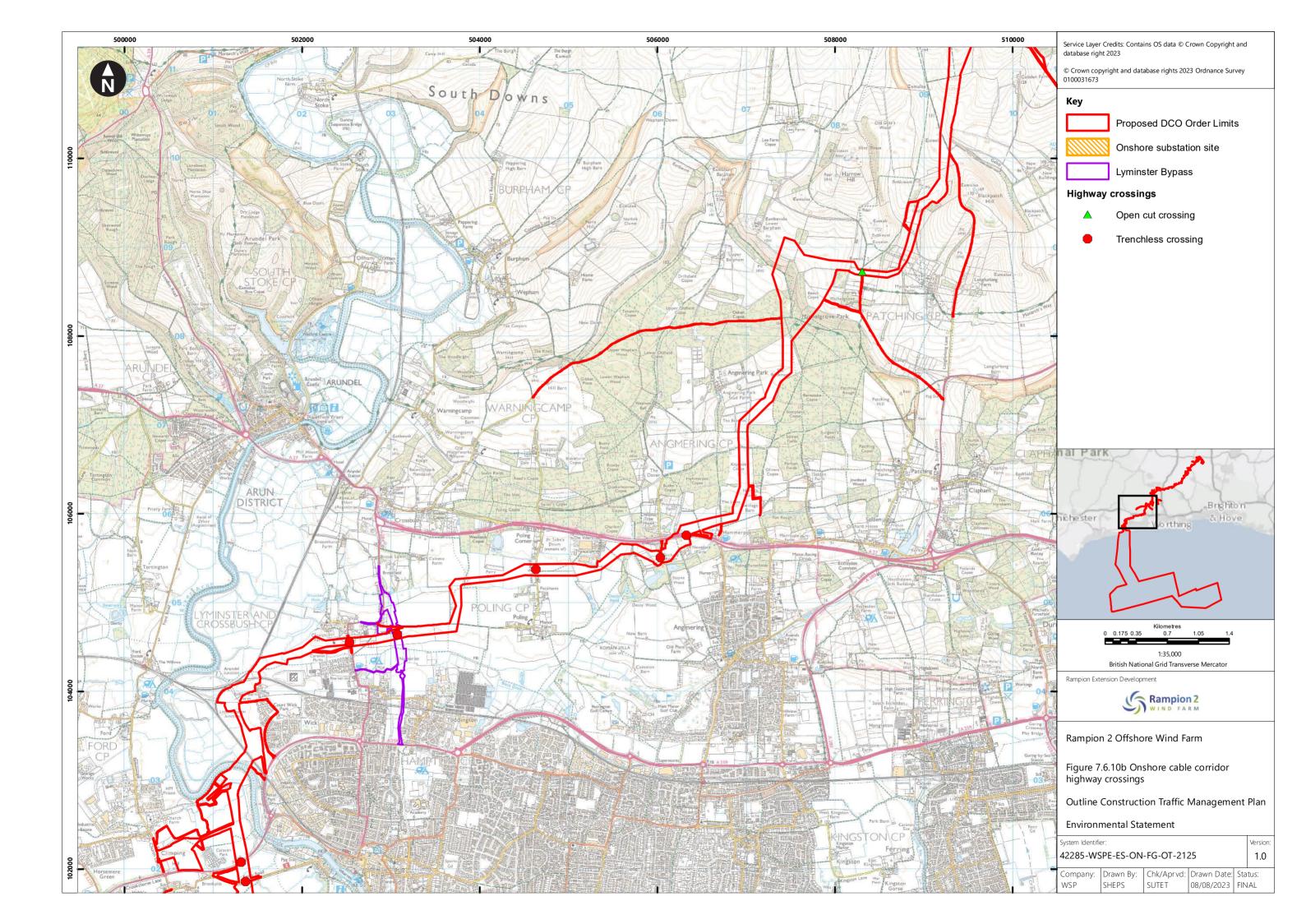


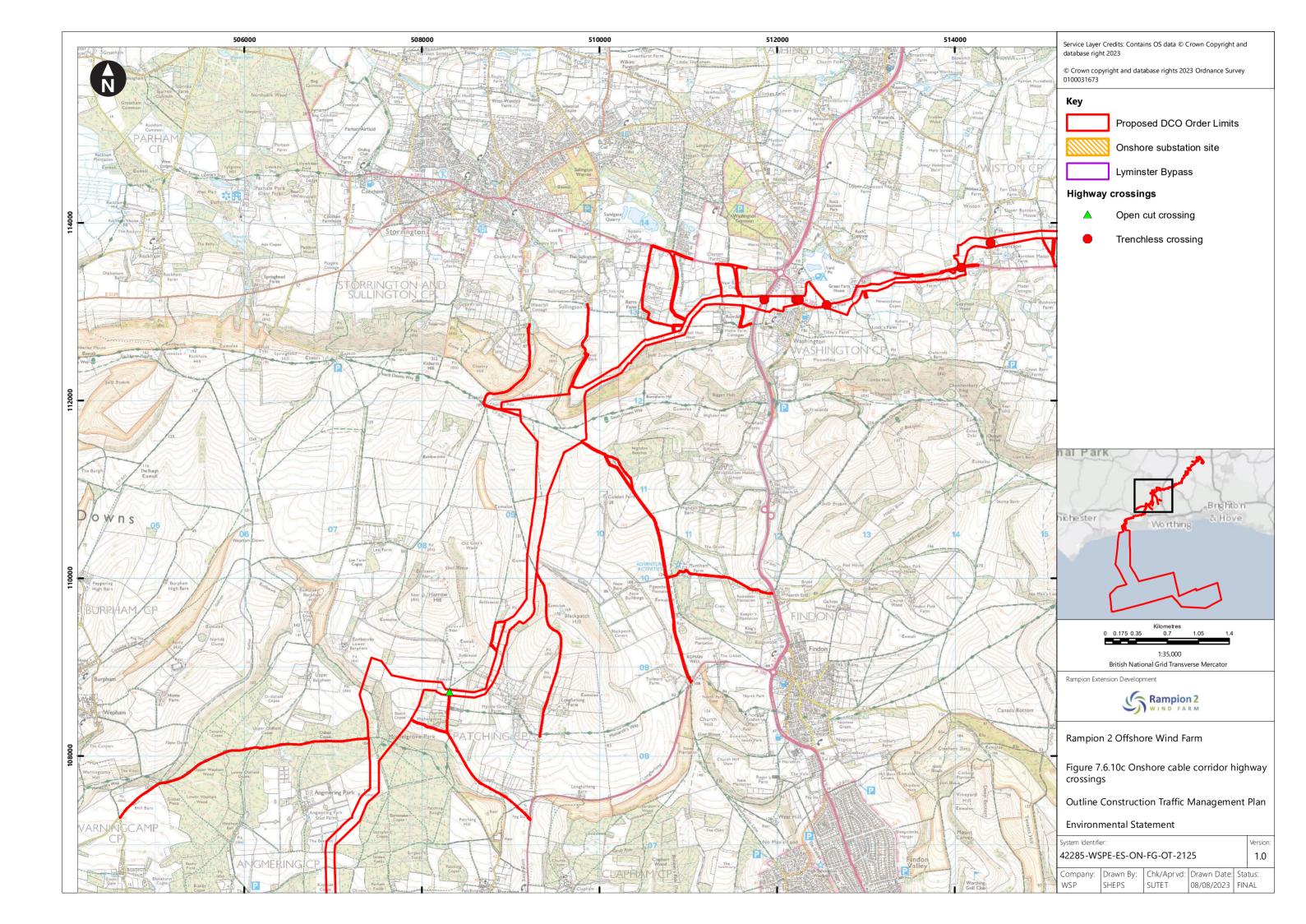


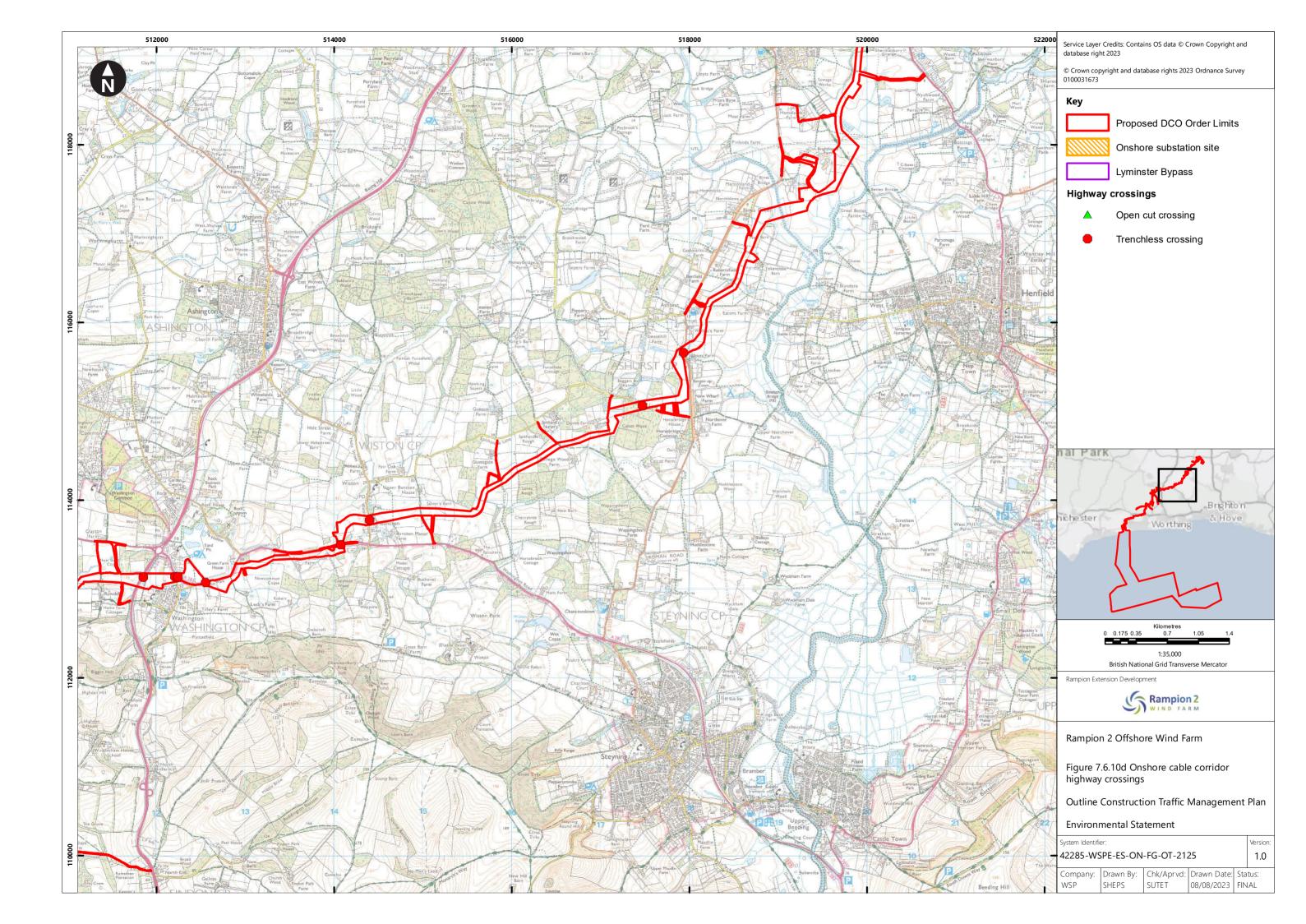


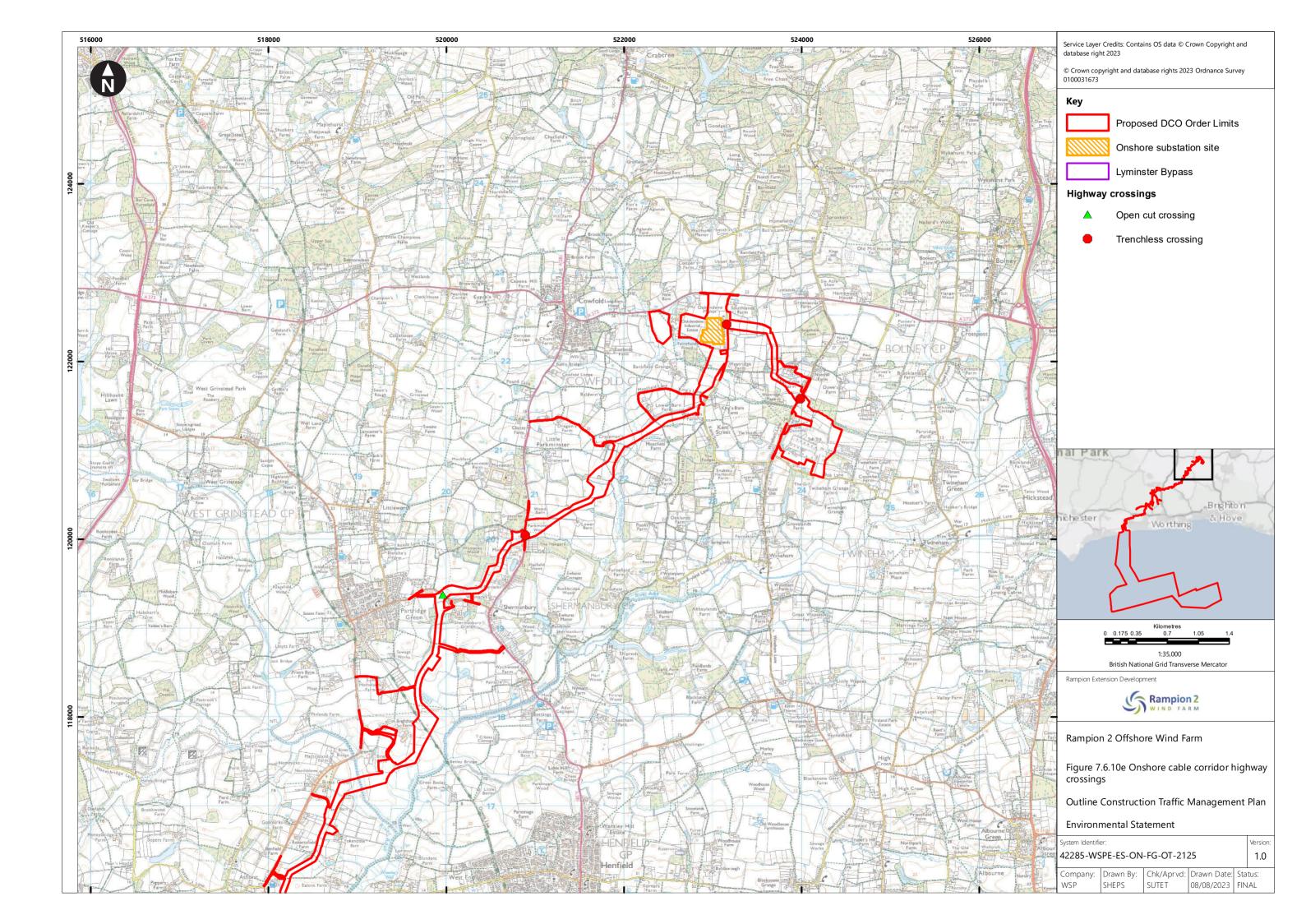


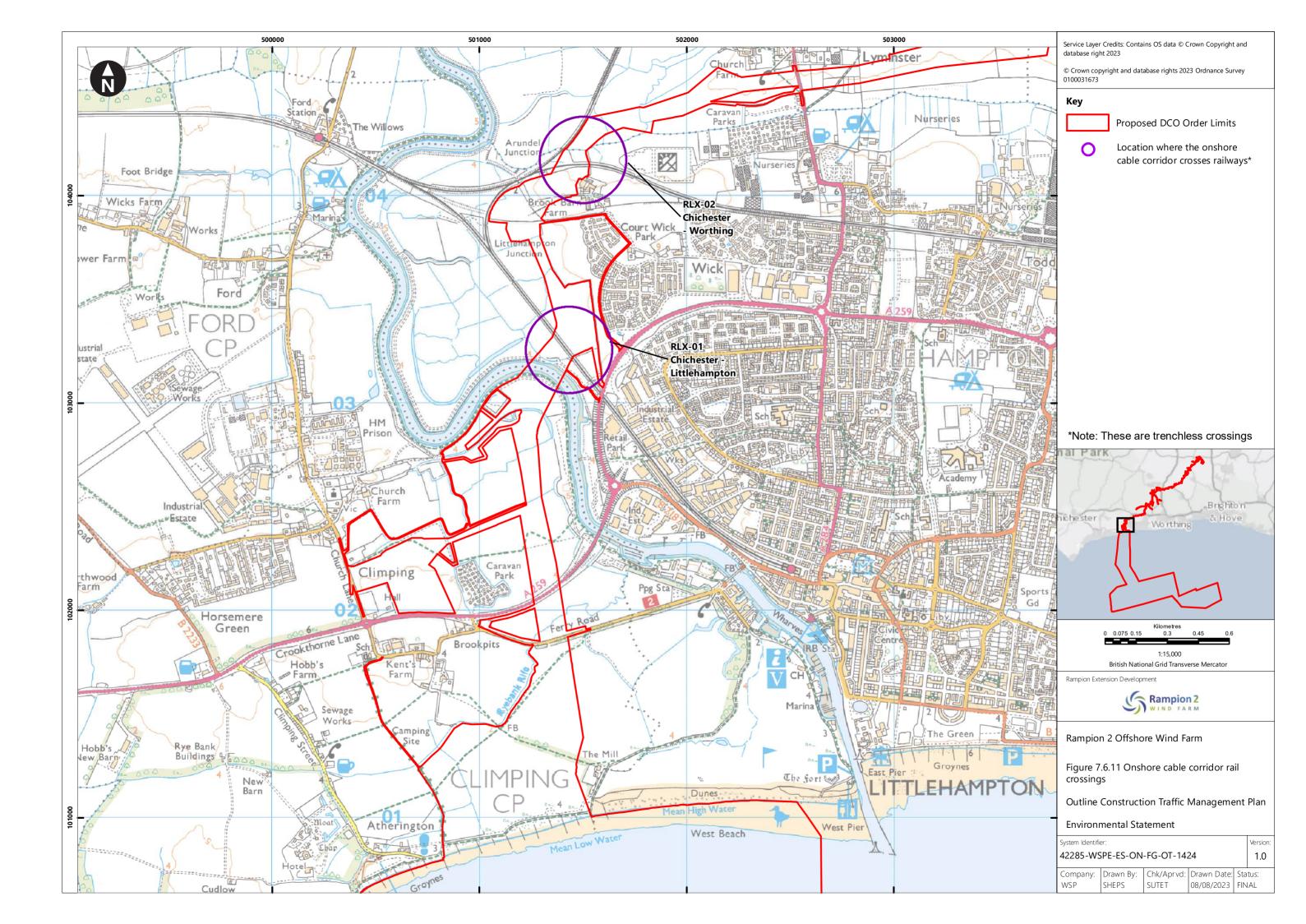


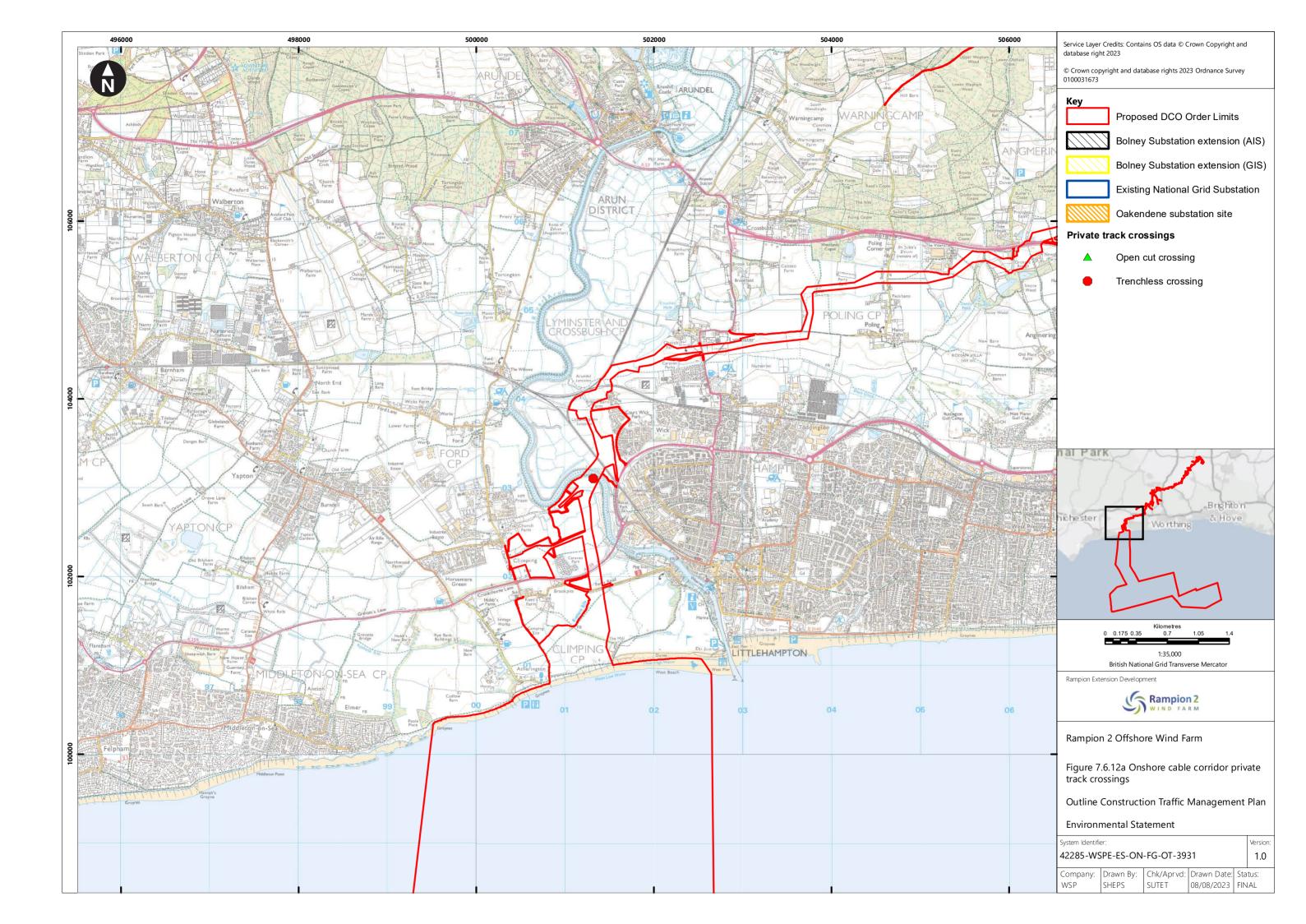


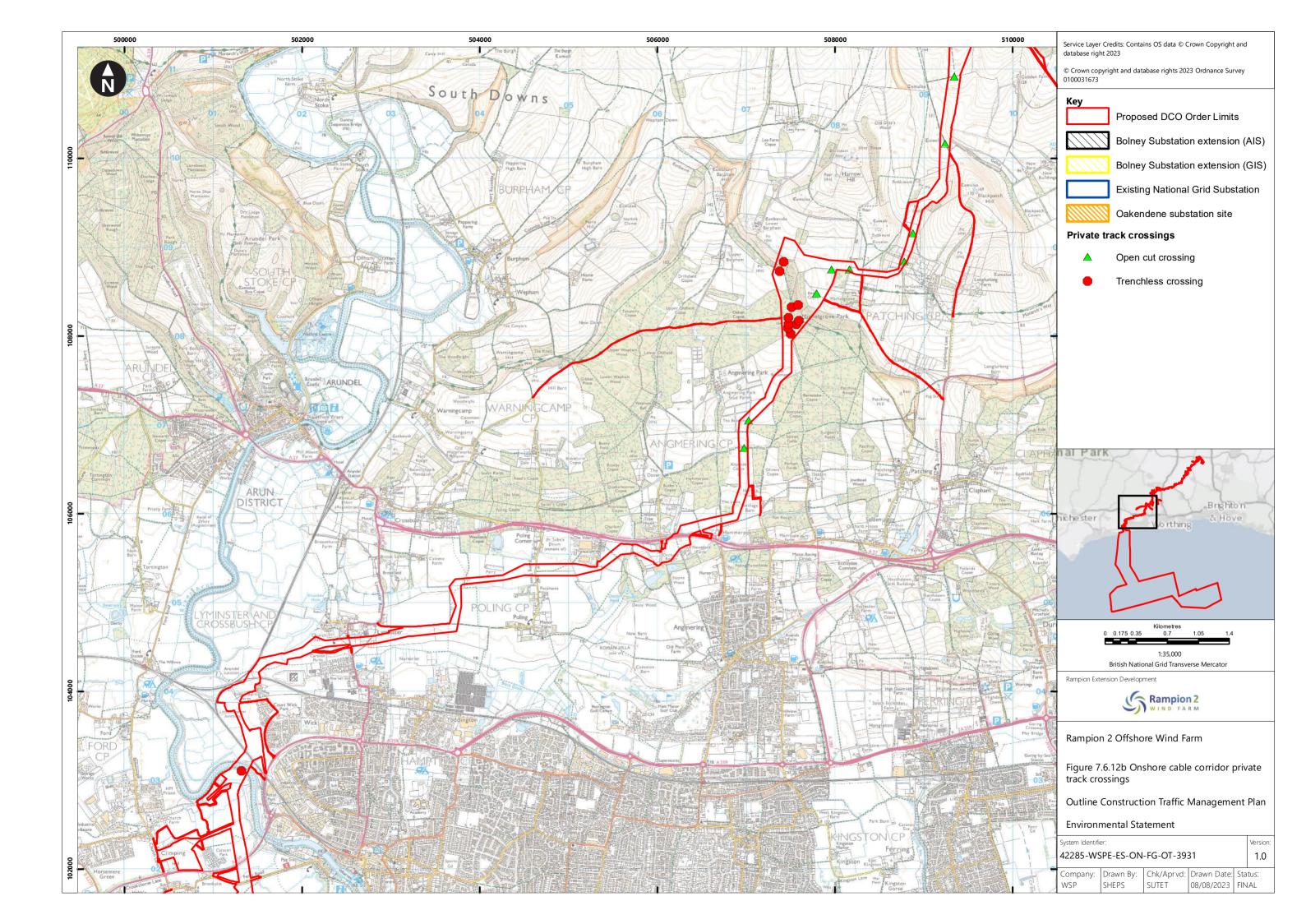


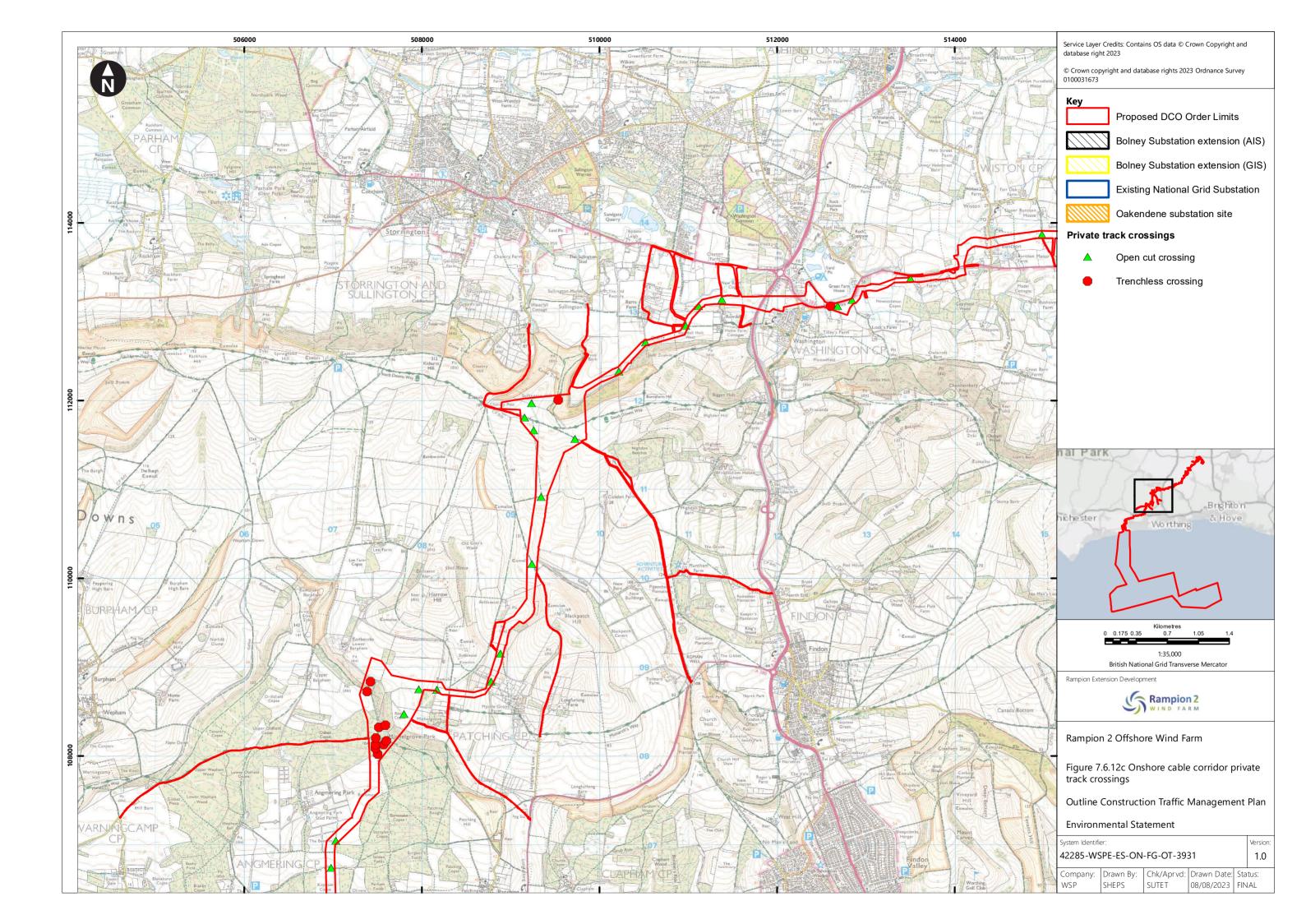


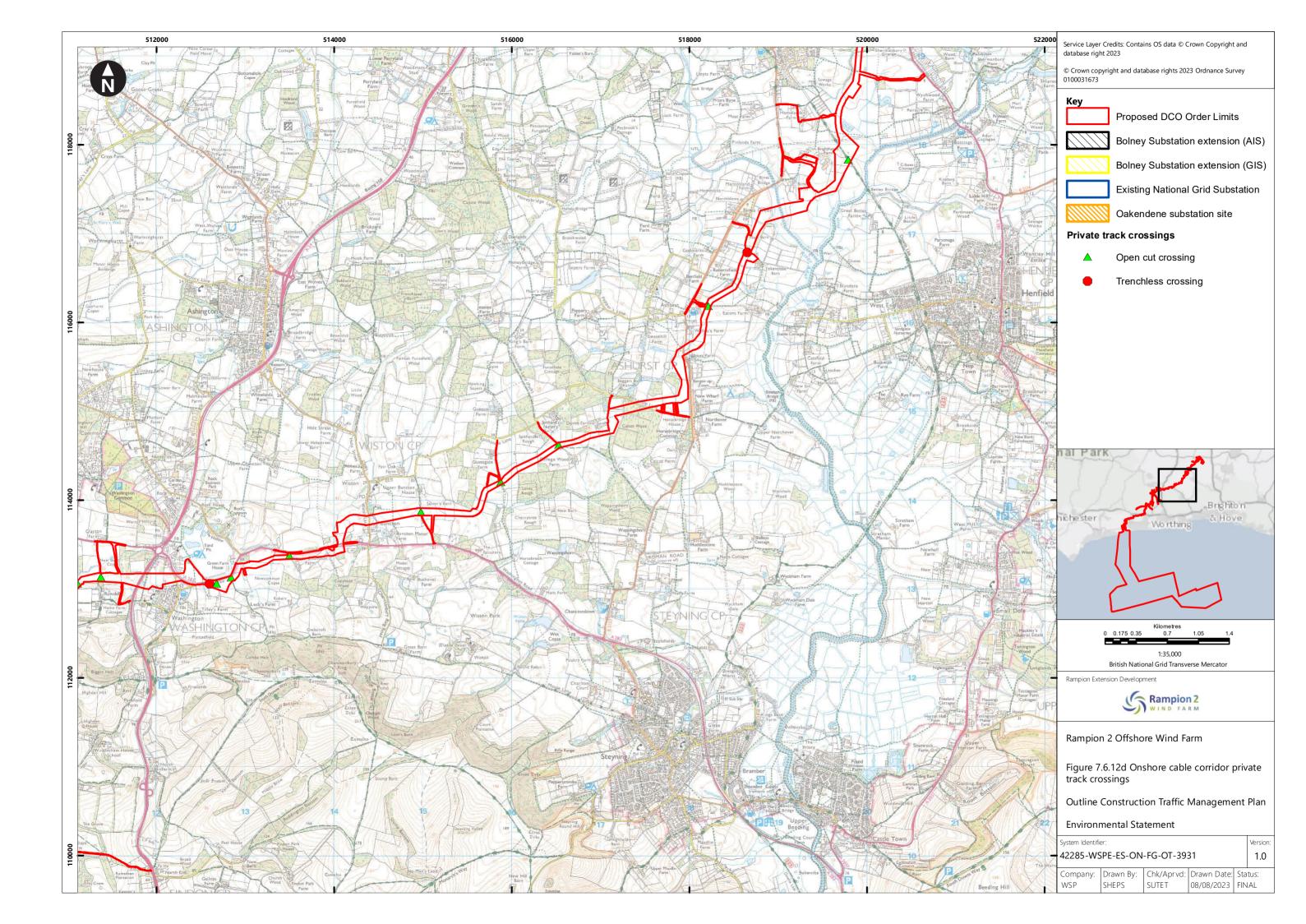


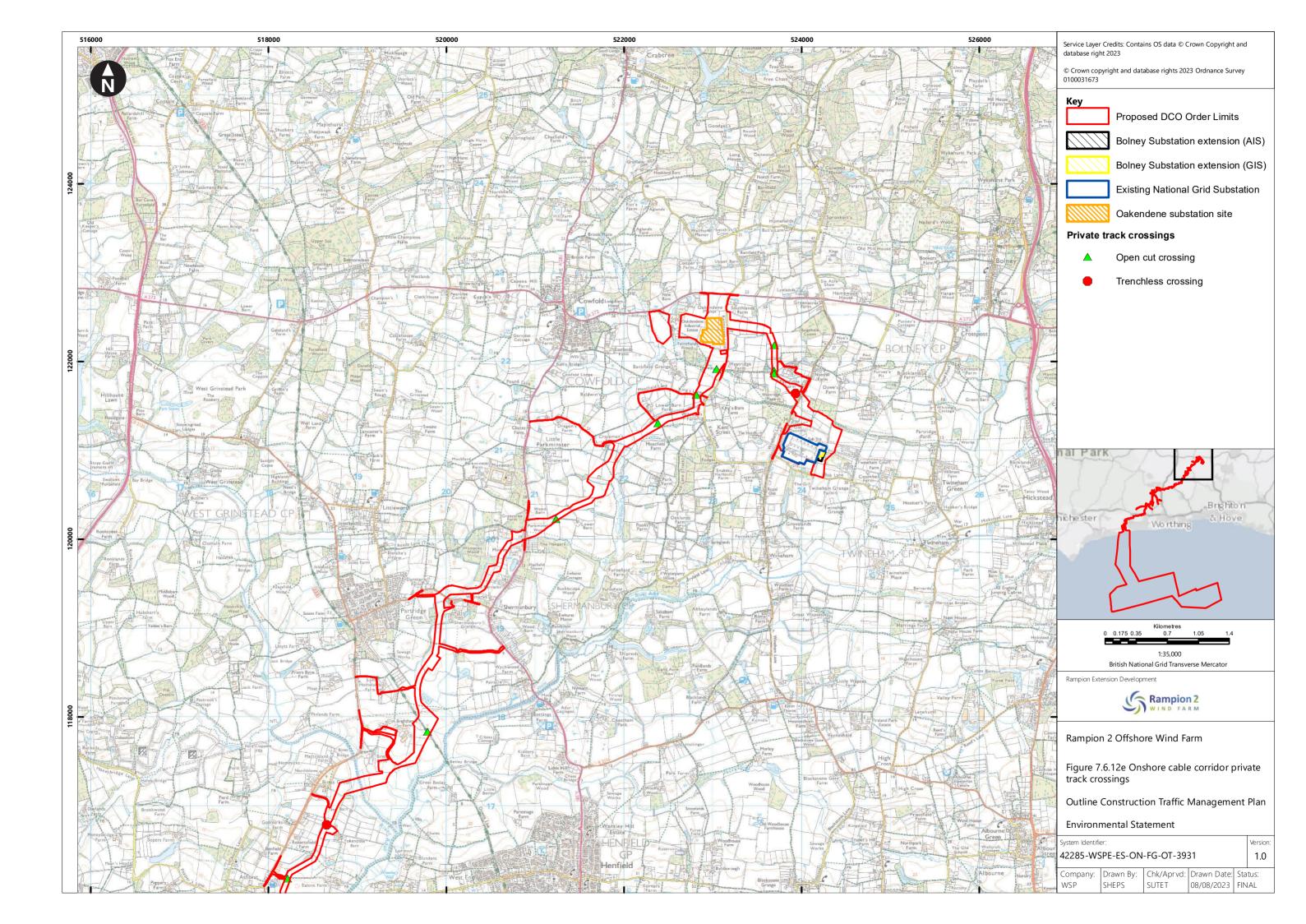


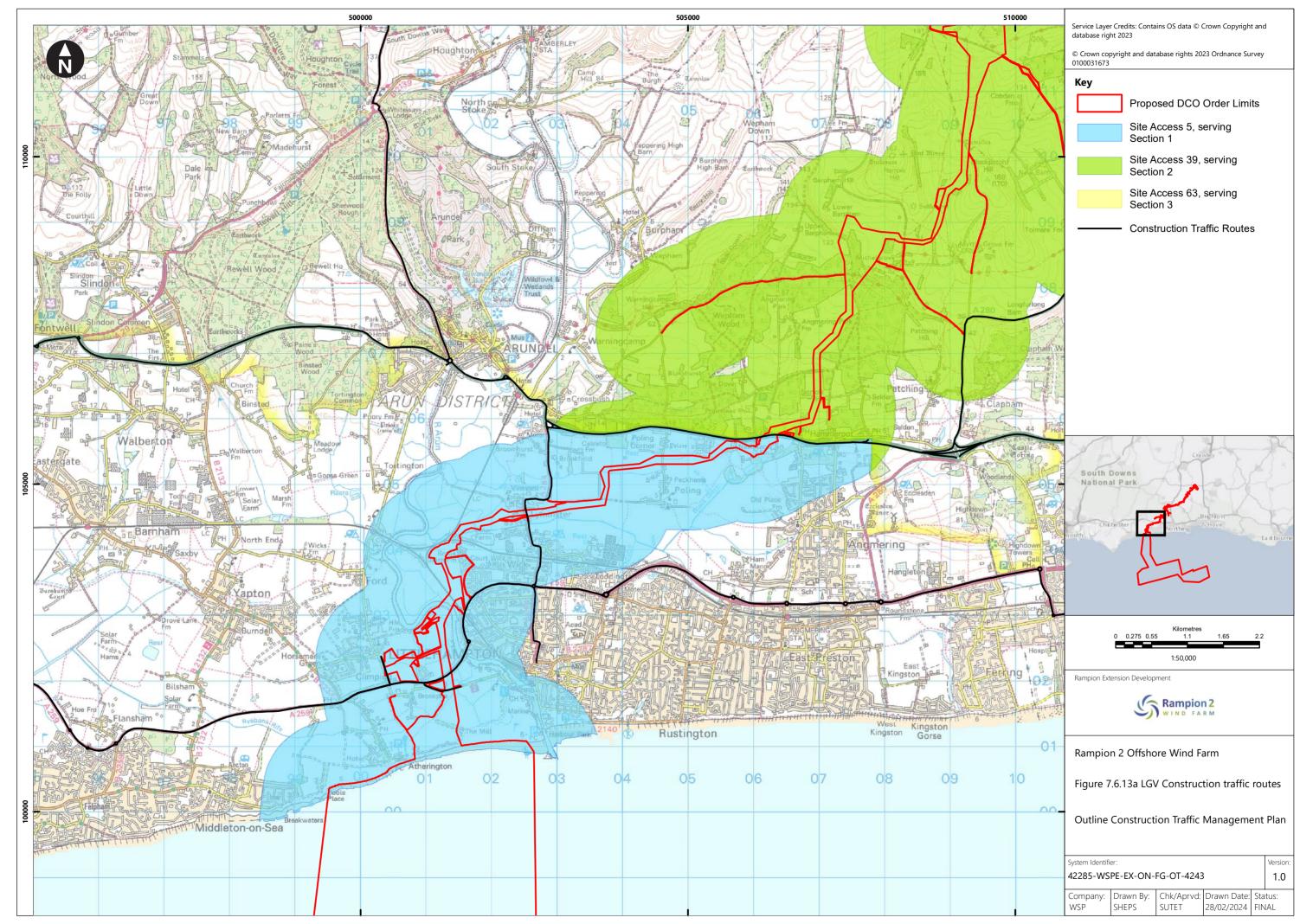


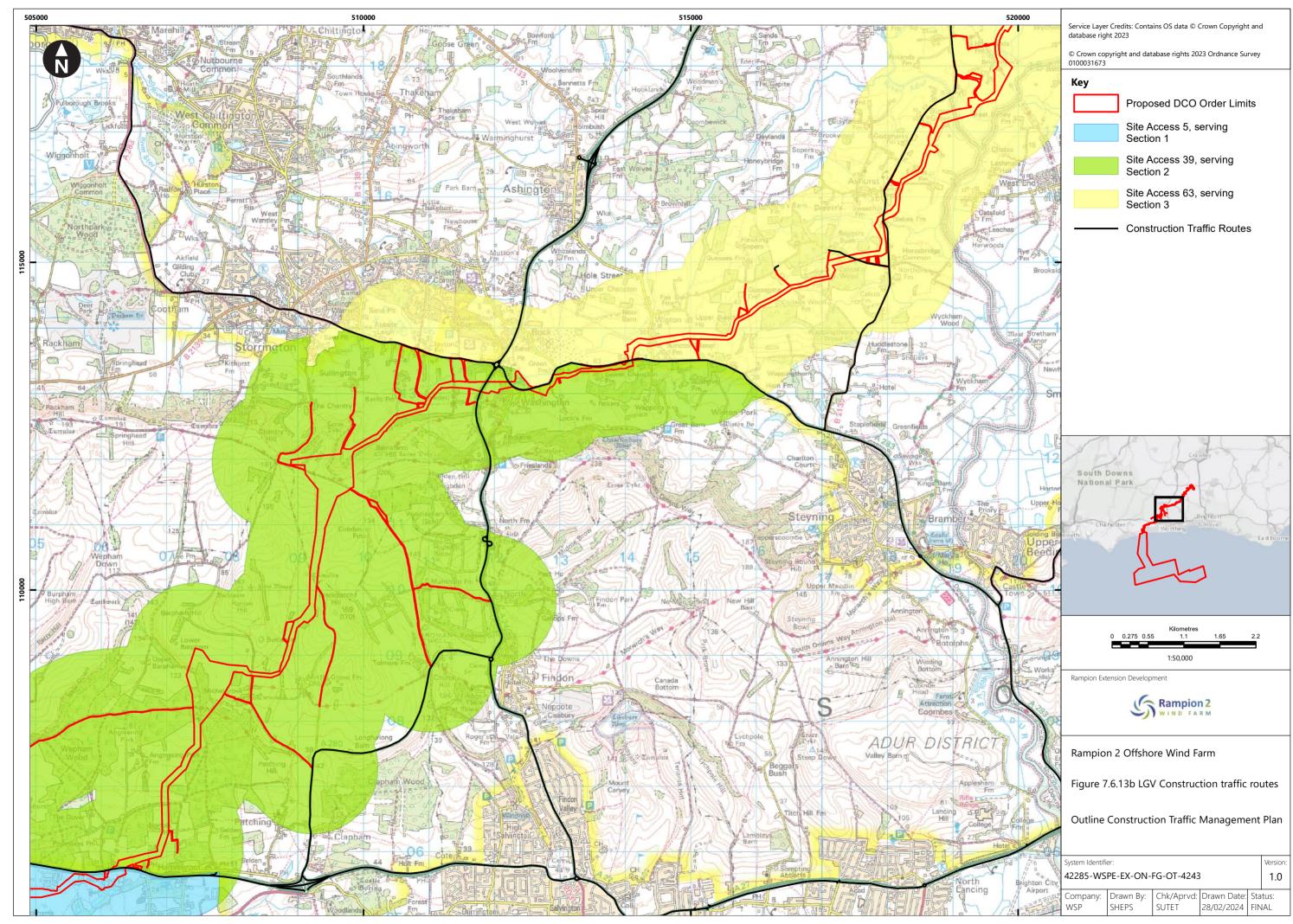


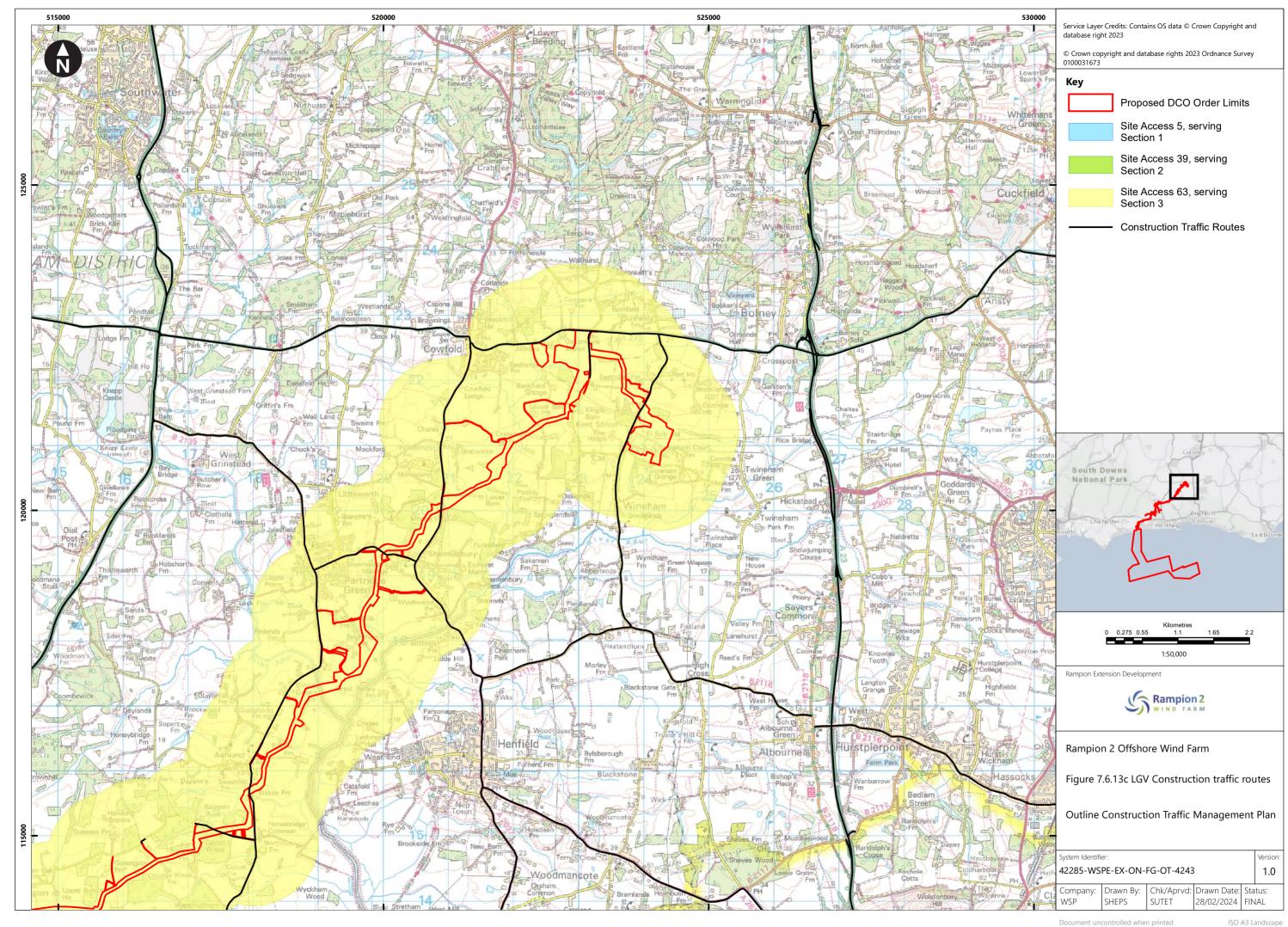














## Appendix C RSA Requirements

Access Reference	RSA Required	Reason	<u>Trigger</u>
A05, A39, A62, A63, A64	<u>Yes</u>	Permanent access and/or temporary construction access into a fundamental element of the proposals (i.e. a site compound or substation)	Prior to the conclusion of the DCO examination.
A01, A09, A12, A13, A15, A16, A28, A33, A35, A40, A41, A42, A43, A47, A48, A50, A53, A56, A57, A67, A68	<u>Yes</u>	These all involve temporary construction access onto classified roads, some of which are rural in nature and high speed.  It may be possible to reduce this list as designs are agreed through subsequent stage specific construction management plans.	As part of the detailed design for the accesses and as part of the stage specific construction management plans.
A37, A38, A43A, A61, A64	<u>No</u>	These all involve temporary construction access onto unclassified roads or roads subject to a 30mph speed limit. It is generally considered that any safety related aspects can be resolved through the detailed design and stage specific construction management plans.  Should site specific issues	<u>N/A</u>
		arise through the detailed design, WSCC reserves the right to request an RSA if appropriate.	



A02, A03, A04, A06, A08, A10, A11, A14, A17, A18, Aa-20, A23, A24, A25, A27, A29, A30, A31, A32, A34, A36, A37, A38, A43b, A44, A45, A46, A49, A50a, A50b, A51, A53, A54, A55, A58, A59, A60, A65, A66, A69	<u>No</u>	All of these accesses are indicated as light construction, operational, or a combination of both light construction and operational. These accessThese accesses are indicated to be very lightly trafficked. The design of these accesses would mitigate their impact on the local highway.	<u>N/A</u>
A20, A21, A22, A23	<u>TBD</u>	These accesses use side roads onto the strategic road network. The need for an RSA should be determined by National Highways.	<u>N/A</u>

# Appendix D Technical Note – Construction Accesses A-26, A-28, A-61 and A-64 Traffic Management Strategies

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## Rampion 2 Wind Farm Category 7: Other Documents

Technical Note – Construction Accesses A-26, A-28, A-61 and A-64 Traffic Management Strategies





#### **Document revisions**

Revision	Date	Status/reason for issue	Author	Checked by	Approved by
A	25/04/2024	Deadline 3 submission	WSP	RED	RED



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#### 1. Introduction

#### 1.1 Background

- This technical note details the proposed Traffic Management Strategies which will be employed to facilitate construction access along the A280 Long Furlong and Kent Street as part the Rampion 2 Offshore Wind Farm ('the Proposed Development'). This has been provided in response to Action Points (APs) 11 and 15 of Action Points arising from Issue Specific Hearing 1 (ISH1) [EV3-020].
- The purpose of this technical note is to set out interventions for the proposed construction access junctions where existing constraints have been identified that limit the ability to provide construction traffic access. These junctions are as follows:
  - A280 Long Furlong / Michelgrove Lane Access A-26;
  - A280 Long Furlong / Tolmare Farm Access A-28; and
  - Kent Street Accesses A-61 and A-64.
- For the purposes of this technical note, Accesses A-26 and A-28 will be considered as part of a single traffic management strategy on the basis that they are both accessed via the A280 Long Furlong.
- This document forms part of the Outline Construction Traffic Management Plan [REP1-010] for the Proposed Development. Subject to confirmation of the access strategies being proved feasible through the detailed design process, the contents of this document will form part of stage specific Construction Traffic Management Plans which are required to be submitted in accordance with Requirement 24 of the Draft Development Consent Order [REP2-002]. These will be produced by the appointed Contractor(s) following the grant of the Development Consent Order (DCO) and prior to the relevant stage of construction.
- Noting this above, all construction traffic routing assumptions contained within this technical note are based upon those controls detailed within the **Outline Construction Traffic Management Plan [REP1-010]** such as those related to construction traffic routing.
- 1.1.6 Construction traffic estimates included within this technical note are derived from in **Appendix 23.2: Traffic Generation Technical Note, Volume 4** of the Environmental Statement (ES) [REP1-008] (updated at Deadline 3).



## A280 Long Furlong / Michelgrove Lane (A-26) and A280 Long Furlong / Tolmare Farm (A-28)

#### 2.1 Introduction

This section provides a review of the existing conditions along the A280 Long Furlong, Michelgrove Lane and the Tolmare Farm access junctions before presenting the traffic management strategy for accesses A-26 and A-28.

#### 2.2 Existing conditions

- The A280 Long Furlong provides a connection between the A24 at Findon and the A27 south of the village of Clapham. The A280 Long Furlong is a single carriageway road which is predominantly subject to the national speed limit and routes through a rural setting.
- Traffic data collected by Streetwise for A280 Long Furlong between 07 May 2022 and 20 May 2022 (weekdays only) is shown in **Table 2-1** below. This was collected via Automatic Traffic Count (ATC) survey located south of The Street in Clapham, which is approximately 1km south of the junction of Michelgrove Lane and is subject to a 40mph speed limit. AM and PM peak hours summarised in **Table 2-1** show the busiest recorded hour between 7-8am and 4-5pm.

Table 2-1 A280 Long Furlong traffic data summary (Weekday flows)

	AM Peak (7-8am)	PM Peak (4-5pm)	12hr (7am-7pm)	24hr	Average Speed (mph)
Northbound	932	605	6972	9043	36
Southbound	448	944	7507	9391	31
Two-Way	1380	1550	14479	18434	33

#### A280 Long Furlong / Michelgrove Lane

Graphic 2-1 presents access A-26 which is located at the A280 Long Furlong / Michelgrove Lane junction. The onshore cable corridor is located approximately 1.8km north of the A280 Long Furlong / Michelgrove Lane access.



**Graphic 2-1 Michelgrove Lane junction with Long Furlong – Access A-26** 



Screenshot capture taken from Rampion 2 WSP WebGIS platform Aerial imagery source: Esri, Maxar, Earthstar Geographics, and the GIS User Community 2024.

The junction is located on an incline reducing in gradient towards the north along the A280 Long Furlong, with Michelgrove Lane also reaching an incline towards the junction. Michelgrove Lane is a single track road with passing places proposed at regular intervals. There is both horizontal and vertical curvature of the A280 Long Furlong carriageway north of the junction, limiting the visibility in this direction. **Graphic 2-2** provides an indication of the existing junction form.

Graphic 2-2 View to the north along A280 Long Furlong – Access A-26



© 2024 Google



- Visibility splay assessments for the junction has shown that 2.4m by 120m is achievable to the north and 2.4m by 215m is available to the south as shown on **Drawing 62280651-WSP-XX-XX-DR-TP-0100-004** included in **Appendix A**. The achievable visibility splay to the north does not correspond to the desirable minimum stopping sight distance for the 60mph speed limit (100kph) defined in Standards for Highways Design Manual for Roads and Bridges (DMRB), CD109 (Highway link design) (2020). It has not been possible to complete speed surveys at this junction to verify existing traffic speed on the A280 Long Furlong due to there not being an appropriate location for the survey equipment.
- Swept path analysis has also been completed for the junction using vehicles that would be expected to support construction of the onshore cable route. The outcome of this swept path analysis is summarised in **Table 2-2** with associated drawings provided in **Appendix A**.

Table 2-2 Summary of HGV entry and exit of A280 Long Furlong / Michelgrove Lane

Vehicle	Drawing	A280 Long Furlong to Michelgrove Lane	Michelgrove Lane to A280 Long Furlong
HGV – Tipper	62280651- WSP-XX- XX-DR-TP- 0100-003	Left and right turn in are feasible	Requires use of full A280 Long Furlong carriageway to avoid overrunning kerb / verge
HGV – Articulated Vehicle	62280651- WSP-XX- XX-DR-TP- 0100-002	Left and right turn in are feasible but right turn may require support by banksman	Requires use of full A280 Long Furlong carriageway to avoid overrunning kerb / verge. Likely to require support by banksman
HGV – Cable Drum Low Loader	62280651- WSP-XX- XX-DR-TP- 0100-001	Only possible from the south but requires use of full A280 Long Furlong carriageway. May require support by banksman	Not possible in either direction within existing junction geometry without overrunning of kerb / verge

Table 2-2 shows that HGV tipper trucks can complete manoeuvres in all directions. Articulated HGVs can egress to the north and south but with banksman support whilst low loaders can only turn into Michelgrove Lane from the south. It is not possible for low loaders to exit Michelgrove Lane onto the A280 Long Furlong within existing junction geometry without overrunning existing kerbs / verges.



#### **Michelgrove Lane**

2.2.8 Michelgrove Lane is a single-track lane without footways and is subject to a national speed limit (60mph). It serves a limited number of residential properties, Spearfield Stud and Livery and the Angmering Park Estate and currently has a number of informal passing places. The single-track nature of Michelgrove Lane is shown on **Graphic 2-3** and **Graphic 2-4** below.

Graphic 2-3 View along Michelgrove Lane (Northbound)



Graphic 2-4 View along Michelgrove Lane (Southbound)



In addition to the existing residential and commercial properties, it is noted that Bridleway 2174 and Footpath 2263 cross Michelgrove Lane whilst Bridleway 2208 (part of Monarch's Way) uses Michelgrove Lane for approximately 300m towards the northern end of the route.

#### A280 Long Furlong / Tolmare Farm - Access A-28

Access junction A-28 is located approximately 3km north-east of the Michelgrove Lane junction along the A280 Long Furlong. The junction currently serves Tolmare Farm and is gated to avoid public access. **Graphic 2-5** presents the location access A-28, running to the north of the A280 Long Furlong. The onshore cable corridor is located approximately 3km north of access A-28.







Screenshot capture taken from Rampion 2 WSP WebGIS platform Aerial imagery source: Esri, Maxar, Earthstar Geographics, and the GIS User Community 2024.

The junction is located on the brow of a hill, with horizontal curvature of the A280 Long Furlong approximately 200m north and 100m south of the junction. This presents particular challenges in achieving visibility requirements in line with Standards for Highways DMRB CD109 (Highway link design) (2020) guidance. **Graphic 2-6** provides an indication of the existing junction form.

Graphic 2-6 View to the north along A280 Long Furlong – Access A-28



© 2024 Google

Visibility splay assessments for the junction have shown that less than 2.4m by 120m is achievable to the south and 2.4m by 215m is available to the north as



shown on **Drawing 62280651-WSP-XX-XX-DR-TP-0100-008**, included in **Appendix B**. This achievable visibility splay to the south does not correspond to the desirable minimum stopping sight distance for the 60mph speed limit (100kph) defined in Standards for Highways DMRB CD109 (Highway link design) (2020) to the north or 40mph to the south.

- Further to this, manual speed surveys were completed by Advanced Transport Research on 26 and 27 March 2024 at the A280 Long Furlong / Tolmare Farm access junction. These surveys demonstrated 85<sup>th</sup> percentile speeds of 40mph in the eastbound direction and 42.5mph in the westbound direction on the A272. As noted in paragraph 2.2.12 ,according to DMRB CD109, these speeds each correspond to sight stopping distances of 120m. Therefore, these recorded speeds indicate that the achievable visibility splays are not appropriate for existing vehicular speeds in each direction of the A280 Long Furlong in the northbound direction and therefore traffic management will need to be considered to facilitate use by construction traffic.
- Swept path analysis has also been completed for the junction using vehicles that would be expected to support construction of the onshore cable route. The outcome of this swept path analysis is summarised in **Table 2-3** with associated drawings provided in **Appendix B**.

Table 2-3 Summary of HGV entry and exit of A280 Long Furlong / Tolmare Farm Access

Vehicle	Drawing	A280 Long Furlong to Tolmare Farm Access	Tolmare Farm Access to A280 Long Furlong
HGV – Tipper	62280651- WSP-XX- XX-DR-TP- 0100-007	Requires use of full Tolmare Farm access when turning in from north	Requires use of full A280 Long Furlong carriageway to avoid overrunning kerb / verge
HGV – Articulated Vehicle	62280651- WSP-XX- XX-DR-TP- 0100-006	Left and right turn in are feasible but likely to require support by banksman	Left and right turn in are feasible but likely to require support by banksman
HGV – Cable Drum Low Loader	62280651- WSP-XX- XX-DR-TP- 0100-005	Left turn in is feasible but requires use of full A280 carriageway and Tolmare access. Right turn in is not possible.	Only possible to the south but requires use of full A280 Long Furlong carriageway. Likely to require support by banksman

Table 2-3 shows that HGV tipper trucks can complete manoeuvres in all directions. Articulated HGVs can enter and exit the junction from both directions but low loaders would only be able to enter and exit the junction from/to the south along A280 Long Furlong.



#### 2.3 Construction traffic estimates

Table 2-4 presents the breakdown of different construction vehicles anticipated to use accesses A-26/A-28 over the full construction phase. The figures are for all vehicles using either access A-26 or access A-28, or a combination of both.

Table 2-4 Accesses A-26 / A-28 construction traffic vehicle numbers

Vehicle Type	Assumed use	Number*
LGV	Ancillary materials, staff vehicles	2,238
HGVs	Stone, Cement Bound Sand (CBS), ducts, plant and cable transport	4,892

<sup>\*</sup> Totals represent vehicle movements. A vehicle using the access in and then out equals two.

#### Peak week construction traffic flows

In addition to the overall construction traffic flows, it is important to consider the duration of peak construction activity to ensure that the proposed traffic management strategy is appropriate. These peak week values are presented in Table 6-8 of Appendix 23.2: Traffic Generation Technical Note, Volume 4 of the Environmental Statement (ES) [REP1-008] (updated at Deadline 3) and are replicated in Table 2-5.

Table 2-5 Accesses A-26 / A-28 peak construction traffic flows

Vehicle Type	Vehicles per Week	Vehicles per Day		
	Peak total construction traffic (W	eek 70-73)		
LGVs	108	22		
HGVs	202	40		
TOTAL	310	62		
Peak total for HGV traffic (Week 161-166)				
LGVs	12	2		
HGVs	244	49		
TOTAL	256	51		

<sup>\*</sup> Totals represent vehicle movements. A vehicle using the access in and then out equals two movements.

This equates to approximately 3,500 construction vehicles using accesses A-26/A-28 in each direction over the course of the construction phase.



- The peak of construction activity for accesses A-26 / A-28 is during week 70-73 where the forecast weekly total construction traffic flows is 310 vehicles or 62 vehicles per day. For HGVs, the peak of construction activity occurs during weeks 161-166 of the construction phase where the forecast HGV traffic flow 244 vehicles (256 vehicles in total) or 49 HGVs per day (51 total vehicles per day).
- Across the construction phase, there are two anticipated peaks in construction traffic; the first peak is associated with the haul road, construction, cable trenching, duct laying, backfilling and trenchless crossing activities and the second peak is associated with cable pulling and haul road reinstatement. The first peak will result in approximately 40 HGVs per day using Michelgrove Lane or 3-4 per hour and this first peak will last for approximately four weeks. Overall, the average HGV flow on Michelgrove Lane will be 1-2 vehicles per hour during this phase of activity which will last approximately 30 weeks.
- During the second peak of construction activities, there will be a peak of approximately 244 HGVs using Michelgrove Lane per week, equivalent to approximately 50 per day or 4-5 per hour, for a period of approximately 6 weeks. Overall, the average HGV flow on Michelgrove Lane will be 2-3 vehicles per hour during this second phase of activity which will last approximately 10 weeks.
- 2.3.7 Construction traffic will use Michelgrove Lane for approximately 45 weeks of the construction programme.

#### 2.4 Traffic management strategy for Accesses A-26 and A-28

#### Introduction

2.4.1 Based upon the review of existing conditions and anticipated construction traffic flows in **Sections 2.2 to 2.3**, this section details the proposed traffic management strategy for accesses A-26 and A-28.

#### Traffic management strategy principles

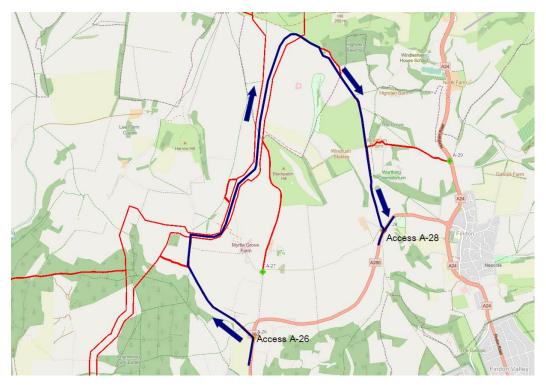
- The traffic management strategy for accesses A-26 and A-28 is based upon the following principles.
- 2.4.3 During enabling / reinstatement works:
  - Access for construction HGV traffic from the A280 Long Furlong will be taken as a left-turn into access A-26 Michelgrove Lane or A-28 Tolmare Farm. HGVs arriving from the north will therefore be required to travel south to the Clapham Roundabout to complete a U-turn;
  - Exit for HGV construction traffic out onto the A280 Long Furlong will be taken from access A-28 Tolmare Farm where possible, noting that it will be necessary for tipper HGVs to use access A-26 for enabling and reinstatement works (e.g. haul road construction and removal respectively);
  - Access A-28 junction will be controlled by temporary traffic signals to facilitate the safe movement of vehicles out of the junction;



- LGV access will be via A-26 Michelgrove Lane where possible, with entry and exit at the A280 / Michelgrove Lane access junction permitted from both directions; and
- Where required LGVs will be permitted to enter A-28 Tolmare Farm from the south but exit both directions (under traffic signal control).
- 2.4.4 During cable installation construction works:
  - Access for construction HGV traffic from the A280 Long Furlong will be taken
    as a left-turn into access A-26 Michelgrove Lane or A-28 Tolmare Farm. HGVs
    arriving from the north will therefore be required to travel south to the Clapham
    Roundabout to complete a U-turn;
  - Exit for HGV construction traffic out onto the A280 Long Furlong will be taken solely from access A-28 Tolmare Farm;
  - Access A-28 junction will be controlled by temporary traffic signals to facilitate the safe movement of vehicles out of the junction;
  - LGV access will be permitted to enter and exit Michelgrove Lane access junction from both directions; and
  - Limited LGV entry and exit will be permitted via A-28 Tolmare Farm. Entry will be permitted only from the south (left-in) and exit will be controlled by traffic signals.
- 2.4.5 The following traffic management measures will also be applied for the entirety of the construction programme:
  - A temporary 40mph speed limit will be applied along the full length of the A280 Long Furlong as a reduction to the existing national speed limit, forming an approximate 4.7km extension of the existing 40mph speed limit at the southern end of A280 Long Furlong; and
  - To facilitate access along Michelgrove Lane by construction traffic up to eight passing places will be installed to provide adequate highway width for two-way traffic.



Graphic 2-7 Approximate HGV routing strategy for accesses A-26 and A-28 during cable installation construction works

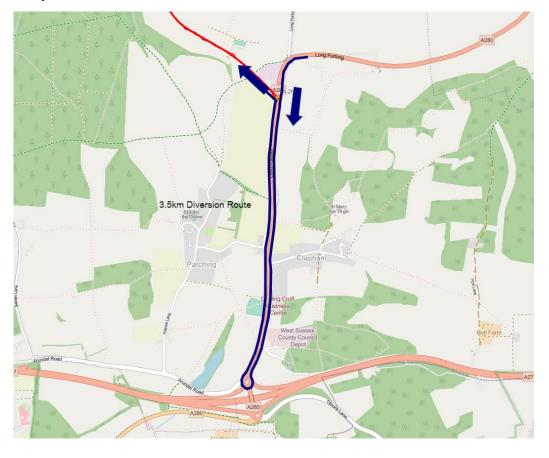


This strategy will be required for the approximate 45 week period that construction traffic is required to use access A-26 and A-28, and is discussed in more detail in the remainder of **Section 2.4**.

#### Access A-26

- As noted in **Section 2.4** above, it is proposed to restrict HGV movements into access A-26 Michelgrove Lane from the A280 Long Furlong so that it is only permitted as a left turn from the south. This will require HGVs routing from the north to travel southbound to Clapham roundabout and complete a U-turn to head northbound along the A280 Long Furlong. This diversion, shown graphically in **Graphic 2-8**, is approximately 3.5km in length and will take approximately five minutes assuming an average speed of 40mph.
- Exit onto the A280 Long Furlong from Michelgrove Lane will be prohibited except for Tipper HGVs where this is necessary to facilitate enabling works and reinstatement.





Graphic 2-8 HGV construction access route to Access A-26 from north

- Implementing this access strategy allows all HGV manoeuvres at access A-26 to be completed without banksman support with the exception of the cable drum low loaders, which are limited in number and may require banksman support. Should access for articulated HGVs and low loaders be deemed as unfeasible during detailed design it will be necessary for these vehicles to exit the A280 Long Furlong via A-28. Should this be required these movements would be completed from the south only (left-in) with entry from the north not permitted. These deliveries would be managed to prevent conflicts with opposing HGV traffic on the haul road if required.
- 2.4.10 LGV access will be permitted to/from all directions. This is on the basis that the provision of a temporary 40mph speed limit ensures visibility splays are appropriate for traffic speed on the A280 Long Furlong. This strategy will also limit delays to traffic on the A280 Long Furlong by reducing construction traffic exiting access A-28 traffic signals and will also be supported by the provision of passing places on Michelgrove Lane.

### **Michelgrove Lane**

As shown on sheet 12 of the Onshore Works Plans [APP-009] provision has been made to install up to eight passing places on Michelgrove Lane to ensure there is adequate highway width for two vehicles to pass each other. These passing places will be located between 100m and 250m apart at locations shown within the proposed DCO Order Limits. This is secured by commitment C-251 of



the **Commitment Register [REP1-015]**, itself secured through submission of the stage specific Code of Construction Practice in accordance with Requirement 22 of Part 3 of Schedule 1 of the **Draft Development Consent Order [REP2-002]**.

#### **Access A-28**

- Exit for construction traffic HGVs from the Tolmare Farm access (A-28) will be controlled by temporary traffic signals. Limiting construction traffic movements exiting this junction to only HGVs and a limited number of LGVs during the cable installation construction ensures that delays to general traffic travelling on the A280 Long Furlong is kept to a minimum as mainline flow will not be interrupted unless farm or construction vehicles are seeking to exit the Tolmare Farm access (A-28). LGV access from the A280 will only be permitted only from the south.
- The temporary traffic signals will be located on the A280 Long Furlong since appropriate forward visibility splays cannot be fully achieved to the south due to the brow of a hill (based upon the proposed 40mph temporary speed limit). Temporary signals will ensure construction traffic has adequate time and space to complete turning manoeuvres. These will allow tipper and articulated HGVs to turn left and right out onto the A280 Long Furlong and low loaders to turn right onto the A280 Long Furlong as noted achievable in **Table 2-2.** The temporary traffic signals on the Tolmare Farm access will also be located to ensure that farm vehicles can safely gain access from the A280 Long Furlong. An indicative layout for the temporary traffic signals is shown on **Drawing 62280651-WSP-XX-XX-DR-TP-0100-009** included in **Appendix B**.
- The Tolmare Farm access A-28 approach for the temporary traffic signals would operate as full time signals using infrared sensors to ensure this stage is only called when required, also allowing for existing farm traffic to also be accommodated by this temporary change. Based upon the peak construction traffic flows for accesses A-26 and A-28 shown in **Table 2-4**, it is anticipated that an average of four HGVs per hour will exit the junction (one every 15 minutes).
- A LinSig assessment has been completed of the proposed temporary traffic signals as provided in **Appendix C**. To provide robust assessment of potential impacts of the traffic signal junction, the LinSig assessment has assumed that the Tolmare Farm access A-28 approach will receive a green signal once every five minutes (12 times per hour). The LinSig assessments have shown that the proposed temporary traffic signals will have a minimal delay to general traffic on the A280 Long Furlong.
- These temporary traffic signals would remain in place whilst HGV construction traffic access is required to / from accesses A-26 and A-28. Based on current construction phase estimates, these traffic signals would be required for approximately 45 weeks.
- 2.4.17 Where HGVs are required to exit the A280 Long Furlong via access A-28 these will only be permitted from the south. Entry by low loaders may require banksman support, although it is noted that the existing access junction already accommodates movements of large HGVs related to Tolmare Farm.



#### **A280 Long Furlong**

- To facilitate safe movement of construction traffic it is proposed to implement a temporary 40mph speed limit on the A280 Long Furlong on approach to and between access A-26 and A-28. From the south, it is proposed that this speed limit forms an extension of the existing 40mph speed limit through Clapham. From the north-east, it is proposed that this speed limit starts west of Findon Roundabout.
- This temporary speed limit will cover a length of approximately 4.6km. Given that vehicles are already recorded (based on data collected in May 2022 outlined in paragraph 2.2.2) to travel at 85<sup>th</sup> percentile speeds in the region of 40mph and 42.5mph in the eastbound and westbound directions respectively, it is anticipated that this temporary speed limit reduction will have minimal impact upon existing journey times.
- In the vicinity of accesses A-26 and A-28, additional signage is proposed to be implemented to highlight the presence of construction traffic movements during the construction period. This is recommended to include the signs depicted in **Graphic 2-9**.

Graphic 2-9 Proposed signage in vicinity of accesses A-26 and A-28







# 3. A272 / Kent Street – Accesses A61 and A64

#### 3.1 Introduction

This section provides a review of the existing conditions along Kent Street and A272 before presenting the traffic management strategy for these accesses. Kent Street will provide a route to access construction access A-61, located 700m south of the A272 on the western side of the carriageway, and access A-64 located 200m south of the A272 on the eastern side of the carriageway.

### 3.2 Existing conditions

- The A272 routes east/west between the A24 and the A23 and is predominantly a single carriageway rural road with varying speed limit between national speed limit and 50mph depending on local constraints. A section of the A272 through Cowfold is subject to a 30mph speed limit as the road routes through a village setting. Kent Street intersects the A272 via a staggered crossroads located approximately 2km east of Cowfold.
- Kent Street itself is a single track lane with occasional informal passing places and is subject to the national speed limit. There are no footways, which means pedestrians generally walk on the carriageway and move onto grass verges to allow traffic to pass. Kent Street serves approximately 25 residential properties and agricultural uses in addition to Kings Lane / Moatfield Lane. **Graphic 3-1** and **Graphic 3-2** show images of existing conditions on Kent Street.

Graphic 3-1 View along Kent Street (Northbound)



Graphic 3-2 View along Kent Street (Southbound)



Kent Street also provides access to a number of Public Rights of Way, albeit to the south of the proposed construction access locations. This includes footpaths 1787,



- 1789, 1790, 1791, 2380 and 2382 and bridleway 1785 (Kings Lane) which provide a number of circular routes east and west of Kent Street.
- Traffic data collected by Streetwise on Kent Street for the Enso battery storage system Construction Traffic Management Plan (Horsham District Council Planning Application Ref: DC/24/0054) between 18 and 24 October 2023 is shown in **Table 3-1** below. This was collected via ATC survey located approximately 1km south on Kent Street from the A272 junction. AM and PM peak hours summarised in **Table 3-1** show the busiest recorded hour between 8-9am and 3-4pm.
- Please note that the data presented in **Table 3-1** is based upon data collected on the 18<sup>th</sup>, 19<sup>th</sup>, 24<sup>th</sup> and 25<sup>th</sup> October 2023 only with data collected between the 20 and 22 October 2023 excluded due to an accident on the A272 closing the road.

Table 3-1 Kent Street Traffic Data Summary (Average Weekday flows)

	AM Peak (7-8am)	PM Peak (4-5pm)	12hr (7am-7pm)	24hr	Average Speed (mph)
Northbound	11	9	92	99	25
Southbound	9	8	88	93	25
Two-Way	20	17	90	96	25

#### A272 / Kent Street Junction

- Traffic flows along the A272, as reported for 'Highways Link C' within **Chapter 32: ES Addendum, Volume 2** of the Environmental Statement **[REP1-006]** are in the region of 16,904 Average Annual Daily Flow (AADF) including 745 HGVs, recorded in 2019. These flows, respectively, are anticipated to rise to 18,933 and 820 in the future year baseline (2026/27).
- Visibility splay assessments for the junction has shown that 2.4m by 120m is achievable to the west and 2.4m by 120m is available to the east as shown on **Drawing 62280651-WSP-XX-XX-DR-TP-0100-014**, included in **Appendix D**.
- The existing 60mph speed limit corresponds to desirable minimum stopping sight distances of 215m as defined in Standards for Highways DMRB CD109 (Highway link design) (2020), whereas the achieved 120m in either direction would suffice for vehicular speeds of 40mph.
- Swept path analysis has also been completed for the junction using vehicles that would be required to support construction of the onshore cable route. The outcome of this swept path analysis is summarised below with associated drawings provided in **Appendix A**.



Table 3-2 Summary of HGV entry and exit of A272 / Kent Street junction

Vehicle	Drawing	A272 to Kent Street	Kent Street to A272
HGV – Tipper	62280651- WSP-XX- XX-DR-TP- 0100-012	Left and right turn in are feasible	Left and right turn out are feasible
HGV – Articulated Vehicle	62280651- WSP-XX- XX-DR-TP- 0100-011	Left and right turn in are feasible but likely to require support by banksman	Left and right turn out are feasible but left turn requires use of full A272 carriageway. Likely to require support by banksman
HGV – Cable Drum Low Loader	62280651- WSP-XX- XX-DR-TP- 0100-010	Left and right turn in are feasible but will require use of full A272 carriageway. Will require support by banksmen	Left and right turn out are feasible but left turn requires use of full A272 carriageway. Will require support by banksmen

Table 3-2 shows that all construction vehicles can complete all manoeuvres in all directions. Both Articulated HGVs and Low Loaders would require the use of banksmen, particularly in performing the left turn out of Kent Street onto the A272.

#### 3.3 Construction traffic estimates

Table 3-3 presents the breakdown of different construction vehicles anticipated to use this access A-61 / A-64 over the full construction phase.

Table 3-3 Accesses A-61 / A-64 construction traffic vehicle numbers

Vehicle Type	Assumed use	A-61 Number*	A-64 Number*
LGV	Ancillary materials, staff vehicles	828	468
HGV	Stone, CBS, ducts, plant and cable transport.	1,320	892

<sup>\*</sup>Total represents vehicles movements. A vehicle using the access in and out equals two movements.

This equates to approximately 1,750 construction vehicles using Kent Street in each direction over the course of the construction phase.



#### Peak week construction traffic flows

In addition to the overall construction traffic flows, it is important to consider the duration of peak construction activity to ensure that the proposed traffic management strategy is appropriate. These peak week values are presented in Table 6-8 of the Appendix 23.2: Traffic Generation Technical Note, Volume 4 of the ES [REP1-008] updated at Deadline 3 and are replicated in Table 3-4 and Table 3-5 below.

Table 3-4 Access A-61 peak construction traffic flows

Vehicle Type	Vehicles per Week	Vehicles per Day				
Peak total construction traffic (Week 146-147)						
LGVs	12	2-3				
HGVs	142	28				
TOTAL	154	31				
Peak total for HGV traffic (Week 146-147)						
LGVs	12	2				
HGVs	142	28				
TOTAL	154	31				

Table 3-5 Access A-64 peak construction traffic flows

Vehicle Type	Vehicles per Week	Vehicles per Day				
Peak total construction traffic (Week 162)						
LGVs	12	2-3				
HGVs	274	55				
TOTAL	286	58				
Peak total for HGV traffic (Week 161-166)						
LGVs	12	2-3				
HGVs	274	55				
TOTAL	286	58				

As set out in **Table 3-4** and **Table 3-5**, the peak in construction traffic on Kent Street occurs for a one week period (week 162) and is associated with access A-



- 64. During week 162, approximately 50 construction traffic vehicles will use Kent Street per day. Access A-64 is located approximately 200m south of the junction with the A272. The peak construction traffic flow associated with access A-61, located 700m south of the A272, however is much lower than access A-64 with a total construction traffic peak of 31 vehicles per day and an HGV peak of 28 vehicles per day. Importantly, due to the proposed construction programme, the use of accesses A-61 and A-64 will not overlap so the construction traffic flows on Kent Street will only be associated with one access at a time.
- Construction traffic will need to use Kent Street for approximately 38 weeks of the construction phase although it is noted that this will not be continuous. There are multiple peaks in construction traffic for accesses A-61 and A-64, associated with different construction activities that include haul road construction, cable trenching, duct laying, backfilling, trenchless crossing activities, cable pulling and haul road reinstatement.
- The peak in construction traffic is anticipated to last approximately two weeks only, during which time 3-5 HGVs per hour will use Kent Street. In between peaks, the construction traffic flows will be minimal per day. For example, outside of these peak periods, it is predicted HGV flows will be no more than 10 vehicles per day (one per hour) for only 13 weeks of the construction phase.

### 3.4 Traffic management strategy for Accesses A-61 and A-64

#### Introduction

Based upon the review of existing conditions and anticipated construction traffic flows outlined in **Sections 2.2 to 2.3**, this section details the proposed traffic management strategy for accesses A-61 and A-64.

#### Traffic management strategy principles

- The traffic management strategy for accesses A-61 and A-64 is based upon the following principles:
  - To facilitate access along Kent Street by construction traffic up to four passing places will be installed to provide adequate highway width for two-way traffic;
  - HGV entry will be controlled via the Oakendene temporary construction compound at access A-62;
  - HGV and LGV exit will be coordinated to ensure that they do not occur at the same time as HGVs entering Kent Street;
  - HGV entry and exit will be controlled by banksman along Kent Street, up to and including accesses A-61 and A-64;
  - General traffic will also be controlled by banksman whilst HGVs are entering or existing access A-61 or A-64; and
  - A temporary speed limit reduction from the current national speed limit to 40mph along the A272, between east of Cowfold to Bolney, a distance of approximately 4km.



- Detailed designs for Access A-61 and A-64 will be completed as part of the post consent detailed design process and stage specific Construction Traffic Management Plans as agreed with West Sussex County Council and referenced in Appendix C of the Outline Construction Traffic Management Plan [REP1-010] submitted at Deadline 3.
- 3.4.4 This strategy is discussed in more detail in the remainder of this section.

#### Kent Street passing places

- Up to four passing places are proposed along Kent Street between the A272 junction and access A-61. These would result in opportunities to pass another vehicle approximately every 100-150m, with forward visibility between each facility.
- Provision of these passing bays along Kent Street will facilitate the passing of cars and LGVs during the construction phase whilst also providing for emergency vehicles or other unforeseen circumstances. Construction HGVs should not need to make use of these passing places as their movements will be controlled by banksmen such that entry and exit vehicles do not need to pass at the same time.
- Drawing 62280651-WSP-XX-XX-DR-TP-0100-013 included in Appendix D presents the indicative layout and locations of proposed passing places along Kent Street. The two northernmost bays are located on the east side of Kent Street, whilst the remaining two bays are located on the western side of Kent Street.

#### HGV entry and exit

- 3.4.8 HGV entry and exit for accesses A-61 and A-64 will be controlled during construction. HGV entry and exit would be controlled through the following system:
  - All HGVs will first route to the Oakendene west compound (access A-62).
     HGVs entry into site from the compound will then be 'approved' at the works site at which point HGVs or LGVs are held until incoming HGVs have left the public highway.
  - Once HGVs are called into site banksman hold general NB traffic south of the
    construction access point to avoid conflict. The journey from compound to
    construction access A-61 would take approximately five minutes for a vehicle
    travelling at 20mph. As the average northbound vehicle flow on Kent Street is
    8 vehicles per hour or one every 7-8 minutes (as shown in Table 3-1) in some
    cases there would be no delay to general traffic whilst incoming HGVs
    complete their journey.
  - Exiting HGVs would be supported by banksman which hold northbound traffic south of the construction access junction and southbound traffic on the northern section of Kent Street at a safe distance from the junction with the A272. A construction vehicle traveling north from A-61 at 20mph would take approximately two minutes to reach the junction with the A272 so would be unlikely to conflict with any SB traffic.
- 3.4.9 Construction LGVs would be free to move on / off-site other than when HGVs have been called in or where they are held on Kent Street as HGVs exit the site.



Prior to HGV arrival along Kent Street, banksmen will also inform pedestrians of these incoming vehicles to allow them time to adjust their positioning. The same strategy will be adopted for HGVs exiting accesses A-61 and A-64.

#### A272 / Kent Street Junction

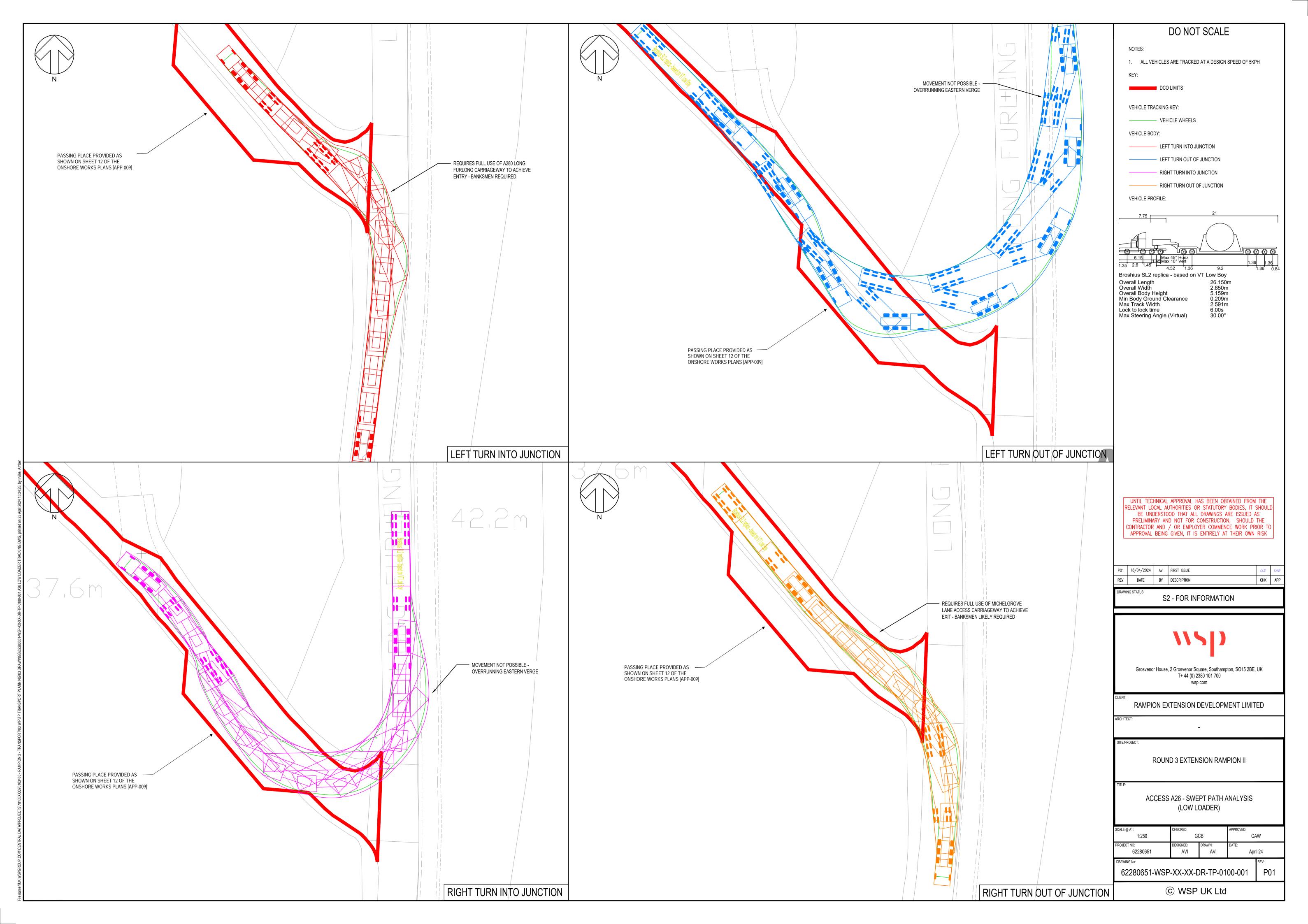
In order to facilitate the Low Loader movements turning right in and left out of Kent Street, some local widening will be required on the western side of the Kent Street approach to the junction, as depicted in **Drawings 62280651-WSP-XX-XX-DR-TP-0100-014 to 018** in **Appendix D**. This amendment to the kerb falls within the proposed DCO order limits and allows all construction access manoeuvres to be undertaken without the support from banksman.

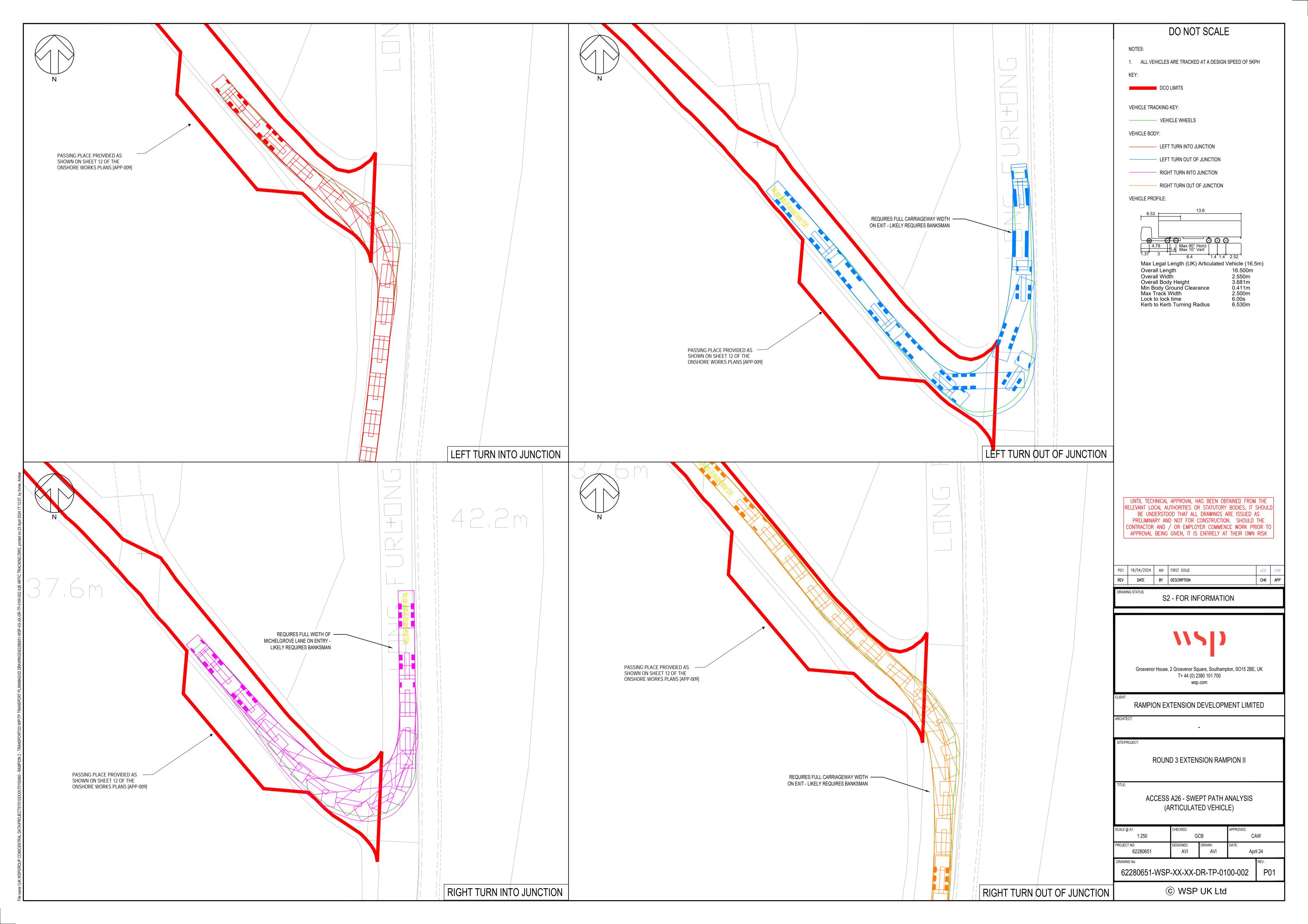
#### A272 temporary speed limit reduction

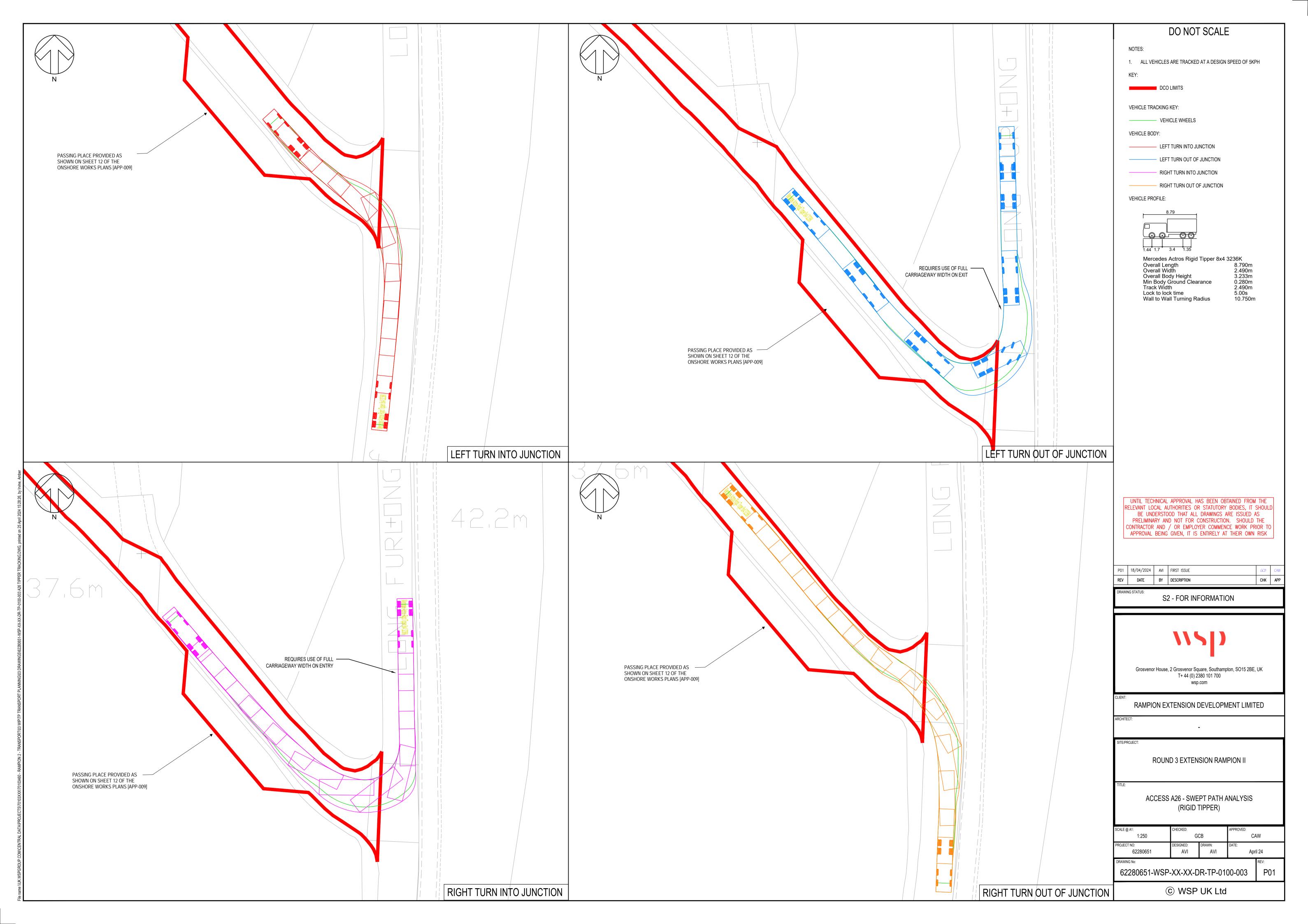
To facilitate safe movement of construction traffic it is proposed to implement a temporary 40mph speed limit on the A272 on approach to and through the junction with Kent Street. From the west, the speed limit leaving Cowfold currently changes from 30mph to national speed limit 210m east of the Oakfield Road junction. It is proposed to temporarily replace this change to 40mph instead of national speed limit. This will continue in place for approximately 4km to approximately 100m west of the A272 Cowfold Road / Bolney Chapel Road / Foxhole Lane crossroads where the speed limit reduces back to 30mph. It is anticipated that this change could lead to journey times by 75 seconds, based on the posted national speed limit and proposed 40mph speed limit.



# Appendix A Access A-26 Drawings



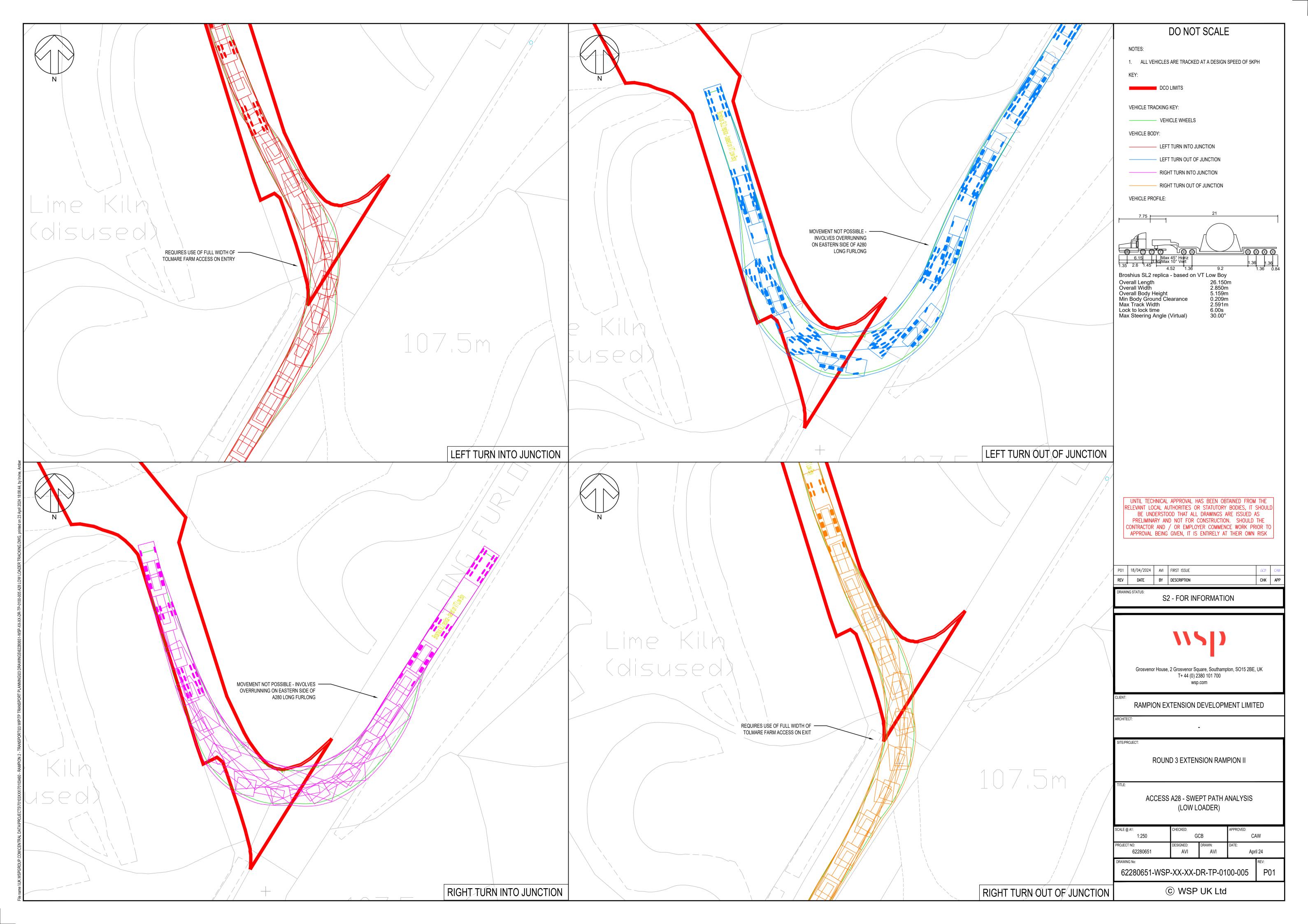


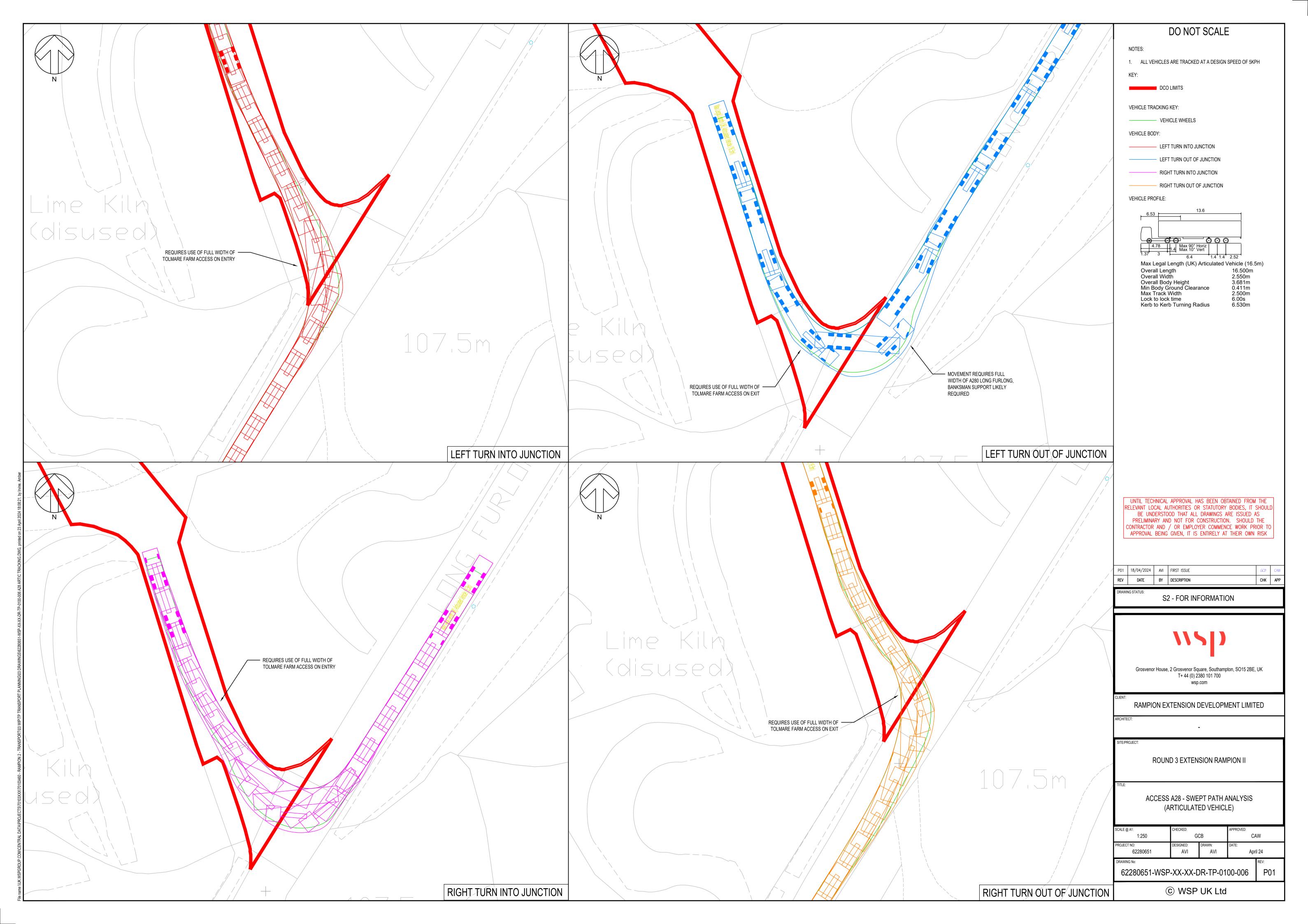


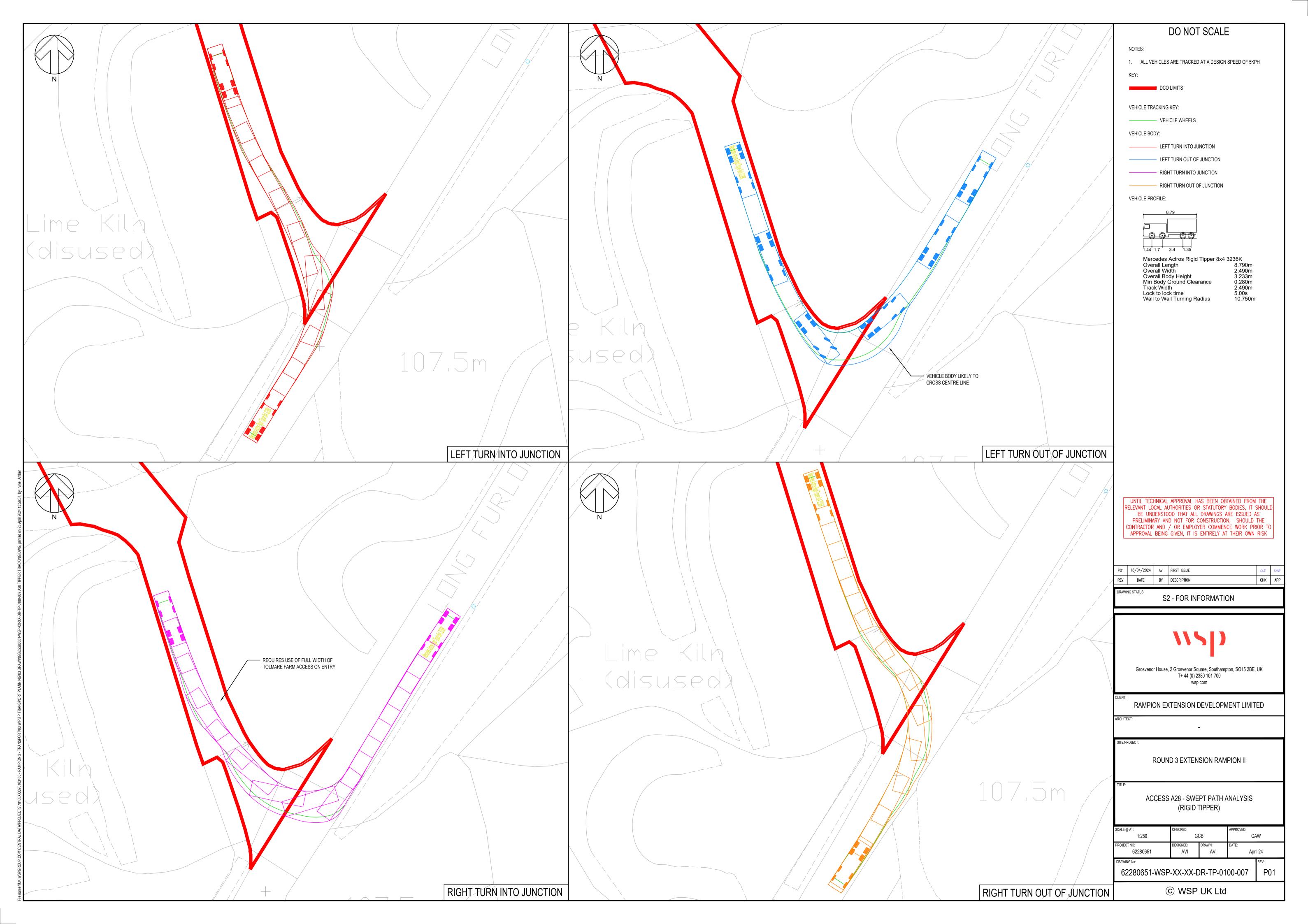


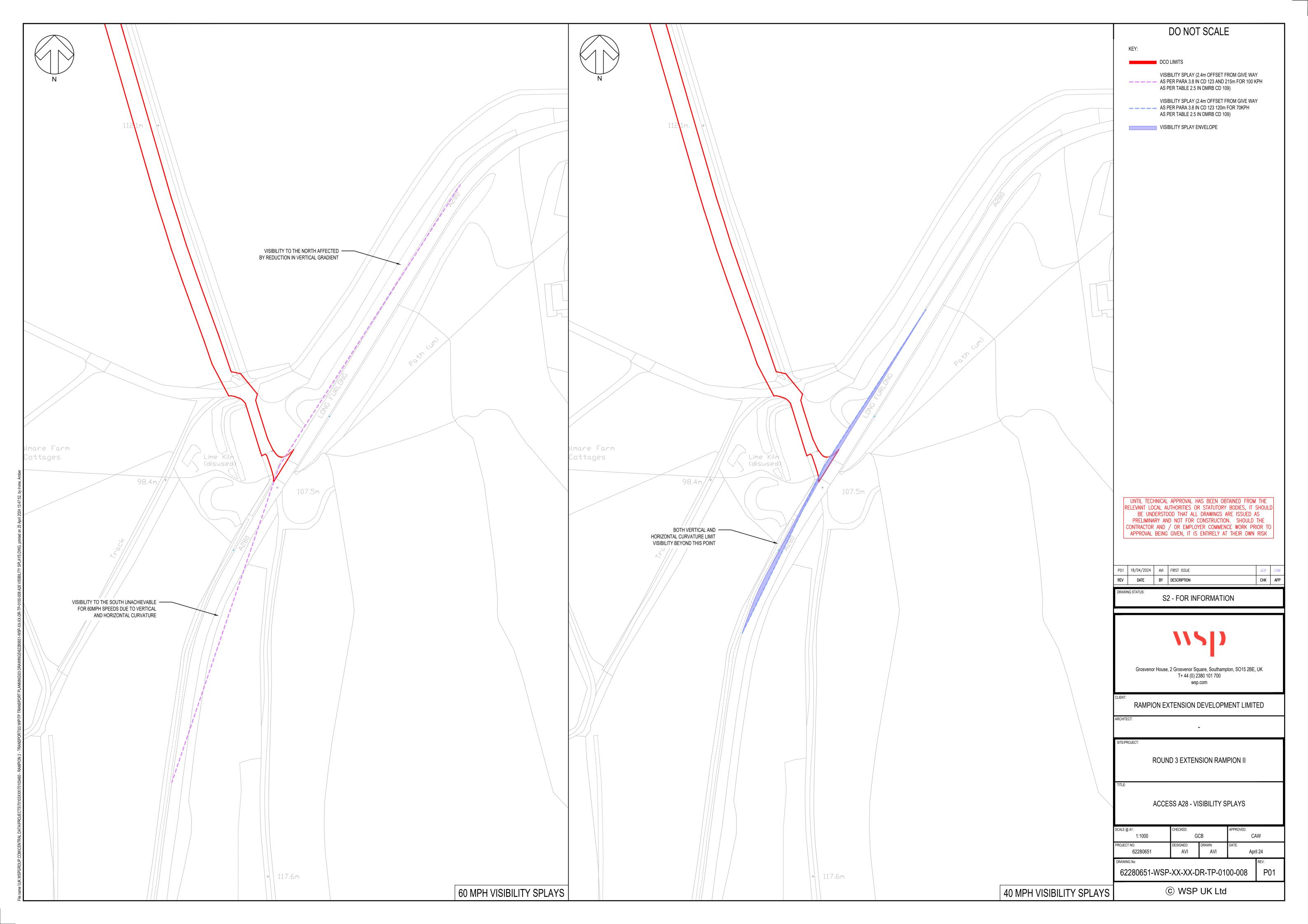


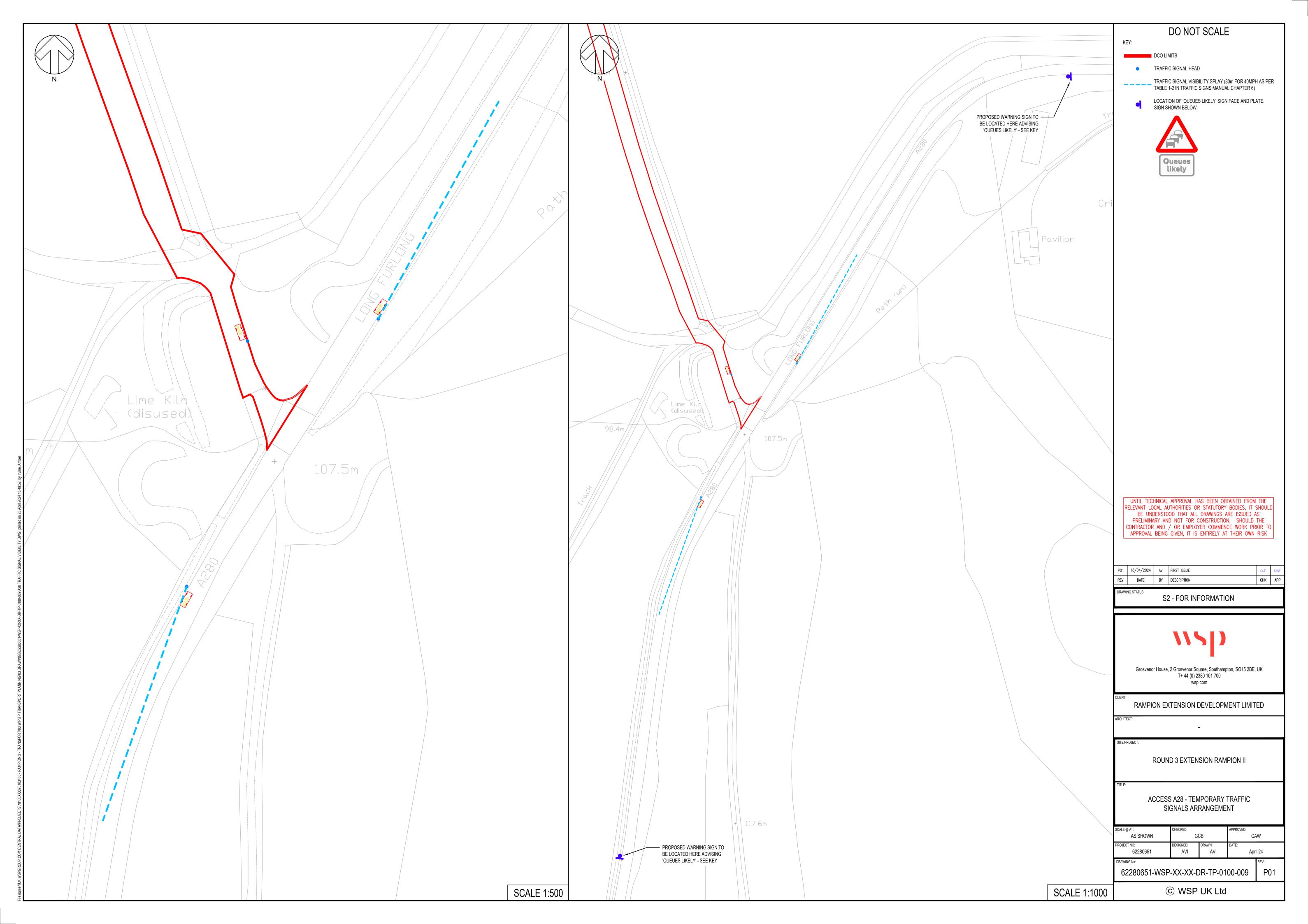
### Appendix B Access A-28 Drawings













## Appendix C LinSig summary



#### Introduction

LinSig models provide an indication of the Degree of Saturation (DoS) as a percentage and the Mean Maximum Queue (MMQ) in Passenger Car Units (PCUs) for each junction approach, the average delay per vehicle on each approach recorded in seconds and the Practical Reserve Capacity (PRC), which provides a measure of the junctions' total capacity (as a percentage). When reviewing the PRC of a signalised junction the following is considered:

- A positive figure indicates the junction operates with reserve capacity;
- A negative figure less than -10%, suggests that the junction would be broadly at capacity; and
- A negative figure more than -10% indicates that the junction cannot accommodate the demand.

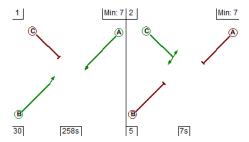
For DoS the thresholds can be categorised as follows:

- Less than 90%: Any queues that have built up will be able to disperse during the relevant stage in each cycle;
- 90-100%: Indicates that an arm is close to its theoretical capacity and any queue that has built up does not fully clear within each cycle; and
- More than 100%: Indicates an arm is over its theoretical capacity and significant queues are likely as a result.

#### **Modelling Assessment**

A LinSig model has been produced to represent the operation of the proposed temporary traffic signals at the A280 Long Furlong / Tolmare Farm junction (Access A-28). The Tolmare Farm access A-28 approach will operate as full time signals using infrared sensors to ensure this stage is only called when required.

During peak construction, it is anticipated that an average of four HGVs per hour will exit the junction. Taking a robust approach, the model assumes a five minute cycle such that the Tolmare Farm approach will be called once every five minutes, twelve times overall each hour. The stage sequence assumes the A280 Long Furlong traffic continues running in each direction until the Tolmare Farm approach is called.



An intergreen of five seconds has been assigned for the end of the mainline traffic flow stage, whilst a 30 second intergreen has been assigned for the end of the Tolmare Farm approach to ensure slow moving HGV construction traffic has sufficient time to complete their manoeuvres.

Two peak periods have been assessed by the model:



- AM Peak (08:00-09:00); and
- PM Peak (17:00-18:00).

Traffic flow data has been taken from an ATC survey undertaken by Streetwise for A280 Long Furlong between 07 May and 20 May 2022 (weekday averages used). Peak hour flows have been converted to Passenger Car Units (PCU) for the purpose of LinSig data entry.

Traffic growth rates derived from TEMPro, as presented in the **Chapter 32: ES Addendum Volume 2** of the Environmental Statement **[REP1-006]**, have been applied to the 2022 traffic data to represent forecast traffic levels in 2028.

**Table C1** presents the 2028 AM and PM Peak hour LinSig modelling results for the proposed temporary signals.

Table C6 LinSig Modelling Results

		AM Peak (08:00-09:00)		PM Peak	(17:00-18:	00)	
Link No.	Approach	DoS (%)	Average Delay (secs)	MMQ (pcu)	DoS (%)	Average Delay (secs)	MMQ (pcu)
1/1	A280 Long Furlong NB	60.4	8.8	22.9	54.1	7.8	18.3
2/1	A280 Long Furlong SB	55.0	7.9	19.1	82.4	16.2	52.4
3/1	Tolmare Farm (Access A-28)	45.8	211.0	2.2	45.8	211.0	2.2
Overall		PRC: 48.9%		PRC: 9.3%			

The modelling results for the operation of the temporary traffic signals in 2028 indicate that the junction will operate within theoretical capacity in both the AM and PM Peak periods. The highest Degree of Saturation (DoS) with a value of 82.4% is forecast to occur on the A280 Long Furlong SB approach during the PM Peak, with an associated mean maximum queue (MMQ) of 52 passenger car units (PCU).

The DoS of 82.4% on this movement indicates that the queue formed on this approach whilst the Tolmare Farm approach is running will clear entirely during the subsequent green signal on the A280 Long Furlong approach.

Full modelling outputs are included on the following pages.

#### Summary

The LinSig assessment undertaken to represent the forecast operation of proposed temporary traffic signals at the A280 Long Furlong / Tolmare Farm junction (Access A-28) has indicated that there would be no capacity concerns with this arrangement.



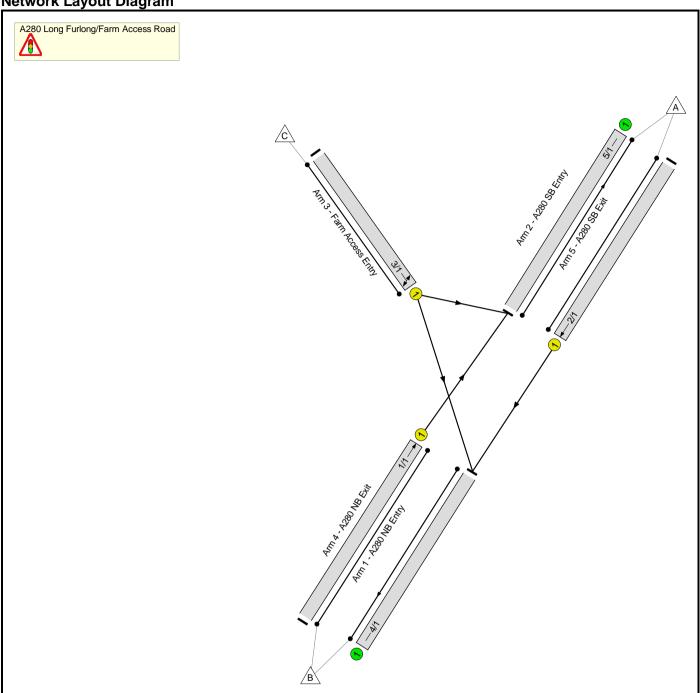
Furthermore, the assessment can be considered robust in relation to the likely frequency of the Tolmare Farm approach being called.

## Full Input Data And Results Full Input Data And Results

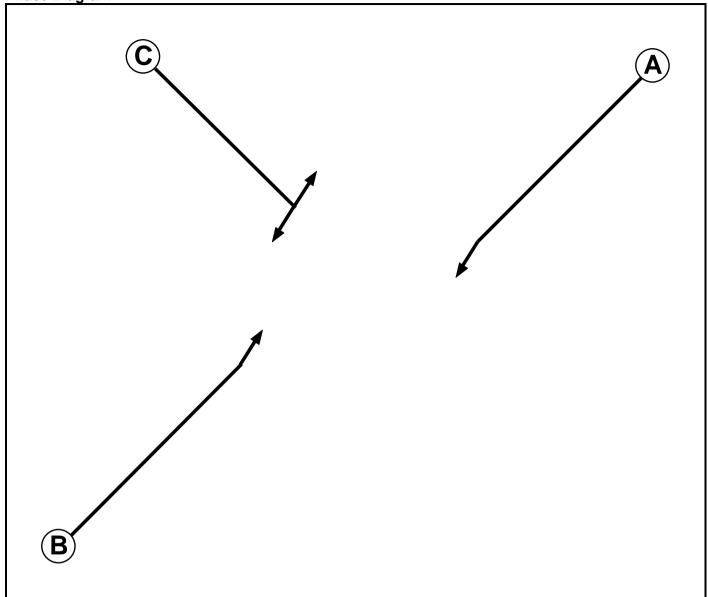
User and Project Details

Project:	A280 LinSig
Title:	
Location:	A280 Long Furlong/Farm Access
Date Started:	01/04/2024
Model Purpose:	This model is as a part of temporary traffic management strategy to understand the HGV exit from an existing farm access to A280.
Additional detail:	
File name:	A280 Long Furlong_Farm Access-Opt 1.lsg3x
Author:	INCS04445
Company:	WSP
Address:	

**Network Layout Diagram** 



Phase Diagram



**Phase Input Data** 

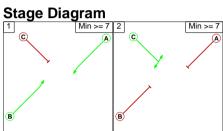
Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		-9999	7
В	Traffic		-9999	7
С	Traffic		-9999	7

#### **Phase Intergreens Matrix**

	Starting Phase			
Terminating		Α	В	О
	Α		-	5
Phase	В	-		5
	С	30	30	

**Phases in Stage** 

Stage No.	Phases in Stage
1	AB
2	С



**Phase Delays** 

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
There are no Phase Delays defined					

#### **Prohibited Stage Change**

	To Stage			
From Stage		1	2	
	1		5	
.5	2	30		

## Full Input Data And Results Give-Way Lane Input Data

Junction: A280 Long Furlong/Farm Access Road

There are no Opposed Lanes in this Junction

#### Lane Input Data

Junction: A280	Junction: A280 Long Furlong/Farm Access Road											
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A280 NB Entry)	U	В	2	3	60.0	User	1800	-	-	-	-	-
2/1 (A280 SB Entry)	U	A	2	3	60.0	User	1800	-	-	-	-	-
3/1 (Farm Access Entry)	U	С	2	3	60.0	User	1800	-	-	-	-	-
4/1 (A280 NB Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A280 SB Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

**Traffic Flow Groups** 

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Peak'	08:00	09:00	01:00	
2: 'PM Peak'	17:00	18:00	01:00	

Scenario 1: 'AM Peak' (FG1: 'AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired Desired Flow:

	Destination							
		Α	В	С	Tot.			
	Α	0	855	0	855			
Origin	В	939	0	0	939			
	С	11	11	0	22			
	Tot.	950	866	0	1816			

#### **Traffic Lane Flows**

Lane	Scenario 1: AM Peak
Junction: A280	Long Furlong/Farm Access Road
1/1	939
2/1	855
3/1	22
4/1	866
5/1	950

#### **Lane Saturation Flows**

Junction: A280 Long Furlong/Farm Access Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A280 NB Entry Lane 1)	ТІ	This lane uses a directly entered Saturation Flow						1800
2/1 (A280 SB Entry Lane 1)	ТІ	This lane uses a directly entered Saturation Flow 1800						
3/1 (Farm Access Entry Lane 1)	ТІ	This lane uses a directly entered Saturation Flow 1800 1800						
4/1 (A280 NB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (A280 SB Exit Lane 1)			Infinite Satu	uration Flo	W		Inf	Inf

Scenario 2: 'PM Peak' (FG2: 'PM Peak', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow:

	Destination							
		А	В	С	Tot.			
	Α	0	1280	0	1280			
Origin	В	841	0	0	841			
	С	11	11	0	22			
	Tot.	852	1291	0	2143			

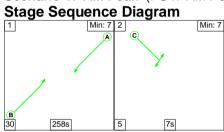
#### **Traffic Lane Flows**

Lane	Scenario 2: PM Peak
Junction: A280	Long Furlong/Farm Access Road
1/1	841
2/1	1280
3/1	22
4/1	1291
5/1	852

#### **Lane Saturation Flows**

Junction: A280 Long Furlong/Farm Access Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A280 NB Entry Lane 1)	Т	This lane uses a directly entered Saturation Flow						1800
2/1 (A280 SB Entry Lane 1)	Т	This lane uses a directly entered Saturation Flow						1800
3/1 (Farm Access Entry Lane 1)	Т	This lane uses a directly entered Saturation Flow 1800 1800						
4/1 (A280 NB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (A280 SB Exit Lane 1)			Infinite Sati	uration Flo	W		Inf	Inf

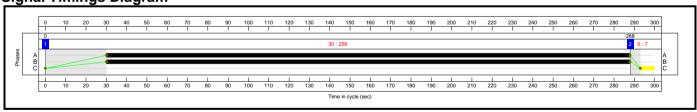
Scenario 1: 'AM Peak' (FG1: 'AM Peak', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	258	7
Change Point	0	288

**Signal Timings Diagram** 



# Full Input Data And Results Network Layout Diagram A280 Long Furlong/Farm Access Road PRC: 48.9 % Total Traffic Delay: 5.5 pcuHr Scenario 'AM Peak' Min: 7 B 30 5 7s 258s

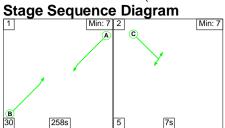
# Full Input Data And Results

### **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	60.4%
A280 Long Furlong/Farm Access Road	-	-	N/A	-	-		-	-	-	-	-	-	60.4%
1/1	A280 NB Entry Ahead	U	N/A	N/A	В		1	258	-	939	1800	1554	60.4%
2/1	A280 SB Entry Ahead	U	N/A	N/A	А		1	258	-	855	1800	1554	55.0%
3/1	Farm Access Entry Right Left	U	N/A	N/A	С		1	7	-	22	1800	48	45.8%
4/1	A280 NB Exit	U	N/A	N/A	-		-	-	-	866	Inf	Inf	0.0%
5/1	A280 SB Exit	U	N/A	N/A	-		-	-	-	950	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	3.7	1.8	0.0	5.5	-	-	-	-
A280 Long Furlong/Farm Access Road	-	-	0	0	0	3.7	1.8	0.0	5.5	-	-	-	-
1/1	939	939	-	-	-	1.5	0.8	-	2.3	8.8	22.2	0.8	22.9
2/1	855	855	-	-	-	1.3	0.6	-	1.9	7.9	18.5	0.6	19.1
3/1	22	22	-	-	-	0.9	0.4	-	1.3	211.0	1.8	0.4	2.2
4/1	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	950	950	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1		alled Lanes (%): All Lanes (%):	48.9 T 48.9		ignalled Lanes (p Over All Lanes(p		Cycle T	ime (s): 300			

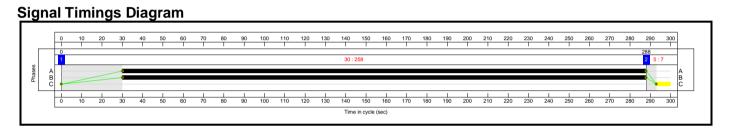
Full Input Data And Results

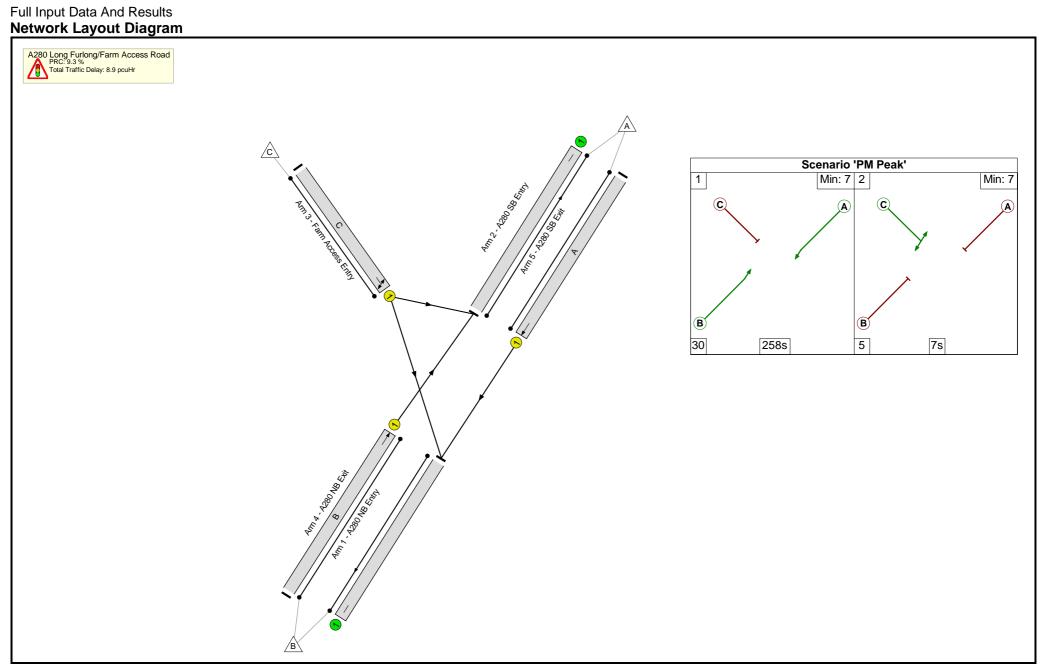
Scenario 2: 'PM Peak' (FG2: 'PM Peak', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2		
Duration	258	7		
Change Point	0	288		





# Full Input Data And Results

### **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.4%
A280 Long Furlong/Farm Access Road	-	-	N/A	-	-		-	-	-	-	-	-	82.4%
1/1	A280 NB Entry Ahead	U	N/A	N/A	В		1	258	-	841	1800	1554	54.1%
2/1	A280 SB Entry Ahead	U	N/A	N/A	А		1	258	-	1280	1800	1554	82.4%
3/1	Farm Access Entry Right Left	U	N/A	N/A	С		1	7	-	22	1800	48	45.8%
4/1	A280 NB Exit	U	N/A	N/A	-		-	-	-	1291	Inf	Inf	0.0%
5/1	A280 SB Exit	U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	5.6	3.3	0.0	8.9	-	-	-	-
A280 Long Furlong/Farm Access Road	-	-	0	0	0	5.6	3.3	0.0	8.9	-	-	-	-
1/1	841	841	-	-	-	1.2	0.6	-	1.8	7.8	17.8	0.6	18.3
2/1	1280	1280	-	-	-	3.4	2.3	-	5.7	16.2	50.1	2.3	52.4
3/1	22	22	-	-	-	0.9	0.4	-	1.3	211.0	1.8	0.4	2.2
4/1	1291	1291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1		alled Lanes (%): All Lanes (%):	9.3 To 9.3		ignalled Lanes (po Over All Lanes(po		Cycle T	ime (s): 300	'	•	



# **Appendix D Kent Street Drawings**

