

# RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

# Dogger Bank South Offshore Wind Farms

Outline Construction Traffic Management Plan (Revision 3) (Clean)

Volume 8

**Submission at Deadline 4** 

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01	N/A	N/A	Submitted for DCO Application
02	N/A	1.4 2.2.2 3.2.2 4.4 5.3 Annex 2	The Outline Construction Traffic Management Plan has been updated to address points raised in stakeholder relevant representations and to amend the presentation of the outline access plans as requested in the Rule 6 Letter
03	N/A	All sections and Annex 1	The Outline Construction Traffic Management Plan has been updated to address points raised by Hull City Council in regard to the Requirement 14 wording, and an errata noted by the ExA in their first written questions (TT.1.6) [PD-014]



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# Glossary

Term	Definition
Concurrent Scenario	A potential construction scenario for the Projects where DBS East and DBS West are both constructed at the same time.
Development Scenario	Description of how the DBS East and/or DBS West Projects would be constructed either in isolation, sequentially or concurrently.
Dogger Bank South (DBS) Offshore Wind Farms	The collective name for the two Projects, DBS East and DBS West.
Heavy Goods Vehicle (HGV)	HGV is the term for any vehicle with a Gross Weight over 3.5 tonnes. This is also used as a proxy for HGVs and buses / coaches recognising the similar size and environmental characteristics of the respective vehicle types.
In Isolation Scenario	A potential construction scenario for one Project which includes either the DBS East or DBS West array, associated offshore and onshore cabling and only the eastern Onshore Converter Station within the Onshore Substation Zone and only the northern route of the onward cable route to the proposed Birkhill Wood National Grid Substation.
Landfall	The point on the coastline at which the Offshore Export Cables are brought onshore, connecting to the onshore cables at the Transition Joint Bay (TJB).
Light Vehicle (LV)	The term 'light vehicle' is used to describe the range of vehicles that would be used by construction employees, i.e. cars, vans, pick-ups, minibuses, etc.
Movement	A single trip (i.e. the arrival or departure from site) for the transfer of employees or delivery of goods.

Term	Definition
Onshore Export Cable Corridor	This is the area which includes cable trenches, haul roads, spoil storage areas, and limits of deviation for micro-siting. For assessment purposes, the cable corridor does not include the Onshore Converter Stations, Transition Joint Bays or temporary access routes; but includes Temporary Construction Compounds (purely for the cable route).
Onshore Export Cables	Onshore Export Cables take the electric from the Transition Joint Bay to the Onshore Converter Stations.
Onshore Substation Zone	Parcel of land within the Onshore Development Area where the Onshore Converter Station infrastructure (including the haul roads, temporary construction compounds and associated cable routeing) would be located.
Principal Contractor	A contractor appointed under Regulation 5(1) (b) of the Construction (Design and Management) Regulations 2015. They have control over the construction phase of a project with several contractors.
Highway Authorities	The term highway authorities for the Projects includes all highway authorities within the traffic and transport study area, namely, East Riding of Yorkshire Council, Hull City Council and National Highways.
Sequential Scenario	A potential construction scenario for the Projects where DBS East and DBS West are constructed with a lag between the commencement of construction activities. Either Project could be built first.
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms).

Term	Definition
Traffic and Transport Study Area (TTSA)	Area where potential impacts from the Projects could occur, as defined for the traffic and transport EIA topic.
Vehicle (HGV, Traffic) trips	A vehicle movement (i.e. the arrival or departure from site) for the transfer of employees or delivery of goods.

# **Acronyms**

Term	Definition
AIL	Abnormal Indivisible Load
CLO	Community Liaison Officer
СТМР	Construction Traffic Management Plan
TMCo	Traffic Management Co-ordinator
DBS	Dogger Bank South
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ESDAL	Electronic Service Delivery for Abnormal Loads
ES	Environmental Statement
GW	Gigawatt
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
km	Kilometre
LV	Light Vehicle
ОСТМР	Outline Construction Traffic Management Plan
PC	Principal Contractor
TTSA	Traffic and Transport Study Area
UK	United Kingdom

## 1 Introduction

## 1.1 Background

- 1. In November 2017, The Crown Estate announced a new round of offshore wind leasing and in September 2019 the final bidding areas were announced and the Offshore Wind Leasing Round 4 was launched. As part of the Round 4 process, developers were able to identify preferred sites within bidding areas defined by The Crown Estate.
- 2. RWE (herein 'the Applicants') was successful in this auction process, securing preferred bidder status on two adjacent projects, Dogger Bank South (DBS) East and DBS West Offshore Wind Farms, collectively known as DBS Offshore Wind Farms (herein 'the Projects'). Agreements for Lease were entered into by the Applicants in January 2023.
- 3. The Array Areas for DBS East and DBS West are located more than 100km offshore on the Dogger Bank in the southern North Sea and each covers approximately 350km<sup>2</sup>.
- 4. Based on an estimated capacity of 3GW once fully operational, the DBS projects could be capable of generating enough electricity to meet the average annual domestic energy needs of around 3 million typical UK homes.<sup>1</sup>.
- 5. The proposed onshore construction works consist of installation of buried Onshore Export Cables, from a landfall on East Riding of Yorkshire coastline near Skipsea to (up to) two newly constructed Onshore Converter Stations, located to the southwest of Beverley. Onward onshore cable routeing would transfer power from the Projects' Onshore Converter Stations to a proposed new National Grid substation (located near to the existing National Grid Creyke Beck substation), known as the proposed Birkhill Wood National Grid Substation.
- 6. A full description of the Projects is provided within **Volume 7, Chapter 5 Project Description (application ref: 7.5)** of the Environmental Statement (ES).

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<sup>&</sup>lt;sup>1</sup> Calculation based on 2021 generation, and assuming average (mean) annual household consumption of 3,509 kWh, based on latest statistics from Department of Energy Security and Net Zero (Subnational Electricity and Gas Consumption Statistics Regional and Local Authority, Great Britain, 2021, Mean domestic electricity consumption (kWh per meter) by country/region, Great Britain, 2021

7. Following the submission of the Projects Development Consent Order application, comments have been provided by stakeholders regarding the content of the Outline Construction Traffic Management Plan (OCTMP). **Table 1-1** provides a summary of the amendments that have been made in response.

Table 1-1 Summary of OCTMP Changes

OCTMP Revision Number	Summary of Changes	Relevant Section of the OCTMP
Revision 2	Clarifications regarding the timescales for the appointment of the Community Liaison Officer and Traffic Management Co-ordinator	Section 1.4 and Table 5-1
	Corrections to the requirement numbering	Section 2.2.2 and section 3.2.2
	Correction to the access management measures	Section 4.4
	Clarifications regarding the timescales for reporting potential breaches	Section 5.3
	Minor amendments to the presentation of the outline access plans	Annex 2
Revision 3	Corrections to the mitigation of amenity impacts on Link 73	Annex 1
	Clarification of highway authority approvals	New Table 1-2 and minor updates throughout

# 1.2 Purpose of the Outline Construction Traffic Management Plan

8. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES contains an assessment of the potential effects and associated mitigation for the construction, operation, and decommissioning phases of the Projects.

- 9. The OCTMP contains the control measures and monitoring procedures for managing the potential traffic and transport effects of constructing the Projects. The objective of the OCTMP is to define a strategy to ensure that the construction traffic parameters (e.g. traffic numbers and routes) assessed within the ES are managed and not exceeded.
- 10. The OCTMP would form the basis for a final Construction Traffic Management Plan (CTMP) for each phase of the Projects' onshore works, which would be prepared and submitted prior to the commencement of construction of the relevant phase for approval by East Riding of Yorkshire Council, in consultation with their own highways team. Hull City Council and National Highways would also be consulted upon the final CTMP by East Riding of Yorkshire Council upon matters pertinent to their networks. These matters are defined in **Table 1-2**.
- 11. The term highway authorities is used throughout this OCTMP to refer to the three highway authorities within the Traffic and Transport Study Area (East Riding of Yorkshire Council, National Highways and Hull City Council). Where a matter in this OCTMP is not considered to relate to all three highway authorities, the salient highway authorities are explicitly named e.g. East Riding of Yorkshire Council.

Table 1-2 Highway authorities required to be consulted

Section of the OCTMP	Highway authorities to be consulted
Section 1, 2, 3 and 4.1, 4.7, 4.8, 4.9 and 5	The highway authorities (East Riding of Yorkshire Council, Hull City Council and National Highways)
Section 4.2, 4.3, 4.4, 4.5 and 4.10	East Riding of Yorkshire Council
Section 4.6	Hull City Council and National Highways

12. The requirement to produce and agree a final CTMP is secured by Requirement 14 of the draft Development Consent Order (DCO) which states:

- 14. (1) Any phase of the onshore works must not be commenced until a construction traffic management plan (which must be in accordance with the outline construction traffic management plan) has for that phase been submitted to and approved by the relevant planning authority in consultation with the relevant highway authority and National Highways or Hull City Council as specified in the outline construction traffic management plan.
- (2) Any plan submitted under sub-paragraph (1) may cover one or more phase of the onshore works.
- (3) Each plan approved under sub-paragraph (1) must be implemented upon commencement of the relevant phase of the onshore works.
- 13. The final CTMP would set the standards and procedures that would be adopted by the appointed Principal Contractor (PC), including:
  - Managing the numbers and routeing of Heavy Goods Vehicles (HGVs) during the construction phase;
  - Managing the movement of employee traffic during the construction phase;
  - Details of localised road improvements necessary to facilitate safe use of the existing road network; and
  - Detail of measures to manage the safe passage of HGV traffic via the local highway network.

# 1.3 OCTMP Scope

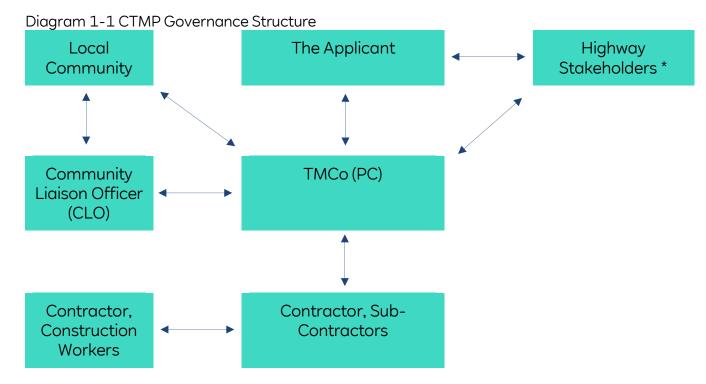
- 14. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** considers a range of possible Development Scenarios:
  - Either DBS East or DBS West is built In Isolation; or
  - DBS East and DBS West are both built either Sequentially or Concurrently.
- 15. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)**highlights that the construction of the Projects in isolation generates lower overall traffic flows than the construction of the Projects sequentially or concurrently and that construction of the Projects concurrently generates the highest flows.

- 16. Adopting the 'Rochdale Envelope'<sup>2</sup> principle the In Isolation and Concurrent traffic scenarios represent the bounds of the assessment and to ensure that the traffic and transport assessment is proportionate, no separate assessment of traffic flows under the Sequential Scenario is presented.
- 17. Unless explicitly specified, the measures and controls contained within this OCTMP would be applicable to all Development Scenarios.

#### 1.4 CTMP Governance

- 18. Prior to the commencement of construction of the relevant phase, a Traffic Management Co-ordinator (TMCo) would be appointed by the PC. Their key responsibilities would include:
  - Managing the implementation of the approved CTMP;
  - Collating monitoring data and preparing a monitoring report (as outlined in section 5);
  - Acting as a point of contact for the local community;
  - Regular liaison and reporting to the Applicants;
  - Sharing information with emergency and healthcare services, e.g. dates of any road closures, abnormal load movements, etc;
  - Supporting the Applicants with highway stakeholder engagement; and
  - Acting as a point of contact for construction workers and subcontractors.
- 19. The TMCo would also be assisted in their role by a Community Liaison Officer (CLO). The CLO would be appointed by the Applicants.
- 20. To ensure clarity of the responsibilities of the OCTMP, its governance structure is set out in **Diagram 1-1**.

<sup>&</sup>lt;sup>2</sup> The 'Rochdale Envelope' approach is employed where the nature of the Proposed Development means that some details of the whole project have not been confirmed when the application is submitted and flexibility is sought to address uncertainty (Advice Note Nine: Rochdale Envelope, 2018).



\* Highways Stakeholders will include East Riding of Yorkshire Council, Hull City Council, National Highways, relevant local District, Town and Parish Councils.

- 21. Full details of all the responsibilities of the TMCo and CLO and associated timescales are provided as an Action Plan in section 5.4.
- 22. Details of the TMCo and CLO (e.g. name and contact details) would be included within the final CTMP that would be submitted to the highway authorities prior to the commencement of construction of the relevant phase. Noting the timescales to discharge a DCO Requirement, this would allow the nominated TMCo and CLO at least eight weeks to familiarise themselves with their roles and responsibilities prior to the commencement of construction.
- 23. Highway stakeholders will be notified if there is a change in the name or contact details of the TMCo or CLO.

#### 1.5 OCTMP Structure

- 24. Following this introduction, the structure of the OCTMP is as follows:
  - Section 2 defines measures to manage and control HGV demand;
  - Section 3 defines measures to manage and control employee traffic demand:

- Section 4 sets out access and traffic management proposals; and
- Section 5 sets-out how the OCTMP would be monitored and provides an Action Plan for its implementation.

# 2 Control of HGV Trips

#### 2.1 Introduction

- 25. The OCTMP provides a level of detail as to the traffic management measures that would be implemented to control HGV trips during the construction phase. In doing so, the OCTMP sets the management measures and performance required of the PC.
- These measures are an absolute requirement established from the parameters outlined in section 24.6.1 of **Volume 7**, **Chapter 24 Traffic and Transport (application ref: 7.24)**, to be adopted by the PC and only revised with the prior agreement of the highway authorities.

#### 2.2 HGV Traffic Generation

- 27. Table 24-17 and Table 24-18 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** sets out the forecast number of peak and average daily construction HGV trips (for all of the 66 links within the Traffic and Transport Study Area (TTSA)) for Projects In Isolation and Concurrently respectively.
- 28. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** identifies that to mitigate potential amenity and road safety impacts (of the Projects construction traffic) it is necessary to reduce peak daily HGV trips on some links.
- 29. The resultant peak daily HGV trips per link are summarised in **Annex 1**. **Annex 1** also highlights which links have been subject to a reduction in peak construction HGV demand. The rationale for this mitigation is set out in **Volume 7**, **Chapter 24 Traffic and Transport (application ref: 7.24)**.

#### 2.2.1 HGV Numbers

To ensure compliance with the assessed worst case scenario for HGV trips (Concurrent Scenario as detailed in **Annex 1**), a booking system for deliveries would be established by the TMCo to monitor HGVs at supply chain source and point of delivery. The booking system would enable a daily profile of deliveries to be maintained and allow the TMCo to ensure that the required deliveries are forecast and planned.

31. To provide the highway authorities with an indication of when peak deliveries may occur within the construction programme, the final CTMP would also be updated to include indicative profiles for monthly deliveries per link for the construction duration.

# 2.2.2 HGV Timings

- 32. Requirement 20 of the draft DCO outlines the working hours and hours during which construction related traffic can take place for the construction of the Projects. Requirement 20 notes:
  - 20. (1) Construction work for the onshore works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or public holidays, except as specified in sub-paragraphs (2) to (4).
  - (2) Outside the hours specified in sub-paragraph (1), construction work may be undertaken for essential activities including but not limited to:
    - (a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring, drilling, and pulling cables (including fibre optic cables) through ducts and trenchless crossings;
    - (b) internal fitting out works associated with the onshore HVDC converter station buildings comprised within Work Nos. 25A or 26A and 26B;
    - (c) delivery of abnormal loads to the onshore works that may otherwise cause congestion on the local road network;
    - (d) the testing or commissioning of any electrical plant installed as part of the onshore works;
    - (e) security monitoring; or
    - (f) activity necessary in the instance of an emergency or where there is an immediate risk to persons, the environment, delivery of electricity, or property.
  - (3) Save for emergency works, full details, including but not limited to type of activity, vehicle movements and type, timing and duration and any proposed mitigation, of all essential construction activities under subparagraph (2) and undertaken outside of the hours specified in subparagraph (1) must be approved by the relevant planning authority in writing in advance, and must be carried out within the agreed time.

- (4) In the event of an emergency, notification of that emergency must be given to the relevant planning authority and the relevant highway authority as soon as reasonably practicable.
- (5) For the purposes of this requirement "emergency" means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action.
- 33. With the exception of the clauses above, HGV construction traffic movements would not be permitted outside of the hours referred to in Requirement 20. This does not preclude HGV travel to and from the site of the relevant work via the wider highway network which may occur during the mobilisation / demobilisation hours.
- 34. Any HGVs which are projected to arrive on site outside of normal working hours would be required to park at an appropriate lorry park, services and other designated overnight parking locations until they can complete their journey within appropriate restrictions. These locations would be agreed with the highway authorities prior to the commencement of construction and would be communicated to drivers within their delivery instructions (outlined within section 2.4.1).
- Traffic and Transport (application ref: 7.24) identifies that to mitigate potential amenity impacts (of the Projects' construction traffic) it is necessary to restrict HGV trips via links 5 and 6 during school start and finish times. The exact hours to be avoided would be agreed as part of the final CTMP with the East Riding of Yorkshire Council prior to commencement of any phase which would involve HGV trips via links 5 and 6.

#### 2.3 Control of HGV Routes

- 36. The proposed routes to be used by HGVs have been carefully selected to minimise effects upon sensitive receptors.
- The proposed HGV routes to each access would be limited to the assessed links within **Volume 7**, **Chapter 24 Traffic and Transport (application ref: 7.24)**, and as shown on **Figure 1** of this OCTMP.

- 38. In addition to following the prescribed routes, East Riding of Yorkshire Council has also requested that HGVs accessing to the south of Skipsea should travel from the A165 via the B1249 (west to east) and depart toward the A165 on the B1242 (south to north). This routing is also depicted on **Figure 1** of this OCTMP.
- 39. To ensure compliance with the HGV delivery routes, the following measures are proposed:
  - Direction signing would be implemented to direct construction traffic to the respective accesses along the assessed delivery routes (the location and design of these signs would be agreed with East Riding of Yorkshire Council prior to the commencement of construction of the relevant phase);
  - The delivery routes and timings would be communicated (by the TMCo) through the issuing of delivery instructions to all companies and / or drivers involved in the transport of materials and plant to and from site by HGV construction vehicles;
  - The registration numbers for all HGVs making deliveries would be recorded by the TMCo. This would allow for checking and enforcement of any reported breaches of the agreed delivery routes;
  - The TMCo would require that where vehicle tracking is fitted to vehicles, that the systems are operational, and the suppliers / drivers make the data available to the TMCo. Vehicle tracking would allow the TMCo to investigate any breaches; and
  - The TMCo would provide an 'identifier' that would be placed within the window of all delivery vehicles to enable residents to identify if an HGV is engaged on work on the Projects and would be submitted to and approved by the highway authorities as part of the final CTMP.

#### 2.4 Driver Inductions

- 40. All HGV drivers for the Projects would be formally inducted. The induction would establish a clear set of responsibilities that all drivers would be required to follow, such as:
  - Timings, pre-booked slots;
  - Clarification of approved HGV routes;
  - Highway safety concerns;
  - Adherence to speed limits; and
  - Details of reporting accidents and 'near misses'.

## 2.4.1 Delivery Packs

- 41. To support the strategy to control HGV routes, each driver would be issued with a delivery pack. This pack would be a convenient size so that it can be stored in the truck cab and include the following information:
  - A plan showing the delivery routes and the location of the site access;
  - Details of appropriate lorry parks, services and other designated overnight parking locations where drivers are permitted to stop;
  - A copy of the identifier to display in the vehicle window;
  - Details of restrictions on delivery hours (set out in section 2.2.2); and
  - Details of disciplinary measures for non-compliance (set out in section 5.3).
- 42. Compliance with the agreed HGV delivery routes would be subject to the monitoring and enforcement measures set out in Section 5.

#### 2.5 Abnormal Loads

#### 2.5.1 Special Order Abnormal Loads

- 43. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES identified that the construction of the Projects' Onshore Converter Station(s) would require the delivery of large electrical plant items such as transformers. Each transformer delivery would be classified as a Special Order<sup>3</sup> Abnormal Indivisible Load (AIL) delivery due to the size of the vehicle.
- 44. The movement of Special Order AILs would be outside of the restrictions (routes and times) contained within this OCTMP and would be subject to separate agreement with the highway authorities and police through the Electronic Service Delivery for Abnormal Loads (ESDAL) system.

# 2.5.2 Non-Special Order Abnormal Loads

45. There would also be a potential requirement for abnormal load movements associated with the delivery of cable drums and plant. These abnormal load deliveries would not however constitute a Special Order.

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 $<sup>^3</sup>$  The Road Vehicles (Authorisation of Special Types) (General) Order 2003 (SI 1998) limits gross weight of an AIL to 150 tonnes, axle weight to 16,500kg, length to 30m and/or width to 6.1m, above which a Special Order is required from National Highways.

- 46. The final size of cable drums has not been determined at this stage and would be subject to further detailed design pre-construction. It is therefore proposed that prior to submitting the formal approval via ESDAL, the PC would first consult with the local highway authorities (East Riding of Yorkshire Council and Hull City Council) to seek their views in regard to the best routes to be used and size of vehicles.
- 47. The movement of the non-Special Order abnormal loads would be subject to the same delivery route restrictions as HGVs (outlined in section 2.3) however the timing of movements may be outside the standard hours (outlined in section 2.2.2) and subject to separate agreement with the highway authorities and police through the ESDAL system.
- 48. Prior to the movement of any AILs or abnormal loads, the TMCo would ensure stakeholders are notified through ESDAL and agree appropriate timings, routes and asset protection measures (with the highway authorities, police and Network Rail) appropriate to the type of load.

# **3** Control of Employee Trips

# 3.1 Introduction and Background

- 49. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES assessed a worst case scenario of all employees travelling by car on their own (i.e. single occupancy). No allowance for employees to car-share or use other sustainable modes of transport were applied to the assessment.
- 50. Employee vehicle trips are expressed as light vehicles (LV) trips. The term LVs is a collective term used to describe the range of vehicle types that could be used by construction employees (e.g. cars, vans, pick-ups, minibuses, etc).
- Table 24.17 and Table 24.18 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** sets out the forecast number of peak and average daily construction LV trips (for all of the 66 links within the TTSA) for the Projects In isolation and concurrently respectively.
- 52. The resultant peak daily LV trips per link are summarised in **Annex 1**.
- 53. The OCTMP sets out measures to secure the adoption of more sustainable travel options (than single occupancy LVs).

#### 3.2 Measures

#### 3.2.1 LV Vehicle Numbers

- 54. To ensure compliance with the assessed worst case scenario for LV trips (Annex 1), the TMCo would be required to establish a resource forecast for the number of employees that could be travelling to the Projects. The resource forecast would enable the TMCo to identify any potential exceedances and would be regularly reviewed / reforecast during construction.
- 55. Where potential exceedances are identified, the TMCo would first review the resource forecast to determine legitimate trips, these could be:
  - Activities which have an agreed economic benefit to the local area, e.g., food retail;
  - Emergency trips through restricted areas;
  - Employees travelling from a point of residence within the TTSA; and
  - Local support services with a business origin within the TTSA.
- 56. Should an exceedance be confirmed the TMCo would be required to, either:
  - Reschedule activities to reduce the overlap or intensity of activities; or

- Implement 'enhanced travel planning' measures, e.g. car-sharing, private minibus transport.
- 57. **Table 3-1** outlines a range of best practice measures that could be adopted to reduce the number of single occupancy vehicle trips. These types of measures would also form the basis for enhanced travel planning (if required).

Table 3-1 Personnel Travel Plan Measures

Measure	Rationale
Identify car-share, pickup locations	The TMCo would identify and group employees who are in nearby accommodation and explore opportunities for carsharing including the assignment of crew vans and designated drivers.
Drivers required to park within designated areas	All drivers would be required to park within designated areas.  Drivers not parking within the designated areas, would be subject to enforcement action as set out in section 5.3.
Walking / cycling facilities	It is recognised that the transient nature of the construction workforce would reduce the potential opportunities for walking and cycling. However, the TMCo would encourage employees to walk and cycle by providing changing facilities and secure cycle parking. The level of cycle parking requirements would be established by the TMCo based upon personnel origins and reviewed throughout construction.
Guaranteed lift home	To allow personnel who car-share to get home in an emergency, a guaranteed lift home would be offered.
Staff noticeboard	Staff noticeboards would be provided within communal areas, which would include details of the car-sharing options including details of parking requirements and the guaranteed lift home. The notice boards would also include details of local walking and cycling routes and bus and train times (where options exist).
Welfare facilities	To minimise the requirement for employees to drive off site during the working day, the TMCo would ensure welfare facilities are available where workers can store, prepare and eat lunch.

# 3.2.2 LV Timings

- 58. Requirement 20 of the draft DCO outlines the working hours and hours during which construction related traffic can take place for the construction of Projects. Requirement 20 notes:
  - 20. (1) Construction work for the onshore works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or public holidays, except as specified in sub-paragraphs (2) to (4).
  - (2) Outside the hours specified in sub-paragraph (1), construction work may be undertaken for essential activities including but not limited to: -
    - (a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring, drilling, and pulling cables (including fibre optic cables) through ducts and trenchless crossings;
    - (b) internal fitting out works associated with the onshore HVDC converter station buildings comprised within Work Nos. 25A or 26A and 26B;
    - (c) delivery of abnormal loads to the onshore works that may otherwise cause congestion on the local road network;
    - (d) the testing or commissioning of any electrical plant installed as part of the onshore works;
    - (e) security monitoring; or
    - (f) activity necessary in the instance of an emergency or where there is an immediate risk to persons, the environment, delivery of electricity, or property.
  - (3) Save for emergency works, full details, including but not limited to type of activity, vehicle movements and type, timing and duration and any proposed mitigation, of all essential construction activities under subparagraph (2) and undertaken outside of the hours specified in subparagraph (1) must be approved by the relevant planning authority in writing in advance, and must be carried out within the agreed time.
  - (4) In the event of an emergency, notification of that emergency must be given to the relevant planning authority and the relevant highway authority as soon as reasonably practicable.

- (5) For the purposes of this requirement "emergency" means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action.
- 59. With the exception of the clauses above, LV construction traffic movements would not be permitted outside of the hours referred to in Requirement 20. This does not preclude LV travel to and from the site of the relevant work via the wider highway network which may occur during the mobilisation / demobilisation hours.
- 60. The assessment of driver delay (capacity) presented within **Volume 7**, **Chapter 24 Traffic and Transport (application ref: 7.24)** established that the addition of construction employee trips during the morning and evening network peaks (07:15 to 09:00 and 16:00 to 17:45) could have an adverse effect upon junction performance within the administration area of the East Riding of Yorkshire Council.
- 61. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** therefore outlined that these adverse effects could be mitigated either by the avoidance of peak hours, demand management, or a combination of both.
- 62. Noting that the working hours for the Projects are 07:00 to 19:00, **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** established that if the majority of employee trips were scheduled to avoid network peak hours (e.g. arrive before 07:45 in the morning and depart after 17:30) that the combined traffic flows (background plus Projects' peak employee traffic demand) would be less than the background flows in the network peak hours.
- 63. Alternatively if arrivals and departures are required during the network peak hours, this could potentially be accommodated through demand management measures e.g. the use of minibuses to reduce vehicle trips.
- 64. It is proposed that the TMCo would discuss and agree the final form of mitigation with East Riding of Yorkshire Council prior to the commencement of the relevant phase.
- 65. In addition to the managing employee trips within the administration area of East Riding of Yorkshire Council, should future junction capacity assessment (as detailed in section 4.6) identify potentially significant driver delay (capacity) effects, mitigation measures would be proposed by the TMCo and discussed and agreed with Hull City Council and/or National Highways prior to the commencement of the relevant phase.

66. It is proposed that mitigation for any significant driver delay (capacity) effects would replicate those proposed for the East Riding of Yorkshire Council administration area, i.e. avoidance of sensitive hours or demand management measures.

# 4 Traffic Management

#### 4.1 Introduction

67. This section sets out the standards and procedures for managing the interaction between construction traffic, existing highway users and local communities.

# 4.2 Control of Material on the Highway

- 68. To prevent detritus and other material being deposited on the public highway the TMCo would be required to implement a series of site-specific measures. Prior to the commencement of construction of the relevant phase, the details of the measures that would be used for each access would be submitted to and agreed with East Riding of Yorkshire Council as part of the final CTMP.
- 69. It is envisaged that as a minimum, measures would include the following:
  - All accesses and crossings would be provided with a bound surface (asphalt / concrete) to prevent mud and dirt being tracked onto the highway;
  - Regular inspections of the public highway in the vicinity of the active site accesses to ensure cleanliness; and
  - Road sweepers on call to clear any detritus and other material from the public highway.
- 70. Where deliveries are likely to be more intense, such as at compounds, further measures such as wheel washing facilities and dust suppression measures may also be provided.
- 71. Prior to the commencement of construction of the relevant phase, the TMCo would agree with East Riding of Yorkshire Council an appropriate response time to remove any reported detritus / material on the highway following a report.

# 4.3 Accesses and Road Crossings

- 72. A suite of outline access and road crossing designs have been developed for the Projects and are detailed within **Annex 2** of this OCTMP.
- 73. It has been agreed with East Riding of Yorkshire Council that these outline access and crossing designs would be refined post consent, to be included in the final CTMP.



- 74. Prior to the commencement of construction for the relevant phase, the technical approvals for the access and crossing designs would be submitted to and agreed with East Riding of Yorkshire Council under Section 62 and 278 of the Highways Act 1980 or equivalent provisions under the DCO or other relevant powers (e.g. New Road and Street Works).
- 75. The technical approval process would include submission of finalised drawings, showing full details of access and crossing improvements, including drainage, lighting, signing, and standard construction details.
- 76. The technical approval documentation would also include Stage 1 and 2 Road Safety Audits and a Road Safety Audit Response Report (on behalf of the designers).
- 77. In addition to any powers set out in the draft DCO, relevant powers under the Road Traffic Regulation Act 1984 would be sought to implement any temporary speed limit changes required.
- 78. All accesses and crossings identified for construction are temporary and following completion of construction works would be reinstated to their former state unless otherwise agreed with East Riding of Yorkshire Council and the relevant landowner. The exception to this would be the access to the Onshore Converter Station(s) which would remain permanently in-situ for operation and maintenance purposes.
- 79. To construct each of the accesses and crossings, temporary traffic management would be implemented to maintain highway safety and to ensure minimal delays to existing road users. Prior to the commencement of construction of the relevant phase, details of traffic management at accesses and crossings would be developed by the TMCo in liaison with East Riding of Yorkshire Council.

# 4.4 Access Management Measures

- 80. Section 24.6.1.7 of **Volume 7, Chapter 24 Traffic and Transport** (application ref: 7.24) assessed the effect of increases in construction traffic upon Driver Delay Highway Geometry.
- 81. The assessment identified five links within the TTSA of constrained width which would prevent two vehicles from passing, potentially effecting driver delay. Section 24.3.4 of **Volume 7, Chapter 24 Traffic and Transport** (application ref: 7.24) also identified the potential for access management measures to be required to facilitate access via access AC17 (west).
- 82. Section 24.6.1.7 of **Volume 7, Chapter 24 Traffic and Transport** (application ref: 7.24) sets out a range of mitigation measures that could be adopted including:

- Road / junction widening;
- Extending existing passing places;
- Providing new and / or formalising existing informal passing places; or
- Using mobile traffic management, such as:
  - An escort / pilot vehicle to guide HGVs along roads and past oncoming traffic;
  - 'Stop-works' signage to hold traffic back (for up to two minutes in any 15 minutes) whilst HGVs travel along routes; or
  - 'Temporary obstruction' signage to hold traffic (for up to 15 minutes with a subsequent gap of at least one hour) whilst HGVs travel along routes.
- 83. A graphical depiction of how an escort / pilot vehicle would work is provided as **Annex 3**.
- 84. Prior to the commencement of construction of the relevant phase, the TMCo would formalise and agree the measures to be adopted for each road. The final choice of measures would be agreed in liaison with East Riding of Yorkshire Council.
- 85. Where road / junction widening or new / improved passing places are proposed, they would be contained within the public highway and the technical approvals for the designs would be submitted to and agreed with East Riding of Yorkshire Council under Section 62 or 278 of the Highways Act 1980 or equivalent provisions under the DCO or other relevant powers (e.g. New Road and Street Works).
- 86. The technical approval process would include submission of finalised drawings, showing full details of the improvements, including drainage, lighting, signing, and standard construction details.
- 87. All road / junction widening would be temporary and following completion of construction would be reinstated to their former state unless otherwise agreed with East Riding of Yorkshire Council.
- 88. The technical approval documentation would also include a Stage 1 and 2 Road Safety Audit and a Road Safety Audit Response Report (on behalf of the designers).



# 4.5 Cable Crossings

- 89. Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24) of the ES outlines that cable installation works, within the Onshore Cable Corridor(s) would need to be installed across nine minor public roads using open-cut trenching techniques. All other roads would be crossed using trenchless techniques, such as Horizontal Directional Drilling (HDD). The location of all roads to be crossed by the Projects Onshore Export Cables and the form of crossing (i.e. open cut or trenchless techniques) are shown on Figure 24-3 of Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24) of the ES.
- 90. Due to the width of seven of these roads, it is proposed that they would be closed whilst the cables are installed for a period of up to two weeks (per crossing). These seven roads include:
  - Bewholme Lane:
  - Dunnington Lane;
  - Billings Lane;
  - Harsell Lane:
  - Catwick Heads Lane:
  - Rise Lane; and
  - Riston Road.
- 91. To minimise the effect to existing road users of these seven roads, the following measures are proposed:
  - A safe route would be maintained for pedestrians and cyclists through the works area;
  - Advanced signing would be implemented to assist drivers in finding alternative routes and provide advanced warning of the closure;
  - The closures would be staggered, to ensure that nearby roads are not closed at the same time to ensure alternative diversions exist; and
  - The TMCo and CLO would engage with affected local communities and stakeholders to provide advanced notification and identify if there may be periods which could be avoided.
- 92. The exception to the road closure strategy is at Park Lane and Catfoss Road where it is proposed access is maintained either through the use of trenchless technologies (subject to further site investigation works) or shuttle working (e.g. the use of traffic signals to alternate flows on a one-way section of road).

- 93. If trenchless techniques cannot be used at any of these locations, in addition to the use of shuttle working, the following additional mitigation measures are also proposed:
  - Working with East Riding of Yorkshire Council and local stakeholders to agree an appropriate time to undertake the works (e.g. during school holidays);
  - Implementation of advanced signing to assist drivers in finding alternative routes; and
  - Ensuring all road closure works are staggered to minimise any cumulative effects within close geographical areas.

#### 4.6 Junction Assessments

- 94. Section 24.6.1.6 of **Volume 7, Chapter 24 Traffic and Transport** (application ref: 7.24) identified 17 junctions as being potentially sensitive to changes in traffic.
- 95. It has been agreed with Hull City Council and National Highways that, for the junctions within the Council's administration area (junctions 1 to 13,) rather than undertaking detailed junction capacity modelling for the DCO application submission, it would be appropriate to defer any assessment until post determination when baseline conditions have consolidated following major highway improvements to the A63 Castle Street.
- 96. Detailed information regarding forecast traffic flows for each of these junctions (junction 1 to 13) would be provided to the respective highway authorities by the TMCo once a PC is appointed and greater certainty is available with regards to the following variables:
  - Background traffic flows following completion of the A63 Castle Street improvement works by National Highways;
  - A construction programme providing details of monthly breakdown of HGV and employee demand throughout construction;
  - Details of the peak and average HGV movements;
  - Details of the peak and average employee movements;
  - The modes of travel to be used by employees, i.e. the anticipated proportion that would use public transport, car-share, etc;
  - Details of the origin and destination of employees and HGV traffic;
  - Proposed HGV hourly profiles; and
  - Proposed employee shift patterns.

- 97. It is therefore proposed that prior to commencement, the TMCo would submit details (to Hull City Council and National Highways) of the revised forecast traffic flows that would pass through junctions 1 to 13 and the timing of these movements. The highway authorities would then advise if they require further capacity assessment.
- 98. If Hull City Council and National Highways consider that more detailed assessment is required, the methodology for modelling would first be agreed with Hull City Council and National Highways. This would include:
  - The approach to gathering baseline data (turning counts, queue length surveys, etc.);
  - Approach to factoring survey data to a future year, e.g. appropriate TEMPRo (Trip End Model Presentation Program) factors; and
  - Modelling software.
- 99. Should the modelling identify potentially significant effects, mitigation measures would be agreed with Hull City Council and National Highways to manage effects to reduce the significance to a level that is not significant.
- 100. It is proposed that any mitigation measures would focus upon 'traffic management' measures to reduce peak traffic movements, such as, carsharing, reprofiling deliveries, etc.

# 4.7 Road Safety

- 101. Section 24.6.1.4 of **Volume 7, Chapter 24 Traffic and Transport** (application ref: **7.24**) of the ES identified potentially significant road safety effects along links 17 and 76 associated with the construction of the Projects.
- 102. Noting the temporary nature of the Projects' construction phase **Volume 7**, **Chapter 24 Traffic and Transport (application ref: 7.24)** outlines that it is proposed that mitigation measures for links 17 and 76 would focus upon management measures, rather than physical highway improvements. Management measures would include:
  - Limiting the numbers of peak HGV movements via these links. The process for controlling HGV trips is detailed in section 2); and
  - As part of the induction process (detailed in section 2.4) drivers who
    may have to travel via these links would be made aware of the
    potential risks.

# 4.8 Parking and Loading

103. Appropriate loading / unloading and parking areas for construction vehicles would be designated within the construction sites to avoid the need for parking or waiting on the highway. The planning of deliveries via the booking system would assist the TMCo to allocate sufficient space to accommodate the planned number of deliveries.

# 4.9 Traffic Incident Management

104. To reduce the potential for construction traffic to have an adverse effect upon the highway network during planned and unplanned events, the measures set out in **Table 4-1** would be adopted.

Table 4-1 Traffic Incident Management Measures to be Adopted During Events

Measure	Rationale
Managing traffic demand during major events that impact on the highway (e.g. bike races, parades, etc.) and around public holidays.	The CLO and TMCo would liaise with local stakeholders to understand when major events may occur. To ensure there are limited HGV trips during planned major events, the TMCo would undertake advanced planning to reschedule activities and stockpile of materials in advance.
Managing traffic demand during major incidents such as accidents on the highway.	The TMCo would monitor traffic conditions. Should the TMCo become aware of an incident then the PC would liaise directly with suppliers to suspend HGV deliveries along affected routes where required.

Measure	Rationale
Managing traffic demand during road closures.	In the event that the TMCo becomes aware that the agreed delivery routes ( <b>Figure 1</b> ) are unavailable (e.g. due to road closures by others) the TMCo would initially seek to reschedule works utilising the affected links. Where this may not be possible the following approach is proposed:
	<ul> <li>The TMCo would identify contingency diversion routes having regard for the road hierarchy (e.g. where possible utilising A and B roads);</li> <li>The TMCo would submit details of the proposed contingency diversion routes to the highway authorities who would be requested to advise if they consider the routes are suitable or if they require any further assessment; and</li> <li>If further assessment is required, the TMCo would undertake the required assessment utilising the methodology detailed within the ES and request the highway authorities to review the outputs and confirm acceptance or otherwise.</li> </ul>
Incidents involving PC HGV traffic blocking the highway, such as, breakdowns, accidents, etc.	The PC and their suppliers' fleets would have arrangements with recovery companies to allow breakdowns and accidents to be cleared as quickly as possible. All breakdowns and accidents would be reported to the TMCo.

# 4.10 Highway Condition Surveys

- 105. Highway condition surveys would be undertaken by the TMCo prior to the commencement of construction and after the substantial completion of construction works. The surveys would include all roads and verges within the TTSA that are not specifically designated for HGV movements, i.e. excluding all A roads.
- 106. Any damage to the existing highway network as a consequence of the Projects would be repaired by the PC or a financial contribution made to East Riding of Yorkshire Council to cover the cost of remedial works.
- 107. The survey would most likely comprise of a Coarse Visual Inspection survey (in accordance with the UK Pavement Management System standard). Prior to the commencement of construction, the extent and scope of surveys would be agreed between the TMCo and East Riding of Yorkshire Council and outlined within the final CTMP.

- 108. In addition to undertaking surveys prior to, and on completion of the construction works, the PC would also undertake regular inspections of the highway network to identify any emerging issues (such as damage to verges or potholes forming). The PC would be assisted in this function by the CLO who would feedback any local highway condition issues from their community engagement.
- 109. Where emerging issues are identified as a result of the Projects' construction traffic, the PC would notify East Riding of Yorkshire Council and either repair the issue or ask East Riding of Yorkshire Council to undertake the repairs (with costs being recharged to the PC).

# 5 Monitoring, Enforcement and Action Plan

#### 5.1 Introduction

110. The following section sets out how the targets and measures contained within this OCTMP would be monitored to ensure compliance.

# 5.2 Monitoring

#### 5.2.1 Community Liaison

- 111. The Applicants would appoint a CLO who would be the first point of contact for all concerns raised. Contact details would be circulated to local parish and town councils and included on the Project's website and newsletters for reference.
- 112. In accordance with the requirements of 'Safety at Street Works and Road Works: A Code of Practice' (Department for Transport, 2013), signs would also be erected at road works with the relevant contact number (the Projects' dedicated telephone number) clearly displayed for public enquiries.
- 113. All enquiries would be recorded and responded to within seven working days. The enquirer would receive a written response detailing what action (if necessary) has been taken.

#### 5.2.2 HGV Numbers

114. To ensure compliance with the assessed daily HGV trips (outlined in **Annex**1), the TMCo would operate a booking system for all deliveries. The booking system would be monitored (by the TMCo) to ensure the assessed number of trips are adhered to.

# 5.2.3 HGV Routing

- 115. The TMCo would implement a system to help the public distinguish HGV construction vehicles associated with the Projects from other traffic on the network. Each vehicle would be required to display a unique identifier within the window of the cab (a recognisable logo) that would allow members of the public to report any concerns such as driver behaviour or the use of unapproved routes via a publicised telephone contact number.
- 116. The TMCo would also ensure that weighting is given to the selection of suppliers with vehicle tracking software. Vehicle tracking software, together with delivery records would serve to augment the unique identifier to allow the TMCo to respond to any complaints and provide a complete evidence base.



### **5.2.4 Employee Monitoring**

117. The TMCo would require all employees and visitors to sign in and out. This process would capture the details including the employee's method of travel and arrival / departure times and origin.

### 5.2.5 Road Safety

- 118. The TMCo would operate a 'near miss' reporting system for all highways incidents. The TMCo would ensure that all accidents and near misses are recorded within this system and that drivers are reminded to report all issues, through inductions. Any accidents or near misses would be recorded, investigated, and reported to the highway authorities by the TMCo.
- 119. The TMCo would retain records of all incidents and submit to the highway authorities upon request. If emerging issues are identified, the TMCo would initiate discussions with stakeholders to promote a 'Zero Harm Culture'.

### **5.2.6 Monitoring Reports**

- 120. Data recorded from the monitoring processes outlined above would be drawn together by the TMCo to produce a monthly monitoring report during construction of the relevant phase and made available to the highway authorities on request.
- 121. In compiling the monitoring report, the TMCo would be able to identify effective / ineffective measures and the requirement for any remedial action to achieve the agreed targets. A typical structure for the monitoring report would be as follows:
  - Introduction and Background this would provide detail with regard to the types of works being undertaken and number of construction workers;
  - Results of Surveys and Monitoring the TMCo would collate the results
    of surveys and monitoring that have been undertaken. Where
    appropriate, the results of the surveys undertaken would be compared
    to the targets defined in the OCTMP. Data obtained from the surveys
    would be included as an appendix;
  - Achievements this would include the work undertaken over the previous period with evidence and examples;
  - Specific Measures this would detail how all measures from the CTMP have been implemented;
  - Summary the TMCo would detail whether the CTMP is on track to meet its targets and if not, why not; and

• Future Plan – this would detail the aims and objectives of the CTMP for the next period to include any specific outcomes or desired results with any additional measures that are to be included to remediate action.

### 5.3 Enforcement

- 122. To ensure that the final CTMP is effectively enforced, it is important to define what would constitute a breach. The following actions would constitute a breach of the CTMP, whereby corrective measures would be required:
  - Exceedance of target daily vehicle numbers;
  - Failure to display the unique identifier, or remove the unique identifier when not making deliveries to the Projects;
  - Construction workers overspill parking on the public highway;
  - Construction traffic operating outside of agreed hours; or
  - Construction traffic not adhering to the agreed routes / times.
- 123. On receipt of a report of a potential breach, the TMCo would investigate the circumstances and compile a report for the highway authorities within a month. The report would outline the outcome of the investigation and what corrective action (as necessary) has been implemented. Should further time be required to investigate the circumstances of the breach and compile the report, the TMCo would be required to notify the highway authorities in writing and set out the rationale for requiring further time.
- 124. If the breach is found to be material, the TMCo would take appropriate action within the jurisdiction of the contract and report back to the highway authorities.
- 125. Individual employee breaches would be addressed through UK employment law whereby the process outlined above may form the basis for disciplinary proceedings if appropriate.

### 5.4 Action Plan

- 126. The action plan set out in **Table 5-1** summarises the commitments and measures that would be implemented by the Applicants, PC and TMCo.
- 127. **Table 5-1** also provides an indicative timescale for the implementation of each of the measures. The exact details and associated timescales would be established in consultation with the highway authorities as part of the preparation of the final CTMP.



Table 5-1 OCTMP Action Plan

Measure ID	Measure	Responsibility	Indicative Timescales
M001	Appoint an Applicant's representative	The Applicants	During mobilisation
M002	Appointment of a CLO.	The Applicants	At least eight weeks prior to commencement of construction.
M003	Appointment of a TMCo.	PC	At least eight weeks prior to commencement of construction.
M004	Obtain technical approval for construction of accesses and crossings.	The Applicants	Prior to commencement of construction.
M005	Obtain technical approval for construction of road widening, passing places, etc (offsite highway works).	The Applicants	Prior to commencement of construction.
M006	Implement offsite highway works	TMCo	Prior to commencement of construction.
M007	Implement direction signing.	TMCo	Prior to commencement of construction.
M008	Agree timing, diversion routes and reinstatement details for cable crossings.	TMCo	Prior to commencement of construction.
M009	Establish monitoring systems:  Delivery booking system; Highway condition; Unique vehicle identifier; and Telephone reporting system.	TMCo	Prior to commencement of construction.

Measure ID	Measure	Responsibility	Indicative Timescales
M010	Agree scope of and undertake pre- commencement highway condition surveys.	TMCo	Prior to commencement of construction.
M011	Agree and implement measures for each access to control the deposition of detritus on the public highway.	TMCo	Prior to commencement of construction.
M012	Inspect the highway for detritus and request regular cleansing as required.	TMCo	Ongoing throughout construction.
M013	Undertake ongoing liaison with communities and stakeholders.	TMCo and CLO	Ongoing throughout construction.
M014	Monitoring of CTMP measures:  • HGV trips; • Accidents and near misses; • Employee mode share; and • Complaints.	TMCo	Ongoing throughout construction.
M015	Produce monthly monitoring reports	ТМСо	Ongoing throughout construction.
M016	Update condition surveys and agree any remedial works.	TMCo	Following completion of construction.

## References

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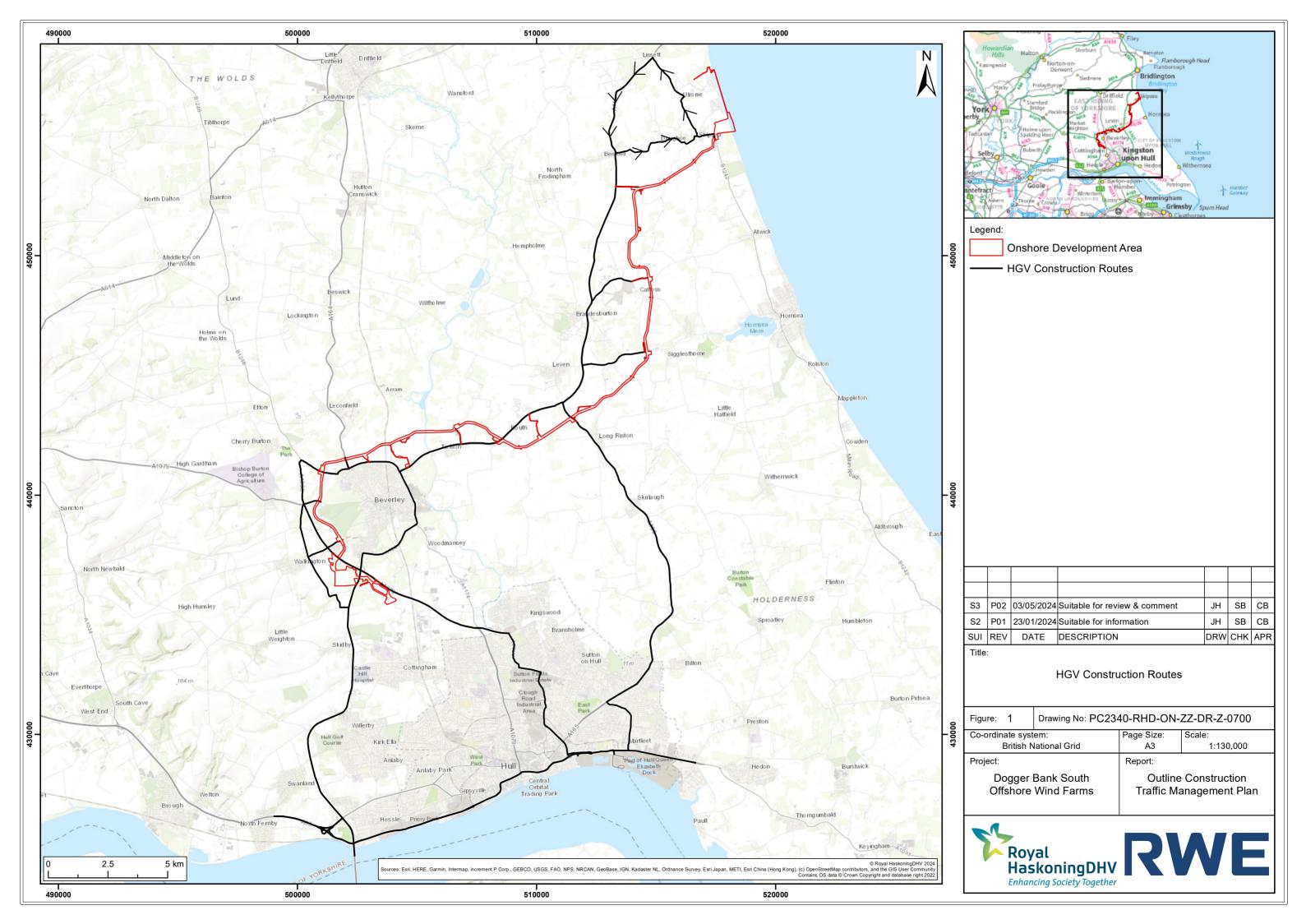
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## Figure 1 HGV Routes



## **Annex 1 Peak Vehicle Movements Per Link**

Dogger Bank South Offshore Wind Farms

Link ID	Link Description	Maximum Daily Vehicle Trips			
		DBS East or West In Isolation		DBS East and West Concurrently	
		All Vehicles	HGVs	All Vehicles	HGVs
1	A165 Carnaby to Lissett	19	0	20	0
2	A165 Lissett to Beeford	207	59	217	67
3	A165 Beeford to Brandesburton	382	115	418	145
4	B1242 Lissett to Skipsea	31	30	35	34
5	Beeford Road	160	16	164	24
6	B1242 Skipsea to End	191	32	199	47
7	Dunnington Lane	177	56	204	78
8	Catfoss Road	125	43	159	49
9	A165 Brandesburton to Leven	505	158	575	194
10	A1035 Level to Catwick	205	73	221	84
11	Unnamed road north of A1035	55	30	68	41
12	A1035 Leven to A165	706	231	791	278
13	A165 from A1035 to Skirlaugh	649	462	761	563
14	A165 through Skirlaugh	491	370	594	370
15	A165 from Skirlaugh to Coniston	491	462	594	563
16	A165 from Coniston to Holderness Road	491	370	594	370
17	A165/Holderness Road	479	370	581	370
18	A165/Holderness Road	0	0	0	0

Dogger Bank South Offshore Wind Farms

	Link Description	Maximum Daily Vehicle Trips			
Link ID		DBS East or West In Isolation		DBS East and West Concurrently	
		All Vehicles	HGVs	All Vehicles	HGVs
19	Mount Pleasant/A1033	481	469	655	642
20	A1033 Slip Road	481	469	655	642
21	A1033/Hedon Road	481	469	655	642
22	A1033/Hedon Road	498	469	673	642
23	A1033/Hedon Road	462	462	563	563
24	A63	469	469	642	642
25	A63	0	0	0	0
26	A63	0	0	0	0
27	A63	798	469	995	642
28	A15/Boothferry Road	798	469	995	642
29	Humberbridge	286	0	306	0
30	A164	1,133	469	1,354	642
31	A164	1,133	469	1,354	642
32	A164	1,346	469	1,583	642
33	A164	1,346	469	1,583	642
34	A164	1,570	469	1,821	642
35	A164	1548	469	1,798	642
36	Dunflat Road off A164	53	24	56	26
37	Coppleflat Lane	53	24	56	26

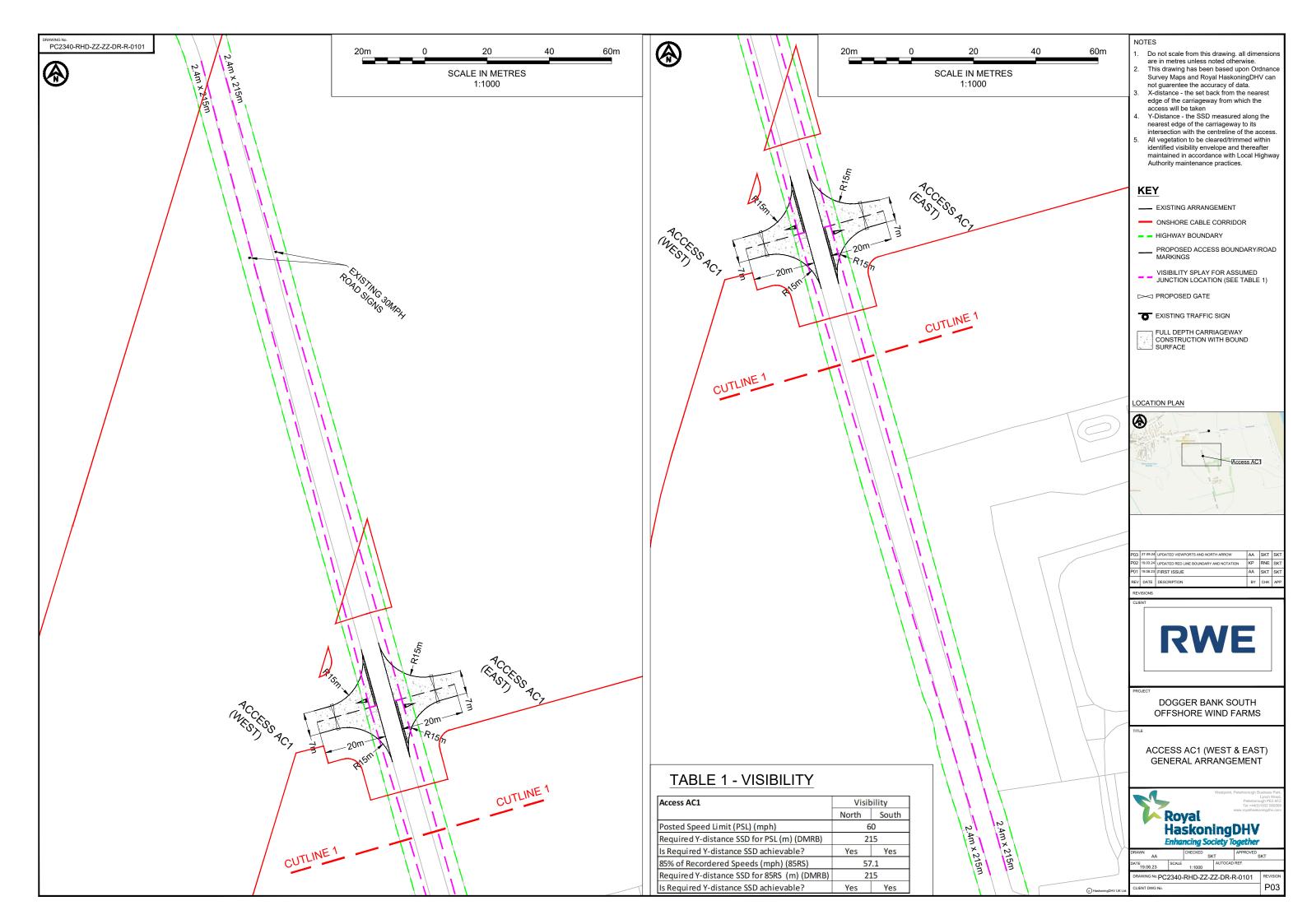
Dogger Bank South Offshore Wind Farms

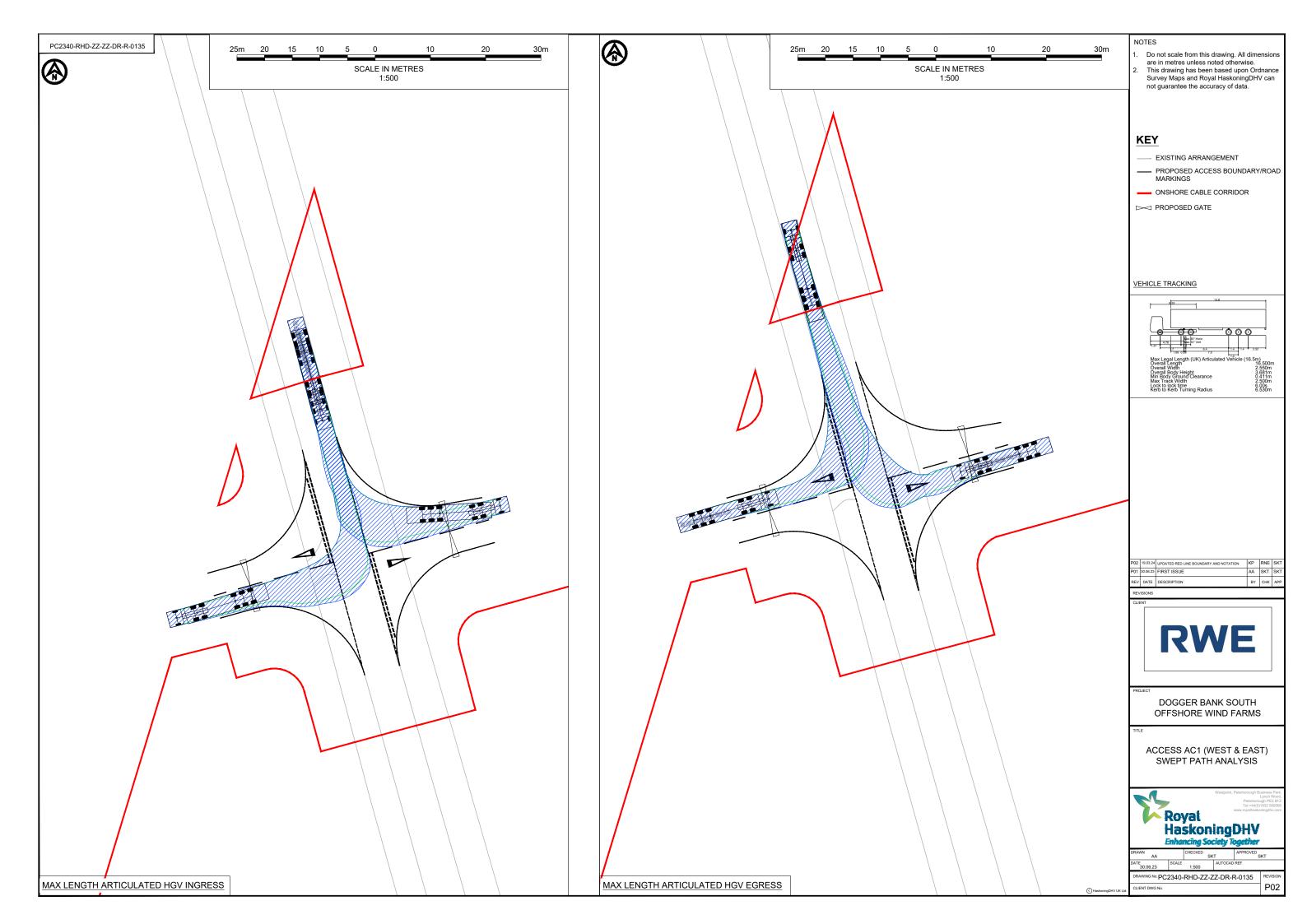
	Link Description	Maximum Daily Vehicle Trips			
Link ID		DBS East or West In Isolation		DBS East and West Concurrently	
		All Vehicles	HGVs	All Vehicles	HGVs
38	A164	1,164	469	1,337	585
39	B1248	70	0	75	0
40	A1033/Thomas Clarkson Way	542	469	720	642
45	A1033	686	469	874	642
46	A1174	117	0	126	0
49	A1174	117	0	126	0
50	A164/ Woodmansey	1,124	469	1,296	585
51	A164/Woodmansey	1,124	469	1,296	585
52	A1174/A164	1,241	469	1,422	585
53	A1174/A164/Swinemoor Lane	1,241	409	1,422	409
54	A1035	1,189	469	1,377	588
55	A1035	1,284	469	1,474	588
56	A1035	1,455	469	1,658	588
57	A1035/A164	264	56	288	75
58	Ings Road	125	39	148	39
59	Driffield Road	33	17	45	31
60	A1035	501	143	542	168
61	A1035/Dog Kennel Lane	443	126	480	149
62	A1174	119	50	156	69

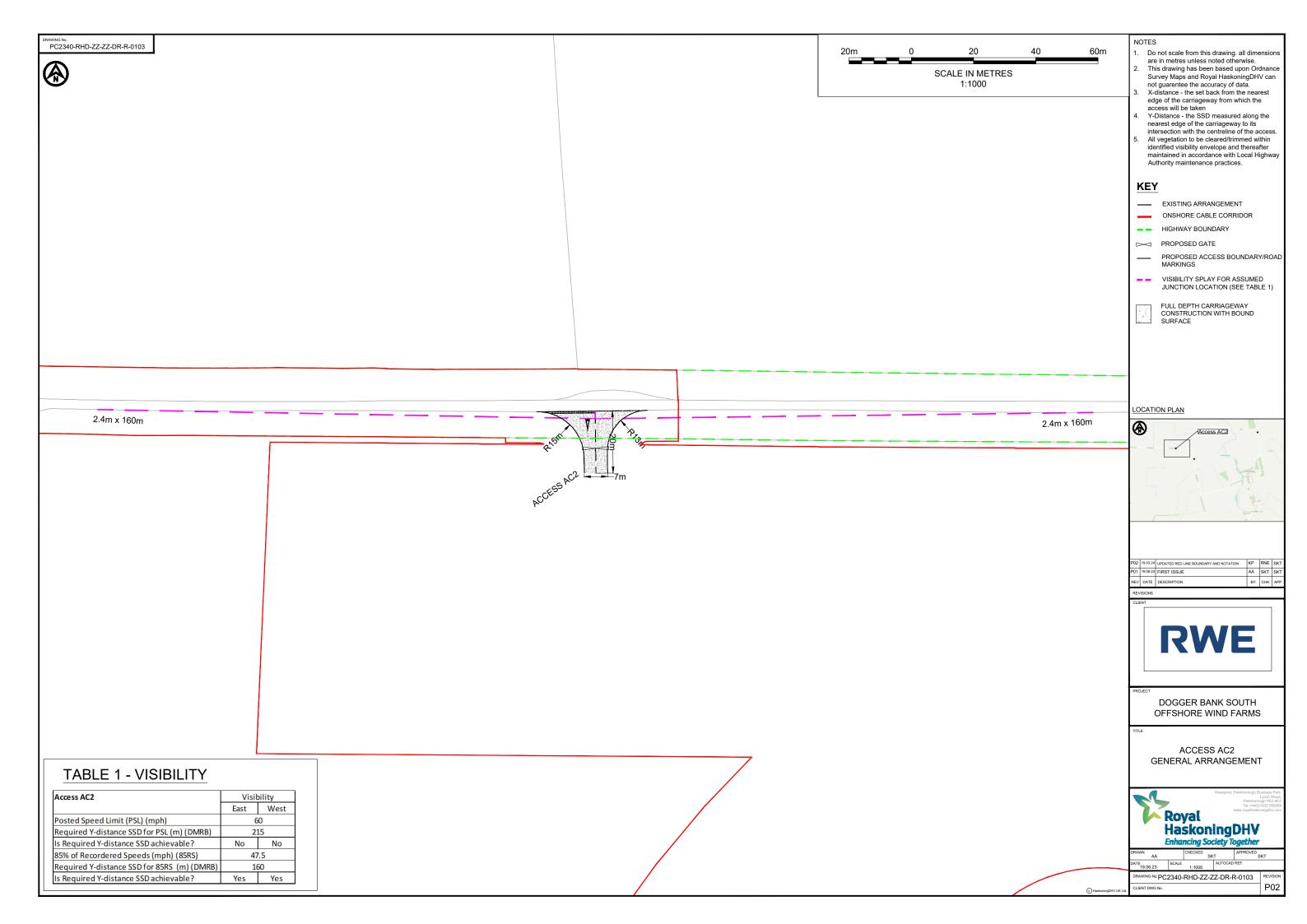
Dogger Bank South Offshore Wind Farms

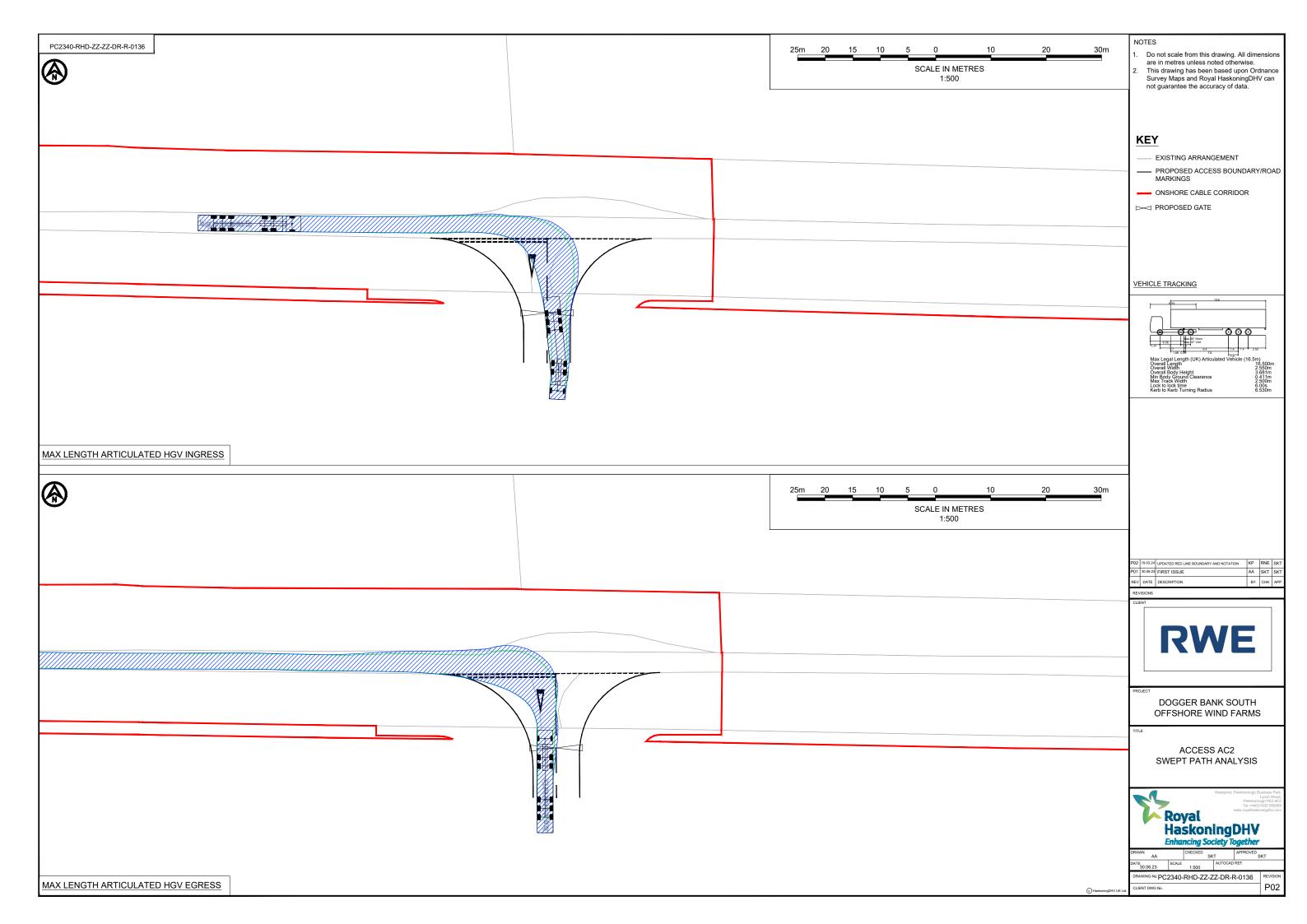
		Maximum Daily Vehicle Trips				
Link ID	Link Description	DBS East or West In Isolation		DBS East and West Concurrently		
		All Vehicles	HGVs	All Vehicles	HGVs	
63	A1079	1,027	382	1,159	475	
64	Killingwoldgraves Lane	113	47	120	51	
65	A1079/Bishop Burton	70	0	150	0	
66	A1079	876	469	1,073	642	
68	Coppleflat Lane	113	47	120	51	
71	Broadgate/B1230	142	47	151	51	
73	Eske Lane	124	38	141	38	
74	Mount Pleasant/A1033 and Stoneferry Road/A1165	514	469	691	469	
75	Sutton Road/A1033	542	469	720	642	
76	Marfleet Lane and Maybury Road	479	370	581	370	
Notes:						
	Links where mitigation has been applied to reduce forecast construction traffic flows					

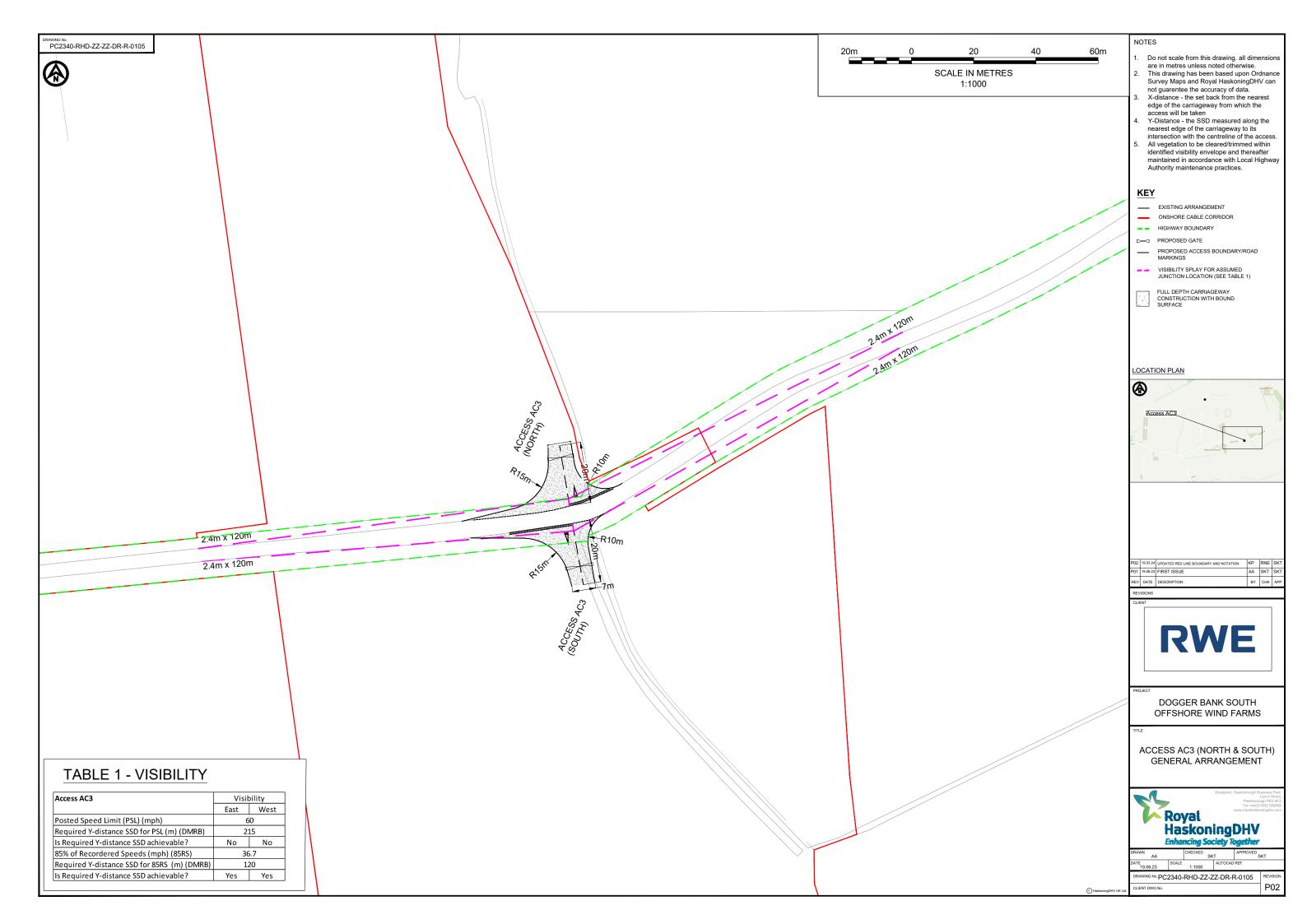
## **Annex 2 Outline Access Designs**

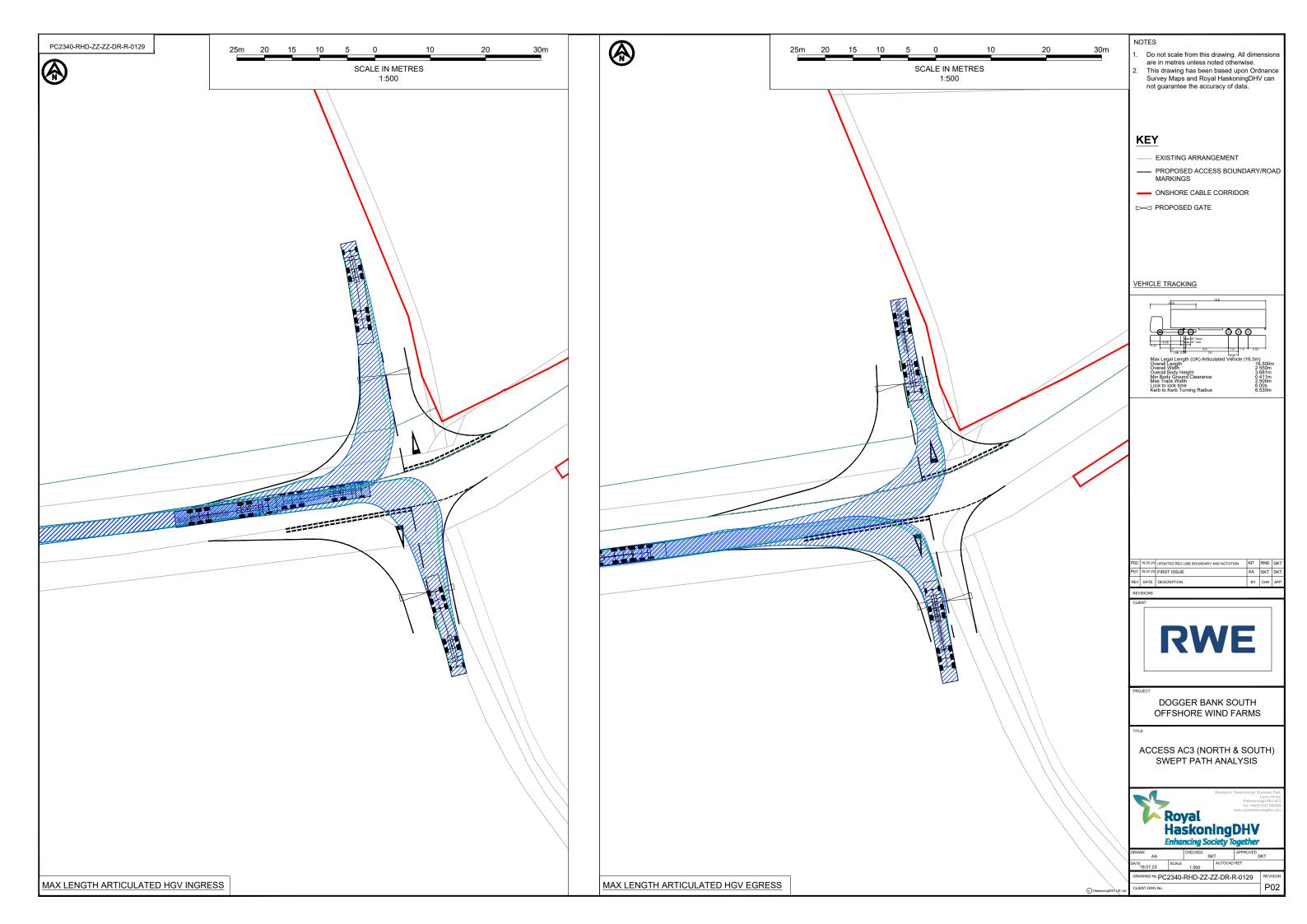


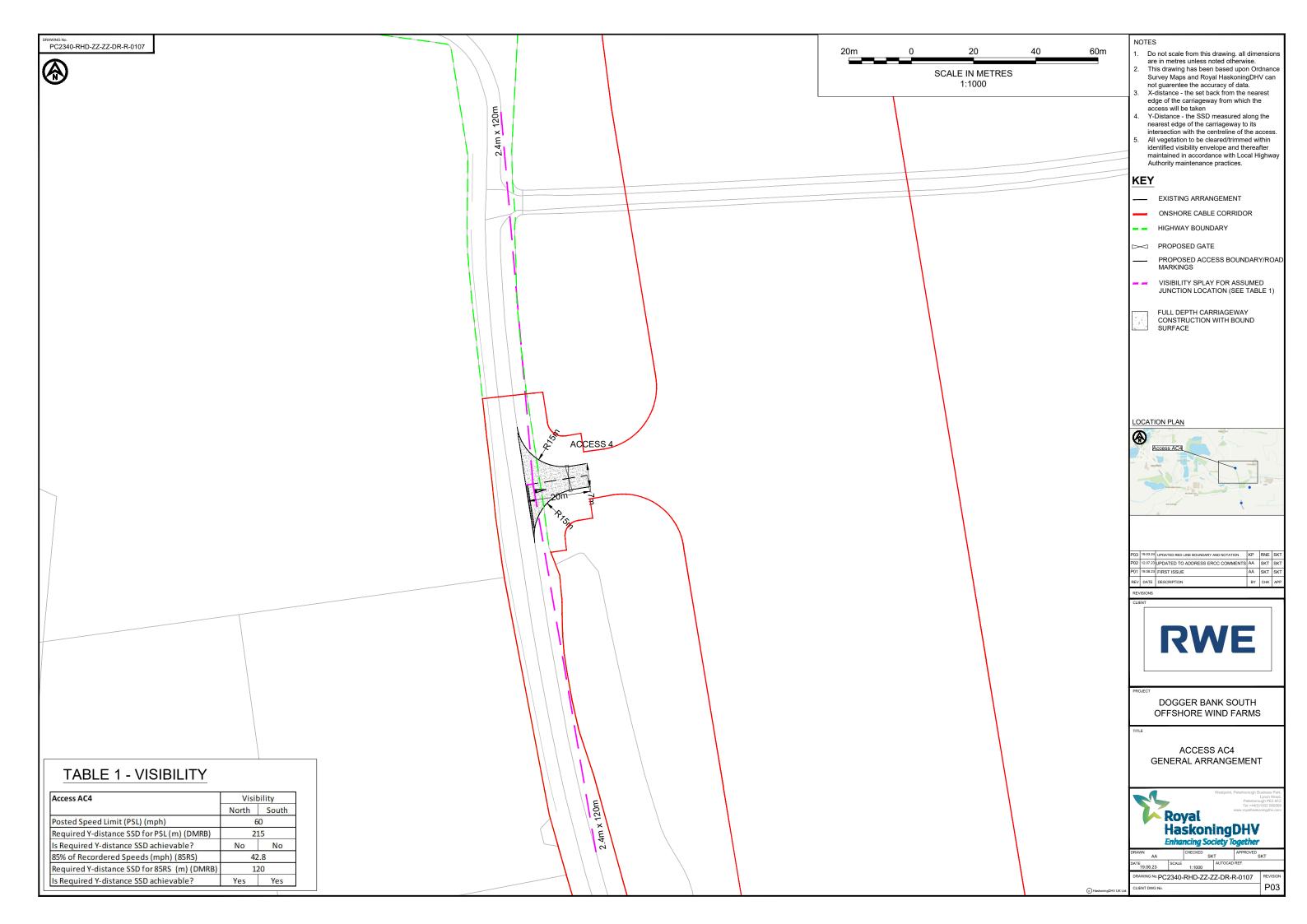




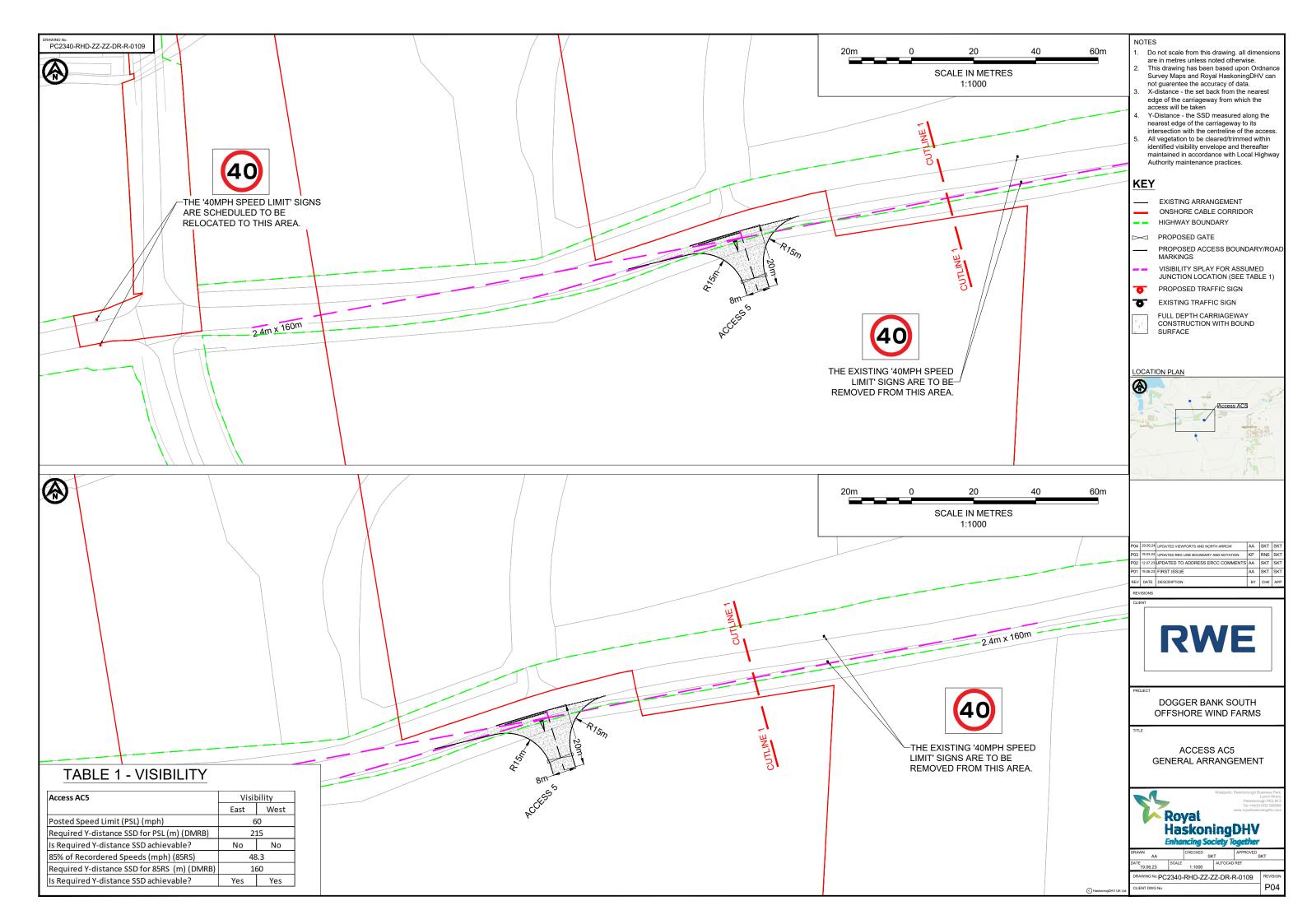


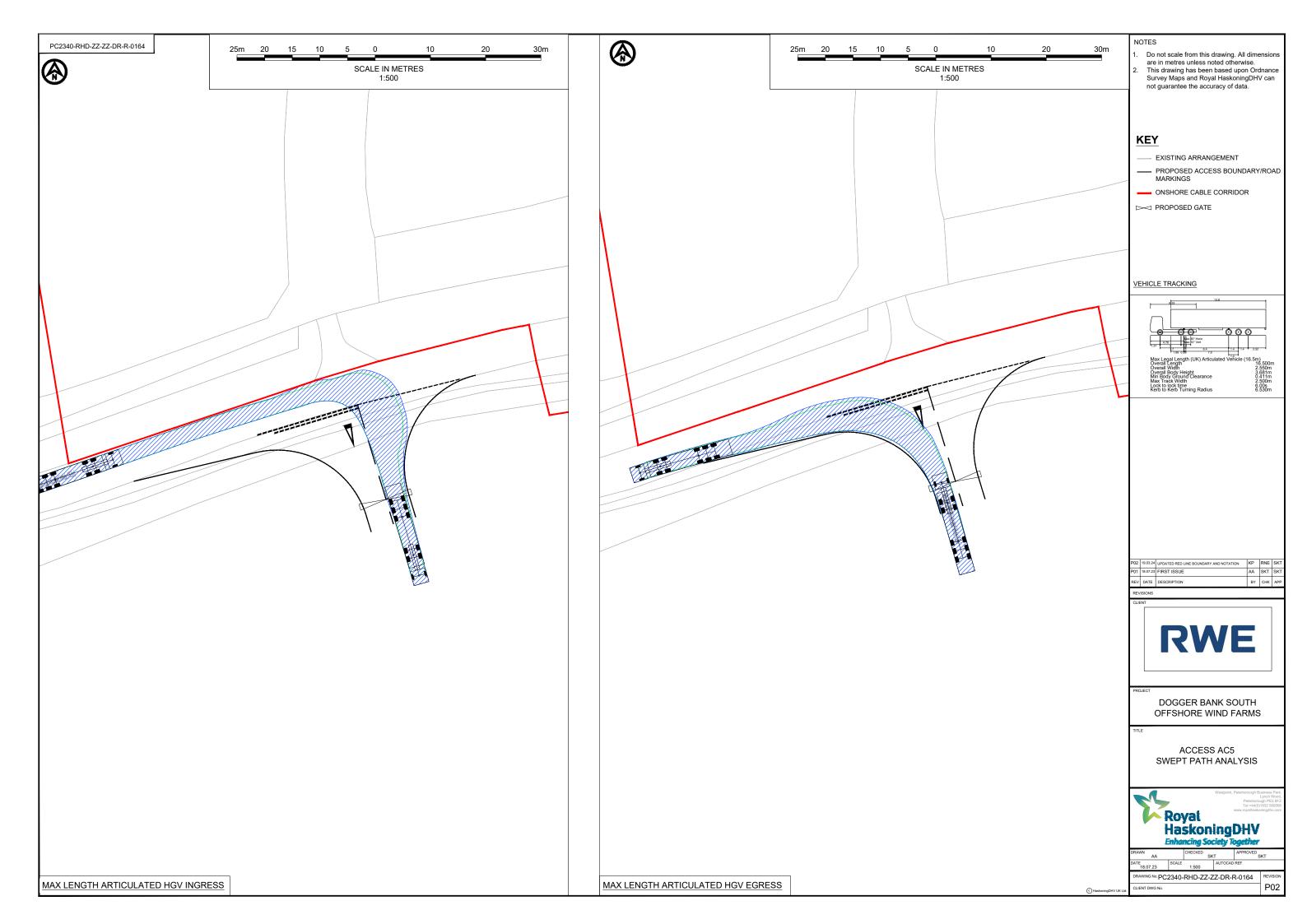


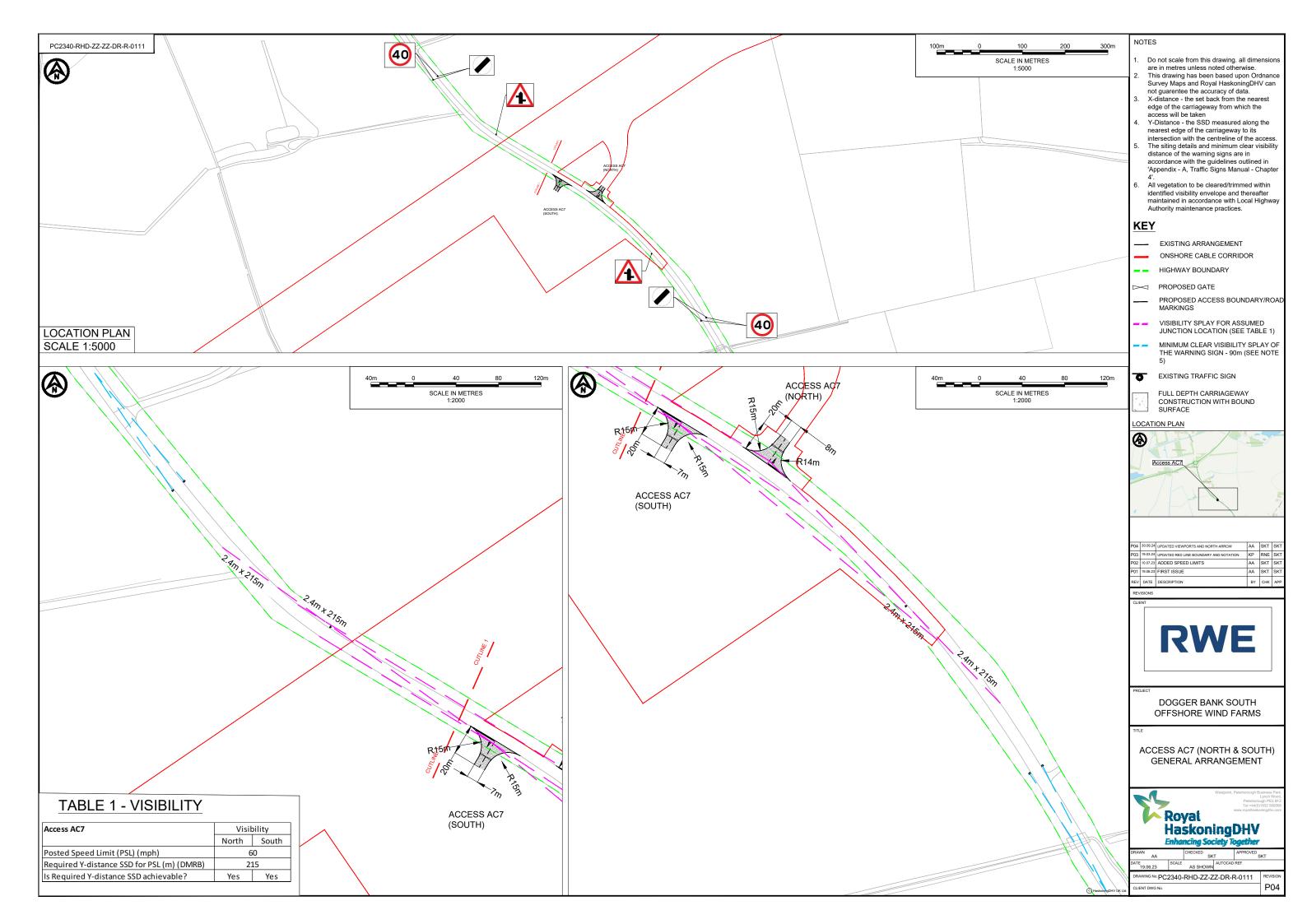


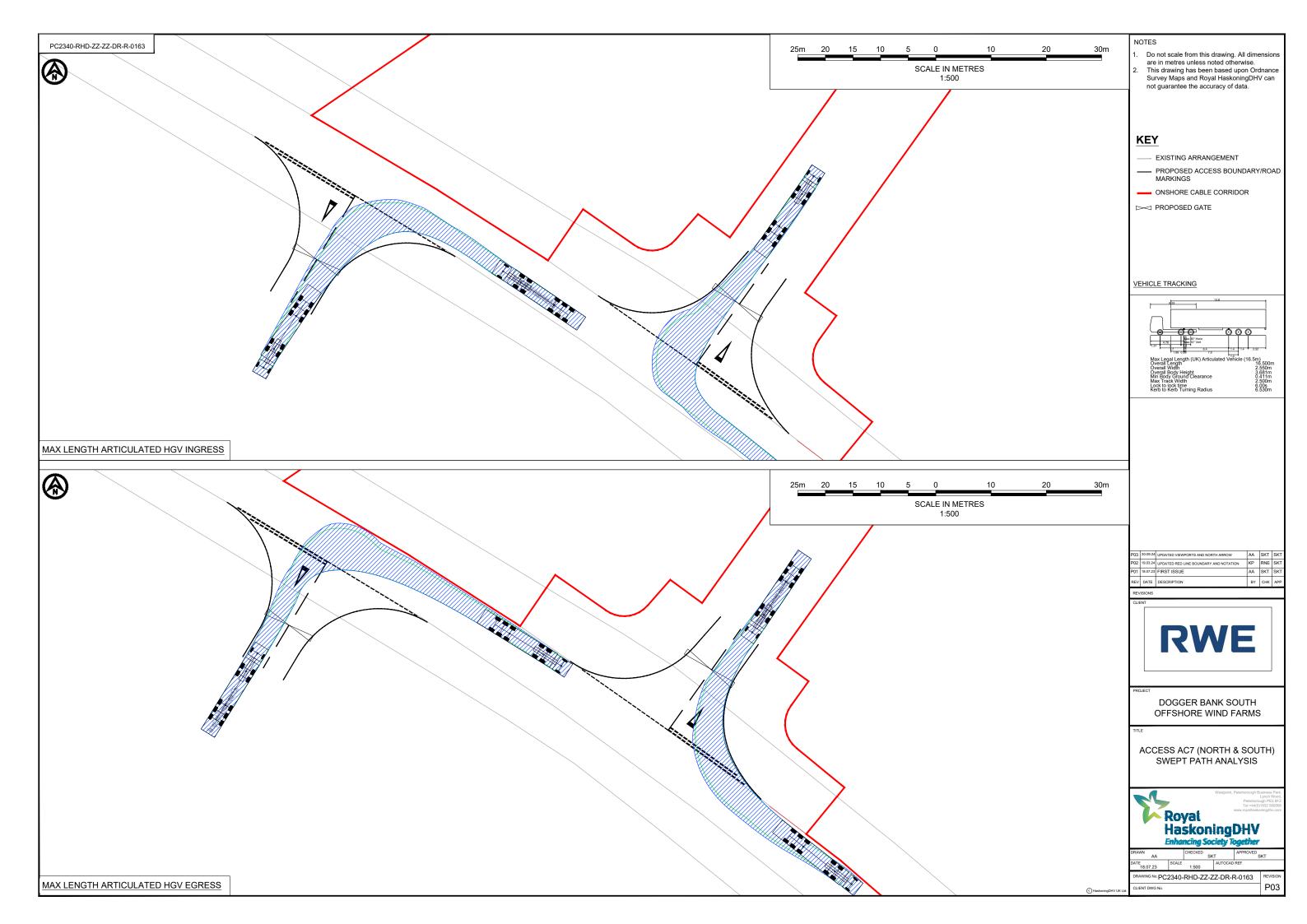


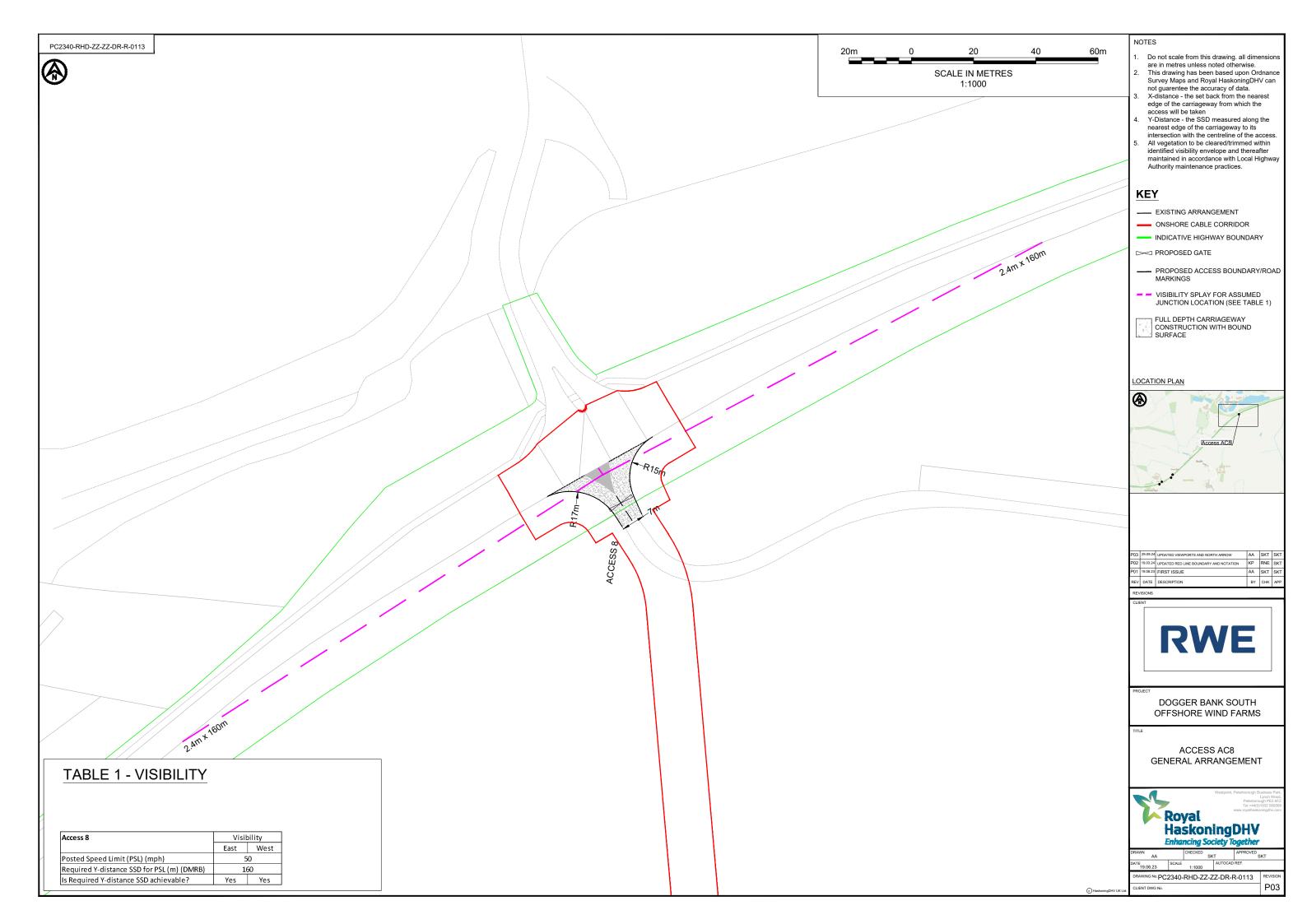


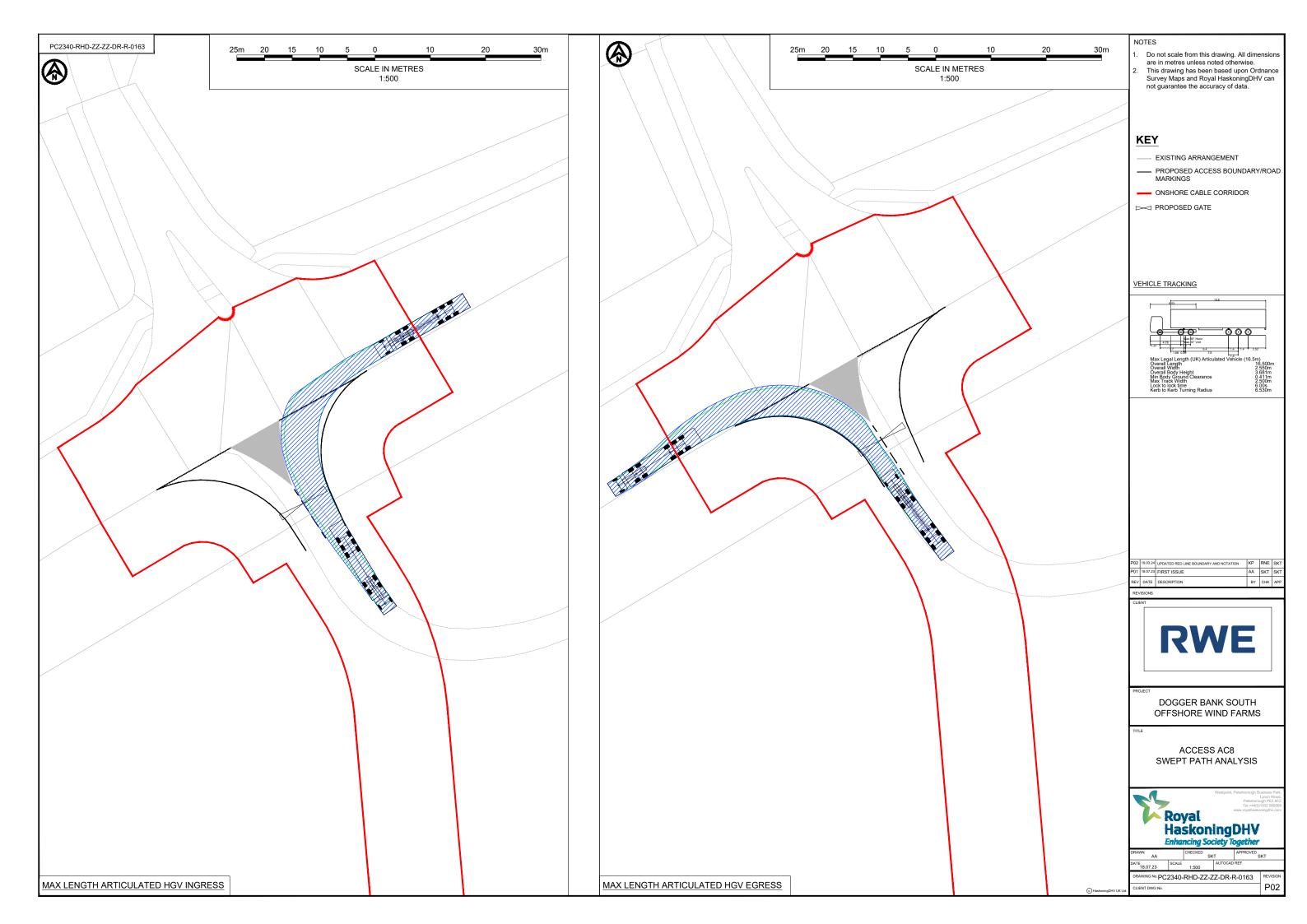


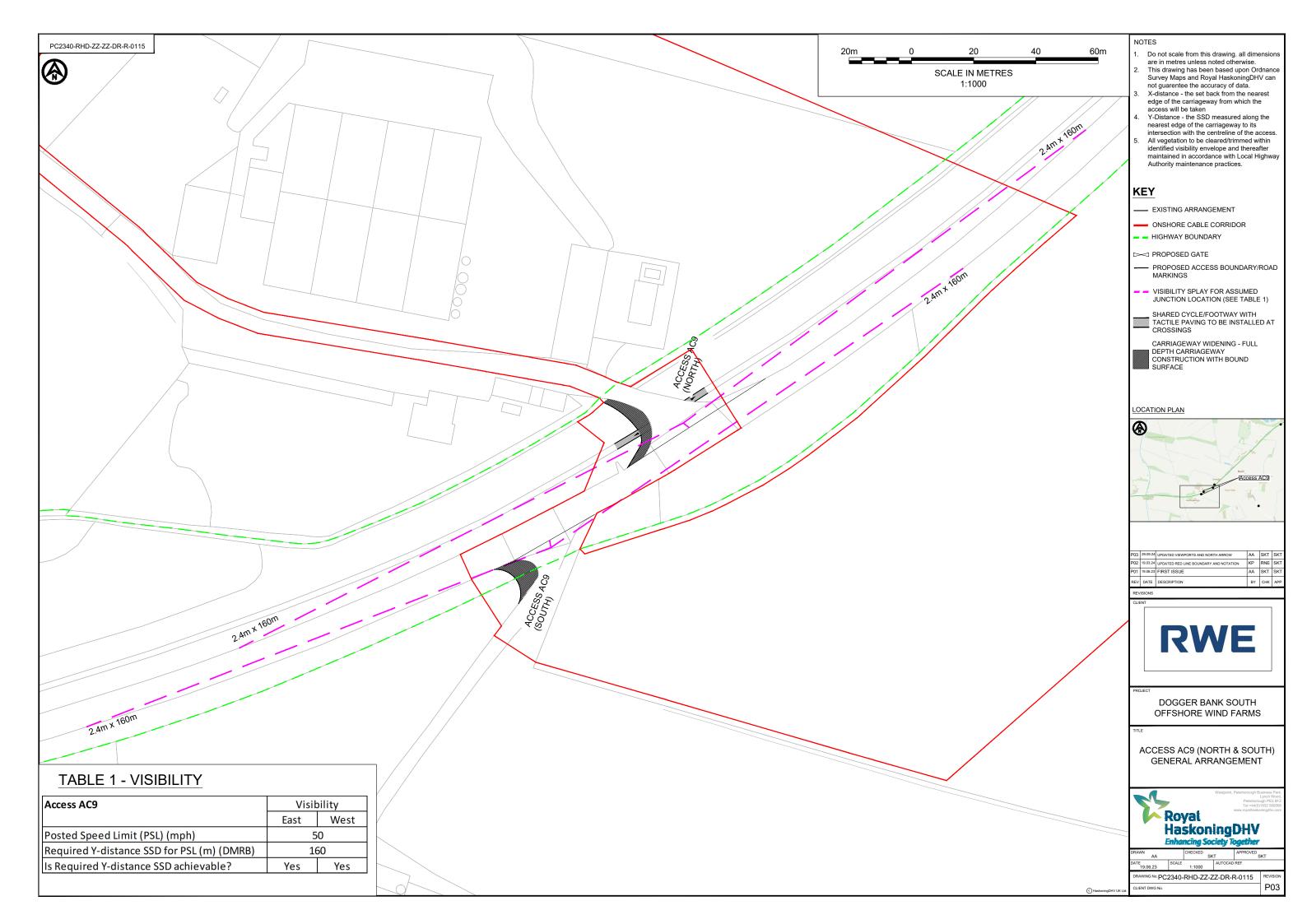


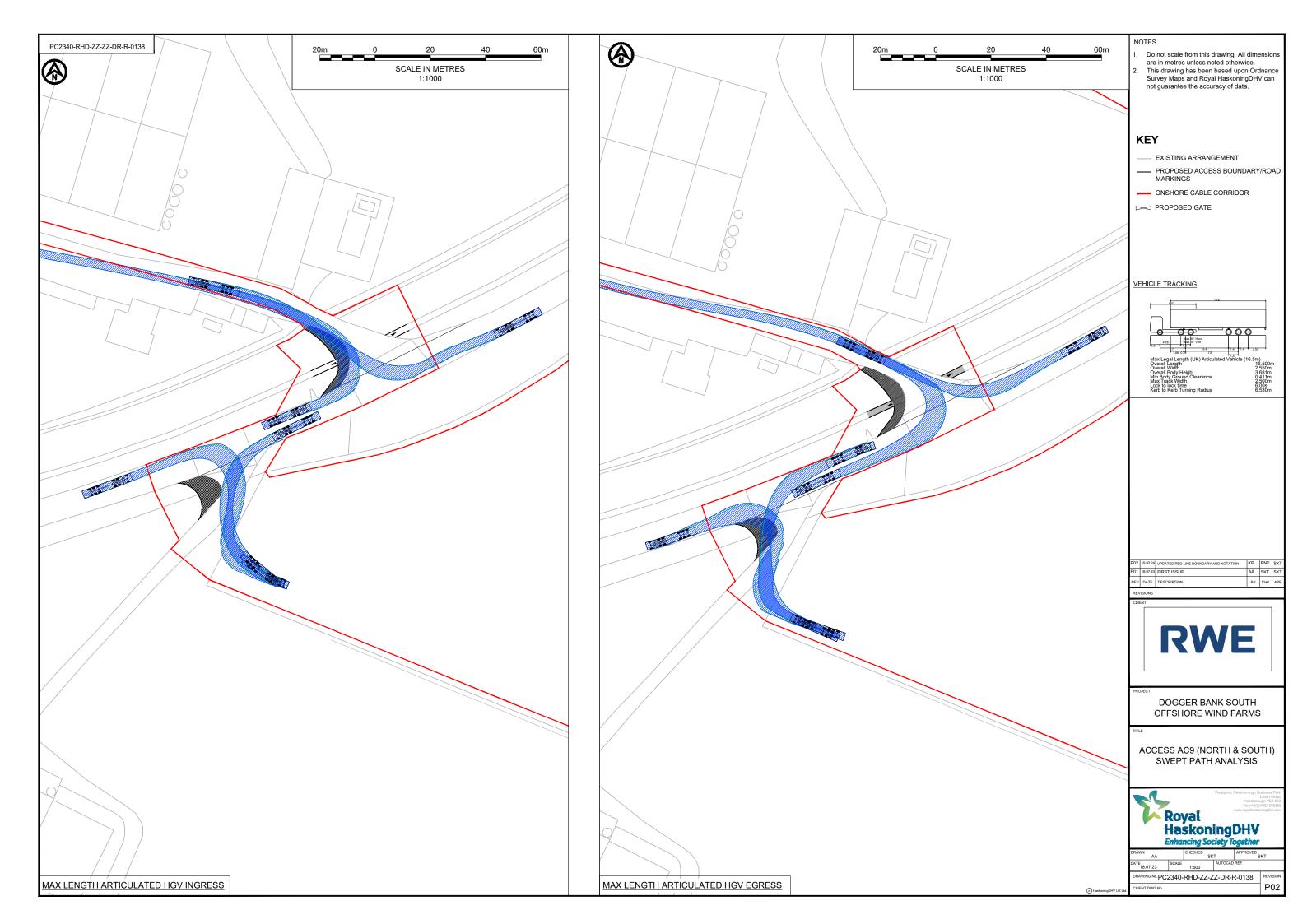


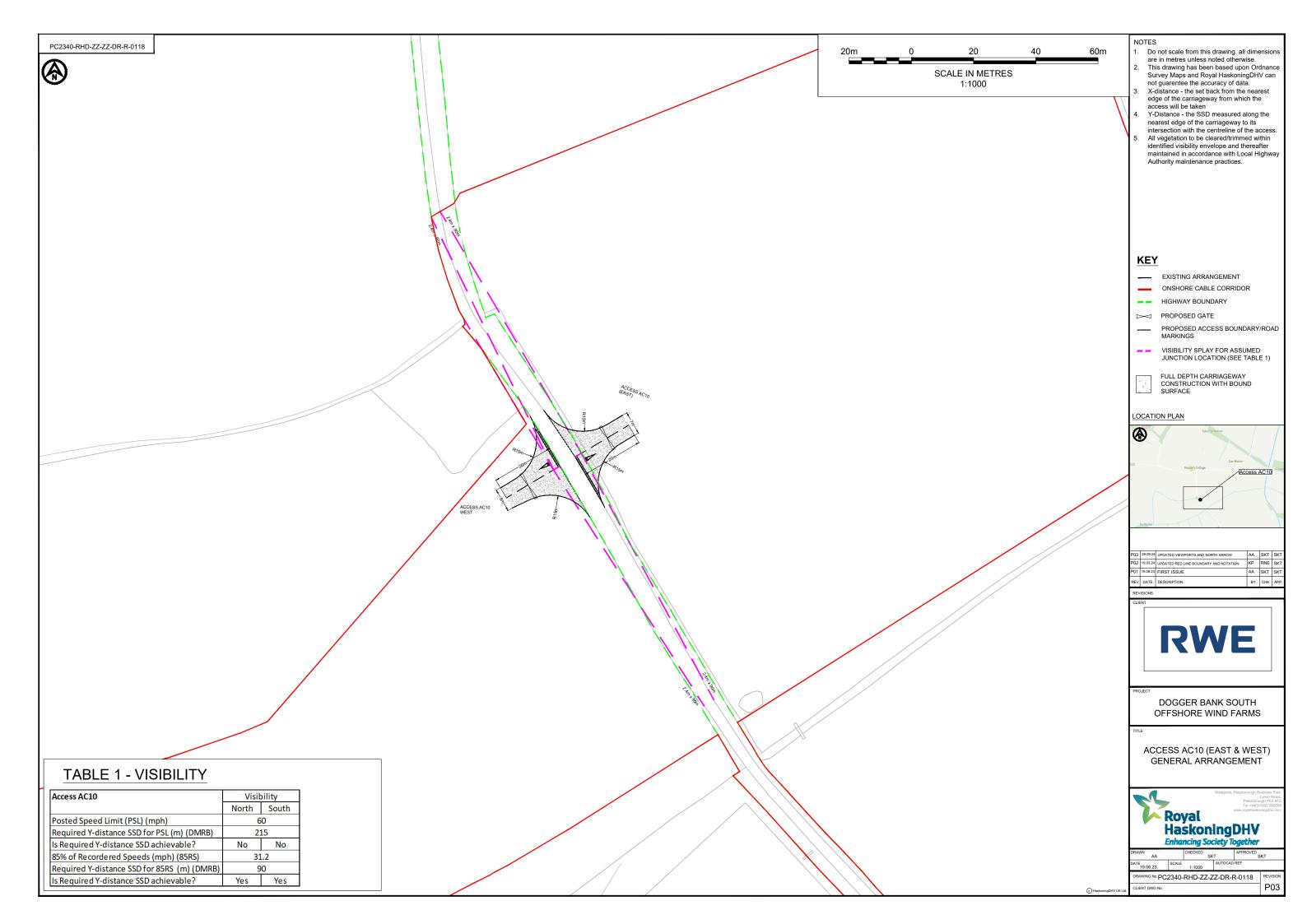


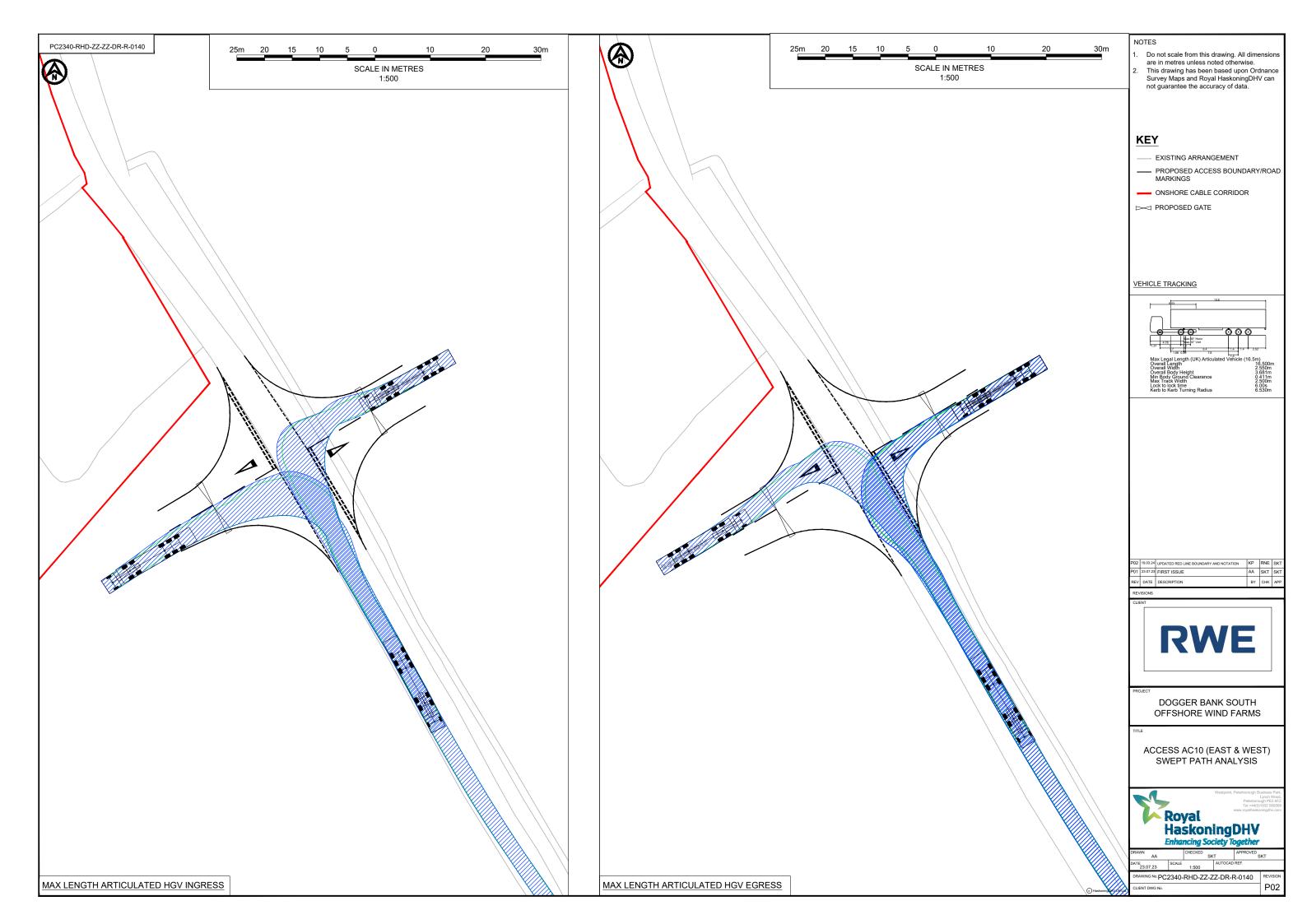


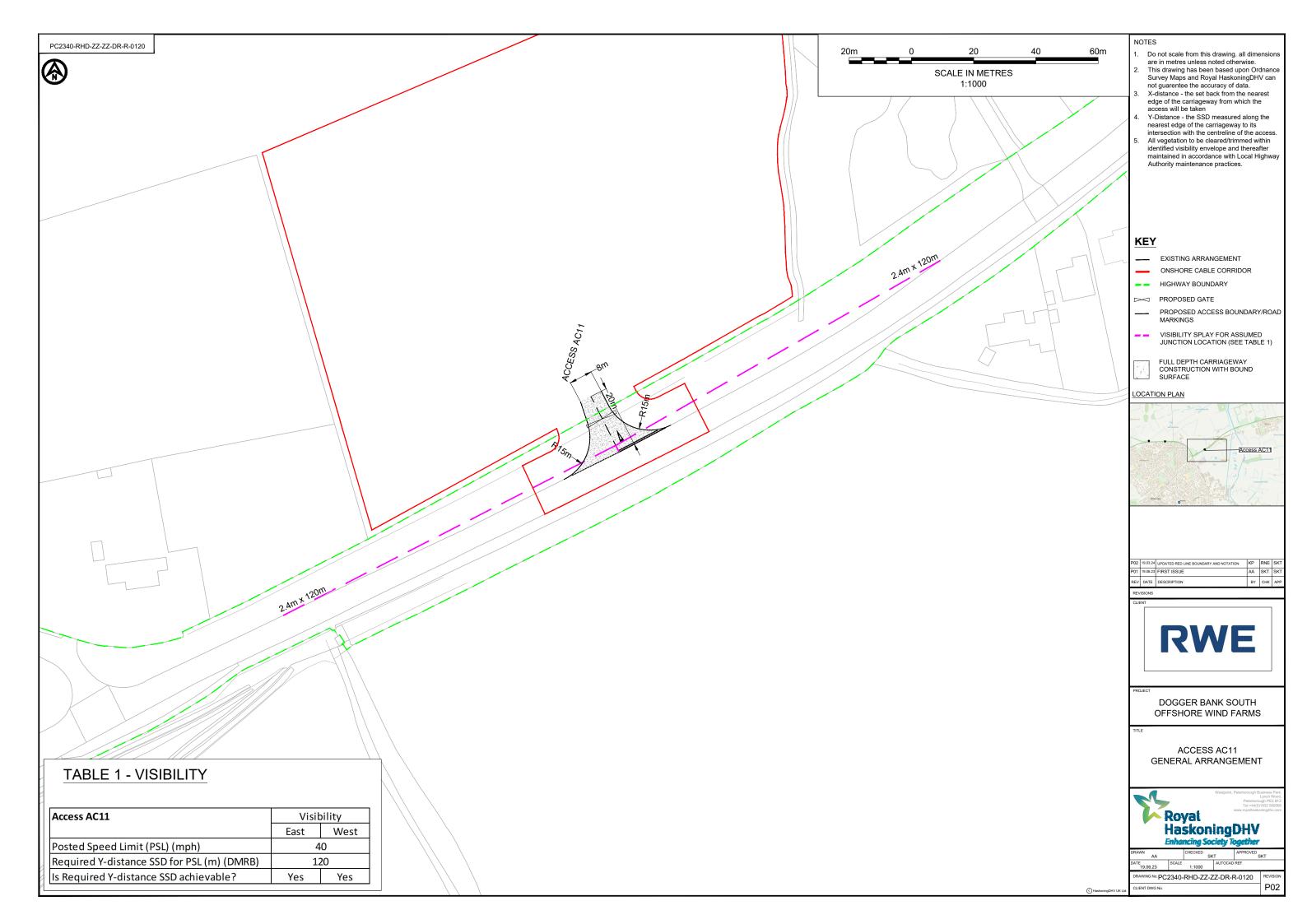


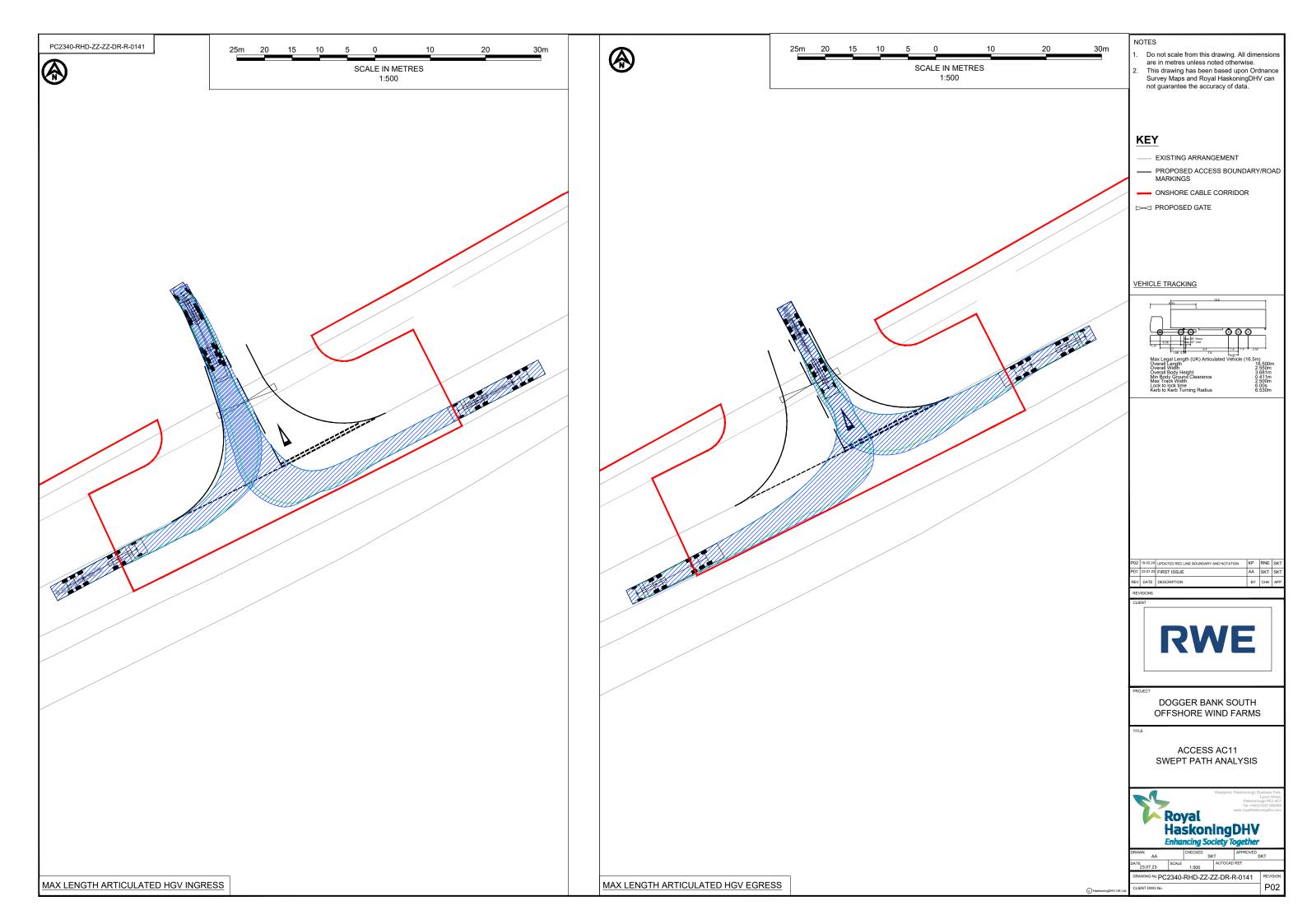


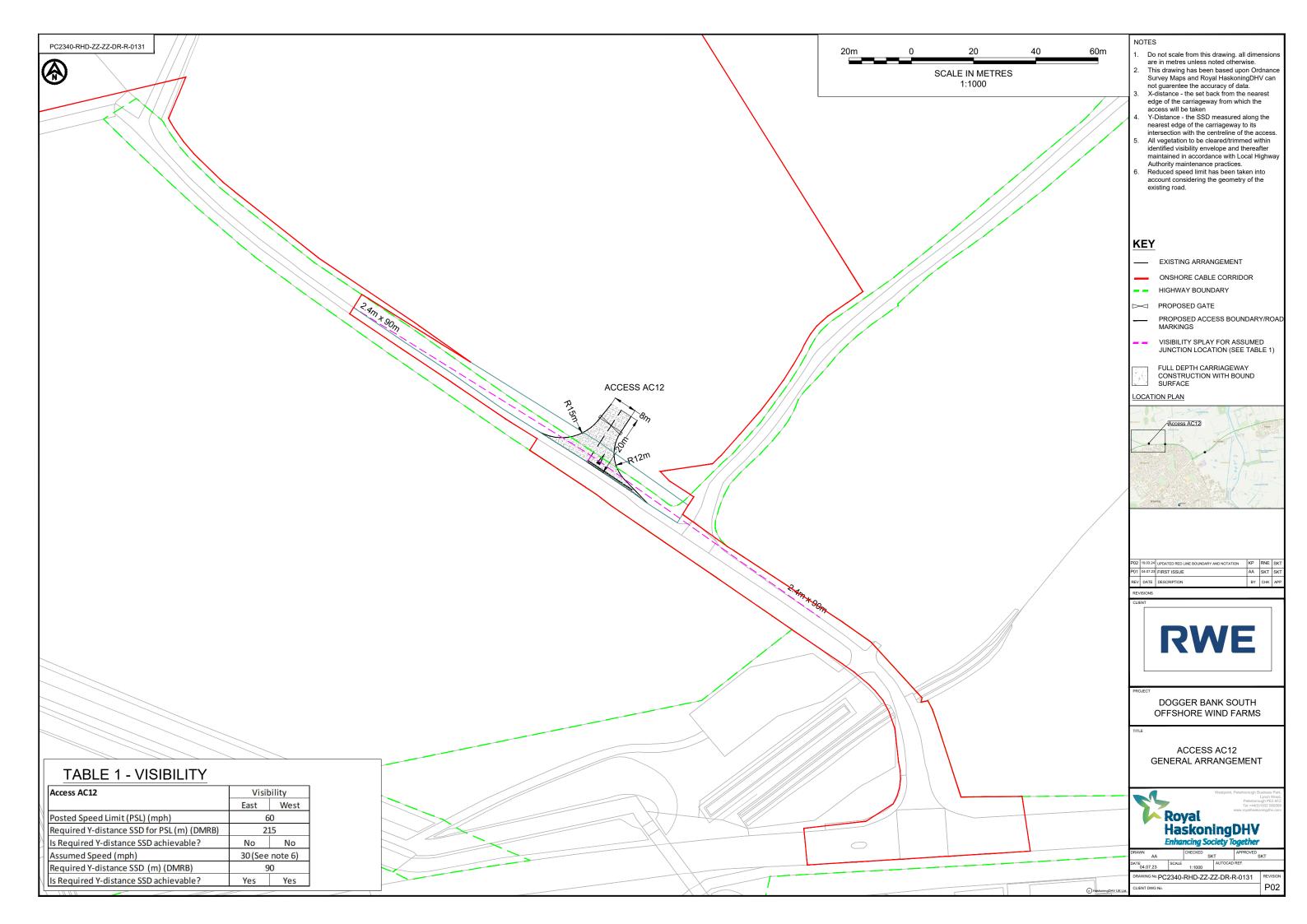


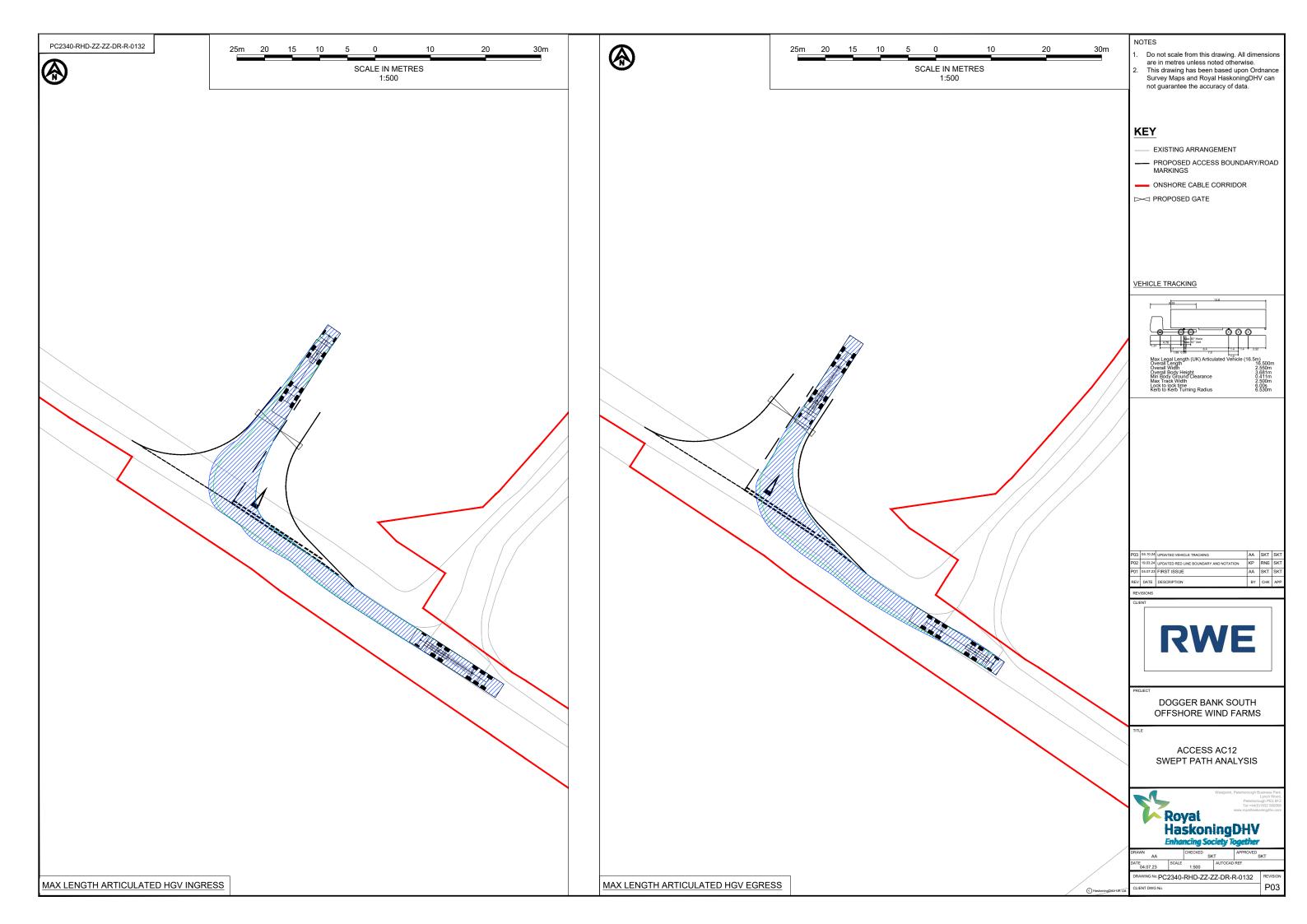


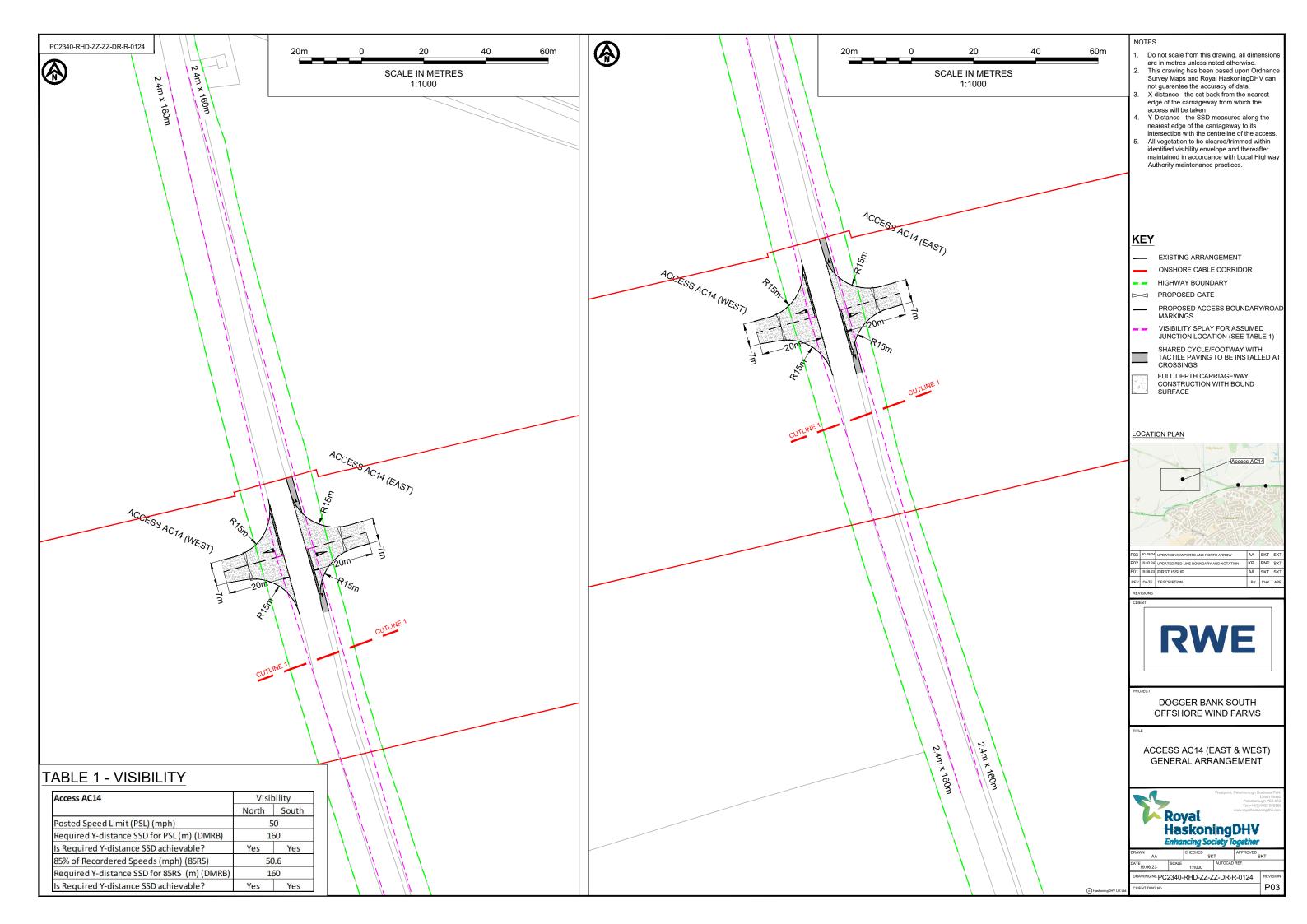


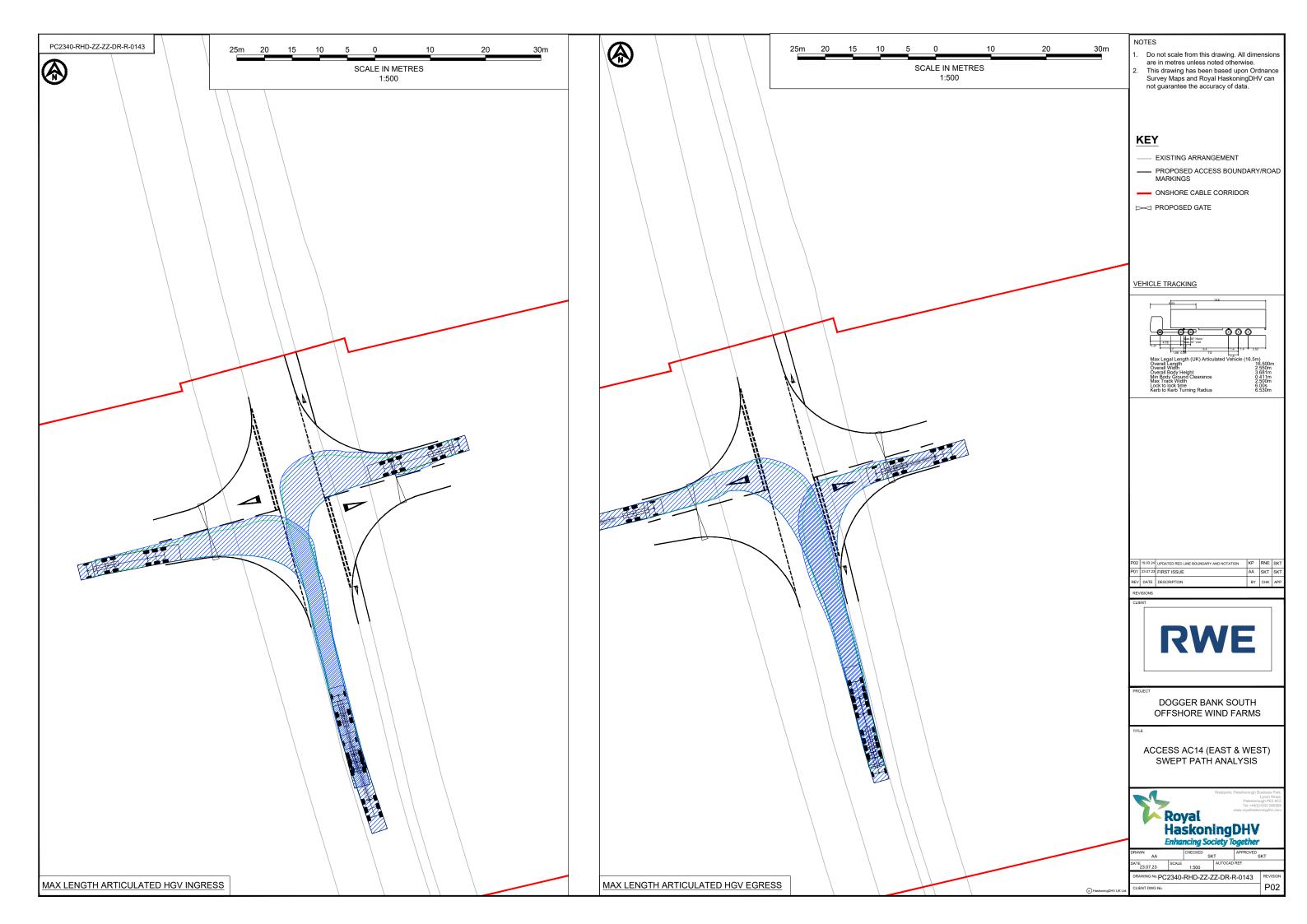


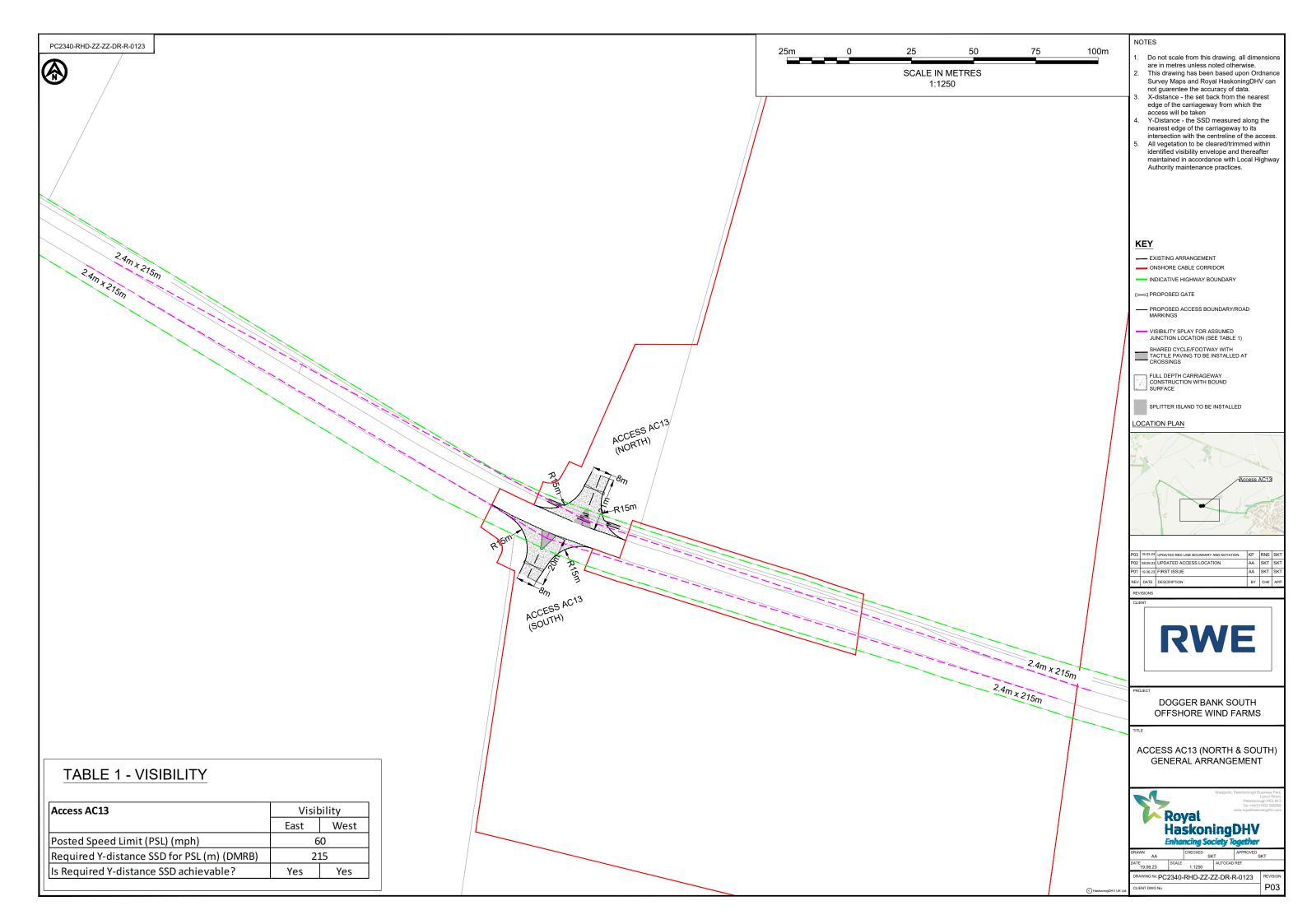


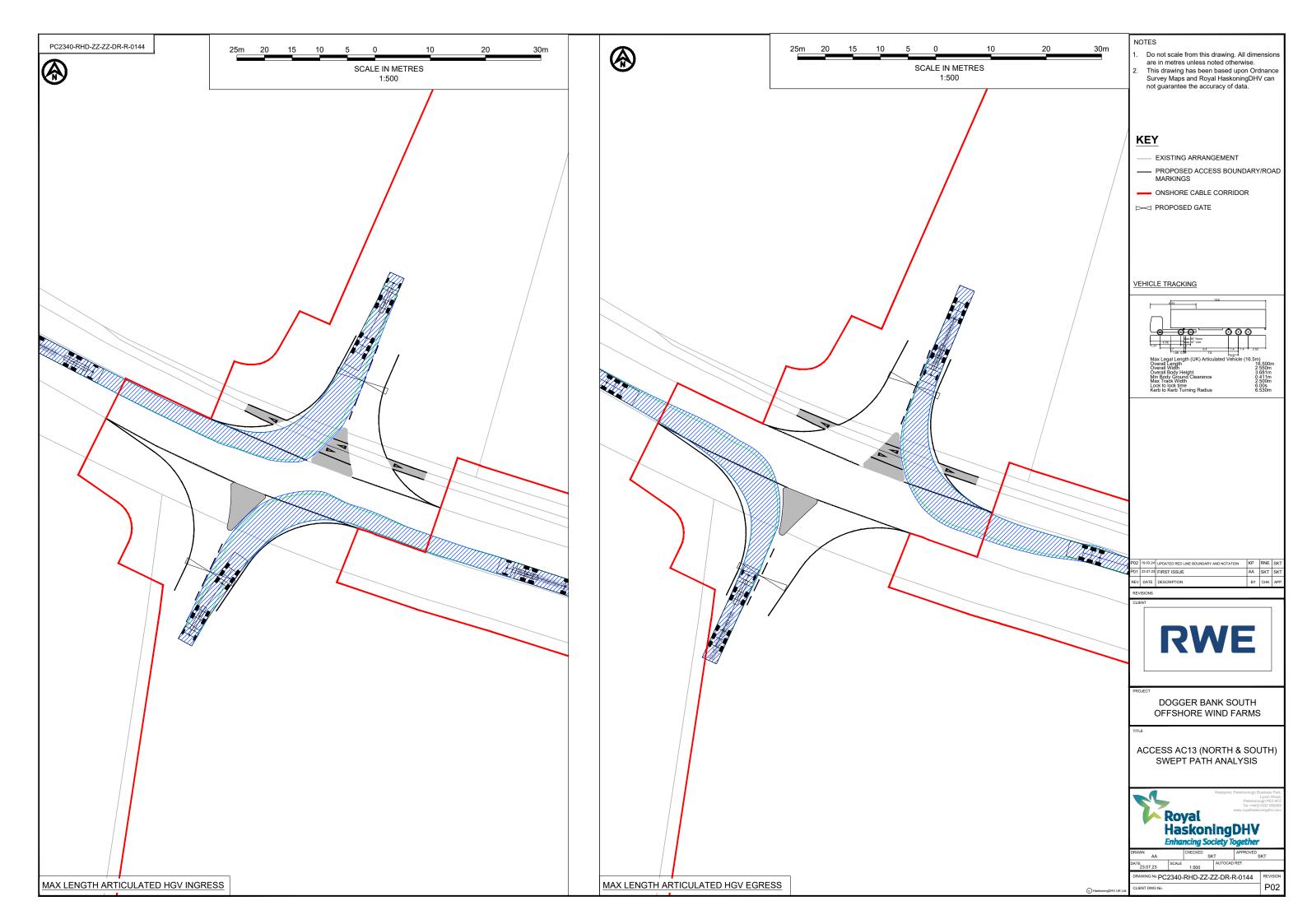


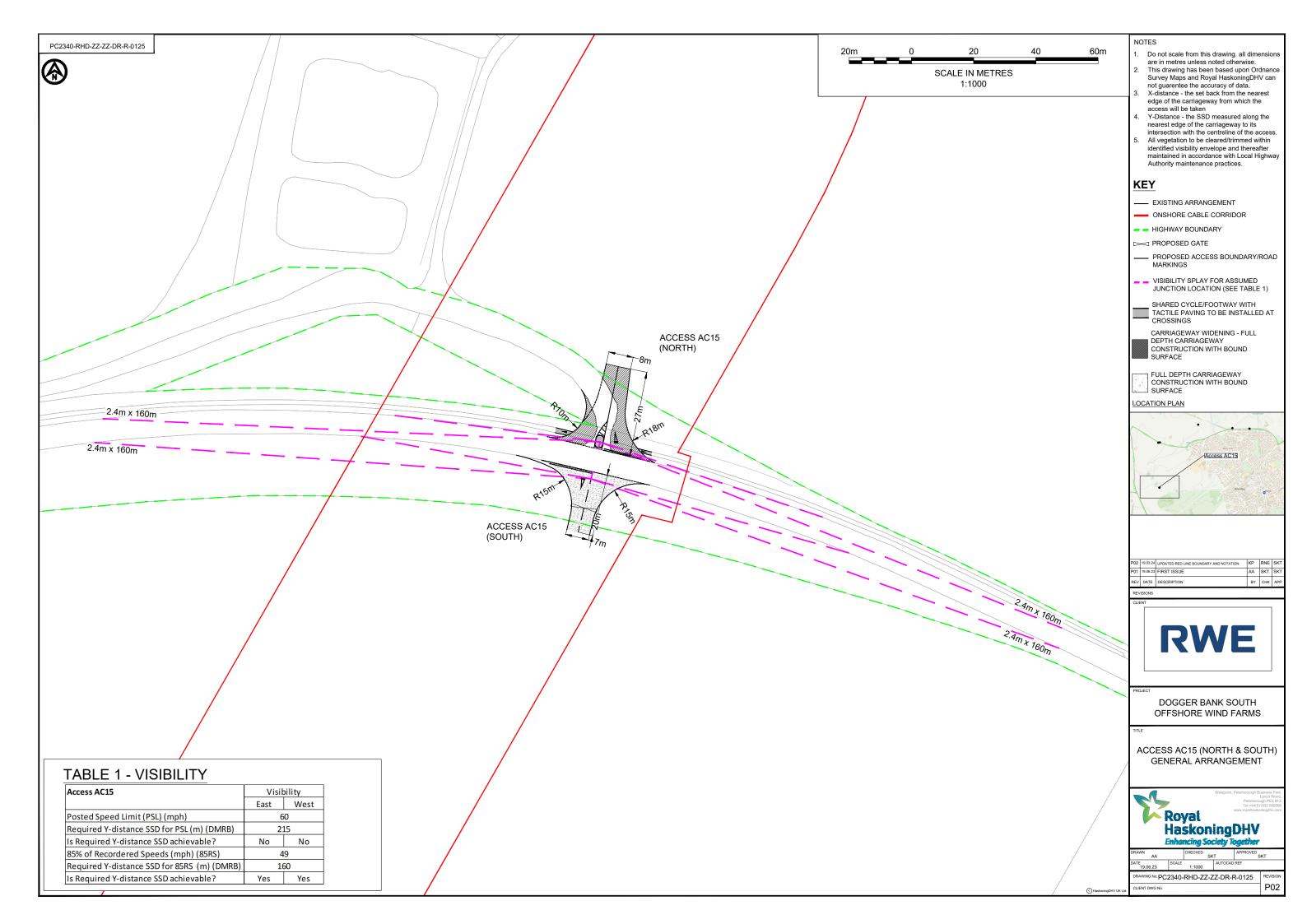


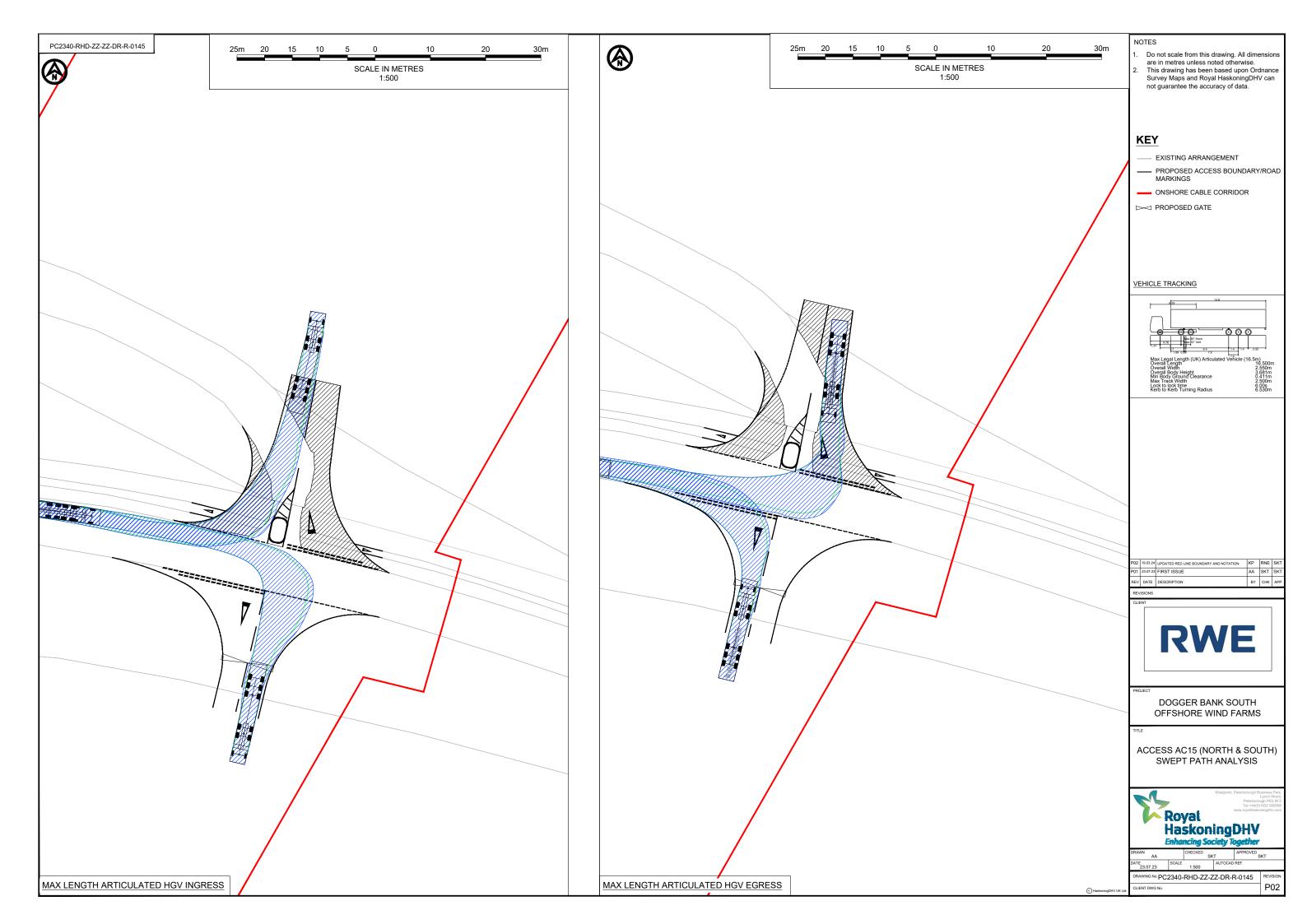


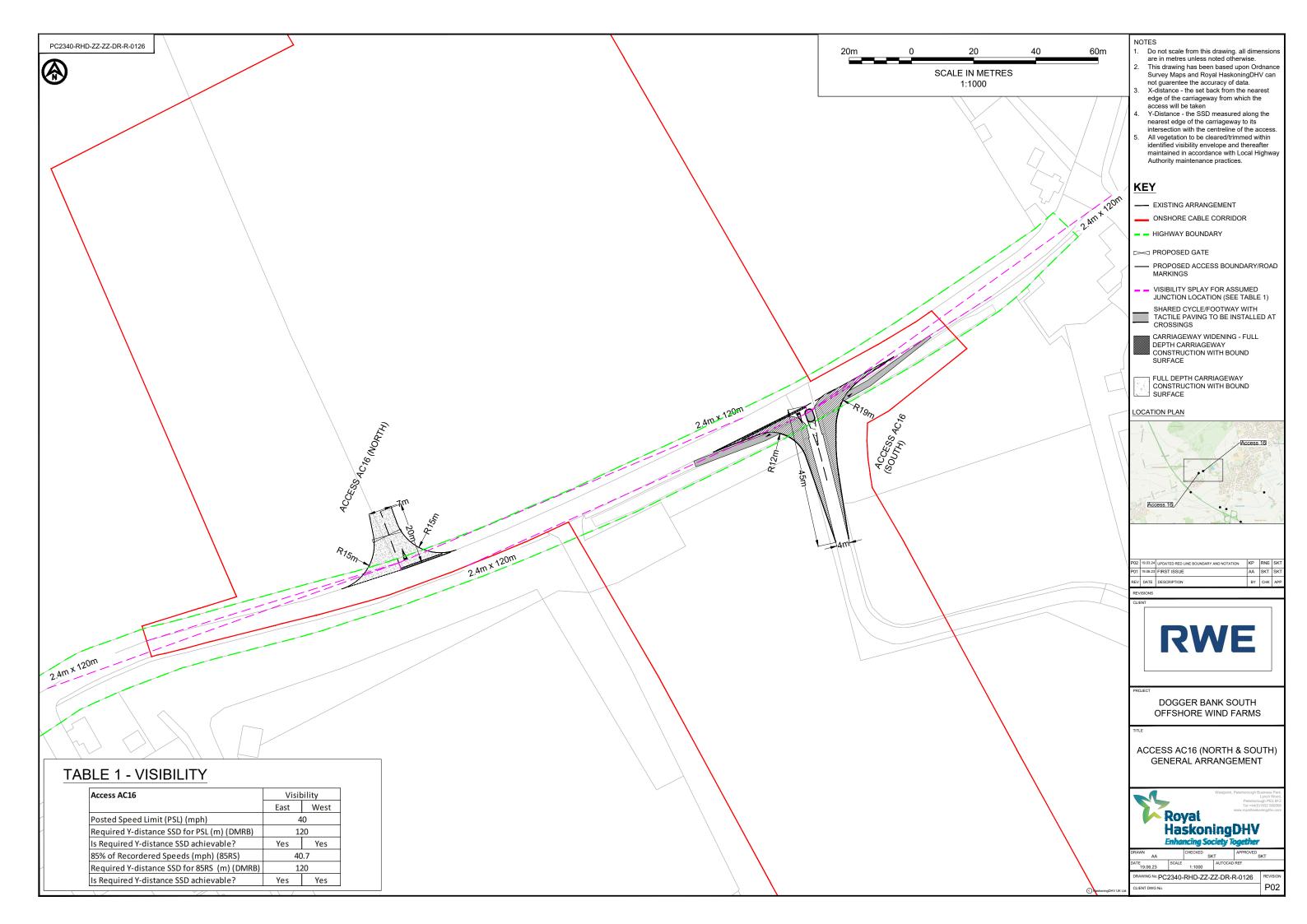


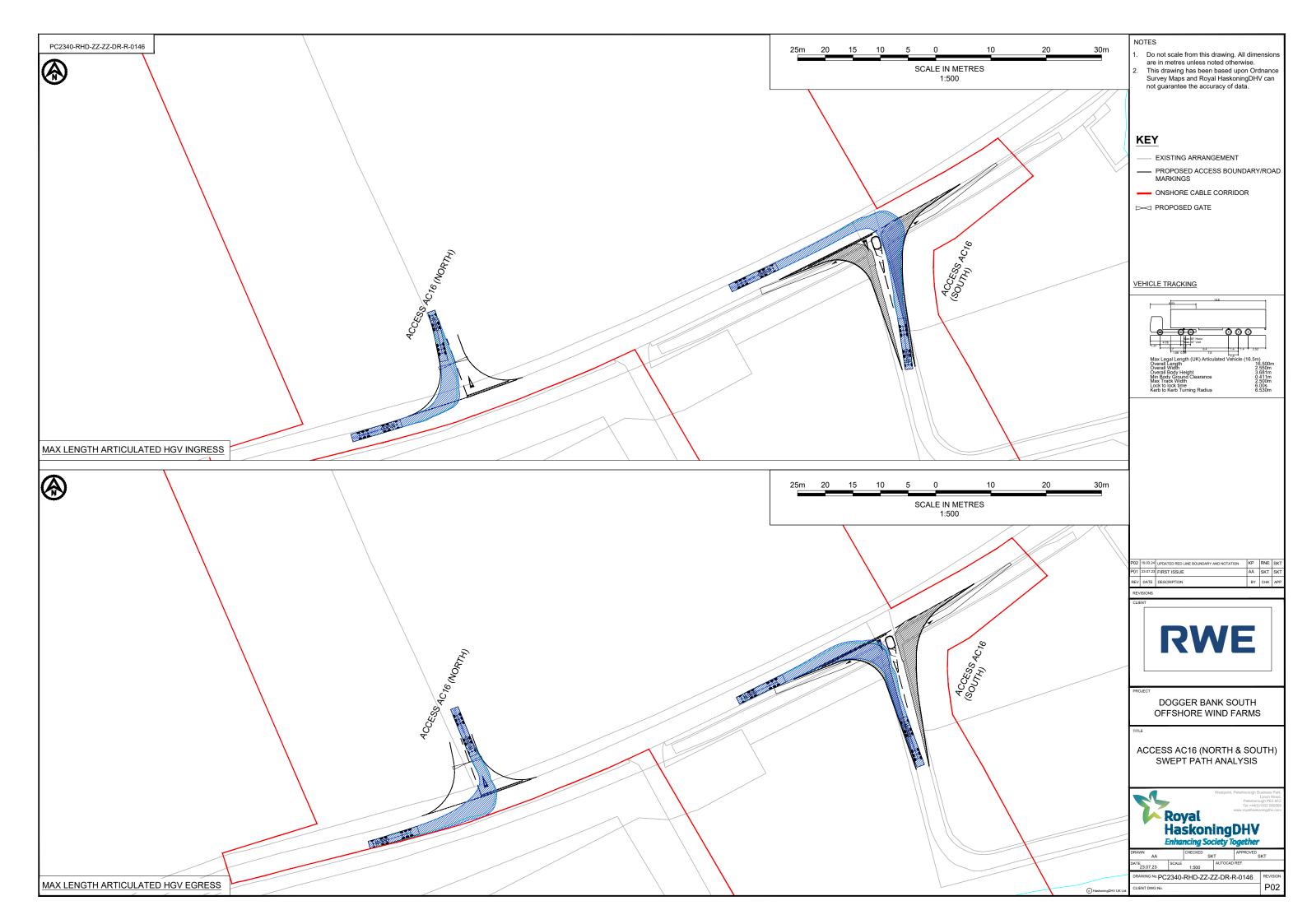


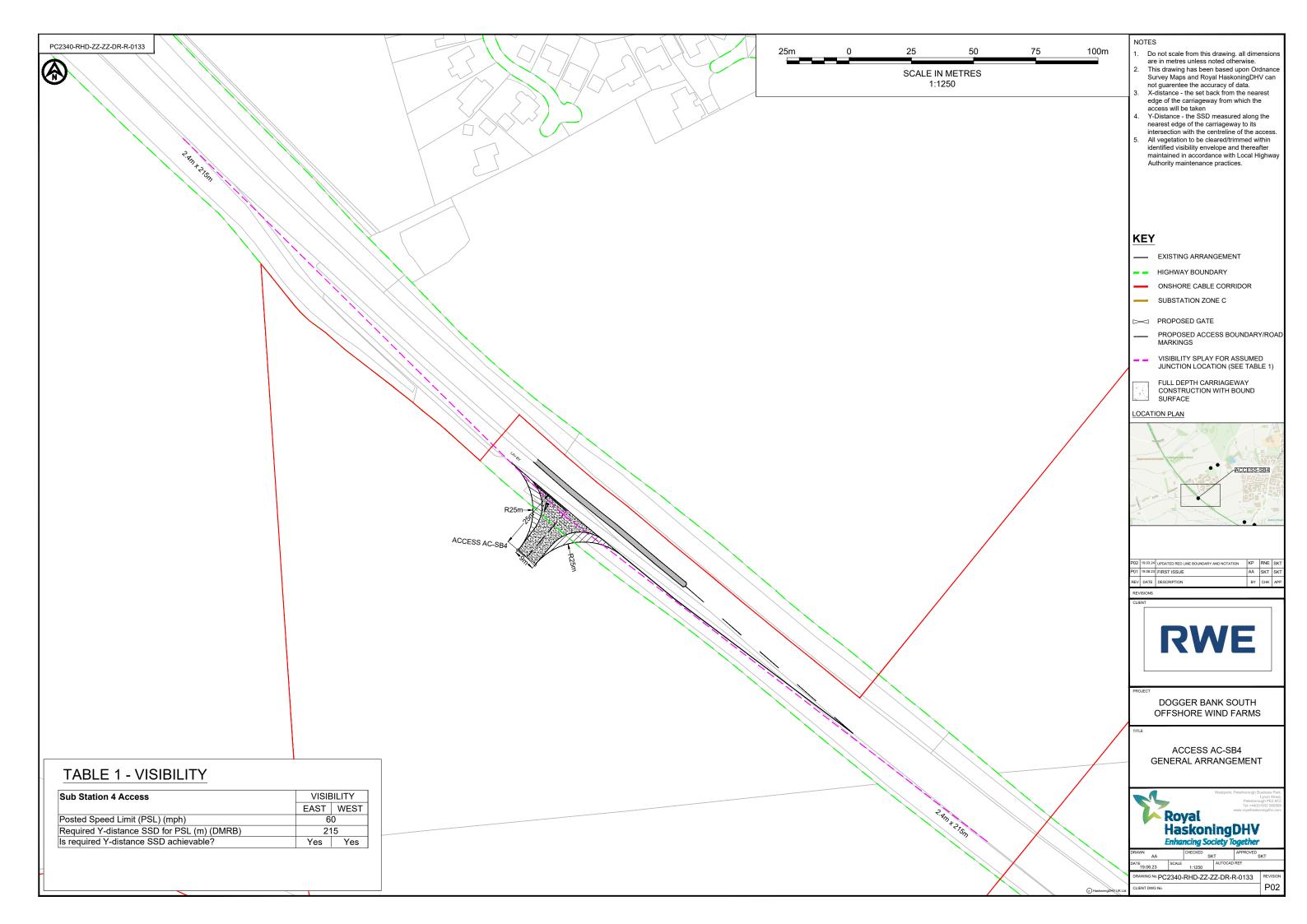


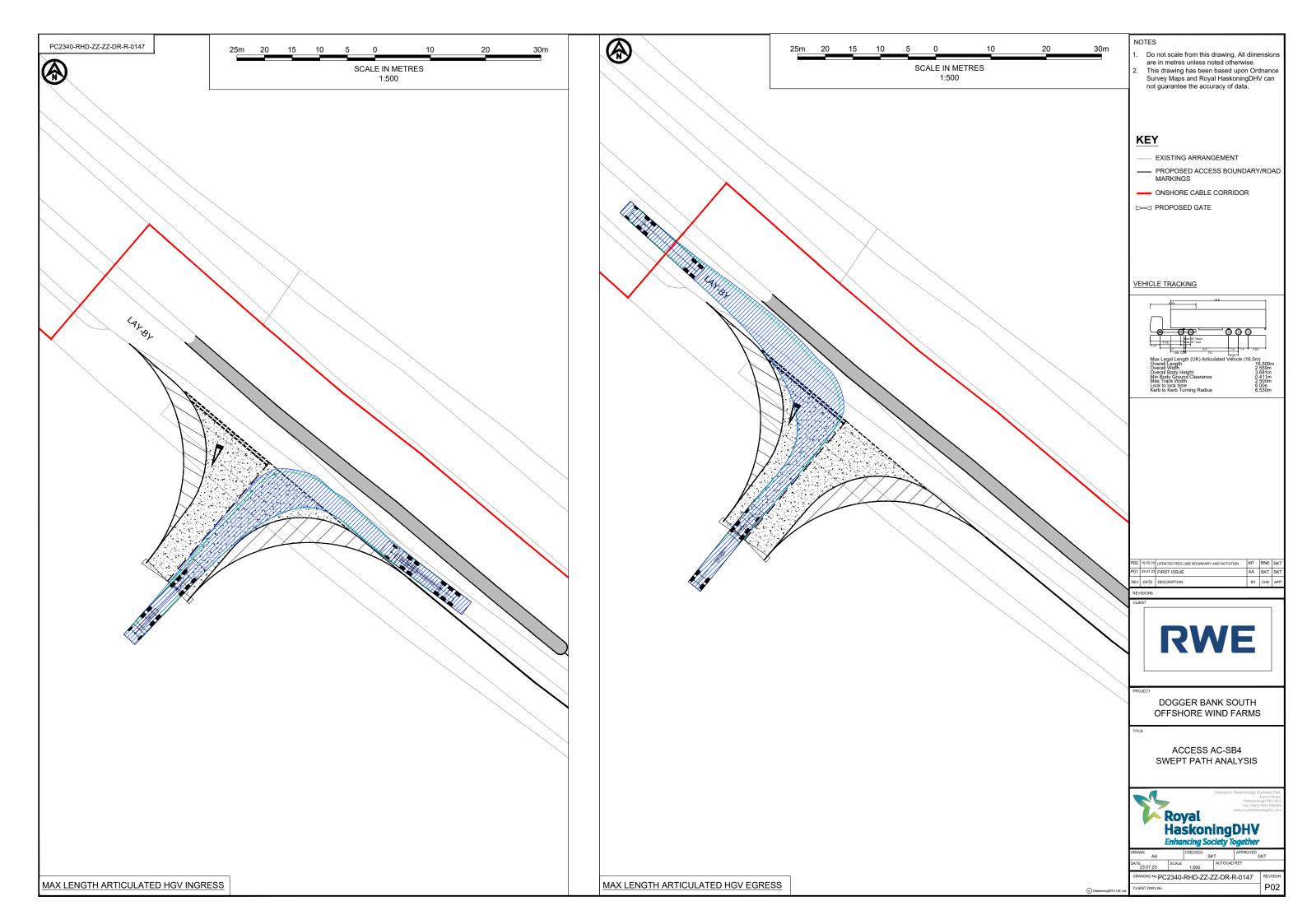


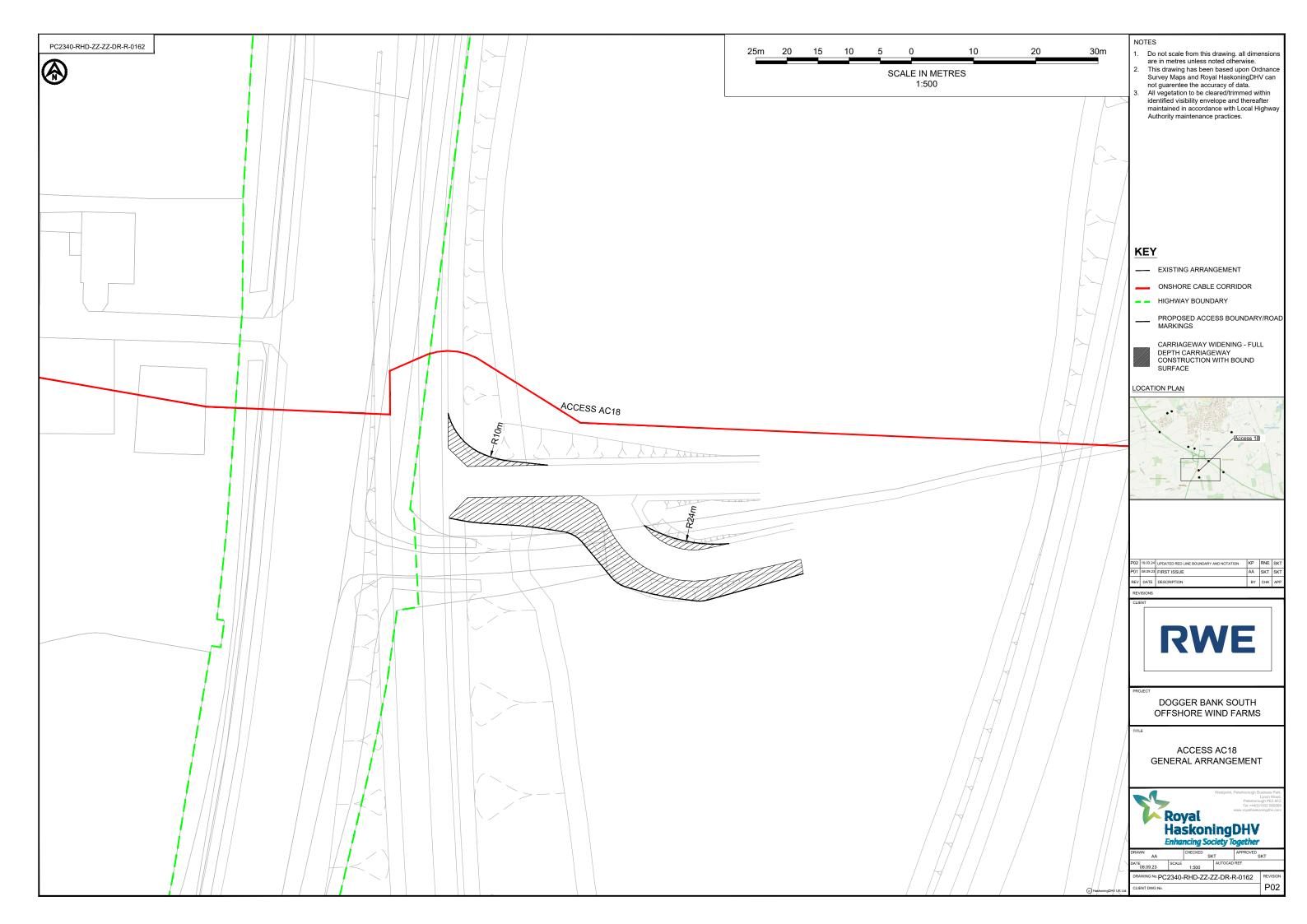


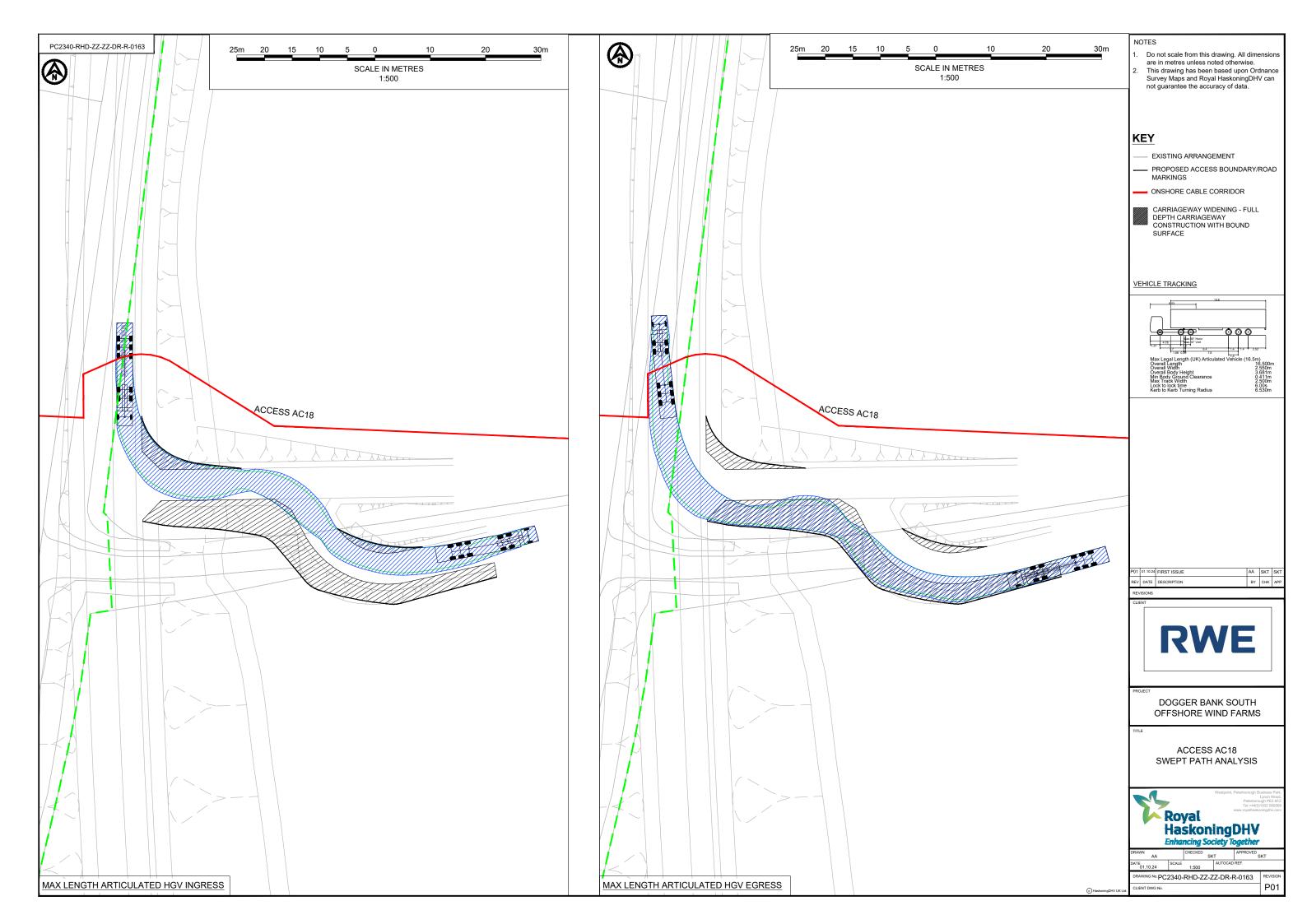


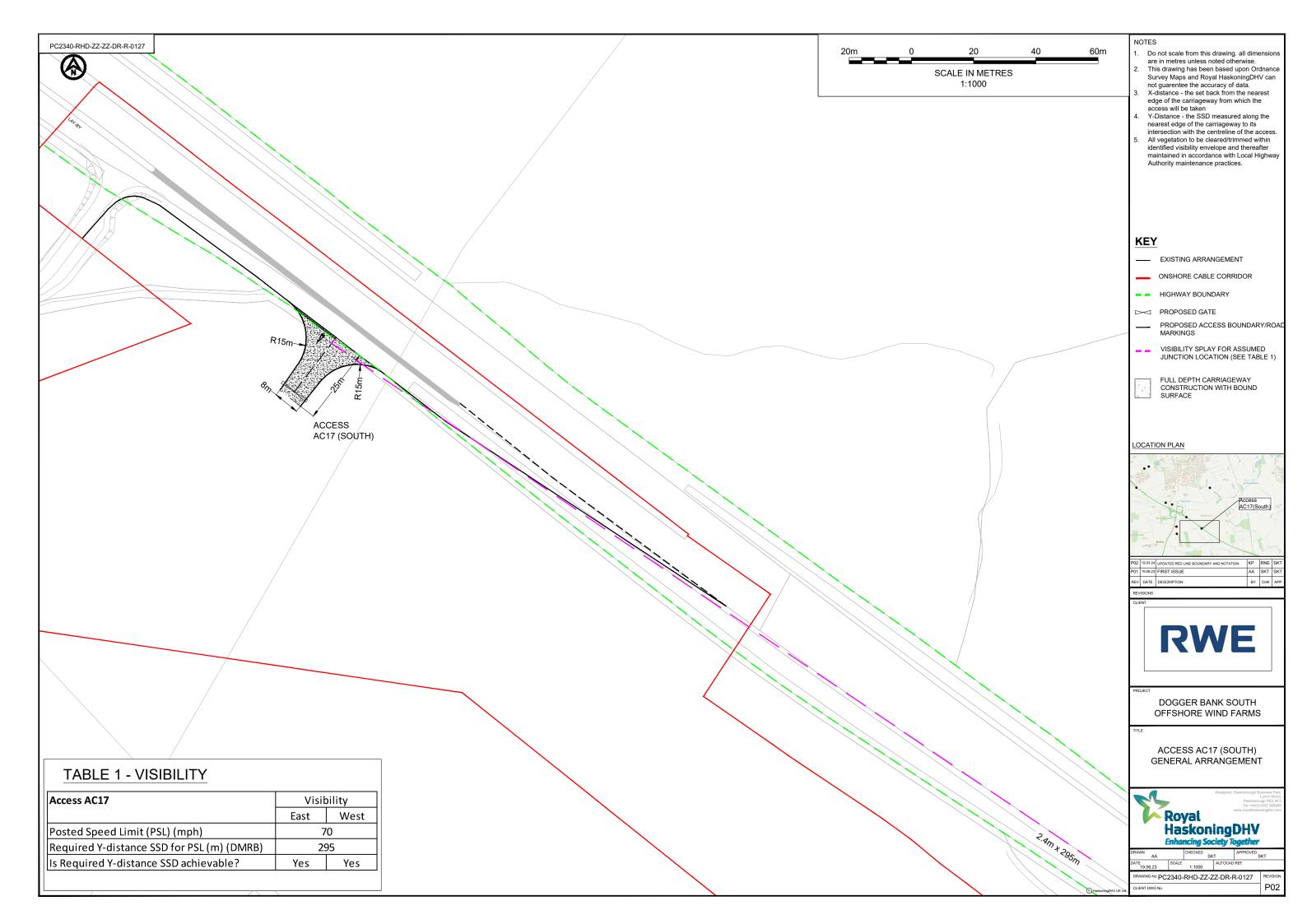


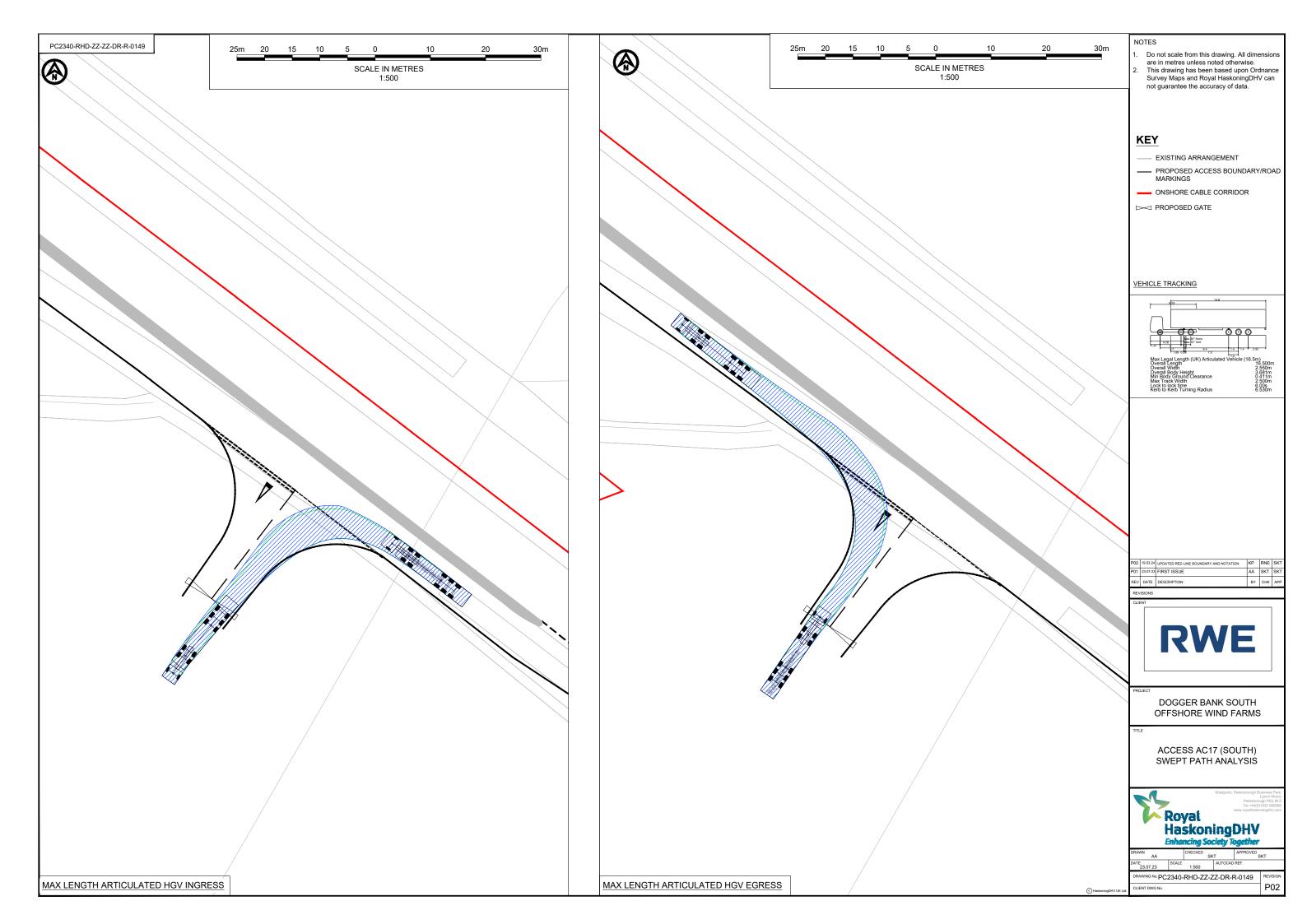


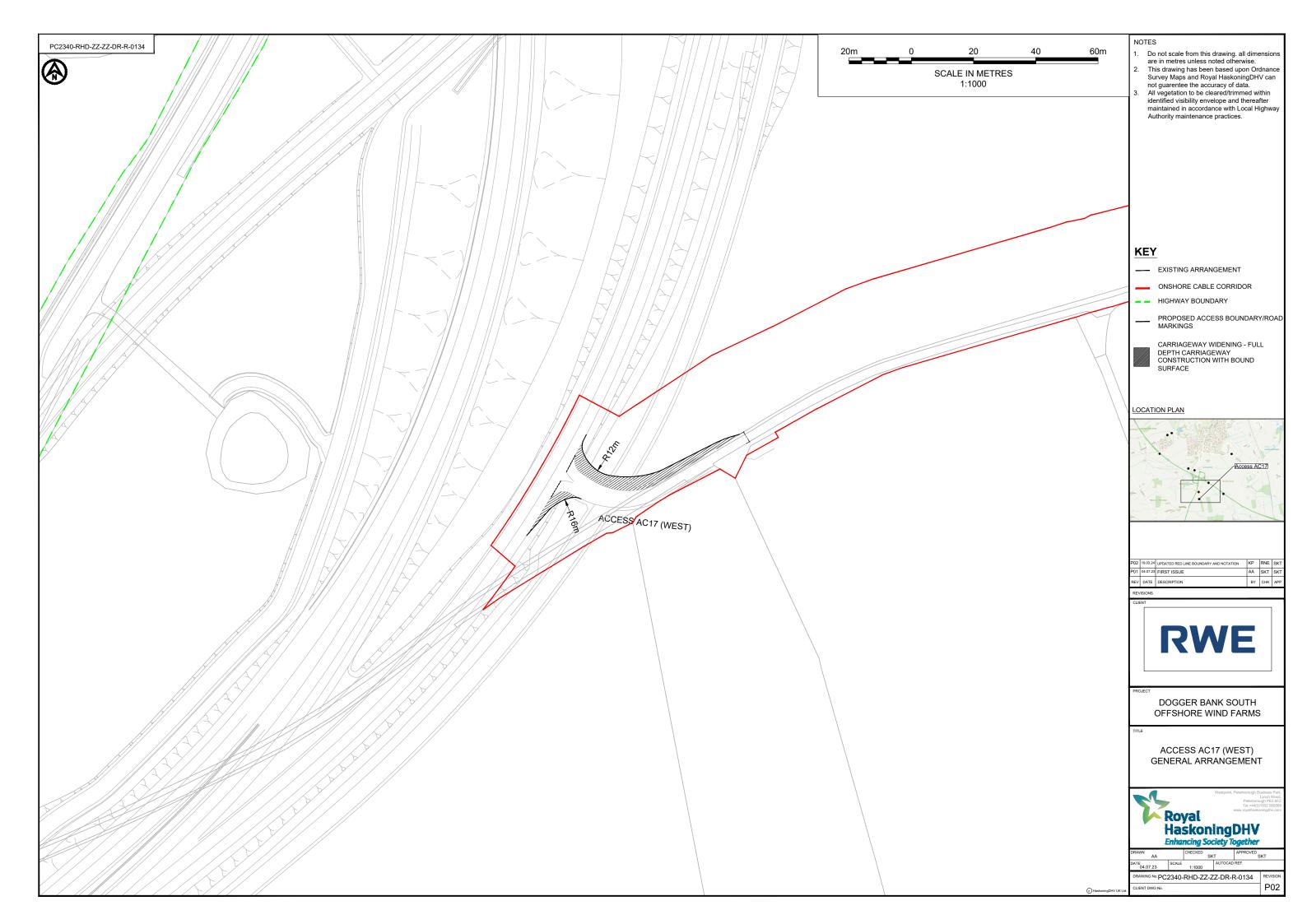


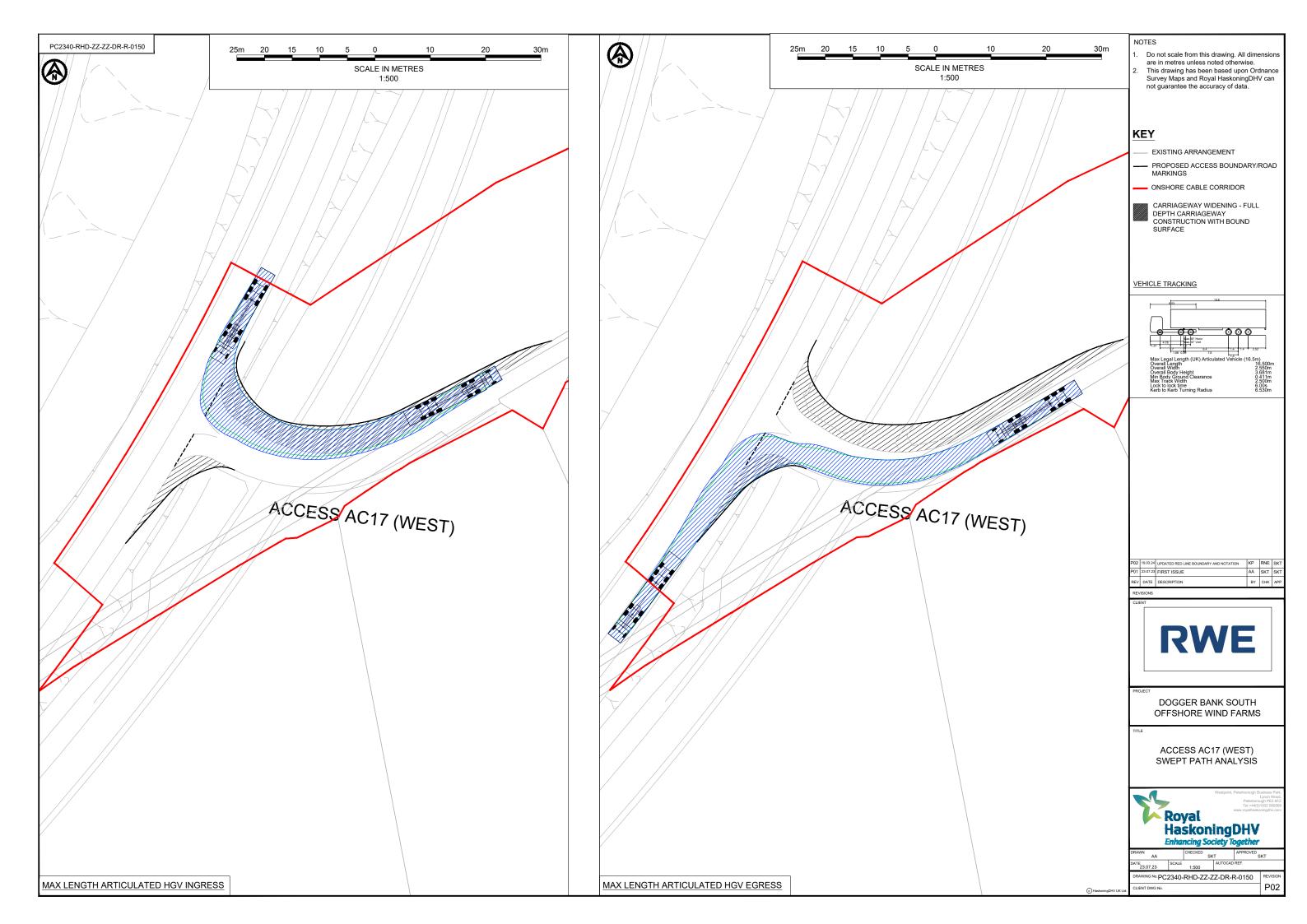


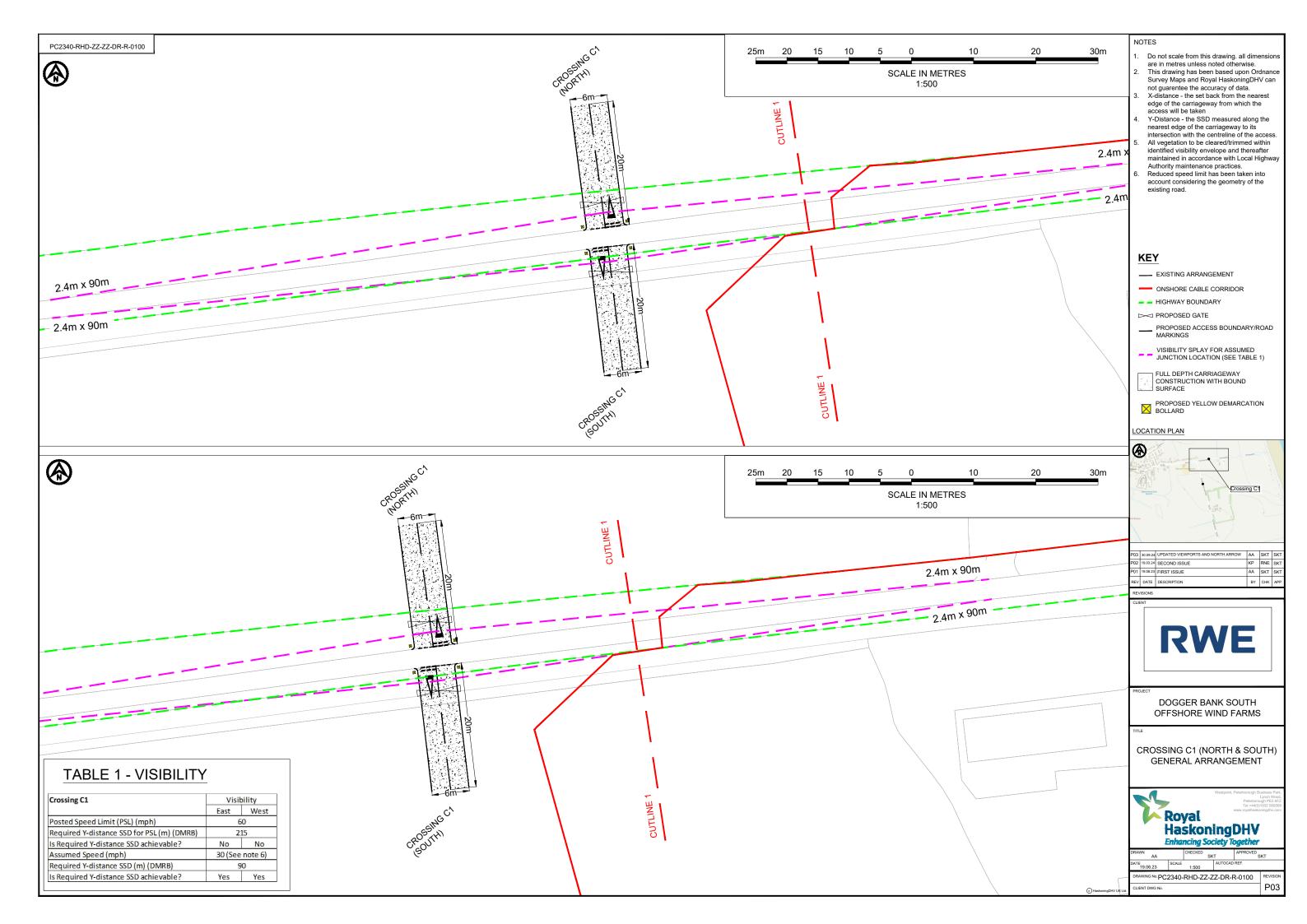


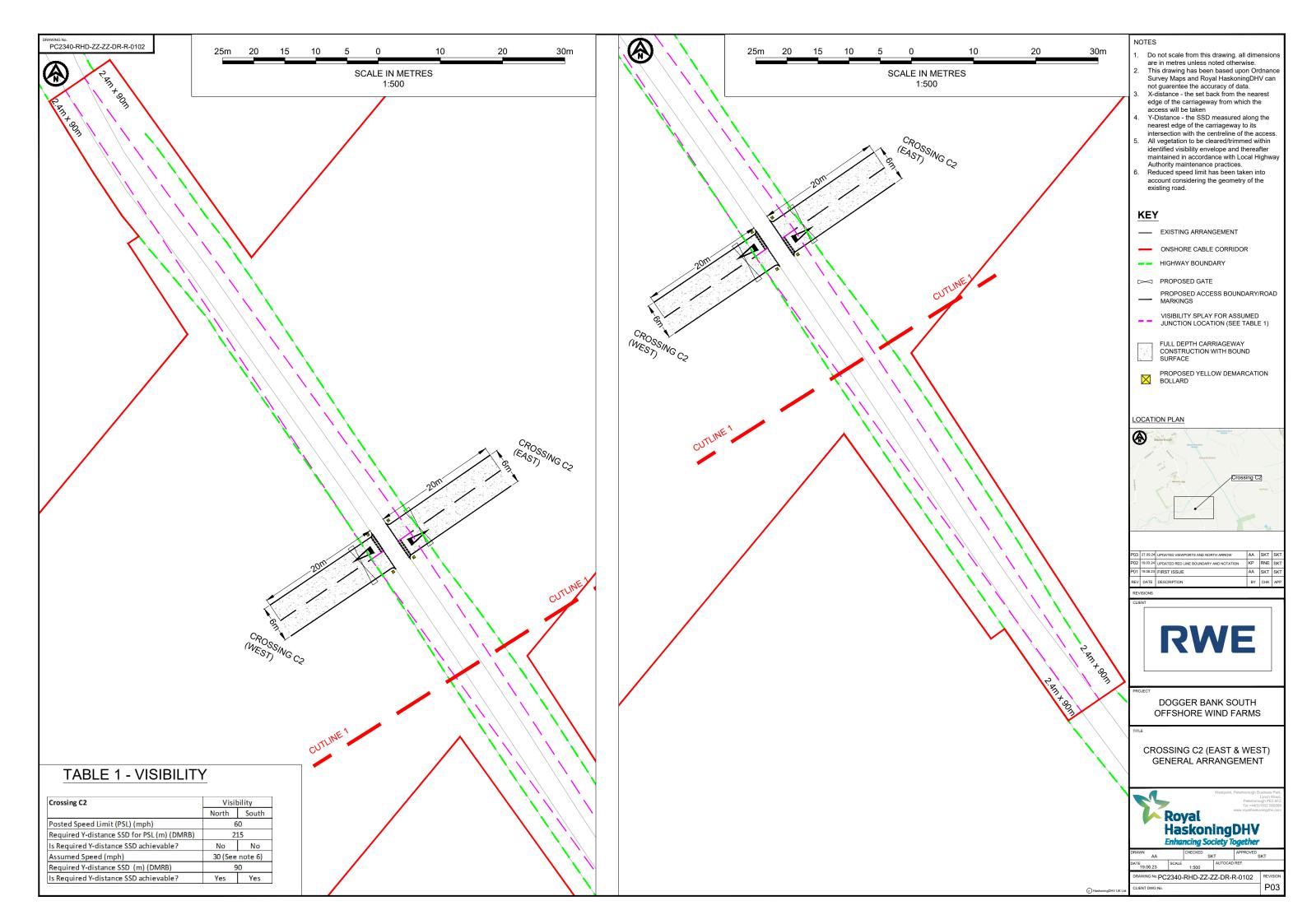


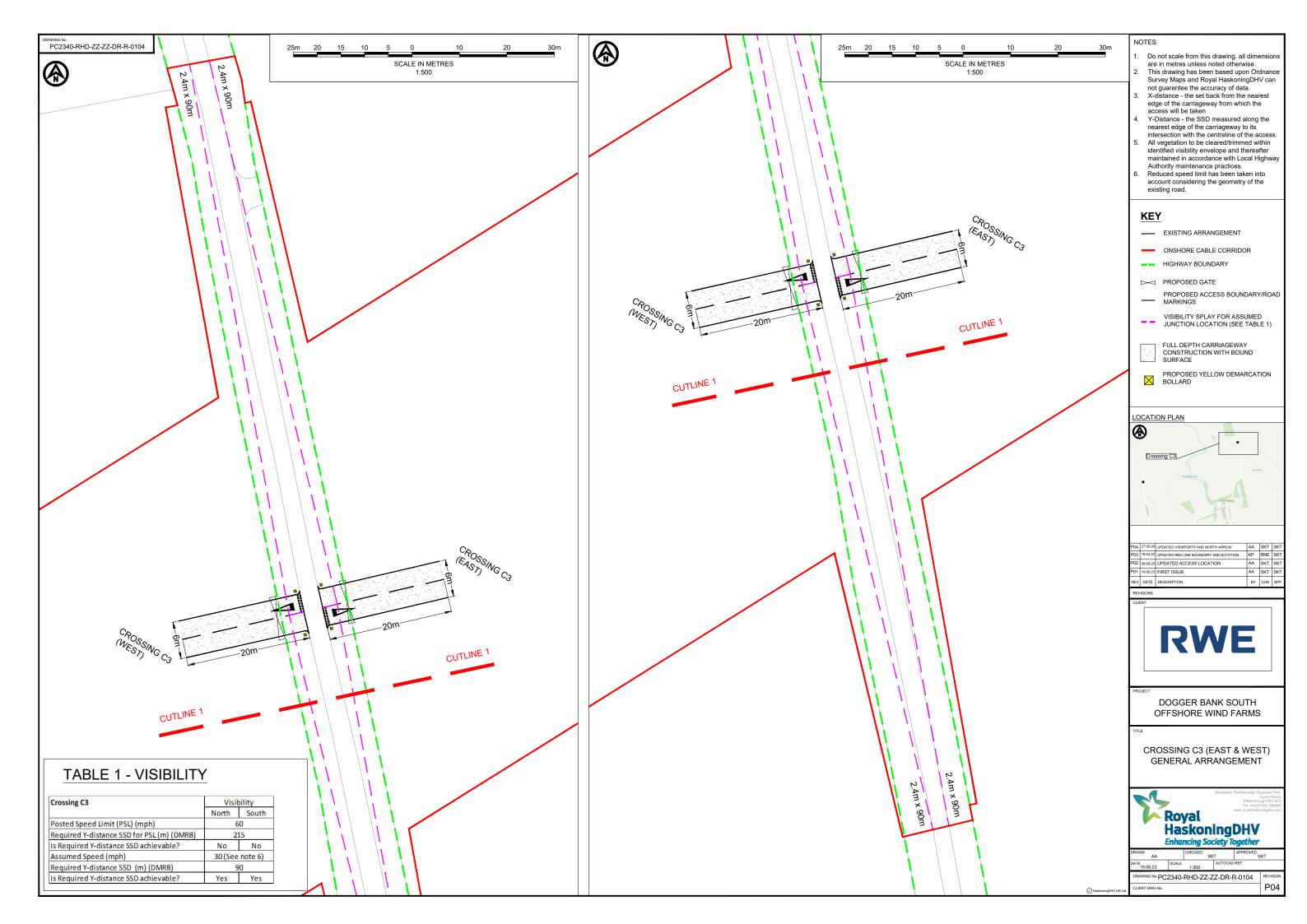


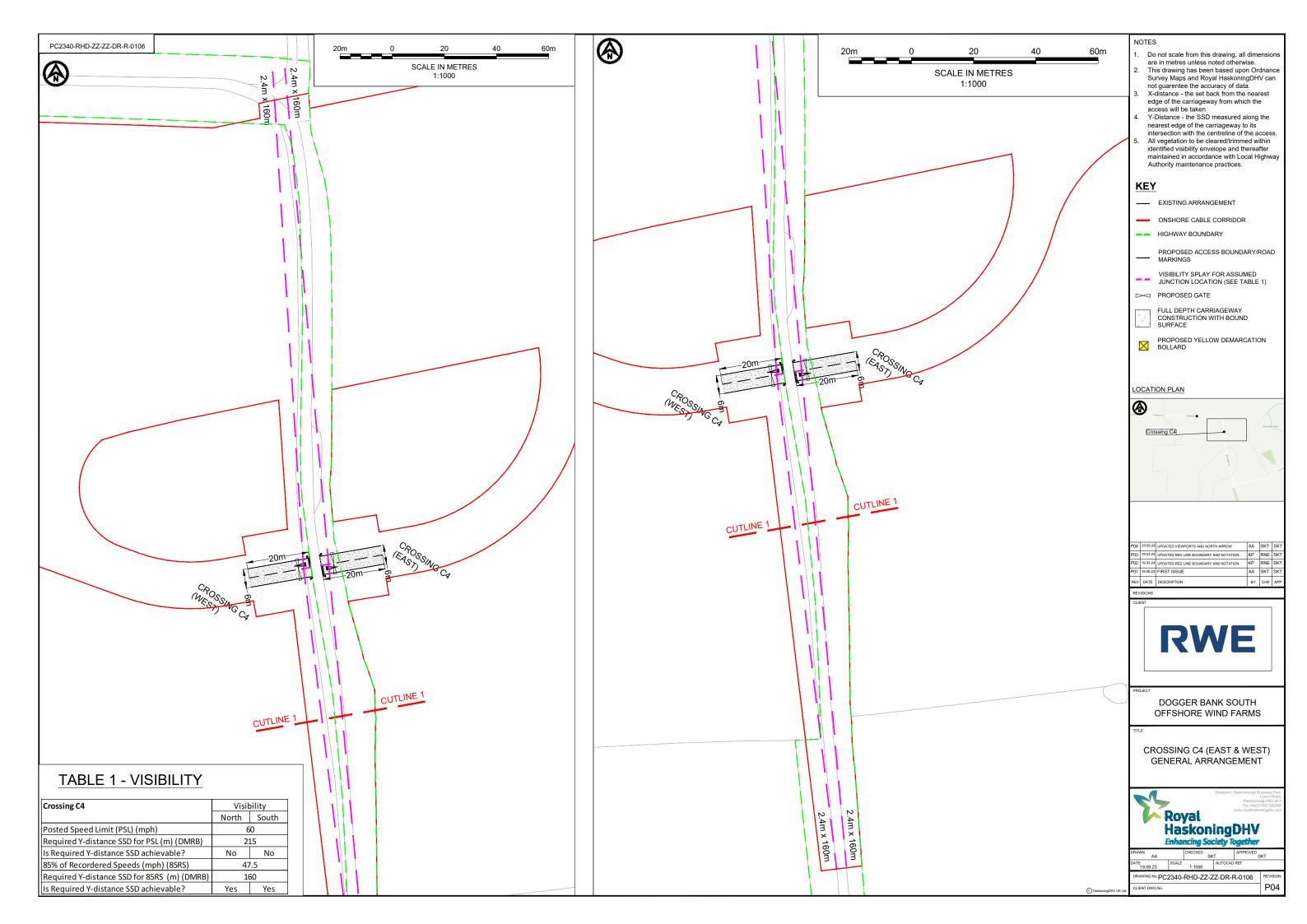


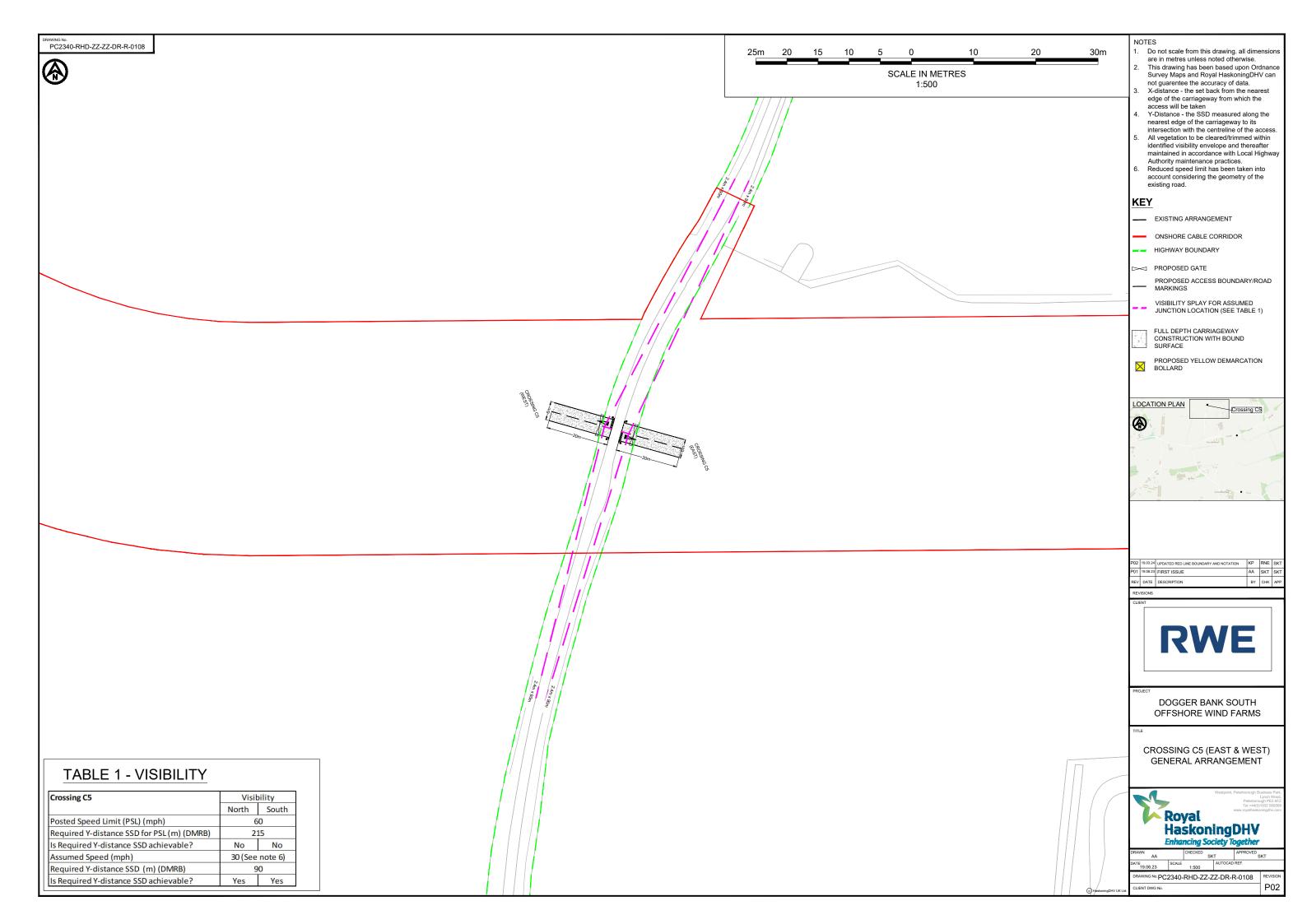


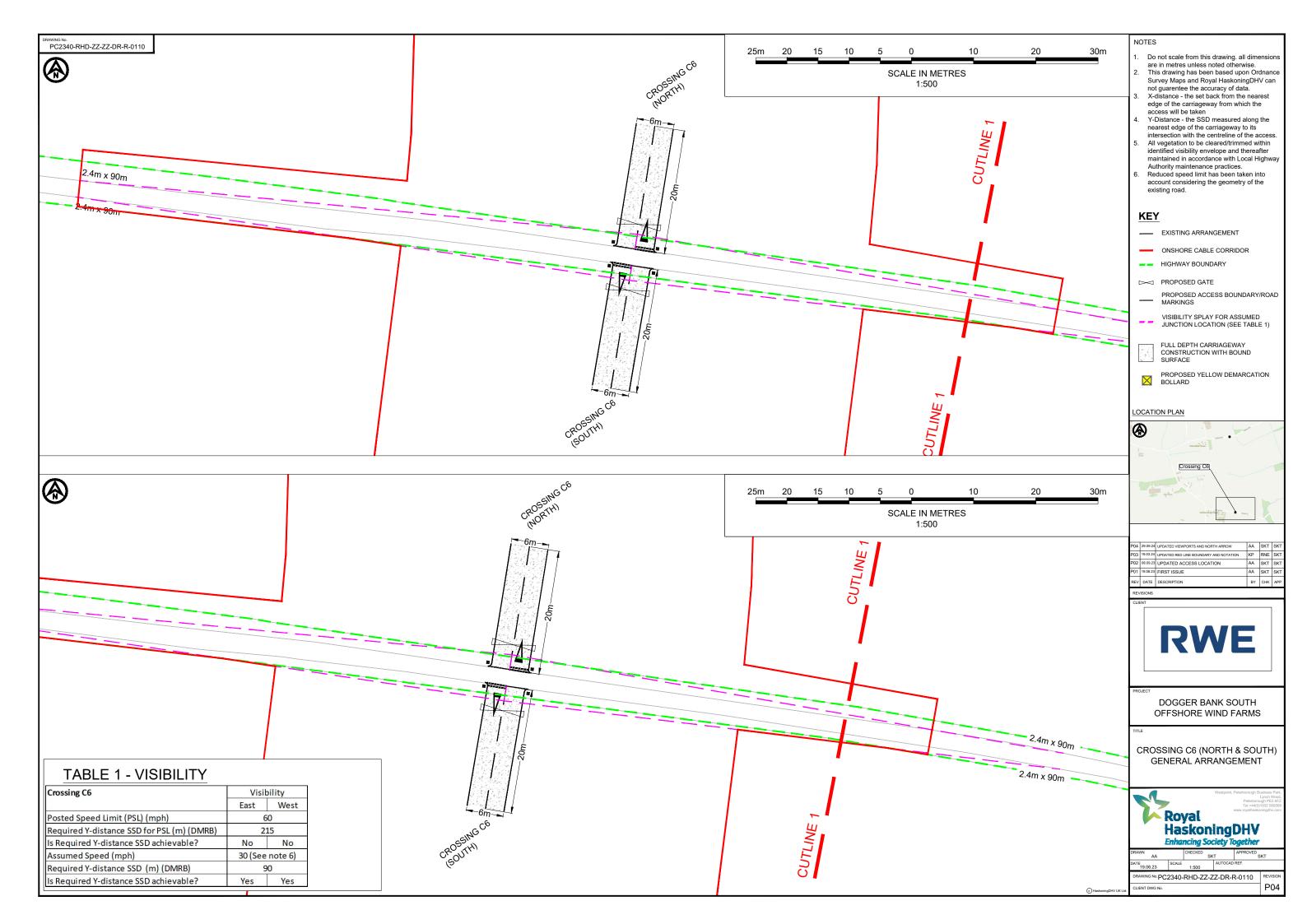


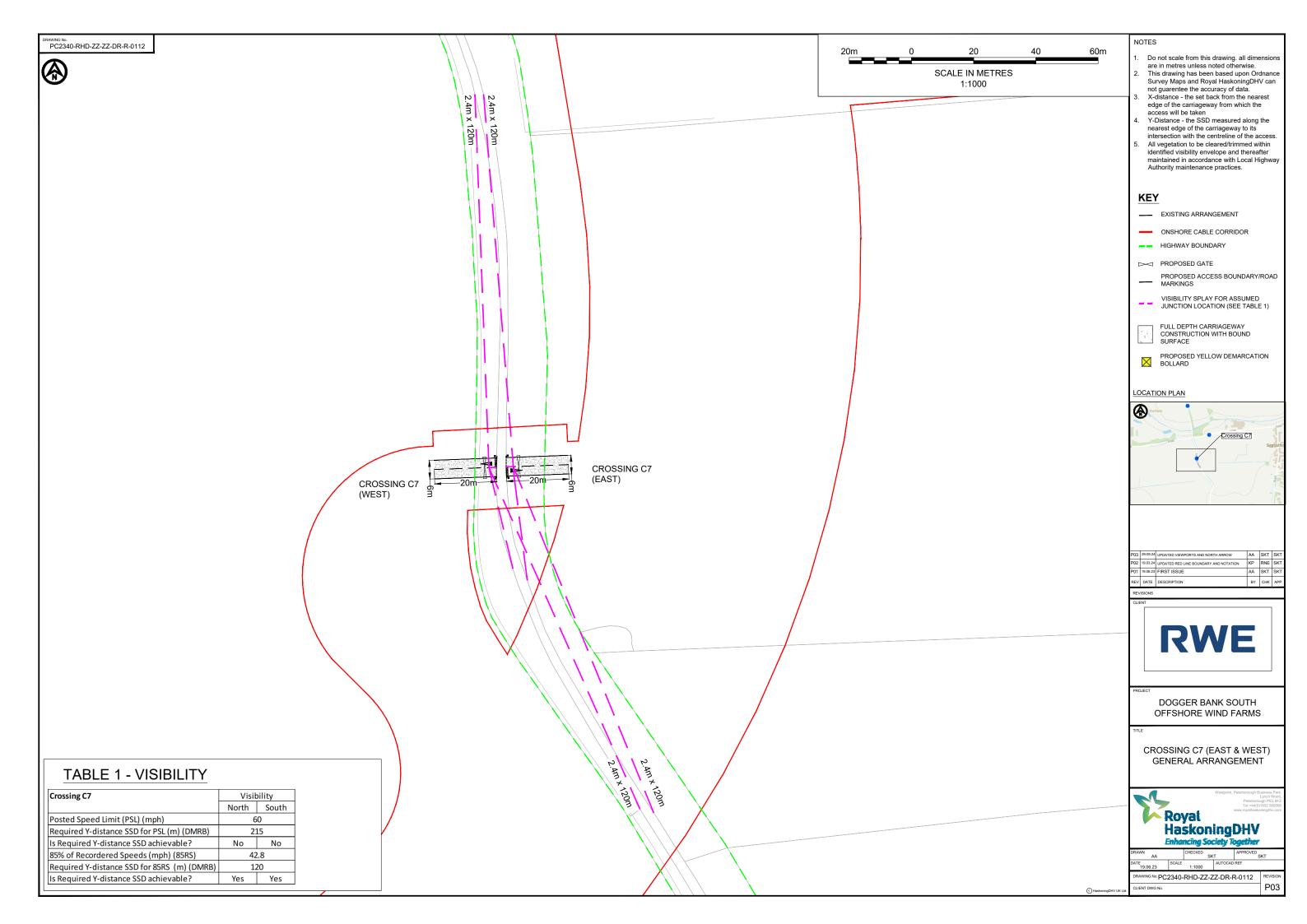


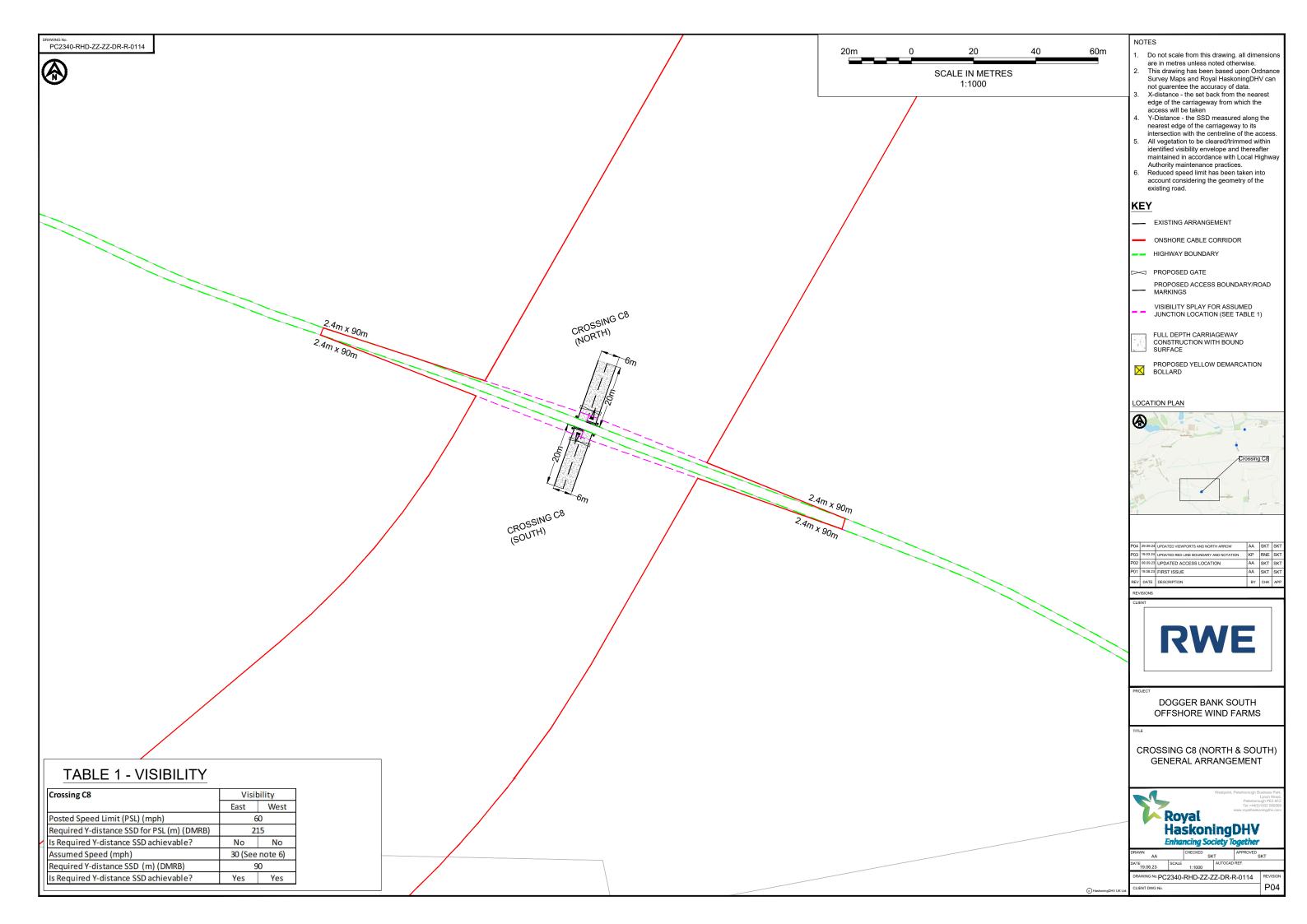


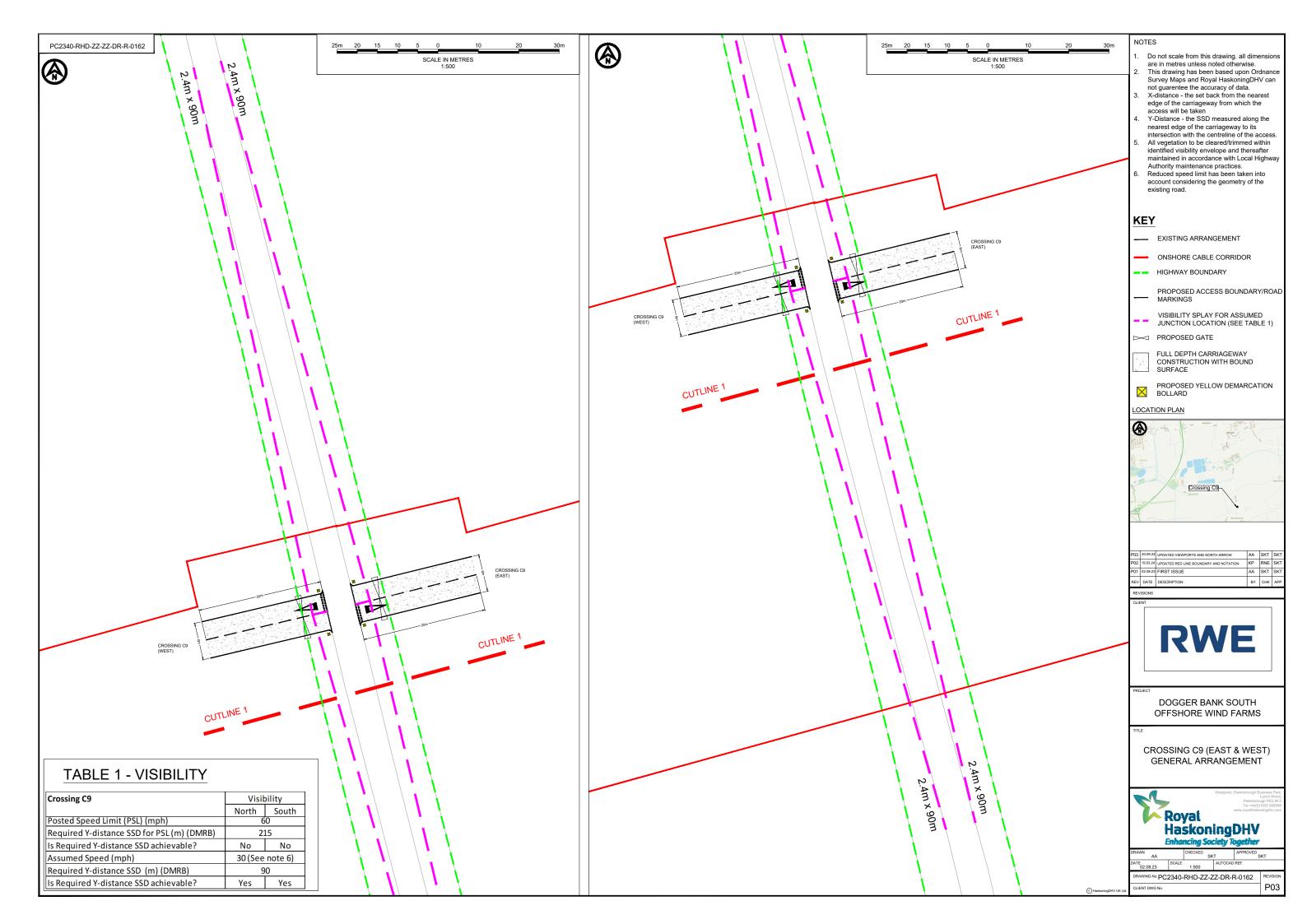


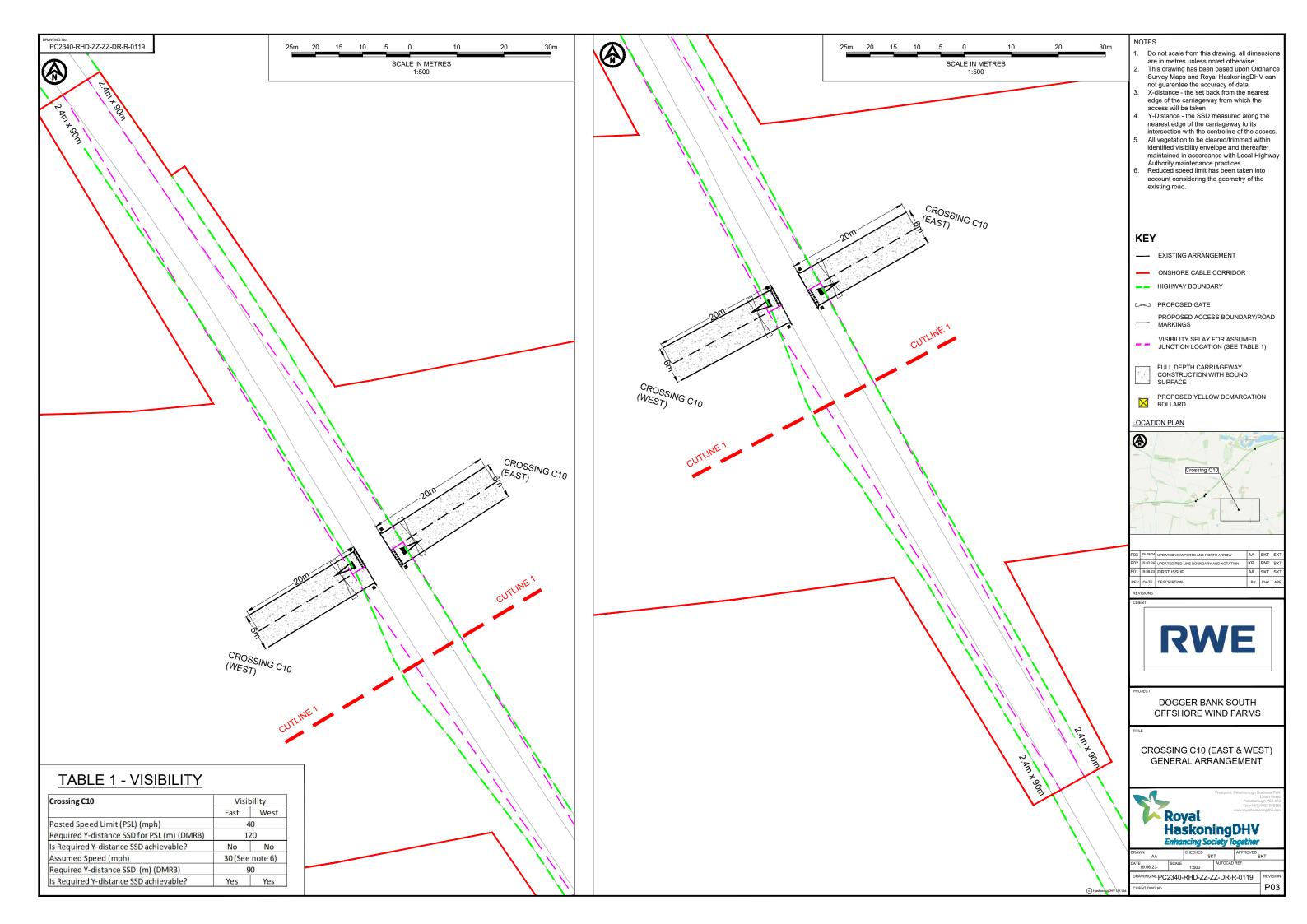


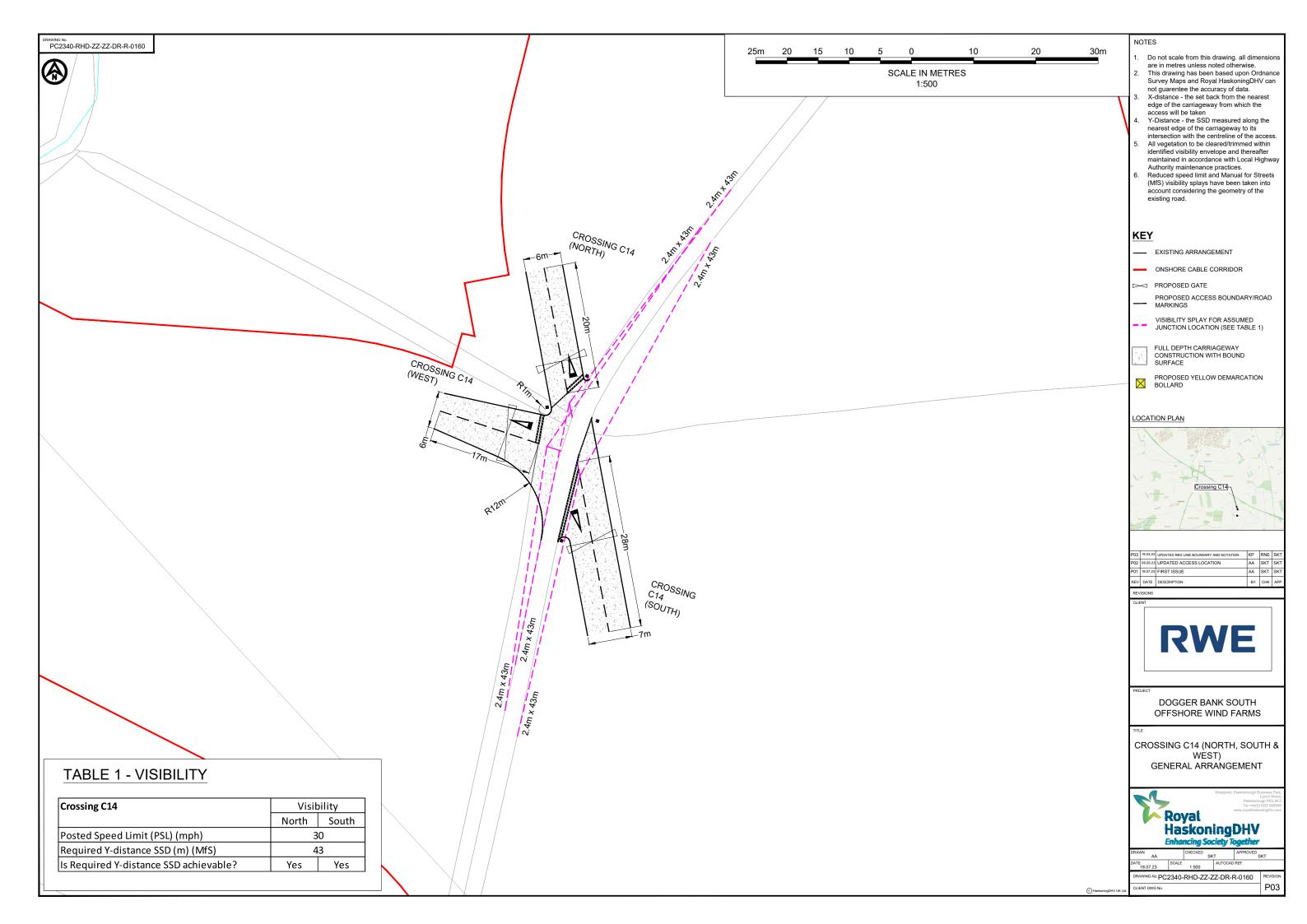


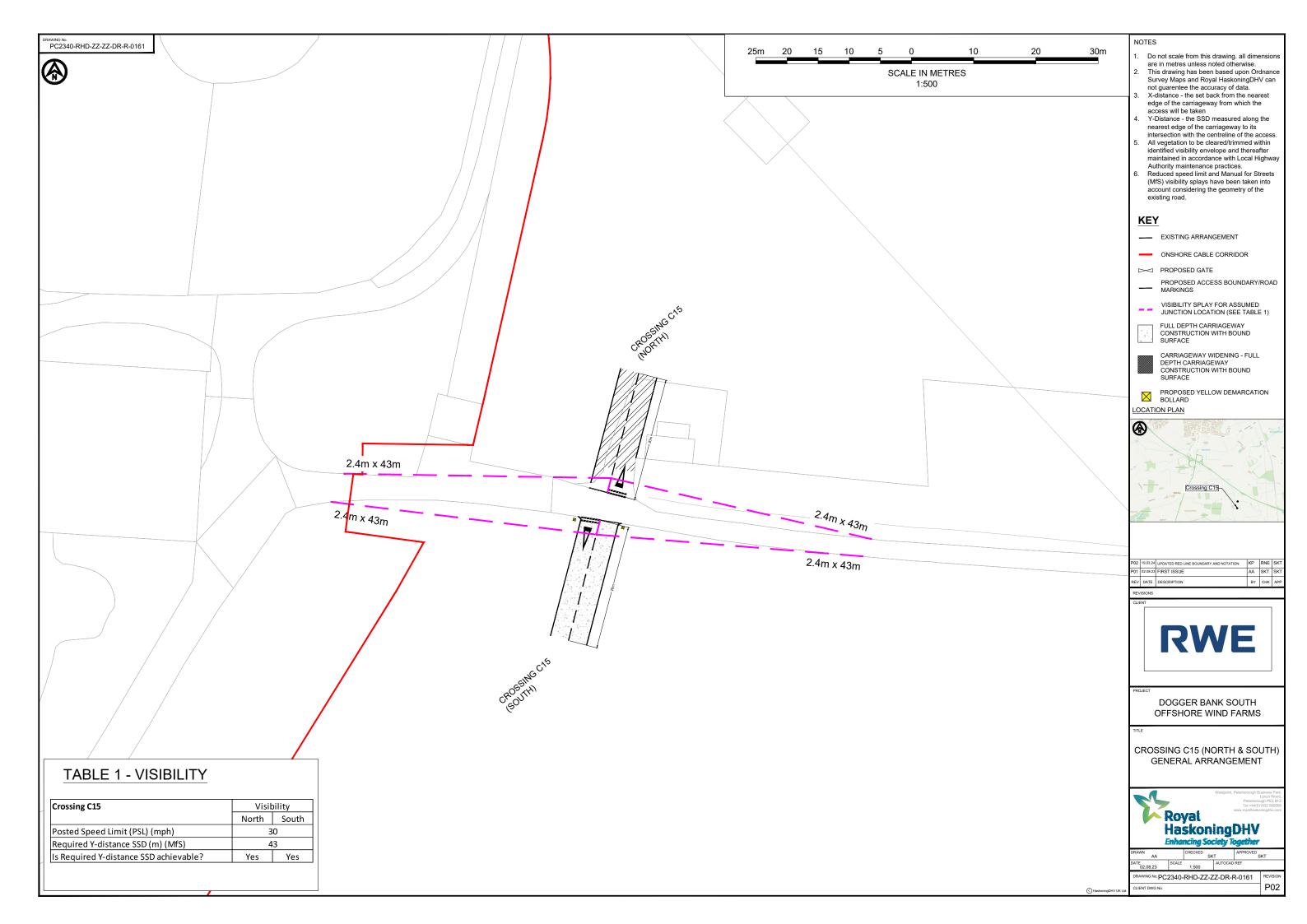












## **Annex 3 Escort / Pilot Vehicle Example**

NOTES PC2340-RHD-ZZ-ZZ-DR-R-0300 **STAGE 2: HGV TRAVELS TO IDENTIFIED STAGE 1: HGV WAITS TO BE CALLED PASSING LOCATION** HGV waiting to be called by Pilot vehicle. HGV travels to identified passing location. HGV stops at the **RWE** identified passing location. Identified potential passing location.

> **STAGE 3: PILOT** MANOEUVRE IS REPEATED OR (IF ROAD WIDTH PERMITS) **HGV CONTINUES UNAIDED**

Pilot vehicle stops at

identified passing location

and stops oncoming traffic.

Stationary oncoming traffic now able to move past waiting HGV and pilot

vehicle.

DOGGER BANK SOUTH OFFSHORE WIND FARMS

PILOT/ESCORT VEHICLE EXAMPLE



AWING No. PC2340-RHD-ZZ-ZZ-DR-R-0300

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Windmill Hill Business Park Whitehill Way Swindon Wiltshire, SN5 6PB