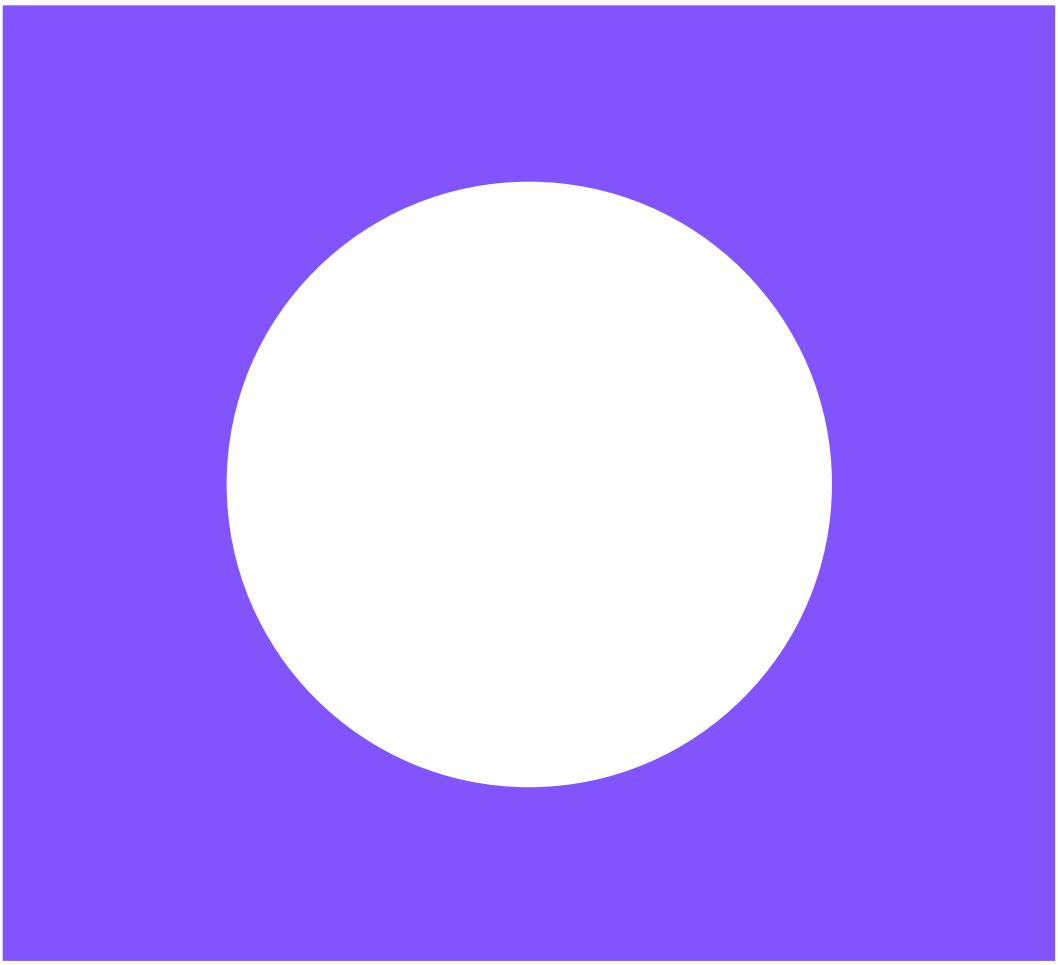
MOTT MACDONALD



North Cray Road - Energy Storage System

Construction Traffic Management Plan

April 2025

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North Cray Road - Energy Storage System

Construction Traffic Management Plan

April 2025

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	February 2025	L. Denness	C. Romain	D. Younger	First Draft
B	March 2025	L. Denness	C. Romain	D. Younger	Client Comments
C	April 2025	L. Denness	C. Romain	D. Younger	Client Comments

Document reference: 100410558.CA06-CTMP-C

Contents

1 Introduction

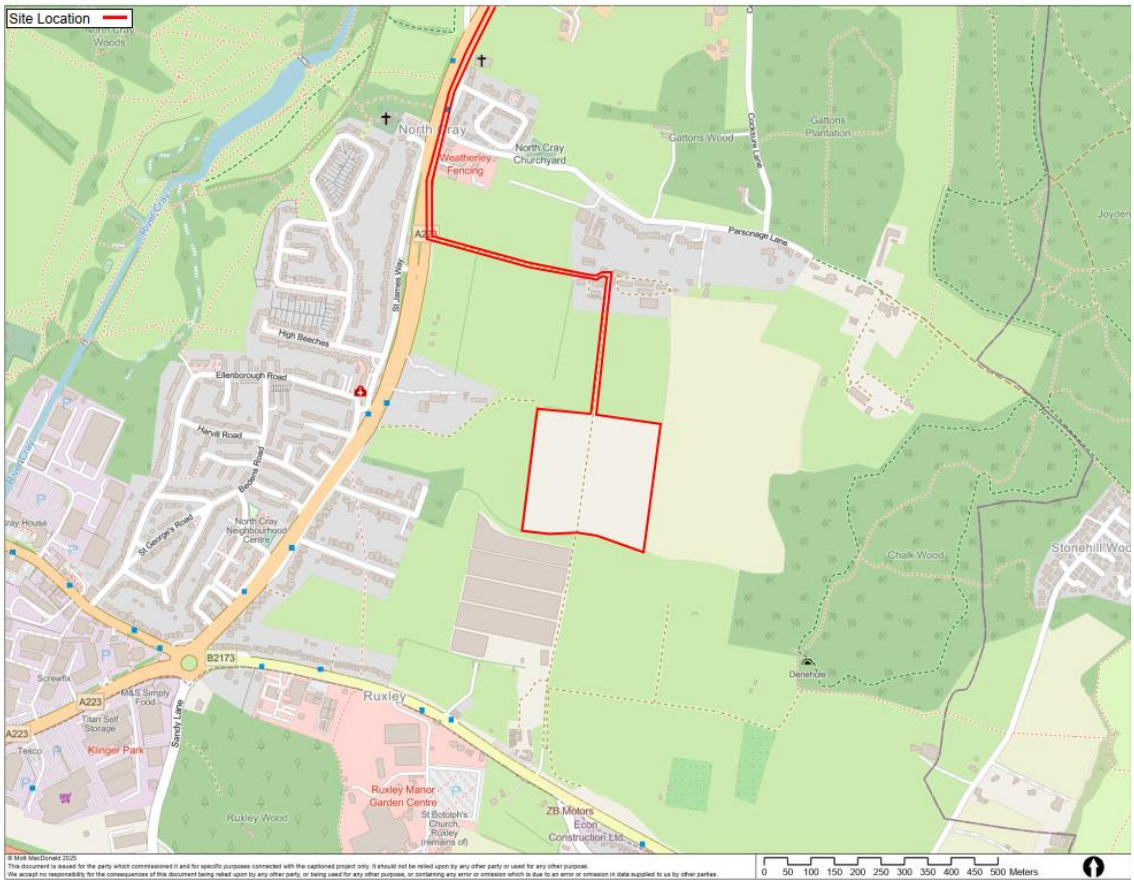
1.1 Background

1.1.1 Mott MacDonald has been appointed by DWD (on behalf of Net Zero Thirty Two Limited and Firstway Energy) to prepare this Construction Traffic Management Plan (CTMP) in respect of the forthcoming planning application to deliver the proposed North Cray Road Energy Storage System (ESS) (the 'Proposed Development').

1.1.2 The Site comprises agricultural land and is located to the east of Sidcup and south of Bexley, in the London Borough of Bexley (LBB). The Site is surrounded by agricultural fields and the Site location is shown below at **Figure 1.1**

1.1.3 **Appendix A** shows the proposed layout of the North Cray Road ESS.

Figure 1.1: Site Location Plan



Source: OpenStreetMap

1.1.4 Access to the Site is proposed via North Cray Road, which leads to an existing road and track via an existing access serving Manor Farm to the north and the Site itself.

1.1.5 The proposal is for the construction, operation and maintenance of an ESS scheme. Further details of the proposal and technology for the development are submitted separately as part of the planning submission.

1.1.6 Traffic associated with the Proposed Development will be largely limited to the temporary construction period. Once operational, the ESS will only generate a limited number of vehicle movements (comprising small vans and similar light vehicles, rather than HGVs), associated with periodic servicing and maintenance.

1.1.7 This CTMP has been prepared to set out a framework for managing traffic related issues, should they arise, associated with the scheme. The CTMP outlines the strategy and mitigation measures to be used during the construction of the proposed North Cray Road ESS.

1.1.8 Subject to the granting of planning consent, it will be the responsibility of the appointed contractor to implement the CTMP and comply with the statutory regulations and guidelines as appropriate, in relation to construction and movement activities associated with the ESS.

1.2 Aim

1.2.1 The aim of this CTMP is to present the proposals from a transport perspective and provide details of the construction management arrangements which will be available for the Proposed Development including the following:

- Details of the construction Site and on-site management measures;
- Site access arrangements;
- Construction vehicle types and trip timing;
- Construction vehicle routing information;
- Details of any anticipated traffic management;
- Details of managing any Public Rights of Way;
- Details of Site hoarding / fencing; and,
- Contact details.

1.3 Objectives

1.3.1 This CTMP considers the transport arrangements for access and egress for construction vehicles associated with the proposed North Cray Road ESS. A framework strategy and mitigation measures to be used during the construction of the scheme are included in this report.

1.3.2 The CTMP has been drafted to ensure that the management and mitigation measures contained within this document would limit the impact on existing users of the local highway network.

1.3.3 The objectives of this CTMP are as follows:

- Ensure that the movement of people and materials are achieved in a safe, efficient and timely manner;
- Ensure that impact and disruption to local communities is minimised through mitigation and management measures, where appropriate;
- Assess constraints to access and egress of construction vehicles; and,
- Minimise construction trips, where possible.

1.3.4 To help inform the preparation of the planning application, pre-application advice has been sought by the applicant team from LBB. In respect of transport and highways, the following advice has been received:

- Trip generation is not expected to create any undue impact on the function of the roads surrounding the application Site or generate any meaningful additional traffic. Details of the expected trip generation, during both the construction and operation phases of the Proposed Development, are presented in this CTMP;
- Walking and cycling facilities in the vicinity of the Site should be retained, and not closed at any time during the construction of the scheme, without prior consent. Details of the Public Rights of Way in the vicinity of the Site are presented in this CTMP; and,
- The application proposes to utilise the existing access from North Cray Road, used to access Manor Farm. The road layout and highway safety of this intersection is considered in this CTMP.

1.3.5 The pre-application advice has been reviewed and incorporated as part of the scheme design and preparation of this CTMP. Further details of these measures are therefore presented in this document, where appropriate.

1.4 Structure

1.4.1 The structure of this report is as follows:

- **Chapter 2** provides an overview of the Site;
- **Chapter 3** presents details of the Site access arrangements and construction vehicle routing;
- **Chapter 4** sets out details of the construction phase of the Proposed Development, including vehicle movements, as well as those for the operational phase;

- **Chapter 5** outlines the proposed construction traffic management measures and mitigation; and,
- **Chapter 6** provides a summary to the report.

2 The Proposed Site

2.1 Proposed Development & Site Layout

2.1.1 The Proposed Development is for the construction, operation and maintenance of a 200MW (Mega Watt) Energy Storage System (ESS).

2.1.2 The Site is located approximately 1.5km east of Sidcup and south of Bexley. The Site will be accessed from North Cray Road to the north, utilising an existing access, further details of which are presented in **Chapter 3** of this report.

2.1.3 The Site will be surrounded by a 2.4m high palisade fence and a number of fixed CCTV cameras on poles measuring around 4m high, which will be used to maintain the security of the Site.

2.1.4 For more detail in respect of the Proposed Development, please refer to the Planning, Design and Access Statement prepared by DWD which forms part of the planning application submission.

2.1.5 **Appendix A** contains a drawing illustrating the Site location and the proposed layout.

2.2 Main Contractor

2.2.1 The main contractor responsible for the delivery of the Proposed Development has not been appointed at this time.

2.2.2 In advance of this, the applicant's coordinator, Firstway Energy shall remain the point of contact in the first instance:

Address: Foresters Hall, 25-27 Westow Street, London, SE19 3RY

Phone number: 020 3039 3832

2.2.3 Until such a time that the Project Manager / Site Supervisor that will be responsible for the on-site works is appointed, the contact details for the project shall remain as:

Project Manager: Jonny Hill

2.3 Construction Activities

2.3.1 Construction of the Proposed Development is expected to last for approximately 12 months.

2.3.2 The principal activities to be carried out during the construction period are as follows:

- Preparation of the Site;
- Provision of temporary access tracks (within the Site);
- Erection of security fencing;

- Assembly and erection of the substations and switchgears;
- Installation of the inverters and batteries; and,
- Grid connection.

2.4 Hours of Site Operation

2.4.1 Throughout the construction period, normal construction working hours are proposed as follows:

- 07:30 – 18:30 Monday to Friday (except bank holidays); and,
- 08:00 – 13:00 Saturdays.

2.4.2 Should work be required to be undertaken outside of these times, this will be discussed in advance and permission sought from LBB. Delivery timings are presented separately at **Section 4.3** of this CTMP.

2.5 Public Rights of Way (PRoW)

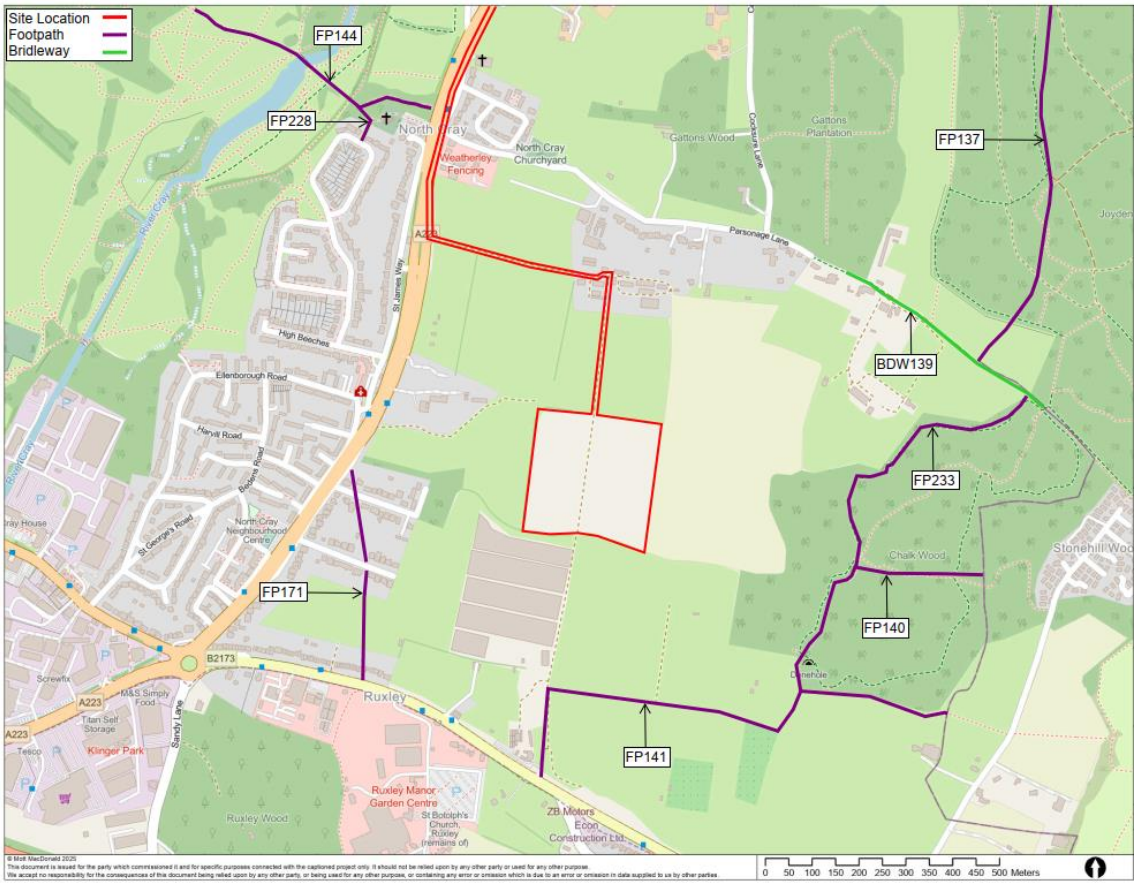
2.5.1 There are no Public Rights of Way (PRoW) which cross, or are directly adjacent to, the land forming the Site.

2.5.2 There is a footpath located to the south of the Site, FP141, which mostly runs east-west from Upper Ruxley to Stonehill Green. Footpath FP140 runs mostly north-south from Ruxley to Chalk Wood and is located east of the Site. Footpath FP171 runs north-south from North Cray Road to Maidstone Road and is located south west of the Site.

2.5.3 Footpath FP233 runs from ‘Mount Misery’ towards Parsonage Lane and runs mostly north-south to the east of the Site. Bridleway BDW139 runs east-west from North Cray to Parsonage Lane and is located north east of the Site. Footpath FP137 is located north east of the Site and runs north-south. There are also footpaths FP228 and FP144 which are both located north west of the Site to the west of North Cray Road.

2.5.4 The location of the nearby PRoWs are shown in **Figure 2.1**.

Figure 2.1: Public Rights of Way in the vicinity of the Site



Source: London Borough of Bexley

2.5.5 There will be no changes to the PRoW network as a result of the Proposed Development and there will be no requirement to close or divert any of the PRoWs during construction or operation.

2.6 Local Highway Network

2.6.1 The A223 North Cray Road is a two-lane dual carriageway that runs north-south, to the west of the Site and has a posted speed limit of 40mph. The access road which serves the existing Manor Farm as well as the land forming the Proposed Development is also called North Cray Road, and is a single track road.

2.6.2 A Left-In / Left-Out (LILO) junction is formed between the A223 North Cray Road and the North Cray Road access, with short diverge and merge tapers leading to and from the junction.

2.6.3 Roundabout junctions offering the potential to u-turn both to the north and south of the North Cray Road access junction are available on the local highway network, at the A223 North Cray Road / London Power Tunnels roundabout approximately 1.8km to the north and at the A223 North Cray Road / Maidstone Road / Sandy Lane / Edgington Way roundabout approximately 1km to the south.

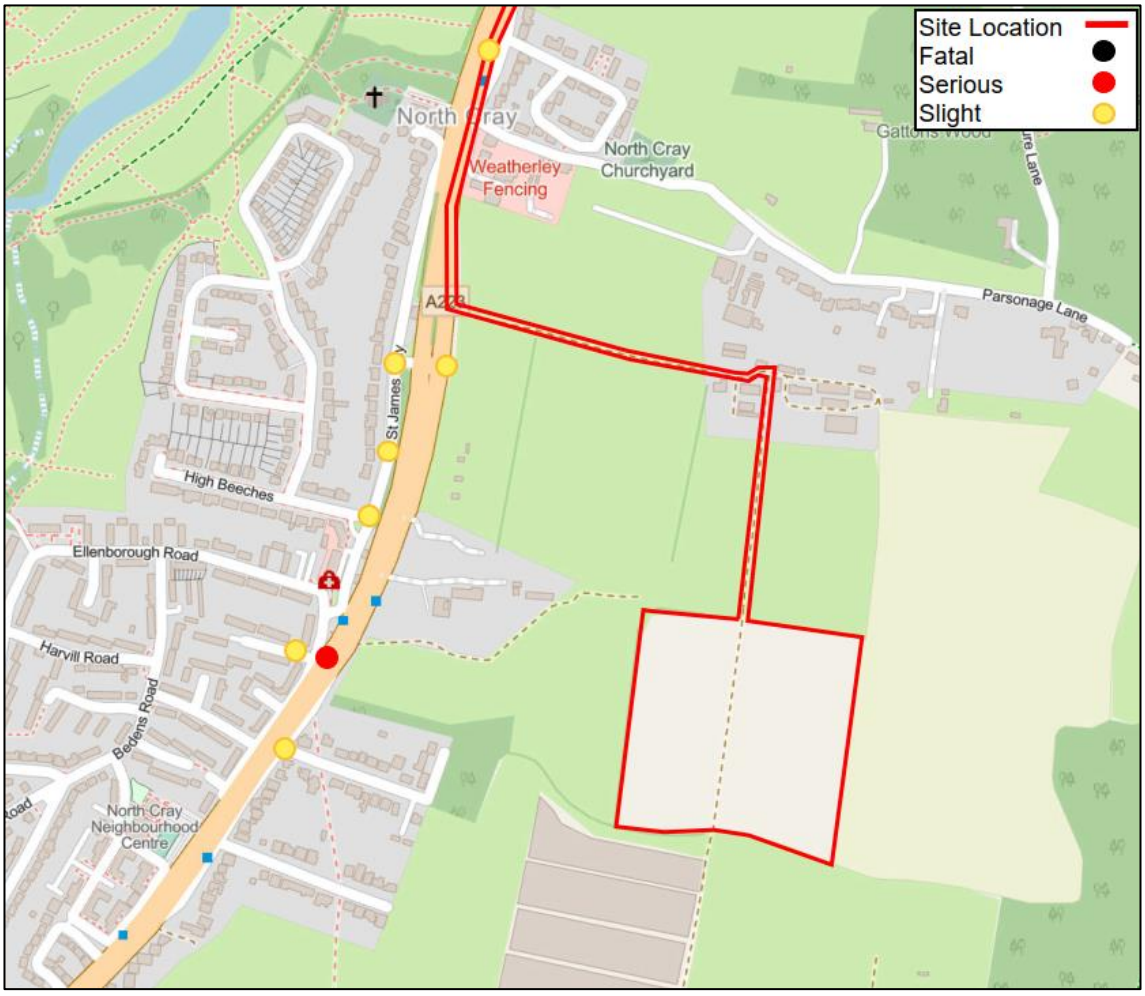
2.6.4 Further detail of the proposed construction vehicle routing is presented in **Chapter 3** of this report.

2.7 Highway Safety

2.7.1 Personal Injury Collision Data has been reviewed using Transport for London's (TfL) Collision Data for the most recently available five year period (1st October 2019 – 30th September 2024) for the area surrounding the Site.

2.7.2 The accidents that were reported in the surrounding area are shown in **Figure 2.2** where amber markers indicate slight severity incidents and red markers indicate serious severity incidents. There were no reported fatal incidents within the study period.

Figure 2.2: Reported Accidents within the vicinity of the Proposed Development (2019-24)



Source: Transport for London Collision Data (online)

2.7.3 **Figure 2.2** shows that there were no reported accidents on North Cray Road (the access road running east-west) in the vicinity of the Site, or at the junction between the access road and A223 North Cray Road.

2.7.4 During the five-year study period, there were four accidents reported on A223 North Cray Road, three of which were of slight severity and one was serious. There were also three slight severity accidents reported on St James Way and one slight accident on Ellenborough Road.

2.7.5 For reference, only one of the accidents occurred in 2023 and one in 2022, with the other incidents all occurring prior to this.

2.7.6 Given the low frequency of reported incidents and their distribution, it is not considered that there are any existing highway safety patterns associated with the local highway network in the vicinity of the Site.

3 Access and Routing Strategy

3.1 Overview

3.1.1 The construction phase of the Proposed Development is expected to last for approximately 12 months. During this period, initial Site setup works will take place, followed by construction of the internal access route(s), groundworks, the installation of the ESS and other infrastructure.

3.1.2 Facilities will be provided on Site for construction workers, including provision of a Site office and welfare facilities including toilets, changing and drying facilities. Fencing will be installed around the perimeter of the Site and temporary parking will be provided on Site for construction staff.

3.2 Access

3.2.1 It is proposed that the land forming the Site will be accessed via North Cray Road, using the existing farm access where it meets the A223 North Cray Road approximately 350m west of Manor Farm.

3.2.2 As mentioned previously, the A223 North Cray Road / North Cray Road access junction is configured as a LILO, with short diverge and merge tapers leading to and from the junction. As such, all construction vehicles will approach the Site from the north and turn left onto North Cray Road. When leaving the Site, all construction vehicles will turn left to rejoin the A223 North Cray Road heading south.

3.2.3 The existing LILO junction already caters for vehicle movements to/from the existing farm, which will include a mix of agricultural and large vehicles, as well as cars and LGVs. Notwithstanding this, some localised over-running of the kerbs and verge has been observed (see **Figure 3.1** below).

Figure 3.1: Existing Site Access – A223 North Cray Road / North Cray Road

Source: Mott MacDonald, 3rd February 2025

3.2.4 The largest vehicle that will require access to the Site will be an articulated HGV, up to 16.5m in length. In addition, rigid bodied HGVs up to 10m in length such as a large tipper will also require access. No abnormal loads are expected.

3.2.5 As such, swept path analysis has been carried out for the large tipper and articulated HGVs turning left in and left out of the North Cray Road access junction, and localised widening of the junction is proposed to accommodate these vehicle movements. In all cases, the swept paths assume that the HGVs will only use the nearside southbound lane (Lane 1) of A223 North Cray Road and the slip road approaches, rather than using a wider swing and encroaching into the offside southbound lane (Lane 2). The swept path analysis and proposed amendments to the A223 North Cray Road / North Cray Road junction are shown at **Appendix B**.

3.2.6 All construction vehicles will be able to turn around within the Site, ensuring that they will be able to enter and exit the Site in forward gear.

3.2.7 It is proposed that a banksman, with radio, will be present at the entrance to the Site or along the Site access road throughout construction working hours. The banksman will liaise with the construction team and delivery drivers to ensure vehicles enter and exit the Site appropriately and proceed to the relevant location(s), as required.

3.2.8 This will include monitoring time bookings for deliveries, to ensure that HGVs arriving to / departing from the Site do not meet one another along the access road. When a HGV is scheduled to arrive at the site, any outbound vehicles from the Site (including Manor Farm) will be held so

that the inbound vehicle can turn left onto the access road and leave the A223 North Cray Road without obstruction. Once the inbound vehicle has navigated the junction between A223 North Cray Road and the North Cray Road access road, any outbound vehicles will be released.

3.2.9 New access tracks will be utilised to facilitate movement within the Site for construction and maintenance, where an existing track is not available. It is envisaged that topsoil layers will be excavated to expose a suitable base on which to build the track. The tracks will then be built up by laying crushed stone, rolled in layers.

3.2.10 Once operational, the Site will continue to be accessed from North Cray Road and space will remain within the Site for vehicles to turn around so they can enter and leave the Site in a forward gear. As set out further in **Chapter 4**, once the ESS becomes operational, the frequency of vehicle movements will be much lower than during the construction phase and the vehicle types would generally be limited to cars and LGVs, rather than HGVs.

3.3 Construction Routing

3.3.1 As discussed later within this document, the number of construction vehicle trips is expected to be quite limited and there should not therefore generally be a build-up of construction trips at any particular point in the programme or construction related traffic congestion.

3.3.2 The proposed routing of construction vehicles aims to:

- Minimise impacts by restricting construction traffic on some of the local roads, meaning that any construction related traffic impacts are reduced. This will be achieved by providing appropriate signage, briefing delivery drivers and deploying banksman, where necessary;
- Appropriately trained, qualified and certified banksman will be used to guide vehicles and co-ordinate activities such as unloading; and,
- Routing will be signed appropriately to the necessary standards.

3.3.3 Construction vehicle routing to / from the Site access is proposed via A223 North Cray Road. As mentioned, due to the LILO configuration of the existing A223 North Cray Road / North Cray Road access junction, all construction vehicles will approach the Site from the north and leave to the south.

3.3.4 The wider route for construction vehicles is proposed as follows:

- When approaching the Site, it is proposed that construction vehicles will utilise the A2, A2018 Old Bexley Lane, A2018 Dartford Road, A223 North Cray Road and North Cray Road; and,

- When leaving the Site, it is proposed that construction vehicles will utilise North Cray Road, A223 North Cray Road, A223 Edgington Way and A20 Sidcup By-Pass Road.

3.3.5 The routing arrangements outlined above will mean that construction vehicles will use different routes for approaching and leaving the site, connecting from M25 Junction 2 via the A2 when arriving and travelling toward M25 Junction 3 via the A20 when leaving the Site.

3.3.6 Should it be preferred for construction vehicles to approach and leave the Site using the same route, then roundabout junctions are present either side of the Site access on A223 North Cray Road as follows:

- Vehicles approaching from the south could u-turn at the A223 North Cray Road / London Power Tunnels roundabout, which is approximately 1.8km to the north of the Site access.
- Vehicles leaving towards the north could u-turn at the A223 North Cray Road / Maidstone Road / Sandy Lane / Edgington Way roundabout which is approximately 1km to the south of the Site access.

3.3.7 For reference, no existing restrictions have been identified along the proposed construction routes prohibiting or restricting HGV movements. A copy of the proposed construction routing plan is included in **Appendix C**.

4 Traffic Movements

4.1 Vehicle Classification

4.1.1 The vehicle types that will make up the construction traffic are detailed in **Table 4.1** below.

Table 4.1: Vehicle Types

Vehicle Types	Description
Light Vans	These vehicles will tend to be driven by individual contractors, typically during the final stages of construction and equipment installation. The vehicles will typically be 7.2m in length and 2.2m in width
Large Tippers (Rigid Bodied HGVs)	These vehicles will be used for the delivery of construction materials and plant. The vehicles will typically not exceed 10.2m in length and 2.5m in width
Articulated HGVs	These vehicles will be used for the delivery of larger construction materials and plant. The vehicles will not exceed 16.5m in length and 2.5m in width

4.1.5 No abnormal loads are anticipated. Should the need for an abnormal load arise during the construction period, the highway authority and police shall be notified, and appropriate arrangements will be made to facilitate the trip(s) to / from the Site.

4.2 Operational Traffic Movements

4.2.1 Once operational the ESS will be expected to generate approximately two maintenance visits per month, by a 4x4 or small van (LGV). In the event that a new or replacement item of equipment were to be brought to the Site, it is estimated that 1 HGV trip may occur per annum. It is anticipated that the frequency of the operational traffic movements would be similar to that of the existing agricultural uses.

4.2.2 As stated previously, no abnormal loads are anticipated.

4.3 Construction Traffic Movements

4.3.1 The delivery of equipment and plant to Site will be spread throughout the construction programme. It is anticipated that there will typically be 2 HGV deliveries per day, comprising 1 rigid bodied HGV and 1 articulated HGV, spread throughout the construction programme. This would generally be equivalent to 10 HGVs per week, and would not be expected to exceed 10 HGVs on any single day.

4.3.2 Additionally, up to a maximum of 50 staff / contractors may be on Site at peak times during construction. Staff will be encouraged to travel together by mini-bus or car sharing where possible, otherwise by car or light vans, typically arriving in the morning and leaving in the evening.

4.3.3 All construction vehicles will access the Site via the existing access discussed previously and then park in an allocated area on Site.

4.3.4 No parking of Site related vehicles, such as staff transport, will be permitted off-site on the highway network, with all such vehicles accommodated within the Proposed Development.

4.4 Hours of Construction Traffic and Delivery Vehicles

4.4.1 As presented at **Section 2.4**, normal construction activities will occur between 07:30 – 18:30 Monday to Friday and 08:00 – 13:00 on Saturdays.

4.4.2 Given that the number of construction vehicle trips will be quite limited, as presented above, there should not generally be a build-up of trips at any particular point in the programme and as such, it is not proposed that further time restrictions will be applied, for example, in respect of timed deliveries.

4.5 Vehicle 'Muck' Control

4.5.1 In order to prevent mud on vehicle tyres and wheels migrating onto the adjacent highway, facilities will be put in place to mitigate this.

4.5.2 A wheel-wash facility will be provided on Site to ensure that vehicles leaving the Site do not carry 'muck' off-site, onto the local highway network.

4.5.3 Additionally, at the start of the construction process, any vegetation shall be removed from the centre of the North Cray Road access road carriageway, the verges along the access road will be cut back and the surfacing improved along the access road to limit any verge over-running within the Site.

4.5.4 During construction, the Site team will arrange for a sweeping vehicle to visit the Site and the North Cray Road access road, should debris need to be cleaned during the construction process.

4.5.5 Should sweeping of the public highway network be required during construction, liaison with the local highway authority shall take place so that this can be arranged, as appropriate.

4.6 Off-Site Highway Works to Facilitate Construction

4.6.1 As discussed, the development is proposed to be accessed using the existing North Cray Road access which serves Manor Farm. It is proposed that the access junction will be locally widened to improve the turn in and turn out arrangements for large vehicles.

4.6.2 Should any related works be required to be undertaken in the highway, then the mechanism for agreeing and implementing this will be discussed with the local highway authority in due course.

5 Construction Traffic Management

5.1 Construction Phase Mitigation Measures

5.1.1 The proposed mitigation measures to be implemented during the construction period are set out in **Table 5.1** below:

Table 5.1: Proposed Construction Phase Mitigation Measures

Measure	Proposed Mitigation
Implement a Traffic Management Group (TMG)	A TMG will be established on Site to implement and monitor the Construction Traffic Management Plan (CTMP). The TMG will be active over the lifetime of the construction of the scheme.
Site Access	As detailed within this report, an existing access will be improved and utilised for all construction vehicle movements to / from the Site.
Overhead Cables and Overhanging Trees	In some cases, existing overhead cables pass over or near to the proposed access route and there may be overhanging trees / vegetation along the proposed construction vehicle route. No existing height restrictions have been identified and abnormal loads are not proposed, so it is expected that general maintenance / trimming should be sufficient to ensure that the route is available for the construction vehicles. Notwithstanding this, the Site team shall review the route prior to the construction works starting and liaise with the local authority / landowners regarding any trimming or maintenance that may be required. The Site team will also liaise with the delivery drivers in advance to ensure tall vehicles do not exceed the clearance height available.
Banksman	Banksman will be provided on Site and will use radios to communicate with construction vehicle drivers to help manage vehicle movements.
HGV Booking System	A booking system will be used by the construction team, which will allow HGV 'slots' to be booked to avoid HGVs attempting to enter and exit the Site at the same time. The Site banksman will work with the construction team and HGV drivers to manage these arrangements. For example, an HGV would be held on Site if another HGV was approaching to ensure that the two vehicles do not meet on the access road / approach to the Site.
Management of traffic flows	North Cray Road currently serves Manor Farm and as such, will be utilised by a mix of agricultural and large vehicles, as well as cars and LGVs, albeit in limited numbers. As a single track road, the introduction of construction traffic to this road during the temporary construction period will lead to increased occurrences where vehicles may meet one another along the access road. Should the flow of vehicles along the North Cray Road access need to be managed to help avoid inbound vehicles meeting outbound vehicles in the vicinity of the access road junction with the A223 North Cray Road, the following measures will be implemented:

Measure	Proposed Mitigation
	- Construction HGVs will be allocated arrival times, with other construction vehicle movements timed to avoid the arrival of the construction HGVs (as noted previously, typically there will be 2 construction HGV deliveries to Site per day) - If a construction HGV is due to arrive at the Site, outbound vehicles (including construction vehicles and those associated with Manor Farm) shall be held on Site until the inbound vehicle has arrived
PRoW Management	There are no PRoWs within the land forming the Site.
Staff Parking	Staff parking will be provided on Site.
Use of preferred construction routes	Preferred construction routes shall be used, as set out within this CTMP. The associated routing plan shows the access point to / from the local highway network.
Signage	Temporary signs will be installed along the construction route, including at the Site access, to alert road users to the construction activities and potential presence of construction vehicles.
Temporary Traffic Management Procedures (TTMP)	No temporary traffic management measures are currently anticipated, and no roads are expected to need to be closed during construction. Should the need for traffic management arise, the local highway authority will be contacted to confirm the form of and arrangements for any associated measures.
Limit maximum vehicle size	The maximum vehicle size based on the vehicle tracking assessment is an articulated HGV (16.5m in length). No abnormal loads are anticipated.

Source: Mott MacDonald

5.2 Road Closures and Traffic Diversions

5.2.1 There are no anticipated road closures or traffic diversions during the proposed construction period.

5.3 Signage

5.3.1 Access to all PRoWs and roads will be retained throughout the construction and completion of the Proposed Development, however, signs alerting users of the highway to the construction activities will be put in place.

5.3.2 In order to maintain the signage, a weekly inspection will be carried out by the Site supervisor.

5.4 Security and Fencing

5.4.1 The first phase of the construction works will include the erection of security fencing around the perimeter of the Site.

5.4.2 Once the ESS becomes operational, the outer edges of the Site will be surrounded by a 2.4m high palisade fence. CCTV cameras will be provided around the Site perimeter to enable remote monitoring of the Site and the equipment.

5.5 Contact with Residents

5.5.1 Local residents will be informed of the construction works and the duration of the project. Should residents wish to obtain further information or raise an issue, Firstway Energy can be contacted directly using the contact details included earlier in this document until such time as the Project Manager is appointed and those details are available.

5.5.2 A record will be kept of any associated communications.

6 Summary

6.1.1 Mott MacDonald has been appointed by DWD (on behalf of Net Zero Thirty Two Limited and Firstway Energy) to prepare this Construction Traffic Management Plan in respect of the forthcoming planning application to deliver the proposed North Cray Road Energy Storage System.

6.1.2 Access to the Site is proposed to be provided via the existing farm access along North Cray Road, to the east of the A223 North Cray Road. It is proposed that the access will be locally widened to cater for the manoeuvres of construction HGVs and a plan showing the proposed improvements is included with this report.

6.1.3 The Proposed Development is expected to generate a limited number of vehicles once the Site becomes operational, and similarly, only a limited number of vehicle trips during the construction phase.

6.1.4 During the 12 month construction programme, vehicle movements are typically expected to comprise of 1 rigid bodied HGV and 1 articulated HGV each day. In addition, up to a maximum of 50 staff / contractors are expected to be on Site during construction, typically arriving in the morning and leaving in the evening each day by mini-bus or car sharing, where appropriate.

6.1.5 Swept path analysis for the HGVs entering and exiting the Site has been prepared and is included with this report.

6.1.6 This CTMP presents the framework strategy and mitigation measures proposed to be used during the construction of the proposed scheme. The document can be updated following the grant of planning permission and prior to construction works starting, as required, to reflect the final agreed strategy and any associated measures.

6.1.7 In light of the above, it is considered that sufficient information is provided within this CTMP to support a positive transport recommendation for the Proposed Development, on the basis that all transport matters can be appropriately managed.

A. Proposed Site Layout

A0

Revisions:

Revision	Date	Revision Notes	Drawn	Inspected
01	16.01.25	First Issue	CS	JH
02	20.01.25	Revised Substation	CS	JH
03	27.02.25	Layout Updated	CS	JH
04	04.03.25	Layout Updated	HL	JH
05	26.03.25	RLB & Access Amended	CS	JH
06	31.03.25	RLB & Access Amended	CS	JH

LEGEND:

- PLANNING APPLICATION BOUNDARY
- WATERCOURSE
- MAINTENANCE ACCESS
- SITE ACCESS
- EMERGENCY ACCESS
- DNO ACCESS
- SECURITY FENCELINE
- ELE — HV 132kV OVERHEAD ELEC CABLE 132kV ELE — HV 132kV —
- ELE — HV 33kV — OVERHEAD ELEC CABLE 33kV — ELE — HV 33kV —
- ELE — HV — ELE OVERHEAD ELEC CABLE 11kV — ELE — HV — ELE
- GAS — GAS — GAS — MEDIUM PRESSURE GAS — GAS — GAS — GAS —
- TEL — TEL — TEL — BT TELECOMS — TEL — TEL — TEL —
- ELE — HV — ELE — UNDERGROUND ELEC CABLE — ELE — HV — ELE
- ELE — HV 33kV — UNDERGROUND ELEC CABLE 33kV — ELE — HV 33kV —

SITE INFRASTRUCTURE:

- SECURITY GATE
- 132kV SUBSTATION
- CCTV CAMERA
- DNO CONTROL ROOM
- TWIN SKID (TX)
- 240,000l WATER TANK & PUMP
- ESS UNIT
- SCS INVERTER
- ESS INTERFACE CABINET
- 40FT STORAGE CONTAINER
- CUSTOMER SWITCHROOM
- 40FT WELFARE OFFICE
- WATER HYDRANT

VEGETATION:

- CATEGORY A TREE GROUP
- CATEGORY B TREE GROUP
- CATEGORY C TREE GROUP
- BRANCH SPREAD
- ROOT PROTECTION AREA (RPA)
- FIRST SIGNIFICANT BRANCH DIRECTION

PL-02

N

1 NORTH CRAY ROAD - PROPOSED SITE LAYOUT PLAN (OVERALL)

Scale: 1:2500@A0

0 50 100 150 200 250m

SCALE 1:2500

Project:

North Cray Road

North Cray Road ESS
Sidcup, DA14 5HE

Applicant:

Net Zero Thirtytwo Limited

Net Zero Thirtytwo Ltd
Foresters Hall,
25-27 Westow Street,
London, SE19 3RY

Tel: +44 (0) 2071172077
Mob: +44 (0) 7737651384

Drawn by:

CADmando
2D , 3D CAD & BIM SERVICES

CADmando Design & Draughting Solutions Ltd
Unit B2, The Courtyard, Severn Drive, Tewkesbury Business Park, GL20 8GD

Tel: +44 (0) 1684 850019
Mob: +44 (0) 7814436910

Status:

PLANNING

Drawing Title:

North Cray Road Sidcup ESS
Proposed Site Layout Plan (Overall)

Drawn:	Checked:	First Issued:
CS	JH	16.01.2025

Project Code: **FST029-** Drawing Number: **PL-01**

Sheet Size:	Scale:	Revision:
A0	**1:2500**	**06**

B. Swept Path Analysis and Proposed Site Access Layout

Project Title
Sidcup ESS
North Cray Road

Sidcup ESS - North Cray Road
Site Access
Vehicle Tracking - Large Tipper Towards Site

Reference Drawings
Topo: 13473-1 - Received 23.01.2025
Site Plan: FST029-MASTER XREF - Received 01.04.2025

MOTT MACDONALD

Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

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1:500 0 25m 50m

Project Title
Sidcup ESS
North Cray Road

Sidcup ESS - North Cray Road
Site Access
Vehicle Tracking - Articulated Vehicle Towards Site

Reference Drawings
Topo: 13473-1 - Received 23.01.2025
Site Plan: FST029-MASTER XREF - Received 01.04.2025

MOTT MACDONALD

FTA Design Articulated Vehicle (2016)

Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	6.600m

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1:500

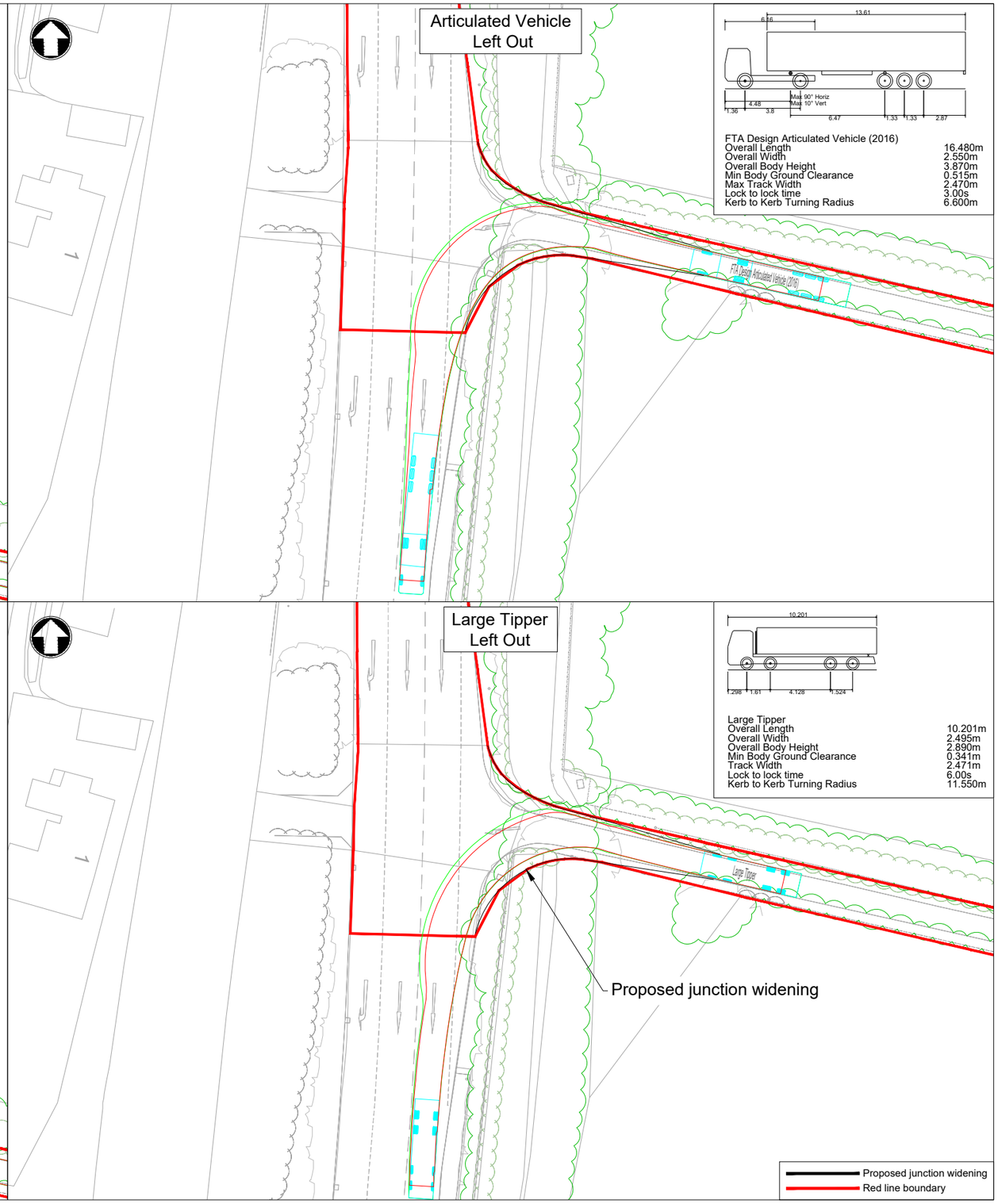
0 25m 50m

Project Title
Sidcup ESS
North Cray Road

Sidcup ESS - North Cray Road
Site Access
Vehicle Tracking - A223 North Cray Road Turn In / Out

Reference Drawings
Topo: 13473-1 - Received 23.01.2025
Site Plan: FST029-MASTER XREF - Received 01.04.2025

MOTT MACDONALD



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1:500 0 25m 50m

Project Title
Sidcup ESS
North Cray Road

Sidcup ESS - North Cray Road
Site Access
A223 North Cray Road - Proposed Junction Widening

Reference Drawings
Topo: 13473-1 - Received 23.01.2025
Site Plan: FST029-MASTER XREF - Received 01.04.2025

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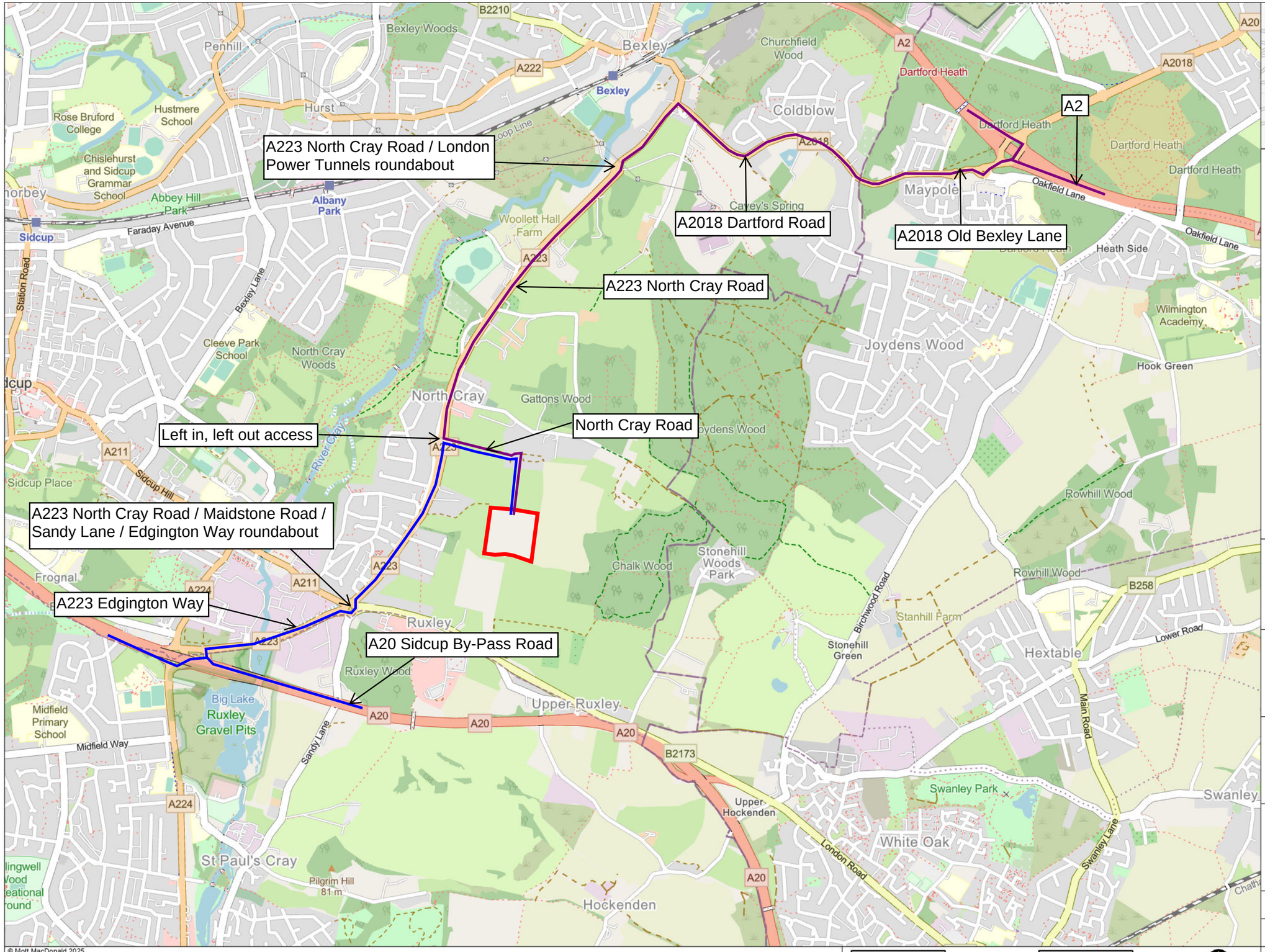
1:250 0 12.5m 25m

C. Construction Vehicle Routing



Site Location
Route from the north
Route to the south

Coordinate system: British National Grid; Datum: OSGB 1936

Data sources: Esri UK, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS, Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

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North Cray Road
Proposed Construction Route

Drawn	GIS Checked	Checked	Approved
L Denness	C Romain	C Cole	C Romain
Scale at A3	Status	Revision	Security
1:19,738	INF	01	STD

North Cray Road