Onshore Cable Route

Construction Artificial Lighting Emissions Plan

DCO Requirements 23 (1) & 22(2)(f)

Applicable to Work Numbers 5B to 20, 25 to 38, 41 to 49 and 52 to 61

Prepared by:	Checked by:	Approved by EATL:	Approved by NKT:
Digitally signed by Kay Griffin DN: cn=Kay Griffin, c=GB, o=SLR Consulting, email=kgriffin@slrconsulting.com Date: 2024.02.01 08:30:33	John Dunlop Digitally signed by John Dunlop DN: cn=John Dunlop , c=GB, o=SPR, ou=Offshore development , email=jdunlop@scottishpower.com Date: 2024.02.01 14:01:04	Digitally signed by Marta Menchi Rogai DN: cn=Marta Menchi Rogai, c=GB, email=mmenchi@scottishpower.com Date: 2024.02.05 09:38:29	Stuart Graham Digitally signed by Stuart Graham DN: cn=Stuart Graham, c=GB, email=Stuart.graham@nkt.com Reason: I have reviewed this document Date: 2024.02.08 10:54:18

Revision Summary					
Rev	**Date**	**Prepared by**	**Checked by**	**Approved by EATL**	**Approved by NKT**
1	31/08/21	Kay Griffin	Phil Rew Williamson	Catherine Sibley	-
2	17/07/23	Kay Griffin	Terence Epo	Catherine Sibley	-
3	27/11/23	Kay Griffin	John Dunlop	Marta Menchi	David Fryett
4	31/01/24	Kay Griffin	John Dunlop	Marta Menchi	Stuart Graham

Description of Revisions			
Rev	**Page**	**Section**	**Description**
1	All	All	New Document
2	All	All	Amended in accordance with Consultee comments on Interim Draft and in accordance layout design information
3	12, 14, 15, 16	6, 8.2, 8.2.1, 10	Amended in accordance with Consultee comments: MSDC (09/08/23 and 15/08/23) and SCC (23/08/23)
4	14	8.2	Paragraph 69 - removal of word 'generally' with respect to "the lux level of the lighting at ground level at the highway boundary shall not ~~generally~~ exceed 1 lux".

TABLE OF CONTENTS

FIGURES

1. INTRODUCTION AND SCOPE

1.1. Project Overview

1. East Anglia Three Limited (EATL) was awarded a Development Consent Order (DCO) by the Secretary of State, Department of Business, Energy & Industrial Strategy (DBEIS) on 7 August 2017 for the East Anglia THREE Offshore Windfarm (EA THREE). The DCO granted consent for the development of a 1,200MW offshore windfarm and associated infrastructure.

2. The DCO has now been subject to three non-material variations:

- In March 2019 EATL submitted a non-material change application to DBEIS to amend the consent to increase the maximum generating capacity from 1,200MW to 1,400MW and to limit the maximum number of gravity base foundations to 100. In June 2019 DBEIS authorised the proposed change application and issued an Amendments Order.
- In July 2020 EATL submitted a second non-material change application to DBEIS to amend the parameters of its offshore substations (reducing the number of these to one) and wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). On 15 April 2021 DBEIS authorised this proposed change application and issued an Amendments Order.
- In August 2021 EATL submitted a third non-material change application to DBEIS to amend the consent to remove the maximum generating capacity of 1,400MW and to amend the parameters of its wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). In September 2022 DBEIS authorised the proposed change application and issued an Amendments Order.

3. The onshore construction works associated with EA THREE will have a capacity of 1,400MW and transmission connection of 1,320MW. The construction works will be spread across a 37km corridor between the Suffolk coast at Bawdsey and the converter station at Bramford, passing the northern side of Ipswich. As a result of the strategic approach taken, the cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE Offshore Windfarm (EA ONE), thereby substantially reducing the impacts of connecting to the National Grid (NG) at the same location. The infrastructure to be installed for EA THREE, therefore, comprises:

- The landfall site with one associated transition bay location with two transition bays containing the connection between the offshore and onshore cables;
- Two onshore electrical cables (single core);
- Up to 62 jointing bay locations each with up to two jointing bays;
- One onshore converter station, adjacent to the EA ONE Substation;
- Three cables to link the converter station to the National Grid Bramford Substation;
- Up to three onshore fibre optic cables; and
- Landscaping and tree planting around the onshore converter station location.

4. Since the granting of the DCO, the decision has been made that the electrical connection for EA THREE will comprise a high voltage direct current (HVDC) cable rather than a high voltage alternating current cable and, therefore, the type of substation that will be required is a HVDC converter station. The substation will be referred to here as a 'converter station' and this amended terminology has been agreed with the relevant authorities on 15 October 2020. It has also been determined that only one converter station will be constructed rather than two and that the converter station will be installed in a single construction phase.

5. The EA THREE onshore works commenced development in July 2022, with works at the Converter Station, Paper Mill Lane, Playford Corner and Clappits.

1.2. Purpose and Scope

6. This Construction Artificial Lighting Emissions Plan (CALEP) sets outs mitigation measures to be applied to the construction activities being undertaken as part of EA THREE onshore cable route to reduce the potential for significant impacts from light emissions. This document has been produced to fulfil DCO Requirements 23 (1) and 22 (2) (f) which state:

23. (*1) No stage of the connection works may commence until written details of any external lighting to be installed in connection with that stage (which includes any relevant measures identified in the artificial light emissions plan contained in the outline code of construction practice), including measures to prevent light spillage, have, after consultation with the highway authority, been submitted to and approved by the relevant planning authority; and any approved means of lighting must be installed in accordance with the approved details and retained for the duration of the construction period for that stage.*

22. *(2) The code of construction practice must include-*
(f) artificial light emissions plan;

7. The scope of this document relates to the CALEP associated with the construction of the onshore cable route that runs from the landfall location at Bawdsey to the Converter Station works located near Bramford, Suffolk. These works comprise Work No.s 5B to 61 (See Figure 1 Site Context Plan). as defined in the EA THREE DCO. The Requirement Discharge Documents (RDDs) relating to the construction and installation of cable route infrastructure within the Clappits Works Stage (Work No.s 21 to 24), Playford Corner Works Stage (Work No.s 39 and 40), Paper Mill Lane Works Stage (Work No.s 50 and 51) and Converter Station Stage (Work No.s 62 to 69) have previously been discharged. For the sake of completeness and to provide a suite of comprehensive RDDs for use by the Principal Contractor for the cable route (NKT), the infrastructure and activities that fall within these areas and the associated management measures for these will also be addressed in this document. Nevertheless, this document seeks only to discharge this Requirement with respect to Works No.s 5B to 20, 25-38, 41-49 and 52 -61.

8. The purpose of this CALEP is to ensure that the construction activities for the EA THREE onshore cable route comply with relevant European and UK legislation, DCO conditions, environmental commitments as set out in the Environmental Statement (ES), and environmental and construction best practice.

9. The measures contained herein shall be adhered to by the Principal Contractor (and their subcontractors) and the implementation and compliance will be monitored by the Construction Management Team. These measures will only be revised with the agreement of Mid Suffolk District Council (MSDC) and East Suffolk Council (ESC).

2. ABBREVIATIONS

AONB	Area of Outstanding Natural Beauty
BCT	Bat Conservation Trust
CALEP	Construction Artificial Lighting Emissions Plan
CLO	Community Liaison Officer
DBEIS	Department of Business, Energy and Industrial Strategy
DC	Direct Current
DCO	Development Consent Order
EA ONE	East Anglia ONE Offshore Windfarm
EA THREE	East Anglia THREE Offshore Windfarm
EATL	East Anglia THREE Limited
EnvCoW	Environmental Clerk of Works
EPS	European Protected Species
ES	Environmental Statement
ESC	East Suffolk Council
GCN	Great crested newts
HSE	Health and Safety Executive
HVDC	High Voltage Direct Current
ILP	Institution of Lighting Professionals
LED	Light emitting diode
MSDC	Mid Suffolk District Council

MW	Megawatt
NG	National Grid
OPALEP	Operational Phase Artificial Lighting Emissions Plan
PRoW	Public Rights of Way
SCC	Suffolk County Council
W&CA	Wildlife and Countryside Act 1981 (as amended

3. CONSTRUCTION DETAILS

3.1. Construction Overview

10. The construction works will be undertaken across a 37km corridor between the Suffolk coast at Bawdsey and the Converter Station at Bramford, passing the northern side of Ipswich. The cables are to be installed through pre-installed ducts, laid during the onshore construction works for the EA ONE project. Construction has started on the cable route at three locations where Construction Consolidation Sites (CCS) will be located, at Playford, Paper Mill Lane and Clappits. This next phase of the construction works are expected to begin in Spring 2024 with an expected completion in December 2025. The construction activities within the onshore cable route will be as follows:

- Any minor temporary modifications to the public road network.
- Establish 3 additional CCS (approximate duration of 6 weeks for the establishment of each CCS).
- Establish 29 accesses from the public highway. These may require Section 278 Agreement with the Local Highways Authority.
- Establish up to circa 12.7km of stone haul road to access the jointing bay locations from the access points;
- Install 6.4km of proprietary trackway system to reach, *inter alia,* both ends of each Horizontal Directional Drill (HDD). HDDs will be accessed by proprietary trackway system from the jointing bay hardstandings or access points to allow each HDD to be proved.
- Establish 29 temporary jointing bay compounds (including 2 transition jointing bays) (approximate duration of 2 weeks for each compound).
- Excavation of jointing bay pits to locate the existing ducts at each jointing bay location (approximate duration of 3 weeks for each jointing bay location);
- Construct jointing bays (approximate duration of 3 weeks for each jointing bay).
- Transport of cables to site, from designated port to an off-site cable storage location and on to the jointing bay locations.
- Duct proving along the cable route.
- Pull cables through ducts and undertake jointing (approximate duration of 3 weeks per location).
- Backfill and reinstatement of jointing bays (approximate duration of 2 weeks).
- Remove temporary jointing bay hardstandings / compounds and CCS Compounds, haul roads, trackmatting and access points.
- Reinstate all disturbed land, permanent fences, replacement hedges and vegetation with suitable hedgerow species, during the first appropriate planting season.

11. The layout of the above infrastructure is shown in Figure 1 Site Context Plan. The locations of the soil bunds are currently indicative and may be moved within the previously disturbed areas, following agreement with EATL, the Ecological Clerk of Works (EcoW) and the Archaeological Consultant. Similarly, the stone haul road/ trackway may also be moved laterally within a distance of +/-5m, following agreement with EATL, the ECoW and the Archaeological Consultant. Currently 12.7km of stone haul road and 6.4km of proprietary trackway are proposed, however it may be possible to reduce further the quantity of stone haul road required by using trackway where practicable. The use of trackway is less invasive (being placed directly on the topsoil) and requires fewer HGV movements. EATL commits to consulting MSDC, ESC and SCC (as applicable) with regards to any changes to the layout, should the design change significantly (e.g. changes to: highway access routes including access routes into and along the cable corridor; number of jointing bays; and anything that potentially requires archaeological assessment and mitigation).

12. Circa 8 teams of 5 workers will work in parallel across the cable route, installing the infrastructure at each location.

13. Temporary modification of the existing road networks may be required, such as localized widening, socketing of street signs and temporary moving of street furniture to allow the passage of larger HGVs, as set out in the Access Management Plan (EA3-LDC-CNS-REP-IBR-000079). This will be undertaken prior to construction commencing within relevant sections of the cable corridor route.

3.2. Construction Consolidation Sites (CCS)

14. The installation of the cable will require two 'Primary Construction Consolidation Sites' (PCCS) and four 'Secondary Construction Consolidation Sites' (SCCS), as set out in Table 3-1. All the proposed CCS will be within areas that were previously used for the EA ONE construction works.

Table 3-1 – Construction Consolidation Site Locations

CCS Type	Address	Dimensions (m^2)	Comments
Primary	Paper Mill Lane, Claydon, Ipswich, Suffolk IP6 0AP	3,577	Installed 2022 HGV turning area and parking 1,750m^2
Primary	Top Street, Martlesham, Suffolk IP12	3,572	HGV turning area and parking x 1,400m^2
Secondary	Bullen Lane, Bramford, Ipswich, Suffolk IP8	1,200	
Secondary	Playford Corner, Playford Mount, Ipswich, Suffolk IP6 9DS	581	Installed 2022
Secondary	Clappits, Woodbridge Road, Newbourne, Woodbridge, Suffolk IP12 4PA	1,185	Installed 2022/2023
Secondary	Landfall, Ferry Road, Woodbridge, Suffolk, IP12 3AS	1,200	Installation and use of CCS to be undertaken using Permitted Development Rights

15. As shown in Table 3-1, the dimensions of the CCS will be in accordance with Part 3, Requirement 12(9) of the DCO which limits the size of the PCCS to 3,600m^2 and the SCCS to 1,200m^2.

16. The PCCSs will:

- Provide areas for the storage of materials and equipment;
- House site administration and welfare facilities for the labour resources;
- Form an interchange hub for deliveries of material, equipment and resources; and
- Allow HGVs to park prior to entering the local road network during peak hours.

17. The SCCSs will function as hubs for distribution along the cable route and will include welfare facilities with some limited storage of materials and equipment. SCCS may also include site offices.

18. The Paper Mill Lane PCCS will be the main administrative compound for the onshore works. Top Street PCCS and Landfall SCCS also include designated office space.

19. The CCS will be constructed as follows:

- Mark out the extent of CCS with use of Global Positioning Systems (GPS) Real Time Kinematic (RTK) setting out equipment;
- Set out and install drainage features as required. Any encountered existing field drains will be located, capped or diverted to areas where any outfall can be managed in accordance with the Surface Water and Foul Drainage Management Plan (EA3-LDC-CNS-REP-IBR-000081);
- Erect security fencing around the perimeter of CCS;
- Excess vegetation to be removed from soil and from site prior to soil stripping. Strip topsoil under conditions where the topsoil is within its plastic limit with regards to moisture content to minimise damage to the soils structure and texture and store in designated areas within the same field boundary, all in accordance with BS3882, British Standard Topsoil and the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009). The removed vegetation will be either disposed of offsite or used on site for weed suppression in accordance with the correct licence/exemption;
- Excavate to formation level and store any excess material. Topsoil and subsoil storage bunds will be placed in bunds locally separately, the topsoil bund being seeded, if they are to be stored for longer than 6 months. Subsoil bunds will be kept weed free;
- Place imported stone in accordance with the CCS base structure design. Hardstandings will be installed in line with temporary works design assessments and may typically be circa 600mm thick;

- Install prefabricated site offices, meeting room and welfare facilities, where required.

3.3. Accesses, Stone Haul Roads and Trackway

20. Existing accesses and farm tracks will be used where possible (with reinforcement where necessary) to access the jointing bay and HDD locations. Circa 12.7km of 5m wide stone haul road will be installed, in accordance with the permitted 18.05km (as set out in Part 3, paragraph 12(12) of the DCO). In addition, 6.4km of proprietary trackway system will be used to access, *inter alia*, the HDD proving locations. All tracks will, as far as reasonably possible, follow the track bed used for EA ONE.

21. There will be several HGV turning points and passing bays along the stone haul road and trackway. These are to provide HGVs with a safe location to turn round after driving onto the easement from the public highway and to reverse as short a distance as possible to the leading edge of the haul road/trackway construction. Over longer lengths of haul road/trackway further HGV turning points will be constructed allowing the HGV to drive along the haul road/trackway and reverse shorter distances.

22. The routing of the stone haul road/ trackway will be set out using GPS RTK equipment. For trackway, the proprietary trackway matting would be installed directly on the existing topsoil. For stone haul road the construction will be as follows:

- Set out the site tracks with the use of GPS RTK equipment;
- Erect and maintain suitable signage and goal posts where the temporary road runs under overhead lines in accordance with HSE GS6 "Avoiding danger from overhead power lines;
- Set out and install drainage features along the edges of the length of road to be constructed. Any impacted existing field drains will be located, capped or diverted to areas where any outfall can be managed in accordance with the Surface Water and Foul Drainage Management Plan (EA3-LDC-CNS-REP-IBR-000081;
- Clear vegetation, strip topsoil and subsoil material for storage in separate designated stockpiles with suitable signage.
- Topsoil storage bunds will be stored locally and seeded if they are to be stored for longer than 6 months. Subsoil bunds will be kept weed free.;
- Excavate to formation level and store any excess material;
- Test the existing ground conditions to ensure suitability of the temporary works design and bearing capacity for the haul road and hard standing areas;
- Layers of stone and geotextiles/geogrid will then be placed on the cleared surface.

23. Based on the temporary works design and the soil bearing capacity, the 450mm thick stone haul road is likely to include one layer of non-woven geotextile and a layer of Geogrid 30/30 placed on the compacted sub-soil, with a second layer of geogrid 30/30 installed after 300mm of stone is place.

24. Where the stone haul road/trackway crosses over an existing watercourse, a flume will be installed temporarily to allow crossing of the watercourse and the continued flow of the watercourse beneath. When the watercourse is too wide to flume with a single board pipe, a proprietary bridge will be utilised. (See the Watercourse Crossing Method Statement (Appendix 12 of the Onshore Cable Route Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084).

3.4. Jointing Bay Compounds

25. 27 jointing bay compounds will be required, in addition to a compound for the 2 transition jointing bays at landfall. The jointing bay compounds will comprise hard standing to provide a working platform and to accommodate containers, drum trailer movement, parking, and welfare. The jointing bay compounds will have areas up to a maximum of 3,690m² (In accordance with Part 3 Requirement 12(11) which limits the area to 3,740m²). A typical layout is shown in Figure 2 of the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084).

26. Once the location of the jointing bay compounds has been established (using GPS RTK equipment), the creation of the compound will commence with erection of security fencing, removal of topsoil layer and installation of hard standing areas. The jointing bays (25m x 5m) will then be excavated to a depth of up to 2.5m with adequate slope batter or shoring on all sides of the excavation to prevent the soil from collapse. The existing ducts will be exposed and concrete slabs constructed to provide a level working area. Drainage channels and a sump pit will be included to facilitate drainage and dewatering. Installation and jointing of the cables will then take place before the earth link boxes and fibre optic boxes are installed and the area back filled with subsoil and Cement Bound Sand, as required.

27. Earthing link boxes will be installed within the cable system on every fourth jointing bay. All link boxes will be installed into a link box chamber that will be buried to below plough depth at a minimum of 1.2m, within the jointing bay.

28. To enable the fibre optic cable pulling through the already installed ducts, a pulling chamber will be installed at every jointing bay location. All cable joints, link boxes and pulling chambers will be buried to below plough depth of 1.2m.

3.5. Duct Proving

29. The ducts to be used for EA THREE, which were installed during the EA ONE project construction works, will require cleaning and proving to ensure that they are intact, free of debris and ready for cable installation. Cleaning and proving will be undertaken by using a foam sponge pig, driven under air pressure from jointing bay to jointing bay followed by drawing a brush and mandrill through from jointing bay to jointing bay.

30. Each set of HDD ducts will also require proving. A larger diameter duct was installed at the HDD locations than is used along the rest of the cable route. Therefore, an excavation (2m x 3m x 1.5m) will be made at each end of each of the HDD locations at the duct diameter transition location. The transition coupler will be removed before cleaning and proving the HDD ducts as described above.

31. The construction of the two transition jointing bays within the transition bay compound is addressed in the Landfall Method Statement (EA3-LDC-CNS-REP-IBR 000078) (Reference to jointing bays in the remainder of this document also includes transition bays). These works will use the adjacent SCCS, located off Ferry Road, Bawdsey.

3.6. Cable Pull-through

32. The HVDC cable wound drums will be transported from the docks to the cable drum storage location located in Kesgrave close to Ipswich. Cable drums will then be transported directly to the jointing bay compounds. Cable lengths are dependent on the distance between the jointing bays and are typically between 750m and 1950m in length. Before cable installation commences the cable ducts and communications ducts will be given a final clean through and proved by pulling through a sponge, brush and mandrill.

33. Installation of the cables into the ducts will begin with a cable pulling system being installed into the jointing bay. A steel bond and winching system with free spinning rollers will be installed along the bottom of the jointing bay. The cable will then be drawn off the lorry mounted cable drum using HGV hydraulic assist and cable winch & winch wire.

34. Pulling calculations have confirmed that mechanical cable pushers will be required to assist the cable pull in operation on several of the longer pull locations, where cable pushers will be installed within the jointing bay. A dynamometer will ensure the maximum calculated pulling tension of the cables is not exceeded. Tension on the cable will be reduced using a biodegradable water-based lubricant, for example, “Lubtec-HD” (as used on EA ONE). Once both HVDC cables have been installed, the cable will then be jointed within the jointing bay and tested before moving onto the next pair of cables along the route. This process will be repeated for each of the twenty-eight sections.

35. The pre-installed DTS fibre optic ducting will be proven by blowing a gauging steel ball bearing through the ducting joint bay to joint bay. The Communication fibre ducts will be proven by blowing a sponge pig through prior to installing the fibre optic cable. Fibre optic cables will then be blown through the ducted system from jointing bay to jointing bay. The blowing of fibre optic cables requires a highspeed air flow combined with a mechanical pusher.

36. It is expected that pulling and jointing operations at each joining bay would take approximately 2.5 weeks, typically spread over a three-to-four-week period, with a typically eight-person team installing the cables and a three-person jointing team.

3.7. Reinstatement

The jointing bay compounds, CCSs, accesses and stone haul roads will be reinstated and restored with the stored topsoil and subsoil in accordance with BS3882, British Standard Topsoil and the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009). Reinstatement will only take place under conditions where the topsoil is within its plastic limit with regards to moisture content to minimise damage to the soil’s structure and texture. If necessary, the subsoil will be ‘ripped’ under friable conditions prior to placement if compaction had occurred. Topsoil may also require ripping if compacted following the removal of the trackway. Topsoil will be spread in such a way as to ensure that it does not become compacted. Pasture and arable land will be reseeded as required, fences reinstated, and suitable hedgerow species replanted during the first appropriate planting season in accordance with the Landscape Management Pan (EA3-LDC-CNS-REP-IBR-000077).

3.8. Lighting During Construction

3.8.1. Overview

37. The majority of the construction activities will be conducted during daylight hours and will not require artificial lighting, unless daylight conditions are not sufficient for specific works to ensure safe working. It is anticipated that there would be some limited activities requiring work on a 24 hour basis, these works will require the use of artificial temporary lighting to ensure safe working. Artificial lighting will also be needed particularly during the winter months when daylight hours are shorter than the specified working hours.

38. The activities which may require temporary external artificial lighting at night, outside normal working hours, are:

- Continuous works, such as concrete pouring or testing and commissioning;
- Security purposes at the CCS and jointing bays;
- Delivery of abnormal loads;
- Potential emergency works;
- Cable pulling in at the landfall;
- Dewatering of excavations (if tankering is required); and
- Equipment such as stockpiles and emplacement areas, which will be carefully sited to ensure no light spillage.

39. The locations where activities that might require temporary construction lighting are described below and shown on Figure 1:

- Works at the jointing bays will only generally be undertaken during normal working hours. Jointing bay locations will only, therefore, require artificial lighting during times where natural light is not sufficient to carry out the works. There may, however, be a requirement for artificial lighting on emergency works, dewatering of excavations (if tankering is required) and also for security reasons for a short period (circa 3 weeks) following pull-through of the cable and prior to back-fill and reinstatement of the excavation. Lighting may also be required during pulling in of the cable at the landfall;
- At Primary CCS sites, there will be a 24 hour onsite security presence and, therefore, a need for artificial lighting for the duration of the works. At Secondary CCS sites, security will be 24 hour with limited lighting specific to compound offices and parking area. This will be programme dependant.

40. Lighting from these sources has the potential to have the following impacts:

- Intrusive lighting impacting nearby residents causing disturbance and annoyance, particularly with regard to sleep patterns;
- Impact on ecological sensitive receptors from light spill;
- Impact on visual amenity due to the illumination of the night sky; and
- Lighting on surrounding roads distracting passing motorists.

3.8.2. Types and Positioning Requirements

41. Lighting should be sufficient to enable people to work, use facilities and move from place to place safely and without experiencing eye-strain. Table 3-1, which has been adapted from Health and Safety and Executive (HSE) document Health and Safety Guidance 38 (HSG38) 'Lighting at Work' (1997), details the recommended minimum lighting levels for different types of work activity and location. It makes recommendations for average illuminance for the work area as a whole and for minimum measured illuminance at any position within it.

Table 3-1 Recommendations for Minimum Lighting Levels (adapted from HSE document HSG38 (Lighting at Work).

Activity	Typical locations/ types of work	Average illuminance measured (lux) 1x	Minimum illuminance measured (lux) 1x
Movement of people, machines and vehicles	Accesses, haul roads and vehicle compound/parking areas.	20	5
Background work including movement of people, machines and vehicles in hazardous areas; rough work not requiring perception of detail	Construction site clearance, excavation and soil work.	50	20
Task based lighting and work requiring limited perception of detail	Where specific work tasks are required to focus on a particular point or feature.	100	50

42. The artificial lighting required at the CCS, jointing bay locations and anywhere else if required in exceptional circumstances, along the cable route will comply with the minimum requirements for safe work operations, the guidance and standards (Section 6) and mitigation measures avoiding or minimising the impacts on sensitive visual and ecological receptors.

3.8.3. Hours of Lighting

43. The need for artificial lighting will be dependent on seasonality and will be switched on 30 minutes before sunset[1] (which will change through the winter) to the end of the shift. It will also be switched on at the start of the shift to up to 30 minutes after sunrise. Again, this is dependent on seasonality and will change through the winter months and with daylight savings adjustments. Temporary construction lighting will be also provided along the cable route during working hours only at times where natural light is not sufficient to carry out specific works to ensure safe working conditions.

44. Working hours will comply with DCO Requirement 25, which states:

Construction hours

> ***25***.—*(1) Construction work for the connection works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or bank holidays, except as specified in paragraph (2).*
>
> *(2) Outside the hours specified in paragraph (1), construction work may be undertaken for essential and non-intrusive activities including but not limited to:*
>
> *(a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring;*
>
> *(b) fitting out works associated with the onshore substation(s) comprised within Work No. 67;*
>
> *(c) delivery to the connection works of abnormal loads that may cause congestion on the local road network;*
>
> *(d) connection works carried out on the foreshore;*
>
> *(e) daily start up or shut down;*
>
> *(f) electrical installation; and*
>
> *(g) non-destructive testing.*
>
> *(3) All construction work undertaken in accordance with paragraph (2)(a) to (d) must be agreed with the relevant planning authority in writing in advance, and must be carried out within the agreed time.*

[1] As determined by the Met Office with respect to Ipswich
https://www.metoffice.gov.uk/weather/forecast/u12b4ht3f#?date=2021-05-24

45. Further information is provided in Section 5.5 of the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-00084).

46. There may be a requirement for artificial lighting on emergency works, which in any case will need to comply with the minimum requirements for safe work operations, the guidance and standards (Section 2) and mitigation measures avoiding or minimising the impacts on sensitive visual and ecological receptors.

47. At Primary CCS sites security will be 24 hour with lighting for the duration of the onshore construction works. This will comprise lighting at the security cabin and PIR motion sensitive lighting across the remainder of the CCS.

48. At Secondary CCS sites security will be 24hr with limited lighting specific to compound offices and parking area and will be required when the compound is in operation.

4. CONSTRUCTION ARTIFICIAL LIGHTING EMISSIONS PLAN GOVERNANCE

49. Prior to the commencement of construction, an Environmental Clerk of Works (EnvCoW) will be appointed by the Principal Contractor to manage *inter alia* the implementation of the CALEP. Contact details for the EnvCoW will be submitted to stakeholders for their records prior to commencement of construction.

5. LOCAL COMMUNITY LIAISON

50. EATL is committed to providing clear communication to local residents and will manage public relations with local residents and businesses. Proactive community liaison will be maintained, keeping local residents informed of the type and timing of the works involved. As outlined in the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084), a combination of communication mechanisms such as posters, notices, exhibitions, letters, newsletters, website updates and parish council meetings will be employed to keep local residents and businesses informed.

51. A designated EA THREE Community Liaison Officer (CLO) will manage and respond to any public concerns, queries or complaints in a professional and diligent manner as set out in the Community Liaison and Public Relations Procedure contained within the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084). The Complaints Procedure will be publicised and complaints will be directed to the EATL Community Liaison Officer. All enquiries will be logged, investigated and rectifying actions taken when deemed appropriate. Enquiries will be dealt with in an expedient and courteous manner. Details of complaints will be reported to MSDC, ESC and SCC within 48 hours.

52. Parish and Town Councils, District Councillors and County Councillors, including Ward Members and Portfolio Holders, in the area and the local liaison group will be contacted (in writing) in advance of the proposed works and ahead of key milestones in order to advise them of the ongoing works. The information provided will include a timetable of works, a schedule of working hours, the extent of the works, and a contact name, address and telephone number in case of complaint or query.

6. GUIDELINES AND STANDARDS

53. This CALEP has been developed in accordance with the following guidance and standards:

- Institution of Lighting Professionals (ILP), 2020, Guidance Note for the Reduction of Obtrusive Light, (ILP, 2020).
- British Standard BS EN 12464-2:2014 Light and lighting. Lighting of work places. Outdoor work places;
- British Standard BS 5489-1:2020 Code of practice for the design of road lighting. lighting of roads and public amenity areas;
- Health and Safety and Executive (HSE), Health and Safety Guidance 38 (HSG38) 'Lighting at Work' (HSE, 1997)
- Bat Conservation Trust (BCT), ILP (2023), Guidance Note 08/23 Bats and artificial lighting at Night, (BCT, ILP, 2023); and
- BCT Interim Guidance: artificial lighting and wildlife (BCT, 2014).

7. POTENTIALLY SENSITIVE RECEPTORS

7.1. Introduction

54. Potentially sensitive receptors that could be affected by temporary external artificial lighting during construction works include visual and ecological receptors. Identified receptors are shown on Figure 2 Potentially Sensitive Receptors to Construction Lighting.

7.2. Visual Receptors

55. There are very few potentially sensitive visual receptors in close proximity to the onshore cable route construction works. These include occupiers of residential properties, users of the outdoors and agricultural workers. A review to identify potentially sensitive receptors that could be affected by external artificial lighting has been undertaken and included as Figure 2. This has considered all buildings within 100m of the CCS and jointing bay locations.

56. Very few residential buildings are located within 100m of these locations, those that are present are at the edge of the 100m zone. At the identified distances, light intrusion/nuisance and, spill light are not considered to be significant. Light control measures with respect to visual receptors will therefore relate to limitation of light of bright luminaries in the field of view and also sky glow.

57. In addition to the above residential and recreation receptors there are Public Rights of Way as shown on Figure 2 Potentially Sensitive Receptors to Construction Lighting.

58. The landfall and jointing bays JB16/17 to JB 20/21 and JB 24/25 to 27/28 are within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) which is also considered to be a sensitive receptor. The AONB Management Plan (adopted 23 September 2020) states that "*The area's dark night skies are valued and protected*".

7.3. Ecological Receptors

59. Light spill and intrusive lighting from night-time works could potentially disturb ecologically sensitive receptors which includes nocturnal species. The key ecologically sensitive receptors from the construction artificial lighting emissions throughout the onshore cable corridor are considered to potentially comprise badgers, bats, otters, water vole, great crested newts and birds (breeding and non- breeding birds).

60. All species of British bat, and their roosts, are protected by the Wildlife and Countryside Act 1981 (as amended)(W&CA) extended by the Countryside and Rights of Way Act 2000. Bats are also European Protected Species (EPS) listed on the Conservation of Habitats and Species Regulations 2017 (as amended) making it an offence to injure, damage or disturb any individual bat or a roost. Different bat species vary in their sensitivity to lighting. Hedgerows, woodland and trees are used by bats for foraging, commuting and roosting. Light spillage has the potential to disrupt flight paths and foraging.

61. Badgers and their setts are protected from damage and disturbance under the Badger Protection Act (1992). Badger setts can be constructed in a range of habitats (woodland, hedgerows, grassland banks) and are particularly sensitive to light spillage. Badger sett locations are not shown on Figure 2 Potentially Sensitive Receptors to Construction Lighting due to the confidential nature of this information. This information is, however, shown on the constraints mapping included in the Onshore Cable Route Ecological Management Plan (EA3-LDC-CNS-REP-IBR-000089) which has a limited circulation for the same reason.

62. Otter are a European Protected Species (EPS) listed on the Conservation of Habitats and Species Regulations 2017 (as amended) making it an offence to injure, disturb or obstruct a shelter. Water vole are protected under the W&CA making it an offence to injure, disturb or obstruct a shelter. Both otter and water vole utilise watercourses near to the cable corridor. Light spillage onto watercourses may interrupt foraging paths and migration along watercourses as well as disrupt use of resting places such as burrows if close to the works/light spillage.

63. Great Crested News are an EPS. Great Crested Newts, their eggs and their breeding/resting sites are also protected in the UK under the W&CA, extended by the Countryside and Rights of Way Act 2000. Light emissions onto both aquatic and terrestrial habitats may interfere with breeding and migrating Great Crested Newts.

64. Birds may be sensitive to lighting due to illumination of nests and hunting habitats. All wild birds, their nests and eggs are protected under the W&CA. Bird species listed on Schedule 1 of the Act are afforded further protection making it an offence to intentionally or recklessly disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young, and / or disturb the dependant young of any such bird.

65. The lighting mitigation measures set out in Section 8.2.1 will be applied to the sensitive ecological receptors throughout the cable corridor as shown on the Figure 2 Potentially Sensitive Receptors to Construction Lighting.

8. LIGHTING SCHEME

8.1. Objectives

66. The objectives and performance outcomes for this CALEP are detailed below in Table 8-1.

Table 8-1: Objectives and performance outcomes

Objectives	Performance Outcomes
• To ensure temporary lighting installations are positioned so as to avoid light spill directly towards roads, residences and other potential viewing locations or ecological receptors. • To ensure the potential impacts from light emissions on accesses/haul roads for mobile equipment are reduced so far as practicable. • To utilise existing vegetation screens to minimise the impact of any light spill in the direction of roads, residences and other viewing locations or ecological receptors. • To use directional lighting to reduce light spill and minimise light emissions from night-time construction works to retain dark night skies. • To ensure procedures are in place to record and effectively respond to any complaint in respect to lighting. • To record and report the effectiveness of lighting emission controls. • To utilize appropriate mitigation measures to reduce glare.	• Minimum levels of lighting are used which provide sufficient lighting to ensure that safety is not compromised. • External lighting complies with relevant UK legislation, environmental commitments as set out in the ES and environmental and construction best practice. • The safety of external traffic on nearby roads is not affected by light sources on site. • Impacts from light emissions from the works on nearby sensitive visual receptors is avoided or minimised where avoidance is not possible. • Impacts from light emissions from the works on ecological receptors are avoided or minimised, where avoidance is not possible. • Complaints are responded to quickly and effectively. • The effectiveness of lighting emission controls is reported.

8.2. Mitigation

67. The onshore construction works have been carefully designed to minimise impacts on the environment. Using the ducts already installed during the EA ONE project will minimise the need for additional constructions works and associated artificial lighting. A number of mitigation measures will be adopted as part of the project design to avoid or minimise potential impacts from artificial lighting, relating to construction, on the sensitive receptors. Non-reflective surfaces and barriers and screens will be used as required to minimise light nuisance.

68. Site lighting will be positioned and directed to minimise nuisance to public rights of way users and residents, to minimise distractions to drivers on adjoining public highways and to minimise sky glow, so far as reasonably practicable. At the CCS, external lighting will be limited to internal access roads and walkways and security lighting. At the jointing bays, lighting will only be required for security purposes once the cable has been pulled through but prior to backfilling of the excavation. Task related flood lighting during low light levels during normal working hours and also emergency works may be required at the jointing bays. Lighting will be selected and positioned in accordance with guidance and standards provided in Section 6.

69. Light spill will be reduced by directing the light to where it is needed and away from the identified potentially sensitive receptors, where possible. The design of the luminaire and accessories such as hoods, cowls, louvres will be used achieve this. Where possible asymmetric optics will be used such that the front glazing is kept at or near parallel to the surface being lit. In addition, where possible glare will be minimised by ensuring that the main beam angle directed towards any potential observer is no greater than 70°, in accordance with ILP guidance (ILP, 2021). Higher mounting heights allow lower main beam angles, which can assist in reducing glare. These measures will be in place to ensure that the lux level of the lighting at ground level at the highway boundary shall not exceed 1 lux. The exception to this being potentially during bell mouth construction in the winter months after dark where lighting during construction may be required but this would be turned off at the end of the working day.

70. So far as is practicable, all power to temporary lighting will be taken from mains supplies rather than from portable generators. Where portable generators are used, solar powered task lighting will be used where suitable. Where this is not practicable, industry best practice will be followed to minimise noise and pollution from such generators.

71. All lighting relating to the onshore cable construction works are temporary and will be removed as soon as possible on completion of the relevant element of works.

8.2.1. Mitigation Specific to Ecology

72. Additional mitigation specific to ecology, in accordance with the Bat Conservation Trust (BCT, ILP 2023) guidelines will be included as follows:

- LED luminaires will be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability;
- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources will not be used;
- Column heights will be carefully considered to minimise light spill;
- Narrow spectrum light sources will be used to lower the range of species affected by lighting;
- Light sources that emit minimal ultra-violet light will be selected;
- Lights will peak in wavelength higher than 550nm;
- White and blue wavelengths of the light spectrum will be avoided to reduce insect attraction and where white light sources are required in order to manage the blue short-wave length content, they will be of a warm / neutral colour temperature, ideally <2700Kelvin;
- Only luminaires with a negligible or Upward Light Ratio of 0% and with good optical control will be used; and
- External security lighting will be set on motion-sensors with short (1 minute) timers;
- Internal luminaires to be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill;
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to be used to delineate path edges;
- Column heights will be carefully considered to minimise light spill and glare visibility. This will be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards;
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt;
- Where appropriate, external security lighting will be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow.
- Use of a Central Management System with additional web-enabled devices to light on demand will be considered and applied where suitable. It is not, however, anticipated that this type of lighting control will be suitable for use in onshore cable small scale (P)CCS sites and on short duration small construction areas with limited lighting required over smaller areas, as this is more applicable to permanent building projects.
- The use of bollard or low-level downward-directional luminaires will not be used on the cable route construction works .
- Only if all other options have been explored, will accessories such as baffles, hoods or louvres be used to reduce light spill and direct it only to where it is needed. Due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so will not be relied upon solely.

73. Directional beams and non-reflective surfaces will be used to ensure light spill and nuisance does not encroach onto adjacent areas including:

- Woodland, so as not to disturb emerging or foraging bats, badgers or other nocturnal species (birds, otters, hedgehogs). Flood lighting will be directed away from any potential roost identified and 30m disturbance zone around badger setts.
- Watercourses so as not to disturb species such as otter, water vole or amphibians;
- Other high value foraging habitats and potential flight paths, such as connecting hedgerows and standalone trees.

74. Pre-construction surveys for protected species and Schedule 1 birds will be undertaken in the vicinity of the cable corridor. Survey works have an expiry of approximately 18-24 months and, therefore, if works are to take place 18-24 months after the most recent surveys, a re-survey will be undertaken in order to confirm that the status of the habitats has not changed and to ensure that mitigation is based on up to date survey data.

75. External lighting at night will be avoided as far as feasible, particularly during the months of higher bat activity (August – October). When lighting at night is required, it will comply with the Bat Conservation Trust (BCT, ILP 2023) recommendations on external lighting (as set out above) as agreed with Natural England, as required. This will be designed to avoid light spill to both:

- Woodland and water edge, so as not to disturb emerging or foraging bats, badgers or other nocturnal species. Flood lighting will be directed away from any potential roosts identified and 30m disturbance zone around badger setts.
- Other high value foraging habitats and potential flight paths, such as connecting hedgerows and standalone trees.

76. As otters are largely nocturnal, mitigation measures during construction would focus on the restriction of night-time working (to avoid disturbance to roaming otters). The two Primary CCSs (which have 24/7 lighting) are located well away from watercourses with directional lighting in place. Wherever possible, lighting close to watercourses would be minimised and directed away from watercourses.

77. Should any Schedule 1 or other species of bird be found to be nesting within the vicinity of the proposed construction works, an exclusion zone will be implemented specific to that species in accordance with the Ecological Mitigation Plan and lighting redirected as required.

78. Periods of 24-hour lighting will be minimised where possible during construction.

9. MONITORING AND REPORTING

9.1. Monitoring

79. Regular inspections of lighting mitigation measures will be undertaken by the Principal Contractor's construction management team, the EnvCoW and ecological specialists where required, to ensure effective implementation and report any non-compliances. If non-conformity with any control and mitigation measures is identified, it will be recorded and appropriate remedial action will be implemented.

80. The frequency and the location inspections will be determined by the EnvCoW and will be included in the Project Environmental Management Plan (included within the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000084) and the Construction Environmental Management Plan (prepared by contractors).

81. Any complaint regarding lighting of the construction works will be directed to the EnvCoW who will in turn notify MSDC/ESC. The EnvCoW will investigate the complaint and provide a response to the complainant and MSDC/ESC within 48 hours. Investigation will include checking that luminaires remain directional and suitable for the application. If the complaint is justified, a solution will be found to prevent reoccurrence, such as use of hoardings or other barriers to contain light spill. This may include investigation of alternatives, such as the use of lower wattage lighting, or re-direction of lighting or re-positioning shielding.

82. Should any Schedule 1 or other species of bird be found to be nesting within the vicinity of the proposed construction works, an exclusion zone will be implemented specific to that species in accordance with the Ecological Mitigation Plan (EA3-LDC-CNS-REP-IBR-000089).

9.2. Reporting

83. The effectiveness of lighting controls will be reported in the Site Inspection and Audit Reports. Inspections will be undertaken by the ecological specialists, where required and will be reported to the EnvCoW.

10. REFERENCES

BCT, 2014, *Interim Guidance: artificial lighting and wildlife,* *https://cdn.bats.org.uk/pdf/BCT_Interim_Guidance_Artificial_Lighting_June_2014.pdf?mtime=20181101151319&focal=none*.

BCT, ILP, 2023, *Guidance Note GN08/23 Bats and artificial lighting at Night*, https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting;

British Standard BS EN 12464-2:2014 *Light and lighting. Lighting of work places. Outdoor work places*;

British Standard BS 5489-1:2020 *Code of practice for the design of road lighting. lighting of roads and public amenity areas*;

HSE, 1997 *Health and Safety Guidance 38 (HSG38) 'Lighting at Work'*, Second Edition, https://www.hse.gov.uk/pubns/priced/hsg38.pdf

ILP, 2021, *Guidance Note 01/21, Guidance Note for the Reduction of Obtrusive Light*, London, https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021.

APPENDIX 1 TECHNICAL DRAWINGS AND LUMINARIES SPECIFICATIONS

CUBE Next 4x300W	Technical Data
Minimum dimensions (L x W x H)	1230 x 1160 x 2405 mm
Maximum dimensions (L x W x H)	1790 x 1735 x 8400 mm
Dry weight	1285 kg
Lifting system	Hydraulic
Mast rotation	340°
Max. lamps power	4 x 300 W
Lamps type	LED
Max. total lumen	153000 Lm
Max. illuminated area	4200 m^2
Battery running time	56 h @ 33% dimming
	22 h @ 80% dimming
	17 h @ 100% dimming
Battery recharging time	12 h
Inlet plug (A/V/Hz)	32/220/50 – 32/240/60
Avg. sound pressure	0
Wind speed resistance	110 km/h

Picture shown may not reflect actual configuration.

V20 light tower

The **V20 light tower** is a brand-new mobile light tower equipped with 4x320W high efficiency LED lamp floodlights. More than 140 hours of running time and one of the lowest sound pressure level in the industry: only 58 dB(A) at 7 meters.

GTL01 digital controller

The V20 is equipped with a **GTL01 digital controller** specifically studied to manage every function of the light tower for the best ease of use.

Generac LED lamps

4 x 320W high efficiency LED floodlights designed by Generac Mobile®.

Low voltage LED

The floodlights are powered with **low voltage** 48 Volts. No more high voltages on external cables. Safety as a must!

Top accessibility

3 doors for a wider access. 2 compass-top doors with «wing» shape provide a complete access to the engine for a safe and convenient maintenance. 1 back door allows the access to the digital control panel.

RLS – Rapid Locking Stabilizers

The special shape of the **adjustable stabilizers** allows the operator to level the V20 light tower in few seconds.

The lowest noise level!

Innovation means also **decreasing the noise level!** The V20 light tower emits only 58 dB(A) @ 7 meters.

Long running time

Thanks to the V20's fuel saving features such as the small engine and the LED lamps, this model can **run up to 143 hours** without refueling.

Double power

You can connect a V20 to another V20 and run two lighting towers with only one engine.

Picture shown may not reflect actual configuration.

V20 Y2	Technical Data
Minimum dimensions (L x W x H)	2250 x 1400 x 2436 mm
Maximum dimensions (L x W x H)	2640 x 1900 x 8500 mm
Dry weight	1030 kg
Lifting system	Hydraulic
Mast rotation	340°
Lamps power	4 x 320 W
Lamps type	LED
Total lumen	188160 Lm
Illuminated area	4500 m^2
Engine	Yanmar 2TNV-70
Engine cooling	Liquid
Cylinders (q.ty)	2
Engine speed (50/60 Hz)	1500 / 1800 rpm
Liquid containment (110%)	√
Alternator (kVA/V/Hz)	5/220/50 – 5/240/60
Outlet socket (kVA/V/Hz)	2/220/50 – 2/240/60
Inlet plug (A/V/Hz)	16/220/50 – 16/240/60
Avg. sound pressure	58 dB(A) @ 7m
Wind speed resistance	110 km/h
Tank capacity	100 l
Running time	143 h

Picture shown may not reflect actual configuration.

HOFTRONIC™
DATASHEET

LED FLOODLIGHT 200 WATT 160LM/W IP65 4000K 5 YEARS WARRANTY

Specifications

SKU 448476

Input power	220-240V AC	**Dimensions**	458.5 x 371 x 57 mm
Watts	200 Watt	**Operating temperature**	-20°C ~ 40°C
Equivalent watts	3600 Watt	**Switching cycles**	20.000 cycles
Luminous flux	32000 Lumen	**Life span**	30.000 hours
Light color	Neutral white	**Certification**	CE, RoHS
Color temperature	4000K	**Warranty**	5 years
Color rendering index (CRI)	70Ra	**Suitable for**	Indoor and outdoor
Beam angle	120°	**Color**	Black
Powerfactor	> 0.95	**Frequency**	50/60Hz
Energy label	A++	**EAN**	7439628448476
IP-rate	IP65		
Material	Aluminium		
Dimmable	No		

SMC TL-90 LED Mobile **Lighting Tower**

Compact and easy to transport, the **SMC TL-90 LED** lighting tower has powerful 240W LED lamps, giving a strong and even light stream with instant on/of light and a lamp life of 50,000 hours and saves up to **50% fuel savings**. The machine is fully retractable for transport and storage. The lighting towers can be equipped with autostart/stop which allows the user to minimise fuel consumption by a further **30%**, yet maximise efficiency. It also features a mains changeover switch to effectively run a unit from a mains power or alternatively link 3 machines together using only one engine. They are suitable for a wide range of applications.

The lighting tower functions in all climatic conditions and with a comprehensive and protected monitoring system. Safety features include mast deployment alarm and a safety system which ensures the mast descends automatically when the handbrake is released, preventing collisions with overhead obstacles.

Fuel saving up to £2,000 per year**

Features:

- **Fuel saving of £160 per month***
- **Instant light**, no restricted time
- **Super silent operation** – reduced noise pollution at just 60dB(A) at 7m
- **Hydraulically operated mast** can be fully extended to 9m height in only 12 seconds
- **Compact and robust design** with the ability to load ten units together for ease of transportation
- **Fork lit pockets and single lit eye** for easy transportation
- **360º rotating head lamp** with telescopic mast for quick and easy operation
- **5 x 240W LED lamps** fitted with high output optics for high intensity light
- **Bio-degradable** oil in hydraulic system
- **Engine fluids fully bunded** to protect the environment from spills
- **Fuel efficient** giving 133 hours of uninterrupted operation
- **Mains changeover switch** to run unit from mains power
- **Link up to 3 machines** together using only one engine
- **EC whole vehicle type approved trailer**
- **50,000 hours** LED lamp life
- Galvanised canopy

Safety Features:

- Mast deployment alarm & safety system

Optional Extras:

- 110 Volt power outlet
- 4 wind down prop stands
- Auto-run timer module
- Eco Sensor dusk to dawn timer

* Compared to standard tower lights

**As of September 2014

Specifications are subject to change without prior notice

SMC TL-90 LED Mobile **Lighting Tower**

SPECIFICATION	
ENGINE TYPE	Kubota D905-BG 3cyl Water Cooled 7.4kW @ 1500rpm diesel
HYDRAULIC SYSTEM	Bio-degradable Oil
FUEL TANK CAPACITY	130 Litres
FUEL CONSUMPTION	0.97 l/hr (Lamps only)
RUNNING TIME	133 Hours
LAMP SPECIFICATION	5 x 240W LED
AVERAGE SOUND PRESSURE LEVEL @ 7 METRES	60dB(A)
ALTERNATOR	Mecc Alte LT3 110 4 Pole, 230V, 50Hz
CONTINUOUS POWER / STANDBY POWER	5.0kW /5.5kW**
POWER OUTLET SOCKETS	1 x 16 AMP outlet 1 x 16 AMP inlet
MAST MAXIMUM HEIGHT	8740mm
MAST RAISE / LOWER TIME	12 / 18 secs
WIND SPEED	Suitable for operation in wind speeds up to 100km/h
STABILISERS	4 with rear wind down legs
BUNDING	Fully bunded to 120% for all fluids
ROAD LIGHTS AND REFLECTORS	Standard
DIMENSIONS FOR TRANSPORT (LxWxH)	2565mm x 1320mm x 2100mm
DIMENSIONS FULLY DEPLOYED(LxWxH)	2870mm x 2639mm x 8740mm
WEIGHT FULLY FUELLED / UNFUELLED	1050kg / 933kg

** Allows 1 unit to power up to 3 units

Optional Specifications:

Petrochemical Specification:

- Spark arrestor
- Chalwyn valve

Offshore specification:

- Spark arrestor
- Chalwyn valve
- Fuel water trap
- Ani-static fan belt
- Braided fuel lines
- Battery isolator switch
- Fuel isolator shut of valve

SAVAGE PLANT HIRE
Office: 222 St Margarets Road, Ward End, Birmingham, B8 2BG
T: +44 (0) 121 328 1100 **F:** 0121 327 3548
E: enquiries@savageplanthire.co.uk **W:** www.savageplanthire.co.uk

AJC EasyCabin

Site power is easy.

Solar Light ZERO CO_2

Store solar energy and use it at night. Zero local emissions, fully automatic, sustainable lighting towers.

Fully automatic operation and ZERO local emissions. During daylight hours solar energy is collected and stored in the batteries.

When in low light or night-time the powerful LED auto activates when movement is detected within 10m of the light. Once the movement has stopped, after a few minutes the light will dim to 20%.

Tower height:	3m fixed or 5m extendable
Lighting area 5m:	Extendable up to 15m wide 10m deep
Lighting area 3m:	10m wide 5m deep
PIR sensor range	10m
Type:	IP65
Lifespan:	50000 hours
Charging time:	6-7 hours
Discharging time:	Over 12 hours
Beam Angle:	120*60 degree
Luminous Efficiency:	110LM/W
CCT:	6500K

SOLAR PANELS
Harvest the suns power all day

MOVEMENT SENSORS
Auto activation when required

POWERFUL LED LIGHTS
Use less power for maximum light

Top mounted solar panels

Auto smart
Self charging automatic

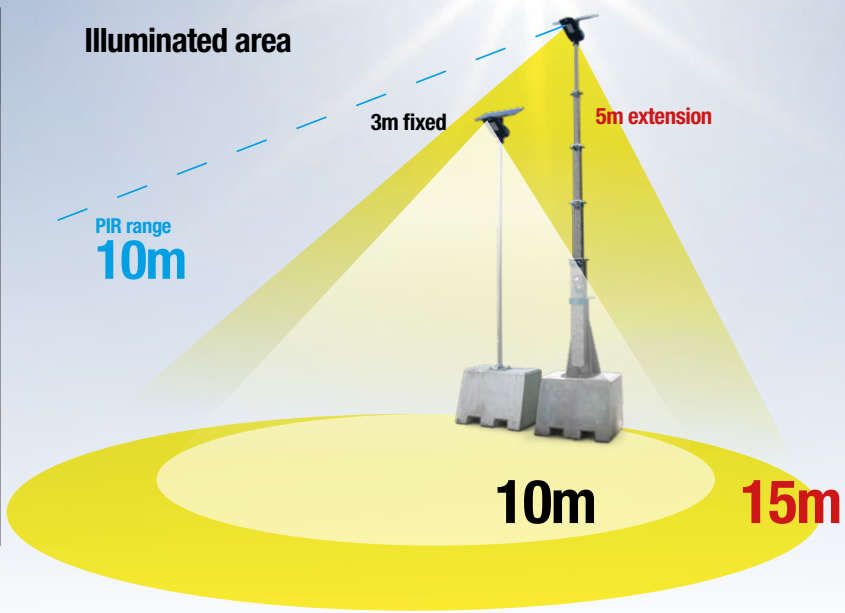
ZERO CO^2 Emissions
No local emissions

SENSOR Activated
LED lights only used when movement is detected.

Solar Light ZERO

Technical specifications

Model	SL 3	SL 5 Telescopic
Lighting area	10 metres approx	15 metres approx at full extension
IP rating	IP65	
Unit lifespan	50,000 hours	
Battery charge time	6 - 7 hours (approx)	
Discharge time	Over 12 hours	
Beam angle	120*60 degree	
Luminous Efficiency	110LM/W	
CCT	6500K	



End user review

"A construction site working in a built up housing area received complaints from residents regarding the noise pollution coming from the generator powered tower-lights during the night.

The solution to the noisy lights was a set of Solar Light ZERO's. They were on-site and setup within 24 hours, ready to illuminate the street with absolutely zero noise & CO^2 emissions. Problem solved and a good nights sleep for the local residents."

Award winning welfare Designed & built in the UK

AJC EasyCabin

2020 Winners CSR EXCELLENCE AWARDS for companies that have a heart

2020 Hire Industry Product Of The Year.

WINNERS 2020

www.easycabin.co.uk 01582 486663 info@easycabin.co.uk

EasyCabin Head Office & Factory, Unit 10, Cosgrove Way, Luton, Beds, LU1 1XL

FOOTNOTES

This assessment is guidance ONLY. As part of our on-going commitment to improvement we reserve the right to alter specifications,designs or figures, without prior notice. All dimensions and weights are approximate.

Carbon emission statistics are from Department for Business, Energy & Industrial Strategy. Greenhouse gas reporting: conversion factors 2019. https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy

609500 610000 610500 611000

246500 246000

TYE LANE
Track
Track
Track
HDD-1E
HDD-1W
Inset Frame
IPSWICH
CP-01
JB 1/2
HDD-21E
HDD-21W
AP-1
PRoW 1
Bullen Lane CCS
AP-2
BULLEN LANE
PRoW A
Path (um)
Path (um)
BULLEN LANE
Track

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Consolidated Construction Site Compound
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.1 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

610000 610500 611000 611500

247000 246500

BACK LANE (TRACK)

PRoW 2

Path (um)

TYE LANE

TYE LANE

TYE LANE

Track

Track

Track

HDD-1E

HDD-1W

PRoW 1

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits

Public Right of Way

Horizontal Direct Drilling Duct Proving Platform

Top Soil Strip

Indicative Top Soil Bund

Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.2 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

610500 611000 611500 612000

248000 247500

Track
Track
Path (um)
SOMERSHAM ROAD
Track
Track
B 1113
SOMERSHAM ROAD
L'ORAINE WAY
BACK LANE (TRACK)
BACK LANE (TRACK)

Inset Frame
IPSWICH

AP-5
HDD-2E
HDD-2W
AP-4
AP-3
PRoW 3
JB 2/3
PRoW 2

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

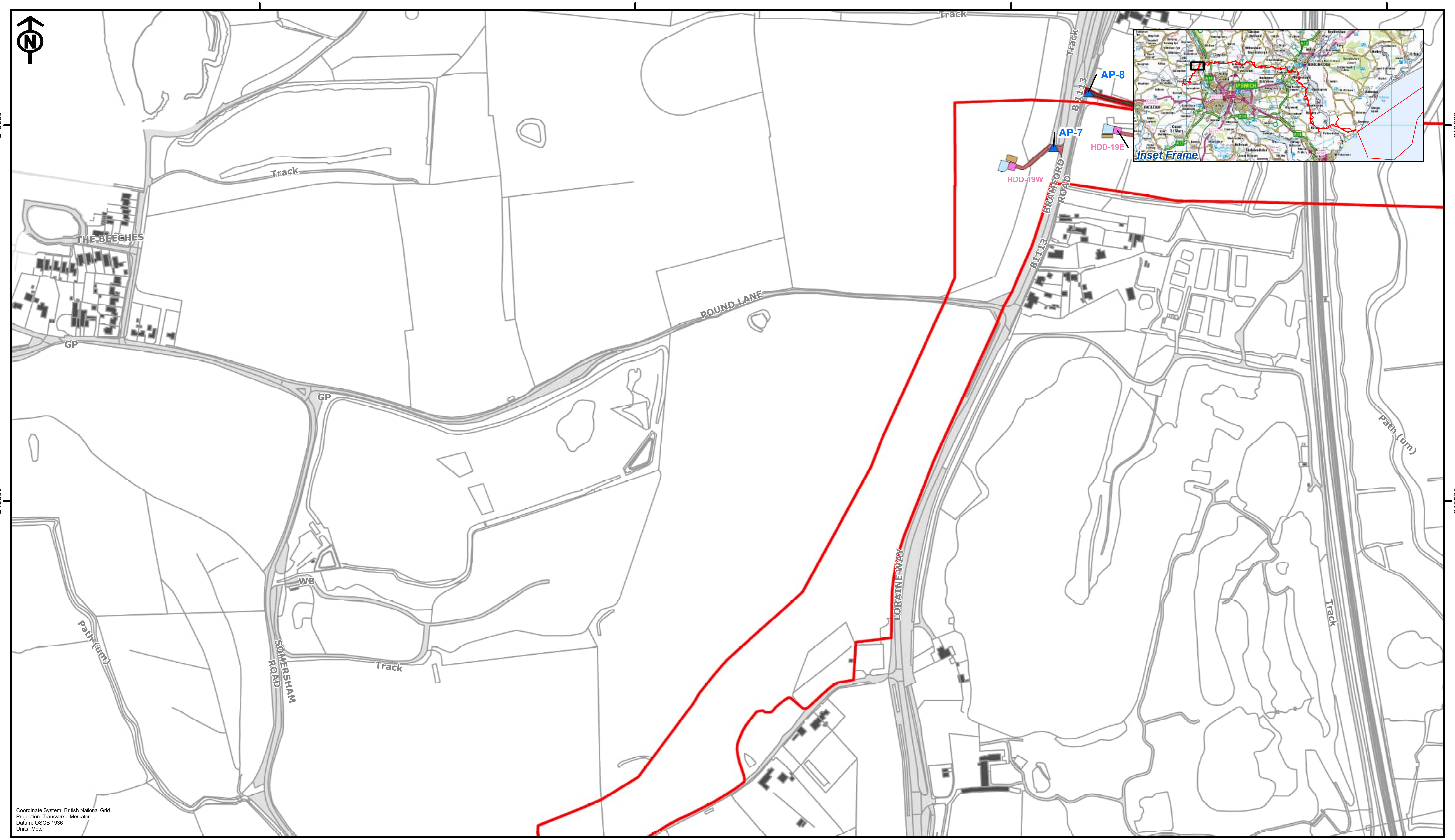
0 100 200 Metres

EA THREE Cable Route

FIGURE 1.3 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd



EA THREE Development Order Limits	Top Soil Strip
Jointing Bay Hardstanding	Indicative Top Soil Bund
Horizontal Direct Drilling Duct Proving Platform	Indicative Subsoil Bund
	Existing Track
	Stone Haul Road
	Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

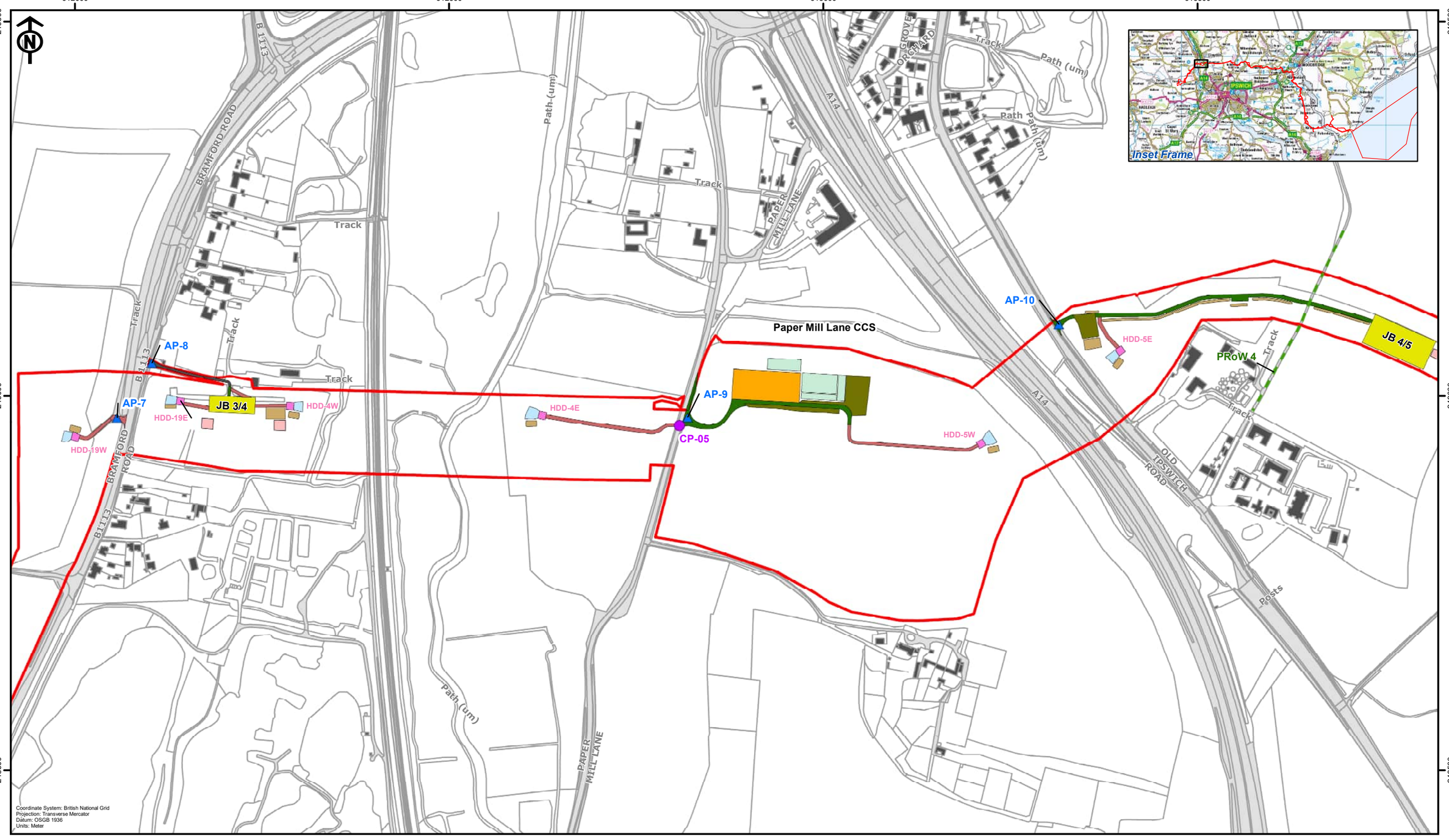
EA THREE Cable Route

FIGURE 1.4 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

612000 612500 613000 613500

249500 249000 248500



- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Consolidated Construction Site Compound
- Soil Storage
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.5 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

🟥 EA THREE Development Order Limits	▨ Indicative Subsoil Bund
- - Public Right of Way	🟩 Stone Haul Road
🟨 Jointing Bay Hardstanding	
▨ Indicative Top Soil Bund	

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3
Plot Scale
1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.6 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

615500 616000 616500 617000

249500 249000

Track

HENLEY ROAD

AP-12

AP-11

JB 5/6

JB 6/7

PRoW 8

PRoW 9

Path (um)

SANDY LANE

Track

HENLEY ROAD

Path (um)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.7 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

617000 617500 618000 618500

249500 249000 248500

PRoW 8 JB 6/7 Path (um) PRoW 9 Path (um) Path (um) SANDY LANE GOCKFIELD HALL LANE Path (um) ROSE HILL B 1077 Track PRoW 11 Path (um) JB 8/9 PRoW 10 Path (um) CP-14 LANE GOCKFIELD HALL LANE Track WITNESHAM JB 7/8 Track Track Post

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- HGV Turning
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.8 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

618500
619000
619500
620000
249500
249000

N

TUDDENHAM LANE
CLOPTON ROAD
TUDDENHAM
GRUNDISBURGH ROAD
Track
Path (um)
GP

PRoW 11
JB 8/9
HDD-6W
HDD-6E
JB 9/10
HDD-20W
HDD-20E
AP-14
AP-15

Inset Frame
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway
Trackway Crane Pad

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

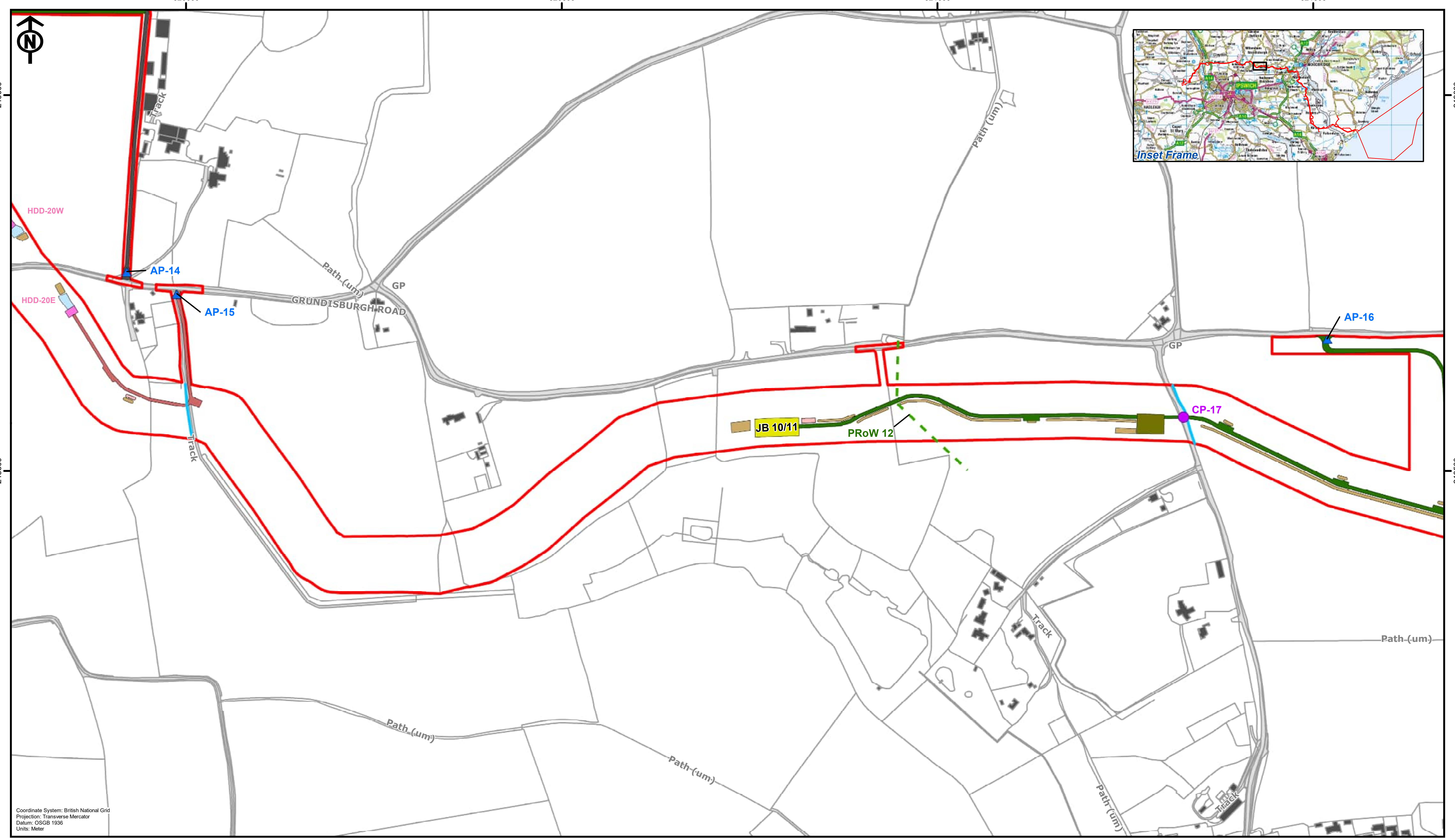
0 100 200 Metres

EA THREE Cable Route

FIGURE 1.9 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd



EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.10 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

621500 622000 622500 623000

249000 248500 248000

AP-16
CP-17
CP-18
Playford Corner CCS
PRoW 13
JB 11/12
PRoW 14
PRoW
PRoW
Inset Frame
IPSWICH
Boot Street
ROAD
Track
Path (um)
GP
CHURCH ROAD
HOLLY LANE
HOLLY CLOSE
MOUNT DRIVE
Post
THE

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Consolidated Construction Site Compound
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.11 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

623500 624000 624500

249000 248500 248000

Track
Tk
GP
ROSERY LANE
Track
LOWER STREET
ORCHARD LANE
LODGE ROAD
ROSERY LANE
GP
GP
Track
AP-18
PRoW 18
AP-17
JB 13/14
HDD-7W
CP-22
HDD-7E
JB 12/13
PRoW
Path
Track
PRoW 19
PRoW 19
PRoW 20
Path
HDD-8W

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway
Trackway Crane Pad

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.12 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

625000 625500 626000 626500

248000 247500

JB 13/14
PRoW 19
PRoW 19
HDD-8W
PRoW 20
CP-26
HDD-8E
PRoW 42
PRoW 21
JB 14/15
Top Street CCS
AP-19
HDD-9E
AP-20
HDD-10E
JB 15/16
AP-21
HDD-10W
PRoW 22
Inset Frame
A12
B 1438
IPSWICH ROAD
CHRISTCHURCH DRIVE
SECKFORD HALL ROAD
THE LANCERS
PINEWOOD
MEADOW
CLAYTON COURT
FYNN ROAD
TURNER CLOSE
BRIARWOOD ROAD
BROOMHEATH
CALIFORNIA
SANDY LANE
DUKE'S PARK
TOP STREET
THE STREET
BEALINGS ROAD
BROCK
Lay-by
Tunnel
Track
Path (um)

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Consolidated Construction Site Compound
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.13 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

625500 626000 626500 627000

247500 247000 246500

THE STREET
Track
Path (um)
Track
Track
Path (um)
Path (um)
PRoW 22
Path (um)
Inset Frame
SCHOOL LANE
Path (um)
Track
HDD-11E
VIKING CLOSE
Path (um)
PRoW 23
Track
SCHOOL LANE
CHURCH LANE
Path (um)
PRoW 24
Track
Track
THREE STILES LANE (TRACK)
Lay-by
JB 16/17
PRoW 25
Track
WALDRINGFIELD ROAD
Path (um)
Track
PRoW 26
MILL LANE (TRACK)
Path (um)
Track

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits	Horizontal Direct Drilling Duct Proving Platform
Public Right of Way	Top Soil Strip
Watercourse within the DOL	Indicative Top Soil Bund
Jointing Bay Hardstanding	Indicative Subsoil Bund
Stone Haul Road	
Trackway	

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.14 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

626000 626500 627000 627500

246000 245500

AP-22 PRoW 26 AP-23 AP-24 CP-31 JB 17/18 JB 18/19 HDD-12W HDD-12E HDD-13W HDD-13E

WALDRINGFIELD ROAD NEWBOURNE ROAD Path (um) Track Track Track Track WALDRINGFIELD ROAD NEWBOURNE ROAD WALDRINGFIELD ROAD Track

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.15 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627000
627500
628000
245500
245000
244500

N

JB 18/19
JB 19/20
AP-25

WAUDRINGFIELD ROAD
Path (um)
Track
WOODBRIDGE ROAD
FISHPOND ROAD
SANDY LANE
IPSWICH ROAD
NEWBOURNE ROAD
SULLIVAN PLACE
SCHOOL ROAD
SUNNYHILL
CLIFF MEADOWS
MILL ROAD
CLIFF ROAD
DEBENHAM LANE
GP

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Stone Haul Road
Jointing Bay Hardstanding
Indicative Top Soil Bund
Indicative Subsoil Bund

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.16 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023.05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

🟥 EA THREE Development Order Limits

- - Public Right of Way

🟨 Jointing Bay Hardstanding

🟧 Consolidated Construction Site Compound

▨ Indicative Top Soil Bund

▨ Indicative Subsoil Bund

■ Existing Track

🟩 Stone Haul Road

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.17 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

627500
628000
628500
243500
243000

PRoW 31
Path (um)
Path (um)
WOODBRIDGE ROAD
Track
FERN LANE
THE STREET
GP
CP-36
Guide Post
Track
IPSWICH ROAD
GP
Track
Track
Track
Track
Track
CHURCH LANE
Inset Frame
IPSWICH
Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Indicative Top Soil Bund
HGV Turning
Stone Haul Road

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.18 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627500
628000
628500
629000
242500
242000

Track
MILL ROAD
Path (um)
Track
PRoW 32
Track
CHURCH LANE
Path
Track
Track
Track
JB 21/22
HDD-14W
Path (um)

Inset Frame
IPSWICH
WOODBRIDGE
HADLEIGH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Public Right of Way
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- HGV Turning
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

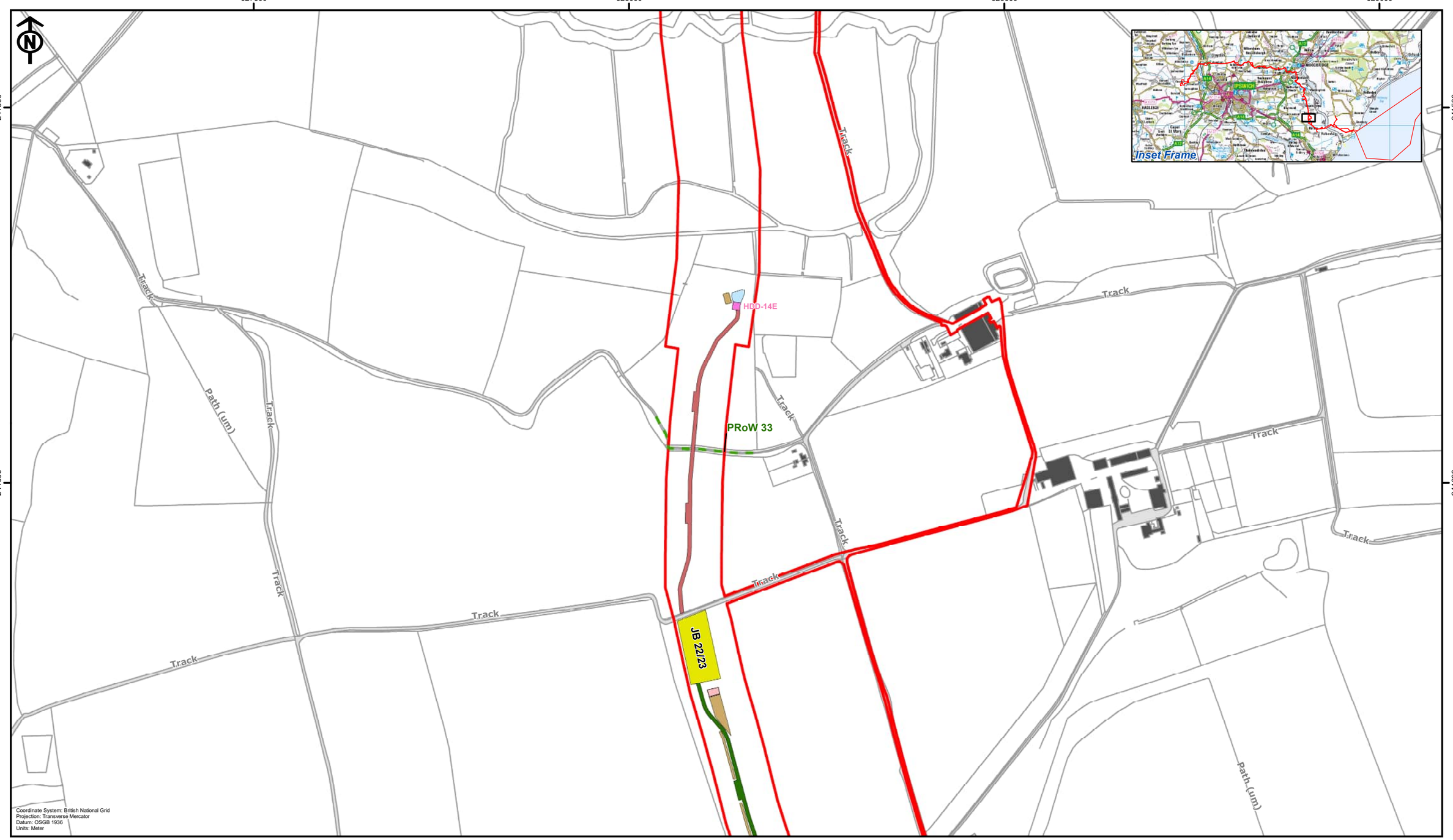
FIGURE 1.19 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627500 628000 628500 629000

241500 241000



Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

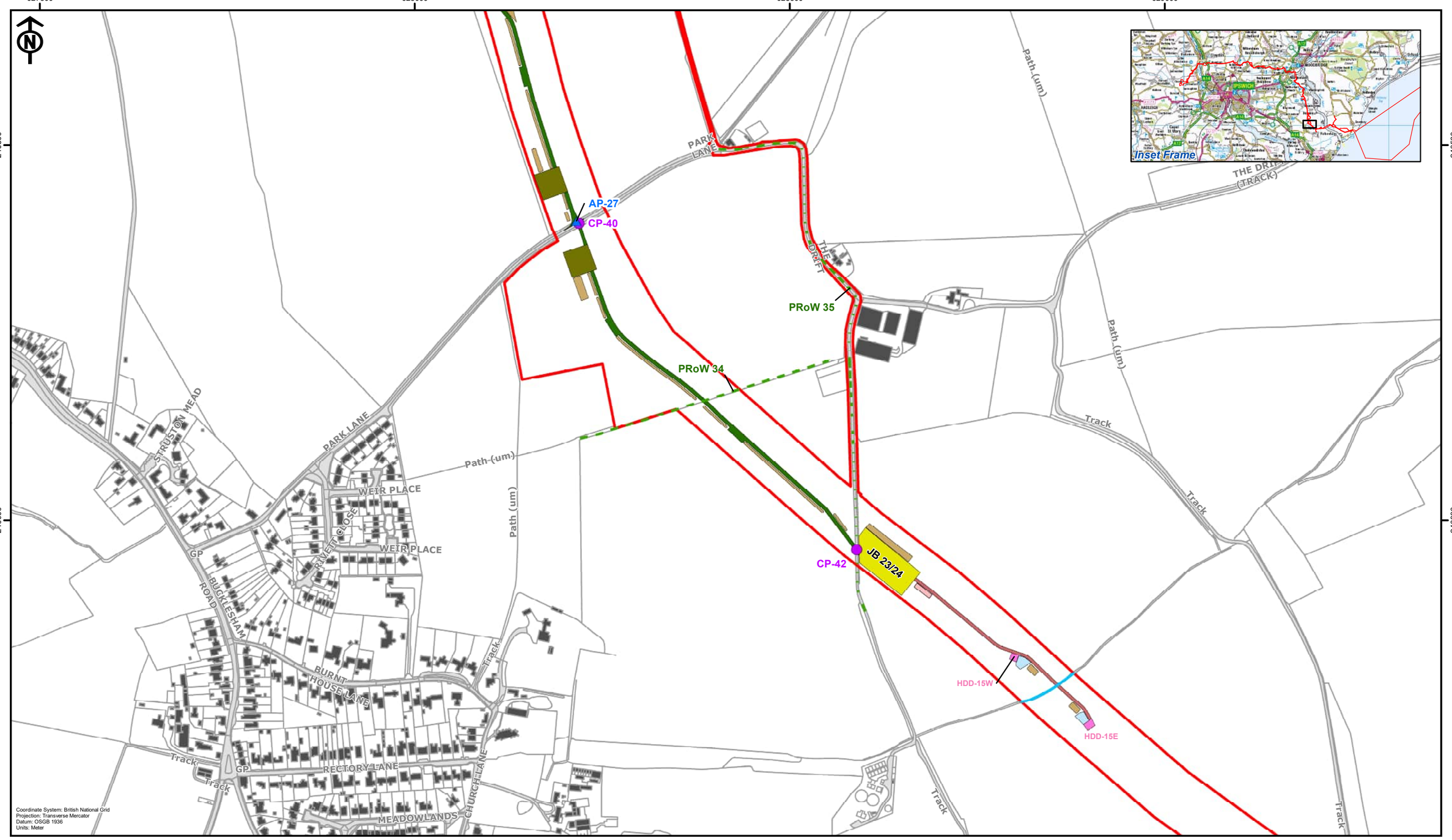
FIGURE 1.20 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

627500 628000 628500 629000

240500 240000



EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.21 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

629000 629500 630000 630500

239500

239000

HDD-15W

HDD-15E

Track

PRoW 36

PRoW 37b

Track

Track

PRoW

HDD-16W

JB 24/25

DRUNKARDS LANE (TRACK)

Track

PRoW 37a

Path (um)

AP-28

LOWER FALKENHAM ROAD

FALKENHAM ROAD

FALKENHAM ROAD

Path (um)

Track

SHEEPGATE LANE

SHEEPGATE LANE

Inset Frame

IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Public Right of Way
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.22 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

631000
631500
632000
632500
240000
239500

JB 25/26
HDD-16E
PRoW
Path (um)
Track
Inset Frame
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Public Right of Way
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drilling Duct Proving Platform
- Top Soil Strip
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.23 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

631500 632000 632500 633000

241000 240500

AP-29

GP

PRoW 39

Path (um)

Track

DUKE'S LANE (TRACK)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits

Public Right of Way

Existing Track

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.24 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

632500 633000 633500 634000

239500 239000

N

JB 26/27

Track

Path (um)

HDD-17W

HDD-17E

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Watercourse within the DOL
Jointing Bay Hardstanding
Horizontal Direct Drilling Duct Proving Platform
Top Soil Strip
Indicative Top Soil Bund
Indicative Subsoil Bund
HGV Turning
Stone Haul Road
Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

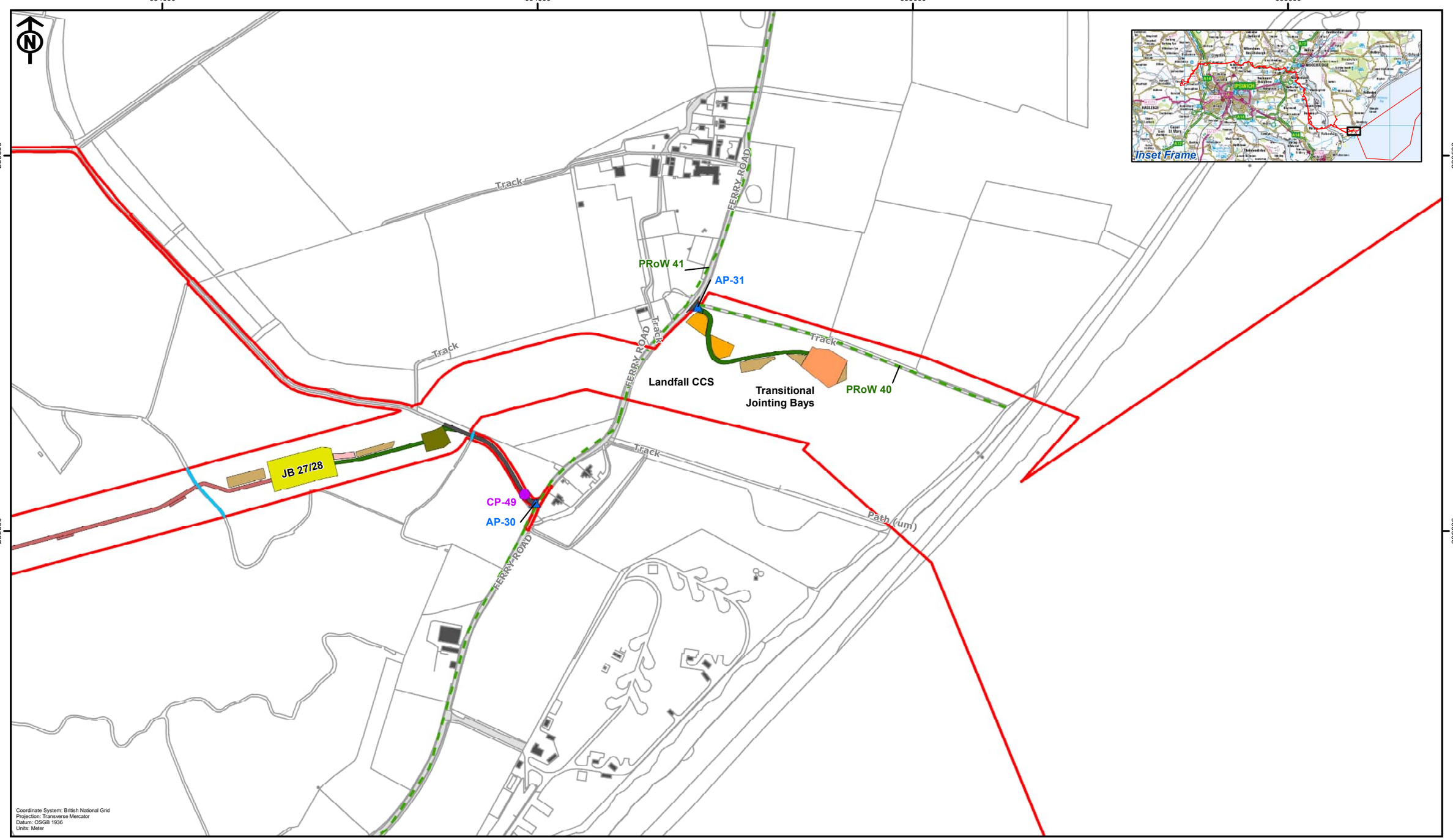
FIGURE 1.25 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

634000 634500 635000 635500

239500 239000



- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Public Right of Way
- Watercourse within the DOL
- Transition Jointing Bays
- Jointing Bay Hardstanding
- Consolidated Construction Site Compound
- Indicative Top Soil Bund
- Indicative Subsoil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway

GoBe consultants

Rev	Date	By	Comment
A	29/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 1.26 Site Context Plan

Drg No	404.5356.00006.0001.0
Rev	0
Date	29/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\1 Site Context Plan\404.5356.00006.0001.0 Site Context.mxd

609500 610000 610500 611000

246500

246000

TYE LANE

Track

Track

Track

CP-01

JB 1/2

PRoW 1

Bullen Lane CCS

PRoW A

Path (um)

BULLEN LANE

Track

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits

Crossing Point (Road Crossings Numbered)

Jointing Bay Hardstanding

Horizontal Direct Drill Work Platform

Consolidated Construction Site Compound

Top Soil Strip

Top Soil Bund

Stone Haul Road

Trackway

CCS and Jointing Bay 100 m Buffer

Tree with Moderate Bat Roost Potential

Tree with Low Bat Roost Potential

Positive GCN Pond

Residential Building

Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.1 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

610000 610500 611000 611500

247000 246500

N

Path (um)

PRoW 2

Track

TYE LANE

TYE LANE

TYE LANE

Track

Track

PRoW 1

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits

Horizontal Direct Drill Work Platform

Top Soil Strip

Top Soil Bund

Trackway

CCS and Jointing Bay 100 m Buffer

Tree with High Bat Roost Potential

Tree with Moderate Bat Roost Potential

Residential Building

Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.2 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

610500 611000 611500 612000

248000 247500

Track Track Path (um) SOMERSHAM ROAD Track B 1113

Inset Frame

PRoW 3

JB 2/3

SOMERSHAM ROAD LORAINE WAY

PRoW 2

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Jointing Bay Hardstanding
Horizontal Direct Drill Work Platform
Top Soil Strip
Top Soil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway
CCS and Jointing Bay 100 m Buffer
Water Vole
Residential Building
Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.3 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023_05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0_Potentially Sensitive Receptors to Construction Lighting_.mxd

611000 611500 612000 612500

249000 248500

Track
THE BEECHES
GP
POUND LANE
GP
WB
Path (um)
SOMERSHAM ROAD
Track
B1113
Track
Path (um)
Track
Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- Existing Track
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Tree with Low Bat Roost Potential
- Otter Couch
- Positive GCN Pond
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

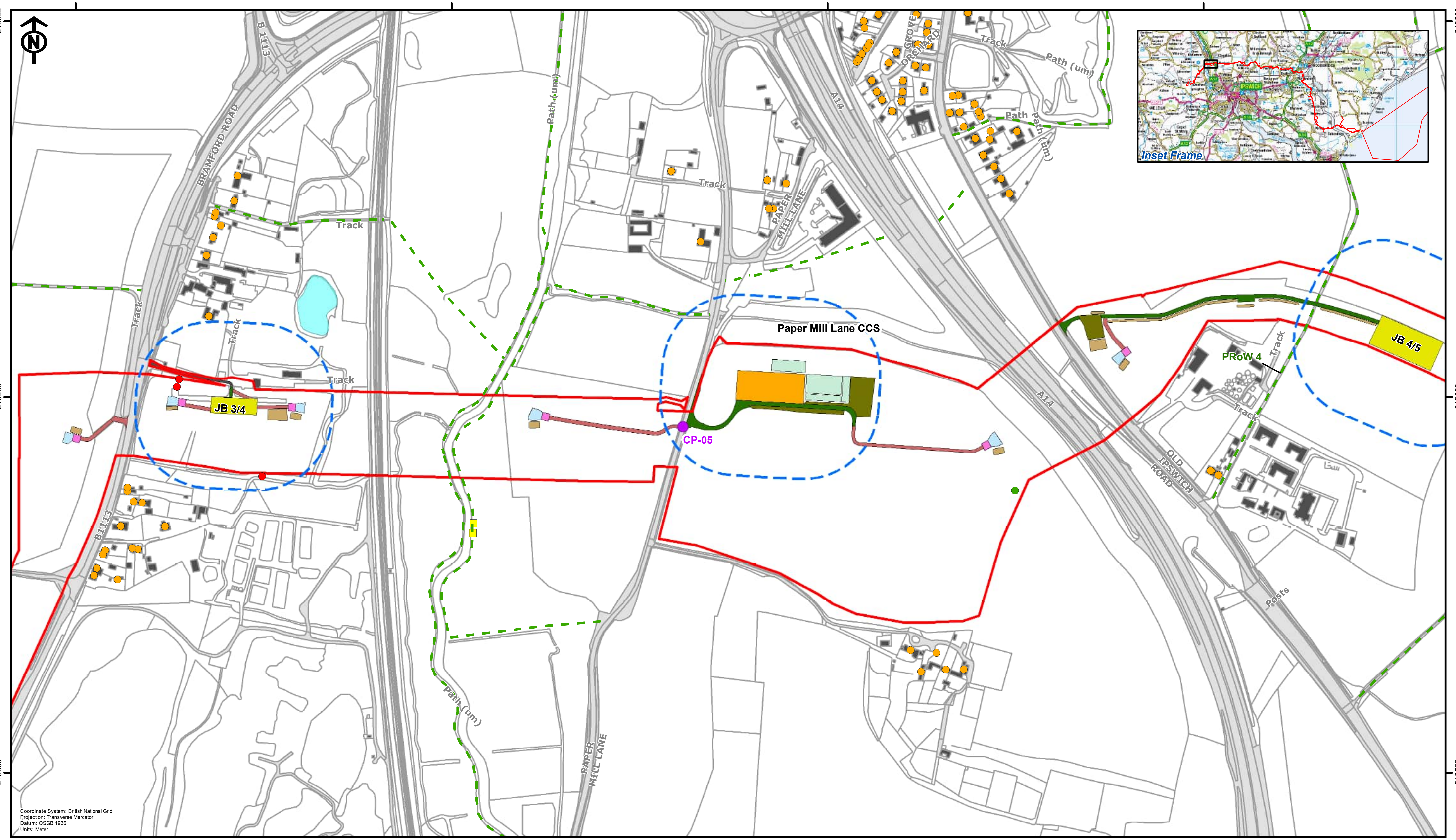
0 100 200 Metres

EA THREE Cable Route

FIGURE 2.4 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd



EA THREE Development Order Limits	Horizontal Direct Drill Work Platform	Top Soil Strip	Stone Haul Road	Tree with Low Bat Roost Potential
Crossing Point (Road Crossings Numbered)	Consolidated Construction Site Compound	Top Soil Bund	Trackway	Otter Couch
Jointing Bay Hardstanding	Soil Storage	Existing Track	CCS and Jointing Bay 100 m Buffer	Positive GCN Pond
		HGV Turning	Tree with High Bat Roost Potential	Residential Building
				Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.5 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

🟥	EA THREE Development Order Limits	⬚	CCS and Jointing Bay 100 m Buffer
🟨	Jointing Bay Hardstanding	●	Tree with Low Bat Roost Potential
🟫	Top Soil Bund	●	Residential Building
🟩	Stone Haul Road	- -	Public Right of Way

GoBe
consultants

A	13/11/2023	PW	First Issue
Rev	**Date**	**By**	**Comment**

Original A3
Plot Scale
1:5,000

0 100 200 Metres

EA THREE Cable Route

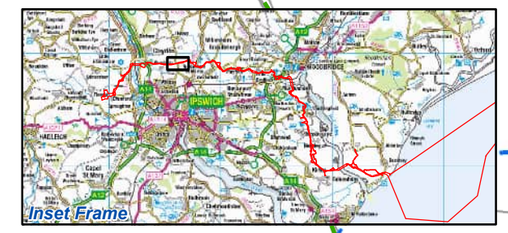
FIGURE 2.6 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

615500 616000 616500 617000

249500 249000



Track

PRoW 8

JB 6/7

Path (um)

PRoW 9

JB 5/6

SANDY LANE

Path (um)

Track

HENLEY ROAD

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Top Soil Bund
- HGV Turning
- Stone Haul Road
- CCS and Jointing Bay 100 m Buffer
- Tree with Moderate Bat Roost Potential
- Positive GCN Pond
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.7 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

617000 617500 618000 618500

249500 249000 248500

PRoW 8
JB 6/7
PRoW 9
PRoW 10
CP-14
PRoW 11
JB 8/9
JB 7/8

Path (um)
Path (um)
Path (um)
Path (um)
Track
Track
Track
Post

COCKFIELD HALL LANE
COCKFIELD HALL LANE
SANDY LANE
LANE
ROSE HILL
B1077

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Top Soil Bund
- HGV Turning
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Tree with High Bat Roost Potential
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Positive GCN Pond
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.8 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

618500 619000 619500 620000

249500 249000

TUDDENHAM LANE
CLOPTON ROAD
TUDDENHAM
GRUNDISBURGH ROAD
Track
PRoW 11
JB 8/9
JB 9/10
Path (um)
GP
Inset Frame
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway
- Trackway Crane Pad
- CCS and Jointing Bay 100 m Buffer
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Water Vole
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.9 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

620000 620500 621000 621500

249000 248500

Track
Path (um)
GRUNDISBURGH ROAD
GP
JB 10/11
PRoW 12
CP-17
Path (um)
Track
Path (um)
Path (um)
Track
Path (um)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

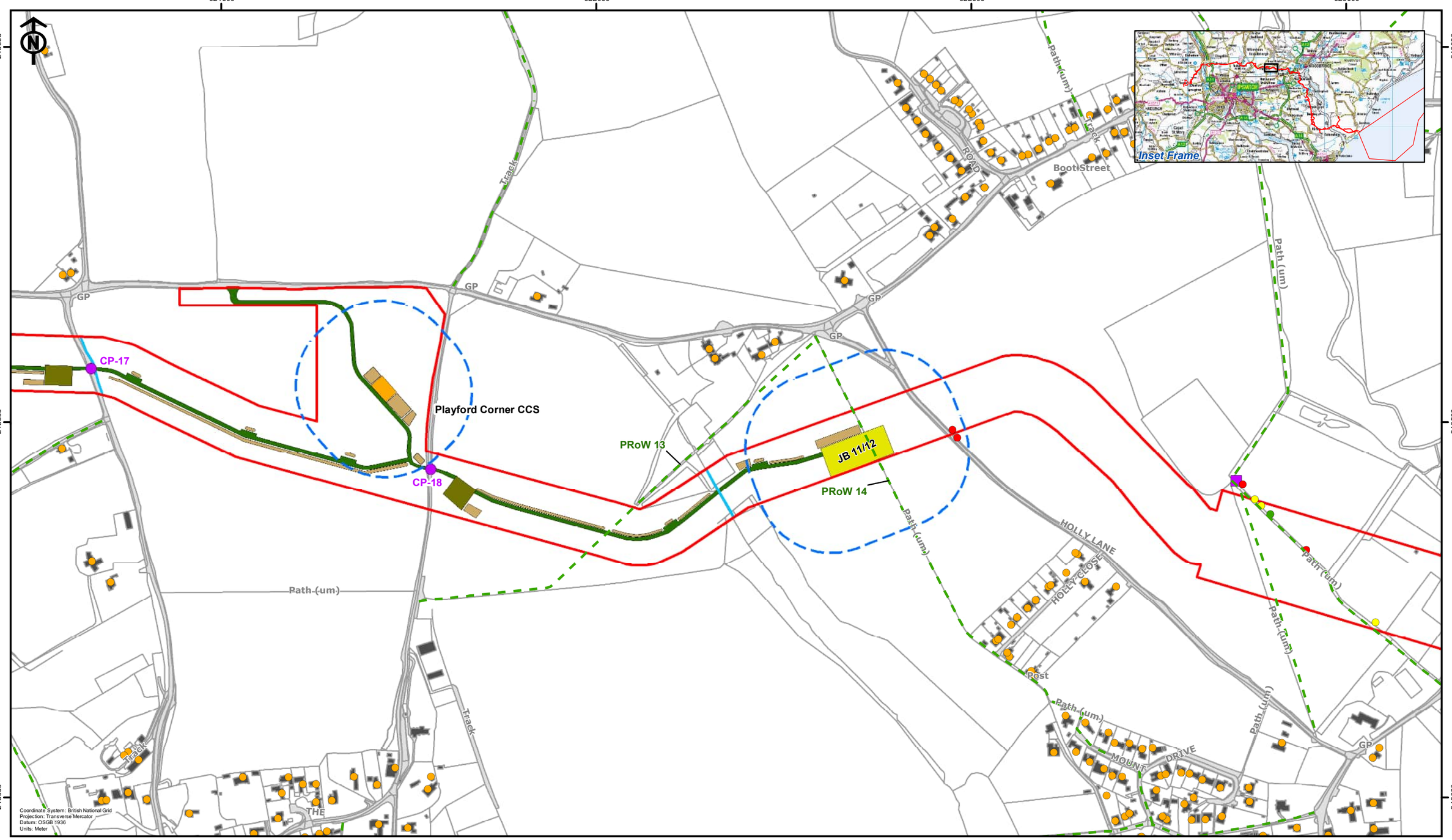
FIGURE 2.10 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

621500 622000 622500 623000

249000 248500 248000



- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Consolidated Construction Site Compound
- Top Soil Bund
- HGV Turning
- Stone Haul Road
- CCS and Jointing Bay 100 m Buffer
- Tree with High Bat Roost Potential
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Tree with bat Roost
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.11 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

623500 624000 624500

249000 248500 248000

Track
Tk
GP
ROSERY LANE
Track
LOWER STREET
ORCHARD LANE
LODGE ROAD
CP-22
JB 12/13
ROSERY LANE
GP
GP
Track
JB 13/14
PRoW 18
Path
Track
PRoW 19
PRoW 19
PRoW 20
Path

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway
- Trackway Crane Pad
- CCS and Jointing Bay 100 m Buffer
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Water Vole
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.12 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

625000 625500 626000 626500

248000 247500

JB 13/14
JB 14/15
JB 15/16
Top Street CCS
PRoW 19
PRoW 19
PRoW 20
PRoW 21
PRoW 42
PRoW 22
Inset Frame
Track
Path (um)
A12
B 1438
IPSWICH ROAD
Lay-by Tunnel
CHRISTCHURCH DRIVE
SECKFORD HALL ROAD
FYNN ROAD
TURNERS CLOSE
CLAYTON COURT
THE LANCERS
PINEWOOD
MEADOW
BRIARWOOD ROAD
CALIFORNIA
BROOMHEATH
DUKE'S PARK
SANDY LANE
TOP STREET
THE STREET
BEALINGS ROAD

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Consolidated Construction Site Compound
- Top Soil Strip
- Top Soil Bund
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Tree with High Bat Roost Potential
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Water Vole
- Areas Of Outstanding Natural Beauty
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.13 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

625500 626000 626500 627000

247500 247000 246500

THE STREET
Track
Path (um)
Track
Track
Path (um)
PRoW 22
Path (um)
Path (um)
SCHOOL LANE
Path (um)
Track
VIKING CLOSE
PRoW 23
Track
Path (um)
SCHOOL LANE
CHURCH LANE
Path (um)
Track
Track
Track
PRoW 24
Track
JB 16/17
PRoW 25
THREE STILES LANE (TRACK)
Lay-by
Track
WALDRINGFIELD ROAD
Path (um)
PRoW 26
MILL LANE (TRACK)
Path (um)
Track

Inset Frame
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Watercourse within the DOL
Watercourse Crossing
Jointing Bay Hardstanding
Horizontal Direct Drill Work Platform
Top Soil Strip
Top Soil Bund
Stone Haul Road
Trackway
CCS and Jointing Bay 100 m Buffer
Tree with Moderate Bat Roost Potential
Tree with Low Bat Roost Potential
Tree with bat Roost
Otter Couch
Areas Of Outstanding Natural Beauty
Residential Building
Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.14 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

626000 626500 627000 627500

246000 245500

PRoW 26

Path (um)

NEWBOURNE ROAD

CP-31

JB 17/18

Track

Track

Track

WALDRINGFIELD ROAD

NEWBOURNE ROAD

Track

WALDRINGFIELD ROAD

JB 18/19

Track

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Crossing Point (Road Crossings Numbered)
Watercourse within the DOL
Watercourse Crossing
Jointing Bay Hardstanding
Horizontal Direct Drill Work Platform
Top Soil Strip
Top Soil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway
CCS and Jointing Bay 100 m Buffer
Tree with Moderate Bat Roost Potential
Tree with Low Bat Roost Potential
Water Vole
Areas Of Outstanding Natural Beauty
Residential Building
Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

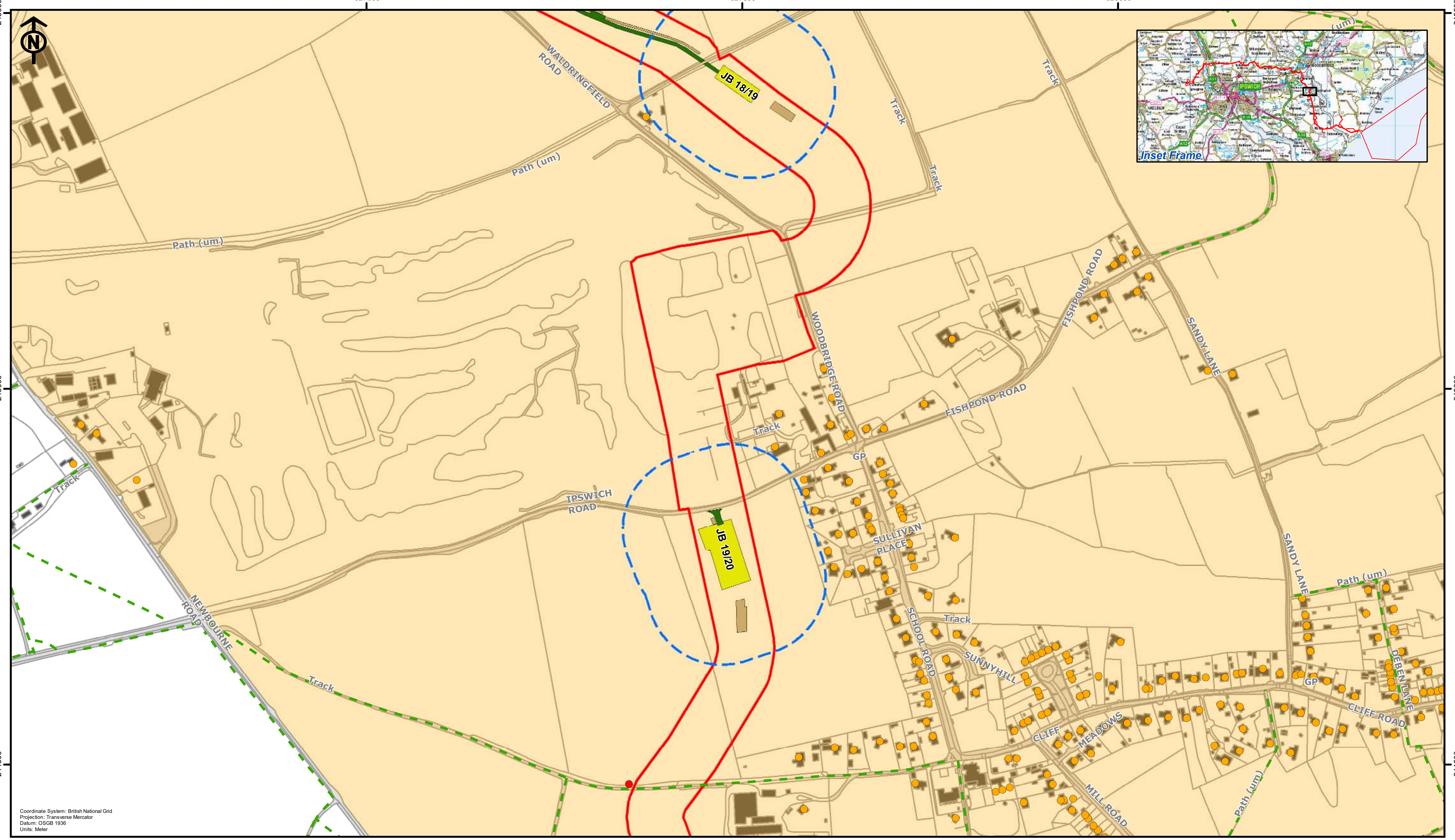
0 100 200 Metres

EA THREE Cable Route

FIGURE 2.15 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023_05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0_Potentially Sensitive Receptors to Construction Lighting_.mxd



Legend		
EA THREE Development Order Limits	CCS and Jointing Bay 100 m Buffer	Residential Building
Jointing Bay Hardstanding	Tree with Low Bat Roost Potential	Public Right of Way
Top Soil Bund	Areas Of Outstanding Natural Beauty	
Stone Haul Road		

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

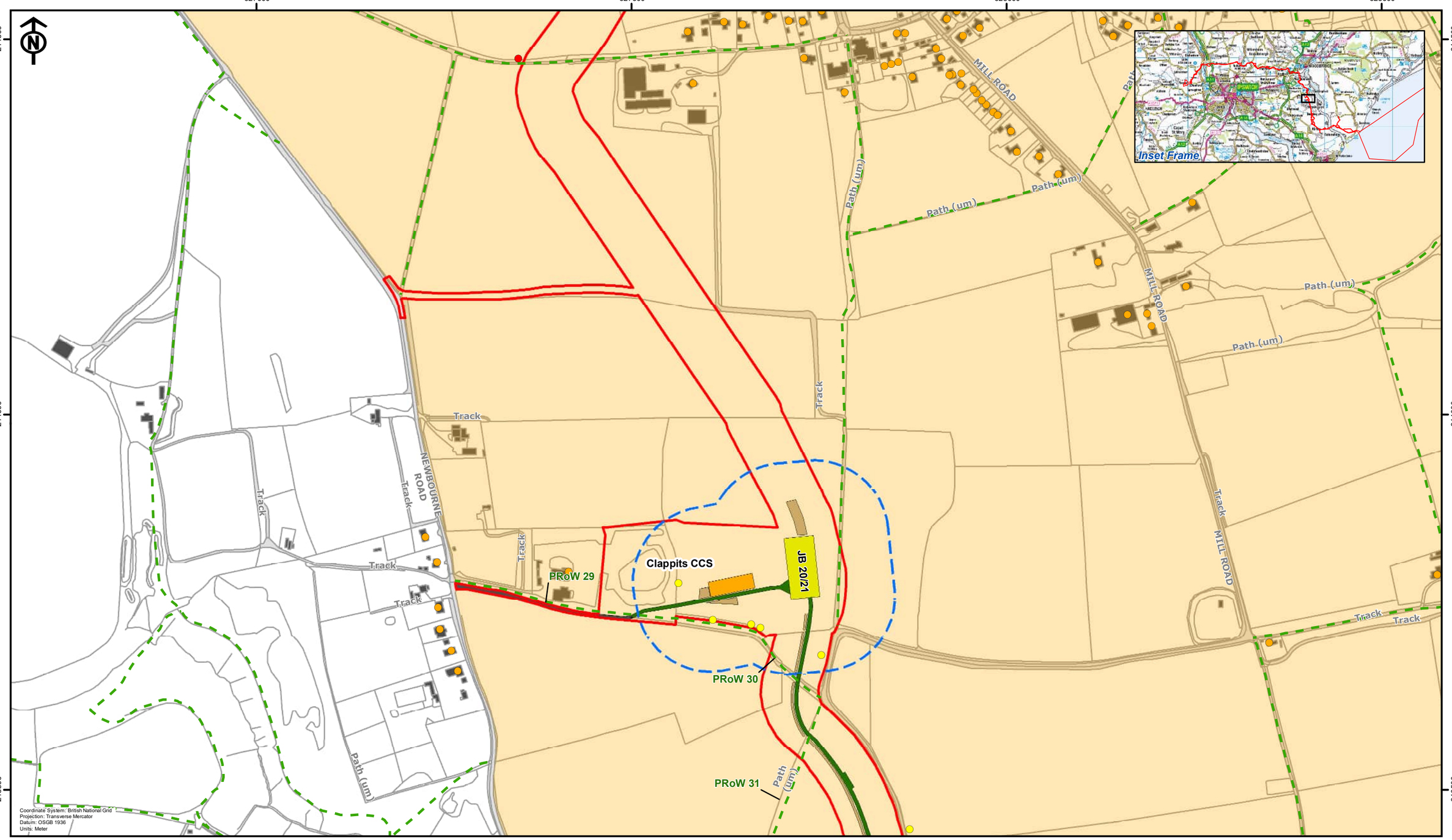
FIGURE 2.16 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

627000 627500 628000 628500

244500 244000 243500



- EA THREE Development Order Limits
- Jointing Bay Hardstanding
- Consolidated Construction Site Compound
- Top Soil Bund
- Existing Track
- Stone Haul Road
- CCS and Jointing Bay 100 m Buffer
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Areas Of Outstanding Natural Beauty
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.17 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

627500 628000 628500

243500 243000

PRoW 31

Path (um)

Path (um)

WOODBRIDGE ROAD

Track

FERN LANE

THE STREET

GP

IPSWICH ROAD

GP

Track

Track

Track

Track

Track

Track

CP-36

Guide Post

Track

GHURCH LANE

Inset Frame

IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits

Crossing Point (Road Crossings Numbered)

Top Soil Bund

HGV Turning

Stone Haul Road

Tree with Moderate Bat Roost Potential

Areas Of Outstanding Natural Beauty

Residential Building

Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

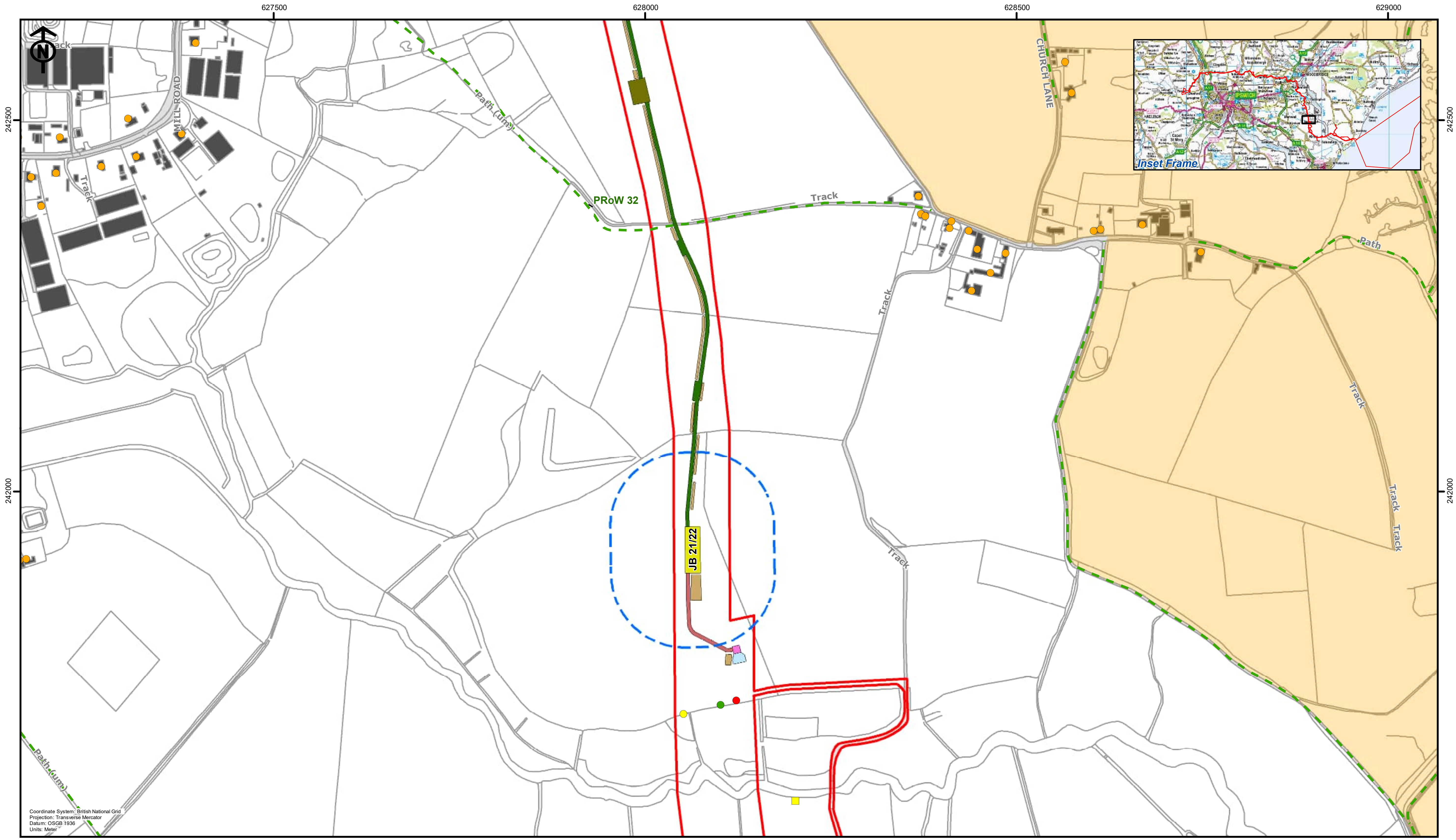
0 100 200 Metres

EA THREE Cable Route

FIGURE 2.18 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd



- EA THREE Development Order Limits
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- HGV Turning
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Tree with High Bat Roost Potential
- Tree with Moderate Bat Roost Potential
- Tree with Low Bat Roost Potential
- Otter Couch
- Areas Of Outstanding Natural Beauty
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.19 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

627500 628000 628500 629000

241500 241000

Inset Frame

PRoW 33

JB 22/23

Track Path (um) Track Track Track Track Track Track Track Track Path (um)

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Jointing Bay Hardstanding
Horizontal Direct Drill Work Platform
Top Soil Strip
Top Soil Bund
Stone Haul Road
Trackway
CCS and Jointing Bay 100 m Buffer
Otter Couch
Areas Of Outstanding Natural Beauty
Residential Building
Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

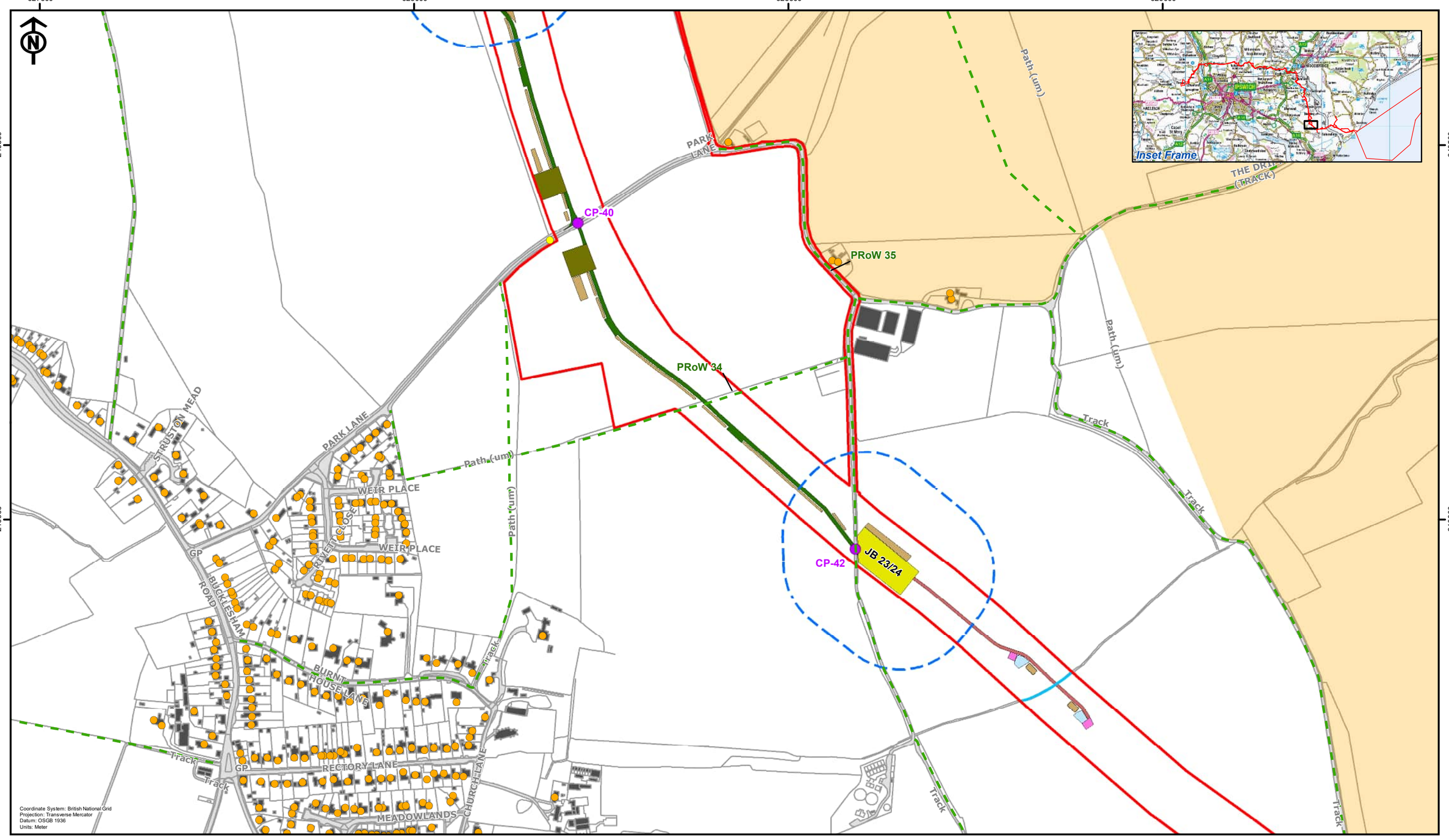
FIGURE 2.20 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

627500 628000 628500 629000

240500 240000



- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Watercourse within the DOL
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- HGV Turning
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Tree with Moderate Bat Roost Potential
- Areas Of Outstanding Natural Beauty
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.21 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

629000 629500 630000 630500

239500 239000

Inset Frame

PRoW 36

PRoW 37b

PRoW 37a

JB 24/25

Track

DRUNKARDS LANE (TRACK)

FALKENHAM ROAD

LOWER FALKENHAM ROAD

SHEEPGATE LANE

Path (um)

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Watercourse within the DOL
Watercourse Crossing
Jointing Bay Hardstanding
Horizontal Direct Drill Work Platform
Top Soil Strip
Top Soil Bund
Existing Track
HGV Turning
Stone Haul Road
Trackway
CCS and Jointing Bay 100 m Buffer
Areas Of Outstanding Natural Beauty
Residential Building
Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.22 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

631000 631500 632000 632500

240000 239500

JB 25/26

Path (um)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Water Vole
- Areas Of Outstanding Natural Beauty
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.23 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

631500 632000 632500 633000

241000 240500

Track
Track
GP
Track
Track
Track
Track
Track
PRoW 39
Path (um)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE Development Order Limits
Existing Track
Areas Of Outstanding Natural Beauty
Residential Building
Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.24 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

632500 633000 633500 634000

239500 239000

JB 26/27

Track

Path (um)

Inset Frame

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Watercourse within the DOL
- Watercourse Crossing
- Jointing Bay Hardstanding
- Horizontal Direct Drill Work Platform
- Top Soil Strip
- Top Soil Bund
- HGV Turning
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Otter Couch
- Water Vole
- Areas Of Outstanding Natural Beauty

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.25 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023 05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0 Potentially Sensitive Receptors to Construction Lighting .mxd

634000 634500 635000 635500

239500 239000

Track
FERRY ROAD
PRoW 41
Track
FERRY ROAD
Track
Landfall CCS
Transitional Jointing Bays
PRoW 40
JB 27/28
CP-49
Track
FERRY ROAD
Inset Frame
IPSWICH

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE Development Order Limits
- Crossing Point (Road Crossings Numbered)
- Watercourse within the DOL
- Watercourse Crossing
- Transition Jointing Bays
- Jointing Bay Hardstanding
- Consolidated Construction Site Compound
- Top Soil Bund
- Existing Track
- HGV Turning
- Stone Haul Road
- Trackway
- CCS and Jointing Bay 100 m Buffer
- Water Vole
- Positive GCN Pond
- Areas Of Outstanding Natural Beauty
- Residential Building
- Public Right of Way

GoBe consultants

Rev	Date	By	Comment
A	13/11/2023	PW	First Issue

Original A3 Plot Scale 1:5,000

0 100 200 Metres

EA THREE Cable Route

FIGURE 2.26 Potentially Sensitive Receptors to Construction Lighting

Drg No	404.5356.00006.0015.0
Rev	0
Date	13/11/2023
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\2023_05 EA THREE Cable Route\13 Construction Artificial Lighting Emissions Plan\404.5356.00006.0015.0_Potentially Sensitive Receptors to Construction Lighting_.mxd