

# Clappits Works

## Code of Construction Practice Appendix 4 Air Quality Monitoring Plan

### DCO Requirement 22 (2) (e)

(Applicable to Work Numbers 21 to 24)

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Revision Summary				
Rev	Date	Prepared by	Checked by	Approved by
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2	17/12/21	Ben Turner	Phil Rew-Williamson	Gareth Mills
3	01/04/22	Jamie Munro	Phil Rew-Williamson	Gareth Mills

Description of Revisions			
Rev	Page	Section	Description
1	ALL	ALL	New Document
2	ALL	ALL	Amended in accordance with consultee comments on Interim Draft (ESC, 23/09/21) and also to include detailed air quality assessment
3	ALL	ALL	Amended in accordance with consultee comments on Final Draft (ESC, 14/02/22)

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## FIGURE LIST

Figure 1 Overview Plan

Figure 2 Site Context Plan

Figure 3 Air Quality Sensitive Areas

## 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 and 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 and is live until 28 August 2022. 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). The application is currently in the consultation phase.
2. 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.

### 1.2. SCOPE

3. This Employer's Air Quality Monitoring Plan (AQMP) sets out the monitoring and mitigation measures to be applied to the construction of EA THREE Clappits Works, to ensure that any potential unmitigated effects are minimised, and where possible, removed. This AQMP is submitted as an appendix to the Code of Construction Practice (CoCP) and fulfils DCO Requirement 22 (2) (e) which states:

*22.—(2) The code of construction practice must include (...)*  
*(e) an air quality monitoring plan*
1. The scope of this document relates to the construction of the Clappits Works, as part of the onshore cable route that runs from the landfall location at Bawdsey to the Converter Station works located near Bramford, Suffolk. The works in this stage comprise Work No.s 21 to 24 (See Figure 1 Overview Plan and Figure 2 Site Context Plan). AQMPs have been produced for each stage of the onshore works and are provided under separate cover. The Principal Contractor will develop their own detailed AQMP in accordance with this Employer's AQMP.
2. The Clappits Works will be some of the first works to be undertaken along the cable route. These works have been designated as a stage in their own right to allow the works to commence at this location prior to works commencing along the cable route as a whole (i.e. the main cable works construction phase). The CCS and its access will be constructed in Summer 2022 and the remaining works (access AP-I, jointing bay installation, cable installation, and reinstatement) will be undertaken as part of the main cable works construction phase.

3. The purpose of this AQMP is to set out the implementation of the appropriate control measures and mitigation to minimise the adverse environmental effects during the construction of the Clappits Works. The AQMP also provides the framework of the monitoring plan to evaluate the efficiency of applied control measures and mitigation. It covers all phases of the construction process and takes into account the work of the Principal Contractor and subcontractors.
4. The following objectives have been identified in terms of air quality management for the Clappits Works:
  - Release of dust/particulate matter must not cause an environmental nuisance at any human or ecological receptor;
  - No justified complaints received regarding excessive dust generation or air pollution, as a result of construction activities;
  - Ensure exhaust emissions of the plant and equipment used in construction activities are controlled;
  - Monitor and maintain dust controls throughout the construction of the onshore elements;
  - Monitor the effects of all activities on air quality and the effectiveness of mitigation measures;
  - Limit the disturbed area and reinstate as soon as practicable, following the completion of works;
  - Ensure all personnel are appropriately trained in environmental awareness; and
  - No environmental fines or prosecutions relating to dust and air quality.
5. Potential dust impacts during the construction of the Clappits Works are considered to be temporary in nature and short-term. The impacts are determined to be temporary as they will only potentially occur throughout the construction phase (approximately 2 years) and short-term because these will only arise at particular times when certain activities and meteorological conditions coincide.
6. Any risks associated with potential contaminated land are addressed in Section 11 of the Code of Construction Practice (of which this is an appendix), and as such are not covered within this plan.
7. The information contained herein shall be adhered to by the appointed Principal Contractors and subcontractors and implementation and compliance will be monitored by the Construction Management Team. These measures will only be revised with the agreement of East Suffolk Council (ESC).

## 2. ABBREVIATIONS

<b>AQAL</b>	Air Quality Assessment Level
<b>AQMA</b>	Air Quality Management Area
<b>AQMP</b>	Air Quality Monitoring Plan
<b>AQO</b>	Air Quality Objective
<b>AQS</b>	Air Quality Strategy 2007
<b>CLO</b>	Community Liaison Officer
<b>Defra</b>	Department for Environment, Food and Rural Affairs
<b>DPF</b>	Diesel Particulate Filters
<b>ESC</b>	East Suffolk Council
<b>EnvCoW</b>	Environmental Clerk of Works
<b>EPA</b>	Environmental Protection Act 1990
<b>EPUK</b>	Environmental Protection UK
<b>ES</b>	Environmental Statement
<b>HGV</b>	Heavy Goods Vehicle
<b>IAQM</b>	Institute of Air Quality Management
<b>IBC</b>	Ipswich Borough Council
<b>LAQM</b>	Local Air Quality Management
<b>NRMM</b>	Non-Road Mobile Machinery
<b>NO<sub>2</sub></b>	Nitrogen Dioxide
<b>SCCS</b>	Secondary Construction Consolidation Site

<b>SPA</b>	Special Protection Area
<b>PM<sub>10</sub></b>	Particulate matter with an aerodynamic diameter less than or equal to 10 micrometres
<b>PM<sub>2.5</sub></b>	Particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometres

### 3. LEGISLATION, GUIDELINES, BEST PRACTICES AND STANDARDS

#### 3.1. Legislation

8. This section includes the relevant legislation in place that is used to control dust and emissions, in this case from the onshore construction activities.

- Clean Air Strategy 2019;
- Clean Air Act 1993;
- Environmental Protection Act (EPA) 1990;
- Environment Act 1995, Section 82; and
- UK Air Quality Strategy (AQS) 2007.

##### 3.1.1. Air Quality Strategy

9. The ambient air quality standards of relevance to human receptors (as prescribed within the AQS) are set out in Table below.

**Table 3-1 Relevant Air Quality Objectives (AQOs)**

Pollutant	Standard (µg/m <sup>3</sup> )	Measured As
Nitrogen Dioxide (NO <sub>2</sub> )	40	Annual mean
	200	1-hour mean (not to be exceeded on more than 18 occasions per annum)
Particles (PM <sub>10</sub> )	40	Annual mean
	50	24-hour mean (not to be exceeded on more than 35 occasions per annum)
Particles (PM <sub>2.5</sub> )	25	Annual mean

##### 3.1.2. Local Air Quality Management

10. As reinforced within the AQS, Part IV of the Environment Act 1995 introduces a statutory duty for local authorities to undergo a process of Local Air Quality Management (LAQM). This requires local authorities to Review and Assess air quality to determine the likelihood of compliance, regularly and systematically.
11. Where any of the prescribed AQS objectives are not likely to be achieved, the authority must designate an Air Quality Management Area (AQMA). For each AQMA, the local authority is required to prepare an Air Quality Action Plan, which details measures the authority intends to introduce to deliver improvements in local air quality in pursuit of the relevant objective.

##### 3.1.3. Environmental Protection Act 1990

12. Part III of the EPA 1990 (as amended) contains the main legislation on statutory nuisance and allows local authorities and individuals to take action to prevent a statutory nuisance. Section 79 of the EPA defines, amongst other things, smoke, fumes, dust and smells emitted from industrial, trade or business premises so as to be prejudicial to health or a nuisance, as a potential statutory nuisance.

#### 3.2. Guidelines, Standards and Best Practices

13. Several guides, standards and best practice documents are considered in the development of this plan. These documents are designed to offer guidance in reducing impacts of air pollution, based on expert evaluation of current scientific evidence. These documents are not legally binding, they are however often referred to as references for defining and measuring air quality.

- Defra: Local Air Quality Management Technical Guidance 2016 (LAQM.TG16) (2021);
- Environment Agency: Monitoring Particulate Matter in Ambient Air around Waste Facilities (2013);
- Environmental Protection United Kingdom (EPUK) and Institute of Air Quality Management (IAQM) Land-Use Planning &

Development Control: Planning for Air Quality (2017);

- IAQM: Guidance on the Assessment of Dust from Demolition and Construction, v1.1 (2016); and
- IAQM: Guidance on Monitoring in the Vicinity of Demolition and Construction Sites, v1.1 (2018).

### 3.2.1. Guideline Limits to Prevent Dust Nuisance

14. Fractions of dust greater than 10µm (i.e. greater than PM<sub>10</sub>) in diameter typically relate to nuisance effects as opposed to potential health effects and therefore are not covered within the UK AQS.
15. There are no statutory limit values for dust deposition above which 'nuisance' is deemed to exist as it is a subjective concept. However, a deposition rate of 200mg/m<sup>2</sup>/day is generally adopted for the onset of complaints, as proposed by the IAQM and the Environment Agency – relating to monitoring methods that are acknowledged as coming into use through 'custom and practice'.

## 4. BASELINE CONDITIONS

### 4.1. Review of Local Air Quality Monitoring

16. The nearest AQMA relative to the site is located approximately 5km to the north, at the roadside of The Thoroughfare in Woodbridge, Suffolk – titled Woodbridge AQMA. As such, air quality within the immediacy of the EA THREE Clappits Works is not considered to be sensitive with respect to human health.
17. Monitoring data collected prior to the COVID-19 pandemic (i.e. pre-2020) has been used to characterise the baseline environment, as pollutant concentrations monitored during 2020 and 2021 are expected to be atypical, and not representative of the local environment and have therefore not been considered.
18. ESC operated one automatic monitor within the administrative area in 2019, WBG, located approximately 5km north, within the Woodbridge AQMA. The neighbouring Ipswich Borough Council (IBC) had two automatic monitors in 2019, but they were located greater than 10km from the site in the centre of Ipswich. In addition, ESC and IBC undertook passive NO<sub>2</sub> diffusion tube monitoring within their administrative area. The nearest passive diffusion tubes in 2019 were located greater than 2.4km west of the site along the A12. Given the separation distance and anticipated differences in local environments, monitoring from automatic and non-automatic locations have not been considered further.

### 4.2. Defra Mapped Background Concentrations

19. Defra maintains a nationwide model of existing and future background air quality concentrations at a 1km grid square resolution which is routinely used to support LAQM requirements and air quality assessments. The data sets include annual average concentration estimates for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> using a base year of 2018 (the year in which comparisons between modelled and monitoring are made).
20. The 2022 Defra mapped annual mean background concentrations for the grid squares covering the Clappits Works (representing the earliest anticipated year of construction) are presented in Table 4-1. All the mapped background concentrations presented are well below the respective annual mean AQALs.

**Table 4-1 Defra Background Pollutant Concentrations**

Grid Square (X, Y)	Year	Annual Mean Background Concentration (µg/m <sup>3</sup> )		
		NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
627500, 244500	2022	7.7	15.2	9.0
627500, 243500	2022	7.6	14.7	8.8
627500, 242500	2022	8.0	14.9	9.1
628500, 242500	2022	7.4	14.7	8.8
628500, 241500	2022	7.4	14.1	8.6
<b>AQAL</b>		<b>40</b>	<b>40</b>	<b>25</b>



## 5. CONSTRUCTION DETAILS

### 5.1. Cable Works – Overview

21. 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. The cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE. The construction activity within each section along the onshore cable route will be as follows:
- Any minor temporary modifications to the public road network;
  - Establish the Construction Consolidation Sites (CCSs);
  - Establish accesses to, and temporary haul road to, the jointing bay locations;
  - Establish temporary jointing bay compounds;
  - Excavate jointing bay pit to locate the existing ducts at each of the compounds;
  - Construct jointing bay;
  - Transport of cables to site, pull cables through ducts and undertake jointing;
  - Topsoil replacement and seeding;
  - Remove temporary compounds (jointing bays and CCS); and
  - Reinstate all disturbed land and permanent fences and hedges.
22. Some temporary modification of the existing road networks may be required such as localised widening, temporary widening or socketing of street signs and temporary moving of street furniture in order to allow larger vehicles than normal to access the jointing bays. This will be completed prior to the start of the main construction works within relevant sections of the cable corridor route.
23. EATL will require up to seven temporary construction compounds to aid in the construction of the proposed East Anglia THREE project. These have been designated as 'Primary Construction Consolidation Site' (PCCS) and 'Secondary Construction Consolidation Site' (SCCS) depending on their uses. Two PCCS and up to five SCCS will be installed, which will all be temporary and will be removed once construction is complete.

**Table 5-1 – Construction Consolidation Site Locations**

CCS Type	ID	Address
Secondary	A	Bullen Lane, Bramford, Ipswich, Suffolk IP8
Primary	B	Paper Mill Lane, Claydon, Ipswich, Suffolk IP6 0AP
Secondary	C	Witnesham Road, Ipswich, Suffolk IP6
Secondary	D	Playford Corner, Playford Mount, Ipswich, Suffolk IP6 9DS
Primary	E	Top Street, Martlesham, Suffolk IP12
Secondary	F	Clappits, Woodbridge Road, Newbourne, Woodbridge, Suffolk IP12 4PA
Secondary	G	Park Lane, Ipswich, Suffolk IP10

24. The PCCSs will:
- Form the main point of access onto the linear construction site;
  - 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.
25. The SCCSs will act as hubs for the delivery of materials, equipment and resources along the route and will enable access to the cable route for construction. They will be of sufficient size to accommodate limited storage of materials, equipment and labour welfare facilities.
26. It is anticipated that 29 jointing bays will be required along the 37km cable route, in addition to a transition bay at the landfall. Each jointing bay will comprise a concrete box 10m long by 3m wide by 1.5m high buried so that the base is 2.5m below ground level. A jointing bay construction compound will be required adjacent to each jointing bay and will have hardstanding areas of up to 900m<sup>2</sup> within the compound which would typically measure 24m x 115m i.e. 2,760m<sup>2</sup>. (in accordance with Requirement 12(11) which stipulates that the footprint must not exceed 3,740m<sup>2</sup>). The compounds will have hardstanding and accommodate containers, drum

trailer movement, parking, and welfare. A typical layout is shown in Figure 2 of the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000061).

27. Existing accesses and farm tracks will be upgraded and used where possible to access the jointing bay locations. Once these accesses reach the cable corridor, the routes to connect to the jointing bays are referred to as 'haul road'. The length of haul road for the cable route is limited by Requirement 12(12) of the DCO to 18.05km.
28. In addition, the ducts to be used for EA THREE, which were installed during the EA ONE project construction works, will require to be 'proved' to ensure that they are intact and free of debris. This will be undertaken by the use of foam pigs which will be driven under pressure from jointing bay to jointing bay. Each stretch of duct that was installed using Horizontal Direct Drilling (HDD) will, however, require duct-proving excavations at each end of the HDD, to allow the use of different size foam pigs, due to a difference in the diameter of these compared to the ducting installed using open trench techniques.

## **5.2. Clappits Works**

29. Clappits Works comprise a stage of the onshore connection works and cover Work No.s 21 to 24. The infrastructure within these Work No.s comprises:
- The Clappits SCCS (CCS F) in Work No. 22;
  - Three Jointing Bays (20 to 22) in Work No. 21;
  - Two improved accesses with the public roads as follows:
    - Access AP-H (Work No. 23) eastwards from Woodbridge Road, to access the Clappits SCCS and Jointing Bays 21 and 22 in Work No. 21; and
    - Access AP-I (Work No. 24) eastwards from Newbourne Road, to access Jointing Bay 20 in Work No. 21; and
  - A crossing of The Street (CR01 and CR02); and
  - The access tracks/haul roads required to access Clappits SCCS and jointing bays 20 to 22.

30. These are shown on Figure 2.

### **5.2.1. Accesses AP-H and AP-I, the Crossing Point, Access Tracks and Haul Roads**

31. Clappits SCCS will be accessed from Woodbridge Road using Access AP-H. This junction was used for the EA ONE project (Access AX-14) but was fully reinstated following the EA ONE works and will need to be constructed under the EA THREE DCO. The vehicular access track from the access to the Clappits SCCS that was installed as part of the EA ONE construction works remains in situ as it was agreed with ESC that restoration would be environmentally more damaging than leaving the improved track in place. A new temporary vehicular access track of 160m length and 5.5m width will be used to link this existing track and the Clappits SCCS to reach the edge of the cable corridor (Work No. 21), where 610m of 5.5m wide haul road will link to road crossing CR02, and a further 1,520m from road crossing CR01 to Jointing Bays 20 and 21. The amount of temporary haul road required to access these jointing bays will be 2.13km.
32. Access AP-I will be constructed from Newbourne Road, along with 400m of 5.5m wide access track to link to the edge of the cable corridor which will access directly onto the compound of Jointing Bay 20. This access was not used as part of the EA ONE construction works.
33. A crossing of The Street (CR01 and CR02) will be required. This will be in the same location as that used for EA ONE.
34. No watercourse crossings will be required for the Clappits Works.
35. The construction methodologies associated with the accesses, access track and haul roads are typically as follows:
- Set out the access and track/haul road with the use of Global Positioning Systems (GPS) Real Time Kinematic (RTK) equipment;
  - Locate, divert and cap any existing field drains;
  - Set out and install drainage features the length of track to be constructed;
  - Remove vegetation, then remove and locally store topsoil material over the working width; seeding topsoil if it is to be stored for longer than 6 months;
  - Excavate to formation level and store any excess material;
  - Under-track drainage will be installed where necessary and in accordance with drainage requirements;

- Place a geotextile onto existing subsoil to improve the bearing capacity of the sub-soil, depending on ground conditions, programme and landowner requirements; and
- Place imported stone in accordance with the design to form the track structure.

### **5.2.2. Secondary Construction Consolidation Site (Work No. 22)**

36. The Clappits SCCS will be a hub for the delivery of materials, equipment and resources. The dimensions of the Clappits SCCS will be 60m long by 20m wide covering a surface area of 1,200m<sup>2</sup>, this is in accordance with Requirement 12(9)(a) of the DCO which limits the size of each SCCS to 1,200m<sup>2</sup>. The Clappits SCCS will also be within the area previously used for the EA ONE SCCS in this location.
37. The construction of the SCCSs involves stripping of topsoil, importing and laying stone for the compound base and installing cabins and welfare facilities. Construction of the Clappits SCCS will take approximately 3 weeks and the methodology will be as follows:
- The extent of SCCS will be marked out with the use of GPS RTK equipment;
  - Any existing field drains will be located, diverted and capped;
  - Drainage features will be set out and installed as required;
  - Security fencing will be erected around the perimeter of the SCCS;
  - Once vegetation has been removed, topsoil material over the SCCS area will be removed and locally stored and seeded if it is to be stored for longer than 6 months;
  - Any excess material will be excavated to formation level and stored; and
  - Imported stone will be placed in accordance with the design of the SCCS base structure.
38. The SCCS will be constructed first, with the duct proving, jointing bays and cable pull through occurring at a later date (anticipated in 2024). It is intended that the SCCS will provide an early onsite presence for the onshore cable construction works and will be used as a base for mitigation and survey works being undertaken as well as for the construction team to visit site during the later stages of the planning and design process. It may also be used for stakeholder and other site meetings.
39. The Clappits SCCS will remain in situ for the duration of the onshore cable works, prior to being restored as described in Section 5.2.5.

### **5.2.3. Jointing Bays 20 to 21 (Work No. 21)**

40. The three jointing bays in Work No. 21 will be located as follows:
- Jointing Bay 20 – 340m to the east of Newbourne Road and to the southwest of Waldringfield (Grid Ref 627520 244187);
  - Jointing Bay 21 – 45m to the west of Mill Road, to the east of Newbourne (Grid Ref 627881 243040); and
  - Jointing Bay 22 – 240m to the north of Kirton Creek and 190m to the southeast of White Horse Wood, to the southeast of Newbourne (Grid Ref 628065 241862).
41. Once the location of each jointing bay compound has been established (using GPS RTK equipment), creation of the compound will commence with erection of temporary security fencing, removal of topsoil layer and installation of hardstanding areas.
42. The jointing bay 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 uncovered and concrete slabs constructed to provide a level working area. Two sump pits will be included to facilitate drainage and dewatering and water will be treated, where necessary, before being discharged. Installation and jointing of the cables will then take place, along with installation of earthing link boxes and fibre optic cable chambers, before the area is back filled with subsoil.
43. The creation of each jointing bay compound and excavation of each jointing bay will take a week each.

### **5.2.4. Cable Installation**

44. The electrical transmission cables will be delivered to the Clappits SCCS where they will be transferred to the jointing bay compounds when needed. The cable drums will comprise abnormal loads and their delivery will be managed as set out in the Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000053). Two cable lengths of approximately 1,260m will be required to pull through between each pair of jointing bays. The cable ducts will be proved before the cable is pulled through. Once the cables are received at the jointing bay compound, they will be temporarily stored on the hardstanding area prior to installation in the pre-installed ducts.

45. Installation of the cables into the ducts between the jointing bays will begin with a cable pulling system being installed into the bay. A steel bond and winching system with free spinning rollers will be installed along the bottom of the bay. Hydraulic jacks will raise the cable drum off the ground and a winch will be used to pull in cable using a pulling rope. A dynamometer will ensure the maximum pulling tension is not exceeded. Tension on the cable will be reduced using a biodegradable water-based lubricant. This process will be repeated for the second cable being installed in the duct. The cables will then be jointed once 2 cable sections (4 cables) have been installed.
46. It is expected that pulling and jointing operations at each location would take approximately 2.5 weeks typically spread over a three to four week period, with approximately five workers for each jointing bay. These works will then be repeated to install the cables between all the jointing bays.

### 5.2.5. Reinstatement

47. Following installation and jointing of the cables, the jointing bays, compound, accesses and haul roads will be reinstated with the stored topsoil and subsoil following trenching. If necessary, the subsoil will be 'ripped' prior to placement if compaction had occurred. Topsoil will be spread in such a way as to ensure that it does not become compacted. The topsoil will then be cultivated and reseeded (if required) and suitable hedgerow species replanted during the first appropriate planting season, in accordance with the Landscape Management Plan (EA3-LDC-CNS-REP-IBR-000056). Temporary fencing around any new planting would be removed once reinstatement was established.
48. The Clappits SCCS will remain in situ for the duration of the cable works and will then be removed and reinstated.

### 5.3. Schedule and Working Hours

49. The construction of the Clappits Works is proposed to start in July 2022, with the installation of the CCS and access to it, over a 5-week period. The main construction works will then take place from 2024 over approximately 18 months to 2 years, however the works at this location would be of 8 weeks duration in total, over a 5-month period.
50. The SCCS will be constructed first within the staging of the construction works, with the jointing bays and cable pull through occurring at a later stage. The Clappits SCCS will remain in situ for the duration of the onshore cable works, prior to being reinstated as outlined in Section 5.2.
51. It is expected that the creation of each jointing bay compound and excavation of each jointing bay would take three to four weeks. It is expected that jointing operations would take approximately ten days spread over a four to six working week period, with approximately five workers for each jointing bay.
52. DCO Requirement 25 defines the construction working hours as follows:

*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.*

53. Further information is provided in Section 5.5 of the CoCP.

#### 5.4. Construction Road Traffic

54. Construction phase road traffic will access the Clappits Works via Newbourne Road and Woodbridge Road. Further detail is provided in the Clappits Works Traffic Management Plan (EA3-GRD-CON-PLN-IBR-000053).

55. An assessment of the potential impacts associated with construction road traffic was undertaken as part of the previously submitted 2015 Environmental Statement (ES). This considered road traffic volumes generated by all onshore construction activities. In accordance with the EPUK and IAQM guidance, effects upon NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations at existing receptors were considered to be 'not significant'. No further consideration was therefore needed.

56. This assessment considered HGVs generated from all onshore construction works. HGVs generated by construction activities associated with the Clappits Works will be lower than those assessed as part of the ES. Furthermore, the flows attributed to the Clappits Works within the ES are considered to be conservative upon reflection, as confirmed by the project team. The findings of the ES, therefore, remain relevant and no further consideration is needed.

#### 5.5. Non-Road Mobile Machinery

57. To facilitate construction, non-road mobile machinery (NRMM) will be used. NRMM refers to mobile machines, transportable industrial equipment or vehicles which are fitted with an internal combustion engine and not intended for transporting goods or passengers on roads. An inventory of NRMM proposed to be used for the construction of the Clappits Works is presented in Table 5-2.

58. Following application of suitable controls (such as those outlined in Section 79), emissions from NRMM used during the construction phase are unlikely to make a significant impact on local air quality – as per LAQM.TG(16).

**Table 5-2 Details of NRMM**

Construction Activity	NRMM Construction Equipment
Jointing Bays	Generator
	Telehandler
	30T Excavator
	Loader
	Tractor and trailer
	Cable winch
	HIAB crane lorry
	Lorry and low loader
CCS/Accesses/Haul Roads	Loader
	D8 Dozer
	Grader
	Road Roller
	20T Dumper
	30T Excavator
	Tractor and trailer
	Bowser
	Sweeper

### 6. CONSTRUCTION DUST ASSESSMENT METHODOLOGY

59. A construction dust assessment was undertaken as part of the wider ES, using guidance documents and associated methodologies that are still considered relevant and up to date. A separate dust assessment has been undertaken (in accordance with IAQM guidance) which focuses solely on construction activities proposed at the Clappits Works, with the use of updated information from the contractors. In addition, a number of mitigation measures (including those set out in the Outline Code of Construction Practice) have been included within this AQMP to provide a best practice approach.

60. The assessment of risk is determined by considering the risk of dust effects arising from four activities in the absence of mitigation. The assessment will consider the potential dust impacts associated with the following activities:

- Demolition
- Earthworks;
- Construction; and
- Track-out.

61. The assessment methodology considers three separate dust impacts with account being taken of the sensitivity of the area that may experience these effects:

- Annoyance due to dust soiling;
- The risk of health effects due to an increase in exposure to PM<sub>10</sub>; and
- Harm to ecological receptors.

62. The first stage of the assessment involves a screening exercise to determine if there are sensitive receptors within threshold distances of the site activities associated with the construction phase of the scheme. Further assessment is required where a:

- Human receptor is located within 350m of the site, and/or within 50m of routes used by construction vehicles, up to 500m from the site entrance(s); and/or
- Ecological receptor is located within 50m of the site, and/or within 50m of routes used by construction vehicles, up to 500m from the site entrance(s).

63. The dust emission class (or magnitude) for each activity is determined based on the guidance, indicative thresholds and expert judgement. The risk of dust effects arising is based upon the relationship between the dust emission magnitude and the sensitivity of the area. The risk of impact is then used to determine the appropriate mitigation requirements, whereby through effective application, residual effects are considered to be 'not significant'.

64. The IAQM guidance therefore does not provide a framework to determine the significance of unmitigated effects, as is not considered appropriate nor relevant in this context. For these reasons, the significance of unmitigated effect of construction dust cannot be defined.

## **7. CONSTRUCTION PHASE DUST ASSESSMENT**

### **7.1. Assessment Screening**

65. There are human receptors within 350m of the construction works but no ecologically designated sites within 50m of the site boundary or within 50m of roads that will witness construction traffic movements up to 500m from the site entrance(s). The Deben Estuary Special Protection Area (SPA) is the nearest designated habitat and is located approximately 760m east of the site. Therefore, an assessment of construction dust on human receptors only is required.

### **7.2. Potential Dust Emissions Magnitude**

66. A summary of the dust emission magnitude for the four assessed activities is provided in the following text and summarised in Table 7-1. This assessment has used information provided by the appointed construction contractors.

#### **7.2.1. Demolition**

67. There are no existing buildings or structures currently occupying the site which are to be demolished. As such, an assessment of the potential dust impacts associated with this activity has been screened out from requiring assessment.

#### **7.2.2. Earthworks**

68. Site earthworks are required over an area greater than 10,000m<sup>2</sup>. However, it is expected that there will be a maximum of 5-10 heavy earth moving vehicles active at any one time moving up to a maximum 100,000 tonnes of material. Bunds of material are to be formed for topsoil and sub soil up to 3m in height. As such, the overall dust emissions magnitude for earthworks is therefore initially considered to be 'medium'.

#### **7.2.3. Construction**

69. The proposals comprise the construction and use of the SCCS, three jointing bay compounds and associated infrastructure, as discussed in Section 5. The aggregated building volume is <25,000m<sup>3</sup> of portacabins comprising off-site manufactured, prefabricated

units and therefore minimal potential for dust release. As such, the potential dust emission magnitude for construction is therefore initially considered to be 'small'.

#### 7.2.4. Trackout

70. Construction vehicles will access the site via two accesses off Newbourne Road and Woodbridge Road. Construction traffic will also use a crossing point across The Street (CR1&2). The maximum number of outward HGV movements in any one day is expected to be 10-50. However, any unpaved roads are anticipated to have the potential to be >100m and as such, the potential dust emission magnitude for trackout is therefore conservatively considered to be 'large'.

**Table 7-1 Potential dust emission magnitude**

Activity	Dust Emission Magnitude
Earthworks	Medium
Construction	Small
Trackout	Large

### 7.3. Sensitivity of the Area

71. A summary of the sensitivity of the surrounding area is detailed in the following text and summarised in Table 7-2.

#### 7.3.1. Dust Soiling

72. There are no existing residential properties (highly sensitive receptors) within 100m of the site boundary but 1 - 10 existing residential properties within 50m of the site boundary. There are 1 - 10 existing residential properties within 20m of the public highway up to 200m from the site exit along Woodbridge Road and Newbourne Road (commensurate of a medium trackout magnitude).
73. The sensitivity of the area with respect to dust soiling effects on people and property in relation to earthworks and construction is therefore considered to be 'low' and in relation to trackout is considered 'medium'.

#### 7.3.2. Human Health

74. The maximum 2022 Defra mapped background PM<sub>10</sub> concentration (2018 base year) for the 1km<sup>2</sup> grid squares covering the site is estimated to be 15.2µg/m<sup>3</sup> (i.e. falls into the <24µg/m<sup>3</sup> class). As discussed in Section 4.1, no local background PM<sub>10</sub> monitoring exists within the development locale.
75. Given the above information regarding the number of residential properties within 50m of the site and 50m of roads that will witness construction traffic movements up to 200m from access points, the sensitivity of the area with respect to human health impacts in relation to earthworks, construction and trackout is therefore considered to be 'low'.

**Table 7-2 Sensitivity of the Area**

Potential Impact	Earthworks	Construction	Trackout
Dust Soiling	Low	Low	Medium
Human Health	Low	Low	Low

### 7.4. Risk of Impacts (Unmitigated)

76. The calculated sensitivities and dust emission magnitudes for each activity and impact are combined to determine the risk of impact (unmitigated) which is used to inform the selection of appropriate mitigation for inclusion within the AQMP, and implementation throughout the construction phase.

**Table 7-3 Risk of dust impacts (unmitigated)**

Potential Impact	Earthworks	Construction	Trackout
Dust Soiling	Low Risk	Negligible	Medium Risk
Human Health	Low Risk	Negligible	Low Risk



77. Following the construction dust assessment, the site is found to be at worst 'Medium Risk' in relation to dust soiling effects on people and property and 'Low Risk' in relation to human health impacts. In addition, potential dust effects during the construction phase are considered to be temporary in nature and may only arise at particular times (i.e. certain activities and/or meteorological conditions).
78. Nonetheless, commensurate with the above designation of dust risk, mitigation measures, as identified in the IAQM guidance, are required to ensure that any potential impacts arising from the construction phase of the proposed development are reduced and, where possible, completely removed.

## 8. CONTROL MEASURES AND MITIGATION

79. The air quality control measures set out below will be included in the relevant Risk Assessment and Method Statement that will be submitted for each construction activity by all appointed contractors. The mitigation measures are proportionate to the scale and extent of impacts predicted and are included in the various standards and best practice guidelines.
80. The air quality control measures presented in Table 8-1 comprise the Highly Recommended and Desirable measures identified as a result of the Construction Phase Dust Assessment set out in Section 7 and also a number of further best practice measures which were included, *inter alia*, within the AQMP for EA ONE.
81. During the construction phase, a proactive approach will be taken to ensuring the potential for fugitive dust emissions is minimised, rather than pursuing a reactionary approach i.e. when a complaint is made. This will be achieved through the implementation of a monitoring strategy as detailed in Section 9. This strategy will comprise routine visual inspections by onsite contractors and application of the 'as needed' or 'as necessary' controls identified in Table 8-1, i.e. if the levels of dust deposition are seen to increase significantly during the visual inspections, further dust controls will be implemented as appropriate from the list of measures presented. This process is illustrated in Appendix A.

**Table 8-1 Air Quality Control Measures**

Mitigation Measure - Category	Description	Timing	Responsibility
<b>Sustainable Travel and Machinery</b>	Ensure all vehicles switch off engines when stationary - no idling vehicles.	Ongoing	All personnel
	Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	Ongoing	Principal Contractor
	Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas	Ongoing	Site Manager/Principal Contractor
<b>Operations</b>	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	As needed	Principal Contractor
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	As needed	Principal Contractor
	Use enclosed chutes and conveyors and covered skips (other than where materials are not dust-generating and the covering of the skips introduces risks for loading and unloading)..	Ongoing	Principal Contractor
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	Ongoing	All personnel
	Monitor weather forecasts for prolonged dry or windy conditions and modify (or delay) potentially dusty site activities until the risk has reduced.	Ongoing	Principal Contractor/Site Manager
	Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods .	Ongoing	Principal Contractor



Mitigation Measure - Category	Description	Timing	Responsibility
<b>Preparing and Maintaining the Site</b>	Plan the site layout so that machinery and dust causing activities are located away from receptors, unless required for works.	As needed	Principal Contractor
	Erect effective solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	As needed	Principal Contractor
	Enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	As needed	Principal Contractor/all personnel
	Keep site fencing, barriers and scaffolding clean using wet methods e.g. fine water spray.	Ongoing	Principal Contractor
	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	As needed	Principal Contractor/all personnel
	Cover, seed or fence stockpiles to prevent wind whipping.	Ongoing	Site Manager/Principal Contractor
	Monitoring of haul road surface condition	Ongoing	Principal Contractor
<b>Site Management</b>	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Ongoing	Principal Contractor/Site Manager
	Make the complaints log available to the local authority when asked.	As needed	Community Liaison Officer
	Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook.	As needed	Principal Contractor/Site Manager
	If any high-risk construction sites are identified within 500m of the site boundary, liaison will be undertaken to ensure plans are co-ordinated and dust and particulate matter emissions are minimised, including with respect to interactions of the off-site transport/deliveries which might be using the same strategic road network routes.	One off	Principal Contractor
	Temporary cover, screen or revegetate earthworks/stockpiles, if possible, as soon as is practicable. A low maintenance grass mix will be sown as soon as possible after creation of any soil storage mounds which are intended to remain in situ for more than 6 months or over the winter period. The optimum months for sowing grass seed are April or September to October.	As needed	Principal Contractor
	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	As needed	Site Manager/Principal Contractor
	Wetting/dampening of dust generating stockpiles	As needed	Principal Contractor
	Avoid scabbling (roughening of concrete surfaces) if possible.	Ongoing	Site Manager/Principal Contractor
	Stockpiles would be kept in place for the shortest possible time.	Ongoing	Principal Contractor
	Dust-generating activities will be minimised.	Ongoing	All personnel
	Where diesel- or petrol-powered generators are used, best practice measures will be implemented including regular inspections with respect to black smoke, siting away from pedestrian areas and if required, raising above ground to further reduce potential for contact with fumes.	Ongoing	Principal Contractor

Mitigation Measure - Category	Description	Timing	Responsibility
	Fine powder material (e.g. bulk cement/ grouts) to be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	Ongoing	Principal Contractor
	For smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust release.	Ongoing	Principal Contractor
	Inspections and monitoring to be undertaken as set out in Section 9 of this AQMP.	Ongoing	Principal Contractor
	Runoff of mud and water will be prevented.	As needed	Principal Contractor
<b>Trackout</b>	Use water-assisted dust sweeper(s) on the access roads, Newbourne Road and Woodbridge Road, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.	As needed	Principal Contractor
	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable and regularly dampen down with fixed or mobile sprinkler systems, where necessary.	Ongoing	Principal Contractor/Site Manager
	Avoid dry sweeping of large areas.	As needed	Principal Contractor
	Ensure all vehicles entering and the leaving the site which are carrying loads are covered to prevent escape of materials during transport	Ongoing	Site Manager/Principal Contractor
	Record all inspections of haul routes and any subsequent action in a site logbook.	Ongoing	Principal Contractor/all personnel
	Implement a wheel washing system to dislodge accumulated dust and mud prior to leaving the site.	As needed	Principal Contractor
	Vehicles leaving site will be washed if necessary.	Ongoing	Principal Contractor
	Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits. Locate site access gates at least 10m from receptors where practicable.	As needed	Principal Contractor
<b>Waste Management</b>	Bonfires and burning of waste will not be allowed on Site.	Ongoing	Principal Contractor/all personnel
<b>NRMM</b>	All NRMM should be well maintained. If any emissions of dark smoke occur, then the relevant machinery should stop immediately, and any problem rectified.	Ongoing	Principal Contractor
	All NRMM will use ultralow sulphur diesel (fuel meeting the specification within EN590:2004), where available.	Ongoing	Principal Contractor
	All NRMM to comply with either the current or previous EU Directive Staged Emission Standards.	Ongoing	Principal Contractor
	All NRMM will be fitted with Diesel Particulate Filters (DPF) conforming to defined and demonstrated filtration efficiency (load/duty cycle permitting).	Ongoing	Principal Contractor
	The on-going conformity of plant retrofitted with DPF, to a defined performance standard will be ensured through a programme of onsite checks.	Ongoing	Principal Contractor
	Implementation of fuel conservation measures including instructions to throttle down or switch off idle construction equipment; switch off the engines of trucks while they are waiting to access the site and while they are being loaded or unloaded, ensure equipment is properly maintained to ensure efficient fuel consumption	Ongoing	Principal Contractor

Mitigation Measure - Category	Description	Timing	Responsibility
	Regular servicing and checks of all plant/equipment e.g. black smoke from exhausts	Ongoing	Principal Contractor

82. In addition to the above mitigation, a Traffic Management Plan (EA3- LDC-CNS-REP-IBR-000053) and a Travel Plan (EA3- LDC-CNS-REP-IBR-000052) have been developed to manage the sustainable delivery of goods and materials and to support and encourage sustainable travel for contractor operatives and staff (public transport, cycling and car-sharing (subject to Covid-19 restrictions)) and thereby minimise the associated air quality impacts.

## 9. MONITORING

83. The principal purpose of monitoring will be to ensure that the mitigation measures on site are effective in the management of dust propagation.
84. If the 'ongoing' controls detailed in Section 8 are implemented appropriately during the onshore construction works, then likely dust generation and other emissions from the construction site will be minimised and rendered 'not significant'. However, site inspections and visual monitoring will be undertaken as an effective way to verify that air pollution control measures have been properly designed and implemented. This will also inform whether supplementary controls (i.e. those marked as 'as necessary' or 'as needed') are required. This process is illustrated in Appendix A.
85. Details of the monitoring programme are provided below.

### 9.1. Visual Inspections

86. Visual inspections for dust generated from haul trucks, vehicle traffic, earthworks and other relevant activities will be undertaken every morning and afternoon and observations recorded after each inspection. These inspections will be undertaken in the vicinity of the working site boundary (external and internal), and, where these checks indicate the potential for off-site dust impacts, then at sensitive receptor locations within proximity of the site (subject to landowner approval) – as outlined in Table 9-1 and illustrated in Figure 3 Air Quality Sensitive Areas. These locations represent areas of sensitivity where monitoring should be focussed at or in proximity to, upwind side relative to the dust sources.

**Table 9-1 Sensitive Area for Visual Inspections**

Sensitive Area	Address	Type
SA1	Heath Farm, off Newbourne Road, Waldringfield	Farm
SA2	Glebe Farm Car Repairs, off Newbourne Road, Waldringfield	Farm/Car Repair Business
SA3	Residential Properties off Woodbridge Road, Waldringfield	Residential Properties
SA4	Clappits Pit off Woodbridge Road, Waldringfield	Plant hire, Groundworks and Aggregate Recycling Centre
SA5	Residential Properties off Woodbridge Road, Waldringfield	Residential Properties
SA6	Residential Properties off The Street, Waldringfield	Residential Properties
SA7	Residential Properties off Mill Road, Waldringfield	Residential Properties
SA8	Residential Properties off Mill Road, Waldringfield	Residential Properties
SA9	New Oak Tree Farm, Waldringfield	Farm
SA10	Residential Properties off School Rd, Waldringfield	Residential Properties

87. The visual inspections will check for the presence of deposited dust on surrounding surfaces (cars and vegetation) within 100m of the Site and subject to landowner approval, if site inspections indicate off-site deposition is a possibility. If dust is noticed, or there is deemed to be a 'dust episode' then this will be recorded and the information made available to MSDC on request. The source(s) of emissions will be investigated to determine if any site activity is responsible, with remedial action taken and documented. The dust record should include:

- Time and date;

- Confirmation of any visible dust sources;
- Remedial actions taken if on-site emissions observed; and
- Wind direction and strength.

88. The frequency of visual inspections will be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions particularly when in close proximity to receptors. The weather forecasts will be checked in advance to determine the potential for high-risk dust events (e.g. dry weather and strong winds towards sensitive receptors). Forecasts will be used to trigger for preventive dust management action to be taken. In some cases there may be an opportunity to modify (or delay) potentially dusty site activities until the risk has reduced.

## 9.2. Site and Equipment Audits

89. Application of the controls detailed in Table 8-1 will be monitored regularly by the Principal Contractor, Site Manager and Environmental Clerk of Works (EnvCoW) throughout the construction phase, as set out in the Project Environmental Management Plan (Appendix 10 of the CoCP) and Contractors' Construction Environmental Management Plans. If non-conformity with any of the control and mitigation measures is identified, it will be recorded and appropriate remedial actions will be implemented.

90. Any incidents that cause dust and/or air quality emissions and remedial actions should be recorded.

91. Site inspections should verify if vehicle traffic and/or NRMM emissions are consistently black. This is a signal that an engine is not operating optimally which should be turned off until rectified.

## 10. RESPONSIBILITIES

### 10.1. Implementation

92. The responsibility for ensuring this AQMP is adhered to lies with the Principal Contractor, Site Manager and EnvCoW. They will be assisted by the Contractor's Site Manager. There shall be a competent person on site during working hours responsible for the dust management measures. Responsibilities will be allocated to specific personnel to ensure dust generation is effectively controlled.

### 10.2. Roles and Responsibilities

93. The persons nominated to be responsible for tasks as defined in this AQMP are outlined below:

- EnvCoW:
  - Responsible for the implementation of this plan and preparing reports to the client and the stakeholders as required;
  - Responding to complaints in consultation with the Site Manager and informing the relevant stakeholders where necessary of the complaint, the source of the complaint and any action which was taken;
  - Ensures any complaints are responded to promptly by the Contractor's Site Manager; and
  - The EnvCoW will normally be a person located centrally within the developer's management structure. Alternatively, a member of the site team could be designated EnvCoW for the site, they should however be a different person to the Contractor's Site Manager.
- Site Manager:
  - Ensure mitigation measures are in place and that the AQMP is being followed. This should be undertaken in consultation with the EnvCoW; and
  - Responding to complaints, assisting with the investigation as to the causes of complaints, and ensuring appropriate mitigation measures are being used or employ further measures if required in consultation with the EnvCoW and ESC.

### 10.3. Training

94. All employees, contractors and staff working on site will undergo site induction training, which will include environmental awareness training, including an understanding of air quality management issues. Individually focussed toolbox talks will also be required to be delivered by those contractors involved in the activities most likely to impact on the air quality.

95. The training will provide specific instructions about:

- Requirement for dust suppression at all times;
- How to avoid and suppress dust across worksite;

- Available dust suppression options;
- Work methods to prevent dust generation, such as maintaining site speed limits;
- Covering trucks loads;
- Cleanliness of vehicles, prior to exiting site;
- Road cleanliness, with regard to vehicles leaving the site onto public roads;
- Sensitive areas / receptors;
- Potential for condition changes and response strategies in windy conditions; and
- The importance of equipment maintenance.

96. Plant and equipment operators will be trained and experienced in the plant that they operate. Certification will be held on-site and available for inspection.

97. The importance of working to the requirements of the AQMP will be communicated at staff inductions and during daily activity briefings when activities that may create dust are to be undertaken.

## **11. COMMUNICATION**

98. The following measures are mandatory and relate specifically to communication and are the responsibility of the Contractor Site Manager and Principal Contractor.

- Display and name the contact details of Community Liaison Officer (CLO) on the construction site boundary. The location of these signs will be on fencing adjacent to the dust sensitive receptors; and
- Display the head or regional office contact information.

### **11.1. Community Liaison**

99. EATL is committed to providing clear communication to local residents and will manage public relations with local residents and businesses that may be affected by construction dust. Proactive community liaison will be maintained, keeping local residents informed of the type and timing of works involved, paying particular attention to potential evening and night-time works and activities which may occur in close proximity to receptors. As outlined in the Project Community and Public Relations Procedure (Appendix 8 of the CoCP), 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.

### **11.2. Complaints Procedure**

100. In order that dust complaints can be substantiated, it is imperative that EATL is immediately informed either by the complainant themselves or ESC. An EA THREE Complaints Procedure will be published on the project website. This will set out how complaints will be managed and will state that all enquiries will be logged, investigated and rectifying action taken when deemed appropriate. The CLO's telephone number shall be clearly displayed at the site entrance and local residents should be encouraged to contact the CLO and/or ESC in the event of dust soiling. In the event of an emergency outside of normal office hours, the CLO's telephone number will be directed through to an on-duty member of the construction team for resolution.

101. The Principal Contractor's Site Manager and the EnvCoW will record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. All complaints regarding air quality and dust will be shared with ESC, including a note of the actions taken and the measures to put in place to rectify any problem.

## **12. UPDATING THE AQMP**

102. This AQMP is a 'live' document and as such it will be reviewed periodically; following any on-site incidents, changes in site operations or if elevated dust levels occur over a prolonged period requiring the AQMP to be updated. This will ensure that the AQMP will be updated with the release of new information.

103. Any updates will be agreed between EATL, Principal Contractor, Subcontractor/s and ESC.

## **13. REFERENCES**

Defra: Local Air Quality Management Technical Guidance 2016 (LAQM.TG(16)) (2021).

Environment Agency: Monitoring Particulate Matter in Ambient Air around Waste Facilities, (2013).

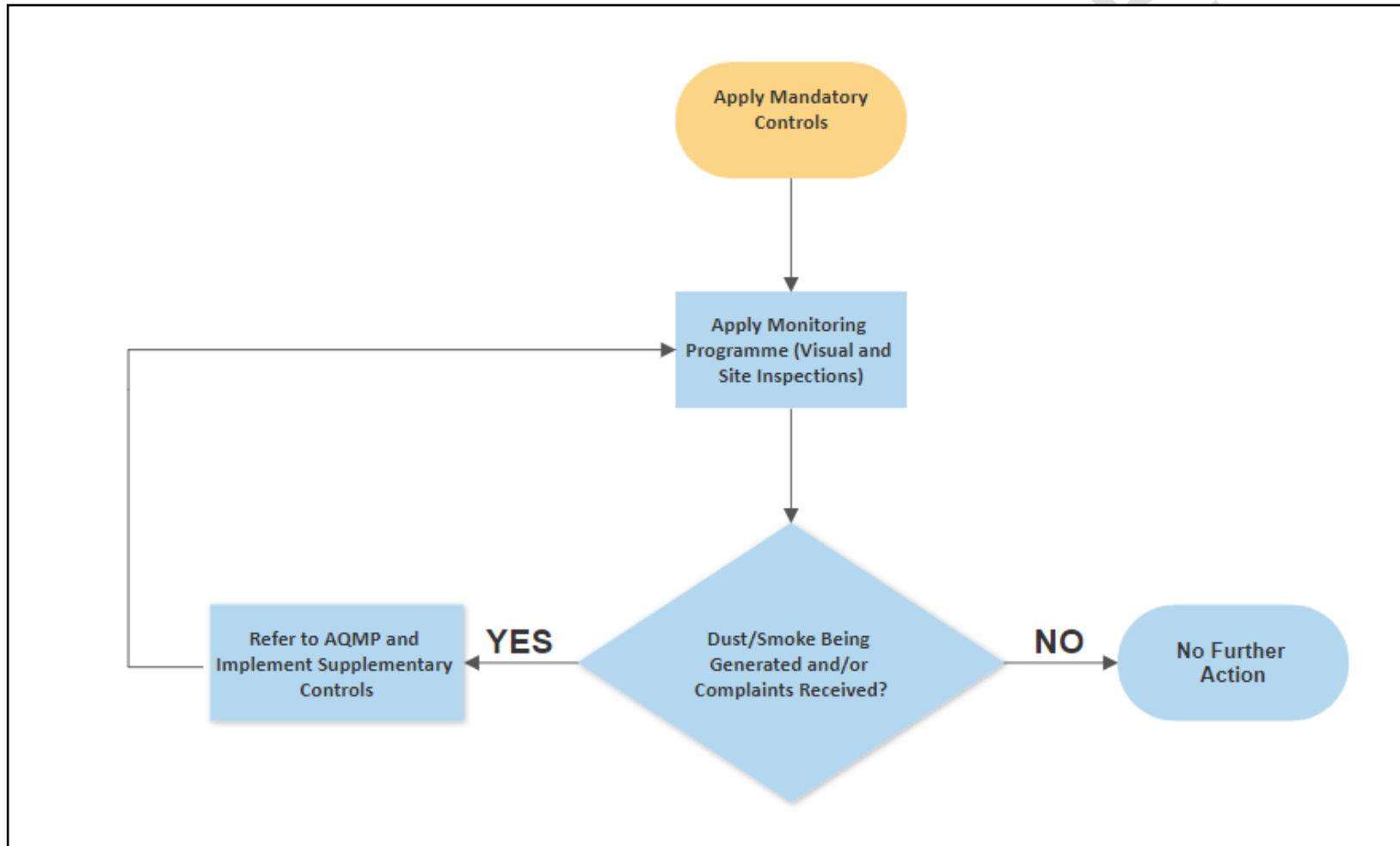
EPUK and IAQM Land Use Planning & Development Control: Planning for Air Quality, (2017).

IAQM. Guidance on the Assessment of Dust from Demolition and Construction, v1.1 (2016).

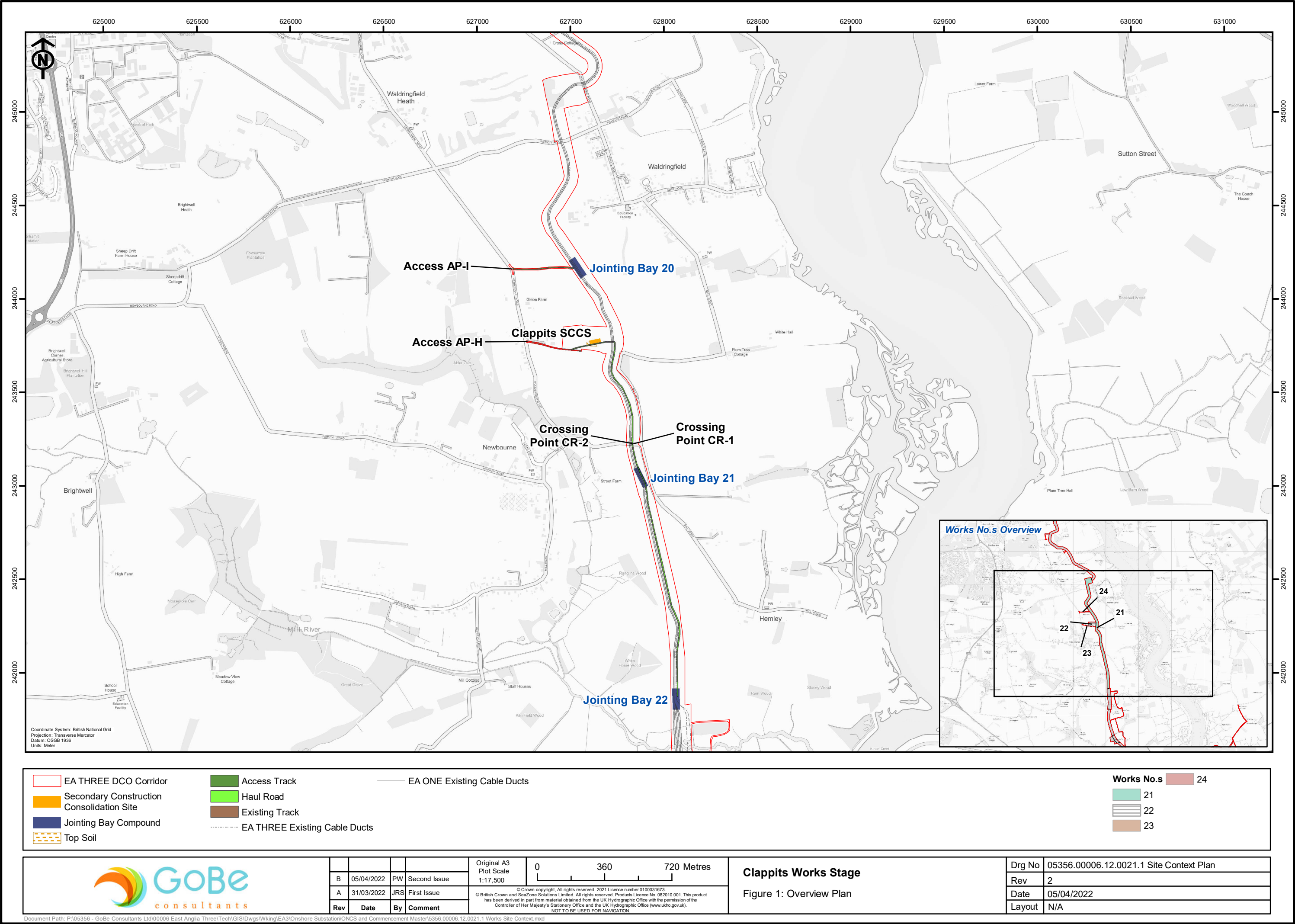
IAQM: Guidance on Monitoring in the Vicinity of Demolition and Construction Sites, v1.1 (2018).

FOR DISCHARGE

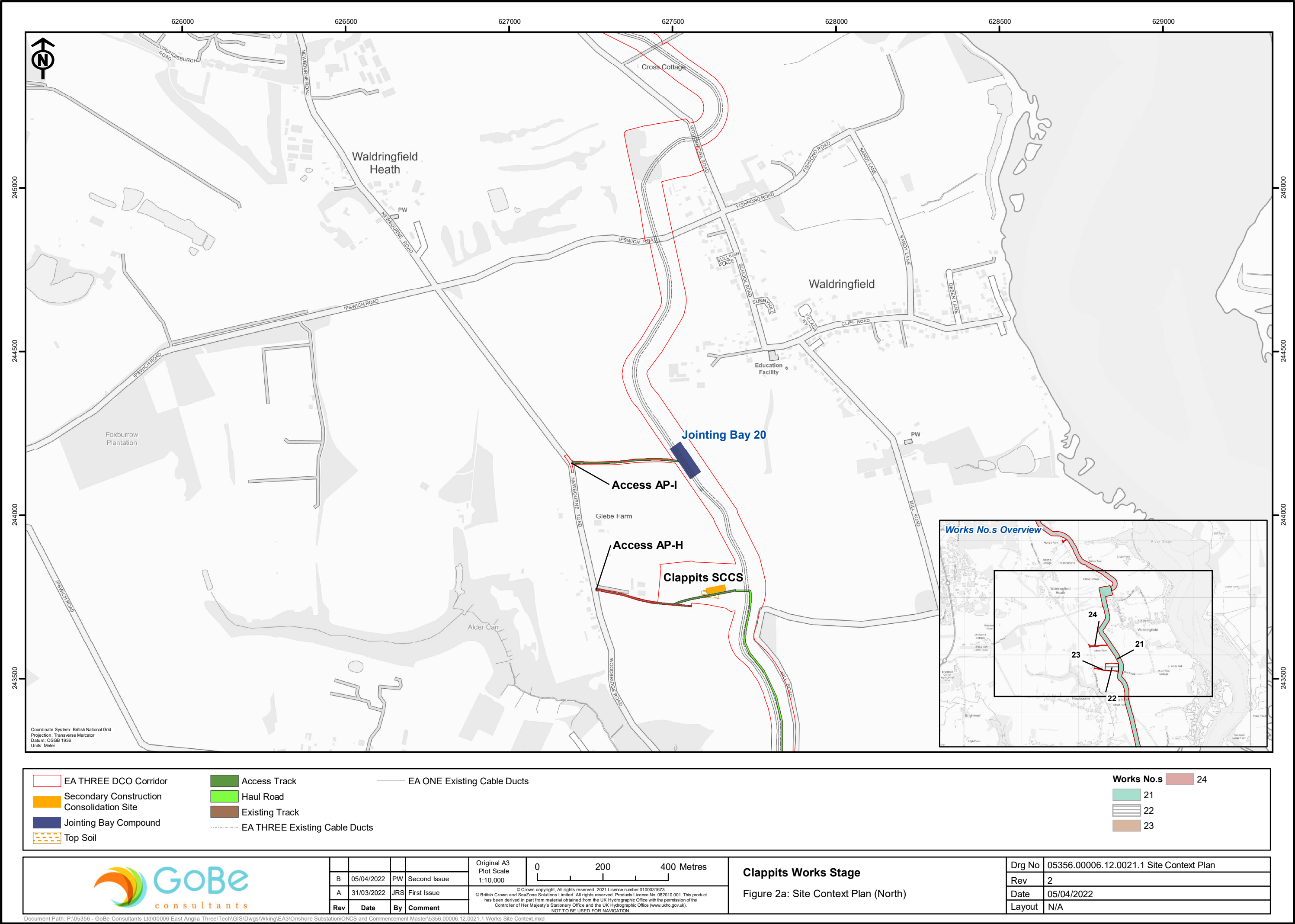
## APPENDIX A MONITORING CONTROL PROCEDURE

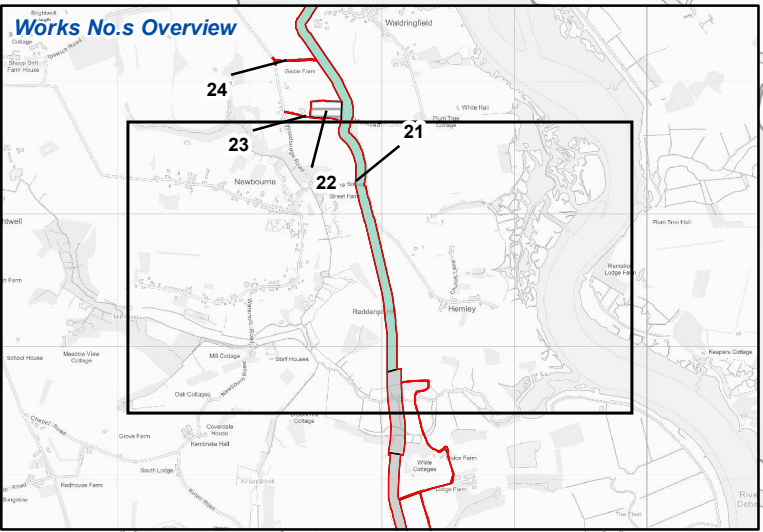
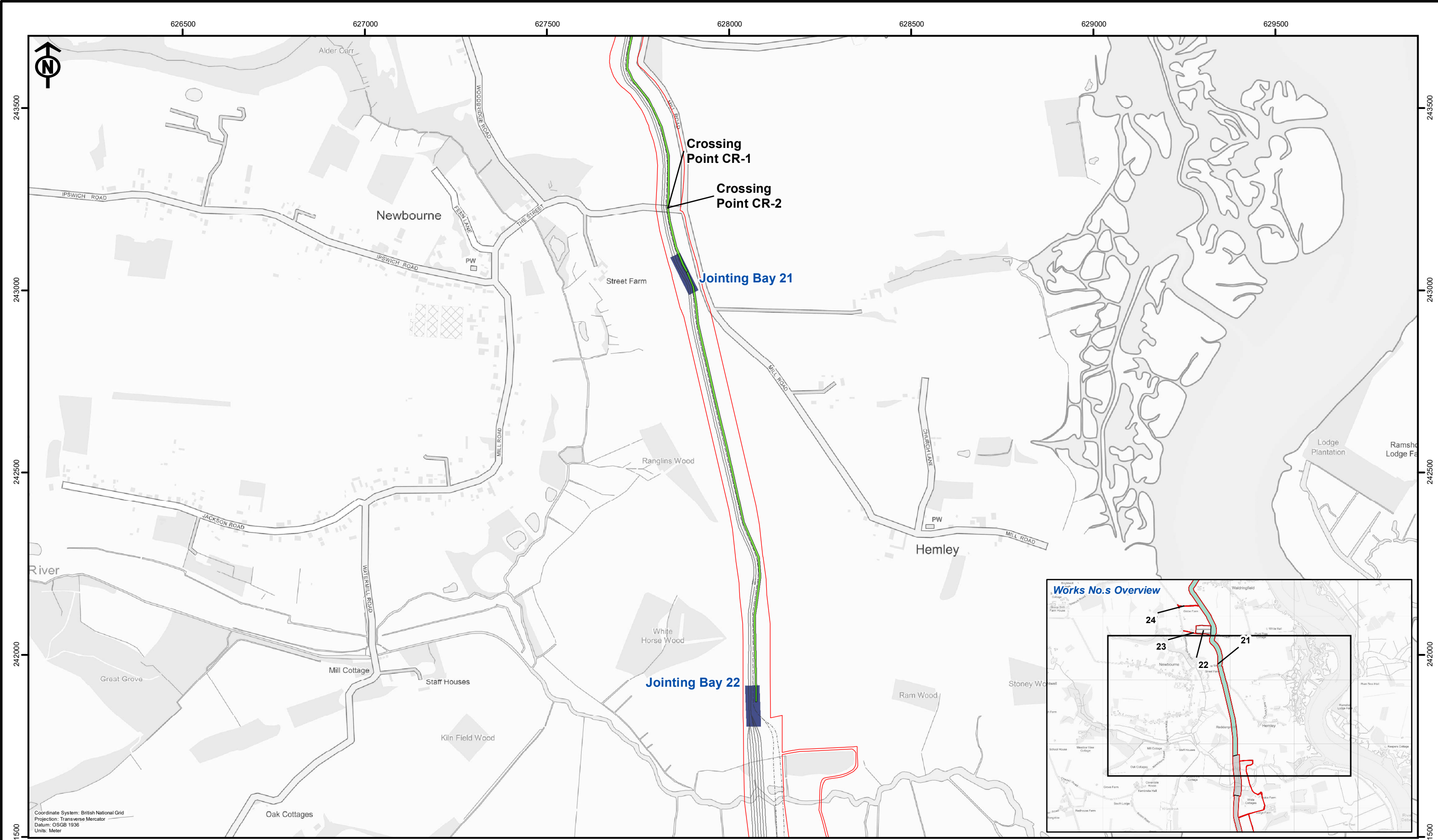












EA THREE DCO Corridor

Jointing Bay Compound

Haul Road

EA THREE Existing Cable Ducts

EA ONE Existing Cable Ducts

Works No.s

21

22

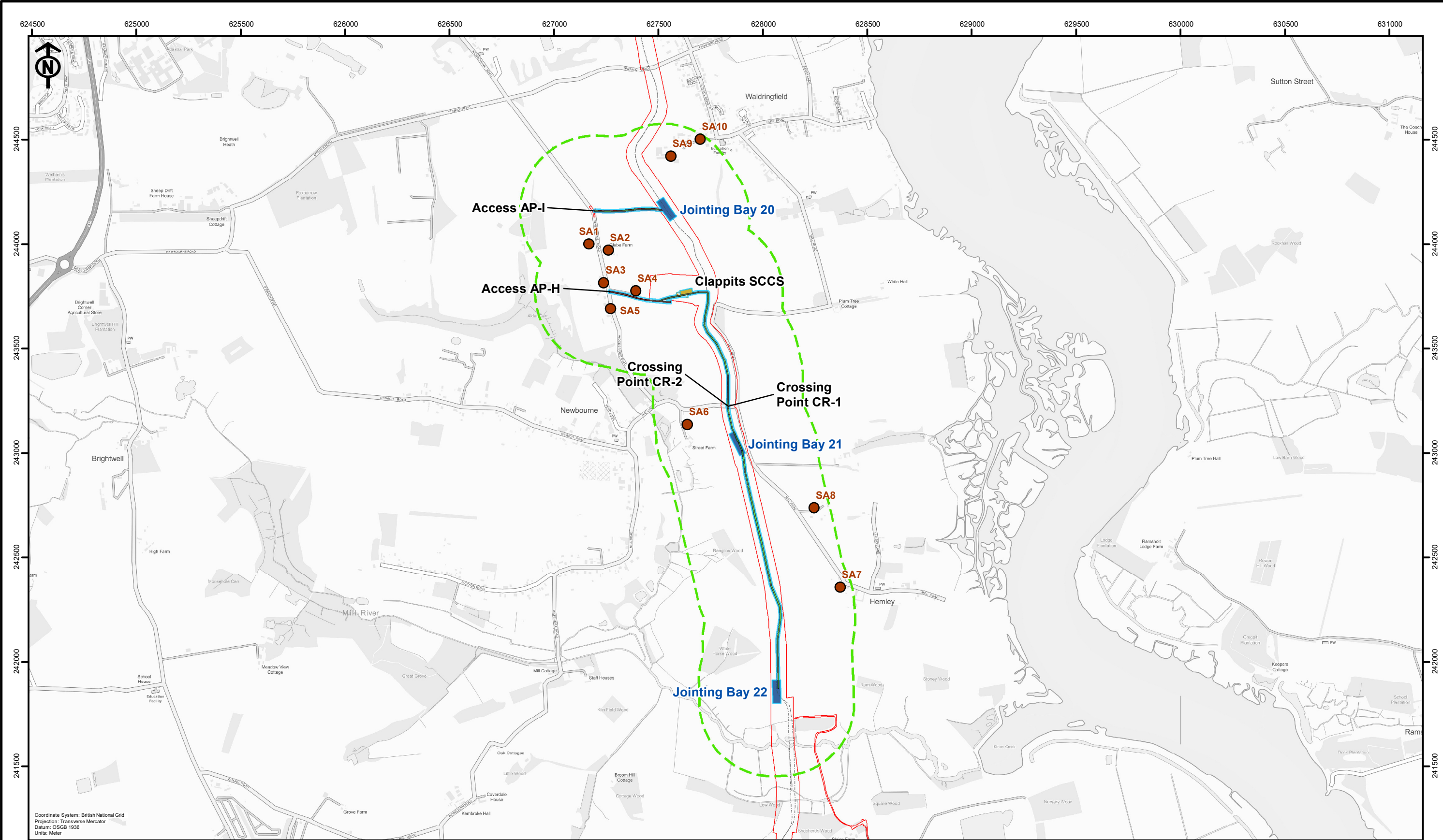
23

24

<div><div><div><div></div><div>GoBe</div><div>consultants</div></div></div><div><div><div></div><div>B</div><div>05/04/2022</div><div>PW</div><div>Second Issue</div></div><div><div></div><div>A</div><div>31/03/2022</div><div>JRS</div><div>First Issue</div></div><div><div></div><div>Rev</div><div>Date</div><div>By</div><div>Comment</div></div></div></div>				<div><div>Original A3 Plot Scale 1:10,000</div><div><div>0</div><div>200</div><div>400 Metres</div></div></div> <div><div>© Crown copyright. All rights reserved. 2021 Licence number 0100031673.</div><div>© British Crown and SeaZone Solutions Limited. All rights reserved. Products Licence No. 082010.001. This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the Controller of Her Majesty's Stationary Office and the UK Hydrographic Office (www.ukho.gov.uk).</div><div>NOT TO BE USED FOR NAVIGATION</div></div>		<div><div>Clappits Works Stage</div><div>Figure 2b: Site Context Plan (South)</div></div>		Drg No 05356.00006.12.0021.1 Site Context Plan	
								Rev 2	Date 05/04/2022
								Layout N/A	

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Drawings\EA3\Onshore Substation\ONCS and Commencement Master\5356.00006.12.0021.1 Works Site Context.mxd





- EA THREE DCO Corridor

Secondary Construction Consolidation Site

Jointing Bay Compound

Top Soil
- Access Track

Haul Road

Existing Track

EA THREE Existing Cable Ducts
- Extent of Potential Dust Sources

Extent of Potential Dust Effect

Sensitive Area

B	06/04/2022	PW	Second Issue
A	20/12/2021	PW	First Issue
Rev	Date	By	Comment

Original A3 Plot Scale 1:17,500

0 350 700 Metres

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NOT TO BE USED FOR NAVIGATION.

Clappits Works Stage

Figure 3: Air Quality Sensitive Areas

Drg No	05356.00006.12.0022.1 Air Quality Sensitive Areas
Rev	2
Date	06/04/2022
Layout	N/A

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