

BT-NG-020621-545-0212

Bramford to Twinstead Reinforcement

Volume 8: Examination Submissions

Document 8.3.9: Applicant's Response to Issue Specific Hearing 1
Action Points

Final Issue A
September 2023

Planning Inspectorate Reference: EN020002



The Planning Infrastructure (Examination Procedure) Rules 2019
Regulation 8(1)(k)

Page intentionally blank

Contents

1.	About this Document	1
1.1	Introduction	1
2.	The Applicant's Response to Issue Specific Hearing 1 Action Points	2
2.1	The Applicant's Response to Actions Table	2

	Table 2.1 – Response to ISH1 Action Points	2
--	--	---

	Reference List	
	Appendix A Overhead Line Limits of Deviation (LoD) Principles Drawing	
	Appendix B Indicative Main Construction Compound Drawing	
	Appendix C Public Rights of Way (PRoW) 2023 survey results	
	Appendix D Example of Proposed Updated Register of Environmental Actions and Commitment	

1. About this Document

1.1 Introduction

- 1.1.1 This document provides National Grid Electricity Transmission plc's (the Applicant's) response to Action Points addressed to the Applicant arising at the Issue Specific Hearing (ISH) 1 held on 14 September 2023, in respect of the Bramford to Twinstead Reinforcement (the project).
- 1.1.2 The Examining Authority (ExA) issued a list of action points on 18 September 2023 [**EV-018**]. Responses to actions addressed to the Applicant are provided in Table 2.1.

2. The Applicant's Response to Issue Specific Hearing 1 Action Points

2.1 The Applicant's Response to Actions Table

Table 2.1 – Response to ISH1 Action Points

Action No.	ExA Description	Response	Deadline (If Applicable)
AP1	Check the maximum pylon height as there appears to be some inconsistency between documents.	<p>It is noted that there are some inconsistencies in the application documents in respect to the maximum height of pylons across the project.</p> <p>The Planning Statement [APP-160] at paragraph 4.14.2 page 30 states '<i>some pylons will have a maximum height of 62m</i>'.</p> <p>The Work Plans [APP-010] at page 34 Table of Parameters (to which the vertical Limits of Deviation (LoD) in the draft DCO apply) states structure heights of up to 62.23m.</p> <p>Part 2 (Principal Powers), Article 5(b)(i) of the draft Development Consent Order (DCO) [APP-034] provides for LoD in respect of the pylons to deviate vertically from the levels of the authorised development (within the Table of Parameters in the Works Plans [APP-010]) to any extent upwards, not exceeding 4 metres.</p> <p>The Planning Statement [APP-160] does not provide a decimal value and there has been a rounding error introduced, explaining the inconsistency between the Planning Statement [APP-160] (62m) and the Work Plans [APP-010] (62.23m). However, it is the case that all pylons across the project will be subject to the LoD as set out in Article 5(b)(i) of the draft DCO [APP-034] and as such, the Applicant acknowledges the use of the un-caveated phrase, 'maximum height', in the Planning Statement [APP-160] as being inconsistent.</p> <p>Therefore, the project Errata List has been updated with the following correction to the Planning Statement [APP-160] at paragraph 4.14.2 page 30: '<i>some pylons will have a maximum height of 62m</i>' will be followed by '<i>(rounded to the nearest decimal point and subject to the Limits of Deviation)</i>'. The Errata List will be submitted at an appropriate deadline.</p> <p>Generally, the average height for a pylon would be approximately 54m from ground level (compared to approximately 30m for the existing 132kV pylons). The extra height means there can be a larger spacing (typically 360m subject to site constraints) between pylons (with fewer overall) compared to the existing 132kV</p>	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
		<p>overhead line. Vertical pylon extensions may be required in some locations depending on topography and to allow extra height to clear existing features such as, woodlands, existing infrastructure and highways. The Applicant notes the need to maintain statutory clearances, as summarised in paragraph 3.9.5(d) of the Explanatory Memorandum [APP-035].</p> <p>The pylon heights assumed in the Environmental Statement (see Table 4.1 in ES Chapter 4: Project Description [APP-072]) can be found in the table of parameters, at the end of the Work Plans [APP-010].</p>	
AP2	<p>Check the length of existing apparatus that is proposed to be removed as there appears to be some inconsistency between documents.</p>	<p>It is noted that there are some inconsistencies in the application documents in respect to the removal of 2km/2.5km of the existing 400kV (Route 4YLA) overhead line to the south of Twinstead Tee. Throughout ES Chapter 4: Project Description [APP-072] this length of five pylons and five spans of the existing 400kV overhead line section between Twinstead Tee and the Stour Valley West CSE compound, is correctly detailed as approximately 2km.</p> <p>However, it is noted that the Explanatory Memorandum [APP-035] states (at paragraph 4.1.21) that ‘<i>Work Number 7 (shown on Sheets 21, 27 and 28 of the Work Plans) is concerned with the removal of approximately 2.5 kilometres of existing overhead electricity transmission line (Route 4YLA) between the Twinstead Tee and a point to the southwest of Alphamstone (indicated as 4YLA007 on Sheet 28 of the Work Plans).</i>’</p> <p>Essentially, the additional 0.5km (approximate) stated length of 400kV overhead line relates to the length of 400kV overhead line south of the Stour Valley West CSE compound, which whilst this 0.5km (approximate) length is being removed; it is being removed to be realigned in this section.</p> <p>This realignment of the existing 400kV overhead line (as opposed to the in-isolation removal of the overhead line) is described in Work Number 6 of the draft DCO [APP-034] and shown on Sheets 27 and 28 of the Works Plans [APP-010].</p> <p>Work Number 6 of the draft DCO [APP-034] is concerned with the realignment of the existing overhead electricity transmission line (Route 4YLA) between the gantries located within the Stour Valley West CSE Compound and a point to the southwest of Alphamstone (indicated as 4YLA007 on Sheet 28 of the Work Plans) where a connection is proposed to be made with the existing electricity transmission line.</p> <p>Therefore, paragraph 4.1.21 of the Explanatory Memorandum [APP-035] will be updated to read as follows: ‘<i>Work Number 7 (shown on Sheets 21, 27 and 28 of the Work Plans) is concerned with the removal of approximately 2.0 kilometres of existing overhead electricity transmission line (Route 4YLA) between the Twinstead Tee and a point to the southwest of Alphamstone (indicated as 4YLA007 on Sheet 28 of the Work Plans).</i>’ The updated Explanatory Memorandum will be submitted at Deadline 3 (pursuant to the Examination Timetable).</p>	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
		With reference to the Work Plans [APP-010] sheets 21, 27 and 28, the length of existing 400kV overhead line to be removed between existing pylons 4YL073 and 4YLA007 measures 2.48km. Pylon 4YLA007 will then be reused in a revised configuration to connect proposed 400kV overhead line to pylons 4YLA006A and 4YLA006B within the Stour Valley Cable Sealing End Compound which measures approximately 600m.	
AP3	Check the total area of agricultural land within the Order Limits as there appears to be some inconsistency between documents. Within the overall total, also check the totals for grade 2 and grade 3 agricultural land.	<p>The Applicant can confirm that the number (720ha) quoted in the Environmental Statement (ES) Non-Technical Summary [APP-068] is incorrect (an over estimation). This has been added to an Errata List that the Applicant will provide at a suitable deadline. The total area of the Order Limits is 643.6ha, as is correctly referenced in the Planning Statement [APP-160]. This number is rounded up to 644ha in ES Chapter 11: Agriculture and Soils [APP-079].</p> <p>Of this 644ha, approximately 243ha (38%) is Grade 2 (very good) and 340ha (53%) is Grade 3 (good to moderate), based on the Defra Agricultural Land Classification GIS layers. The remaining land (60ha) within the Order Limits is classified as either Grade 4 or non-agricultural land using the Defra GIS layer.</p>	N/A
AP4	Supply a drawing and concise note to explain the approach to setting the proposed Limits of Deviation (LoD).	<p>The design principles upon which the overhead line LoD are derived is illustrated on Design and Layout Plan: Limits of Deviation Principles drawing supplied at Appendix A. The overall LoD width comprises two component parts; adjustment of the pylon position and also an allowance for the conductors being blown out under a high wind condition.</p> <p>Regarding an explanation of blown conductor dimensions, based on the current design, the maximum span length is proposed span RB46-47 at 483.34m, with a conductor sag of 19.76m presented for the longest (middle) crossarm. This span length could alter if pylon position adjustment or reconfiguration is required.</p> <p>The suspension insulator sets on proposed pylons RB46 and RB47 hang vertically from the crossarm and will be approximately 5m in length, therefore the overall depth of sag from crossarm level will be approximately 24.76m. The assessment assumes that the conductor (and insulator) could be blown out at a maximum of 45°, resulting in a horizontal offset of 17.51m. When a radial safety clearance of 5.3m is added to this value, the extent of the blown condition in this instance is a total of 22.81m.</p> <p>A total of 30m has been allowed as shown in the Drawing contained at Appendix A for the conductor swing as a worst case, therefore, in practical terms, the maximum distance that a pylon can be adjusted away from the route centreline is 20m. This distance allows for the various design and construction related factors that need to be assessed during the detailed design of each pylon position and a degree of flexibility to account for any variations later found to be necessary during construction.</p>	N/A
AP5	Some of the drawing detail shown on cable working	It is noted there is a discrepancy in the Design and Layout Plans Cable Working Cross Section [APP-027]. However, this is an indicative drawing which is not fully dimensioned or to scale. The Applicant is satisfied that	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
	cross section [APP-027] suggests that soil storage would not be practically possible – check for consistency where excavation and storage is proposed and explain the approach and phasing.	<p>the LoD provide sufficient working area and flexibility to undertake the works using the assumed method. The position of stockpiles will be within the Order Limits but may differ to those shown; however, a minimum distance of 1.5m from stockpiled material to the edge of any excavations will be maintained, as detailed in section 4.7.10 of the ES Chapter 4: Project Description [APP-072].</p> <p>Prior to undertaking the works, the Main Works Contractor will develop the exact sequence of excavation, stockpiling, duct installation and backfill for the six trenches in each linear section of the works. The order of construction activities will not change, though it is not necessarily the case that all trenches will be open at the same time. The final sequencing will be written into a Safe System of Work to ensure the works are undertaken safely and in line with the requirements of the Management Plans, including the Construction Environmental Management Plan (CEMP) Appendix A Code of Construction Practice (CoCP) [APP-178]. The CEMP is secured by Requirement 4 of the draft Development Consent Order (DCO) [APP-034].</p> <p>The ES does not quote heights of topsoil or subsoil stockpiles, as these would vary depending on the profile of the soil and the available space at any given location. Chapter 11 of the CEMP [APP-177] quotes the maximum heights that would be applied i.e. that ‘Topsoil stockpiles will not exceed 3m in height and subsoil stockpiles will not exceed 5m in height’. These numbers are based on the maximum heights suggested for soil stockpiles on page 21 in the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009).</p>	
AP6	Set out the assumptions and dimensions applied to the temporary haul routes (including length and width, and the depth and volume of aggregates required).	<p>The overhead line temporary access routes are assumed 4m wide with a 4m spoil laydown alongside. Cable sections are assumed as a 7m width in the centre of the cable construction area. Other underground cable temporary access routes are 7m wide with a 4m spoil laydown alongside.</p> <p>An assumed thickness of 300mm of imported material has been allowed for the temporary access routes as detailed in Appendix C of the Transport Assessment [APP-061]. However, this may vary following tests to measure the strength of the existing ground. It has been assumed that around 200mm of topsoil or existing material would be removed and stockpiled for reinstatement at a later date.</p> <p>The temporary access roads will have a running surface either 4m or 7m wide, with the total width of the road approximately 1m greater than this to provide an exclusion zone along either edge. The width selected will depend on the plant and vehicles which require access for the works, as detailed in Section 4 of ES Chapter 4: Project Description [APP-072].</p> <p>The total length of the temporary access routes required would be approximately 69.2km (50.5km at 4m wide and 18.7km at 7m wide). The volume of imported material would be approximately 126,300m³ (around 277,800 tonnes), which includes an allowance for passing places.</p>	Deadline 1

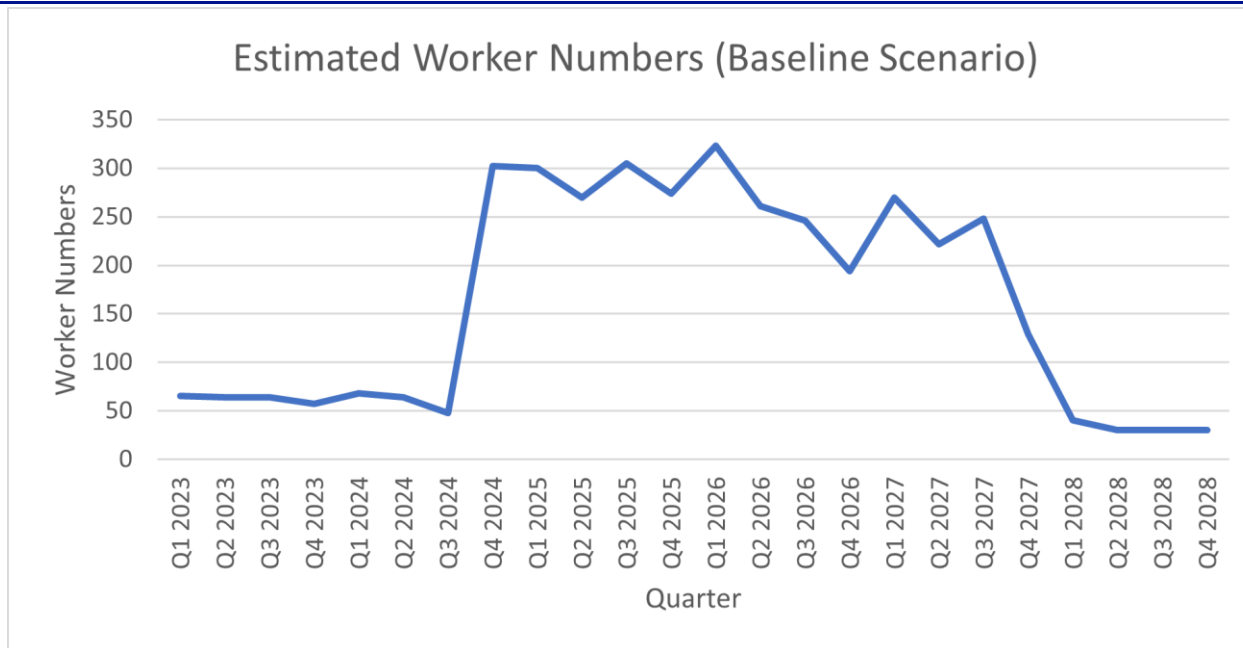
Action No.	ExA Description	Response	Deadline (If Applicable)
		There may be an opportunity to reduce the amount of imported material by using trackway matting or other ground stabilising methods. This would be assessed by the Main Works Contractor and their temporary works engineers.	
AP7	The width and nature of the existing bridleway adjacent to the Bramford substation that is proposed for use as a haul road would not seem to be capable of accommodating both uses if excavation and storage is proposed. Explain the approach to be taken to accommodate the bridleway, noting the statutory width and the proposed Order Limits.	The Applicant has contacted the Public Rights of Way (PRoW) Officer at Suffolk County Council to request the design standards and statutory width that would apply to the bridleway and is awaiting a response. There is an existing 4m wide hard track along this bridleway meaning very little to no topsoil stripping or storage is required. There is also a proposed compound at the end of the track where excess soil can be stored rather than alongside the track. At present, there is 10m at the narrowest point to divert the bridleway within the Order Limits.	N/A
AP8	Provide an indicative layout of the main site compound, including dimensions and the likely height of any structures.	A main site compound is proposed off the A134 at Leavenheath, which would include the site offices, storage areas, parking (including electric vehicles charging points if appropriate) and welfare facilities. An Indicative Main Construction Compound drawing is provided at Appendix B . It is envisaged that the Main Works Contractor would use single story cabins; it is not anticipated that any buildings or stationary apparatus would exceed 7m. However, the main works contractor requires flexibility in their design to use double stacked cabins and other equipment if required. Smaller satellite compounds would be required at the locations listed in Table 4.3 of ES Chapter 4: Project Description [APP-072]. These are anticipated to include storage for soil, machinery and other materials, parking, local welfare facilities and waste management facilities. The proposed construction compounds that have been assumed in the ES are shown on ES Figure 4.1: The Project [APP-072].	Deadline 1
AP9	The CEMP refers to operations outside the core working hours, and to completion of works delayed or held up by severe weather conditions	The draft DCO [APP-034] states at Schedule 3, Requirement 7(2)(g), ‘ <i>the completion of works delayed or held up by severe weather conditions which disrupted or interrupted normal construction activities</i> ’; which is also reflected in section 2.3 of the CEMP [APP-177]. At ISH 1, the Applicant gave the example of overhead stringing activities as an activity possibly pursuant to Requirement 7(2)(g).	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
	that disrupt or interrupt normal construction activities. Provide further definition of the terms used, such as 'severe weather conditions', 'disrupted', 'interrupted', 'delayed' and 'held up'.	<p>The Applicant notes that works are stringently planned to ensure that the day's works can be completed as planned, however there may be instances where this is not possible. The reasons might include where:</p> <ul style="list-style-type: none"> ● there are machinery issues which need to be repaired; ● there are severe weather events which cause delays. <p>The Applicant notes the need to leave works in a safe and secure state for the night. For example, any conductor would need to be brought up to a tension and secured, so that the conductor is left in a stable and safe condition and will not be a potential issue to the general public and any associated third parties.</p> <p>The Applicant notes that it is not unusual to make provision in respect of such severe weather events and would submit that the balance of the public interest is such that ensuring the safe and secure finish point in respect of works merits this type of provision. The Applicant further submits that this type of provision must allow for discretion depending on the nature of the works in question and how the severe weather relates to the completion of those particular works.</p> <p>As to definitions, the draft DCO [APP-034] is a statutory instrument, and as such (as a piece of statutory drafting) is subject to 'purposive interpretation'. As noted in Craies on Legislation: a practitioners guide to the nature, process, effect and interpretation of legislation (Greenberg et al, 2012)), when dealing with statutory drafting, the issue is as to the intention behind the wording and the intent is taken from the wording used. The Applicant need not define all words and is entitled to attribute their ordinary or natural meaning. The Applicant submits that this is such a case where the ordinary meaning should be relied upon.</p>	
AP10	<p>The alternative construction schedule was used in making assumptions about the worker number profile. Provide the same information assuming the baseline schedule scenario was followed.</p> <p>Provide explanation about the assumptions used for work and shift patterns and in determining peaks in the numbers (including construction scheduling</p>	<p>The below graph details the estimated worker number profile during construction for the baseline schedule, as a comparison to the estimated worker number profile for the alternative scenario presented in Illustration 4.1 in ES Chapter 4: Project Description [APP-072].</p>	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
------------	-----------------	----------	--------------------------

landscaping planting works in 2029).

Also address parking provision for construction workers and how these figures correlate.



The extract below from the Traffic Assessment [APP-061] Appendix C (Traffic and PRow Assumptions) summarises the assumptions on work and shift patterns that were used to develop peak construction staff vehicle forecasts:

- Working areas would be operational seven days a week and that construction workers and staff would be on site seven days a week. Staff working patterns are assumed to be twelve days on and two off;
- There is no change in the number of daily working hours during summer/winter;
- The following staff arrival profile has been used to convert daily vehicle trips to hourly inbound trips in the morning peak:
- 25% arrive in the hour before core working hours (0600 – 0700);
- 50% arrive in the 30-minutes following the commencement of core working hours (0700 – 0730); and

Action No.	ExA Description	Response	Deadline (If Applicable)
		<ul style="list-style-type: none"> 25% arrive in the following hour (0730 – 0830). <p>A similar profile has been used to convert daily vehicle trips to hourly outbound trips in the evening peak:</p> <ul style="list-style-type: none"> 25% depart between 1730 and 1830; 50% depart in the 30-minute period leading up to the end of core working hours (1830 – 1900); and 25% depart in the hour after the end of core working hours (1900 – 2000). <p>Illustration 4.1 in Project Description [APP-072] indicates four peaks in estimated worker numbers occurring in Q3 2025, Q3 2026, Q2 2027 and Q3 2028. By reference to Illustration 3.1 (Alternative Scenario) in the Construction Schedule [APP-091] it is noted that these peaks correspond with the following activities:</p> <ul style="list-style-type: none"> Q3 2025 - The increase in worker numbers is for additional staff for cabling works associated with trenchless crossing; Q3 2026 - commencement of underground cable installation and Stour Valley East CSE compound and continuation of work activities from previous quarter; Q2 2027 - remobilisation of overhead line gangs associated with outages; Q3 2028 – landscape planting as site demobilisation and general reinstatement works continue. <p>The landscape contract and maintenance would generally start once a section of works is complete and would continue for five years in accordance with good practice measure LV03 in the CoCP [APP-178]. These numbers are not included in the traffic and worker numbers, as they would be de minimis. Experience from other projects suggests that this would typically involve two gangs of three people, one gang planting, one doing tree guards/stakes, with one to two light goods vehicles to deliver plants and staff to site.</p>	
AP11	Provide a summary note of any updates that may be needed to the traffic and environmental assessments if the updated version of GEART was to be used.	<p>The application for development consent was submitted in April 2023 and was based upon the latest available guidance at the time. The updated guidance from the Institute of Environmental Management and Assessment (IEMA, 2023), ‘<i>Environmental Assessment of Traffic and Movement</i>’ (EATM), was published in July 2023 after the application was submitted. It consequently could not be considered during the assessment.</p> <p>The assessment of <i>environmental traffic and transport impacts</i> is detailed in <i>ES Chapter 12: Traffic and Transport [APP-080]</i> and was developed with reference to the <i>Design Manual for Roads and Bridges (DMRB) LA 104 Environmental Assessment and Monitoring (Highways England et al, 2020)</i>; <i>DMRB LA 112 Population and Human Health (Highways England et al, 2020)</i> and the <i>Guidelines for the Environmental Assessment of Road Traffic (GEART) (Institute for Environmental Assessment (IEA), 1993)</i>.</p>	

Action No.	ExA Description	Response	Deadline (If Applicable)
		<p>Environmental Assessment of Traffic and Movement guidance published in July 2023 replaces GEART. The Applicant had already reviewed the EATM following its publication and has found that the new guidance would have no material impact on the assessment of traffic and transport matters in relation to the project.</p> <p>The review noted that no new assessment topics have been added in EATM when compared with GEART. The general assessment methodology and approach to proportionality also remains similar, with EATM guidance noting that the <i>'core tenets of the methodology provided in the 1993 Guidelines have been validated by cross-examination of expert witnesses in contested cases over the years'</i>. In addition, no material changes have been made in EATM to the assessment methodology for topics directly relevant to the traffic and transport assessment (severance, driver delay, pedestrian delay, non-motorised user amenity, fear and intimidation, and road safety). Wherever impact thresholds were proposed for these topics in GEART, they have been retained in EATM (notably for severance and amenity).</p> <p>EATM also refers to DMRB LA112 (which the Applicant has used in the assessment) as a useful resource in determining the significance of effects for multiple topics.</p> <p>The publication of EATM, as an update to GEART, would consequently not change any of the conclusions in the traffic and transport assessment, and the assessment does not need to be updated as a result.</p>	
AP12	<p>Provide a summary note about the need, design (including public consultation) and provision of traffic management measures to ensure appropriately compliant driving behaviour. Confirm whether the roads policing constabularies have been consulted about the proposed temporary traffic management orders.</p>	<p>At present a hierarchy of access routes and general traffic management principles are set out in paragraph 5.4.1 of the CTMP [APP-180].</p> <p>In response to a comment from Suffolk County Council regarding <i>'appropriate monitoring, reporting and enforcement measures,'</i> the Applicant notes that, <i>'as a contractor has not yet been identified, the construction routes, timing and numbers are subject to change.'</i> The details of traffic management and controls will, therefore, be determined once the Main Works Contractor is appointed.</p> <p>Essex Police are engaging with the Applicant with the aim of resolving the issues raised by Essex Police on their Relevant Representation [RR-033] to which the applicant has responded in the Applicant's comments to Relevant Representations (document 8.3.3) which is submitted at examination Deadline 1.</p> <p>No Relevant Representation has been received from Suffolk Police and that constabulary will also be included in ongoing liaison regarding traffic management and vehicle movement.</p> <p>Regarding the need for, and control of, movement of exceptional items of plant and materials to site, the CTMP [APP-180] addresses the potential vehicles for which special provision including Police escort is required, i.e. those not compliant with Road Vehicles (Construction and Use) Regulations 1986 and the Road Vehicles (Authorised Weight) Regulations 1988. The CTMP [APP-180] notes in section 5.3: <i>'National Highways, the relevant [local] highway authorities and police will be notified of the AIL routes and appropriate forms will be completed for AIL routeing. It is anticipated that the relevant documentation and authorisation would be</i></p>	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
		<p><i>completed through the [Electronic Service Delivery for Abnormal Loads] ESDAL system. When the response to each abnormal load movement order is received the defined route agreed with National Highways, the relevant highway authorities and police will be strictly followed.'</i></p> <p>The CTMP [APP-180] also notes that Police escorts will be required for specific deliveries to site and states that the Applicant will engage with the relevant Police representatives regarding this activity when the number and programme of these deliveries is more developed.</p>	
AP13	<p>Provide a summary note of the thinking and reasoning for the proposed selection of access routes for the temporary haul road network.</p>	<p>As stated in paragraph 5.4.2 of the CTMP [APP-180], the local road network around the Order Limits in Suffolk and particularly at the western end in Essex, consists of a number of narrow winding roads that are less suitable for construction vehicles than more major roads.</p> <p>As a result of the constraints on the local road network, the Applicant has sought to use temporary access routes in many locations to avoid modifications to and reduce the number of construction vehicles on the local road network. This is particularly the case for the underground cable sections, where a temporary access route would be used along the whole of the cable section. The exception being at the trenchless crossing to the south of Ansells Grove where embedded measure EM-G08 in the Register of Environmental Actions and Commitments (REAC) [APP-179] states that there would be no temporary access route along the trenchless crossing to avoid impacts on the habitats at this location.</p> <p>Further details in relation to the temporary access route off the A131 can be found in the Applicant's Response to the Rule 9 Letter Dated 24 July 2023 [AS-005] and also the Applicant's Response to Preliminary Meeting Action on the Temporary Access Route off the A131 [document 8.2.2].</p>	N/A
AP14	<p>Check and advise whether all proposed access points between the highway and Proposed Development site will conform with relevant and current highway design standards (both existing and new accesses).</p>	<p>All proposed access points have been assumed to have the generic access form as shown on Design and Layout Plans: Temporary Bellmouth for Access [APP-030], at the current outline design stage, as this typically represents the worst case for land requirements. In the detailed design, the appropriate site-specific form for each access would be determined. This would be based on the relevant highway design standards and surveys determining the site-specific design speed at each location.</p> <p>The design speed and access requirements will vary with the width, alignment and character of the connecting roads, and other site-specific factors such as trees and hedges, aiming to avoid removal, provided a safe visibility splay can be achieved.</p> <p>Requirement 11 of the draft DCO [APP-034] states that no work to construct, alter or temporarily alter any new or existing means of access to a highway to be used by vehicular traffic may commence until written details of design, layout and reinstatement of that means of access has been submitted to and approved by the relevant highway authority. The relevant design standards (and any deviations from standards as necessary) for each access would be agreed with the relevant highway authority depending on the nature of the road, its proposed</p>	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
		use and the speed of vehicles on the road. The designs would be based on the agreed standards and subject to approval from the relevant highway authority as part of this process.	
AP15	Confirm if there is sufficient land within the order limits to construct a temporary ghost island at each of the five proposed temporary access points to receive abnormal indivisible loads (AILs).	<p>The Applicant confirms that for the temporary access route off the A131 there is sufficient space within the Order Limits to construct a ghost island junction sufficient for abnormal indivisible loads (AIL).</p> <p>At the other locations where AIL will access the site, the preliminary design does not suggest that ghost islands are required, so none are proposed. The detailed design will develop the designs for each location, with those designs being subject to approval from the highway authority under Requirement 11 of the draft DCO [APP-034].</p>	N/A
AP16	Check the 2013 and 2021 public right of way (PRoW) survey data against current guidance. Can further information about times, days, vulnerable users and connectivity to: (i) employment areas and public services; and (ii) the wider PRoW network (including alternative routes) be extracted and submitted?	<p>As stated in paragraph 4.4.6 in ES Chapter 4: Project Description [APP-072], no PRoW would be permanently stopped up or diverted on the project (i.e. required after construction is complete). Therefore, the survey data has been used to inform temporary impacts on PRoW ranging from 2-12 weeks. No PRoW is expected to be closed for longer than 12 consecutive weeks.</p> <p>The location of surveys was chosen partly based on the connections to the wider PRoW network, for example the survey location was chosen at a meeting of public rights of way, where present in the Order Limits to understand which routes users take.</p> <p>The 2013 data recorded the type of user (walker, cyclist or horse rider) and the time of day for each surveyed PRoW on both the weekday and the weekend survey. The 2021 surveys were undertaken over a 10-hour day for each PRoW, on a weekday and weekend. Again, these recorded the type of user (walker, cyclist or horse rider) and the time of day. No other data was collected to disaggregate users in the 2013 or 2021 surveys. At ISH1 (see document 8.3.2.2), Mr Hale was mistakenly referring to the 2023 surveys noted below when he responded to questions on the detail included in 2021 surveys.</p> <p>In response to connectivity to employment areas and services, receptor sensitivity (listed in Table 2.1 of ES Appendix 12.1 [APP-080]) was defined based on an assessment of the likely overall usage of each PRoW, and its likely usage by different user groups (particularly vulnerable groups such as the elderly or children). This was primarily a desk-based exercise using mapping and aerial photography to review the land-use in the vicinity of each PRoW, accounting for survey data where available. For example, a PRoW located adjacent to a school would be allocated a 'very high' sensitivity based on an assumption of likely use by children.</p> <p>Guidance DMRB LA 112 supports a proportionate and appropriate approach to surveys and data collection based on the scale of impact from the project. The walker, cycling and horse rider (WCH) journey length assessment indicated no significant effects on PRoW due to the project, as summarised in paragraphs 12.6.5 and 12.6.6 of ES Chapter 12 [APP-080]. Therefore, the Applicant remains satisfied that the approach to this</p>	Deadline 1

Action No.	ExA Description	Response	Deadline (If Applicable)
		<p>assessment is robust and proportionate accounting for the short term and temporary nature of expected PRoW closures.</p> <p>The Applicant has undertaken further PRoW surveys in July 2023, which has included further disaggregation of users including vulnerable users (see Appendix C PRoW 2023 survey results). This further verifies the conclusion of low usage of PRoW across the study area and it also provides further details that suggest a large proportion of users are leisure users.</p> <p>The Applicant has undertaken surveys of all of the PRoW that are expected to be subject to temporary individual closures of over four weeks or they had a sensitivity ascribed of medium or above.</p>	
AP17	Provide detail of the coverage of the PRoW survey and report. Is the assessment only of statutory PRoWs or did it cover other types of paths and areas with public access?	<p>In terms of surveys undertaken for the project, the 2013 and 2021 PRoW surveys can be found in Table 12.1 and 12.2 of ES Chapter 12: Traffic and Transport [APP-080]. These tables demonstrate that there is low usage on PRoW across the study area.</p> <p>In addition, as outlined in response to AP16, the Applicant has continued to undertake further PRoW surveys during July 2023. The results of this further support the conclusion of low usage of PRoW across the study area. The Applicant has undertaken surveys of all of the PRoW that are expected to be subject to temporary individual closures of between 2-12 weeks. No PRoW is expected to be closed for longer than 12 consecutive weeks. The overall impact of the project on PRoW is, therefore, temporary and would only require the closure of individual routes for short periods of time.</p> <p>The Applicant is not aware of any open access land within or adjacent to the Order Limits. An assessment on areas of open space, and whether these are publicly accessible, is included in Chapter 9 of the Planning Statement [APP-160]. This concludes in paragraph 9.6.3 that whilst there might be some short-term disturbance during construction, there will be no material impact or loss to the area of open space in the long term and once constructed, the land will be restored to its former condition.</p> <p>The Applicant has identified PRoW, as shown on the Access, Rights of Way and Public Rights of Navigation Plans [APP-012]. Paragraph 12.5.6 in ES Chapter 12: Traffic and Transport [APP-080] notes that Hadleigh Railway Walk is not a PRoW but is used by the public for access and recreation. The Applicant is not aware of any permissive routes or other non-designated rights of way within or adjacent to the Order Limits.</p>	Deadline 1
AP18	Would a PRoW management plan be feasible and useful, particularly for those walkers, cyclists and horse riders using public rights of	<p>The Applicant included the management of PRoW within the CTMP [APP-180] to mirror the assessment presented in ES Chapter 12: Traffic and Transport [APP-080]. However, in response to the ExA request and discussions with Host Authorities, the Applicant will prepare a standalone PRoW Management Plan. The Applicant is intending to submit this document at Deadline 3.</p>	Deadline 3

Action No.	ExA Description	Response	Deadline (If Applicable)
	way during the construction period? If not, why not?		
AP19	Explore the feasibility of extending the information in the REAC (Register of Environmental Actions and Commitments) to provide a full mitigation route map for all commitments that are listed. Explain the conclusion.	<p>The REAC [APP-179] was designed to summarise the embedded measures and additional mitigation committed to on the project. The CoCP [APP-178] set out the good practice measures, which had been previously consulted on both in the Scoping Report [APP-157] and in the Preliminary Environmental Information Report (National Grid, 2022). In addition, the management plans provide further details on the commitments made and how these would be implemented during construction.</p> <p>The Applicant notes the ExA's concerns regarding the navigation of the commitments proposed and the request for a single table where all commitments are listed. The Applicant is intending to reformat the REAC to include a single table of all measures committed to and that underpin the ES for the project. The Applicant has included a proposed template for this table in Appendix D as an example for comment from the ExA or other IPs. The Applicant is intending to submit the updated REAC at Deadline 3, alongside any updated management plans as referenced in AP20.</p>	Deadline 3
AP20	Review the management/control plans that were listed by the ExA and consider the removal of ambiguous or qualifying language that might be considered to reduce the extent to which reliance could be placed on the measures that have been qualified in this way. Explain any that cannot be so modified.	The Applicant is undertaking a detailed review of the management plans to review each reference to the examples of ambiguous language provided. The Applicant will provide further details and if required an updated set of management plans at Deadline 3. This will also allow the Applicant to take into account any further feedback provided in the Local Impact Reports from the Host Authorities on the management plans.	Deadline 3
AP21	In relation to the Work Plan and Schedule 1 of the draft Development Consent Order, reflect on the approach taken to the identification and labelling of non-linear Works and	<p>The Applicant notes the approach taken in Schedule 1 to the draft DCO [APP-034] as described at the ISH1, being to give numbers (1-12) to the principal works, most of which relate to the permanent assets. The Applicant confirms that careful consideration was given to how to set out the works in Schedule 1, given the nature of the works and their interplay with one another.</p> <p>The main aspect of each work is described in the title of the work – e.g. Work Number 3 is the 'underground transmission electric line from the Dedham Vale East Cable Sealing End Compound to the Dedham Vale West Cable Sealing End Compound'. That work is then described in the text which immediately follows that title,</p>	N/A

Action No.	ExA Description	Response	Deadline (If Applicable)
	any Limits of Deviation on the Works Plan.	<p>which for Work No.3 are the works ‘to construct and install a new underground transmission electric line’ etc. The drafting in Schedule 1 then goes on to list out the types of component parts of the work, on a lettered basis. These lettered works are often generic in nature rather than relating to a specified geographic location. At the ISH1, there was discussion on the Dedham Vale East Cable Sealing End equipment (Work No. 3(b)). The Applicant notes that the works there listed are the ‘equipment’ rather than the ‘compound’ (which is Work No. 3(d)) – albeit the equipment will be contained in the compound (i.e. within the fence line).</p> <p>Turning then to Sheet 12 of the Works Plans [APP-010], the pink dashed limits of deviation shown relate to the non-linear works, being the sealing end compound, the equipment for which is listed in Schedule 1 to the draft Order at Work No. 3(b) and the compound for which is listed in Work No. 3(d), being the ‘permanent compound, security fencing and gates’.</p> <p>The ‘non-linear works’ (those which are not the linear overhead line nor the linear underground cable) are listed in principal at article 5 (Limits of deviation) of the draft DCO [APP-034] at article 5(3) being the ‘other permanent above ground structures, erections and apparatus, including substations and cable sealing end compounds’. Article 5(3)(a) refers to ‘any applicable non-linear limits of deviation shown on the Works Plans’.</p> <p>The Applicant, therefore, is the view that the works are properly controlled by the Work Plans and associated draft DCO [APP-034] article 5 in respect of the LoD.</p> <p>To assist the reader, the General Arrangement Plans [APP-018] at Sheet 12 contain a label to this area (pointing to the black lined box which the legend confirms is a ‘cable sealing end compound’) stating ‘Refer to drawing: 2.11.5 Design and Layout Plans: Dedham Vale East Cable Sealing End Compound’.</p> <p>The Applicant would not usually expect to include similar labelling on the Works Plans, given the explanation above.</p>	
AP22	Consider the addition of construction compounds to the Works Plan.	<p>The Applicant has reflected on the ExA’s comments in relation to the siting of construction compounds and whether they should be added to the Works Plans. Whilst the Applicant does not consider they should be included on the Works Plans, it is proposed that the locations of the construction compounds are included within an updated version of the CEMP as a way of securing their locations and the works anticipated at each compound. The Applicant will provide an updated CEMP at Deadline 3.</p>	Deadline 3

Reference List

Department for Environment, Food & Rural Affairs (2009). The Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

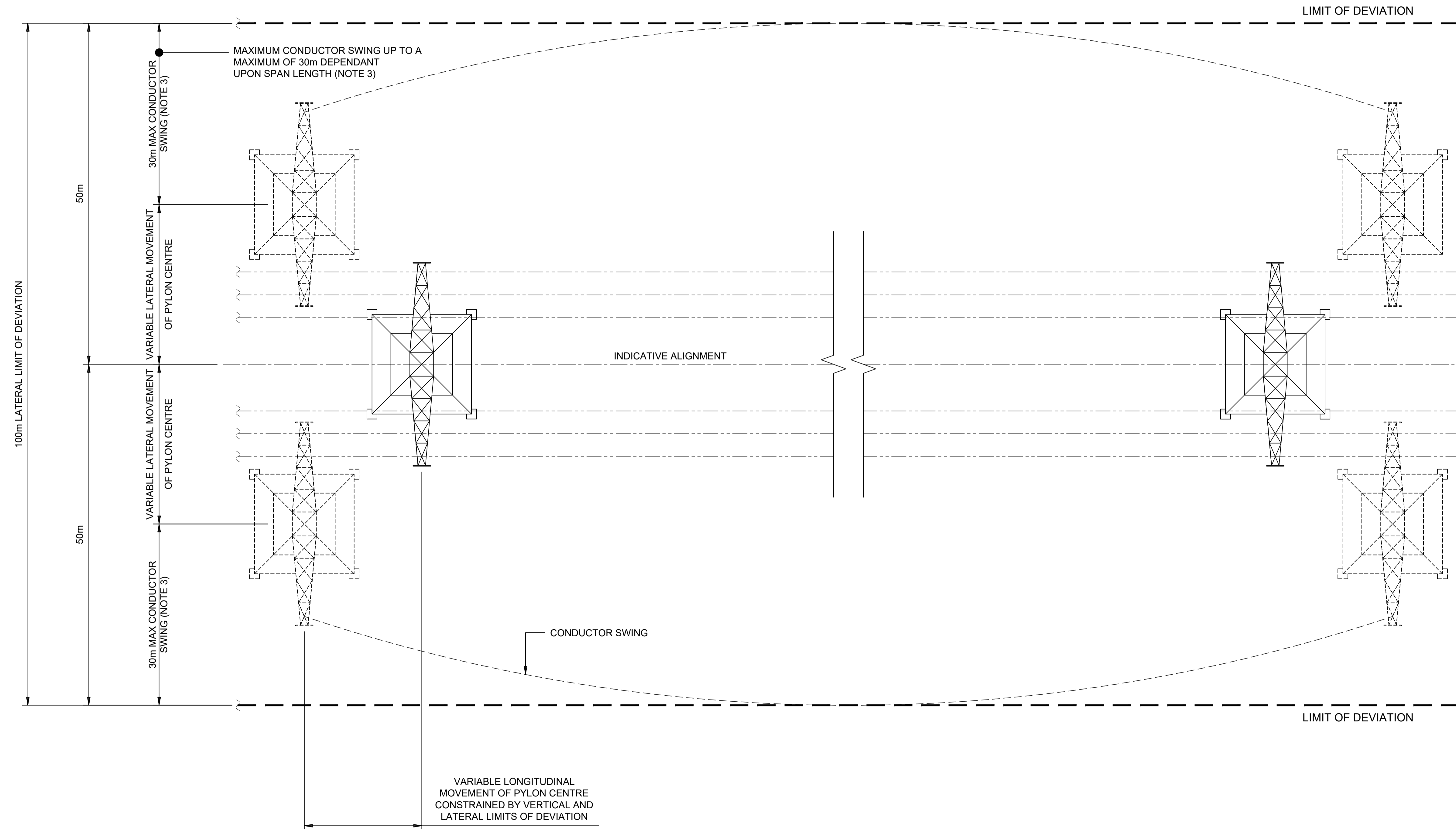
National Grid (2022). 2.1 Preliminary Environmental Information Report. Issue Number: Issue number: BT-JAC-020631-560-000.

Institute of Environmental Management and Assessment (2023). Institute of Environmental Management and Assessment Guidelines. Environmental Assessment of Traffic and Movement (EATM).

Greenberg. D et al. (2012) Craies on Legislation: a practitioners' guide to the nature. process. effect and interpretation of legislation. Sweet & Maxwell U.K.

Appendix A Overhead Line Limits of Deviation (LoD) Principles Drawing

- Notes**
1. All dimensions are in metres unless noted otherwise.
 2. The details in this drawing are illustrative only.
 3. Maximum conductor swing is subject to the span length between pylons and is presumed to be under full load on the hottest day of the year with full wind blow out.



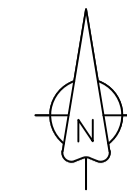
Reference should be made to Document 2.1 Guide to the Plans which provides further information on what the plans show.

NG Investment No. 21847

ISSUE	DATE	REMARKS	DRAWN	CHKD	APPD
A	21/03/23	Issued for Information	NP	DF	RF

PROJECT Bramford to Twinstead Reinforcement					
TITLE Design and Layout Plans: Limits of Deviation Principles					
CIRCUIT / SITE Bramford - Pelham & Bramford - Braintree - Bulls Lodge					ACAD
ORIGINATOR DRAWING No. BB-NG-020621-NP-CC002					A1
NG DRAWING No. BT-NG-020621-545-0092					A
Scale:- NTS		Sheet No. 1	No. of Sheets 1	Issue A	

Appendix B Indicative Main Construction Compound Drawing



Design & Layout Plan

Reproduced from Ordnance Survey maps by permission of Ordnance Survey on behalf of the controller of His Majesty's Stationery Office. © Crown Copyright Ordnance Survey. Licence no. 0100059731

Notes

- All dimensions are in metres unless noted otherwise.
- The details in this drawing are illustrative only. The final position and design will be within the parameters contained within the DCO with reference to the Work Plans.
- The maximum height of cabins can be two high and would not exceed 7m.

Legend

- 4YL overhead line
 - PCB overhead line
 - RB overhead line
 - Order limits
 - Limits of deviation
- | | |
|------|------------------------------|
| RB | Proposed 400kV overhead line |
| 4YL | Existing 400kV overhead line |
| 4YLA | Existing 400kV overhead line |
| PCB | Existing 132kV overhead line |

Key

- | | |
|-----------------------------|------|
| Proposed One Way System | ---> |
| Proposed Fence | --- |
| Proposed Bellmouth/Access | --- |
| Proposed Bund | --- |
| Proposed Office - OHL | --- |
| Proposed Office - Cabling | --- |
| Proposed Cabin - Welfare | --- |
| Proposed Stone Surface | --- |
| Proposed Cable Drum Storage | --- |
| Proposed Asphalt Surface | --- |
| Proposed Parking | --- |
| Proposed Storage Area | --- |
| Proposed Footpath | --- |
| Proposed Shower Unit | --- |
| Proposed Drying Room | --- |
| Proposed Storage Container | --- |
| Proposed COSHH Store | --- |
| Proposed Quarantine Area | --- |
| Proposed Refuel Area | --- |
| Proposed Skips | --- |
| Proposed EV Charging Point | --- |
| Proposed Gatehouse | --- |
| Proposed Road (7m) | --- |
| Proposed Security Barrier | --- |

Reference should be made to Document 2.1 Guide to the Plans which provides further information on what the plans show.

NG Investment No. 21847

A	20/09/23	Rev A for Deadline 1	NP	DF	RF
ISSUE	DATE	REMARKS	DRAWN	CHKD	APPD

PROJECT
Bramford to Twinstead Reinforcement

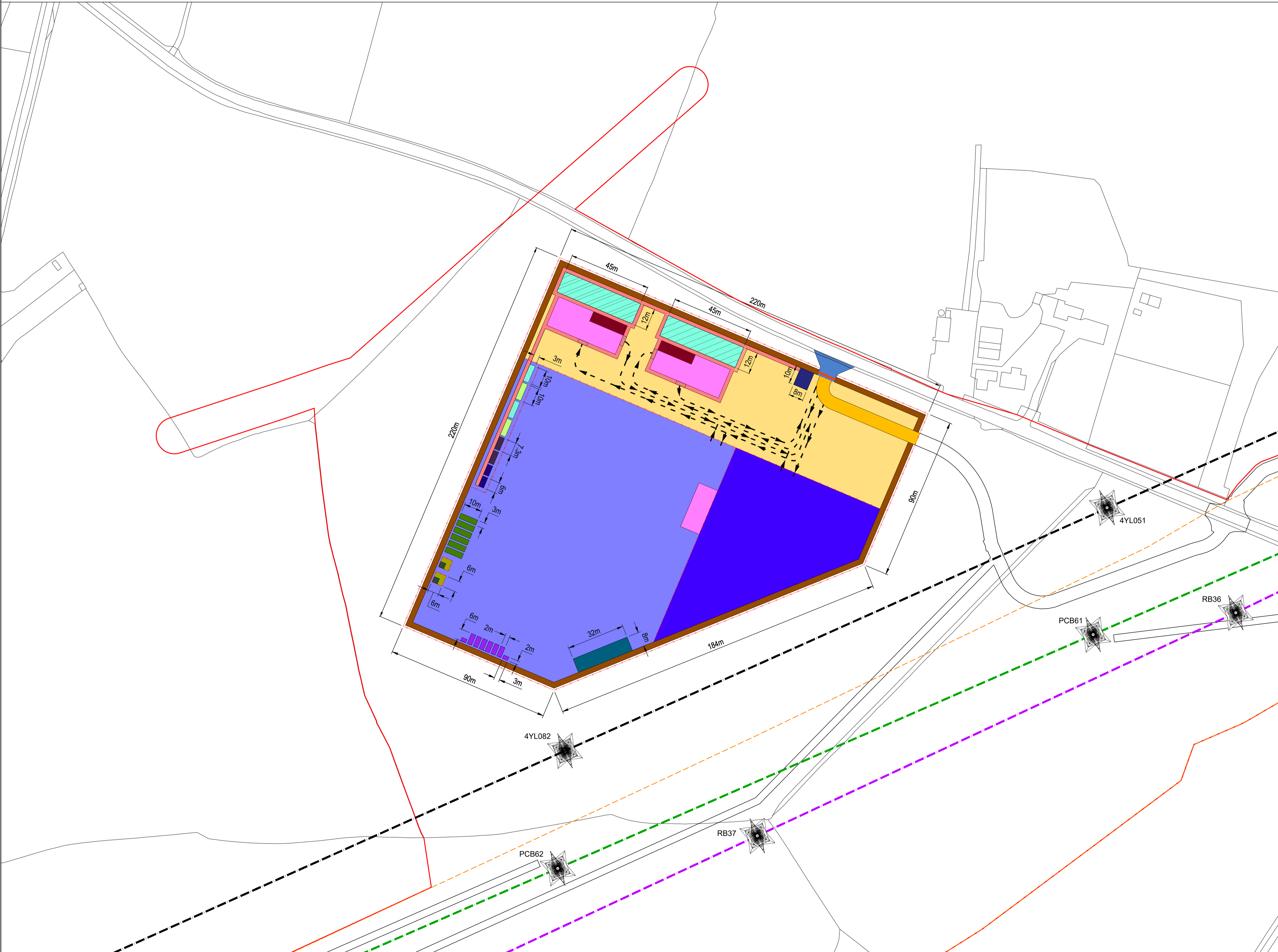
TITLE
**Design & Layout Plans:
 Indicative Main Construction Compound**

CIRCUIT / SITE
 Bramford - Pelham & Bramford - Braintree - Bulls Lodge ACAD

ORIGINATOR DRAWING No.
 BB-NG-020621-NP-CC001 A1

NG DRAWING No. BT-NG-020621-545-0091	Sheet No. 1	No. of Sheets 1	Issue A
---	----------------	--------------------	------------

Scale: 1:1000



Appendix C Public Rights of Way (PRoW) 2023 survey results

PRoW Weekday Survey Summary (Thursday 20 July 2023)

				12-hour survey count (0700-1900), all directions						
PRoW ref	Location description	Expected temporary closures	Diversion length (m)	Children (under 15)	Adults (15-60)	Elderly (over 60)	Dog walkers	Cyclists	Horse-riders	Total
W-318/031/0	Between Hintlesham Hall and A1071, Ipswich	8 weeks	170	0	4	0	1	7	0	12
W-318/032/0	East of A1071 in Hintlesham, Ipswich	4 weeks	N/A – no diversion identified	0	0	0	2	0	0	2
W-318/055/0	Off the A1071 in Hintlesham, Ipswich (through Norman's Farm)	8 weeks	1,971	0	0	0	0	0	0	0
W-113/007/0	Off Barracks Road, Assington, Sudbury	4 weeks	N/A – no diversion identified	0	18	0	18	0	0	36
W-171/001/0	East of St Edmund's Hill, Sudbury	4 weeks	242	0	0	0	0	0	0	0
FP 26 58	Off Pebmarsh Road, Bures (towards 'Abbots')	12 weeks	2,284	0	0	0	0	0	0	0
FP 17 118	From A131 towards Old Road, Halstead	12 weeks	1,487	0	4	0	10	0	0	14
FP 13 118	From A131, through Nether House Farm to Church Road, Halstead	4 weeks	2,233	0	1	0	1	0	0	2

PRoW Weekend Surveys Summary (Saturday 22 July 2023)

PRoW ref	Location description	Expected temporary closures	Diversion length (m)	12-hour survey count (0700-1900), all directions							Total
				Children (under 15)	Adults (15-60)	Elderly (over 60)	Dog walkers	Cyclists	Horse-riders		
W-318/031/0	Between Hintlesham Hall and A1071, Ipswich	8 weeks	170	0	0	0	1	0	0	1	
W-318/032/0	East of A1071 in Hintlesham, Ipswich	4 weeks	N/A – no diversion identified	0	0	0	1	0	0	1	
W-318/055/0	Off the A1071 in Hintlesham, Ipswich (through Norman's Farm)	8 weeks	1,971	0	0	0	0	0	0	0	
W-113/007/0	Off Barracks Road, Assington, Sudbury	4 weeks	N/A – no diversion identified	0	23	0	11	0	0	34	
W-171/001/0	East of St Edmund's Hill, Sudbury	4 weeks	242	0	0	0	0	0	0	0	
FP 26 58	Off Pebmarsh Road, Bures (towards 'Abbots')	12 weeks	2,284	0	0	0	0	0	0	0	
FP 17 118	From A131 towards Old Road, Halstead	12 weeks	1,487	0	0	0	0	0	0	0	
FP 13 118	From A131, through Nether House Farm to Church Road, Halstead	4 weeks	2,233	0	1	0	1	0	0	2	

Appendix D Example of Proposed Updated Register of Environmental Actions and Commitment

Ref	Measure	Type of Measure	Key ES Reference(s)	Purpose	Location	Project Phase	Delivery Mechanism	DCO Requirement	Responsible Authority
General (more than one topic)									
GG04	A suitably experienced Environmental Manager will be appointed for the duration of the construction phase. In addition, a qualified and experienced Environmental Clerk of Works will be available during the construction phase to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CEMP.	Good practice	N/A	These roles will provide suitable checks and controls during construction	Order Limits	Construction	CoCP	Requirement 4	Relevant Planning Authority
GG05	Construction workers will undergo training to increase their awareness of environmental issues as applicable to their role on the project.	Good practice	N/A	Training will raise general awareness of environmental matters and measures relating to the works.	Order Limits	Construction	CoCP	Requirement 4	Relevant Planning Authority
EM-P02	Approximately 25km of the existing 132kV overhead line will be	Embedded	ES Chapter 4: Project Description and	To reduce the number of overhead	Order Limits	Construction	Inherent to the design shown on	DCO	Relevant Planning Authority

Ref	Measure	Type of Measure	Key ES Reference(s)	Purpose	Location	Project Phase	Delivery Mechanism	DCO Requirement	Responsible Authority
	removed between Burstall Bridge and Twinstead Tee.		ES Chapter 6: Landscape and Visual	lines within the landscape.			the Works Plans		
N/A	The contractor will have an Environmental Policy that meets the requirements of ISO 14001 or equivalent, through their internal Business Management System procedures. The policy statement will be displayed on the site notice boards, publicised to all site staff and operatives, and made available to interested parties upon request.	General	N/A	To comply with good practice environmental standards.	Order Limits	Construction	CEMP	Requirement 4	Relevant Planning Authority
Landscape and Visual									
LV01	The contractor(s) will retain vegetation where practicable. Where vegetation is lost and hedgerows and trees cannot be replaced in situ due to the restrictions associated with operational requirements of planting near the line and/ or safety requirements, replacement vegetation will be planted as close by as practicable and will complement landscape character and be sympathetic to the local habitat type in order to provide a high biodiversity value.	Good practice	ES Chapter 6: Landscape and Visual, ES Chapter 7: Biodiversity and ES Chapter 8: Historic Environment.	To reduce the vegetation lost during construction and to reinstate similar to the existing baseline.	Order Limits	Construction	CoCP	Requirement 4	Relevant Planning Authority

Ref	Measure	Type of Measure	Key ES Reference(s)	Purpose	Location	Project Phase	Delivery Mechanism	DCO Requirement	Responsible Authority
EIA_LV01	Additional landscape planting is proposed at MM01, MM02, MM03, MM04, MM08, MM11, MM12, MM13, MM14, MM16, MM18, MM19, MM20, MM21, MM22 and MM23 to reduce landscape and visual effects at individual receptors within community areas.	Additional Mitigation	ES Chapter 6: Landscape and Visual	To reduce landscape and visual effects at individual receptors within community areas.	Order Limits	Construction	REAC	Requirement 4	Relevant Planning Authority
Biodiversity									
EM-AB02	The new 400kV overhead line will reuse the existing pylons (RB12 and RB13) at Hintlesham Woods Site of Special Scientific Interest (SSSI).	Embedded	ES Chapter 7: Biodiversity and ES Appendix 7.1: Annex B Hintlesham Woods SSSI Assessment	To avoid impacts on the SSSI and its interest features	Order Limits	Construction	LEMP	Requirement 4	Relevant Planning Authority

Page intentionally blank

National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com