The Great Grid Upgrade

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Bramford to Twinstead Reinforcement

Volume 7: Other Documents

Document 7.6 (C): Construction Traffic Management Plan

Final Issue C
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nationalgrid

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Version History

Date	Issue	Status	Description / Changes
April 2023	A	Final	For DCO submission
October 2023	B	Final	Update in response to Action Point 20 in Action Points from Issue Specific Hearing 14 September 2023 [**EV-018**] and other updates identified in responses received at Deadline 1 and 2.
December 2023	C	Final	Update following Issue Specific Hearing 6 and other discussions with the Local Highway Authorities

Contents

1. Introduction

1.1 Summary

1.1.1 National Grid Electricity Transmission plc (here on referred to as National Grid) has produced an application for an order granting development consent to reinforce the transmission network between the existing Bramford Substation in Suffolk, and Twinstead Tee in Essex ('the project'). This will be achieved by the construction and operation of a new electricity transmission line over a distance of approximately 29km. The project meets the threshold as a Nationally Significant Infrastructure Project (NSIP), as defined under Part 3 of the Planning Act 2008, hence National Grid requires a development consent order (DCO).

1.1.2 This Construction Traffic Management Plan (CTMP) sets out the proposed site-specific measures and construction methodologies that are required to help avoid or reduce potential effects of the project on the environment, in particular the local road network (LRN) during construction. The Applicant has submitted a separate Public Rights of Way (PRoW) Management Plan (**document 8.5.5**) ~~at Deadline 3,~~ therefore measures relating to PRoW have been removed from this document to avoid duplication.

1.1.3 The CTMP is based on the project detail as submitted with the application for development consent and also takes into account feedback received on a consultation draft of the CTMP in ~~a~~Autumn 2022. ~~It is recognised that there may be~~M~~ minor~~ refinements have been made through the examination process as part of the application for development consent.

1.1.4 This CTMP should be read alongside the Environmental Statement (ES), in particular ES Chapter 12: Traffic and Transport (**application document 6.2.12**) which describes the existing baseline conditions and the environmental impact assessment (EIA). It should also be read alongside the Transport Assessment (**application document 5.7**), which contains further details about the impacts on the LRN and PRoW network.

1.2 Project Overview

1.2.1 The reinforcement will comprise up to approximately 18km of overhead line (consisting of approximately 50 new pylons, and conductors) and 11km of underground cable system (with associated joint bays and above ground link pillars).

1.2.2 Four cable sealing end (CSE) compounds will be required to facilitate the transition between the overhead and underground cable technology. The CSE would be within a fenced compound, and contain electrical equipment, support structures, control building and a permanent access track.

1.2.3 Approximately 27km of existing overhead line and associated pylons will be removed as part of the proposals (25km of existing 132kV overhead line between Burstall Bridge and Twinstead Tee, and 2km of the existing 400kV overhead line to the south of Twinstead Tee). To facilitate the overhead line removal, a new grid supply point (GSP) substation is required at Butler's Wood, east of Wickham St Paul, in Essex. The GSP substation would include associated works, including replacement pylons, a single circuit sealing end compound and underground cables to tie the substation into the existing 400kV and 132kV networks.

1.2.4 Some aspects of the project, such as the underground sections and the GSP substation, constitute 'associated development' under the Planning Act 2008.

1.2.5 Other ancillary activities will be required to facilitate construction and operation of the project, including (but not limited to):

- Modifications to, and realignment of sections of the existing overhead lines, including pylons;
- Temporary land to facilitate construction activities including temporary amendments to the public highway, public rights of way, working areas for construction equipment and machinery, site offices, welfare, storage and access;
- Temporary infrastructure to facilitate construction activities such as amendments to the highway, pylons and overhead line diversions, scaffolding to safeguard existing crossings and watercourse crossings;
- Diversion of third-party assets and land drainage from the construction and operational footprint; and
- Land required for mitigation, compensation and enhancement of the environment as a result of the environmental assessment process, and National Grid's commitments to Biodiversity Net Gain.

1.2.6 The development authorised by the DCO must be undertaken in accordance with this CTMP, pursuant to Requirement 4 of the draft DCO (**application document 3.1**).

1.2.7 The CTMP describes the works undertaken pursuant to the DCO, whether this is undertaken by National Grid, UK Power Networks (UKPN) and any appointed contractors appointed by these organisations. This document refers to 'the contractor' when referring to any organisation responsible for constructing components of the project (including removal of the 132kV overhead line).

1.2.8 National Grid, UKPN and any appointed contractors will carry out all work in accordance with the CTMP during the construction of the project unless otherwise agreed with the relevant planning authority.

1.3 Purpose of the CTMP

1.3.1 The purpose of the CTMP is to outline the approach to managing construction traffic, impacts on the LRN including effects during works to roads, for example during construction of bellmouths, and also from impacts due to construction traffic (~~both~~ delivery vehicles, ~~and~~ construction vehicles and ~~also~~ commuting workers). The contractor will be responsible for implementing the measures outlined within the CTMP, although the Applicant retains the ultimate responsibility for compliance.

1.3.2 The project as submitted with the application for development consent includes environmental commitments under the following categories:

- Embedded Measures: measures that form part of the engineering design set out in Construction Environmental Management Plan (CEMP) Appendix B: Register of Environmental Actions and Commitments (REAC) (**application document 7.5.2**);
- Good Practice Measures: standard approaches and actions to be implemented on construction sites, intended to protect the environment. These may be general or

topic-specific but are typically applicable across the whole project. The good practice measures are provided in full in CEMP Appendix A: Code of Construction Practice (CoCP) (**application document 7.5.1**); and

- Mitigation Measures: any additional project-specific measures needed to avoid, reduce or offset potential impacts that could otherwise result in negative effects considered significant in the context of the EIA Regulations 2017. Mitigation measures have been identified by environmental topic specialists, taking into account the embedded design and good practice measures. These can be found in the REAC in CEMP Appendix B: REAC (**application document 7.5.2**).

1.3.3 Construction phase measures relevant to traffic and transport are secured within this CTMP. Construction phase measures for other environmental topics are secured by one of the following three documents which are all secured through Requirement 4 in the draft DCO (**application document 3.1**):

- CEMP (**application document 7.5**): general construction measures and methodologies to avoid or reduce potential effects of the project. The CEMP also includes the CoCP containing a list of the good practice measures that will be implemented on the project in Appendix A (**application document 7.5.1**), and a schedule of embedded and mitigation measures in Appendix B: REAC (**application document 7.5.2**);
- Material and Waste Management Plan (**application document 7.7**): measures to reduce consumption of raw materials and reduce waste; and
- Landscape and Ecological Management Plan (LEMP) (**application document 7.8**): measures to manage construction impacts on landscape and ecology.

1.3.4 The above plans are referenced in the CTMP where appropriate.

1.4 Sudbury Branch Railway Line

1.4.1 The 132kV overhead line will be removed from over the Sudbury Branch Railway Line and the underground cables will need to cross underneath the railway line. Embedded measure (EM-G04) states that a trenchless crossing is used to install the underground cables beneath the railway line.

1.4.2 Any works in close proximity to the railway will be agreed through discussions with Network Rail and will, unless otherwise agreed, be subject to the protective provisions included for the benefit of Network Rail in Schedule 14 of the draft DCO (**application document 3.1**). These protective provisions secure protection for Network Rail's operational assets and require National Grid (or UKPN) to submit plans (including method statements) for the approval of Network Rail's engineers prior to the commencement of any proximate works. The works must be undertaken in accordance with the plans and other documents approved by Network Rail including where appropriate the requirement to install protective works.

1.4.3 Due to this separate approval process and the role of Network Rail in approving the designs, the CTMP does not include details associated with the railway line.

1.5 River Stour

1.5.1 The River Stour is navigable within the Order limits. Unpowered craft (i.e. those that are paddled, rowed or sailed) are permitted to travel the whole length of the Stour Navigation, from Brundon Mill (Sudbury) to Cattawade (on the Stour Estuary). Powered craft, with certain specified exceptions, such as the River Stour Trust trip boats, are restricted to the stretch between Ballingdon Bridge (Sudbury) and Henny Street. The Environment Agency is the navigation authority for this section of the river.

1.5.2 The 132kV overhead line will be removed from over the River Stour and the underground cables will need to cross underneath the river. There is an embedded measure (EM-G04) for the underground cables to cross beneath the River Stour using a trenchless construction method. There is also a good practice measure in the CoCP (**application document 7.5.1**) (W17) to provide a temporary clear span bridge over the river during construction.

1.5.3 There will be short term disruption to navigation along the River Stour for safety reasons during lowering of the 132kV conductors and during installation and removal of the temporary bridge. These will be short term in duration (i.e. up to one week for each). Outside of this, there are not anticipated to be effects on navigation. Notices would be placed up and downstream of the Order Limits at least four weeks in advance (or as otherwise agreed with the navigation authority) to notify river users of the works. National Grid will work with the Dedham Vale Area of Outstanding Natural Beauty and Stour Valley Partnership to timetable disruptions to periods when there are no large events on the River Stour.

~~1.5.3~~1.5.4 National Grid will also notify the Environment Agency at least one month prior to activities that affect the 'Navigation Envelope' of the River Stour and that the notification will contain sufficient information to enable the Environment Agency to understand the necessity of the closure and will include details regarding the nature of the works, duration and positioning of equipment and structures within the river channel, such as safety boats and buoys. ~~The Environment Agency will also be notified at the same time as notices are placed, if not before.~~ During the conductor lowering and bridge works, a boat will be moored in the river to prevent and warn users accessing the working area, unless otherwise agreed with the Environment Agency.

~~1.5.4~~1.5.5 Due to the limited effects on the River Stour, the CTMP does not include further details in relation to the river.

1.6 Structure of the CTMP

1.6.1 The CTMP structure is set out in Table 1.1.

Table 1.1 – Structure of the CTMP

Chapter	Content
1. Introduction	This sets out the purpose of the CTMP and how it is structured.
2. Project Description	This describes the features of the project, the project commitments from the CoCP and other documents. It also references the Permitting Scheme which is anticipated to be used for some aspects covered within the CTMP.

Chapter	Content
3. Project Team Roles and Responsibilities	This sets out the roles and responsibilities relevant to the CTMP and the training and awareness that will be completed.
4. Engagement on the CTMP	The CTMP was issued as a draft to relevant consultees for review. This section summarises the comments received and how these were considered when developing the final CTMP for the application for development consent.
5. Road Network	This describes the road network potentially affected by the project during construction. It describes the measures to reduce effects from works to the road network, such as the installation of temporary access points or how the transmission line will cross the road network. It also describes measures to reduce the potential effects on the road network from the additional vehicles generated during construction.
6. Travel Plan	This sets out the measures that the contractor is anticipated to employ to reduce the effects of construction workers on traffic and the LRN.
7. Implementation	This section sets out the site checks that are anticipated to be undertaken to monitor compliance of the CTMP during construction. It also outlines the change process.
References	List of references used in the CTMP.
Appendix A	Figure 1 Construction Traffic Routes. Figure 2 Abnormal Indivisible Load Routes

2. Project Description

2.1 Project Commitments

2.1.1 The project design is the result of a process of iterative design development that was introduced at project inception. Environmental considerations have had a key influence on the project, with knowledge gained through the EIA process, input from the project team (including the results of site surveys) and discussions with interested parties (such as landowners, relevant planning authorities and regulators) all influencing the final proposals.

2.1.2 As explained in Chapter 1, the project incorporates environmental considerations through measures embedded in the design, good practice (general measures and topic-specific) measures and mitigation measures identified in the ES. For ease of reference these have been assigned a reference number:

- Embedded measures are given a prefix of EM then the relevant geographical section e.g. AB: Bramford Substation/Hintlesham, followed by a unique number for example EM-AB01 is the first embedded measure identified in Section AB: Bramford Substation/Hintlesham;
- Good practice measures are given a unique reference number based on the aspect. For example, general good practice measures are identified with a GG prefix, whereas the topic specific ones are given a prefix based on the topic initials for example landscape and visual measures are referenced as LV01, LV02 etc; and
- Additional mitigation measures are given a prefix of EIA, followed by the topic initials and a unique reference number, for example EIA_B01 would be a measure identified in the biodiversity assessment to offset a significant effect.

2.1.3 These references are used throughout this CTMP.

2.1.4 The good practice measures and embedded measures that have been made by National Grid that are relevant to the road network, and travel planning are included in Chapters 5 and 6 of this document respectively.

2.2 Construction Schedule

2.2.1 In common with other NSIP, the eventual detailed construction programme will be subject to change from factors such as procurement, system access requirements (outages), resource and material availability and weather and ground conditions.

2.2.2 Advance works may also take place prior to development consent, where consented under alternative regimes. Any such early works would be controlled under the terms of the relevant planning permission and would not relate to development that can only be carried out under a DCO.

2.2.3 The construction schedule will be included within the Stage Plan submitted to the relevant planning authorities in accordance with Requirement 3 of the draft DCO (**application document 3.1**) prior to commencement.

2.2.4 Construction activities will be sequenced and of a transient nature given the linear construction site. There will be a number of construction work fronts working at the same

time. This will reduce the overall construction programme and will help with project efficiencies such as delivery of goods to site.

2.2.5 Due to the nature of the works, and as some aspects need to take place during agreed outage windows, there may be periods of time where works do not take place within a particular geographical area. In addition, some temporary access routes and temporary fencing will need to remain on site until after testing has been completed to allow any snagging matters to be addressed before reinstatement takes place. The schedule of works will be communicated with each landowner, and they will be updated of any amendments to the schedule during construction.

2.3 Working Hours

2.3.1 Working hours will be in accordance with Requirement 7 in the draft DCO (**application document 3.1**). Further details can be found in the CEMP (**application document 7.5**).

2.4 Consents, Licences and Permits

Permit Schemes

2.4.1 Part 3 of the Traffic Management Act 2004 introduced Permit Schemes as an alternative framework to the notification system under the New Roads and Street Works Act 1991 (NRSWA) for highway maintenance and improvements works. The Permit Schemes will work alongside the street work powers set out in Part 3 Article 11 of the draft DCO (**application document 3.1**) that this CTMP will normally apply to.

2.4.2 In accordance with Article 12 of the draft DCO (**application document 3.1**) National Grid is proposing to use the Permit Schemes in effect for Suffolk County Council and Essex County Council (the 'relevant highway authorities') ~~in order~~ to ~~best~~ coordinate the street works required for the project. The Permit Schemes are referred to as the 'Permit Schemes' in the CTMP.

2.4.3 A permit application requires information about the activities on streets subject to Special Engineering Difficulty (Schedule 4 of NRSWA), as will works which require temporary multiway traffic lights. Information required includes plans detailing the location of the works, timing and duration of activities, proposed traffic management and details regarding reinstatement.

2.4.4 A permit issued under the Permit Schemes will specify in detail the activity that is allowed. The types of conditions include timing and duration; road space; traffic management provisions; manner in which specified works are to be carried out; consultation and publicity; environmental conditions; and conditions to progress. The relevant highway authorities may also require the promoter to consult with persons likely to have apparatus in the street and comply with any reasonable requirements asked by the apparatus owner.

2.4.5 Permits for street works issued under a Permit Scheme will therefore cover many of the aspects detailed below in this CTMP. Due to the enforceable nature of Permit Schemes and the role of the relevant highway authorities in considering and issuing the permits, compliance with permit conditions will necessarily take precedence over the CTMP in the case of any conflict between the application for and subsequent terms of a permit and the requirements of the CTMP.

Traffic Regulation Orders

2.4.6 A Traffic Regulation Order will be required for regulating traffic on roads in proximity to the authorised development, including if a street needs to be closed or diverted temporarily during construction. Part 6 Article 47 of the draft DCO (**application document 3.1**) allows National Grid and its contractor to introduce Traffic Regulation Orders for the purposes specified in Schedule 12 and, with the consent of the traffic authority, to any other extent for the construction of the authorised development.

~~2.4.6~~2.4.7 Whilst it is necessary to include all powers specified in the draft DCO (**application document 3.1**) to deliver sufficient flexibility to deliver safe accesses, it is anticipated that following detailed design, not all measures detailed would~~ill~~ be required. The Applicant will minimise use of these powers and only impose Traffic Regulation Orders where it is necessary to do so.

3. Project Team Roles and Responsibilities

3.1 Project Responsibilities

3.1.1 The contractor will undertake the construction works in accordance with the DCO and its associated documents including this CTMP. The relevant aspects of this CTMP will be notified to the workforce at commencement of works to highlight the relevant commitments and responsibilities to those undertaking the work.

3.1.2 Overall roles and responsibilities relevant to the CTMP are presented in Table 3.1. These roles may be delivered by multiple people across the project, who are designated with that specific responsibility, e.g. Environmental Clerk of Works (EnvCoW). The EnvCoW will also draw on the experience of the technical specialists, who will advise in specific areas, for example the arboriculturist will advise on tree works that are required near to new bellmouths.

Table 3.1 – Overall Roles and Responsibilities Relevant to the CTMP

Role	Organisation	Responsibilities
Environmental Manager	Contractor	The Environmental Manager will be responsible for the maintenance of all environmental plans and registers, including monitoring that the environmental measures and mitigation are implemented on site and as recorded within the CTMP. They will be the main point of contact for all environmental matters on the project. They will also develop good working relationships with external stakeholders such as the relevant highway authorities.
EnvCoW	National Grid	The EnvCoW will monitor that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required mitigation measures. The EnvCoW will be supported by appropriate technical specialist advisors depending on the location and potential impacts.
Permits and Consents Manager	Contractor	The Permits and Consents Manager will work with the Environmental Manager to draft and submit permits and consents on behalf of the project, track the progress, provide updates and communicate approvals.
Works Supervisor	Contractor	The Works Supervisor will be responsible for delivering the site works in accordance with the requirements of the CTMP and implementing good environmental practices required by the Environmental Manager. They are responsible for managing operatives, plant and their areas of work in accordance with the principles of good environmental practice.
Technical specialist advisors	Contractor / National Grid	These will have the relevant experience to supervise the relevant aspects of the works, which might include an arboriculturist, land contamination specialist, soil specialist, ecologist, archaeologist.

3.2 Information Training and Awareness

3.2.1 In accordance with good practice measure GG05 in the CoCP (**application document 7.5.1**), all staff and operatives working on the project will undergo a site-specific induction, which will include the following topics relevant to the CTMP:

- General traffic management requirements on the project;
- Car parking arrangements;
- Good practice measures for commuting, such as car sharing and sustainable transport options;
- How to find out about construction routes; and
- Expected behaviour on site (e.g. switching off machinery when not in use).

3.2.2 Regular environmental toolbox talks will be provided by the contractor. These will give targeted information about site-specific issues or activities taking place at that time.

3.3 Community Engagement and Public Information

3.3.1 The contractor will implement a system for the provision of information to local residents and occupiers about the works. A community relations team will be appointed to provide dedicated community relations and external communication support during construction. The information to be provided to local residents will be specific to the works to be carried out, describing the nature of the works, the location and extent of the works, the duration of works and the hours to be worked.

3.3.2 Local residents will be informed of the commencement and likely duration of the construction work activities through a letter drop. The letter(s) will be tailored to a specific area and reflects the works to be carried out and the duration of works. The letter will include a contact telephone number for public information. In addition, good practice measure GG09 states that an emergency number will also be displayed at the entrance to the compounds.

3.3.3 The name and contact details for the project will be displayed at the entrance to the main site compound. This will include an emergency telephone number. In addition, details of the works, including contact details, will be provided to the relevant community groups, such as the local parish councils and landowners before work commences.

3.3.4 A free telephone project helpline and project website will be maintained and managed by the National Grid community relations team. The project helpline and website information will be visible on boards placed in appropriate locations where they will be visible to the public, including the main site compound. The telephone number and project website details will be provided to the relevant planning authorities and other relevant parties.

3.3.5 The community relations team will record the details of any complaints and how these are to be investigated and appropriately managed. Further details about the complaints procedure can be found in Section 15.4 of the CEMP (**application document 7.5**).

4. Engagement on the CTMP

4.1 Introduction

4.1.1 This chapter sets out the engagement that has been undertaken on the CTMP and how the comments were considered when developing the final CTMP for submission with the application for development consent.

4.2 Engagement

4.2.1 The CTMP was issued to National Highways and the relevant highway authorities to seek feedback on the contents and structure before producing the ~~final~~ CTMP for the application for development consent. The CTMP was issued to the following organisations:

- Essex County Council;
- Suffolk County Council; and
- National Highways.

4.2.2 Although the CTMP was issued to the organisations listed above for comments in their role as a relevant highway authority on the project, the CTMP was also copied to the local planning authorities for information, namely Babergh and Mid Suffolk District Councils and Braintree District Council.

4.3 Feedback on the CTMP

4.3.1 Table 4.1 summarises the feedback received on the draft CTMP and how these have been considered when developing the final CTMP for application. No specific comments were received from Essex County Council on the CTMP. Table 4.1 excludes feedback that was received on the following aspects, as these are not related to the production or development of the CTMP:

- Suitability of construction routes: The construction routes that have been identified within the application for development consent have had surveys, as appropriate to check that they are suitable for the vehicles proposed. Feedback received on the construction routes has been considered when developing the proposed construction routes on the project; and
- Special Types General Orders (STGO): As described in Section 5.3 of the CTMP, some construction vehicles will require STGO. As this requires documentation as part of a separate consenting process, detailed considerations are excluded from the CTMP to avoid any misalignment of requirements under the separate processes. However, it is noted that National Grid and its contractors will complete the relevant documentation (including the completion of any required surveys to inform routeing) and will seek authorisation through the Electronic Service Delivery for Abnormal Loads (ESDAL) system.

Table 4.1 – Feedback Received on the Draft CTMP

Comment	How This Has Been Considered
National Highways	
It is welcomed that working hours will be in accordance with the draft DCO (**application document 3.1**), which allows for heavy good vehicle (HGV) deliveries outside of traditional peak hours.	Noted.
National Highways has a major upgrade of the A12 between J19-J25 scheduled to commence in 2024 and 2027. Has this been taken into account in the CTMP?	National Grid has ~~will~~ continued to work with National Highways to understand any implications for the ~~of the~~ A12 Chelmsford to A120 application on~~for~~ the Bramford to Twinstead Reinforcement and vice versa. ~~Improvements that could affect the project.~~Following discussions post submission of the application, the parties agreed that there are no likely significant cumulative effects associated with the two projects and no concerns over the interactions between the projects. This is documented in the Statement of Common Ground with National Highways (**application document 7.3.4**).
A GG104 risk assessment will be required where construction traffic is using a junction on the strategic road network (SRN).	The Transport Assessment (**application document 5.7**) shows that the project would have negligible effects upon the operation of the SRN and National Grid does not consider a GG104 risk assessment to be necessary.
It is welcomed that all PRoW affected during construction will have clear signage at least two weeks in advance of disruption to notify users about the works.	Noted. This is included in paragraph 5.2.1 of the PRoW Management Plan (**document 8.5.8**).
A Traffic Regulation Order will be required for any road closure or diversion.	Noted. This has been stated in paragraph 2.4.6.
The CTMP should include agreement on construction routes to and from the SRN.	The proposed construction routes have been included in Appendix A of the CTMP.
The CTMP should include measures to minimise delivery of construction materials during peak periods.	The working hours set out within the draft DCO (**application document 3.1**) allow for deliveries to take place outside of peak hours. Further details can be found in Section 5.4 of the CTMP.
Suffolk County Council (SCC)	

Comment	How This Has Been Considered
SCC considers that as the relevant highway authority it should be the discharging authority for the CTMP (and Travel Plan if separate). The authority would request that discharge of the CTMP also provides for consultation with the relevant local planning authority to ensure consistency.	Requirement 4 of the draft DCO (document 3.1 **(C)**) requires that the authorised development be carried out in line with this CTMP, with no requirement for submission of a further iteration for discharge. Requirement 4 does allow for plans to be varied in agreement with the relevant local planning authority, specifying that the local highway authority is the correct authority for the CTMP. Travel planning is included in Chapter 6 of the CTMP.
SCC would agree that the Applicant's proposal to use the authorities NRSWA permit process would be its preference.	National Grid is proposing to use the Permit Schemes as referenced in Section 2.4.
Table 3.1 of the CTMP: Whilst the delegation of the responsibility of management plans to the contractor may be acceptable, the ultimate responsibility for compliance and enforcement will lie with the Applicant.	Noted. National Grid will retain overall responsibility for the works undertaken pursuant to the DCO and has added a sentence to clarify this in Section 1.3.~~.~~
SCC would suggest that the opportunity is taken to inform staff and operative of sustainable transport options if these are available.	Section 3.2 has been updated to include reference to sustainable transport options.
SCC notes that it is likely that existing accesses will need improvement as use will intensify and they may not comply with current design standards. Will these be retained in the improved form or reinstated on completion of the project?	National Grid is seeking DCO consent for permanent accesses, these are shown on the General Arrangement Plans (**application document 2.10**). Temporary access routes and amended bellmouths will be removed after construction and reinstated.~~ at the GSP substation and each CSE compound. Separate consent will be sought where necessary if any temporary accesses were to be retained after construction.~~
Where routes will be used by significant numbers of HGV SCC will expect structural surveys to be undertaken together with a commitment to undertake any structural repairs to the carriageway identified by these surveys.	The project is not anticipating significant numbers of HGV during construction. The routing study has looked at suitability of roads for HGV as part of identifying the proposed routes and AIL routes have been surveyed to confirm suitability (see section 5.2 of this CTMP). Maintenance of the highway and structures along this, falls under the responsibility of the relevant highway authority.
It would be helpful if the definition of HGV and LGV is included in the CTMP. Also, if LGV are different to other vehicles used by workers such as cars.	HGV include Ordinary Goods Vehicle 1 with two axles, over 3.5 tonnes and up to 7.5 tonnes gross weight; and Ordinary Goods Vehicle 2 with two or more axles, over 7.5 tonnes gross weight. References to LGV in the CTMP include vans and exclude cars used for commuting.

Comment	How This Has Been Considered
SCC welcomes the commitment that the Applicant will use vehicles complying to the most recent emission standards but notes that this will need to be monitored, reported and if necessary enforced.	Chapter 7 outlines implementation of the CTMP, including checks and reporting.
The Applicant is encouraged to refer to the Suffolk Lorry Route Network Map, noting that there may be restrictions on these routes and these may change at short notice.	The Suffolk Lorry Route Network Map has been considered ~~this~~ as part of the routeing strategy shown in Appendix A.
The routes, timing and numbers of HGV should be embedded within the management documents with appropriate monitoring, reporting and enforcement measures, such as excluding construction vehicles from the road network outside normal working hours (accepting there may be operations where exceptions are accepted).	The proposed construction routes have been included in Appendix A of the CTMP, with measures to monitor routes and address any non-compliance set out in Section 7 of this CTMP. ~~As a Main Works Contractor has not yet been identified, the timing and numbers are subject to change. Therefore, it is not appropriate to include these details within the CTMP at this time.~~The Applicant does not believe it is proportional or appropriate to secure the number of HGV movements, or their timing, given that the number of vehicles is not substantial.
~~Wh~~Where incidents occur on the highway network the Applicant should consider holding large vehicles at their origin, within the site or at appropriate locations on the highway network.	In an emergency, the compound areas and passing places on the temporary access routes could be used to hold vehicles.
It is expected that the construction route signage will be submitted to the relevant highway authorities for approval and that flexibility will be required to alter temporary signage to reflect progress of the construction work.	Signage will fall under the Permit Scheme. Further details on signage can be found in Section 5.4.
While SCC welcomes the proposal to obtain relevant highway authorities approval for the detailed design of the site accesses, the Applicant should provide sufficient information with the DCO submission to show that the proposals are safe, feasible and deliverable.	A generic design is provided within the DCO (as is consistent with other DCO). ~~Separate bellmouth designs will be discussed with councils outside of application.~~Where appropriate additional details of access points have been shared with the LHAs.
SCC encourages the Applicant to discuss temporary traffic management with the authority at an early stage of design, and if necessary, seek advice from an experienced contractor.	National Grid appointed a contractor to advise on the design and construction of the project, with this advice influencing the DCO application. National Grid will be appointing an experienced contractor to undertake construction of the project from their framework contracts. Discussions will be held with the relevant highway authorities to discuss traffic management.
The Applicant will be expected to obtain licenses for overhead scaffolding or other work that involves oversailing of the public highway.	Scaffolding across the public highway will fall under the Permit Scheme.

Comment	How This Has Been Considered
Access should be provided for non-motorised users to pass through sections of closed roads. This applies to all public highways including PRoW.	In accordance with AS03 access to and from residential, commercial, community and agricultural land uses will be maintained throughout the construction period or as agreed through the landowner discussions. ~~It is generally anticipated that any~~Any roads that are closed for longer than one day, will have a diversion route in place.
The travel plan should include monitoring of the workforce who arrive and depart by minibus including the numbers based at temporary accommodation.	Section 6.4 of the CTMP sets out the targets and monitoring of the travel plan and addresses this point.
SCC would expect the Applicant to provide data on the number of workers and visitors on site each day together with the vehicle movements.	~~It will be impractical and unnecessary for National Grid to provide data on workers and visitors attending the site on a daily basis.~~National Grid has agreed to monitor vehicle movements and number of staff and share this information with SCC periodically.
Targets should be included within the draft travel plan submitted as part of the DCO.	Targets are set in the Travel Plan in Section 6. ~~As described in Section 6.3, travel plan targets will be set following the initial baseline travel surveys.~~
The anticipated site checks in Table 8.1 do not include details of how the data, including non-compliance will be collected and reported to interested stakeholders.	The non-compliance process is described in Sections 7.3 of the CTMP.
SCC would consider that as the relevant highway authority, it should discharge any changes to the CTMP albeit following consultation with the relevant local planning authority.	Requirement 4 of the draft DCO (**document 3.1 (C)**) specifies that changes to the CTMP would be agreed with the relevant highway authority.
Braintree District Council	
The CTMP includes several measures which will assist in reducing the noise impact of construction vehicle movements. These measures are welcomed. Reference to the repair and upkeep of the temporary access routes does not appear to have been included within the CTMP.	Noted. GG27 has been added to the CoCP and states that the Contractor will undertake regular inspections of the temporary access routes and bellmouths to check for potholes or other defects. These will be repaired in a timely manner.

5. Road Network

5.1 Introduction and Terminology

5.1.1 This chapter sets out the pre-construction surveys and good practice measures that will be implemented in relation to the road network. It includes potential impacts caused by proposed works to the road network, for example creating temporary bellmouth junctions for access to the working area and works where the proposed electricity line crosses a road. It also includes impacts that may be caused by the extra traffic that will be generated during construction.

5.1.2 The following terminology is used to describe the construction routes:

- SRN: Comprises the motorway and trunk road network, managed by National Highways, which provides construction access from a wide catchment to the LRN and Order Limits. It includes the A14 to the east of the Order Limits, the A120 to the west of the Order Limits, and the A12 to the south of the Order Limits. The Permit Schemes do not apply to the SRN managed by National Highways and no works are anticipated to be required to the SRN as part of the project;
- LRN: Comprises the local roads managed by Essex and Suffolk County Councils which link the SRN to the Order Limits. It includes the A1071 which lies parallel to the Order Limits to the north, the A134 running between Sudbury and Colchester and the A131 running between Sudbury and Braintree;
- Access Points: These are where construction vehicles would leave the working area and join the LRN. Existing accesses will be used where suitable (or could be made suitable) for the vehicle type(s) and safe to use (for example suitable visibility splays). Where new access points are created, these will be reinstated following construction. Gates will be installed at access points to prevent unauthorised access to the site. These may be set back from the public carriageway (up to 20m where practicable), so that a single HGV does not block the carriageway and footway; and
- Temporary access routes: This comprises the temporary access routes created for the constriction phase of the project located off the local road network. These routes will be managed by National Grid and link the access point to the specific working areas.

5.2 Pre-Construction Surveys

5.2.1 Land transport feasibility investigations have been undertaken of the routes that are anticipated to be used by abnormal indivisible loads (AIL). These investigations included route negotiability inspections and a review of the structural status of the preferred routes following consultation with the appropriate highway authorities. ~~Preconstruction structural surveys have been undertaken of the routes that are anticipated to be used by abnormal indivisible loads (AIL). These surveys have not identified any structures along the routes that require structural repairs.~~These reports have been provided in Reports on Abnormal Indivisible Load Access for Cable Drums, Transformers and Shunt Reactors (**~~application~~ Dd~~ocument 8.8.11**). Separate processes are required to agree AIL movements prior to those movements taking place (see Section 5.3) and more detailed assessments of the routes would be undertaken as part of that work.

5.2.2 In accordance with good practice measure GG06 in the CoCP (**application document 7.5.1**), a full record of condition will be carried out (photographic and descriptive) of the access points and LRN affected by construction activities. This will include taking detailed records including photographs showing boundary features such as fencing or hedgerows and surfacing (paying particular attention to any potholes or other pre-existing features). The initial survey will be undertaken prior to construction and it will be regularly checked throughout construction to check that the surface of the highway altered for the project remains in good repair and safe for the public traffic using the highway.

5.2.3 The records will be available for comparison following reinstatement and after the works have been completed, to demonstrate that the standard of reinstatement at least meets that recorded in the pre-condition survey.

5.3 Vehicle Classification

Special Types General Orders

5.3.1 Special Types General Orders (STGO) are a set of regulations which allow unusual vehicles to be driven on UK highways. Under normal circumstances a vehicle and its load must not exceed the weight ~~(44 tonnes)~~ and dimensions ~~(a width of more than 2.9m and a rigid length of more than 18.65m)~~ contained within the Road Vehicles (Construction and Use) Regulations 1986 and the Road Vehicles (Authorised Weight) Regulations 1988. These regulations are set by the Driver and Vehicle Standards Agency.

5.3.2 STGO rules mean that a range of less common vehicles, whose design and use prevent compliance with the above regulations, may, in some circumstances, be used on public roads. Examples of vehicles likely to be used under an STGO are:

- Abnormal Indivisible Loads which cannot be divided into two or more loads to be transported by road;
- Mobile cranes specially built or adapted for lifting operations; and
- Engineering machinery that are moveable and comprise of a motor vehicle or trailer specially built for engineering operations.

5.3.3 Where an STGO applies to the project, this will be undertaken in accordance with Government guidance transporting abnormal loads (GOV.UK, 2022). This may specify a requirement for escort vehicles. Full details for all notice periods are set out in the Special Types enforcement guide (Driver and Vehicle Standards Agency, May 2018).

5.3.4 National Highways, the relevant highway authorities and police will be notified of the AIL routes and appropriate forms will be completed for AIL routeing. The relevant documentation and authorisation will be completed through the 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.

Shunt Reactors

5.3.5 Shunt reactors will be required at Bramford Substation. These will be delivered on vehicles classed as Special Order, which may specify a requirement for a police escort to the Order Limits. The shunt reactors will be delivered to substation at AB-AP1, as

shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**).

5.3.6 The shunt reactors will be delivered to site in accordance with Government guidance transporting abnormal loads and will require the use of both private escort vehicles and a police escort. National Highways, the relevant highway authorities and police will be notified and appropriate forms will be completed by the appointed haulage contractor. This will be completed via a Special Order application (BE16 form) or via the 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.

Super Grid Transformer

5.3.7 Super Grid Transformers (SGT) will be required at the GSP substation. These will be delivered on vehicles classed as Special Order, which may specify the requirement for a police escort to the Order Limits. The SGT will be delivered to the working area of the GSP substation at H-AP1 of the A131, as shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**).

5.3.8 The SGT will be delivered to site in accordance with Government guidance transporting abnormal loads and will require the use of both private escort vehicles and a police escort. National Highways, the relevant highway authorities and police will be notified, and appropriate forms will be completed by the appointed haulage contractor. This will be completed via a Special Order application (BE16 form) or via the ESDAL system.

5.3.9 National Grid has discussed the escorting of the SGT with the police and their feedback has been taken into account when developing the AIL route for the project. 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.

Cable Drums

5.3.10 The cable drums are expected to be transported at STGO Category 2 or 3. Such loads require two clear working weekdays notice to be given to the police forces on the route and five clear working weekdays notice together with an indemnity to the highway and bridge authorities on the route. The cable drums are anticipated to be delivered to the following four access points at each end of the underground cable sections:

- D-AP2 - Access Point for Dedham Vale East CSE compound off Rands Road;
- F-AP6 – Access Point for Dedham Vale West CSE compound off the A134;
- G-AP4 – Access Point for Stour Valley East CSE compound off St Edmund's Hill; and
- H-AP20 – Access Point for Stour Valley West CSE compound off the A131.

5.3.11 Preferred routes to the proposed site access points required for cable drums have been identified and are shown on Figure 21 in Appendix A. All routes to the different sites are considered negotiable from the A12 and A14 trunk roads with appropriate street furniture removal, traffic management and AIL escorts. Discussions will be held with National Highways, the relevant highway authorities and the police forces to confirm escort and traffic management implications once the number and date of AIL deliveries is clarified.

Mobile Crane and Piling Rig

5.3.12 The project is anticipated to use ~~a~~ 160 tonne and 250 tonne cranes for the installation and removal of the pylons. A piling rig is also anticipated to be used for construction of the foundations of the pylons, CSE compound, GSP substation and temporary bridges. The piling rig will be delivered on a low-loader. Both the crane and the piling low-loader are anticipated to fall within the criteria of the STGO regulations, although these vehicles are not anticipated to require a police escort.

Other Construction Vehicles

5.3.13 A range of other construction vehicles will be required on the project that will use the LRN. This will include LGV including vans to deliver smaller items and the workers to the site. It will also include other HGV, such as low-loader units used to deliver larger items such as excavators, construction mats, and Portakabin™-size local welfare units and 40 tonne trucks. Construction traffic movements will be kept to the minimum reasonable for the effective and safe construction of the project.

5.3.14 None of the LGV or HGV are anticipated to require a police escort.

5.3.15 In accordance with good practice measure GG12 in the CoCP, plant and vehicles will conform to relevant standards for the vehicle type as follows:

- Euro 4 (nitrogen oxides (NO_x)) for petrol cars, vans and minibuses;
- Euro 6 (NO_x and particulate matter) for diesel cars, vans and minibuses; and
- Euro VI (NO_x and particulate matter) for lorries, buses, coaches and HGV (excluding specialist AIL).

5.3.16 Vehicles will be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. All plant and vehicles will switch off their engines when not in use and when it is safe to do so.

5.4 Construction Traffic

General Construction Routeing Strategy

5.4.1 The project has followed a hierarchy approach to determining construction routes so that the SRN (including the A12 and A14) is used where practicable (for example, where this does not require significant extensions to journey length or time) and then the LRN, prioritising A-roads, is used for the last part of the construction journey before considering B-roads or less. At any time, instructions from relevant authorities such as National Highways Traffic Officers, the police and local authority traffic diversions will take precedence over these principles.

5.4.2 The project is located in an area of Essex and Suffolk where there are a number of narrow lanes which are less suitable for construction traffic than more major roads. As part of the construction routeing strategy, National Grid is proposing to construct a temporary access route off the A131 to provide access for construction vehicles to the Stour Valley West CSE compound and to the working area to the west of the trenchless crossing to the south of Ansell's Grove. This will reduce the number of access points required along the smaller lanes in Section G: Stour Valley (some of which are Protected Lanes), will reduce

the number of vehicles needing to use the local roads and will also reduce the need for modifications to the LRN.

5.4.3 The proposed HGV construction routes are presented in Appendix A on Figure 1, with AIL routes shown oin Figure 2. These figures will be used ~~in Appendix A and colour coding has been used to identify which routes are for AIL or HGV~~, to aid driver navigation to the correct access point. Copies of the construction routes will be provided to the contractor and each of its suppliers, who will be instructed to not use satellite navigation equipment and to use the supplied access routes only.

5.4.4 As shown on Figure 1 in Appendix A, HGV will generally use the SRN before using the LRN/ A roads to access the site. LGV will favour the SRN and A roads where this will not lead to excessive trip distance and journey time. During the daily commute, construction workers (including site-based staff) will be encouraged to follow the same principles as the HGV routeing. This will be encouraged through the use of crew vans~~minibuses~~ that will transport workers between their accommodation and a particular work front.

5.4.5 The construction routeing will avoid the Air Quality Management Area in Sudbury (AQ01).

HGV Deliveries

5.4.6 HGV movements will normally take place during the working hours. Where practicable, deliveries of construction materials will be timed to fall outside of traditional peak traffic periods (i.e. 08:00 to 09:00 and 17:00 to 18:00 Monday to Friday) or as otherwise set out as part of the Permit Schemes. Vehicles finishing at the end of a working day shall be permitted to leave site (i.e. a one-way movement out of the access point to the LRN).

5.4.7 A booking system will be used to manage, where practicable, the spread of deliveries across the whole day to further reduce the impact of HGV traffic during the peak periods. All project HGV construction vehicle movements will be recorded and timed as they enter and leave all sites.

Contingency Routes

5.4.8 There may be exceptional circumstances when traffic movements on the SRN or LRN are compromised, which will impact on construction vehicles being able to use the agreed construction traffic routes and access point. These exceptional circumstances are defined as one or more of the following:

- A traffic or other similar incident on the highway network that disrupts the normal operation of the highway network or results in the closure of the highway network;
- A breakdown of an HGV enroute to the authorised development;
- Work requested to be completed out of hours by a third party such as the relevant highway authority/Network Rail e.g. scaffold erection; and
- Emergency health and safety requirement (incident).

5.4.9 In the event of any incident occurring which impacts on the safe and efficient operation of the road network, contingency routes will be provided by pre-established traffic diversions and diversions as set out by National Highways, the relevant highway authorities and the police.

5.4.10 Further to this, the contractor will regularly monitor the One.Network website and liaise directly with National Highways and/or the relevant highway authorities to establish where predefined construction routes may be temporarily disrupted by other works or events and seek to establish alternative routes that, as far as practicable, are consistent with the principles set out above.

Agreements with Third Parties

5.4.11 The period of notice required to be given to highway and bridge authorities varies by vehicle class and by type. Generally:

- 40 to 80 tonnes, two working days' notice;
- 80 to 150 tonnes, five working days' notice; and
- Loads over 150 tonnes, a 'special order movement' is needed requiring permission from the Secretary of State. This is administered through the Department for Transport and National Highways.

5.4.12 Notice to the police will also be required in certain circumstances. Full details for all notice periods are set out in the Special Types Enforcement Guide (Driver and Vehicle Standards Agency, May 2018).

5.4.13 Advance notifications of programmed diversions and closures will be issued to major road users and businesses, including Royal Mail. This will include providing notice of any road closures, diversions or alternative access arrangements that may affect travel on those routes and the agreed hours of working at least one month prior to works taking place.

Construction Route Signage

5.4.14 All signage for temporary access to construction work sites will comply with relevant standards including Traffic Safety Measures and Signs for Road Works and Temporary Situations Chapter 8 (Department for Transport and Highways Agency, 2009).

5.4.15 The following signage is proposed on the project:

- **Construction routes and access point signs**: Temporary signage will be erected along construction routes on the LRN to provide access (directional) routeing information. This temporary signage will be provided in the vicinity of each access point (bellmouth) where a safety need has been identified, to provide warning to other road users of the likely presence of construction vehicles;
- **Temporary access route signs**: Similar to the above, temporary signage will be erected along the temporary access routes within the working area where a need has been identified (for example a hazard or crossing point) . The signage will provide drivers with information on distances to destination, and warning (hazard) information relating to potential vehicle conflict or pedestrian conflict areas (cross over points); and
- **Temporary diversion signs**: In the event that any diversions of traffic along the construction routes are required, temporary signage will be installed by National Grid or the relevant highway authority or both in accordance with relevant signage design guidance as is standard.

5.4.16 Warning signage will also be installed prior to construction at Church Road, Twinstead to inform users of the road that construction traffic will be using it (additional mitigation measure EIA_TT01). Baseline traffic on this route is fairly low, and while the route passes a church and a village hall, it has no dedicated footpaths. ES Chapter 12: Traffic and Transport (**application document 6.2.12**) identified this road as having a potential significant effect on walker, cyclist and horse rider amenity, fear and intimidation.

5.4.17 Signage will be weighted to help it stay in place and the contractor will undertake regular maintenance checks to report and rectify any defects with signage.

5.5 Access Points

5.5.1 Access points are where the Order Limits join the LRN and provide the entrance to the construction site and are proposed along the length of the project. These are shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**). Where practicable (for example, suitable for the vehicles proposed and close to the relevant working area) and available, existing accesses will be used. If an appropriate existing access is not available, a temporary access point will be created.

5.5.2 As set out in Requirement 11 of the draft DCO (**application document 3.1**), 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.

5.5.3 A standard access point design is provided in the Design and Layout Plans: Temporary Bellmouth for Access (**application document 2.11.12**) and detailed designs will be agreed with the relevant highway authority.

5.5.4 Traffic management may be required during the construction of the proposed access points for safety of road users, subject to the road layout and works proposed. The Traffic Regulation Order Plans (**application document 2.6**) show the proposed traffic management measures for example temporary traffic light systems to allow single lane closures. The construction of access points / bellmouths is expected to take less than two weeks during construction and a similar duration is anticipated to be required during reinstatement of the access point at the end of construction. As outlined on the Traffic Regulation Order Plans (**application document 2.6**), it is anticipated that smaller roads (single carriageway) would be closed during these two weeks period for safety, with access maintained for residents and landowners. It is anticipated that access points onto larger roads would be undertaken using temporary traffic management.

5.5.5 Access control to the working areas will be in place for safety and security. Access points will be designed to reduce risks and congestion by providing for the safe and efficient passage of construction traffic. This may be achieved by providing security gates set back from the public carriageway (up to 20m), so that a single HGV does not block the carriageway and footway. Where used, entrance gates will be placed to allow both plant and the operatives access and these will be closed and locked when not in use.

5.5.6 Measures such as bellmouth construction and temporary construction matting or temporary hardstanding will be used to protect verges and provide a sound foundation for the safe passage of vehicles. Security fencing will be installed around the roadside access areas along with signage restricting access to construction traffic and construction teams only. Vegetation that needs to be removed to create a bellmouth or to provide

suitable visibility will be removed in accordance with the measures set out within the LEMP (**application document 7.8**). National Grid will apply for any relevant protected species licences before construction activities commence.

5.5.7 In accordance with GG27, the Contractor will undertake regular inspections of the bellmouths to check for potholes or other defects. These will be repaired in a timely manner. In addition, and in accordance with good practice measure GG17 in the CoCP (**application document 7.5.1**), wheel washing will be provided at each main compound access point on to the highway where a need has been identified through the design process. An adequate supply of water will be made available at these locations at all times. Road sweepers will be deployed on public roads to prevent excessive dust or mud deposits from construction activities.

5.5.8 At the end of construction, access points will be reinstated to their pre-construction condition unless agreed otherwise with the relevant highway authority. This may involve reinstatement of hard landscape features, such as walls and fences or reinstatement of soft landscape features such as hedgerows. The pre-construction records will be used to check that reinstatement has been undertaken to an appropriate standard.

5.6 Temporary Access Routes

5.6.1 All temporary access routes will incorporate temporary hardstanding where a suitable permanent surface is not already in place. This could include temporary trackway matting.

5.6.2 In accordance with good practice measure GG26 in the CoCP (**application document 7.5.1**), the site speed limit will be 15mph on surfaced temporary access routes and 10mph on unsurfaced temporary access routes and work areas.

5.6.3 It is assumed that the temporary access routes for the removal of the 132kV overhead line would be either using existing tracks or would use trackway matting (approximately 4m wide) to protect the soil and avoid the need for soil stripping. It is anticipated that the 132kV removal can be undertaken using light vehicles and tractors rather than standard construction HGV.

5.6.4 It is assumed that the temporary access routes for removal of the 400kV overhead line to the north of Stour Valley West CSE compound would require a stone access track to provide access for a crane. The stone access track would be up to 7m wide plus 4m allowance alongside for soil storage.

5.6.5 In accordance with good practice measure GG27 in the CoCP (**application document 7.5.1**), the Contractor will undertake regular inspections of the temporary access routes to check for potholes or other defects. These will be repaired in a timely manner.

5.7 Construction Works within the Road Network

5.7.1 Road crossings are shown on the General Arrangement Plans (**application document 2.10**). Where the 132kV overhead line crosses the LRN and where the new overhead is to be constructed over the LRN, this will generally be undertaken using scaffolding on either side of the road. Traffic management measures may also be required during the setting up of scaffolding where required. This is likely to be for a short duration e.g. two weeks to install scaffolding where an access is required. A similar duration will also be required at the end of construction, when the scaffold and access is to be removed. In some cases, particularly on narrow / single carriageway roads, road closures may be

used during the 132kV removal and the installation of the new overhead line. Further details on traffic management can be found in Section 5.8.

5.7.2 Where the underground cables cross the LRN, opencut techniques will be used. The road width will determine the need for road closures or traffic management as follows:

- For roads that are too narrow to allow traffic to pass while works are undertaken, the road is likely to be closed during construction with a diversion. Anticipated sections and traffic diversions are shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**); and
- For roads that are wide enough for the works to be undertaken in two parts, traffic management, such as two-way traffic lights or similar will be used to control the flow of traffic past the works.

5.7.3 Access will be maintained for residents and landowners. Where this is not practicable, alternative arrangements will be made with the affected parties.

5.8 Traffic Management

5.8.1 Traffic management will be used where required to maintain public or workforce safety. This will include during construction and removal of access points, when erecting or dismantling scaffolding and where the underground cables cross the LRN. The anticipated roads that will require traffic management measures are shown on the Traffic Regulation Order Plans (**application document 2.6**) and the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**).

5.8.2 Traffic management will be proportionate to the size of road, duration of works and volume of traffic. Traffic management measures could include temporary traffic signals or manned stop and go boards. In some instances, there will be the need for road closures, particularly on single track roads. Specific locations, timings and the specific traffic management measures will need to be agreed with the relevant highway authorities as part of the Permit Scheme. Traffic management plans may change, following discussions with the relevant highway authorities.

5.8.3 Roads will only be closed where this is required for safe working. Road proposed for closing are shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**) along with the proposed diversion routes. In accordance with good practice measure AS03 in the CoCP (**application document 7.5.1**), where a road is to be closed, access to and from residential, commercial, community and agricultural land uses will be maintained throughout the construction period. Where this is not practicable, alternative arrangements will be made with the affected parties through the land agreements.

5.8.4 A diversion route is ~~is anticipated to be~~ required for all roads that would be closed for longer than one day. All diversions are anticipated to adopt the principle that they will use the same standard of road (e.g. 'A' class) or higher where practicable and available. However final agreement on the most suitable diversion route to be used will form part of the Permit Schemes. A full point-to-point diversion will be provided so that all vehicles that will usually and legitimately use a road can continue to use it to complete their journey. The means of access will be communicated to the relevant highway authorities, emergency and essential services.

5.9 Bus Stops and Routes

5.9.1 No bus stops require closing or relocating during construction. If this changes, discussions would be had with the relevant highway authority and the bus operators to agree alternative arrangements.

5.10 Pedestrians and Other Road Users

5.10.1 Pedestrians and other users using the LRN will be informed of increased traffic during construction through letter drops and local signage. A risk assessment will be undertaken to identify any specific measures required to protect pedestrians and other road users during construction. The measures will be tailored to the road, the number and types of construction vehicles using the route and users of the LRN. This will involve providing signage to advise of alternative footways and cycle routes that can be used during construction. Further details will be provided within the Permit applications and agreed with the relevant highway authorities.

5.10.2 See the PRoW Management Plan (**document 8.5.8**) for further details regarding the temporary measures which would be implemented in relation to routes with public access which are affected by the construction of the project.

6. Travel Plan

6.1 Introduction

6.1.1 This chapter sets out the good practice measures that will be in place to encourage sustainable transportation for the workforce, in a way that reduces both environmental and social impacts on the local area. The objective of the Travel Plan is to encourage a reduction in the quantity of single-occupancy car journeys and to create a shift towards more sustainable modes of transport.

6.1.2 To achieve this, National Grid and its contractor will promote the use of sustainable travel solutions, such as car sharing and use of public transportation. Wherever practicable, operatives will meet at pre-determined locations to share crew vansa ~~minibus~~ to the sitesworkface ~~to reduce the impact of cars being parked at unsuitable locations~~.

6.2 Travel Plan Assumptions

Geographical Location

6.2.1 The project is located in a part of Suffolk and Essex that is rural and many of the local roads are narrow. There are limited dedicated cycle routes within the area around the Order Limits and the train and bus networks offer limited services.

Workforce

6.2.2 National Grid's appointed contractor will specialise in construction of electrical infrastructure. The majority of the workforce will be split into mobile gangs, which would normally consist of between four and six employees. These staff will normally reside together during the week in temporary accommodation. It is anticipated that the mobile gangs will travel together to and from their accommodation each working day in crew vansa ~~minibus~~, with the crew van~~minibu~~s collecting staff from the pick-up / drop of points at the start and end of the working day. The services will be designed around shift patterns and commuting times. Services will be provided to drop staff at the main site compound and also at work fronts along the Order Limits, as required.

6.2.3 It is anticipated that these crew vans~~is minibus service~~ will also provide the function of a welfare van at the individual work fronts outside of site compounds. The welfare van typically contains facilities including a toilet, refreshment facilities and a microwave. This type of working provides a sustainable mode of transport the use of approved construction routes to otherwise remote areas on the LRN.

6.2.4 The main site compound is located off the A134 at Leavenheath. This will house a regular workforce over the construction period. The main site offices are located at this compound, and this will form the main hub for employees visiting the site on a one off or temporary basis. It is assumed that car sharing or crew vans~~minibuses~~ will be used between the main site compound and individual work fronts where required for inspections and visits.

6.3 Travel Planning Strategy

Staff Travel Survey

6.3.1 Prior to construction, the contractor will undertake a staff travel survey to capture information about how staff travel to work. This will consider the local sustainable transport infrastructure and also the main accommodation locations for staff. The results of the staff travel survey will inform the setting of project specific requirements, including staff travel routes and ways to encourage walking, cycling, public transport use and car sharing / reduction in car use.

Travel Information Pack

6.3.2 The contractor will prepare a travel information pack which will be issued to all staff as part of their induction. This will include:

- An introductory leaflet to the travel plan, highlighting the purpose and measures being implemented;
- A map showing the location of the project in relation to the local area, highlighting the nearby bus stops and local facilities within easy walking distance of the site;
- Bus timetables of local services from nearby bus stops;
- Details of routes and destinations served by trains which stop at local rail stations;
- A map showing local cycle routes, which will also indicate the locations of cycle parking and cycle shops in the area; and
- Details of any local taxi numbers.

6.3.3 Travel information will also be provided on staff notice-boards within the main site compound and travel advice will be issued to visitors upon making appointments. The contractor will regularly review the information provided within the travel information pack so that it is kept up to date and reflects any changes, such as local taxi numbers and new bus timetables or changes to services.

6.3.4 The contractor will promote car sharing among its employees and suppliers and assist them where necessary, to find suitable car share partners. They will include information about the benefits of car sharing in the travel information pack which will be provided to staff at induction.

6.3.5 Staff will be required to sign in and out of each work location and staff numbers per work site can be shared with the relevant highway authority (. full detail cannot be shared due to General Data Protection Regulations). These records will be used to assess vehicle movements and occupancy rates. The target is to achieve an average minimum occupancy of four personnel per crew van and 1.3 personnel per vehicle1.3 personnel per car journey over each six month monitoring period. The target would be for 70% of personnel to travel to site in crew vans, resulting in an average vehicle occupancy that , which is above the industry average for construction projects. The number of personnel per vehicle will be achieved through the measures above, particularly the use of crew vans. Should the results of the monitoring be lower than this target, National Grid will discuss the need for further measures with the contractor and the relevant local highway

authority to see if there are additional measures to encourage further car sharing, such as additional provision of crew vanminibus transport.

Public Transport and Non-Motorised Commuting

6.3.6 Details of public transport routes and timetable, cycle routes and footpaths will be provided within the travel information pack and on site noticeboards. In addition, the contractor will identify the need for local pick-up and drop off points at suitable locations based on the results of the travel survey. This could include Sudbury train station and local accommodation sites. It may also include locations with secure bicycle storage facilities to encourage walking and cycling.

6.3.7 For safety reasons, it is anticipated that the only site compound where staff will be permitted to enter on foot or by bicycle (as well as by motor vehicle), will be the main site compound (off the A134). Otherwise, walking and cycling will be via the local pick-up and drop off points noted above. The contractor will provide storage areas for storing personal protective equipment on site so staff do not need to carry equipment during their daily commute.

Vehicle Sharing

6.3.8 A vehicle sharing database will be created and administered by the contractor to identify members of staff that live in the same area so that they can travel to the local accommodation together via a vehicle sharing arrangement such as crew vansa minibus.

6.3.9 Where vehicle sharing is encouraged and actively promoted, a 'guaranteed lift' to local accommodation will be provided, as failure to implement this will be seen by potential vehicle sharers as a barrier to taking up vehicle sharing. This 'guaranteed lift home' may be in the form of access to the crew vanommuting minibus or welfare van or provision of a subsidised taxi, as appropriate.

Car Parking Control

6.3.10 The main site compound is located off the A134 at Leavenheath. It is assumed that this will contain approximately 50 parking spaces for the workforce. Vehicles authorised to park at the compounds will be given a parking permit and visitors will be booked in and then directed to available parking spaces. Smaller satellite compounds will provide a limited number of parking spaces to provide parking for workers at these. There will also be parking for the welfare vans at each individual working areas.

6.3.11 The parking strategy will be communicated through the Travel Information Packs. Car park management will be undertaken and monitored in order to control onsite parking and that where limited parking is provided it is used by those it is intended for, as opposed to those who should be accessing the site via other methods.

6.4 Travel Plan Monitoring and Targets

6.4.1 An initial baseline travel survey will be undertaken within three months after commencement of the works once travel habits have become established. This will set the baseline trip generation and modal split characteristics of the project and the data collected will be used to determine the success of the measures implemented within the Travel Plan. Each month the contractor will gather the following data to inform travel planning on the project:

- Percentage of onsite staff who have completed the Staff Travel Survey;
- Percentage of onsite staff issued with Travel Information Packs;
- Percentage of onsite staff signing up to the car-sharing database;
- Car park usage in terms of how many spaces used and proportion split between construction workers and visitors;
- Mode of transport used by workers to commute to the site;
- Number of minibus/welfare van movements between the site compound and work fronts; and
- Number of people car/vehicle sharing.

6.4.2 The contractor will set targets around increasing the number of staff using sustainable travel options and a general reduction of travel movements over the duration of the project. The contractor will undertake quarterly reviews following the three month audit to assess progress against the targets. The objective will be to measure the success of the project against its targets, and to identify the potential for refinements. It will also allow for the update of staffing numbers and the likely shift patterns and location of staff.

6.4.3 The contractor will compile a report outlining the results, together with the results of ongoing monitoring throughout the preceding period. The report will comment on the overall success of the Travel Plan and will set out initiatives for the following six months. A copy of the report will be available for the relevant highway authorities on request. Where amendments to targets are identified, these will be discussed and agreed with the relevant highway authority.

7. Implementation

7.1 Implementation of the CTMP

7.1.1 National Grid will put in place robust procedures to inform and supervise all those working on the project including its contractor, to make sure the control measures set out in the CTMP are adopted when undertaking the construction of works authorised by the DCO. The contractor will be the party~~main responsibility for~~ implementing these control measures, although the ultimate responsibility for compliance will remain with ~~the Applicant~~ National Grid~~will fall to the contractor~~.

7.1.2 The contractor will brief all operatives on the specific details within the CTMP prior to the commencement of works. The briefings will be delivered by a suitably trained member of the team such as the site supervisor, Construction Manager or Environmental Manager.

7.2 Site Checks and Reporting

7.2.1 The contractor will undertake pre-site condition surveys as part of the site setup, as described in Sections 5.2 and 6.2. This will include making a record of the condition of existing features such as roads, tracks and PRoW. Post site condition surveys will be undertaken by the contractor after construction and the results of these and any remediation will be discussed with the landowner and where applicable, the relevant highway authorities, prior to handover.

7.2.2 Regular site checks will be carried out across the project to monitor compliance with the CTMP. The programme of site inspections will be controlled by the Environmental Manager who will draw on appropriate suitably experienced specialists for specific tasks. The overarching inspections are summarised below in Table 7.1. Immediate action including, if necessary 'stopping a job', will be taken should any incidents or non-conformance with the CTMP be found during inspection.

7.2.3 Site checks and inspections will include checks against compliance with good practice measures and other commitments made by the project.

Table 7.1 – Site Checks Relevant to the CTMP

Inspection Type	Purpose	Who	Frequency
Environmental Inspections	To monitor compliance with project commitments and the environmental standards. To record adherence to good practice measures and raise actions where concerns are identified. To check mitigation measures for sensitive features are in place.	Environmental Manager EnvCoW	Weekly
Audits (External/Internal)	Formal audit process for internal Management System.	External Auditor Environmental Manager	Annual

Inspection Type	Purpose	Who	Frequency
Site Checks	To ensure that working practices are carried out in accordance with approved methods, standards and good practice measures. These will also check compliance with requirements agreed in any applicable permit	Works Supervisor	Daily visual check in working area.
Environmental Observations	Allows all staff to raise concerns or good practice ideas to safeguard continual improvement and innovation.	All staff	As required.
Monitoring of vehicles and road network	Checking signage is in place. Monitoring of vehicle condition, standards and use of agreed construction routes.	EnvCoW	Weekly

7.2.4 The results of inspections will be recorded in an Environmental Log. Findings will be disseminated to the wider construction team and additional procedures put in place if required.

7.2.5 In accordance with good practice measure TT02 in the CoCP (**application document 7.5.1**), the contractor will implement a monitoring and reporting system to check compliance with the measures set out within the CTMP. This will include the need for a GPS tracking system to be fitted to HGV owned and operated by the Main Works ~~c~~Contractor to check for compliance with authorised construction routes. The contractor will also be expected to monitor the number of construction vehicles between the site and the SRN. Deviations from the authorised HGV routes (as shown in Figure 1) ~~or changes to traffic levels that are higher than the Transport Assessment (**application document 5.7**) CTMP assumptions~~ will require discussion of the need for additional mitigation measures with the relevant highway authorities. National Grid will share information on compliance with routes in Appendix A to inform discussions with the relevant highway authorities on monitoring and enforcement of the CTMP where required.

7.3 Non-Compliance Procedure

7.3.1 The EnvCoW will be responsible for undertaking site audits to check compliance with the CTMP. All incidents associated with the construction of the project, including environmental incidents and non-conformance with the CTMP, will be reported and investigated. Where the contractor, suppliers or sub-contractors are not delivering the requirements, National Grid will review performance and will conduct further training and issue formal warnings as appropriate.

7.4 Community Liaison

7.4.1 In accordance with good practice measure GG25 in the CoCP (**application document 7.5.1**), members of the community and local businesses will be kept informed regularly of the works through active community liaison. This will include notification of heavy traffic periods and start and end dates of phasing. A contact number will be provided which members of the public can use to raise any concerns or complaints about the project. All construction-related complaints will be logged by the contractor in a complaints register, together with a record of the responses given and actions taken. Further details can be found in Section 15.4 of the CEMP (**application document 7.5**).

7.4.2 The specific requirements for works in highways will be in accordance with the Permit Schemes, which will set out the communication expectations for road works. The project will adhere to these principles, the permit requirements and any resulting traffic diversions will be shown on the relevant county council's online traffic map. Communication will include sending letters to residents, detailing the extent of the works and, for example, any implications on parking arrangements. Details of where traffic management is in place will be available on the project website.

7.5 Complaints Procedure

7.5.1 The complaints procedure for the project is outlined within Section 15.4 of the CEMP (**application document 7.5**).

7.6 Change Process

Introduction

7.6.1 The CTMP is one of the plans listed in sub-paragraph (2) of Requirement 4(1) in the draft DCO (**application document 3.1**) which states: '*All construction works forming part of the authorised development must be carried out in accordance with the plans listed in sub-paragraph (2) below, unless otherwise agreed with the relevant planning authority or other discharging authority as may be appropriate to the relevant plan concerned, and in the case of the CTMP, the relevant highway authority.*'

7.6.2 Requirement 1(4) of the draft DCO (**application document 3.1**) states: *'Where an approval or agreement is required under the terms of any Requirement or a document referred to in a Requirement, or any Requirement specifies "unless otherwise approved" or "unless otherwise agreed" by the relevant highway authority or the relevant planning authority, such approval or agreement may only be given in relation to minor or immaterial changes and where it has been demonstrated to the satisfaction of the relevant highway authority or the relevant planning authority that the subject matter of the approval or agreement sought ~~is~~ will not t~~unlikely to~~ give rise to any materially new or materially different environmental effects from those assessed in the Environmental Statement.'*

7.6.3 Where there is a need to update the CTMP beyond derogations addressed pursuant to the above, the below text addresses the process for changing the CTMP itself. This does not cover changes to the DCO (material or non-material) which would be managed through the process set out in Schedule 6 of the Planning Act 2008.

7.6.4 Therefore, the below process is limited to changes to the CTMP.

CTMP Changes

7.6.5 It may be necessary to amend the details contained in the CTMP as a result of the iterative discussion and engagement that will continue after the CTMP has been approved. The resulting changes would not alter any of the underlying commitments, mitigations and methodologies set out in the CTMP. An example may be where a pre-construction survey identifies that a measure already committed to is no longer required in the CTMP. In every case, consideration will be given to any changes to the outcome of the assessment of environmental effects.

7.6.6 Where there is a proposed change to the CTMP, National Grid will provide details to the relevant highway authority together with evidence of relevant stakeholder engagement,

where upon, the relevant highway authority will, acting reasonably, endeavour to respond within 28 days to either confirm its consent to the change to the CTMP or provide its reasons why the change is not accepted. National Grid will also publish any amended version of the CTMP on the project website~~,~~ and will make clear in doing so that any previous version(s) are superseded.

References

Department for Transport and Highways Agency (2009) Traffic Safety Measures and Signs for Road Works and Temporary Situations Chapter 8. London: TSO.

Driver and Vehicle Standards Agency (2018) Special types enforcement guide.

GOV.UK (2022) Transporting abnormal loads. (Online) Available from: https://www.gov.uk/esdal-and-abnormal-loads (Accessed March 2023).

One.Network (n.d.) One.Network UK Live Map. (Online) (Accessed March 2023).

Appendix A: Figures

- Figure 1 Construction Traffic Routes and
- Figure 2 Abnormal Indivisible Load Routes

NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
CONSTRUCTION TRAFFIC ROUTES KEY PLAN
REGULATION 5(2)(q)
SHEET 1 OF 1
IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

Mid Suffolk District Council

Babergh District Council

Braintree District Council

Colchester Borough Council

Tendring District Council

Sheet 1

Sheet 2

Sheet 3

Sheet 4

Bramford Substation

Section AB: Bramford Substation/Hintlesham

Section C: Brett Valley

Section D: Polstead

Section E: Dedham Vale Area of Outstanding Natural Beauty

Section F: Leavenheath/Assington

Section G: Stour Valley

Section H: Grid Supply Point Substation

Bures Road

Mill Road

A134/2

A134/1

A131/4

A131/5

A1124

Clare

Acton

Sudbury

Hadleigh

Ipswich

Market

Halstead

Colchester

Legend

- Section boundaries
- Order Limits
- Local authority districts
- Existing Bramford Substation
- Construction routes to the Strategic Road Network
- Air Quality Management Area

Norwich
Birmingham
Thetford
Cambridge
Stevenage
Colchester
London

NG Investment No. ETX/01142

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B	12/2023	For Deadline 6	PM	KC	KC
A	10/2023	For Deadline 3	PM	KC	KC

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE: Figure 1 Construction Traffic Routes Key Plan

CIRCUIT / SITE: Bramford – Pelham & Bramford – Braintree – Bulls Lodge

GIS

ORIGINATOR DRAWING NO. CTMP_Figure_1_Rev1_KeyPlan

A3

NG DRAWING No.

SHEET NO. 1

NO. OF SHEETS 1

ISSUE: B

SCALE: 1:125000

0 1 2 3 4 5 Kilometers

255000 250000 245000 240000 235000 230000 225000

580000 585000 590000 595000 600000 605000 610000 615000

NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
CONSTRUCTION TRAFFIC ROUTES
REGULATION 5(2)(q)
SHEET 1 OF 4
IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Construction routes to the Strategic Road Network

AB: Bramford Substation/Hintlesham

Bramford
Bullen Lane
B1113
Burstall Hill
Church Hill
Burstall
The Street, Burstall
A1071/8
Burstall Bridge
A1071/4
A1071/5
A1071/6
A1071/7
Hintlesham
Chattisham Lane
Lower Barn Road
A1214
Duke Street
Clay Hill
The Street, Chattisham
Pond Hall Road
Clay Lane
Woodlands Road
Hadleigh
Upper Layham

0 0.25 0.5 0.75 1 Kilometers

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NG Investment No. ETX/01142

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE: Figure 1 Construction Traffic Routes

CIRCUIT / SITE: Bramford – Pelham & Bramford – Braintree – Bulls Lodge

GIS

ORIGINATOR DRAWING NO. CTMP_Figure_1_Rev1

A3

NG DRAWING No.

SHEET NO. 1

NO. OF SHEETS 4

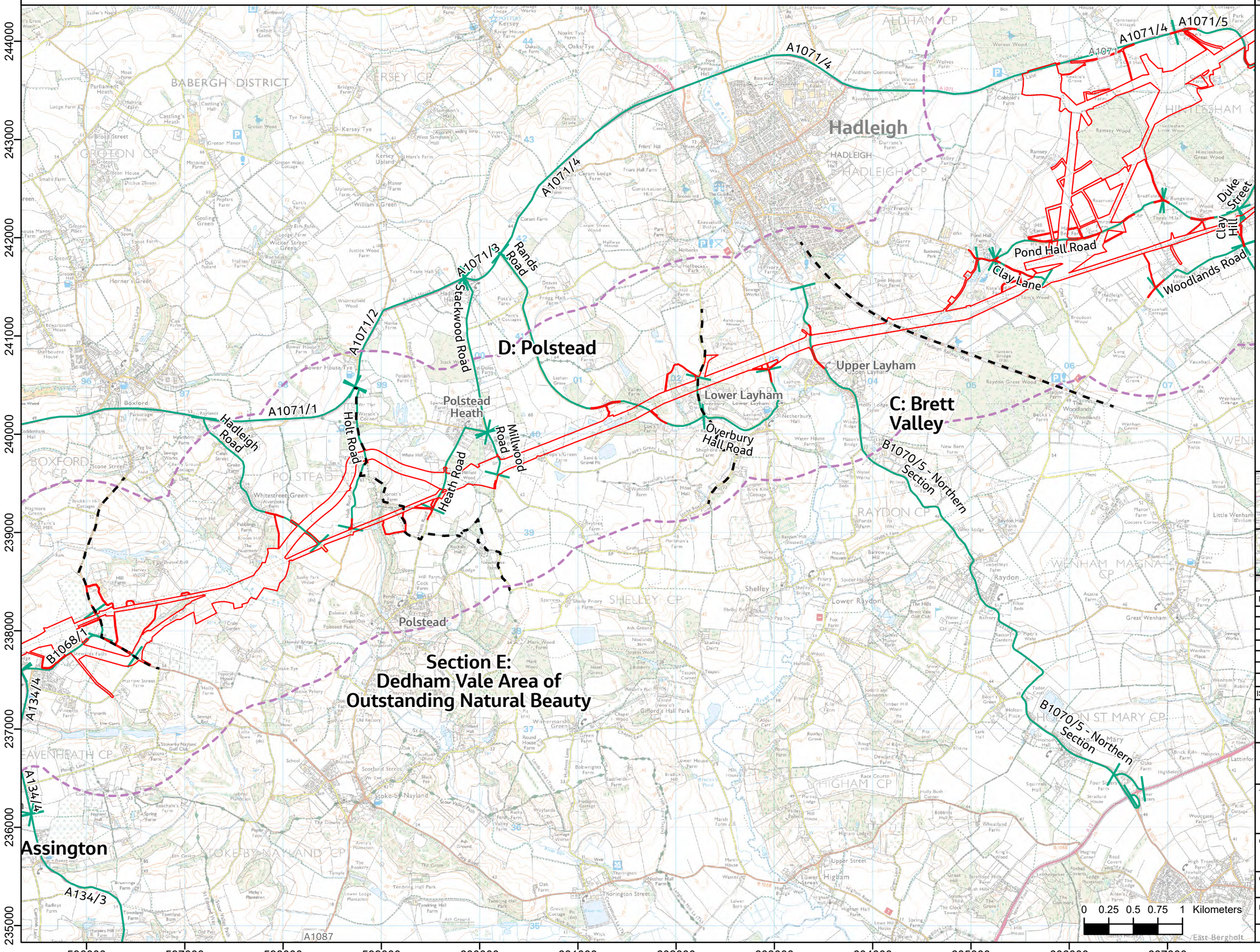
ISSUE: B

SCALE: 1:37500

NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
CONSTRUCTION TRAFFIC ROUTES
REGULATION 5(2)(q)
SHEET 2 OF 4
IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Construction routes to the Strategic Road Network



NG Investment No. ETX/01142

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B	12/2023	For Deadline 6	PM	KC	KC
A	10/2023	For Deadline 3	PM	KC	KC

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE :
Figure 1
Construction Traffic Routes

CIRCUIT / SITE :			
Bramford – Pelham & Bramford – Braintree – Bulls Lodge			GIS
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NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
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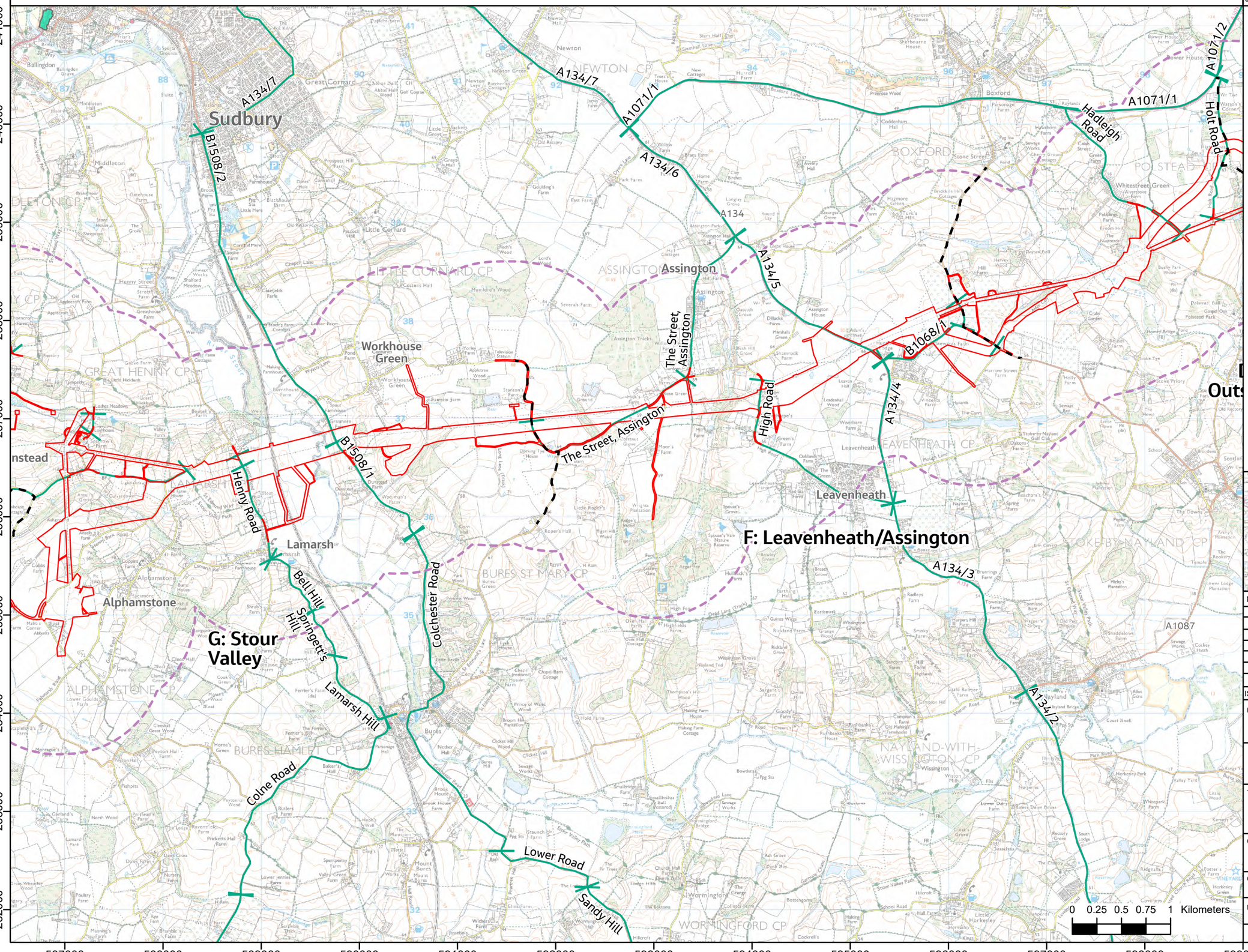
CONSTRUCTION TRAFFIC ROUTES
REGULATION 5(2)(q)
SHEET 3 OF 4
IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Construction routes to the Strategic Road Network
- Air Quality Management Area



NG Investment No. ETX/01142

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B	12/2023	For Deadline 6	PM	KC	KC
A	10/2023	For Deadline 3	PM	KC	KC

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE :
Figure 1
Construction Traffic Routes

CIRCUIT / SITE :			
Bramford – Pelham & Bramford – Braintree – Bulls Lodge			GIS
ORIGINATOR DRAWING NO. CTMP_Figure_1_Rev1			A3
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CONSTRUCTION TRAFFIC ROUTES
REGULATION 5(2)(q)
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IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Construction routes to the Strategic Road Network

H: Grid Supply Point Substation

G: Stour Valley

Hedingham Road
Watery Lane
Clay Hill
Church Road
Wickham St Paul
Old Road
Twinstead
Henry Road
Lamarsh
Bell Hill
Springett's Hill
Lamarsh Hill
Colne Road
Bures Road
A131
A131/2
B1508/2
Sudbury
Alphamstone
Halstead
Castle Hedingham
Sible Hedingham
Wickham St Paul
Colne Valley
BRAINTREE DISTRICT

0 0.25 0.5 0.75 1 Kilometers

NG Investment No. ETX/01142

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B	12/2023	For Deadline 6	PM	KC	KC
A	10/2023	For Deadline 3	PM	KC	KC

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE:
Figure 1
Construction Traffic Routes

CIRCUIT / SITE :			
Bramford – Pelham & Bramford – Braintree – Bulls Lodge			GIS
ORIGINATOR DRAWING NO. CTMP_Figure_1_Rev1			A3
NG DRAWING No.	SHEET NO. 4	NO. OF SHEETS 4	ISSUE: B
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NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
ABNORMAL INDIVISIBLE LOAD ROUTES KEY PLAN
REGULATION 5(2)(q)
SHEET 1 OF 1
IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

Mid Suffolk District Council

Babergh District Council

Braintree District Council

Colchester Borough Council

Tendring District Council

Sheet 1

Sheet 2

Sheet 3

Sheet 4

Bramford Substation

Section AB: Bramford Substation/Hintlesham

Section C: Brett Valley

Section D: Polstead

Section E: Dedham Vale Area of Outstanding Natural Beauty

Section F: Leavenheath/Assington

Section G: Stour Valley

Section H: Grid Supply Point Substation

Legend

- Section boundaries
- Order Limits
- Local authority districts
- Existing Bramford Substation
- Access points
- Abnormal indivisible loads (e.g. cable drums and transformer)
- Air Quality Management Area

0 1 2 3 4 5 Kilometers

NG Investment No. ETX/01142

ISSUE	DATE	REMARKS	DRWN	CHKD	APPD
B	12/2023	For Deadline 6	PM	KC	KC
A	10/2023	For Deadline 3	PM	KC	KC

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE : Figure 2 Abnormal Indivisible Load Routes Key Plan

CIRCUIT / SITE : Bramford – Pelham & Bramford – Braintree – Bulls Lodge

GIS

ORIGINATOR DRAWING NO. CTMP_Figure_2_Rev1_KeyPlan

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NG DRAWING No.

SCALE : 1:125000

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NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
ABNORMAL INDIVISIBLE LOAD ROUTES
REGULATION 5(2)(q)
SHEET 1 OF 4
IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Access points
- Abnormal indivisible loads (e.g. cable drums and transformer)

AB: Bramford Substation/Hintlesham

AB-AP1

Bramford
Burstall Hill
Burstall
Burstall Bridge
Hintlesham
Hadleigh
Upper Layham
A1071

0 0.25 0.5 0.75 1 Kilometers

NG Investment No. ETX/01142

ISSUE	DATE	REMARKS	DRWN	CHKD	APPD
B	12/2023	For Deadline 6	PM	KC	KC
A	10/2023	For Deadline 3	PM	KC	KC

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE :
Figure 2
Abnormal Indivisible Load Routes

CIRCUIT / SITE :			
Bramford – Pelham & Bramford – Braintree – Bulls Lodge			GIS
ORIGINATOR DRAWING NO. CTMP_Figure_2_Rev1			A3
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NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
ABNORMAL INDIVISIBLE LOAD ROUTES
REGULATION 5(2)(q)
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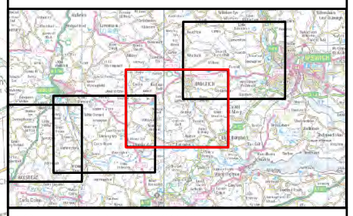
IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Access points
- Abnormal indivisible loads (e.g. cable drums and transformer)

D: Polstead
D-AP2
C: Brett Valley
Section E: Dedham Vale Area of Outstanding Natural Beauty
Assington
Hadleigh
Upper Layham
Lower Layham
Polstead Heath
Polstead



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nationalgrid

TITLE :
Figure 2
Abnormal Indivisible Load Routes

CIRCUIT / SITE : Bramford – Pelham & Bramford – Braintree – Bulls Lodge

GIS

ORIGINATOR DRAWING NO. CTMP_Figure_2_Rev1

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ISSUE: B

SCALE : 1:37500

0 0.25 0.5 0.75 1 Kilometers

NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
ABNORMAL INDIVISIBLE LOAD ROUTES
REGULATION 5(2)(q)
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IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Access points
- Abnormal indivisible loads (e.g. cable drums and transformer)
- Air Quality Management Area

Sudbury
Assington
F-AP5
Workhouse Green
G-AP4
Lamarsh
Alphamstone
G: Stour Valley
F: Leavenheath/Assington
Leavenheath
A134
A1087
Boxford
Newton
Great Cornard
Little Cornard
Ballingdon
Middleton
Bures
Nayland
Stoke-by-Nayland
Wormingford
Outs

0 0.25 0.5 0.75 1 Kilometers

241000
240000
239000
238000
237000
236000
235000
234000
233000
232000

587000 588000 589000 590000 591000 592000 593000 594000 595000 596000 597000 598000 599000

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ISSUE	DATE	REMARKS	DRWN	CHKD	APPD
B	12/2023	For Deadline 6	PM	KC	KC
A	10/2023	For Deadline 3	PM	KC	KC

PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE: Figure 2 Abnormal Indivisible Load Routes

CIRCUIT / SITE: Bramford – Pelham & Bramford – Braintree – Bulls Lodge

GIS

ORIGINATOR DRAWING NO. CTMP_Figure_2_Rev1

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NG DRAWING No.

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NATIONAL GRID (BRAMFORD TO TWINSTEAD REINFORCEMENT) ORDER
PINS APPLICATION NUMBER: EN020002
ABNORMAL INDIVISIBLE LOAD ROUTES
REGULATION 5(2)(q)
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IN THE DISTRICTS OF MID SUFFOLK DISTRICT COUNCIL, BABERGH DISTRICT COUNCIL AND BRAINTREE DISTRICT COUNCIL

Application Document 7.6

- Section boundaries
- Order Limits
- Study area (1km)
- Access points
- Abnormal indivisible loads (e.g. cable drums and transformer)

H: Grid Supply Point Substation

H-AP1

H-AP20

G-AP4

G: Stour Valley

Twinstead

Wickham St Paul

Halstead

Sudbury

Lamarsh

Alphamstone

A131

Colne Valley

BRAINTREE DISTRICT

0 0.25 0.5 0.75 1 Kilometers

NG Investment No. ETX/01142

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PROJECT: Bramford to Twinstead Reinforcement

nationalgrid

TITLE :
Figure 2
Abnormal Indivisible Load Routes

CIRCUIT / SITE : Bramford – Pelham & Bramford – Braintree – Bulls Lodge

GIS

ORIGINATOR DRAWING NO. CTMP_Figure_2_Rev1

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NG DRAWING No.

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