Norwich Western Link

Transport Assessment

Appendix 14b – Cumulative Development Data – Hornsea Three – Onshore Cable Construction Traffic Management Plan, March 2023 Part 1 of 2

Author: WSP

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Contents

1 Cumulative Development Data

1.1.1 The second of two reports that present two cumulative developments that may potentially be under construction at the same time as the Proposed Scheme.

1.1.2 Appendix 4.01.14a contains 'Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects – Outline Construction Traffic Management Plan (Revision D)', produced in June 2023. This Outline Construction Traffic Man agement Plan contains the control measures and monitoring procedures for managing the potential traffic and transport impacts of constructing Shering ham Shoal and Dudgeon Offshore Wind Farm extension projects.

1.1.3 This Appendix 4.01.14b contains 'Hornsea Three – Onshore Cable Construc tion Traffic Management Plan South Norfolk District Council Area', produced in March 2023. The purpose of this Construction Traffic Management Plan is to establish the principles that will be implemented by the principal contractor to minimise the traffic impacts associated with construction of the onshore elements of the Hornsea Project Three Offshore Wind Farm.

1.1.4 We have included a summary of key information shown in this document in an accessible format in sections 1.1.1 to 1.1.3. However, some users may not be able to access all technical details that are included in the rest of this document. If you require this document in a more accessible format, please contact norwichwesternlink@norfolk.gov.uk

Hornsea Three

Onshore Cable Construction Traffic Management Plan
South Norfolk District Council Area

Document Control

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Title	Onshore Cable Construction Traffic Management Plan SNDC Area

Version History

Date	**Version**	**Status**	**Description/Changes**
October 2022	A	Draft	Construction Traffic Management Plan (CTMP) - For submission to South Norfolk District Council (SNDC) for approval and discharge.
March 2023	B	Issue	Updated to reflect comments from NCC and revised maximum traffic flows per link confirmed

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Glossary

Term	Definition
Authorised development	As defined by the Hornsea Three Development Consent Order (DCO) 'means the development and associated development described in Part 1 of Schedule 1 (authorised project)'.
Connection works	As defined by the Hornsea Three DCO 'means Work Nos. 6 to 15 and any related further associated development in connection with those works'.
Commencement	As defined by the Hornsea Three DCO 'in respect of any other works comprised in the authorised project, the first carrying out of any material operation (as defined in section 155 of the 2008 Act) forming part of the authorised project other than onshore site preparation works and the words "commencement" and "commenced" must be construed accordingly'.
Onshore site preparation works	As defined by the Hornsea Three DCO means 'operations consisting of site clearance, pre-planting of landscaping works, archaeological investigations, environmental surveys, investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure, creation of site accesses and the temporary display of site notices or advertisement'.
Relevant planning authority	As defined by the Hornsea Three DCO 'means the district planning authority for the area in which the land to which the relevant provision of this Order applies is situated'.

Acronyms

Acronym	Definition
AIL	Abnormal Indivisible Load
BDC	Broadland District Council
CoCP	Code of Construction Practice
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
ECR	Export Cable Route
HA	Highway Authority
HDD	Horizontal Directional Drilling
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
HSE	Health and Safety Executive
LPA	Local Planning Authority
NCC	Norfolk County Council
NGET	National Grid Electricity Transmission
NNDC	North Norfolk District Council
ONCS	Onshore Converter Station
PIA	Personal Injury Accident
PRoW	Public Right of Way
SNCB	Statutory Nature Conservation Bodies
SNDC	South Norfolk District Council
WSI	Written Scheme of Investigation

Units

Unit	Description
km	Kilometre (distance)
m	Metre (distance)

1 Introduction

1.1 Background

1.1.1.1 The purpose of this Construction Traffic Management Plan (CTMP) is to establish the principles that will be implemented by the principal contractor to minimise the adverse impacts associated with the transport of materials, plant and staff required for construction of the onshore elements of the Hornsea Project Three Offshore Wind Farm (hereafter referred to as Hornsea Three), within the South Norfolk District Council (SNDC) jurisdiction.

1.1.1.2 The Development Consent Order (DCO) (granted 31st December 2020) requires that no onshore connection works may commence until written details of a full CTMP has been submitted to and approved by the relevant planning authority in consultation with the relevant Highway Authorities.

1.1.1.3 This CTMP contains details of:

- Proposed vehicle routeing plans;
- Any abnormal indivisible loads that may be delivered by road, or confirmation that no abnormal indivisible loads will be required for construction of the authorised development;
- Any highway works proposed (including intervention schemes);
- Construction personnel travel; and
- Highway condition surveys.

1.1.1.4 This CTMP is to be read alongside the **Code of Construction Practice (CoCP) (Version A, 07792360_A)**, which itself is secured through a Requirement of the DCO (namely DCO Requirement 17) as submitted.

1.1.1.5 The measures set out in this CTMP relate to the areas of onshore construction activity which have been identified in **Chapter 7** and **Annex 7.1** of the **Hornsea Three Environmental Statement (Volume 3, Chapter 7: Traffic and Transport and Volume 6, Annex 7.1: Transport Assessment)** as potentially leading to significant adverse transport and traffic effects, within the SNDC jurisdiction.

1.1.1.6 This CTMP has been developed in consultation with Norfolk County Council (NCC) as the Local Highway Authority (LHA) and National Highways (NH), collectively referred to as the Highway Authorities (HAs), prior to submission to the Local Planning Authorities and the HAs for approval.

1.1.1.7 The DCO as consented requires that no phase of any works landward of Mean Low Water Springs (MLWS) may commence until, for that phase a final CoCP (which must accord with the principles established in the outline CoCP) has been submitted to and approved by the relevant planning authority, in consultation with the relevant HAs. (and if applicable the Marine Management Organisation (MMO)).

1.1.1.8 The onshore elements of Hornsea Three is located within the districts of North Norfolk, Broadland and South Norfolk (the local planning authorities) and NCC as the LHA. Separate CTMPs will be

submitted to each local planning authority, along with partial discharge applications associated with the delivery of individual highway works as approved by NCC.

1.1.1.9 This CTMP focuses on the onshore cable corridor which is located within SNDC jurisdiction only as well as the areas where Highway intervention works are required and which are located with SNDC. This CTMP therefore covers the following Work numbers as set out in the DCO:

- Work No 6 onshore connection works consisting of up to six cable circuits, ducts and between Work No. 5 and Work No. 7 landward of MHWS and onshore construction works;
- Work No 7 – onshore connection works consists of –
  - Up to six cable circuits and associated electrical circuit ducts between Work No. 6 to Work No. 8;
  - Onshore construction works;
  - Up to six transition joint bays; and
  - Horizontal Directional Drilling (HDD) launch pits.
- Work No 8 – onshore connection works consists of –
  - Up to six cable circuits and associated electrical circuit ducts to Work No 11;
  - Onshore construction works;
  - Up to 440 link boxes; and
  - Up to 440 joint bays.
- Work No 14 – temporary vehicular access tracks to serve Work Nos. 7, 8, 9, 10, 11, 12, 13 and 15; and
- Work No 15 – temporary storage areas to assist with the onshore connection works

1.2 Scope of Construction Activities and CTMP

1.2.1.1 This CTMP considers site set-up, construction activities and site reinstatement works associated with the onshore construction activities of Hornsea Three within SNDC, which specifically includes:

- Onshore cable corridor (within SNDC jurisdiction only);
- Secondary compounds and storage areas located along the onshore cable corridor;
- HDD compounds located along the onshore cable corridor; and
- Haul road along the cable corridor and access points and routes off the public highway.

1.2.1.2 The potential adverse effects resulting from the onshore construction activities relating to traffic and transport comprise the following:

- Adverse effects on sensitive receptors such as schools, care homes, hospitals and residential areas with poor footway provision;
- Adverse effect on pedestrian delay, severance, and fear and intimidation due to Heavy Goods Vehicle (HGV) movements; and
- Adverse effects due to possible increased risk to road users as a result of the passage of construction vehicles along existing roads or at site accesses.

1.2.1.3 In addition, this CTMP sets out the proposed measures that will be implemented to reduce the overall level of traffic and the associated emissions resulting from the onshore construction activities

1.2.1.4 Hornsea Three is a single-phase operation, with a number of sub set of works and activities along the onshore cable corridor. There will be a separate principal contractor undertaking the works

at the landfall and at the Onshore Converter Station (ONCS) and connection to Norwich Main are constructed to that undertaking the works along the onshore cable corridor.

Considering this, multiple CTMPs (as listed below) will be required to facilitate these construction works and are provided separately to this document.

- North Norfolk District Council (NNDC) Onshore Cable Corridor CTMP
- Broadland District Council (SNDC) Onshore Cable Corridor CTMP
- ONCS CTMP
- Special Order Vehicle CTMP
- S278 Oulton Highway Works Partial Discharge CTMP (Document reference 07938234_A)
- S278 Cawston Highway Works Partial Discharge CTMP (Document reference 07966200_A)
- S278 Taverham Road Highway Works Partial Discharge CTMP (Document reference 08150704_A)

1.2.1.5 The following sections are included in this CTMP for SNDC:

- Introduction;
- Management of HGV Movements;
- Abnormal Loads;
- Management of Construction Workforce Movement;
- Site Accesses;
- Highway Crossings;
- Management of Highway Safety;
- Implementation and Monitoring of the CTMP; and
- Potential interaction between construction traffic for Hornsea Three and Vattenfall Norfolk Vanguard and Boreas and how this can be managed and mitigated.

1.2.2 Horizontal Directional Drilling

1.2.2.1 In order to assist the reader of this CTMP, a definition of HDD is provided below which has been taken from paragraphs 3.7.3.15 – 3.7.3.17 within **Volume 1, Chapter 3: Project Description** of the **Hornsea Three Environmental Statement**. Additional information on HDD is provided in Appendix B of the CoCP documents Clause 2.2.3:

> *"HDD involves drilling a long parabolic borehole underneath the obstacle using a drilling rig located beyond the obstacle in the export cable corridor. The optimum design is for each drill to be carried out in a straight line, with pits dug at both ends of the planned drill to below the level required for the cable so the drilling rig can carry out the drill horizontally, and the ducts can be installed.*
>
> *The process uses a drilling head controlled from the rig to drill a pilot hole along a predetermined profile based on an analysis of the ground conditions and cable installation requirements. This pilot hole is then widened using larger drilling heads until the hole is wide enough to fit the cable ducts. Bentonite is pumped to the drilling head during the drilling process to stabilise the hole and ensure that it does not collapse. Prior to the drilling taking place, an exit pit may be excavated passed the obstacle on the export cable route in order for the HDD profile and ducts to stop at the required installation depth for the cable.*
>
> *Once the HDD drilling has taken place the ducts (within which the cable will be installed) are pulled through the drilled hole. These ducts are either constructed offsite or will be constructed onsite along the export cable route, then pulled though the drilled hole either by the HDD rig or by separate winches."*

1.2.3 Haul Road

1.2.3.1 To assist the reader of this CTMP, a definition of haul road is provided below which has been taken from paragraphs 3.7.2.25 – 3.7.2.27 within **Volume 1, Chapter 3: Project Description** of the **Hornsea Three Environmental Statement**:

> *"During the installation of the onshore cables a temporary haul road will be constructed. The haul road, up to 6 m wide, and extending up to the full length of the onshore cable corridor (less sections where a HDD only passes through) provides vehicular access along the cable easement off the public highway. Following completion of the works being served by that access point, the haul road will be removed and the land reinstated, unless otherwise agreed with the local planning authority. The access point would also be removed and/or no longer utilised unless otherwise agreed with the local planning authority.*
>
> *The haul road will be utilised during installation and be made up of either: an average of 0.3 m of permeable gravel aggregate with a geotextile or other type of protective matting; or plastic or metal plates or grating.*
>
> *To provide access to the cable corridor and limit damage to the agricultural land, the haul road will be installed as part of the preconstruction cable route works at the start of construction in that locality."*

1.2.3.2 The depth of the sub-base of the haul road will be dependent on the California Bearing Ratio (CBR) of the substrata. The soils encountered along the onshore cable corridor are variable, ranging from dense sands/gravel providing very high CBR values to silty clays providing moderate to low CBR values. **Table 1.1** can be used as a guide to the required thickness of the granular sub-base for typical silty clay soils in reasonable condition and at normal depths.

1.2.3.3 The minimum depth of the haul road will be capped at 200 mm and the likely maximum depth will not exceed 500 mm.

Granular Sub-Base Thickness			
CBR 2%	CBR 3%	CBR 4%	CBR 5%
370 mm	310 mm	240 mm	200 mm

Table 1.1: Granular Sub-base Thickness

1.2.4 Open Cut Trench

1.2.4.1 To assist the reader of this CTMP, a definition of open cut trench is provided below which has been taken from Section 3.7.3 of the **Hornsea Three Volume 1, Chapter 3: Project Description** of the **Environmental Statement**:

> *"The trenches will be excavated using a mechanical excavator, and the export cables will be installed into the open trench from a cable drum delivered to site via HGV. The cables are buried in a layer of stabilised backfill material that ensures a consistent structural and thermal environment for the cables.*
>
> *The remainder of the trench is then backfilled with the excavated material. Hard protective tiles, protective tape and marker tape are also installed in the cable trenches above the cables to ensure the cable is not damaged by any third party. Once the export cables are installed and the trenches backfilled, the stored topsoil will be replaced and the land reinstated back to its previous use. Each trench section between joint bays is expected to be open for approximately one week."*

2 Traffic Management

2.1 Management of HGV Movements

2.1.1 Vehicle Types

2.1.1.1 A variety of vehicle types will need to access the construction sites along the Hornsea Three onshore cable corridor. These will include, inter alia: low loaders to deliver plant, construction machinery, ducting and cables, trench and pit support; fencing, welfare facilities and temporary portable cabins; HGVs delivering aggregate for surfacing of compounds and haul road; tankers to deliver water for HDD and for welfare.

A list of likely construction vehicles is presented below:

- HGV: Standard 4 axle artic truck with low-loader
- HGV: Standard 8-wheeler tipper (for aggregate deliveries)
- HGV: Standard 4 axle artic truck and trailer (curtain side)
- HGV: Standard 6 axle artic truck and trailer (curtain side)
- Construction vehicle: swivel dumper (6 ton)
- Construction vehicle: 180 degree wheeled excavator (i.e. JCB 3CX)
- LGV: 2 axle transits and delivery vehicles (over 3.5ton and under 7.5 ton) and
- LGV: 2 axle 4x4s, vans, and passenger vehicles up to 3.5 ton

2.1.1.2 The cable drum deliveries will be made with a Scania S650 6x2 tag axle with 2.9 m wheelbase or similar. The cable drums will have the following dimensions: Drum with W 2950 mm and Ø 4650 mm (flange size) with a maximum cable length of 1180 m and load of 50 ton.

2.1.2 Vehicle Routeing

2.1.2.1 Vehicle routes between the main Hornsea Three site compound located on The Street, Oulton to each of the proposed works access points in SNDC are shown in Appendix 1 of this document.

2.1.2.2 All contractors will be required to comply with the agreed routeing plans and will ensure that all drivers are informed of the need to restrict HGV movements to those specified routes.

2.1.2.3 If in the event that complaints are received that vehicles are not following the prescribed routes (or it comes apparent to the project or principal contractor), mechanisms to record vehicle routing, for example applying spot-checks to ensure that the agreed routes are being adhered to, will be implemented by the principal contractor.

2.1.2.4 All reports of drivers not adhering to the prescribed routes will be recorded and followed up by the principal contractor, with penalties applied to repeated noncompliance.

2.1.2.5 Where HGV vehicle movements are generated, e.g., haul road aggregate or cable supplier, the respective suppliers will be requested to maintain a log, the purpose of which is to demonstrate compliance with following prescribed access routes and delivery times.

2.1.2.6 During the construction period all access points in use will have temporary signs posted along the confirmed routes. This may include signs to improve pedestrian awareness of HGV movements along roads where footways are not provided or are limited. The need for such signs, and their proposed locations, would be discussed and agreed with NCC in advance of construction within the specific area commencing, and as part of the individual access permits obtained by the principal contractor.

2.1.3 Localised Restrictions

2.1.3.1 Where there is potential for two HGVs associated with the Hornsea Three works to meet on a section of highway that is of insufficient width to allow the HGVs to pass without reversing or overrunning the edge of the highway, movements of HGVs to and from construction sites working areas will be controlled to ensure that such conflicts between HGVs associated with the Hornsea Three works do not arise.

2.1.3.2 Temporary signage will be placed by the principal contractor at specific locations agreed by NCC.

2.1.3.3 The HGV routes for construction of the onshore cable corridor within SNDC are provided in Appendix 1.

2.1.3.4 Any minor temporary highway works which are required to accommodate the construction traffic associated with Hornsea Three will be subject to separate Small Works Agreements (SWA). These minor highway works (if required) will be obtained under the Orsted SWA where works are permitted for utility company purposes.

2.1.3.5 The defined routes generally take into consideration existing HGV restrictions. However, there are some existing restrictions on the passage of HGVs over 7.5 t which will need to be used by Hornsea Three. These routes are:

- Link 165: Bawburgh Road from the onshore cable corridor to B1108;
- Link 166: Stocks Hill from link 163/164 to B1108;
- Link 172: Cantley Lane from Station Lane to A47/A11; and
- Link 181: Gowthorpe Lane.

2.1.3.6 The above links pass through or lead up to urban areas with residential properties, other sensitive areas, or are too narrow for accommodating two-way HGV movements and it appears to be for these reasons that there are 7.5 t weight restrictions in place, or they are marked as being unsuitable for HGVs.

2.1.3.7 For HGVs serving Hornsea Three, these restrictions will be temporarily suspended to permit specific construction traffic over the period for which access is required. All Hornsea Three HGVs will be easily identifiable using coloured window tags to maintain compliance and recorded by the principal contractor.

2.1.3.8 In these locations, all reasonable endeavours will be made to limit the number of HGV movements on these identified links by splitting loads and utilising Light Goods Vehicles (LGVs) where possible, to avoid damage and avoid HGVs meeting on sections of highway where there is insufficient width to allow two HGVs to pass.

2.1.3.9 There are two locations within SNDC where HGV movements will be restricted. These are;

- No Hornsea Three HGV movements will be permitted on Cantley Lane, close to the A11/A47 Thickthorn junction.
- No Hornsea Three HGV movements will be permitted beyond the Church Lane/Dog Lane/Ringland Road junction.

2.1.4 Local Sensitive Receptors

2.1.4.1 There are a number of local sensitive receptors where specific signage will be placed as requested by NCC. The form of signage will be agreed by the principal contractor with NCC and as part of the individual access point permits.

2.1.4.2 The list of sensitive receptors where signage will be placed are:

- University's/Schools/Nursery's;
- Community facilities;

- Places of worship; and
- Doctors and hospitals.

2.1.4.3 The locations of the known sensitive receptors along links utilised by Hornsea Three are described in Table 2.1. These locations cover the entire onshore cable corridor and those locations specific to SNDC are highlighted in green.

2.1.4.4 All locations will have temporary signage that will be provided be provided by the principal contractor and will advise all Hornsea Three construction traffic, regardless of its vehicle type and/or it being within a potential high-risk area.

Link ID	Link Description	Sensitive Receptors
1	Sheringham Road (A149) from Foxhills Camping access to NSL/30 mph sign	Place of worship, campsite, store, pub
3	Weybourne Road (A149) allotments to Holway Road (A1082) roundabout	Retail and pub/leisure frontages.
14	Bridge Road from Rugby Club to A148	Rugby Club
29	Plumstead Road from B1149 to Cable Route	Pub/restaurant/hotel
33	A148 through Letheringsett	Pub, place of worship
35	A148 between edge of Holt and B1110/1149 roundabout	High street shops, primary school
46	A149 through Cromer from Sandy Lane to railway bridge	Shops, schools, church
47	A149/140 from railway bridge to Roughton	Caravan site
48	A140 through Roughton	Pub, place of worship, post office, fast food restaurant
52	B1110 through Thornage	Place of worship
55	B1354 through Melton Constable and Briston	School, shops, country club
58	B1149 from edge of Holt urban area to Edgefield	Holt Country Park access
59	B1149 through Edgefield	Public park, public house, village hall
66	Station Road and Heydon Road to edge of urban area	School
76	B1149 from Saxthorpe roundabout to Heydon Road junction	Place of worship
78	Aylsham Road B1145 from B1149 to edge of Aylsham roundabout	Hospital
87	B1145 in Reepham	Village centre shops
89	B1145 in Cawston	Primary school, village hall, public house
91	Reepham: Market place, Church Hill and Norwich Road to Reepham Fishery	Place of worship, town centre shops
105	Hall Road to Reepham Road junction	Place of worship
143	A140 between A146 and A47	School, place of worship
169	Little Melton Road and Burnthouse Lane	Rugby club
183	B1108 between A140 and A47	Hospital, university
194	A1065 from B1146 to Massingham Road junction, Weasenham	Caravan park, place of worship

Table 2.1: List of Sensitivity Receptors

2.1.5 Timing of HGV Movements

2.1.5.1 For the Hornsea Three onshore cable corridor and ONCS, the core working hours are 07.00 to 18.00 on weekdays and 07.00 to 13.00 on Saturdays. Up to one hour before and after for mobilisation ("mobilisation period"), i.e., 06:00 to 19:00 weekdays and 06:00 to 14:00 Saturdays; and Maintenance period 13:00 to 17:00 Saturdays.

2.1.5.2 There will be no HGV movements on Sundays or Bank Holidays.

2.1.5.3 Mobilisation does not include HGV movements into and out of working site access points along the onshore cable route, but suppliers can make use of the wider highway network outside these hours to travel to site. In certain circumstances, specific works may have to be undertaken on a continuous working basis (00:00 to 00:00 Monday to Sunday).

2.1.5.4 Where, such situations occur the principal contractor will notify NCC of operational changes and any specific measures safety/environmental measures which are planned to protect any sensitive receptors. Activities outside of the core working hours will be agreed with the SNDC Environmental Health Officer (EHO) in consultation with the NCC.

2.1.5.5 All HGV movements which are not planned to arrive at site after any time restrictions will be required to park at an appropriate Approved Lorry Park, Motorway Services and other NCC/NH designated overnight parking locations. No light vehicle lay-by or unauthorised parking will be permitted.

2.1.5.6 Other activities that will require 24-hour operation will be: site security, some work at jointing pits, some HDD activities and possible remedial works in response to severe weather events.

2.1.5.7 It should be noted that not all these activities will involve HGV movements or would generate only infrequent HGV movements e.g., site security, and so are of a different nature to the frequent HGV movements of primary consideration within this CTMP.

2.1.5.8 Within the context of the working hours established in the CoCP and stated in paragraph 2.1.5.1, any further restrictions over and above these associated with the movement of vehicles associated with Hornsea Three will be limited.

2.1.5.9 However, some limited and further restrictions may be placed on the timing of HGV movements through locations with sensitive receptors, for example restrictions on number of HGV movements during school opening and closing hours where HGVs would travel along routes passing schools and where the highway network is constrained as advised by NCC.

2.1.5.10 Depending on the timing(s) of the construction activities for individual onshore cable corridor sections or components, during peak holiday seasons (considered to be June to September) the approved routing of HGVs documented, where practical, will avoid routes marked on the NCC Route Hierarchy Map that can be found here:

https://www.norfolk.gov.uk/-/media/norfolk/downloads/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/roads-and-transport/transport-asset-management-plan-part-3.pdf.

2.1.5.11 The principal contractor will engage with NCC to confirm HGV movements on the key tourist links during the peak period from June to September, and if required agreed alternative HGV routes to be used during this period. The principal contractor will engage with Norfolk County Council to agree HGV levels and movement times on the key tourist links during the peak period from June to September.

2.1.6 Reducing the impact of HGV Movements

2.1.6.1 Load sizes are typically maximised and thus vehicle usage is typically minimised by contractors to minimise transportation costs and this will be encouraged by the principal contractor.

2.1.6.2 The principal contractor will look to re-use HGVs where practical, such as using vehicles which have delivered material to remove excavated material if this needs to be removed from a site. Where practical, local suppliers will be used to minimise the distance travelled by HGVs.

2.1.6.3 All HGVs transporting fine and loose material will be sheeted to avoid dust and the spillage of materials onto the highway. Dampening of surfaces, such as the haul road in locations where it is close to the public highway, will be undertaken in dry weather where the movement of vehicles or delivery of loads may cause dust.

2.1.6.4 Where there is a risk of mud from the construction works being transported onto the highway network by HGVs, wheel wash facilities will be provided at each construction access point to ensure that HGVs do not deposit mud and dust onto the highway network.

2.1.6.5 In order to minimise environmental impact upon the site and to reduce the need for water, a dry wheel 'wash' facility (rumble grids) will be used where practical, such as 'DriveOn V-Tech' solution

2.1.6.6 The principal contractor will be required to use road cleaners, where it is safe to do so, along public highway in the locality of actively used site access points.

2.1.7 Management of Abnormal Indivisible Loads

2.1.7.1 It is expected that several Abnormal Indivisible Loads (AILs) comprising large components such as the cable drums will be transported to the main site compound, and to specific and pre-identified locations along the onshore cable corridor.

2.1.7.2 The haulage contractor, appointed by the principal contractor, will comply with statutory regulations in terms of consulting with the HAs and the police (where required).

2.1.7.3 The notification requirements differ depending on the weight, length and width of the AIL. NH 'Aide Memoire for Notification Requirements for Movement of AILs' is provided at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/503103/Aide_Memoire_updated_Sep_2015.pdf.

2.1.7.4 The timing of AIL deliveries will be discussed and agreed with NCC or their agent Cascade to minimise delay for other road users and to minimise risk to highway users.

2.1.7.5 The weight, length and width of AILs will be communicated to the HAs, and the routeing of AIL deliveries will be agreed with NCC or their agent Cascade prior to any movements on the local road network following the approved link routing provided in Appendix 1.

2.1.7.6 Where appropriate, the police, HAs and NCC structures department would also be consulted.

2.1.7.7 The delivery all AILs will be undertaken under escort. Where an AIL requires the full width of the carriageway or for unusual manoeuvres at junctions, appropriate permits will be obtained and temporary road closures and traffic management will be put in place as appropriate and agreed with the HAs to maintain the safety of other road users and minimise delay.

2.1.7.8 The principal contractor, or their appointed traffic management contractor must will ensure all permits and approvals are in place and prior notification of movements issued to all local stakeholders, including parish councils, 14 days before any AIL activity takes place.

2.1.7.9 No AIL movements, deliveries or movements from the main site compound to the onshore cable corridor will occur during night-time hours (23:00-07:00).

2.2 Environmental Sensitivity Assessment for New Links

2.2.1 Proposed Additional Links

2.2.1.1 Within SNDC all routes defined within the OCTMP are deliverable and consequently no changes are required.

2.3 Management of Construction Workforce Movement

2.3.1 Construction Workforce Travel

2.3.1.1 Hornsea Three recognises the value in managing and reducing the impact of the movement of construction staff.

2.3.1.2 Measures will be implemented by the principal contractor that will encourage all construction staff movements to make use of sustainable modes where possible.

2.3.1.3 These measures will consider:

- Provision of adequate parking facilities within compounds and site areas to minimise parking on and around construction sites avoiding inappropriate parking on verges or unsuitable highways and to deter construction workers from driving to site unnecessarily;
- Staff will receive advice on the desired vehicle routing from the strategic road network to work areas, to avoid the use of unsuitable links;
- Measures to increase vehicle occupancy such as incentives to car-share, information/online applications to facilitate car sharing and the provision of minibuses where this would allow construction workers to access sites without the need to come by car;
- Provision of electric vehicles (EV's) to transport staff from main compounds to site, supervision staff to use EV's at all times. EV charging facilities to be provided at main compounds.
- The provision of public transport information if this would assist construction workers to access sites or travel by bus or train to locations where they could be picked up by a minibus;
- Measures to encourage walking and cycling where these modes offer an opportunity for construction workers to access sites, including provision of temporary cycle parking at work sites;
- Online induction and 'clocking-in/out' applications will be implemented to minimise the need for construction personnel to travel to the main site compound before travelling to other work fronts.
- Welfare facilities will be provided at all work sites to reduce the need for construction workers to travel elsewhere in the course of the day; and
- The proposed core working hours (07:00-18:00 weekdays) avoids construction workers travelling in the peak hours and thus reduces impacts on the local road network during network peak hours.

2.3.1.4 Engagement with NH has identified the A47/A140 junction and the B1113/A140 junction as locations within SNDC which will require measures such as the above, particularly in respect to encouraging construction workers movements outside of the network peak.

2.3.1.5 Further details are included in the Travel Plan provided in Appendix 2.

3 Site Accesses

3.1 Design

3.1.1.1 Access locations are provided in Appendix 3.

3.1.1.2 The design of all site accesses within SNDC are agreed with NCC. The principal contractor will be required to submit a works permit for the construction of all onshore cable access points 14 days prior to the start of construction at each access point.

3.1.1.3 All onshore access points will be constructed in accordance with the access drawings contained within Appendix 3. Records of the access construction will be maintained by Hornsea Three and issued to NCC in accordance with the Utility compliance requirements. Completion of individual onshore cable access points will be notified to NCC by the principal contractor prior to use.

3.1.1.4 When an access point is in use, signage will be deployed in accordance with The Traffic Signs Manual, Chapter 8, Part 1, Traffic Safety Measures and Signs for Road Works and Temporary Situations (Department for Transport/Highways Agency, 2009), warning road users of the site access. Each access will meet appropriate visibility and design standards. Traffic management measures may be required at some accesses, possible types of which are discussed below and will be determined by the principal contractor in consultation with NCC as required.

3.1.1.5 Working areas will be designed to enable plant, materials and waste to be loaded/unloaded, areas will be designated as such and to enable vehicles to enter and exit in forward gear. Contractors/suppliers will not be permitted to wait on or load/unload from the public highway.

3.1.1.6 The principal contractor will ensure the working areas will be designed to enable designated parking facilities for construction workers.

3.1.1.7 All site accesses will be provided with appropriate fencing to ensure that work sites are secure. Some accesses would be available to all vehicle types, whilst others will be restricted to construction workforce and light vehicles only. Nevertheless, all site accesses will be designed to eliminate the risk of vehicles queuing back onto the highway by providing sufficient width close to the adjacent highway, which is appropriate to the types of vehicles anticipated to use the access.

3.2 Management and Mitigation

3.2.1.1 Where there is a risk that vehicles will deposit mud and debris on the highway, in the vicinity of construction site accesses, wheel cleaning facilities will be provided (see paragraph 2.1.5.3 above). The condition of the adjacent highway will be monitored by the principal contractor and if mud or debris is found to be present, measures such as road sweeping will be put in place by the principal contractor to secure its removal with minimal delay.

3.2.1.2 Appropriate signage will be provided on the approach to construction site accesses to warn of turning and/or slow-moving vehicles. The design and siting of all signage will be agreed by the principal contractor with NCC prior to the start of work at each work site.

3.2.1.3 Signage will be placed at the exit of construction site access points to instruct construction traffic to follow the designated route.

3.2.1.4 Designated routes from the main site compound at Oulton will be signed to each works access point at key junction locations to maintain compliance.

3.2.1.5 Contact numbers of the principal contractor's site management team and the Hornsea Three Community Liaison Officer (CLO) will be on display for the public to raise any concerns at each cable access point.

3.2.1.6 Within 28 days of a construction site access being no longer required for the purpose of Hornsea Three construction, or written notice being served unto the developer by NCC, the access will be removed, and the highway returned to its original condition (including verges), unless otherwise agreed with the NCC.

3.2.1.7 The details of and timescales for the reinstatement will also be agreed with NCC. The principal contractor will confirm the reinstatement works are complete to NCC to ensure that the works meet the appropriate standards and are agreed within seven days of completion.

3.2.1.8 There may be a need to provide traffic management measures at some accesses and at some routes to the accesses. This may be required for various reasons and the type of traffic management measures to adopt will depend upon the location on the highway, the nature and level of traffic on the highway, what is served by the highway, and the alternative routes available.

3.2.1.9 Example traffic management measures include:

- Requisite visibility splays cannot be provided at an access and so traffic on the highway may be temporarily stopped to allow HGVs to exit an access safely;
- The highway geometries are too narrow to safely accommodate turning HGVs when exiting an access and so traffic on the highway may be temporarily stopped to allow HGVs to exit an access safely;
- The highway geometries are too narrow to accommodate HGVs passing an oncoming vehicle and so shuttle working may be temporarily installed;
- The highway geometries are too narrow to accommodate HGVs passing an oncoming vehicle and so the road may be temporarily made one-way and a local diversion put in place;
- The highway geometries are too narrow to accommodate HGVs passing an oncoming vehicle and so the road may be temporarily closed to through traffic and a local diversion put in place; and
- The highway geometries are too narrow to accommodate simultaneous turning movements through junctions and so three-way portable signal control may be temporarily installed at T-junctions or four-way portable signal control temporarily installed at crossroads.

3.2.1.10 Details of traffic management measures as required at each works access point is shown provided in Appendix 3.

3.2.1.11 Where traffic on the highway is stopped, this will be undertaken using temporary traffic signals or manually operated stop/go signs.

3.2.1.12 Whilst the project provides for HDD under all public highways, if works are required on the public highway (such as to identify local utilities) the project principal contractor will make use of shuttle working arrangements. Shuttle working is where one direction of travel receives priority over the other. This could be via traffic signals or via give way signs.

3.2.1.13 Some example layouts of these traffic management measures and features are shown on **Figure 3.1 to Figure 3.6.** These examples are extracted from The Traffic Signs Manual, Chapter 8, Part 1, Traffic Safety Measures and Signs for Road Works and Temporary Situations (, Department for Transport/Highways Agency, 2009). The extracts are generic in nature, and they are not designed to be specific to any particular location or circumstance but designed to be implemented in accordance with the advice contained within the document.

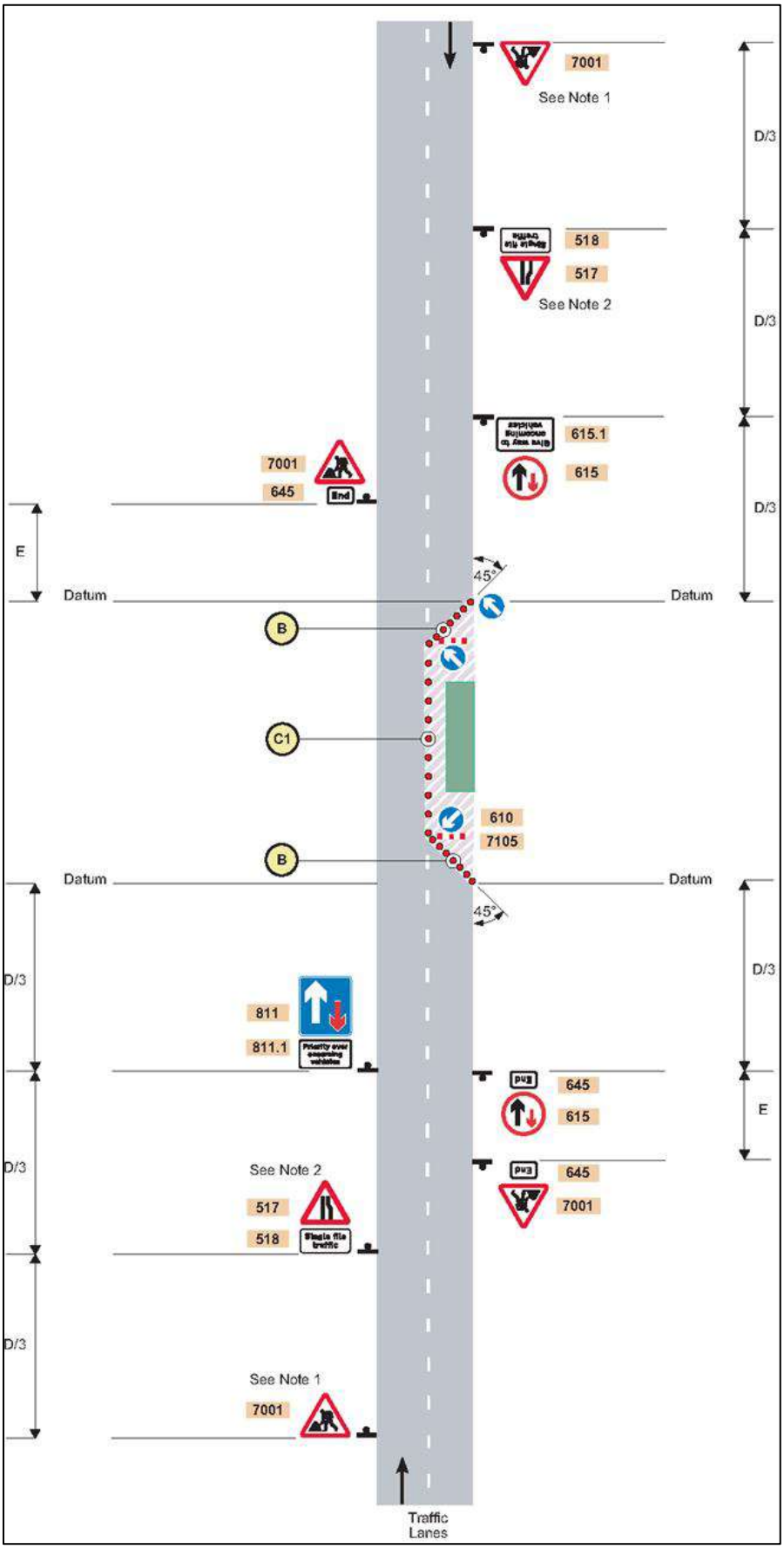


Figure 3.1: Priority signs on a two-lane single carriageway road

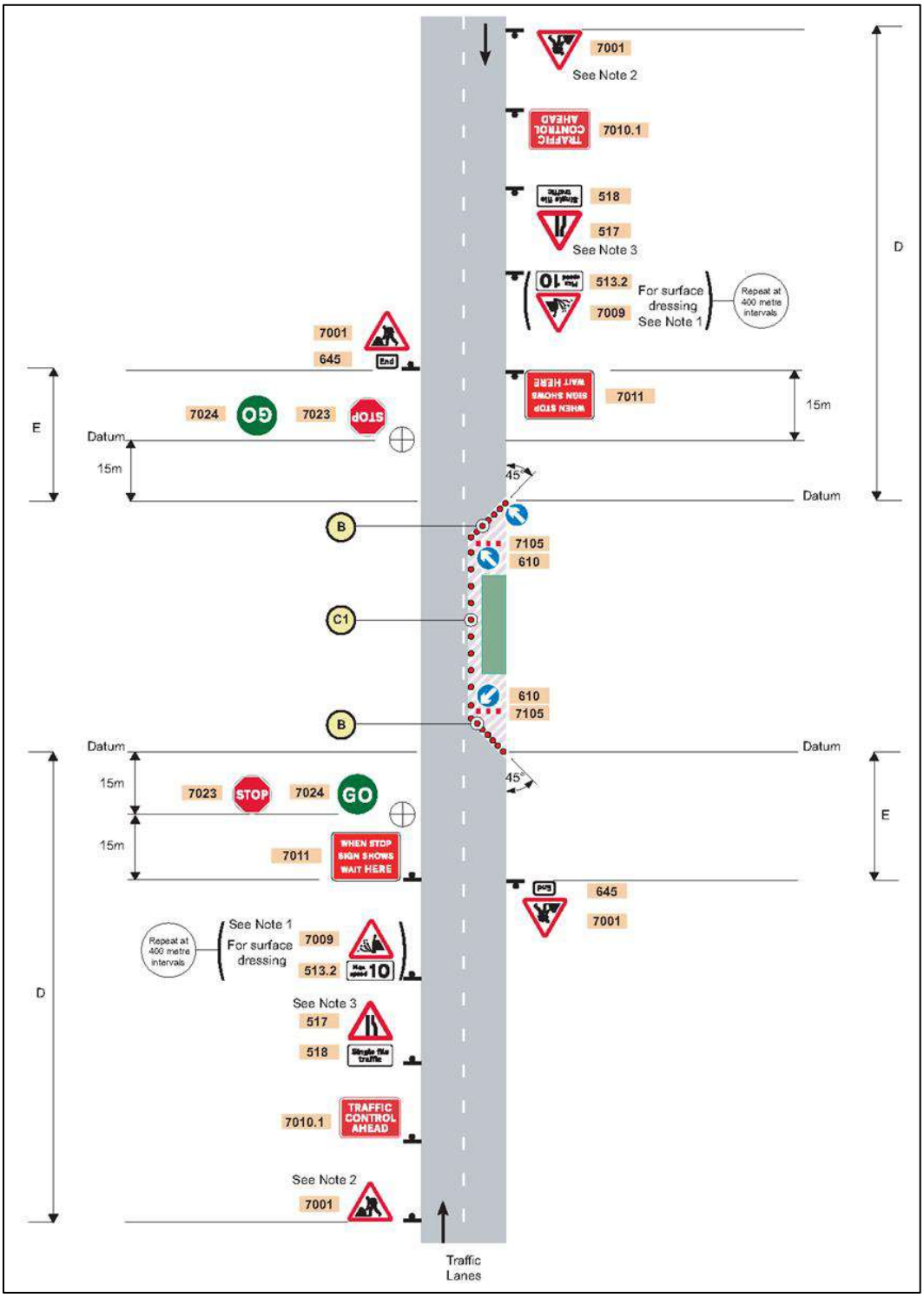


Figure 3.2: STOP/GO signs on a two-lane single carriageway road.

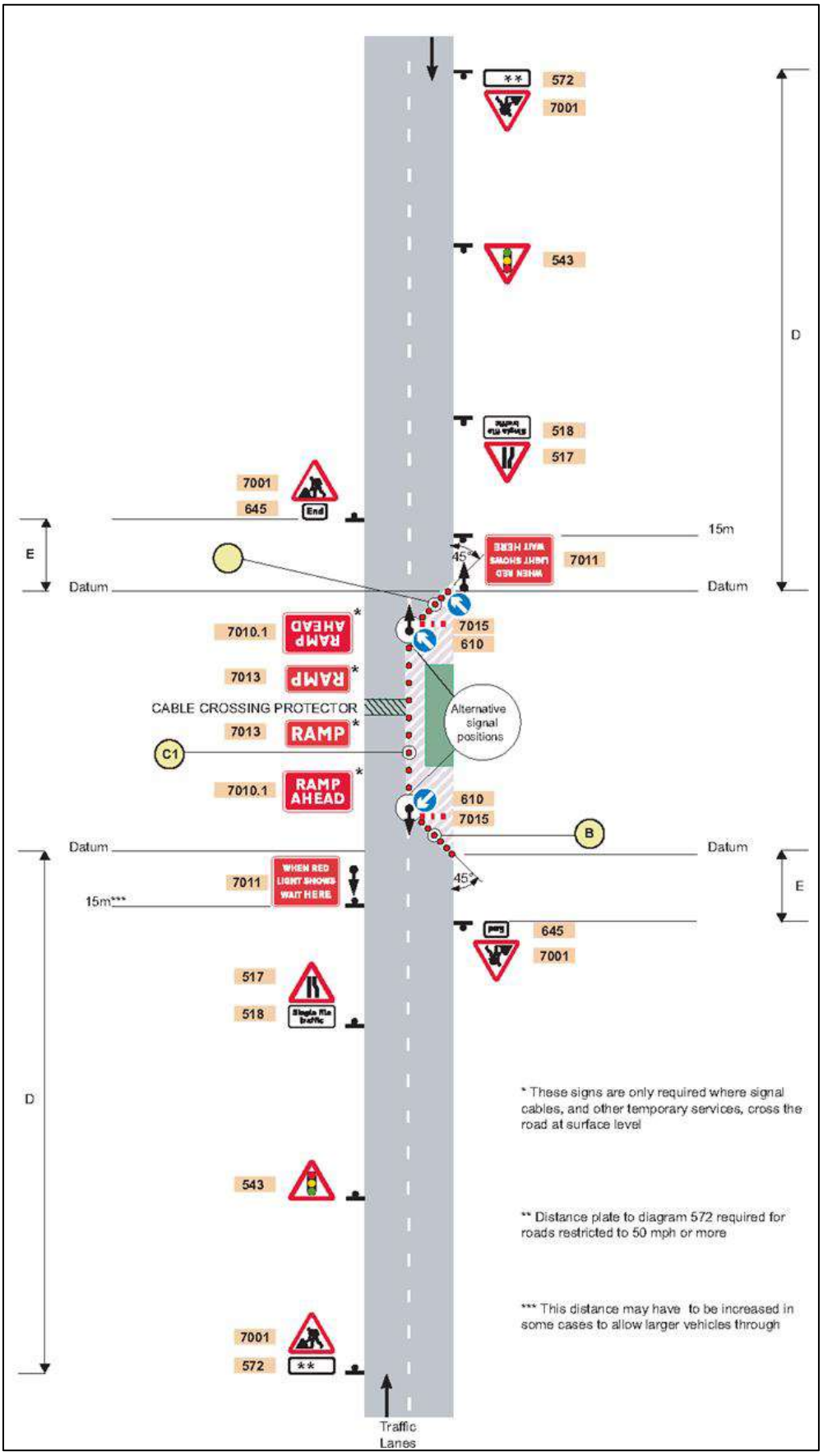


Figure 3.3: Portable Traffic Signals on a Two-lane Single Carriageway Road

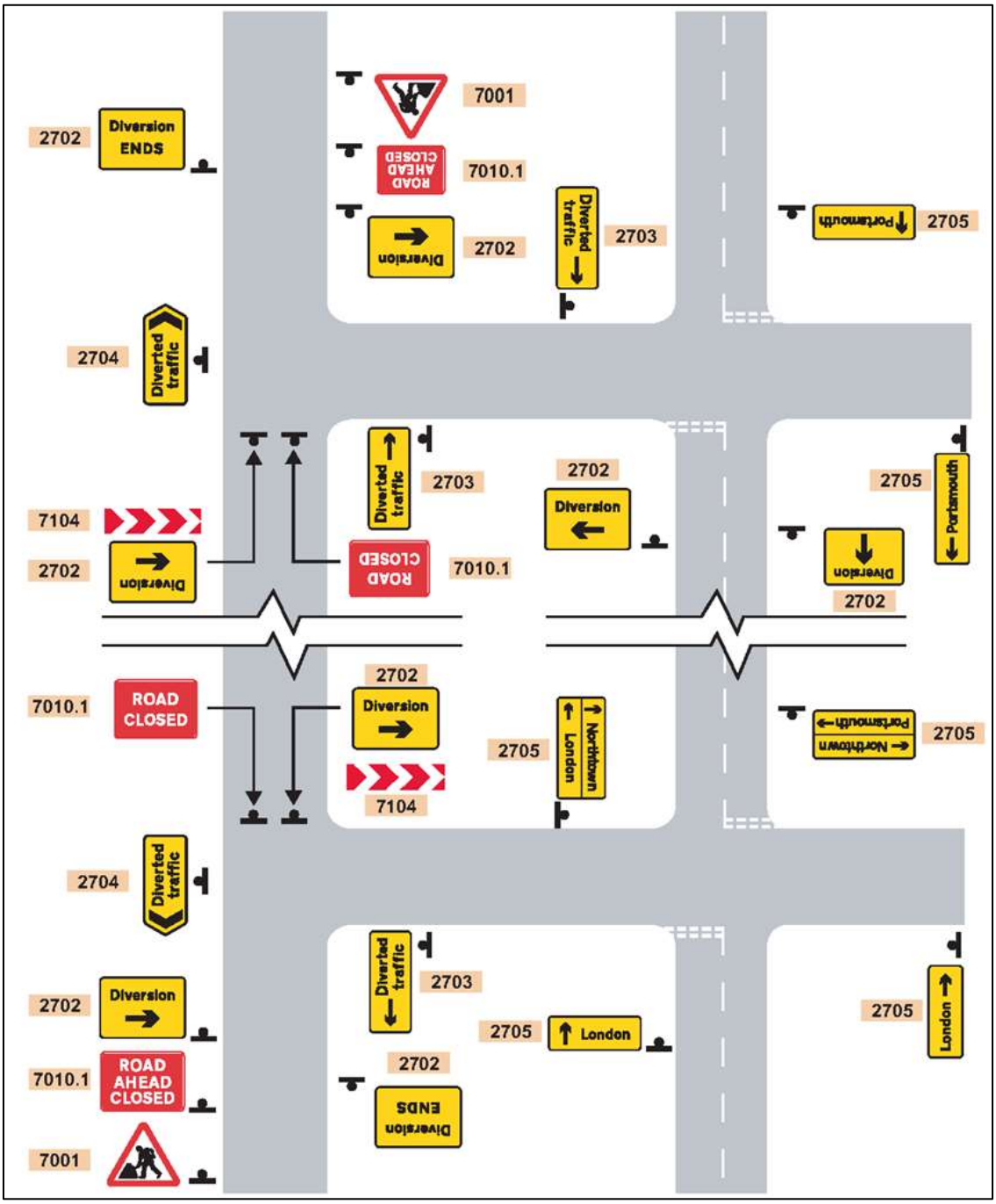


Figure 3.4: Layout of Signs for Road Works on Single Carriageway Roads with Diversions

Figure 3.5: Manually Operated Stop/Go Signs and Priority Signs

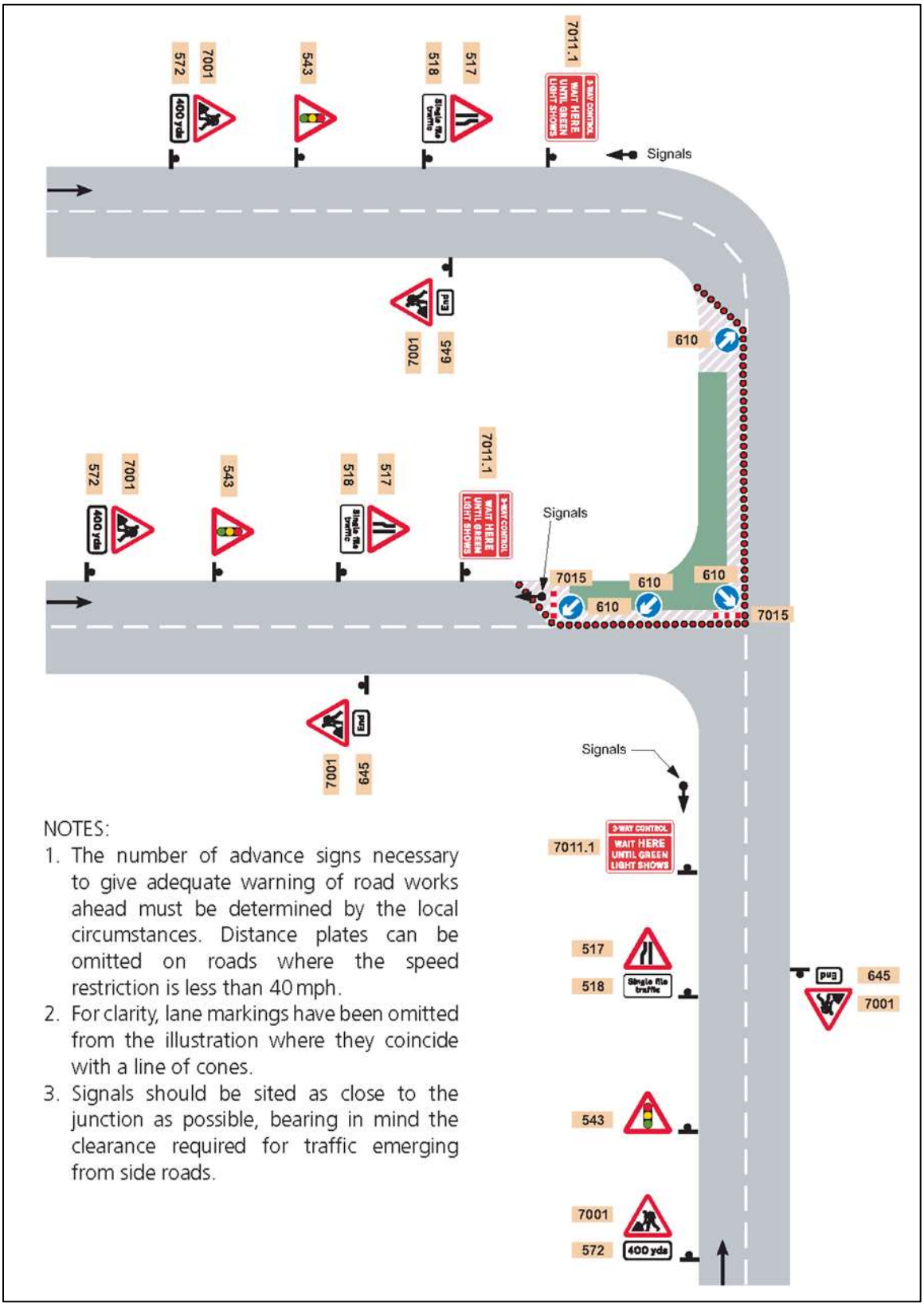


Figure 3.6: Road Works at a T-Junction – Traffic Control by Means of Portable Traffic Signals.

4 Highway Crossings

4.1 Onshore Cable Corridor Highway Crossing Locations and Operation

4.1.1.1 All crossings of the public highway will be undertaken using HDD; the details of HDD techniques and the locations of crossings are set out within the following documents which form part of the Environmental Statement:

- Volume 1, Chapter 3: Project Description;
- Volume 4, Annex 4.3.5: Crossing Schedule (Onshore); and
- Figure 1.2 at Volume 6, Annex 7.8: Traffic and Transport Figures.

4.1.1.2 This method of cable laying means that during the HDD operation there is no disturbance (i.e., no shuttle working nor road closures) to other users of the road with the exception of material delivery and arrival/departure of construction staff.

4.1.1.3 There will be some locations whereby the haul road crosses the public highway and where traffic management will be required or where works are required to expose existing utilities. The traffic management methods to be used will depend on the location of the highway crossing, the nature and level of traffic on the highway link being crossed, what is served by the highway link and the alternative routes available. Methods may include temporary shuttle working, crossings, or temporary closure.

4.1.1.4 Detailed traffic management plans for the vehicle crossings located in the SNDC area are provided in Appendix 3.

4.2 Agreement, Management and Advance Notification

4.2.1.1 Where traffic management measures are required, these will be agreed in advance with NCC by the principal contractor through the Street Manager permit process.

4.2.1.2 Any temporary road closures/introduction of one-way roads and any diversions will be notifiable to NCC, who will be responsible for the processing and advertising of the Closure Order required. Alternative routes indicated through signage will be installed by the principal contractor in line with the Street Manager permit process.

4.2.1.3 Where speed restrictions are required, temporary speed reductions to 30 mph will be sought by the principal contractor through Temporary Traffic Regulation Orders (TTRO).

4.2.1.4 Measures will be put in place to ensure that no unauthorised access is gained to the onshore cable corridor from the highway at crossing points and that the adjacent works sites are secure unless authorised by the principal contractor.

4.2.1.5 Any works within the highway will be reinstated to a standard commensurate to prior to the commencement of the works, unless otherwise agreed with NCC. The details of and timescales for reinstatement will also be and agreed with NCC. It is anticipated that NCC will inspect the reinstatement works to ensure that they meet appropriate standards.

4.3 Haul Road and its Crossings with the Highway

4.3.1.1 A temporary haul road will be constructed along the majority of the Hornsea Three onshore cable corridor to facilitate HGV access to undertake trenching works and install the onshore cables, with gaps only at some HDD locations and road crossings. The haul road will enable vehicles to move along sections of the Hornsea Three onshore cable corridor and relieve the need for construction traffic to rely on some localised longer sections, of the local road network or avoid sensitive environmental receptors during construction.

4.3.1.2 The haul road will operate with a 10 mph speed limit to ensure the safety of workforce and plant operatives in the vicinity and where relevant, minimise disturbance to noise sensitive ecological receptor. The speed limit will be monitored and enforced by the principal contractor.

4.3.1.3 All reports of drivers not adhering to the speed limit will be recorded and followed up on by the principal contractor, with penalties applied to repeated noncompliance.

4.3.1.4 Where the haul road crosses existing highway links, traffic management will be used to ensure safe crossing by highway traffic and haul road vehicles.

4.3.1.5 Details are set out Appendix 3 where required for crossover access points. The use of the haul road will be restricted to Hornsea Three construction traffic only.

4.4 Public Rights of Way

4.4.1.1 Several Public Rights of Way (PRoW) and areas of land with informal public access will potentially be affected by the construction of the onshore elements of the Hornsea Three within the SNDC jurisdiction. Focus will be to avoid any stopping up of PRoW by the provision of traffic/route management and/or localised diversion of a PRoW (or area where informal public access). The principles of the agreed measures for PRoW are set out in the CoCP Appendix 8: Public Rights of Way Management Plan. These measures will manage the interface between the Hornsea Three works and PRoW with the NCC PRoW officer.

5 Planned Highway Intervention Schemes

5.1.1.1 The need for physical highway intervention measures has been identified at three locations (namely Oulton, Taverham Road and Cawston) during the construction phase of Hornsea Three. None of which are located within the SNDC jurisdiction.

5.1.1.2 The one location where control measures are required is along the B1113 where the following operating times are permitted.

- For the Hornsea Three onshore cable corridor and ONCS, the core working hours are 07.00 to 18.00 on weekdays and 07.00 to 13.00 on Saturdays;
- No Hornsea Three construction traffic movements (Light or HGVs) are permitted along the B1113 between 0730 – 0900 and 1600 – 1800 Weekdays; and
- There will be no HGV movements on Sundays or Bank Holidays.

6 Management of Highway Safety

6.1 Existing Accident Record

6.1.1.1 Within section 1.4.2 of Annex 7.1 – Transport Assessment, of the Hornsea Three Environmental Statement, an analysis of existing Personal Injury Accident (PIA) data has been undertaken using a two-stage process. Initially, the injury accident rate of identified links was calculated and if 25% higher than the national average injury accident rate further analysis was undertaken. The further analysis looked at severity, clustering and reasons for accidents and no issues in relation to the existing highway layout or geometries were discovered to be the cause of the incidents.

6.1.1.2 Within Volume 6, Annex 7.8 – Traffic and Transport Figures in the Environmental Statement, Figures 1.5 – 1.12 present personal injury accident data for eight locations.

6.1.1.3 The data presented in the transport assessment (TA) was recorded between 2012 and 2017. Therefore, as part of this CTMP the personal injury accident data at the locations identified within the TA that are still proposed for use by Hornsea Three construction traffic has been updated with the latest 5-year data up to 2021 available on Crashmap.co.uk.

6.1.1.4 This data is presented in Appendix 4 of this CTMP.

6.1.1.5 A comparison of the personal injury accident data presented in the TA and the most recent data is presented in Table 6.1 below. The links specific to SNDC are highlighted in green.

Location/Date	Slight PIA	Serious PIA	Fatal PIA
A11/A47 Junction/2012-2017	29	2	0
A11/A47 Junction/2017-2021	22	0	0
A47 between Sandy Lane and B1535/2012-2017	16	4	1
A47 between Sandy Lane and B1535/2017-2021	7	3	0
A47/A146 Junction/2012-2017	21	3	0
A47/A146 Junction/2017-2021	17	2	0
B1145 – Reepham to B1149/2012-2017	14	1	0
B1145 – Reepham to B1149/2017-2021	3	1	1
Aylsham B1145 and A140/2012-2017	23	8	0
Aylsham B1145 and A140/2017-2021	8	6	0
B1149 – Holt to Oulton/2012-2017	11	5	1
B1149 – Holt to Oulton/2017-2021	3	2	0
B1149 – Holt to Oulton/2012-2017	7	1	1
B1149 – Holt to Oulton/2017-2021	6	3	1

Table 6.1. Personal Injury Accident Data Comparison

6.1.1.6 Table 6.1 above demonstrates that the accident record at the selected junctions has improved since the preparation of the OCTMP and therefore the data presented in the OCTMP remains valid.

6.2 Monitoring and Mitigation for Hornsea Three

6.2.1.1 HGV injury accidents and near misses associated with the Hornsea Three construction vehicles will be monitored to identify whether there are any safety deficiencies in the highway network due to the increased level of HGV traffic associated with the construction works.

6.2.1.2 To ensure that the CTMP can be effectively enforced, the following non-compliances of the CTMP would constitute a breach whereby corrective measures would be required:

1) Failure to implement or use the agreed traffic management measure;
2) Failure to follow the agreed delivery routes;
3) Failure of the HGV to display its unique identifier;
4) Dangerous driving; and
5) Failure to record deliveries and departures for plant and materials within the booking system.

6.2.1.3 On receipt of a report of a potential breach, the principal contractor will investigate the circumstances and compile a report to the developer as soon as practicable.

6.2.1.4 If the breach is found to be material, the developer would take appropriate action within the jurisdiction of the contract and report back to SNDC and NCC.

6.2.1.5 Individual employee breaches would be addressed by the principal contractor through UK employment law whereby the process outlined above would form the basis for disciplinary proceedings.

6.2.1.6 If localised mitigation measures are required because of an incident, these will be agreed with NCC by the principal contractor and implemented as soon as practicable.

Maximum Construction Traffic Levels

6.2.1.7 In agreement with NCC, maximum construction traffic levels for Hornsea Three construction (in all directions) have been defined in **Table 6.2** below on a link basis, which would not be exceeded without agreement with NCC, unless in the case of an emergency.

6.2.1.8 **Table 6.2** defines the key construction routes and the maximum permitted daily construction traffic movements (total, i.e., includes outbound and inbound movements).

6.2.1.9 Highway links which are specific to SNDC are highlighted in green.

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
1	Sheringham Road (A149) from Foxhills Camping access to NSL/30 mph sign	150	66
2	Sheringham Rd (A149) from NSL/30 sign to Weybourne Rd (A149) allotments	150	66

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
3	Weybourne Road (A149) allotments to Holway Road (A1082) roundabout	150	66
4	Holway Road (A1082) to edge of urban area (30 mph/50 mph sign)	150	66
5	Holway Road (A1082) edge of urban area (30 mph/50 mph sign) to A148 junction	150	66
10	Holt Road to edge of urban area	124	30
11	Holt Road from edge of urban area to Kelling Heath	124	30
12	Holgate Hill to junction with Bridge Road	124	30
13	Bridge Road from junction with Holgate Hill to Holt Rugby Club	96	20
16	Kelling Road	122	46
17	Manor Hill Road to junction with Kelling Road	122	46
19	High Kelling Road and Church Road from junction with Kelling Road to Manor House Road Junction	No longer being used	No longer being used
20	Manor House Road from Kelling Road to Church Road	No longer being used	No longer being used
21	Hempstead Road from A148 to footpath E of Heath Drive	116	52
22	Hempstead Road from Heath Drive to junction with Selbrigg Road/The Street	116	52
23	Hempstead Road from junction with Selbrigg Road/The Street to 30 mph sign in Baconsthorpe	116	52
25	The Street from Hempstead Road to Marlpit Road junction	116	52
27	Marlpit Road	No longer being used	No longer being used
28	Hole Farm Road to B1149	56	26

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
29	Plumstead Road from B1149 to Cable Route	112	44
31	A148 from edge of study area to B1354 junction	No longer being used	No longer being used
32	A148 from B1354 Junction to Letheringsett	No longer being used	No longer being used
33	A148 through Letheringsett	No longer being used	No longer being used
34	A148 between Letheringsett and edge of Holt	No longer being used	No longer being used
35	A148 between edge of Holt and B1110/1149 roundabout	No longer being used	No longer being used
36	A148 Holt Bypass	206	106
37	A148 between Holt and Bridge Road junction	192	92
38	A148 between Bridge Road and end of urban area	134	72
39	A148 between urban area and Bodham	172	72
40	A148 in Bodham	130	46
41	A148 between edge of Bodham and A1082 Holway Road	130	46
42	A148 between A1082 Holway Road and Church Road	No longer being used	No longer being used
43	A148 between Church Road and B1436	No longer being used	No longer being used

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
44	A148 between B1436 and Rail Bridge	No longer being used	No longer being used
45	A148 between Rail Bridge and Sandy Lane	No longer being used	No longer being used
46	A149 through Cromer from Sandy Lane to Railway Bridge	No longer being used	No longer being used
47	A149/140 from Railway Bridge to Roughton	No longer being used	No longer being used
48	A140 through Roughton	No longer being used	No longer being used
49	A140 from Roughton to Aylsham South/B1145 roundabout	No longer being used	No longer being used
50	B1354 from A148 to B1110	No longer being used	No longer being used
55	B1354 through Melton Constable and Briston	No longer being used	No longer being used
57	B1149 from Holt A148 roundabout to edge of urban area	232	132
58	B1149 from edge of Holt urban area to Edgefield	232	132
59	B1149 through Edgefield	232	132
60	B1149 to B1354 Junction	282	150
66	Station Road and Heydon Road to edge of urban area	152	40

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
68	Valley Road, Horseshoe Lane, Wood Dalling Road to junction with Blackwater Lane	152	40
69	Blackwater Lane to Heydon Road	No longer being used	No longer being used
70	Red Pits Lane	No longer being used	No longer being used
71	Red Pits, Crabgate Lane North to junction with Heydon Lane	No longer being used	No longer being used
72	Crabgate Lane North to Heydon Road	No longer being used	No longer being used
73	Heydon Road from junction with Crabgate Lane North to The Street junction	148	48
75	Heydon Road from the Street to Holt Road B1149	148	48
76	B1149 from Saxthorpe Roundabout to Heydon Road junction	260	144
77	B1149 from Heydon Road junction to Aylsham Road B1145 crossroads	260	186
78	Aylsham Road B1145 from B1149 to edge of Aylsham Roundabout	No longer being used	No longer being used
79	B1145 around Aylsham	No longer being used	No longer being used
81	A1067 from outskirts of Fakenham to Guist	No longer being used	No longer being used

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
82	B1110 Guist to B1354	No longer being used	No longer being used
83	A1067 from Guist to B1145 Bawdeswell	No longer being used	No longer being used
84	B1145 in Bawdeswell	No longer being used	No longer being used
85	A1067 Fakenham	No longer being used	No longer being used
86	B1145 between Bawdeswell and Reepham	No longer being used	No longer being used
88	B1145 between Reepham and Cawston	186	102
89	B1145 in Cawston	186	76
90	B1145 between Cawston and B1149	186	102
95	Norwich Road and Reepham Road from stream bridge to Kett's Lane	158	72
96	Church Road between Norwich Road and Eastgate	218	132
97	Buxton Road from Eastgate to B1149	162	66
99	Church Farm Lane to Cable Route	No longer being used	No longer being used
103	Reepham Road from Kett's Lane to Hall Road Junction	158	50
105	Hall Road to Reepham Road junction	No longer being used	No longer being used

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
108	The Street	84	22
109	A1067 from Bawdeswell to Great Witchingham	No longer being used	No longer being used
110	A1067 through Great Witchingham and Attlebridge	No longer being used	No longer being used
111	A1067 from Attlebridge to outskirts of Norwich/Beech Avenue	206	104
114	B1149 between B1145 and Buxton Rd	272	104
115	B1149 between Buxton Rd and Shortthorn Road	272	104
116	B1149 between Shortthorn Road and A140	0	0
118	A140 from Aylsham to B1149 roundabout	272	104
119	Marl Hill Road and Ringland Lane from A1067 to cable route	182	80
121	Weston Road from Honingham Road to Cable Route	80	24
124	Honingham Lane from cable route to Taverham Road	34	10
125	Taverham Road from Honingham Lane to A47	34	18
126	Weston Road/Ringland Road from Honingham Lane to Church Lane	No longer being used	No longer being used
127	Church Lane to A47	150	44
128	A47 west of B1535 Wood Lane	0	0
129	A47 between B1535 and Taverham Road	0	0
130	A47 between Taverham Road and Church Lane/Dereham Road roundabout	34	10
131	A47 between Church Lane/Dereham Road roundabout and A1074 junction	148	50
137	A47 east from Norwich	No longer	No longer being used

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
		being used	
139	A47 between A1042 junction and A146 junction	236	102
140	A146 between A47 and A1054 junction	138	82
141	A146 from A47 SE	No longer being used	No longer being used
142	A146 between A1054 and A140 junctions	138	82
143	A140 between A146 and A47	No longer being used	No longer being used
144	A47 between A140 and A146	148	50
145	A140 south from A47	No longer being used	No longer being used
146	B1113 between A140 and Swardeston	102	42
147	A47 between A140 and A11	248	108
149	A140 between A146/A1056 and A11	162	90
152	A11 between A140 and A47	162	90
153	A11 SW from Norwich	132	42
154	B1172 SW from A11/A47	244	64
155	A47 between A11 and B1108	244	104
156	B1108 west from the A47	150	60
157	A47 between B1108 and A1074	150	50
158	Church from Dereham Road to Cable Route	94	30
159	Dereham Road to junction with Dereham Rd/Church Lane	94	30
160	Dereham Road and Marlingford Rd from A47 roundabout to edge of urban area	94	34

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
161	Broom Lane	No longer being used	No longer being used
162	Marlingford Road from Easton to Cable Route	80	24
163	Bawburgh Road to junction with Harts Lane	No longer being used	No longer being used
164	Long Lane from junction with Hars Lane to A47 junction	No longer being used	No longer being used
168	Green Lane and School Lane to Mill Road	104	46
170	Back Lane and Colney Lane to B1172	168	28
171	Station Lane	132	42
172	Cantley Lane from Station Lane to A47/A11	132	42
173	Intwood Road from A11 to A47 bridge	No longer being used	No longer being used
174	Intwood Road from A47 bridge to Intwood Lane	86	30
175	Intwood Road from Lilac Plantation to Cable Route	No longer being used	No longer being used
176	Intwood Lane between Intwood Road and Ford	86	30
182	Intwood Road from Intwood Lane to Lilac Plantation	No longer being used	No longer being used
184	The Grove from Reepham Road to Cable Route	No longer being used	No longer being used
186	Colney Lane between Back Lane and cable corridor	84	14

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
188	Station Road between Reepham Road and Marriott's Way	98	42
189	Station road between Marriott's Way and A1067	66	32
190	B1436 between the A148 and Metton Road	No longer being used	No longer being used
191	B1436 between Metton Road and A140	No longer being used	No longer being used
192	Station Lane	82	28
193	A1065 from A148 to B1146	No longer being used	No longer being used
194	A1065 from B1146 to Massingham Road junction, Weasenham	No longer being used	No longer being used
195	A1065 between Massingham Road, Weasenham to B1145	No longer being used	No longer being used
196	A1065 between B1145 and Netwon Road junctions	No longer being used	No longer being used
197	A1065 between Newton Road and A47 junction	No longer being used	No longer being used
198	A148 between A1067 and A1065 junction	No longer being used	No longer being used
199	A1270 between A1067 and Fir Covent Road	182	80

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
200	A1270 between Fir Covent Road and B1149/New Drayton Lane roundabout	182	80
201	NDR: A1270 between B1149/New Drayton Lane roundabout and the A140	244	104
202	A1270 between A140 and B1150	244	104
203	A1270 between B1150 and A1151	244	104
204	A1270 between A1151 and A47 junction	244	104
206	Wood Dalling Road between B1145 and World's End Lane	268	68
207	Wood Dalling Road between World's End Lane and cable corridor	268	68
208	The Street between the A1149 and Oulton airfield access	248	118
209	A47 between A1065 and Tuns Road, Necton	No longer being used	No longer being used
210	A47 between Tuns Road, Necton and Little Fransham	No longer being used	No longer being used
211	A47 at Little Fransham	No longer being used	No longer being used
212	A47 east of Little Fransham to Dereham grade-separated junction	No longer being used	No longer being used
213	A47 from Dereham to B1147 junction	No longer being used	No longer being used
214	A47 between B1147 to B1535 junctions	No longer being used	No longer being used

Link/ID	Link Description	Link Maximum Two Way Traffic Movements for Hornsea Three	
		(Totals light and HGVs)	HGVs Only
	Shorthorn Road	272	104

Table 6.2. Link maximum levels for Hornsea Three construction traffic

6.2.1.10 To ensure compliance that the maximum traffic movements will not be exceeded, the principal contractor will implement a combination of a QR code/online self-sign in and fully manned vehicle tracking at each access gate, the data will be compiled into a monthly compliance report for NCC.

6.2.1.11 For example, when an access point is not in frequent use, the gate will be locked with a QR code/unique reference displayed on the access point signage. This will be utilised for 'ad-hoc' vehicle movements and deliveries outside of peak activity periods where the driver will scan the QR code/notify VF of their registration details, vehicle type and name prior to entry being provided.

6.2.1.12 Where programmed activities are planned within the relevant sections, the principal contractor will have a dedicated gate person present who will log all vehicles in and out by time and type as they enter and leave the access point to confirm and keep a record of the traffic movements.

Traffic Flows Exceeded

6.2.1.13 If construction traffic levels are anticipated to be exceeded in respect of any link, any increase will be subject to a full IEMA Transport Environmental Link Assessment and will be agreed with NCC, with any additional measures implemented by the principal contractor.

7 Highway Condition

7.1.1.1 Video surveys will be undertaken of those local roads links set out in **Table 6.2** prior to use by any Hornsea Three construction traffic.

7.1.1.2 The schedule of highways to be surveyed is agreed with NCC. This agreement will be in accordance with requirements under Section 59 of the Highways Act 1980.

7.1.1.3 Once construction activities have ceased at a given location the video survey of the associated highway links will be repeated to identify any significant changes in highway condition.

7.1.1.4 The results will be discussed with the HAs and where it is agreed that damage has resulted from the passage of HGVs associated with construction work from Hornsea Three the principal contractor will be responsible for repairing the damage that has resulted from vehicle movements associated with Hornsea Three.

7.1.1.5 Where appropriate, visual inspections of highway condition may also be undertaken to provide early identification of any diminishing conditions, or to verify any complaints received from the local community.

7.1.1.6 The condition surveys for SNDC are scheduled to be undertaken at a time closer to the commencement of works. However, an example condition survey report is included at Appendix 5, with the accompanying video recording file available upon request.

8 Compliance and Monitoring of the CTMPs

8.1 Compliance and Monitoring

8.1.1.1 A central point of contact for Hornsea Three (principal contractor's Highway Manger) will be appointed to all monitoring processes during the construction phase and will liaise with SNDC and LHA throughout the onshore works. The Highway Manager will ensure that all sub-contractors are aware of the requirements of this CTMP and of the monitoring obligations.

8.1.1.2 It will be the responsibility of the Developer to provide monthly compliance reports to NCC as set out in this CTMP.

8.1.1.3 Establishing a central point of contact will help to ensure that compliance for all traffic management in a given location and at a given time will be the responsibility of a single individual to ensure clarity of responsibility and to facilitate effective communication between all parties (i.e. Hornsea Three, SNDC and NCC).

8.1.1.4 The Contractor's Highways Manager will be James Darwent;

james.darwent@volkerfitzpatrick.co.uk , 07496 32231.

8.1.1.5 Monitoring of all Hornsea Three construction vehicle movements will be achieved by adhering to the following procedures:

- Notification of the CTMP to all suppliers as a part of their agreements;
- All suppliers to agree a schedule of HGV movements and deliveries with the Highways Manager, to be provided a minimum of seven days prior to delivery;
- The principal contractor's Highways Manager to review all agreed construction vehicle movements, as presented in this CTMP, are complied with. This information will be communicated with the wider principal's contractor's site team to enable a live comparison to this CTMP on a weekly basis;
- At all access points proof of construction staff / suppliers access we be obtained to confirm arrival and departure time of all vehicles, by vehicle type and activity;
- At all access points proof of delivery / supplier access will be obtained to confirm arrival and departures times of all vehicles, by vehicle type and activity ; and
- Weekly schedules will be made available by the principal contractor for review and issue to NCC as part of the compliance requirements to confirm the activity on each link.
-

9 Interaction between Hornsea Three and Other Projects

9.1 Interaction between Hornsea Three and the A47 Improvement Scheme

9.1.1.1 NH have improvement works at the A47/A11 Thickthorn interchange, the A47 at Easton and A47 at Swardeston which will seek to increase capacity by re-routing traffic away from the existing junction via two new interchange roads to relieve congestion, reduce journey times, and encourage economic growth. This scheme will look to improve facilities for pedestrians, and cyclists, by upgrading pedestrian crossings and footpaths.

9.1.1.2 A cooperative agreement is in place between NH and Orsted, for this scheme.

9.1.1.3 The broader management of the traffic management interactions between the two projects will be discussed and agreed with National Highways as the A47 works progress to implementation following specific measures set out within the collaboration agreement.

9.2 Interaction between Hornsea Three and the A11 Thickthorn Improvement Scheme

9.2.1.1 NH have improvement works at the A11 Thickthorn Interchange which will interact with routes to the onshore cable corridor. This would require traffic management and potential highway intervention scheme to be implemented by the LHA to Cantley Lane South and Station Road to re-join construction traffic back to the A11 as a result of the closure of Cantley Lane South during the A11 Thickthorn construction works.

9.2.1.2 A cooperative agreement is in place between NH and Orsted, for this scheme.

9.2.1.3 The broader management of the traffic management interactions between the two projects will be discussed and agreed with NH as the A11 works progress to implementation following specific measures set out within the cooperation agreement.

9.3 Interaction between Hornsea Three and Vattenfall Norfolk Vanguard / Boreas

9.3.1.1 Vattenfall have DCO approval for its Norfolk Vanguard and Boreas offshore wind farms. Its proposed landfall is at Happisburgh South on Norfolk's eastern coast and the 60 km cable corridor routes west to a substation to the east of Necton. The two export cable corridors cross at land near Reepham. It is noted that Hornsea Three and Norfolk Vanguard propose to utilise various common road links during their respective construction phases; these include The Street in Oulton and link 88 and 89 through Cawston (both of which are subject to highway intervention measures as set out in Section 5).

9.3.1.2 To manage these interactions, the traffic and transport cumulative environmental impacts with other major projects (namely, Norfolk Vanguard and Boreas) are managed to levels such that they are acceptable by NCC as the LHA with measures to be in place both physically and through management of movements.

9.3.1.3 Appendix A of the Hornsea Three CoCP includes a Communication Plan Framework, which sets out the provision for a Communication Plan which will be managed and implemented by the Hornsea Three CLO.

9.3.1.4 The Communication Plan sets out the process of continued engagement between Hornsea Three, the LHA and other major projects (namely, Norfolk Vanguard and Boreas). This will ensure that as construction programmes are refined and information is regularly shared between parties, particularly traffic demand on shared road links.

9.3.1.5 This will ensure that commitments to manage cumulative construction traffic demand are fully delivered; for example, on a given road the two projects may have committed to programme works that ensure each scheme's peak traffic does not overlap. Regularly programmed sharing of information will ensure that the final approved CTMPs accurately reflect the expected

construction traffic demand of both projects and provide certainty to NCC that commitments remain feasible and deliverable.

9.3.1.6 It has been agreed for three specific links that the cumulative traffic effects from Hornsea Three and Norfolk Vanguard and Boreas should be monitored to ensure construction traffic movements are not exceeded in the event of the two projects carrying out construction activities simultaneously.

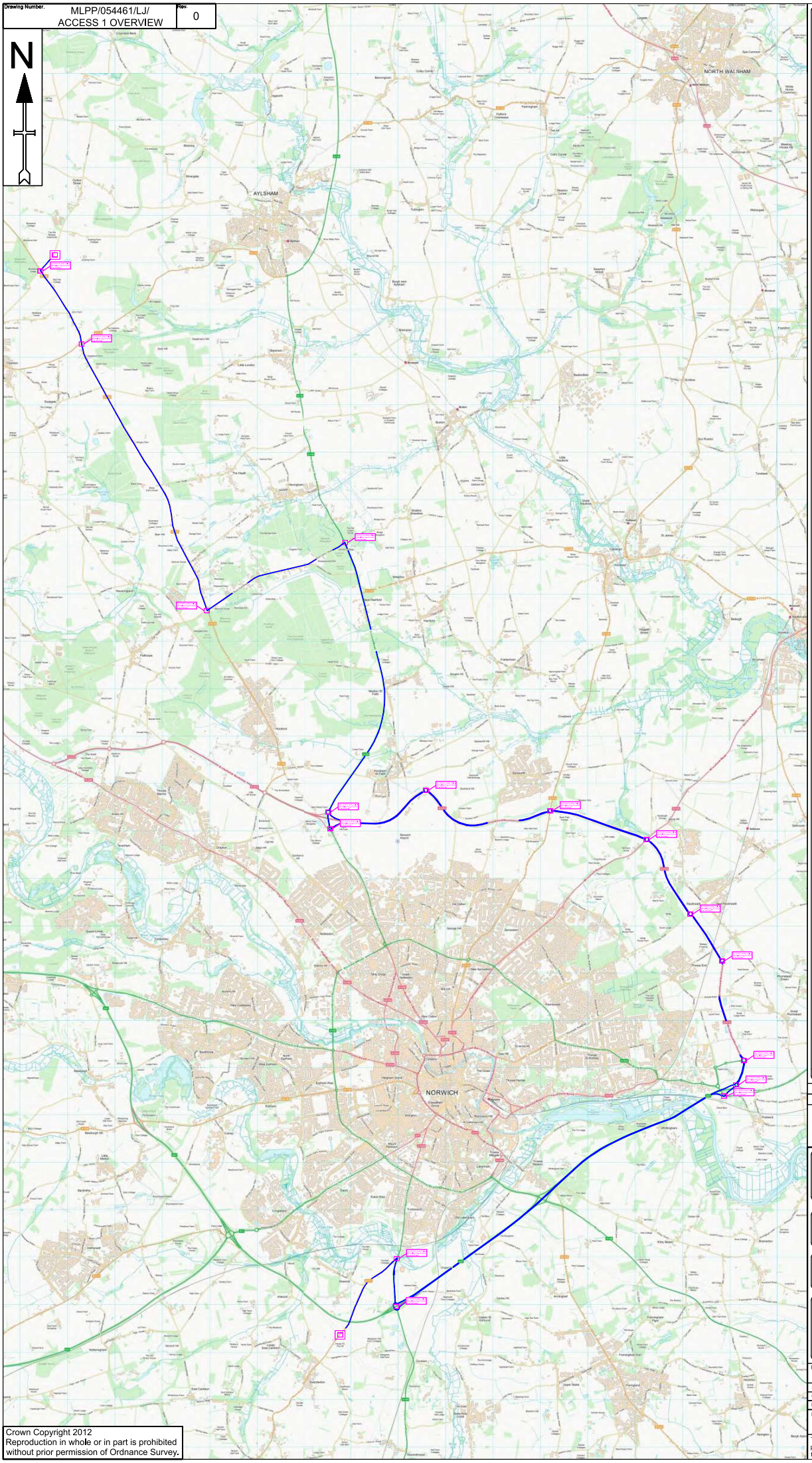
9.3.1.7 The links and maximum cumulative traffic levels not to be exceeded without a full IEMA Transport Environmental Link Assessment and agreement with the LHA re defined below;

- **Link ID 89: B1145 through Cawston** - 212 total (outbound and return i.e., two-way) movements per day, of which up to 100 can be HGVs;
- **Link ID 59: B1149 Edgefield to Heydon** - 455 total (outbound and return i.e., two-way) movements per day, of which up to 315 can be HGVs; and
  Link ID 208: The Street, Oulton - 424 total (outbound and return i.e., two-way) movements per day, of which up to 214 can be HGVs.

9.3.1.8 Monitoring will be undertaken by the principal contractor of both projects and only where the link is jointly used by both construction projects. This will take place at all access points which use Links 89, 59, 208, proof of delivery will be obtained from the supplier by the Works Supervisor from the principal contractor.

9.3.1.9 The principal contractors works supervisors to submit proof of delivery to each projects Highways Manager for verification with the agreed schedule and to provide a weekly movement record to NCC, should the traffic movements exceed the above maximum traffic combined traffic movements, further measures may be required and would be determined by NCC.

Appendix 1



Drawing Number: MLPP/054461/LJ/ ACCESS 1 OVERVIEW

Rev: 0

Notes

1. All dimensions are in metres unless otherwise stated.
2. All traffic management to comply with Chapter 8 and any updates, and Safety at street works and roadwork's (A code of practice)
3. All road markings and signs to be as per the Traffic Signs Regulations and General Directions 2016.
4. All permanent traffic signals will be bagged and switch off, at all times that temporary traffic signals are being used. This should be done with approval from said authority

Key

Cable Delivery Route

Autopath Analysis

ACCESS 1

		Date Drawn		Surveyed	Drawn	Checked	Approved
		11/10/2021		- -	LJ	TL	TL

MLP Traffic Ltd
Milsted farm,
Garboldisham,
Norfolk,
IP22 2SP
Tel: 0330 016 96 96

Client.

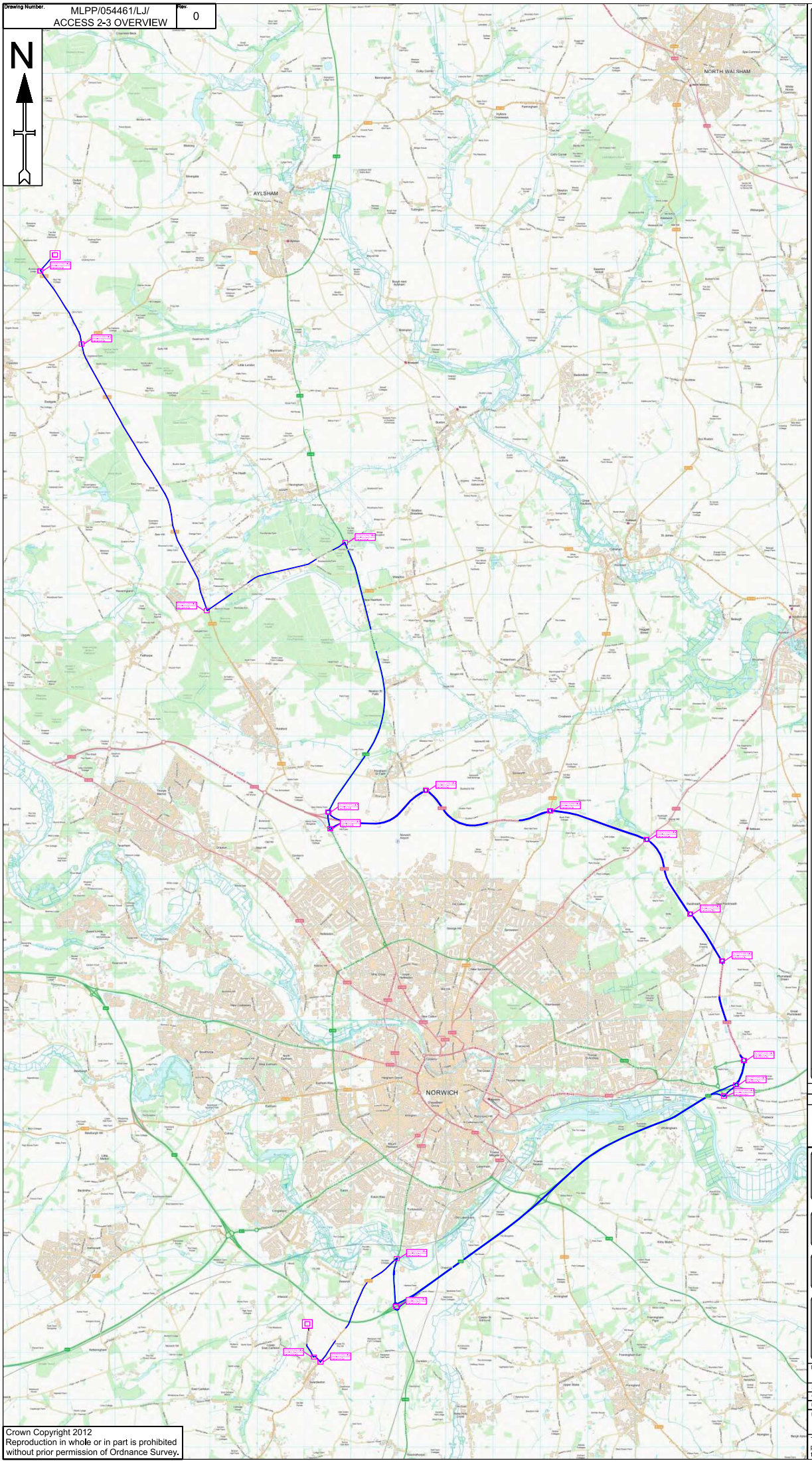
Project.
CABLE DELIVERY

Drawing title/ Site Address.
RAF OULTON,
THE STREET,
OULTON,
NR11 6RA

Drawing status

Scale	NTS	DO NOT SCALE
Client No.		
Page No.	1 OF 1	
Drawing Number.	MLPP/054461/LJ/ ACCESS 1 OVERVIEW	Rev 0

Drawing Number.		Rev.
MLPP/054461/LJ/ ACCESS 2-3 OVERVIEW		0



Notes

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3. All road markings and signs to be as per the Traffic Signs Regulations and General Directions 2016.
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Key

Cable Delivery Route

Autopath Analysis

Overhead Cable Identification

ACCESS 2-3

		Date Drawn		Surveyed	Drawn	Checked	Approved
		11/10/2021		- -	LJ	TL	TL

MLP Traffic Ltd.
Milpond farm,
Garboldisham,
Norfolk,
IP22 2SP
Tel: 0330 016 96 96

Client.

Project.
CABLE DELIVERY

Drawing title/ Site Address.
RAF OULTON,
THE STREET,
OULTON,
NR11 6RA

Drawing status

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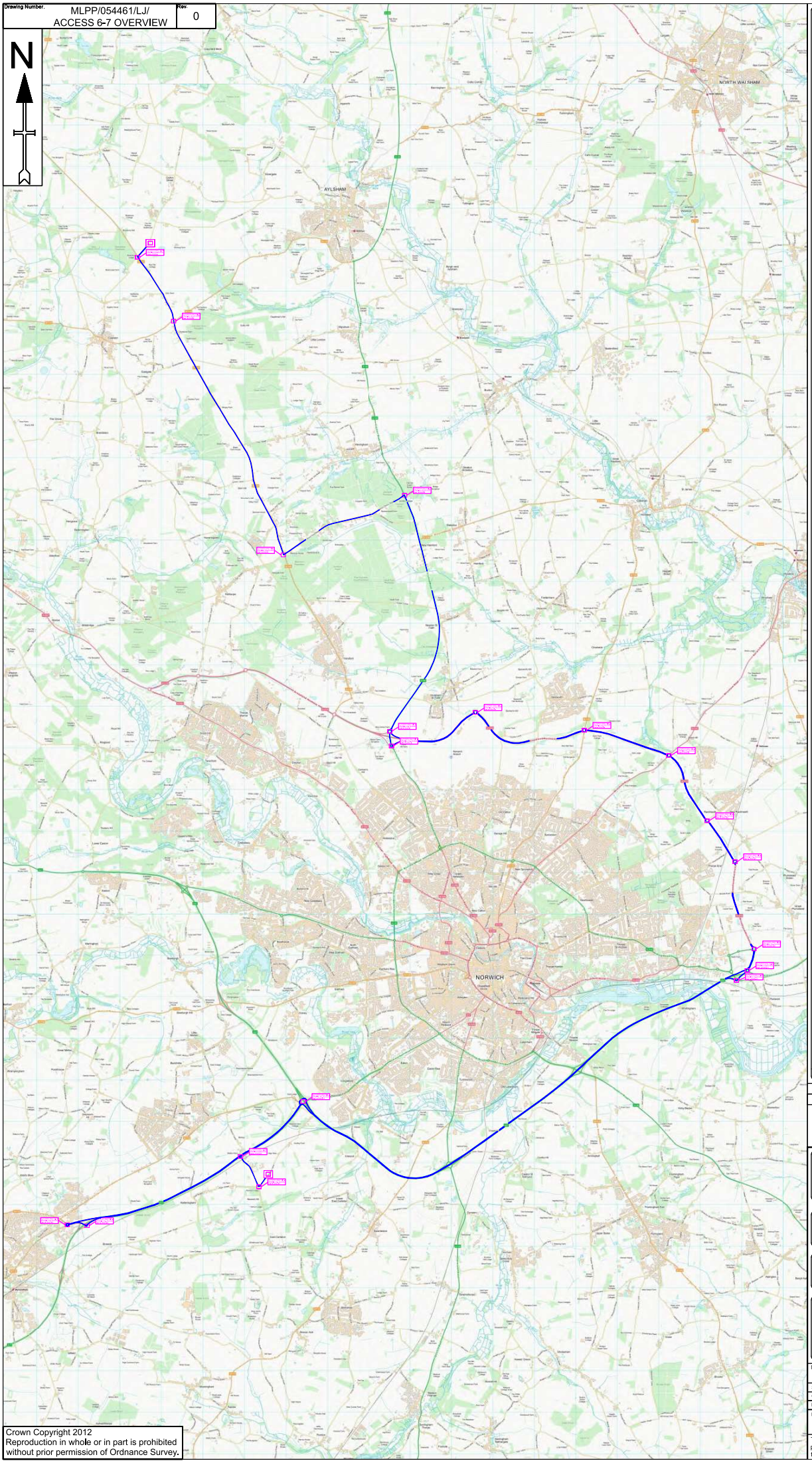
Client No.		
Page No.	1 OF 1	
Drawing Number.	MLPP/054461/LJ/ ACCESS 2-3 OVERVIEW	Rev 0



Drawing Number. MLPP/054461/LJ/ ACCESS 6-7 OVERVIEW

Rev. 0

Notes

1. All dimensions are in metres unless otherwise stated.
2. All traffic management to comply with Chapter 8 and any updates, and Safety at street works and roadwork's (A code of practice)
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Key

Cable Delivery Route

Autopath Analysis

ACCESS 6-7

		Date Drawn		Surveyed	Drawn	Checked	Approved
		11/10/2021		--	LJ	TL	TL

MLP Traffic Ltd.
Milpond farm,
Garboldisham,
Norfolk,
IP22 2SP
Tel: 0330 016 96 96

Client.

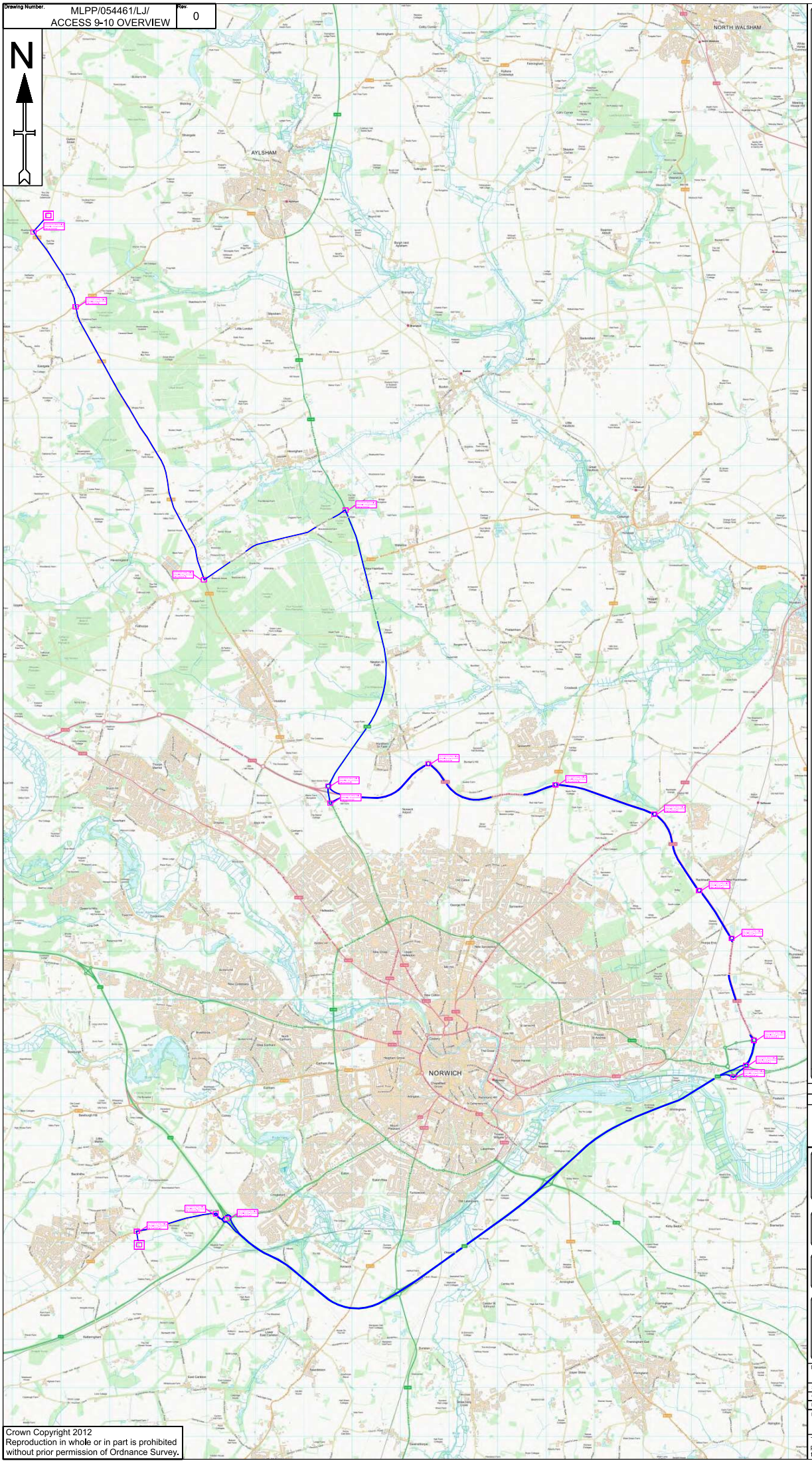
Project.
CABLE DELIVERY

Drawing title/ Site Address.
RAF OULTON,
THE STREET,
OULTON,
NR11 6RA

Drawing status

Scale	NTS	DO NOT SCALE
Client No.		
Page No.	1 OF 1	
Drawing Number.	MLPP/054461/LJ/ ACCESS 6-7 OVERVIEW	Rev 0

Drawing Number. MLPP/054461/LJ/ ACCESS 9-10 OVERVIEW | Rev. 0



Notes

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3. All road markings and signs to be as per the Traffic Signs Regulations and General Directions 2016.
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Key

Cable Delivery Route

Autopath Analysis

ACCESS 9-10

		Date Drawn		Surveyed	Drawn	Checked	Approved
		11/10/2021		- -	LJ	TL	TL

MLP Traffic Ltd

MLP Traffic Ltd.
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Norfolk,
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Tel: 0330 016 96 96

Client.

Project.
CABLE DELIVERY

Drawing title/ Site Address.
RAF OULTON,
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OULTON,
NR11 6RA

Drawing status

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