East Anglia ONE Offshore Windfarm

Traffic Management Plan DCO Requirement 25 (1) (a) Final for Discharge

ID: EA1-CON-R-IBR-009583

Created by / date: IEC / 24th January 2017 Checked by / date: CD / 26th January 2017 Approved by / date: RM / 31st January 2017

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REVISION CONTROL

Revision and Approvals									
Rev	Date	Reason for Issue	Originated by	Checked by	Approved by				
0	10-02-16	Internal review	IEC	IEC	IEC				
1	23-02-16	Interim for consultation	IEC	GG/AS	RM/PS				
2	30-11-16	Final for Approval	IEC	KW	PM				
3	31-01-17	Final for Discharge	IEC	CD	RM				

Abbreviations

AC	Alternating Current
CCS	Construction Consolidation Site
CfD	Contract for Difference
DECC	Department for Energy and Climate Change
DC	Direct Current
DCO	Development Consent Order
EAOL	East Anglia One Limited
HGV	Heavy Goods Vehicle
LPA	Local Planning Authority
MW	Megawatts
SCC	Suffolk County Council
051	Quere la service de la familia

- SEI Supplementary Environmental Information Post Examination Report
- SPR ScottishPower Renewables
- **TMP** Traffic Management Plan

1.Introduction

1.1 Project Overview

- 1. East Anglia ONE Limited (EAOL), was awarded a Development Consent Order (DCO) by the Secretary of State, Department of Energy and Climate Change (DECC) on June 17th 2014 for East Anglia ONE Offshore Wind Farm (EA ONE). The DCO granted consent for the development of a 1200MW offshore windfarm and associated infrastructure.
- In February 2015 EAOL secured a Contract for Difference (CfD) award to build a 714MW project and Scottish Power Renewables announced its role in leading East Anglia ONE towards construction. In April 2015 EAOL submitted a nonmaterial change application to DECC to amend the consent from direct current (DC) technology to alternating current (AC). In March 2016, DECC authorised the proposed change application and issued a Corrections and Amendments Order.
- 3. This plan relates to the onshore construction works associated with EA ONE, which based on the AC technology with a capacity of 714MW and transmission connection of 680MW, comprises;
 - A landfall site at Bawdsey, Suffolk
 - Up to six underground cables, approx. 37km in length
 - Up to four cable ducts for future East Anglia THREE project
 - An onshore substation located at Bramford next to existing National Grid infrastructure

1.2 Purpose and Scope

4. This Traffic Management Plan (TMP) sets out the standards and procedures for managing the impact of traffic during the onshore construction works including the substation and cable route, to facilitate safe use of the existing road network. This document has been produced to discharge DCO Requirement 25 (1) part (a), which states:

25.—(*1)* No stage of the connection works shall be commenced until for that stage, after consultation with the relevant highway authority, the following have been submitted to and approved by the relevant local planning authority in consultation with the relevant highway authority—

- (a) a traffic management plan which must be in accordance with the outline traffic management plan
- 5. The purpose of the TMP is to ensure that the traffic impacts of the development remain within those assessed by the Environmental Statement and Supplementary Environmental Information. In order to do this, the TMP contains detailed management measures to control the numbers, types and timings of vehicles on parts of the highway network.
- 6. Throughout, consideration is to be given to noise sensitive receptors. Mitigation to minimise noise or vibration impacts will be set out in the Construction Noise and Vibration Management Plan (EA1-CON-F-GBE-008549), provided under separate cover.
- 7. EAOL will work with the Suffolk County Council (SCC) Highways Authority to ensure appropriate resourcing is in place to monitor compliance with the provisions of this TMP. It sets out the management measures which EA ONE will require its contractors to adopt and implement for any onshore construction works and related off-site activities. All Contractors shall develop their Construction Phase Traffic Management Plan in line with this document, the Highway Improvements and Access Management Plan (EA1-CON-R-IBR-009852) and the Travel Plan (EA1-CON-R-IBR-010149) to detail the requirements of all construction traffic.

1.3 Background

- An assessment to establish a proposed road network that will adequately satisfy the requirements of the construction whilst minimising the impact of the additional delivery and transport movements on the existing road network was undertaken as part of the Traffic Assessment completed as part of the Environmental Statement. The construction access routes identified for the construction work present a practical and viable transport network, based upon the SCC Lorry Management Plan and Lorry Route Network as far as is practical. Details of the Construction Access Routes are presented in Appendix 1.
- 9. A further Construction Access Route Assessment¹ was undertaken to evaluate the Local Access Routes of the construction road network, which do not form part of the Suffolk Lorry Route Network. The assessment included;
 - an on-site engineering survey; and
 - an assessment and route evaluation of the construction access routes for the delivery of equipment, construction plant, materials and the construction workforce along the Local Access Routes.
- The assessment determined that the local access roads identified present viable and safe routes for use by construction traffic over the duration of the onshore construction works, subject to the implementation of mitigating measures and temporary road improvements. Full details of these road improvements are provided in the Highway Improvement and Access Management Plan (EA1-CON-R-IBR-009852), provided under separate cover, and as such are not repeated in this TMP.
- This TMP takes account of the route surveys, assessments and route evaluations undertaken to date. Mitigating measures proposed to address the issues identified within the existing assessment¹ have been developed in sufficient detail within the TMP to enable the Highway Authority, and other affected parties, to maintain the safety and level of service upon the existing transport networks.

¹RSK, East Anglia ONE Offshore Windfarm *Construction Access Route Assessment*, Document 371024-TRNS-REP-002 Rev02, September 2012

2.Construction Details

2.1 Construction Consolidation Sites

- The onshore cable works will be supported by nine Construction Consolidation Sites (CCS) (referenced A to I), which are compounds that will be utilised to provide welfare, site staff accommodation, parking, and secure storage for materials, plant and equipment for the construction of the cable route. The CCSs are categorised as either Primary or Secondary, depending on their intended uses. There are two Primary CCSs;
 - CCS B will be a designated storage and delivery facility and the main administrative compound for the project; and
 - CCS E will be a designated storage and delivery facility with designated office space.
- ^{13.} The remaining seven Secondary CCSs shall be for the purpose of storage and deliveries from the Primary CCSs and onshore cable route. Table 2-1 below presents the details of the CCSs and the locations are shown in Appendix 1.

	East Anglia ONE CCS Sites								
CCS Ref	CCS Type	Address	Easting	Northing					
A	Secondary	Bullen Lane, Bramford, Ipswich, Suffolk IP8	610309	246180					
В	Primary	Paper Mill Lane, Claydon, Ipswich, Suffolk IP6 0AP	612843	249077					
С	Secondary	Witnesham Road, Ipswich, Suffolk IP6	617785	248979					
D	Secondary	Church Road, Ipswich, Suffolk IP6 9DS	621620	248685					
E	Primary	Top Street, Martlesham, Suffolk IP12	625340	247797					
F	Secondary	Woodbridge Road, Newbourne, Woodbridge, Suffolk IP12 4PA	627255	243784					
G	Secondary	Park Lane, Ipswich, Suffolk IP10	628137	240346					
Н	Secondary	Sheepgate Lane, Ipswich, Suffolk IP10 0QZ	632047	241321					
I	Secondary	Ferry Road, Woodbridge, Suffolk IP12 3AS	634708	239300					

Table 2-1 Construction Consolidation Sites

^{14.} During the construction of the substation, site establishment and laydown areas will be required hereafter referred to as the substation temporary compound. This will include temporary offices, welfare, car parking, materials and equipment storage. The area directly east of the substation will be used as the substation temporary compound (referred to as Work No 38 within the DCO).

2.2 Cable Route Construction

- 15. The onshore cable route comprises a 37km corridor, between the Suffolk coast at Bawdsey and the substation at Bramford, passing the northern side of Ipswich. The onshore cable works comprise the installation of electricity transmission cables and ducts between the landfall location at Bawdsey and the new substation station, which is adjacent to the existing National Grid substation at Bramford.
- 16. The majority of the route will be constructed using open trenching methods, other than in specified locations where the cable route traverses a number of major transport networks and natural obstacles. The installation of the cables under these features requires specialist trenchless techniques, namely the use of Horizontal Directional Drilling (HDD). These key locations are listed below and are referred to as Category 1 HDD sites (locations shown in Appendix 1):
 - Millers Wood
 - Network Rail tracks west of A14 and River Gipping
 - A14 Trunk Road
 - A12 Trunk Road
 - Network Rail tracks to the south of Woodbridge and Martlesham Creek
 - Kirton Creek
 - River Deben
 - Coastal Landfall, Bawdsey
- 17. These HDD sites will require additional equipment, storage and ancillary facilities to that required for the conventional open trench installation methods in order to accommodate the drilling activities. As such, a specialist HDD compound will be set up at each side of each HDD location to enable the specialist plant and materials to be delivered directly.
- In addition to the major features listed above, a number of other features have been identified where the conventional open trenching technique is not appropriate. At these locations 'trenchless' methods will also to be implemented, which will comprise of a smaller HDD or auger bore. These sites are referred to as 'Category 2' HDD/trenchless. As the features to be crossed are less significant than the category 1 HDD sites, they will not require any additional compounds and works will take place within the standard working width.
- 19. Table 2-2 provides a list of all the HDD / trenchless locations.

Table 2-2 HDD / Trenchless Locations

Reference	Category	Location/ Feature	Approximate Length (m)	Max Width (m)
HDD-01	Cat 1	Millers Wood off Bullen Lane	200	130
HDD-02	Cat 2	Somersham Watercourse	70	55
HDD-03	Cat 2	Pound Lane	60	55
HDD-04	Cat 1	River Gipping and Network Rail track west of A14	385	130
HDD-05	Cat 1	A14 Trunk Road and Old Ipswich Road	200	160
HDD-06	Cat 2	River Fynn	30	55
HDD-07	Cat 2	Lodge Road	60	25
HDD-08	Cat 1	A12 Trunk Road	165	120
HDD-09	Cat 2	Top Street	90	55
HDD-10	Cat 2	Sandy Lane	90	50
HDD-11	Cat 1	Martlesham Creek and Network Rail tracks south of	650	160

		Woodbridge		
HDD-12	Cat 2	Waldringfield Road	70	55
HDD-13	Cat 2	Watercourse east of Howe's Farm	50	55
HDD-14	Cat 1	Kirton Creek	550	110
HDD-15	Cat 2	Sewage works outfall watercourse	50	55
HDD-16	Cat 1	River Deben	700	55
HDD-17	Cat 2	Queen's Fleet	70	55
HDD-18	Cat 1	Landfall, Bawdsey	1000	160
HDD-19	Cat 2	Bramford Road	60	55
HDD-20	Cat 2	Grundisburgh Road	50	55

2.3 Substation Construction

- 20. The EA ONE onshore substation will be located within a fenced compound (150m by 190m) to the north of the existing National Grid Bramford Substation. The substation will contain electrical equipment including power transformers, switchgear, reactive compensation equipment, harmonic filters, cables, control buildings and other associated equipment, which will largely be outside with a number of the components being within the buildings.
- 21. The construction of the substation will include a number of key stages;
 - enabling works;
 - foundations, trenching and drainage installation;
 - construction of buildings; and
 - equipment installation and commissioning.
- 22. The enabling works will include grading and earthworks to remove any unsuitable materials from the substation area and provide a level platform. Where possible, the materials excavated will be reused on site as engineering fill or landscaping depending on material properties. The enabling works will also include the construction of the main concrete access road to the substation.
- ^{23.} Following the completion of the enabling works, work will commence on the excavations for foundation for the building and trenches to accommodate electrical infrastructure and installation of the drainage networks. Work will also commence on the construction of the buildings. Once these works are complete, the equipment is installed and commissioned.

3.General Principles and Controls

3.1 General Principles

- 24. The following list sets out general principles that will be employed to minimise the impact upon the public highways, public rights of way and third party land from construction traffic and all activities associated with the onshore construction works. Other aspects of impact associated with construction works (for instance, drainage management at CCS sites) are subject to separate provisions outlined through the Code of Construction Practice (EA1-CON-F-IBR-021237, provided under separate cover):
 - Detailed management measures to be in place to control the numbers, types and timings of vehicles on parts of the highway network, to within the bounds of the Environmental Statement and Supplementary Environmental Information (unless otherwise agreed), further details are presented in Section 6.
 - 2) Road closures shall not be a primary choice during construction of the proposed onshore works. Should it be identified that a road closure may be of less disruption or a safer option to public and workforce, then installation and timescales will be agreed with SCC Highways Authority and installed in line with the Traffic Noticing Requirements.
 - 3) Measures will be implemented to ensure safe access and egress at all times for pedestrian and non-motorised modes of transport upon all Public Highways and Public Rights of Way affected or impacted by construction activities or construction traffic.
 - 4) All traffic management measures will be temporary including traffic signs, road markings, barriers, lamps, traffic control and other such measures necessary in accordance with best practice unless otherwise agreed with the SCC Highways Authority. These will be installed and maintained in good condition throughout the extent of the construction period.
 - 5) The entire cable corridor working area will be segregated from surrounding land use with the use of fencing equipment as defined in the Fencing and Enclosures Plan (EA1-CON-R-IBR-009818), provided under separate cover.
 - 6) All temporary traffic management measures to be undertaken in accordance with the Department for Transport's Chapter 8: Traffic Safety Measures and Signs for road works and temporary situations parts 1 and 2, 2009.
 - 7) All temporary (and where agreed with the SCC Highways Authority, permanent) Traffic Signs and Road Markings to be provided in accordance with the Traffic Signs and General Directions 2016.
 - 8) No works that would affect the Public Highway or Public Rights of Way shall commence until all traffic safety measures required are fully operational and to the satisfaction of SCC Highways Authority.
 - 9) All works within public highway will be subject traffic notifications. All timescales and street works applications will be in agreement with SCC Highway Authority street works department.
 - 10) Where determined from pre-construction surveys the public road network at major crossing points will be reinforced to a standard to allow safe passage for the general public and construction traffic for the full term of the construction period.
 - 11) Post-construction surveys and follow up reinstatement to be undertaken to ensure that any damage is remediated.
 - 12) Any damage to the existing road network or Public Right of Way as a consequence of the construction activities shall be made good to the satisfaction of SCC Highway Authority.
 - 13) Any damage to street furniture as a consequence of the construction activities will be made good to the satisfaction of SCC Highway Authority.
 - 14) Timings and notice periods for abnormal load deliveries will be agreed with SCC Highways Authority in reasonable time.

- 15) Phasing and timing of deliveries will be adhered in order to ensure that working hours and restrictions upon delivery times as set out in the DCO to avoid unnecessary congestion, taking into account other committed developments and seasonal variations.
- 16) The implementation of timed delivery bookings are to be implemented to control the delivery of material to the Primary CCS sites and adjacent local network.
- 17) Consideration to be given to the need for additional traffic measures at particular pinch points where HGVs cannot pass in opposing directions such as the B1079.
- 18) Consideration to be given to the size of vehicles appropriate to each section of the access routes.
- 19) Access routes will be designated for deliveries to each of the CCS's (see Section 6), ensuring that only those roads adequate to carry construction traffic are used for that purpose. Appropriate signage will be installed to direct suppliers and contractor's vehicles along appropriate routes. This is to minimise the impact of deliveries on local residents and also minimise the risk of construction traffic missing vital junctions and not being able to turn round easily in the downstream road network. A review of signage locations will be undertaken with SCC Highways to ensure their suitability. Signage locations will be continually reviewed and agreed with SCC Highways during the entire construction phase.
- 20) Where possible the contractor will use local suppliers to reduce the distance travelled on the local highway network.
- 21) A Construction Phase Traffic Management Plan will be produced in line with this TMP which will detail the requirements of all construction traffic. The Construction Phase Traffic Management Plan will detail all on site and off site traffic movements and management conditions for all traffic, plant and personnel associated with the project.
- 22) Where construction access routes use existing tracks which are also Public Rights of Way, additional safe working practices will be implemented. These will include tool box talks for site personnel on how to drive appropriately in these areas, early warning signage alerting construction workers to the presence of a Public Right of Way and warning signage for members of the public to be aware of construction traffic. These would form part of the Construction Phase Traffic Management Plan and Site Induction.

3.2 Traffic Controls

- ^{25.} The following list sets out the controls that will be implemented to minimise the impact upon the Public Highways, Public Rights of way and third party land from construction traffic during the onshore construction works.
 - 1) All contractors shall comply with the HGV routes as assessed and agreed with SCC Highway Authority through this TMP (presented in Appendix 1).
 - 2) Compliance with the defined HGV routes shall involve a vehicle registration system and log based at CCSs / substation temporary compound.
 - For the cable works, all HGV deliveries will be made to the Primary CCSs with onward transfer to Secondary CCSs. All substation HGV deliveries will be made directly to the substation temporary compound.
 - 4) All HGV deliveries to a Primary CCS and substation temporary compound by construction and delivery vehicles will be of a size and appropriate weight to accord with the hierarchal structure of the SCC Lorry Route Network for Strategic, Zone Distributor and Local Access lorry routes.
 - 5) Time restrictions will be placed on the transfer of materials and plant between all Primary and Secondary CCS's in order to avoid the busiest peak traffic hours (08:00-09:00 and 17:00-18:00).
 - 6) Time restrictions will be placed on access routes that pass schools. For example, the B1083 through Bawdsey to the landfall site; and Trimley Road through Kirton to CCS site 'G'. Where schools are in proximity to construction traffic routes consideration will be given to the time frames for undertaking the works and movement of construction

traffic in accordance with restrictions based on the relevant school hours. Where there is traffic management systems in place consideration shall be given to manual operations in agreement with SCC to minimise any delay/disruption.

- 7) The timings and notice periods for all abnormal load deliveries will be agreed with SCC Highway Authority in advance in reasonable time and will be scheduled outside peak traffic hours. Abnormal loads are not thought to be necessary for movements between Primary and Secondary CCSs.
- 8) All on site deliveries and collections shall be co-ordinated through the site Logistics Manager and a record will be kept to log all site movements.
- 9) A vehicle identity scheme will be created and implemented to enable residents and the workforce to identify if a vehicle is engaged on work on the project. Construction vehicles will have a defined identification livery so that they are immediately identifiable to construction staff and third parties.
- No daytime or overnight parking of site or construction vehicles (site employees or visitors) outside of any predetermined construction compounds or work sites will be allowed without the prior agreement of SCC Highways Authority.
- 11) On-site wheel wash provisions shall be provided at appropriate locations at exits to the Public Highway. Off-site road cleansing/sweeping provision along sections of the Public Highway will be used by construction vehicles shall be to the satisfaction of SCC Highways Authority. Wheel washing facilities will be designed and located to avoid used water running onto the highway.
- 12) Restrictions will be put in place prohibiting movements of construction vehicles at the following locations. These shall form part of the Construction Phase Traffic Management Plan and Site Induction. Appropriate prohibition signs shall be installed at strategic locations to prevent construction entering such areas:
 - No construction HGVs to be routed through Coddenham and Sproughton, and to the south of Sandy Lane (south of Woodbridge) under the railway bridge.
 - No construction HGVs to be routed through Westerfield (i.e. along Lower Road and Church Lane).
 - No construction vehicles will be permitted south of the entrance to CCS 'B' on Paper Mill Lane.
- 13) The complaints procedure will be publicised and complaints to be directed to EAOL Public Liaison Officer. Details of complaints will be reported to the relevant Local Planning Authority and SCC Highways Authority on a regular basis, through a regular liaison meeting.

4.Local Community Liaison

- EAOL will manage public relations with local residents and businesses that may be affected by construction traffic. Public relations for the entire site will be co-ordinated on site by a designated member of the construction management team. A proactive public relations campaign will be maintained, keeping local residents informed of the type and timing of works involved, the transport routes associated with the works, the hours of likely construction traffic movements and key traffic management measures. As provided for by the Code of Construction Practice (EA1-CON--F-GBE-008547), a combination of communication mechanisms such as notices, exhibitions, letters, newsletters, posters and parish meetings will be used to keep local residents informed.
- 27. A designated EA ONE local community liaison officer will field and respond to any all public concerns, queries or complaints in a professional and diligent manner as set out in the Community Liaison and Public Relations Procedure contained within the Code of Construction Practice (EA1-CON-F-GBE-008547).
- Parish Councils in the relevant areas will be contacted (in writing) in advance of the proposed works and ahead of key milestones. This information will include a timetable of works, a schedule of working hours, the extent of the works, and a contact name, address and telephone number in case of complaint or query. Enquiries will be dealt with in an expedient and courteous manner. All complaints will be logged, investigated and, where appropriate, rectifying action will be taken.

5. Pre and Post Construction Surveys

- ^{29.} Prior to the commencement of the construction works, pre-condition surveys will be agreed with and undertaken (dilapidation survey) in conjunction with SCC Highways Authority.
- 30. The pre-construction survey will be used to identify road surface irregularities which require remediation in order to mitigate vibration impacts. Costs of remedial works required as a result of construction will be funded by EAOL. Further detail on the mitigation regarding vibration impacts will be outlined in a Construction Noise and Vibration Management Plan (EA1-CON-F-GBE-008549). Pre-construction surveys will be undertaken to determine road structures at all crossing points to determine the extent of carriageway strengthening requirements.
- ^{31.} The post-construction surveys and measures to secure any subsequent remediation will be agreed with SCC Highways Authority, this will include consideration of remediation where cables trenches have crossed the public highway. These shall be undertaken as soon as possible on completion of relevant works.
- 32. The two surveys will form the basis of any ameliorating works that may be required upon completion of the onshore works, to rectify specific damage to the local road network as a direct result of the construction works. These pre and post construction surveys are to include photographic records of street furniture and road conditions.
- 33. SCC Highways Authority will be kept updated of proposed start and completion dates via regular meetings and programme updates.
- In accordance with the Code of Construction Practice (EA1-CON-F-GBE-008547), pre and post-construction surveys of the Public Rights of Way (PRoW) affected will be undertaken by an experienced surveyor, including identification and assessment of the surface condition and with a scope of coverage and methodology to be agreed with the Suffolk County Council. The two surveys will form the basis of any ameliorating works that may be required upon completion of the onshore works, to rectify specific damage to the PRoW network as a direct result of the construction works.

6.Construction Logistics Management

6.1 Construction HGV Movements

- ^{35.} The transport assessment carried out to complete the Post Submission Report 1 and Supplementary Environmental Information (SEI)² specified the maximum daily HGV movements along the key construction access routes, these values are presented in Appendix 2. The transport assessment contained in the SEI included baseline data of traffic on the local highway network and assessed the potential impact of construction traffic on the highway network.
- ^{36.} The SEI² included a peak hour assessment which gives details of the maximum peak hour HGV movements. Peak hours are considered to be 08:00-09:00 and 17:00-18:00, the peak hour movements are included in Appendix 2.
- 37. In accordance Section 3.2 the following restrictions will be in place for HGV movements:
 - Time restrictions will be placed on the transfer of materials and plant between all Primary and Secondary CCS's in order to avoid the peak traffic hours.
 - Time restrictions will be placed on access routes that pass schools. For example, the B1083 through Bawdsey to the landfall site; and Trimley Road through Kirton to CCS site 'G'.
 - The timings and notice periods for all abnormal load deliveries will be agreed with SCC Highway Authority in advance in reasonable time and will be scheduled outside peak traffic hours.
 - No construction HGVs to be routed through Coddenham and Sproughton, and to the south of Sandy Lane (south of Woodbridge) under the railway bridge.
 - No construction HGVs to be routed through Westerfield (i.e. along Lower Road and Church Lane).
 - No construction vehicles will be permitted south of the entrance to CCS 'B' on Paper Mill Lane.
- ^{38.} The transport measures outlined in this TMP are intended to ensure compliance with the transport assessment and HGV movements within the SEI (presented in Appendix 2).

6.2 Construction Compound Logistics

- ^{39.} As detailed in Section 2, the onshore cable works will be supported by nine CCS Sites (referenced A to I). There are two Primary CCSs; CCS B at Paper Mill Lane, Claydon and CCS E at Top Street, Martlesham, and seven Secondary CCSs, which are for the purpose of storage and deliveries from the Primary CCSs and onshore cable route.
- 40. Deliveries of construction plant, equipment and materials using HGVs for the onshore cable works will be made to the Primary CCS with onwards transfer to a Secondary CCS using vehicles suited to the local network. Figure 1 below details the logistics for delivery and movement of plant, machinery, equipment and materials between Primary CCS and Secondary CCS.
- 41. A temporary haul road will be installed between the CCS locations for onward transfer of plant, equipment and materials along the cable route.
- 42. All deliveries of construction plant, equipment and materials using HGVs for the substation construction will travel directly to the substation temporary compound using vehicles suited to the local network.

² East Anglia ONE Offshore Windfarm, May 2013, Post-Submission Report 1 and Supplementary Environmental Information.

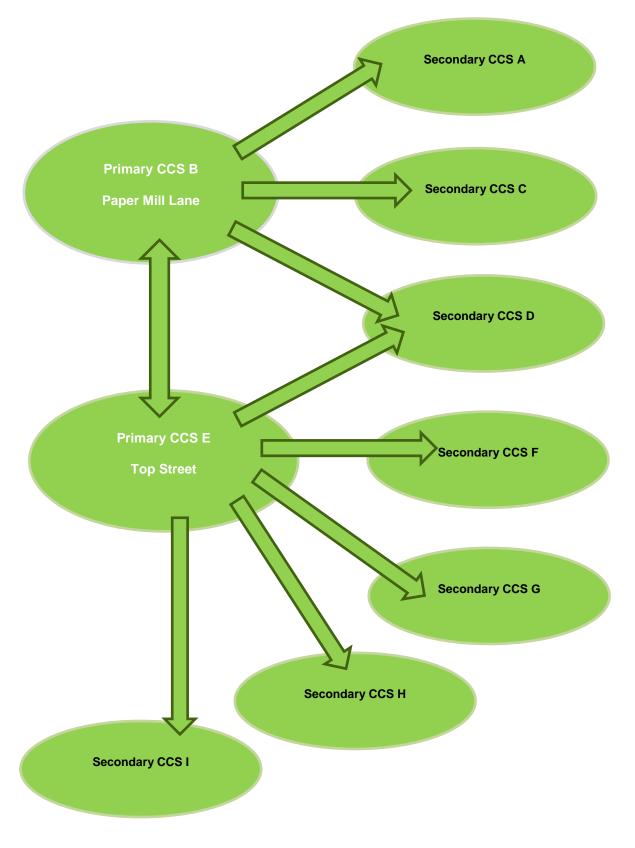


Figure 1 Logistics between Primary and Secondary CCSs

Table 6-1 Construction Compound Designated Traffic Routes

		East Anglia ONE CSS Designated Traffic Routes	
Compound/ CCS	From - To	Designated Route Details	Approx. Mileage
Substation temporary compound	A14 Junction 52 to Substation	A14, SAR, Junction 52 onto B1113 Lorraine Way/Bramford Rd, SLR. Continue approx. 2 miles to Bullen Lane junction. Turn right onto Bullen Lane, LAR. Continue 1 mile along Bullen Lane to CCS A Bullen Lane on left hand side	3
B - Primary	A14 Junction 52 to CCS B	A14, SAR, Junction 52 onto Paper Mill Lane, LAR. CCS Site B is positioned on left hand side past Ipswich North Premier Inn.	2
A - Secondary	CCS B to CCS A	Along Paper Mill Lane, LAR, to junction 52 A14 roundabout. Left onto B1113 Loraine Way/Bramford Road, SLR. Continue approx. 2 miles to Bullen Lane junction. Turn right onto Bullen Lane, LAR. Continue 1 mile along Bullen Lane to CCS A Bullen Lane on left hand side.	3.5
C - Secondary	CCS B to CCS C	Along Paper Mill Lane, LAR, to junction 52 A14 roundabout. Right onto A14 Ipswich/Colchester, SAR. Travel 1 mile to junction 53. Take 1st exit to A1156 Bury Road, LAR. Proceed to second roundabout and take 2nd exit A1156 Bury Road, LAR, leading onto Norwich Road. Continue on Norwich Road for approx. 4miles. At roundabout take 1st exit onto A1214 Valley Road, LAR. Continue along A1214 Valley Road for approx. 1.2 miles to roundabout. Take 1st exit onto B1077 Westerfield Road, SLR. Continue along B1077 Westerfield Road 10 miles to CCS C on left hand side.	17
D- Secondary	CCS B to CCS D Option 1 – HGV Route	Along Paper Mill Lane, LAR, to junction 52 take A14, SAR, heading for Woodbridge. Follow to junction 58 and take A12, SAR, heading towards Woodbridge. At B1079 take first left – Grunisburgh & Hasketon, SLR. Follow Woodbridge Road B1079, SLR, and turn left through Grundisburgh following on to The Street, Rose Hill and Ipswich Road through Grundisburgh. Follow the road through Culpho to a right turn at Grundisburgh Road leading through to the junction of Church Lane. CCS D is on the right hand side 100yds before the Church Road junction.	47
D- Secondary	CCS B to CCS D Option 2 – Vans and Light vehicles only	Along Paper Mill Lane, LAR, to junction 52 A14 roundabout. Right onto A14 Ipswich/Colchester, SAR. Travel 1 mile to junction 53. Take 1st exit to A1156 Bury Road, LAR. Proceed to second roundabout and take 2nd exit A1156 Bury Road, LAR, leading onto Norwich Road. Continue on Norwich Road for approx. 4miles. At roundabout take 1st exit onto A1214 Valley Road, LAR. Continue along A1214 Valley Road for approx. 1.2 miles to roundabout. Take 1st exit onto B1077 Westerfield Road, SLR. Continue along B1077 Westerfield Road 16 miles to junction with B1078. Turn Right onto B1078, SLR, and travel approx. 2.7 miles to the junction with the B1077. Turn Right onto the B1079, SLR, following signs for Grundisburgh for 8 miles. Turn Right staying on B1079 at the junction of Mill Hill. Travel along B1079 for approx. 0.3 miles to junction with Woodbridge Road. Turn right onto Woodbridge Road, LAR, following on to The Street, Rose Hill and Ipswich Road through Grundisburgh. Follow the road through Culpho to a right turn at Grundisburgh Road leading through to the junction of Church Lane. CCS D is on the right hand side 100yds before the Church Road junction.	28
E - Primary	A12 to CCS E	Accessed from roundabout on A12, SAR, heading towards Woodbridge onto Ipswich Road, LAR, turning right at roundabout onto Top Street, LAR, down to access point on right hand side.	1.5
D - Secondary	CCS E to CCS D	From CCS E left onto Top Street, LAR, and left at roundabout onto Ipswich Road, LAR. Turn Right on A12, SAR, heading towards Woodbridge. At B1079 take first left – Grunisburgh & Hasketon, SLR. Follow Woodbridge Road B1079, SLR, and turn left through Grundisburgh following on to The Street, Rose Hill	8

		and Ipswich Road through Grundisburgh. Follow the road through Culpho to a right turn at Grundisburgh Road leading through to the junction of Church Lane. CCS D is on the right hand side 100yds before the Church Road junction.	
F - Secondary	CCS E to CCS F	From CCS E left onto Top Street, LAR, and left at roundabout onto Ipswich Road, LAR. Turn Left on A12, SAR. Take left at roundabout for Brightwell, Newbourne & Waldringfield onto Newbourne Road, LAR. Follow road around to the left onto Ipswich Road, LAR. Turn right onto Newbourne Road leading onto Woodbridge Road, LAR. Pass Glebe Farm and take track on left hand side to CCS Site.	7
G - Secondary	CCS E to CCS G	From CCS E left onto Top Street, LAR, and left at roundabout onto Ipswich Road, LAR. Turn Left on A12, SAR through to A14. Take A14 – Felixstowe, SAR, to junction 59. Turn left towards Kirton on Kirton Road, LAR, leading onto Trimley Road through Kirton turning right onto Park Lane down to CCS access point on left hand side.	12
H – Secondary & HDD	CCS E to CCS H	From CCS E left onto Top Street, LAR, and left at roundabout onto Ipswich Road, LAR. Turn Right on A12, SAR, heading towards Lowestoft. Turning right onto A1152, SLR. Follow onto B1053 for Bawdsey passing through Sutton, Shottisham and onto Alderton. Turning right at Alderton towards Ramsholt,LAR, then left onto track at Peyton Hall, WAT, down to access point Secondary CCS & HDD Site	16
I – Secondary & HDD	CCS E to CCS I	From CCS E left onto Top Street, LAR, and left at roundabout onto Ipswich Road, LAR. Turn Right on A12, SAR, heading towards Lowestoft. turning right onto A1152, SLR. Follow onto B1053 for Bawdsey passing through Sutton, Shottisham and onto Alderton. Through Alderton onto B1053 The Street, LAR and onto Ferry Road,LAR. Pass Bawdsey Hall on right hand side and CCS and HDD site entrance are on the left hand side	13

Abbreviations: SAR - Strategic Access Route

SLR - Suffolk Lorry Route

LAR – Local Access Route

ATR - Access Track Route

6.3 Horizontal Directional Drill Site Logistics

^{44.} As detailed in Section 2, the onshore cable route crosses a number of major transport networks and natural obstacles where the use of HDD technique is required. Access to the HDD sites will be via the existing external road networks using a series of dedicated access points, or where appropriate via a CCS and haul road. Table 6-2 below details the traffic routes to each of the HDD sites.

Table 6-2 HDD Designated Traffic Routes

East Anglia ONE HDD Locations									
HDD Ref	Category	Location /Feature	Easting	Northing	Designated Route Details				
HDD-01	Cat 1	Millers Wood off Bullen Lane	610460 610580	246588 246745	CCS A Bullen Lane(AX01) and site haul road				
HDD-02	Cat 2	Somersham Road and Overhead Line	611266 611334	247774 247827	CCS A Bullen Lane(AX01) and site haul road				
HDD-03	Cat 2	Pound Lane	611939 611961	248735 248790	CCS A Bullen Lane (AX01) and site haul road. Lorraine Way (AX02) and site haul road.				
HDD-04	Cat 1	River Gipping and Network Rail track west of A14	612244 612629	248949 248938	Lorraine Way (AX03) and Paper Mill Lane (AX04) and site haul road.				
HDD-05	Cat 1	A14 Trunk Road and Old Ipswich Road	613207 613375	248938 249050	CCS B (AX05) and Old Ipswich Road(AX06)				
HDD-06	Cat 2	River Fynn	618956 618987	249155 249152	CCS C (AX07) along site haul road and temporary bridge over River Fynn.				
HDD-07	Cat 2	Lodge Road	623418 623468	248213 248215	CCS D(AX08) and along site haul road. Lodge Road(AX09) and along site haul road.				
HDD-08	Cat 1	A12 Trunk Road	624851 624933	247920 247775	CCS E (AX11) along haul road utilising existing bridge crossing under A12.Seckford Hall Lane(AX 10) and along site haul road.				
HDD-09	Cat 2	Top Street	625455 625500	247848 247826	Access via CCS E (AX11) and site haul road.				
HDD-10	Cat 2	Sandy Lane	625916 626004	247758 247764	Access via CCS E (AX11) and site haul road.				
HDD-11	Cat 1	Martlesham Creek and Network Rail tracks south of Woodbridge	626282 626339	247699 247405	CCS E Top Street (AX11) turning onto Sandy Lane through to (AX12) along haul road. Waldringfield Road (AX13) along haul road.				
HDD-12	Cat 2	Waldringfield Road	626559 626629	246124 246110	Waldringfield Road(AX13) along haul road.				
HDD-13	Cat 2	Watercourse east Howe's Farm	626891 626915	245902 245858	Waldringfield Road(AX13) along haul road.				
HDD-14	Cat 1	Kirton Creek	628079 628110	241793 241246	CCS F(AX14) and along site haul road. Lodge Farm track (AX15).				
HDD-15	Cat 2	Sewage works outfall watercourse, south of Park Lane	628821 628858	239777 239743	CCS G(AX16) and along site haul road.				
HDD-16	Cat 1	River Deben	630582 631194	239560 239902	CCS G(AX16) and along site haul road.				
HDD-17	Cat 2	Queen's Fleet	633358 633421	239051 239021	CCS H (AX18) and along site haul road. CCS I(AX19) and along site haul road.				
HDD-18	Cat 1	Coastal Landfall, Bawdsey	634944 635022	239143 239079	. CCS H (AX18) and along site haul road. CCS I(AX19) and along site haul road. CCS G and along site haul road.				

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HDD-19	Cat 2	Bramford Road	612023 612116	248944 248970	Bramford Road (Lorraine Way) (AX02 and AX03).
HDD-20	Cat 2	Grundisburgh Road	619732 619775	248791 248730	CCS D(AX08) and along site haul road.

AX access point reference in Highway Improvements & Access Management Plan (EA1-CON-R-IBR-010149)

7.Crossings Points

45. The locations and method of crossing each highway, footpath, Public Right of Way or bridleway by the proposed cable route has been previously identified in the DCO in Schedule 2 and Schedule 3. For the purposes of this TMP, these crossing points have been categorised into Public Roads, Private Tracks and Public Rights of Way (footpaths / bridleways). Sections 7.1 to 7.3 below detail how each category of crossing will be managed from a traffic perspective.

7.1 Public Roads

- 46. A Public Road Crossing Schedule is presented in Table 7-1 below which identifies the proposed methodology for road alterations and traffic management at each location. At locations where the open trench method is being employed for the installation of the cable ducts then a short-term road closure and diversion will be in place for the duration of the installation of works. Road closures will apply to crossings where the safe two-way passage of traffic is not possible. Where continued access across the road is required then this will be maintained via appropriate traffic management controls and signage.
- ^{47.} All works located within public land will be subject to street works notifications, temporary traffic regulation orders and applicable traffic management systems to be reviewed and agreed with SCC Highway Authority.

Table 7-1 Public Road Crossing Schedule

	Public Road Crossing Schedule								
Ref No.	Crossing Location	Easting	Northing	Location Notes	Crossing Method	Haul Rd Crossing (Y/N)	Traffic Management Proposals		
PR-01	Tye Lane Bramford	610767	247054	60mph, 3.4metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.		
PR-02	Somersham Road B1067 ,Bramford	611291	247823	60mph, 5.7metre wide	HDD Cat 2	Yes	HDD no traffic management required for crossing. For haul road crossing: Double Width Gates on either side of carriageway. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.		
PR-03	Pound Lane (junction with B1113) near Little Blakenham	611768	248776	60mph 4.6metre - 5.3metre wide	HDD Cat 2	No	No traffic management required.		
PR-04	B1113 Loraine Way/Bramford Road(near Broomvale Farm) near Little Blakenham	612073	248932	50mph 9.4metre wide	HDD Cat 2	No	No traffic management required.		
PR-05	Paper Mill Lane South of Claydon CP3	612800	248938	60mph 6.2metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.		
PR-06	A14 Claydon	613288	248997	70mph	HDD Cat 1	No	No traffic management required.		

				1			1
							No traffic management required during crossing.
PR-07	Old Ipswich Road	613343	249033	60mph	HDD Cat 1	No	Installation of construction traffic crossing warning signs at access point.
							During installation of cable ducts road closure and diversion.
PR-08	Henley Road near Akenham CP4	616129	249053	60mph 5.8metre wide	Open Cut	Yes	For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
	Cockfield's Hall						During installation of cable ducts road closure and diversion.
PR-09	Lane, Westerfield CP5	617410	249092	60mph 3.0metre wide	Open Cut	Yes	For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
							During installation of cable ducts road closure and diversion.
PR-10	Witnesham Road, B1077, Westerfield CP6	617716	248813	60mph 5.6metre wide	Open Cut	Yes	For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-11	Clopton Lane, Tuddenham St Martin	619275	249287	60mph 4.9metre wide	Open Cut	No	During installation of cable ducts road closure and diversion.
							HDD no traffic management required for crossing.
PR-12	Grundisburgh Road, Tuddenham St Martin	619720	248770	50mph 5.0metre wide	HDD Cat 2	Yes	For haul road crossing: Double Width Gates on either side of carriageway. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs (extra advance warning required due to brow of hill and bend).
							During installation of cable ducts road closure and diversion.
PR-13	Butts Road, Playford	621310	248603	30mph 3.3metre wide	Open Cut	Yes	For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
							During installation of cable ducts road closure and diversion.
PR-14	Church Road, Playford	621773	248420	40mph 2.9metre wide	Open Cut	Yes	For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
							During installation of cable ducts road closure and diversion.
PR-15	Holly Lane near Great Bealings	622419	248534	60mph 2.9metre wide	Open Cut	Yes	For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-16	Lodge Road Little Bealings	623195	248243	30mph 4.0metre	HDD	Yes	No traffic management required during crossing.
				wide	Cat 2		For haul road crossing: Double gates on either side of crossing.

							Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-17	A12 Martlesham	624951	247849	70mph	HDD Cat 1	No	No traffic management required.
PR-18	Top Street Martlesham	625448	247817	60mph 6.5metre wide	HDD Cat 2	Yes	No traffic management required during crossing. For haul road crossing: Double gates on either side of crossing. Modifications to existing entrance on western side. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-19	Sandy Lane Martlesham	625976	247756	30mph 4.8metre wide	HDD Cat 2	No	No traffic management required during crossing. Installation of construction traffic crossing warning signs at access point. Extra signage to be placed along whole of route along Sandy Lane.
PR-20	Waldringfield Road (north crossing – adjacent to Thatched Cottage, South of Martlesham	626301	246329	60mph 3.1metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-21	Waldringfield Road (south crossing) South of Martlesham	626581	246126	60mph 3.1metre wide	HDD Cat 2	Yes	No traffic management required during crossing. For haul road crossing: Double gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs
PR-22	Woodbridge Road Waldringfield	627560	245176	60mph 3.0metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-23	lpswich Road (Heath Road) Waldringfield	627462	244841	60mph 4.5metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-24	The Street (Red House Road) Newbourne	627809	243226	60mph 2.9metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PR-25	Park Lane Kirton	628242	240408	60mph 2.9metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.

PR-26	Ferry Road B1083 Bawdsey	634614	239177	60mph 4.7metre wide	Open Cut	Yes	During installation of cable ducts road closure and diversion. For haul road crossing: Double width gates on either side of crossing. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
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Note: All traffic signs will be Chapter 8 Signing, lighting and guarding in line with Safety at Road Works and Street Works Code of Practice.

7.2 Private Tracks

- 48. A Private Track Schedule is presented in Table 7-2 below which identifies the proposed methodology for traffic management at each location. The methodology for crossing private tracks will be a localised temporary daily closure at appropriate times, allowing access for residents and emergency services. Where continued access across the track is required then this will be maintained via appropriate traffic management controls and signage.
- ^{49.} All works on private tracks will be in agreement with land owners.

Table 7-2 Private Tracks Crossing Schedule

	Private Track Crossing Schedule								
Ref No.	Crossing Location	Easting	Northing	Crossing Method	Haul Rd Crossing (Y/N)	Traffic Management Proposals			
PT-01	Track between new sub- station site and Bullen hall Farm	609682	246278	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-02	Track to Bullen Hall Farm off Bullen Lane	610253	246206	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-03	Track to Bullen Hall Farm off Bullen Lane	610239	246401	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-04	Track between Tye Lane and Somersham Road	610880	247443	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-05	Track adjacent to Somersham Road	611271	247781	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-06	Track between Dairy Farm and Lower Dairy Farm - North of Somersham Road	611343	247949	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-07	Thurleston Lane, track to Bower Farm	615152	248929	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-08	Track leading south from Lodge Road to Meadow Cottage	623853	248241	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-09	Track west of Seckford Hall Golf Course, leading south to Cherry Tree Farm	624569	248354	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			
PT-10	Track north of, and roughly parallel to, Waldringfield Road, and south of Hall Farm	626295	246536	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.			

PT-11	Track from Waldringfield Road, to the east of Howe's Farm Cottages	626758	245999	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-12	Track from Waldringfield Road, leading to Rudd's Barn	627140	245610	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-13	Track from Newbourne Road leading to New Oak Tree Farm	627408	244468	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-14	Track between Ranglins Wood and Ivy Cottages/Hemley House	628018	242359	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-15	Track north of Park Lane, south of White Cottages, leading to Lodge Farm	628093	240827	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-16	Track perpendicular to Falkenham Road, leading to Corporation Farm	628590	240036	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-17	Track between Falkenham Wood and sewage works to the west of Falkenham Wood	628851	239776	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-18	Track leading south from Falkenham Wood to Falkenham at The Old Vicarage	629272	239423	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-19	Track parallel to Sheepgate Lane, north of Goseford Hall and south of Falkenham Wood	629732	239454	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.
PT-20	Track leading south to Ferry Road	634370	239139	Open Cut	Yes	Temporary daily closure at appropriate times. Construction traffic to give way to public traffic. Installation of construction traffic crossing warning signs.

Note: All traffic signs will be Chapter 8 Signing, lighting and guarding in line with Safety at Road Works and Street Works Code of Practice

7.3 Public Rights of Way

- ^{50.} A schedule of the Public Rights of Ways (PRoW) (footpaths and bridleways) is presented in Table 7-3, based on the information provided in Schedule 3 of the DCO.
- ^{51.} During installation of the haul road and the cable ducts the identified PRoW shall be temporarily stopped up for the minimal time practical, likely duration of the closure is approximately 1-2 weeks for each works element or up to 4 weeks if works completed concurrently. During the closure a diversionary route installed in accordance with the route specified on the PRoW certified plans provided in Appendix 3 and the diversion routes provided shall be subsequently maintained until the re-opening of the relevant PRoW. On completion of the haul road and cable duct installation, the PRoW will be re-opened and where continued access across the haul road is required then this will be maintained via appropriate traffic management controls and signage.
- 52. The exceptions to this are the PRoW identified in Schedule 3 Part 2 of the DCO at Bramford where no diversion is to be employed during the installation works and due to the nature of the works (installation of the connections to National Grid Bramford Substation) may take up to 4 weeks. Also at locations where the PRoW intersects with ecological mitigation works i.e. Great Crested Newt fencing, then specific arrangements will be discussed and agreed with the SCC PRoW Officer to ensure the required protection of the ecological species, while minimising disruption to the PRoW network.

- ^{53.} Where diverted PRoW is routed alongside construction traffic using the haul road additional traffic management measures are to be installed to maximise pedestrian and others' safety. Chapter 8 Signing, lighting and guarding in line with Safety at Road Works and Street Works Code of Practice will be installed along all diversionary routes.
- 54. All diversions will be advertised in advance, following the SCC standards for advertising temporary closures of PRoW. This will include:
 - Provision of a map showing the extent of the closure and an alternative route, if there is one.
 - Confirmation that the alternative route is safe and fit for public use.
 - County, District and Parish Councils will be notified in advance (4 6 weeks) of temporary closure.
 - A legal notice describing the closure will be published in the press two weeks in advance of closure.
 - Site notices (i.e. notices to members of the public warning of diversions ahead) will be posted in advance, at
 appropriate places to minimise likelihood of unintentional trespass at obstruction to the crossing and unnecessary
 aborted journeys.
 - These site notices will be erected in sensible locations on the route 1 2 weeks in advance of closure.
 - The above notices will describe the duration of closure and the alternative (diversion) proposed.
 - Any extensions to closure of a PRoW will be discussed with SCC.

Table 7-3 Public Rights of Way Crossing Schedule

	Public Right of Way Proposals									
Ref	PRoW Location	Fr	om	1	Го	Works Proposals				
Number	(see Appendix 3)	Easting	Northing	Easting	Northing	works Proposais				
PRW-01	Bramford 44a to 44b Sheet 13 PRoW Plan	610274	246162	609352	245762	Temporary closure no diversion. Appropriate traffic signage and controls.				
PRW-02	Bramford 43a to 43b Sheet 13 PRoW Plan	610402	246524	610582	246210	Temporary closure no diversion. Appropriate traffic signage and controls.				
PRW-03	Bramford 42a to 42b Sheet 12 PRoW Plan	610839	247434	610933	247453	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.				
PRW-04	Bramford 41a to 40b Sheet 12 PRoW Plan	611277	247829	611266	247701	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.				
PRW-05	Claydon 39a to 39b Sheet 11 PRoW Plan	613669	249167	613636	249093	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.				
PRW-06	Akenham 38a to 38b Sheet 11 PRoW Plan	614505	249086	614538	249013	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.				
PRW-07	Akenham 37a to 37b Sheet 11 PRoW Plan	615157	249020	615155	248944	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.				
PRW-08	Akenham 36a to 36b Sheet 10 PRoW Plan	615361	249019	615231	248944	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.				
PRW-09	Westerfield 35a to 35b Sheet 10 PRoW Plan	617020	249344	617052	249274	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.				
PRW-10	Westerfield 34a to 34b Sheet 10 PRoW Plan	617304	249200	617226	249197	Temporary closure with diversionary routes installed. Appropriate traffic signage and				

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						controls.
PRW-11	Westerfield 33a to 33b Sheet 10 PRoW Plan	617722	248876	617640	248879	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-12	Witnesham 32a to 32b Sheet 9 PRoW Plan	618816	249221	618872	249145	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-13	Culpho 31a to 31b Sheet 9 PRoW Plan	620955	248615	621003	248541	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-14	Playford 30a to 30b Sheet 8 PRoW Plan	622050	248387	621988	248327	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-15	Little Bealings 29a to 29b Sheet 8 PRoW Plan	622342	248516	622376	248449	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-16	Little Bealings 28a to 28b Sheet 8 PRoW Plan	622861	248401	622906	248263	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-17	Little Bealings 27a to 27b Sheet 8 PRoW Plan	622872	248398	623035	248225	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-18	Great Bealings 26a to 26b Sheet 7 PRoW Plan	623858	248290	623855	248216	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-19	Great Bealings 25a to 25b Sheet 7 PRoW Plan	624569	248405	624579	248330	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-20	Great Bealings 24a to 24b Sheet 7 PRoW Plan	624856	247959	624759	248071	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-21	Martlesham 21c to 21b Sheet 7 PRoW Plan	625102	247740	625148	247632	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-22	Great Bealings 21a to 21c Sheet 7 PRoW Plan	625062	247841	625149	247632	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-23	Martlesham 20c to 20b Sheet 7 PRoW Plan	625331	247747	625149	247785	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-24	Great Bealings 20a to 20c Sheet 7 PRoW Plan	625041	247856	625149	247785	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-25	Martlesham 19a to 19b Sheet 7 PRoW Plan	625352	247890	625332	247816	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-26	Martlesham 16a to 16c Sheet 7 PRoW Plan	626516	246823	626408	246806	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-27	Martlesham 15a to 15b Sheet 6 PRoW Plan	626468	246591	626480	246678	Temporary closure with diversionary routes installed. Appropriate traffic signage and

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						controls.
PRW-28	Martlesham 14a to 14b Sheet 6 PRoW Plan	626348	246537	626265	246537	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-29	Waldringfield 13a to 13b Sheet 5 PRoW Plan	627448	244473	627354	244468	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-30	Newbourne 11a to 11c Sheet 5 PRoW Plan	627750	243624	627685	243684	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-31	Newbourne 10a to 10b Sheet 5 PRoW Plan	627753	243616	627727	243541	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-32	Kirton 9a to 9b Sheet 4 PRoW Plan	628082	242365	628008	242353	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-33	Kirton 8a to 8b Sheet 4 PRoW Plan	628127	241042	628053	241048	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-34	Kirton 7a to 7b Sheet 3 PRoW Plan	628439	240170	628353	240145	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-35	Kirton 6a to 6b Sheet 3 PRoW Plan	628588	240039	628589	239941	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-36	Falkenham 5a to 5b Sheet 3 PRoW Plan	629256	239503	629271	239411	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.
PRW-37	Falkenham 4a to 4b Sheet 3 PRoW Plan	629762	239491	629446	239390	Temporary closure with diversionary routes installed. Appropriate traffic signage and controls.

8.Construction Route Appraisal

- ^{55.} It has been confirmed that the existing SCC Lorry Route Network adequately provides for the construction activities required, in accordance with the restrictions and requirements outlined in Section 3 and Section 6 of this TMP. An appraisal of the existing Local Road Network¹ necessary to accommodate construction related traffic has been undertaken to identify where road improvements will be required to facilitate the works.
- ^{56.} The route appraisals have taken into consideration such features pertinent to the geometry and safety of the proposed route for the size of vehicle proposed. These included:
 - Road width
 - Traffic volume and capacity
 - Visibility along route
 - Extent of hedgerows and trees along verges
 - Level of route in relation to adjacent land
 - Verges and extent of Public Highway
 - Third party land requirement
 - Pedestrian and non-motorised traffic flow
 - Swept path tracking analysis

8.1 Highways Improvements

^{57.} The traffic appraisal¹ identified temporary highways improvement measures to the existing highway networks to accommodate construction traffic associated with the onshore construction works. Full details of these improvements are detailed within the Highway Improvements and Access Management Plans, one for the cable route (EA1-CON-R-IBR-009582) and one for the substation (EA1-CON-R-IBR-021840), provided under separate cover, however a summary of access improvements are provided in Table 8-1 and summary of the highways improvements are provided in Table 8-2.

Ref	Location	Access Improvement	Traffic Management During Improvement	Traffic Management During Construction Phase
AX-01	Bullen Lane	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-02	Loraine Way	Use existing Gateway and Bell Mouth	No Traffic Management Required	Installation of Advanced Warning Signs
AX-03	Lorraine Way	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-04	Paper Mill Lane	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-05	Paper Mill Lane	Installation of New Fillter Lane	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-06	Old Ipswich Road	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-07	Witnesham Road	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-08	Bealings Road, Great Bealings	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-09	Lodge Road, Great Bealings	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-10	Seckford Hall Lane	Extend existing Bell Mouth Entrance	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-11	Top Street	Installation of Mini Roundabout	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-12	Sandy Lane	Hedge Clearance	Lane Closure Two Traffic	Installation of Advanced Warning

Table 8-1 Summary of Access Improvements

			Signals	Signs
AX-13	Waldringfield Road adjacent to Thatched Farm	Extend existing Bell Mouth Entrance	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-14	Woodbridge Road, Newbourne	Installation of New Bell Mouth	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-15	Lodge Farm Track	Extend existing Bell Mouth Entrance	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-16	Park Lane, Kirton	Extend existing Bell Mouth Entrance	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-17	Sheep Gate Lane, Falkenham	No Improvements Required	No Traffic Management Required	No Traffic Management Required
AX-18	Peyton Hall Track	Extend existing Bell Mouth Entrance	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs
AX-19	Ferry Road	Extend existing Bell Mouth Entrance	Lane Closure Two Traffic Signals	Installation of Advanced Warning Signs

Table 8-2 Summary of Highways Improvements

Ref	Highway Improvement	Traffic Management During Improvement
HX-01	Widening of Loraine Way Road Surface alone western verge to create a filter lane to permit traffic turning into Bullen Lane.	Road closure / Diversion for part of the works; Lane Closure and Three Way Traffic Signals
HX-02	Construction of New Passing Places and advanced warning signs along Ipswich Road / Grundisburgh Road	Road Closure / Diversion
HX-03	Construction of New Passing Places and advanced warning signs along Ipswich Road / Grundisburgh Road	Road Closure / Diversion
HX-04	Construction of New Passing Places and advanced warning signs along Ipswich Road / Grundisburgh Road	Road Closure / Diversion
HX-05	Construction New Passing Places and advanced warning signs along Seckford Hall Road, Martlesham / Seckford Hall Road, Great Bealings	Road Closure / Diversion
HX-06	Construction of Advanced Warning Signs along Sandy Lane, Martlesham / Sandy Lane, Woodbridge	Lane Closure and Two Way Traffic Signals
HX-07	Construction New Passing Places and advanced warning signs along School Lane, Martlesham.	Road Closure / Diversion
HX-08	Construction of New Passing Places and advanced warning signs along Newbourne Road	Road Closure / Diversion
HX-09	Construction of New Passing Places and advanced warning signs along Park Lane	Road Closure / Diversion
HX-10	Construction of New Passing Places and advanced warning signs along Ramsholt Road, Alderton / Hall Road, Ramsholt	Road Closure / Diversion
HX-11	Construction of New Passing Places and advanced warning signs along Ferry Road, Bawdsey / The Street, Alderton	Lane Closure and Two Way Traffic Signals

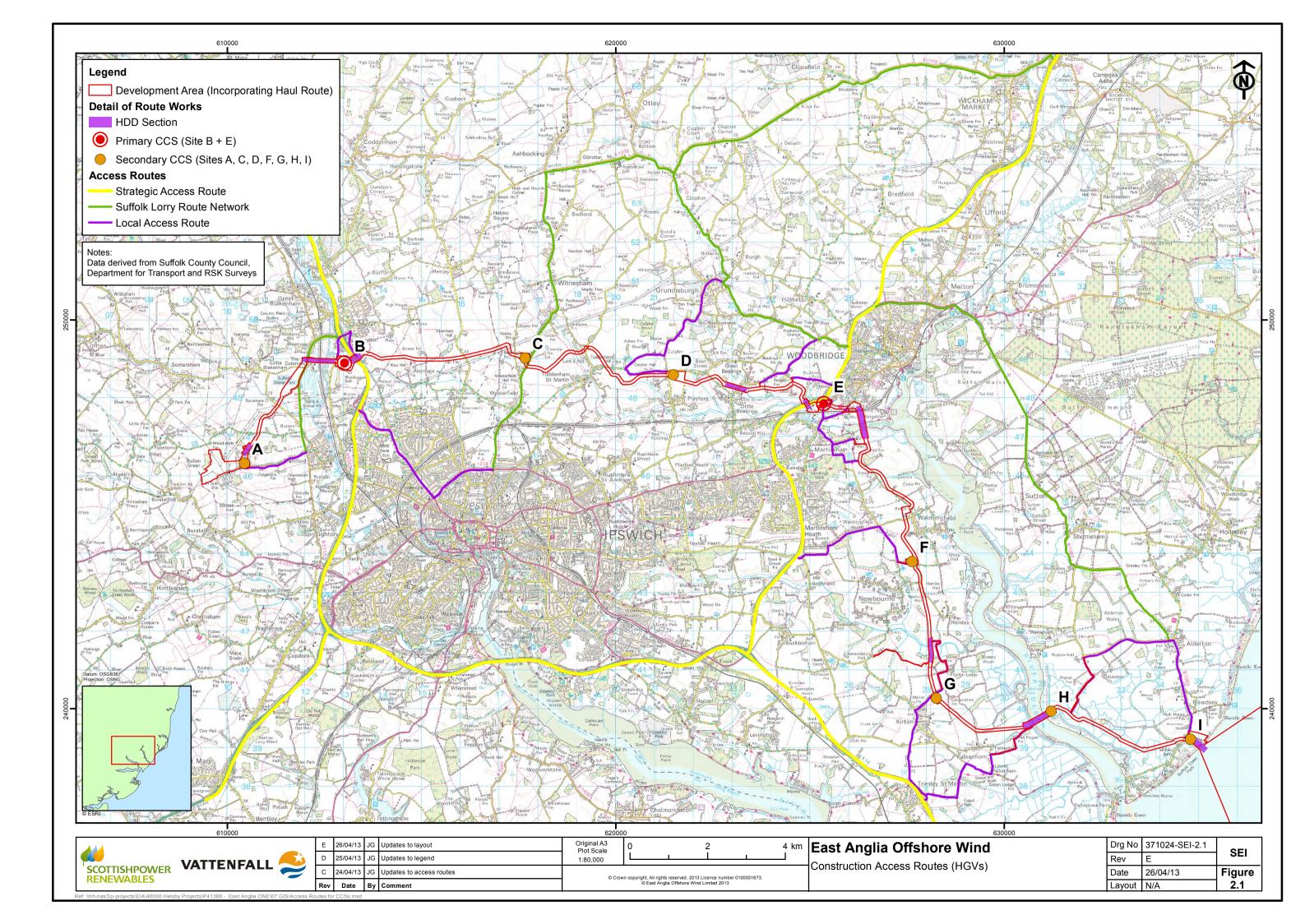
8.2 Traffic Appraisal

^{58.} This TMP takes into account the safety implications along all 'C' and 'U' class roads where the width of the existing road is insufficient to accommodate the safe passage of two vehicles. In particular these implications apply to:

- The C323 and C329 for CCS 'D'
- For CCS 'F'
- The junction between the U and C class roads in Kirton to access CCS 'G'
- The HDD access to the west side of the River Deben near Falkenham (HDD16)
- ^{59.} The Advance Warning signs to be installed shall include, but shall not be limited to:
 - Information Signs, (including contacts)
 - Works Access, directional and location
 - Construction traffic directional routing
 - Road Works Ahead
 - SLOW Workforce/obstructions in road ahead
 - New Layout Ahead
 - Changed Priorities
 - Pedestrian directions, crossings and directional
 - Temporary speed limits/restrictions 30mph at all access points, crossing points and where straight line view is impaired by natural objects that cannot be removed due to environmental impact or engineering constraint
 - Warning signs for any restrictions and/or obstructions that may be effected as a consequence of the works.
- ^{60.} These signs will be accordance with Chapter 8 Traffic Safety Measures and Signs for Road Works, Temporary Situations and Design Manual for Roads & Bridges (DMRB) for Motorways and Trunk Roads and in agreement with SCC Highway Authority.
- 61. The advance information signs identified will include, but will not be limited to:
 - EA ONE CCS Site (ref number inclusive of contact details)
 - EA ONE HDD Site (ref number inclusive of contact details)
 - EA ONE Access Point (ref number)
 - EA ONE Access route (directional Arrows)
 - EA ONE Crossing Point (ref number) with contact details
 - No access to Construction Traffic
 - No access to Unauthorised Persons Construction Site
 - No HGV Beyond This Point
 - Information boards works to commence, proposed duration, contact details, diversionary routes etc.
- ^{62.} All local access routes that are to be used for the passage of works vehicles will be inspected in collaboration with the SCC Highways Authority.

Appendix 1 Construction Access Routes

(Supplementary Environmental Information Figure 2.1 Construction Access Routes)



Appendix 2 Maximum Construction Vehicle Movements

EA ONE Maximum Construction Vehicle Movements

Location	Maximum Daily All Construction Movements	Maximum Daily HGV Movements	Maximum Peak Hour All Construction Movements (AM/PM)	Maximim Peak Hour HGV Movements (AM /PM)
A14 - junctions 51 to 52	254	113	35 / 47	11
B1113, Bramford	484	126	62 / 92	3
Paper Mill Lane, Bramford	442	388	32 / 37	23
A14 - south of Claydon	857	344	114 / 157	29
A1156, Castle Hill	353	58	49 / 74	0
A14 - south of junction 52	567	286	75 / 99	29
A12 - south west of A14	624	342	81 / 105	34
A14 - east of River Orwell	675	339	90 / 118	34
A14 - east of A12	348	192	44 / 58	15
Trimley Road, Kirto	151	136	5/7	0
Ipswich Road, Waldringfield	71	58	4/7	0
A12 - between A1214 and A14	1025	603	116 / 153	41
A1214, Kesgrave	538	0	90 / 135	0
B1438, Woodbridge	141	0	24 / 35	0
Top Street, Woodbridge	1,635	734	195 / 274	35
B1083, Sutton	150	134	5/8	0
A12 - Woodbridge Bypass	340	311	22 / 27	12
A12 - south of Wickham Market	190	177	16 / 18	12
B1078 - west of Wickham Market	71	58	4 / 7	0
Ipswich Road, Grundisburg	71	58	4/7	0
B1077 - north of Westerfield	216	58	26 / 26	0

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Appendix 3 Certified Public Rights of Way Plans

