The Sizewell C Project

6.3 Volume 2 Main Development Site

Chapter 10 Transport

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Contents

Tables

Plates

None Provided.

Figures

Appendices

10. Transport

10.1 Introduction

10.1.1 This chapter of **Volume 2** of the Environmental Statement (ES) presents an assessment of the transport effects arising from the construction and operation of the main development site and the construction, operation and removal and reinstatement of the associated development sites (referred to throughout this volume as the Sizewell C Project). This includes an assessment of potential effects, the significance of effects, the requirements for mitigation, and the residual effects.

10.1.2 The assessment considers the potential effects of severance, pedestrian delay, amenity, fear and intimidation, driver delay, accidents and safety and hazardous loads.

10.1.3 A description of the existing site and details of the proposals for the main development site are provided in **Chapters 1-4** of this volume of the ES. Descriptions of the sites and details of the proposals for the associated development sites are provided in **Chapters 1-2** of **Volumes 3-9**. A description of the anticipated activities for the decommissioning phase, including a summary of the types of environmental effects likely to occur is provided in **Chapter 5** of this volume. A glossary of terms and list of abbreviations used in this chapter is provided in **Volume 1, Appendix 1A** of the ES.

10.1.4 This assessment has been informed by data presented in the **Transport Assessment** (Doc Ref. 8.5) and the Transport Chapter Methodology provided in **Volume 1, Appendix 6F**.

10.1.5 A standalone ES was prepared for the Sizewell B relocated facilities works for submission with the hybrid planning application under the Town and Country Planning Act 1990 (East Suffolk Council application ref. DC/19/1637/FUL). Chapter 10 of the Sizewell B relocated facilities ES (refer to **Volume 1, Appendix 2A**) included an assessment of likely significant effects associated with transport and identified mitigation specific to Sizewell B relocated facilities works. However, as the Sizewell B relocated facilities works form part of the Sizewell C Project and consent is sought for these works through the Development Consent Order (DCO), an updated assessment of the likely significant effects of these works is also set out in this chapter, together with an explanation of the implications of relevant project design changes made since the preparation of the Sizewell B relocated facilities ES.

10.2 Legislation, policy and guidance

10.2.1 **Volume 1, Appendix 6F** identifies and describes legislation, policy and guidance of relevance to the environmental transport assessment. This section lists any specific legislation, policy and guidance specific to the potential transport effects associated with the Sizewell C Project, as described within **Volume 1, Appendix 6F**.

a) International

10.2.2 There is no international legislation or policy deemed relevant to the environmental assessment of transport.

b) National

10.2.3 There is no national legislation deemed relevant to the environmental assessment of transport. Relevant national policy and guidance is listed below, with further information on the requirements and how these requirements have been considered within this assessment provided in **Volume 1, Appendix 6F**.

i. Policy

10.2.4 The National Policy Statements (NPSs) that are relevant to the Sizewell C Project are the Overarching National Policy Statement for Energy (NPS EN-1) (Ref. 10.1) and the National Policy Statement for Nuclear Power Generation (NPS EN-6) (Ref. 10.2).

10.2.5 A summary of the transport related aspects of NPS EN-1 (Ref 10.1) and NPS EN-6 (Ref 10.2) together with consideration of how these have been taken into account is provided in **Volume 1, Appendix 6F**.

10.2.6 Other relevant policy relating to the environmental assessment of transport includes the National Planning Policy Framework (NPPF) (Ref 10.3) and the Government's 25 Year Environment Plan (Ref 10.4), as summarised in **Volume 1, Appendix 6F**.

ii. Guidance

10.2.7 National guidance of relevance to the environmental assessment of transport includes the Ministry of Housing, Communities and Local Government's 'Guidance on transport evidence bases in plan making and decision taking' (Ref 10.5) published in March 2015. A summary of the relevant principles set out therein is provided in **Volume 1, Appendix 6F**.

c) Regional

10.2.8 The assessment of effects on traffic and transport is not affected by regional policies.

d) Local

i. Policy

10.2.9 The local policy of relevance to the environmental assessment of transport include:

- Suffolk Coastal District Council Local Plan Core Strategy and Development Management Policies (Ref 10.6);
- Waveney Local Plan (Ref 10.7); and
- Suffolk Coastal Final Draft Local Plan (Ref 10.8).

10.2.10 The requirements of these as relevant to this chapter are described in **Volume 1, Appendix 6F**.

ii. Other relevant documents

10.2.11 Other relevant documents that have informed the environmental assessment of transport include:

- Suffolk Guidance for Parking (2015) (Ref 10.9);
- Suffolk Local Transport Plan (2011) (Ref 10.10);
- New Anglia Strategic Economic Plan (2014) (Ref 10.11);
- Integrated Transport Strategy for Norfolk and Suffolk (2018) (Ref 10.12);
- Suffolk Roadsafe Strategy 2012-2022 (Ref 10.13);
- Suffolk Walking Strategy (2015) (Ref 10.14);
- Suffolk Cycling Strategy (2014) (Ref 10.15); and
- Waveney Cycle Strategy (2016) (Ref 10.16).

10.2.12 Relevant considerations from these documents are summarised in **Volume 1, Appendix 6F**.

e) Other guidance

10.2.13 The assessment of transport effects presented in this ES has been undertaken in accordance with the following guidance documents:

- The Guidelines for the Environmental Assessment of Road Traffic published by the Institute of Environmental Assessment in 1993 (now Institute of Environmental Management and Assessment (IEMA)) (Ref. 10.17).
- Design Manual for Road and Bridges (DMRB) (DfT 2008) (Ref 10.18).

10.3 Methodology

a) Scope of the assessment

10.3.1 The generic EIA methodology is detailed in **Volume 1**, **Chapter 6**. The full method of the environmental assessment for transport that has been applied is included at **Volume 1, Appendix 6F**.

10.3.2 This section outlines the transport methodology applied to the assessment of the proposed development and a summary of the general approach to provide appropriate context for the assessment that follows.

10.3.3 The assessment focuses on the potential transport impacts of:

- severance;
- pedestrian delay;
- amenity;
- fear and intimidation;
- driver delay;
- accidents and safety; and
- hazardous loads.

10.3.4 The scope of this assessment has been established through a formal EIA scoping process undertaken with the Planning Inspectorate. A request for an EIA scoping opinion was initially issued to the Planning Inspectorate in 2014, with an updated request issued in 2019.

10.3.5 Comments raised in the EIA scoping opinion received in 2014 and 2019 have been taken into account in the development of the assessment methodology. These are detailed in **Volume 1, Appendix 6A** and **6C**.

10.3.6 In summary, the underlying objectives of the assessment are to:

- identify the potential transport impacts of the Sizewell C Project, taking into account the characteristics of the proposed development and the sensitivities of the local environment;
- identify and describe measures which would be taken to mitigate any identified adverse impacts; and
- predict and evaluate the extent and significance of residual effects taking into account all mitigation proposed.

b) Study area

10.3.7 The study area for the assessment has been defined based on the area where there is likely to be a transport impact resulting from the Sizewell C Project. This includes routes along which heavy goods vehicles (HGVs), light goods vehicles (LGVs), buses, and construction worker cars will travel.

10.3.8 The study area covers parts of the east of Norfolk and Lowestoft to the north, Ipswich to the south and the A140 to the west. The geographic extent of the traffic model has been agreed with Suffolk County Council (SCC). The extent of the study area is further described in **Volume 1, Appendix 6F.**

10.3.9 Due to the size of the study area, the area has been summarised by reference to sub areas (Sub Area A - North, Sub Area B – East, Sub Area C – South and Sub Area D – West, as shown in **Figure 10.1**).

10.3.10 For the purposes of this chapter a 'link' is referred to as a stretch of road that has been modelled as part of the assessment. Each road link within the study area has been assigned a link reference number. **Figures 10.2 – 10.5** illustrate the link references for each of the Sub-Areas within the study area (i.e. Sub-Areas A to D).

c) Screening process

10.3.11 Within the IEMA guidance (Ref. 10.17), two broad rules are suggested that can be used as a screening process to define the scale and extent of the assessment:

- Rule 1: include highway links where traffic flows would increase by more than 30% (or the number of HGVs would increase by more than 30%).
- Rule 2: include any other specifically sensitive areas where traffic flows would increase by 10% or more.

10.3.12 It should be noted that, where required, the assessment has been based on the percentage change in heavy duty vehicles (HDV), which include HGVs and buses, and not just percentage change in HGVs.

10.3.13 Criteria for defining the sensitivity of areas are defined later in this section.

10.3.14 The IEMA guidance (Ref 10.17) is based on knowledge and experience of the environmental effects of traffic. The threshold of 30% has been set based on experience that imperceptible changes in the environmental effects of traffic are generally experienced when there is less than a 30% increase in traffic. Additionally, projected changes in total traffic flow of less than 10% create no discernible environmental effect, hence the second threshold as set out in Rule 2.

10.3.15 In addition to these two rules, the assessment has considered an additional rule in the screening process ('Rule 3'):

- Rule 3: include highways links which SCC has determined to be of particular sensitivity.

d) Consultation

10.3.16 The scope of the assessment has also been informed by ongoing consultation and engagement with statutory consultees, including SCC, Suffolk Coastal District Council (SCDC) (now East Suffolk Council) and Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB), throughout the design and assessment process. A summary of the general comments raised and SZC Co.'s responses are detailed in **Volume 1, Appendix 6F**.

e) Assessment scenarios

i. Assessment years

10.3.17 This chapter assesses the transport effects associated with the following phases of the Sizewell C Project (detailed descriptions are contained within **Volume 1, Appendix 6F**):

- early years – 2023, including:
  - 2023 reference case (i.e. the 2023 future year traffic flows without the Sizewell C traffic).
  - 2023 early years (with Sizewell C traffic).
- peak construction – 2028, including:
  - 2028 reference case (i.e. the 2028 future year traffic flows without Sizewell C traffic).

  - 2028 peak construction busiest day (with Sizewell C traffic).

- operation – 2034, including:
  - 2034 reference case (i.e the 2034 future year traffic flows without Sizewell C traffic).
  - 2034 operational (with Sizewell C traffic).

10.3.18 It should be noted that all future year scenarios have been modelled including traffic flows generated by an outage at Sizewell B, which is performed periodically (approximately every 18 months and lasting up to two months), so that robust traffic flows are reflected in each scenario. A 'planned' outage is a period of scheduled refuelling and maintenance during which time the station is not operational, but generates traffic associated with the outage. This is highly robust, given that a planned outage only occurs for 10% of the time.

10.3.19 A scenario of an outage at Sizewell B and C occurring concurrently during the operational phase has not been assessed as the outages would be planned to not coincide. Whilst there is a possibility for unplanned outages at Sizewell B or C to coincide with a planned outage, this is highly unlikely to occur and, therefore, is not considered to be a typical or reasonable scenario to assess.

10.3.20 The removal and reinstatement phase of associated development sites (where relevant) has been assessed qualitatively without a separate modelling scenario.

ii. Representative hour

10.3.21 A representative hour has been calculated to represent the hour of greatest change, in accordance with IEMA guidance (Ref 10.17). To calculate the representative hour, the average traffic flows across all links in the network have been reviewed for each hour of each phase of development. The percentage change in each hour has then been calculated and the hour with the highest percentage change identified.

10.3.22 The representative hour for each phase of development is presented below:

- Early years: 07:00 08:00;
- Peak construction:
  - Across 'daytime hours' (07:00-23:00): 22:00-23:00;
  - Between 07:00-18:00: 07:00-08:00;
- Operational: 16:00-17:00

10.3.23 For peak construction the representative hour was initially identified as 22:00-23:00 when 'daytime hours' of 07:00-23:00 were considered. Given the assessments are to primarily assess impact on vulnerable road users, it is important that the representative hour is a reflection of when vulnerable road users are likely to be on the network. As such, the representative hour for peak construction has been taken to be 07:00-08:00.

f) Assessment criteria

10.3.24 As described in **Volume 1, Chapter 6**, the EIA methodology considers whether impacts of the Sizewell C Project would have an effect on any resources or receptors. Assessments broadly consider the magnitude of impacts and value/sensitivity of resources/receptors that could be affected in order to classify effects.

10.3.25 A summary of the assessment criteria used in the environmental transport assessment is presented in the following sub-sections.

i. Sensitivity

10.3.26 Receptors of potential effects associated with the proposed development can be people, wildlife or elements of the natural and built environment. In the context of this chapter, receptors are considered to be users of the local highway network to whom the transport effects of the proposed development from its construction and operation would be perceptible.

10.3.27 These include:

- non-motorised users using the local highway network (including pedestrians, cyclists and equestrians); and
- drivers / passengers of motorised vehicles using the local highway network and public transport.

10.3.28 The criteria used for determining the sensitivity of receptors are set out in **Table 10.1.** The criteria within **Table 10.1** have been derived based on the guidance set out in the IEMA guidance (Ref. 10.17).

Table 10.1: Assessment of the value or sensitivity of receptors for transport

Sensitivity	Description
High	Receptors of greatest sensitivity to traffic flow: schools, colleges, playgrounds, accident clusters, retirement homes, urban/residential roads without footways that are used by pedestrians.
Medium	Receptors with medium sensitivity to traffic flow: doctors' surgeries, hospitals, shopping areas with roadside frontage, recreation facilities, cycle routes and roads used by pedestrians with narrow footways.
Low	Receptors with some sensitivity to traffic flow: places of worship, public open space, tourist attractions and roads with adequate footway provision.
Very low	Receptors with very low sensitivity to traffic flows and those sufficiently distant from affected roads and junctions.

ii. Magnitude of impact

10.3.29 The magnitude of an impact is typically defined by four factors:

- extent (area over which an effect occurs);
- duration (time over which the effect occurs);
- frequency (how often the effect occurs); and
- severity (degree of change relative to existing environmental conditions).

10.3.30 A detailed description of the relevant factors in predicting the magnitude of change for each of the impacts is considered in **Volume 1, Appendix 6F.**

iii. Summary of magnitude of impacts

10.3.31 For those links that are not screened out of the assessment using Rules 1, 2 and 3, the criteria set out in **Table 10.2** have been used to determine the magnitude of impacts. However, the absolute level of an impact is also important (e.g. the total flow of traffic or HDVs on a link) and comment is made on this in the analysis. In addition, it is important to note that some impacts are not permanent but are temporary and this affects the magnitude attached to them.

10.3.32 As set out in the IEMA guidance (Ref 10.17), professional judgement should be applied in addition to the use of the suggested criteria for the assessment of magnitude summarised in **Table 10.2**.

Table 10.2: Assessment of magnitude of impact for transport

Impact	Magnitude of Impact			
	Very low	**Low**	**Medium**	**High**
Severance	Change in total traffic of less than 30%	Change in total traffic of 30–60%.	Change in total traffic of 60–90%.	Change in total traffic over 90%.
Driver delay	A judgement based on journey time analysis detailed in the **Transport Assessment** (Doc.Ref 8.5).			
Pedestrian delay	Two-way traffic flow < 1,400 vehicles per hour	A judgement based on the increase or decrease in pedestrian delay (applying TRL 'pedestrian delay and traffic management' SR356 (Ref 10.19)) for road links with two-way traffic flow exceeding 1,400 vehicles per hour and in the context of the individual characteristics.		
Pedestrian, cyclist and equestrian amenity	Change in total traffic or HDV flows less than doubling or halving	A judgement based on road links with more than doubling or halfing of total traffic or HDV flows in the context of the individual characteristics.		
Fear and intimidation	18hr average of <600 veh/hr and <10 mph, <1,000 HDVs in 18 hr	18hr average of 600–1,200 veh/hr and 10–15 mph, 1,000–2,000 HDVs in 18 hr	18hr average of 1,200–1,800 veh/hr and 15–20 mph, 2,000–3,000 HDVs in 18 hr	18hr average of 1,800+ veh/hr and 20+ mph, 3,000+ HDVs in 18 hr
Accidents and safety	A judgement based on analysis detailed in the **Transport Assessment** (Doc. Ref 8.5).			
Hazardous loads	Based on the probability of a personal injury collision, categorised as fatal or serious, involving a hazardous load occurring.			

iv. Effect definitions

10.3.33 An effect is a measurable physical change in the principal environment arising from enabling, construction and operation activities.

10.3.34 As set out in Schedule 4 of the EIA Regulations, it is the effects – not the impacts – of a development which are to be reported in the ES. The effect of the Sizewell C Project on transport is determined with due regard to the sensitivity of the receptor and magnitude of impact.

10.3.35 The conceptual 'source-pathway-receptor' model approach has been used to identify potential effects, and the means by which these can manifest themselves on the environment and its sensitive receptors.

10.3.36 The definitions of effects for transport are shown in **Table 10.3.**

Table 10.3: Classification of effects

		Value / sensitivity of receptor			
		Very low	**Low**	**Medium**	**High**
Magnitude	**Very low**	Negligible	Negligible	Minor	Minor
	Low	Negligible	Minor	Minor	Moderate
	Medium	Minor	Minor	Moderate	Major
	High	Minor	Moderate	Major	Major

10.3.37 Following the classification of an effect as presented in **Table 10.3**, a clear statement is made as to whether the effect is **'significant'** or **'not significant'.** As a general rule, major and moderate effects are considered to be **significant** and minor and negligible effects are considered to be **not significant.** However, professional judgement is also applied, where appropriate. For example, if the assessment predicts a significant impact on pedestrian delay for a road that is not used by pedestrians (e.g. dual carriageway part of A12) then professional judgement would be applied to conclude that the impact would not arise in reality given that no pedestrians use that part of the highway network.

g) Assessment methodology

10.3.38 Determination of the traffic and transport effects of the Sizewell C Project is based on the modelling of additional traffic generated by the proposed development. The assessment considers the effect that the additional traffic will have on the local transport infrastructure. The operation of the transport networks in the assessment years is first established as the base case and the effect is determined by a re-assessment with the inclusion of the additional activity relating to the Sizewell C Project. The assessment considers the effects on the assessment scenarios set out in **section 10.3 (e)**. Further details of the assessment methodology are included in **Volume 1, Appendix 6F**.

h) Assumptions and limitations

10.3.39 A full list of assumptions and limitations associated with the environmental assessment of transport is provided in **Volume 1, Appendix 6F**.

10.4 Baseline environment

10.4.1 This section presents a description of the baseline environmental characteristics within the study area.

10.4.2 An extensive range of information has been sought to define the baseline environment for the proposed development and likely receptors, including but not limited to:

- desk-based review of existing published data;
- data and reports provided by consultees; and
- field surveys and site investigation information.

a) Current baseline

10.4.3 An overview of the baseline environment for the whole study area is provided in this Chapter. This includes the baseline for the pedestrian network, cycle network, Public Rights of Way (PRoW) including for equestrians, bus routes, railway network, highway network, and personal injury collisions. Further detail of the baseline can be found in Chapter 2 of the **Transport Assessment** (Doc 8.5).

10.4.4 A description of the baseline traffic and transport relevant to the assessment of the Sizewell B relocated facilities proposals was also provided in Chapter 10 of the Sizewell B relocated facilities ES (refer to **Volume 1, Appendix 2A**). The baseline description presented in this chapter provides an update to the description of baseline conditions presented within the Sizewell B relocated facilities ES.

i. Pedestrian network

10.4.5 Due to the size of the study area, the summary of the pedestrian network has been sub-divided into Sub-Areas A – D as shown on **Figures 10.2** – **10.5**.

Sub Area A - North

10.4.6 The northern part of the study area (Sub-Area A) is a predominately rural area, located to the north of Sizewell. The main urban area is Lowestoft with smaller villages of Beccles in the north, Halesworth in the west and Reydon and Southwold in the east. Given the coastal location, there are a number of car parks in the northern part of the study area providing access to the nearby coastal footpaths and beaches.

10.4.7 There are no pedestrian footways provided on the majority of classified roads within the northern part of the study area, this includes the A12, the A146 from Lowestoft to Beccles, the A145, the B1127, the B1387 and the B1124 as there is negligible pedestrian demand for these sections of road. Footways are provided along sections of road within the northern part of the study area where there may be pedestrian demand from the surrounding villages (i.e. on A1095 at Reydon and Southwold, A144 at Halesworth, A145 and B1062

at Beccles and the A12, A1117 at Lowestoft). These tend to be on both sides of the road and have the potential for pedestrians to cross. The B1387 at Walberswick is one area which does have demand for pedestrians and no footways are present.

Sub-Area B - East

10.4.8 The eastern part of the study area (Sub-Area B) is a predominately rural area, encompassing the main development site and the surrounding area in the vicinity of the site. The main existing urban areas consist of the towns of Leiston and Saxmundham as well as the villages of Yoxford, Aldeburgh, and Thorpeness.

10.4.9 There are no pedestrian footways provided on the majority of classified roads within the eastern part of the study area as there is negligible pedestrian demand for these sections of road. Footways are provided along the A12 south through Darsham and Yoxford, extending to the outskirts of these villages where residential properties are located. Footways along the A12 are predominantly on one side of the road which avoids the need for pedestrians to cross. Footways are provided along sections of road where there may be pedestrian demand from the surrounding villages (i.e. on B1122 and A1094 at Aldeburgh, B1121 and B1119 at Saxmundham, A1120 at Yoxford and B1069 and B1119 at Leiston). These tend to be on both sides of the road and have the potential for pedestrians to cross.

Sub-Area C - South

10.4.10 The southern part of the study area (Sub-Area C) is a mixture of rural and urban in character. To the south west lies Ipswich and its surrounding suburbs with more rural areas to the north and the towns of Martlesham and Woodbridge to the east.

10.4.11 There are no pedestrian footways provided on the majority of classified roads within the southern part of the study area as there is negligible pedestrian demand for these sections of road. Footways are on occasion provided along the A12 although, based on on-site observations, it is likely pedestrian demand would be low in these areas. Footways are provided along sections of road where there may be pedestrian demand from the surrounding towns and villages (i.e. on A1152 at Martlesham, the B1079, B1438 and A1152 at Woodbridge). These tend to be on both sides of the road and have the potential for pedestrians to cross. There are a number of smaller villages and residential areas such as Claydon to the north of Ipswich which have footways and these are predominantly on both sides of the road.

Sub-Area D - West

10.4.12 The western part of the study area (Sub-Area D) is rural in character. The town of Wickham Market lies in the south east of the area and the village of Debenham in the centre.

10.4.13 There are no pedestrian footways provided on the majority of classified roads within the western part of the study area as there is negligible pedestrian demand for these sections of road. Footways are provided along sections of road where there may be pedestrian demand from the surrounding towns and villages (i.e. B1078 and B1438 at Wickham Market and B1077 at Debenham). These tend to be on both sides of the road and have the potential for pedestrians to cross. There are a number of smaller villages and residential areas throughout the western part of the study area which have footpaths provided and these are predominantly on both sides of the road.

ii. Public Rights of Way (PRoW)

10.4.14 An extensive network of PRoW exist within the study area. These are generally across agricultural land, unpaved and unlit. A number of visitor surveys have been undertaken, in conjunction with site visits and consultation with statutory bodies to assess the usage of recreational resources in the study area.

10.4.15 The existing PRoW within the vicinity of the main development site and level of usage are detailed within the **Volume 2**, **Chapter 15**.

10.4.16 Bridleway 19 (E-363/019/0) runs through the main development site and acts as a key link from Eastbridge to the Sizewell foreshore. Surveys undertaken suggest that the usage of Bridleway 19 is relatively low and during the survey, there was no recorded equestrian activity along the bridleway. Further information is provided in **Appendix 15A** of **Volume 2** of the ES.

10.4.17 The Sandlings Walk is an approximately 96km promoted walk between Southwold and Ipswich, and links the remaining fragments of Sandlings Heath. Most of its route lies inland from the Suffolk Coast Path but follows the same route in a number of locations including along the coast within the site boundary. The route extends throughout the study area from south to north, primarily following PRoW, but also running along local roads and accessible coast and beach, passing through predominantly woodland, heathland, arable and coastal landscapes.

10.4.18 The existing PRoW that are within or in the vicinity of the associated development sites and level of usage are detailed within **Chapter 8** of **Volumes 3 – 9** of the ES.

iii. Cycle routes

10.4.19 Detailed information on the baseline for cycle routes within the study area is provided in the **Transport Assessment** (Doc Ref. 8.5). A summary of key cycle routes is provided below.

Suffolk Coastal Cycle Route

10.4.20 The Suffolk coastal cycle route is a circular signed route on quiet roads and tracks, linking coastal villages between Felixstowe and Dunwich, and then looping inland via the market towns of Framlingham and Woodbridge. Within the study area, the Suffolk Coastal Cycle Route follows National Cycle Route 1 and Regional Cycle Routes 41 and 42.

10.4.21 A full loop around the Suffolk coastal cycle route is 88 miles long and is estimated to take between two and four days' cycling to complete; however, the route is also popular with cyclists selecting part of the itinerary to follow. The Suffolk coastal cycle route is well signed with turning indications at junctions; however, these do not currently cover the section between Snape and Dunwich via Leiston.

10.4.22 The closest section of the Suffolk coastal cycle route to Sizewell passes through Knodishall, along Abbey Lane, past Leiston Abbey and northwards to Eastbridge. It therefore crosses the main haul route into Sizewell C and thus reinforces the need for safe facilities between the B1122 and Eastbridge.

10.4.23 The route comprises a mixture of on and off-road sections and is not designed specifically to cater for journeys to work; consequently, there may be more direct alternative routes between local towns and Sizewell. Nevertheless, the Suffolk coastal cycle route is already a well-established cycle route and so any enhancements to it would benefit existing leisure users as well as those making new work trips.

Suffolk Sandlings Cycle Routes

10.4.24 The Suffolk Sandlings cycle routes include a series of cycle routes along the Suffolk coastline and its hinterland. Comprising a mixture of on and off-road links, routes 3 and 4 are within the study area.

10.4.25 Route 3 runs from Leiston via Eastbridge to Westleton. Leaving Leiston via Valley Road, the route continues north along Lover's Lane before proceeding off-road along Bridleway 19 and into the village of Eastbridge.

10.4.26 Route 4 links Thorpeness to Leiston, running just inland from the coastline to Sizewell. From Thorpeness village (which can in turn be reached from

Aldeburgh along the coastal road), Route 4 crosses Thorpeness Common along an off-road track before turning right to reach Sandlings Walk. This in turn leads to Sizewell Gap (opposite the entrance to Sizewell power station complex), from where the route heads west along a shared foot/cycle path alongside the road and enters Leiston along King George's Avenue. Cyclists can opt to turn right along Lover's Lane and connect to Route 3 heading towards Eastbridge.

Other cycle routes

10.4.27 Other off road cycle routes include:

- Lover's Lane to Sizewell via Broom Covert;
- Former railway trackbed from Sizewell to Aldeburgh.

10.4.28 Secondary roads that have been identified to be suitable for cycling include:

- Darsham station to Westleton;
- Saxmundham to Leiston via Clayhills Road or Lowes Hill;
- Snape to Leiston via Friston; and
- Aldeburgh to Thorpeness and onwards to Leiston.

iv. Bus routes

10.4.29 No existing bus services serve the Sizewell power station complex. The closest bus stops to the main development site are in Leiston, with services 64, 65 and 521 stopping in the town. Route 64 operates the most frequent service, with buses running between Aldeburgh, Leiston, Saxmundham, Wickham Market, Woodbridge and Ipswich approximately every hour. Further afield, the bus network between Lowestoft, Stowmarket and Felixstowe generally comprises of low frequency services operating less than one bus per hour.

10.4.30 The majority of bus stops within Ipswich town centre are of high quality with lit waiting areas, shelters, and timetable provision. All bus stops along London Road South in Lowestoft have lit waiting areas, and half of bus stops have a shelter. Most bus stops in Saxmundham are well connected to local footways but only two bus stops have shelters.

v. Railway network

10.4.31 The closest rail line to the Sizewell C main development site is the East Suffolk Line. This is a 79km rural branch line that runs in a south-west to

north-east direction between Ipswich and Lowestoft. The East Suffolk line connects with the Great Eastern Main Line at Ipswich, the Felixstowe branch line at Westerfield, the Wherry Line at Lowestoft and Saxmundham-Leiston branch line at Saxmundham.

10.4.32 There are a total of 12 stations along the East Suffolk line, of which Saxmundham is the closest to the main development site and approximately equidistant between Ipswich and Lowestoft. Other stations along the line are: Ipswich, Westerfield, Woodbridge, Melton, Wickham Market, Darsham, Halesworth, Brampton, Beccles, Oulton Broad South and Lowestoft.

10.4.33 Typically, 15 trains per day run from Ipswich to Lowestoft and 17 trains per day run from Lowestoft to Ipswich, with services stopping at all stations. The exceptions are Brampton where the train stops on request only and Westerfield which has a limited service at peak hours only. The typical off-peak service frequency is one train per hour in each direction.

vi. Highway network

10.4.34 The highway network in the vicinity of the Sizewell C main development site is comprised of local authority roads. These roads are managed by SCC as the local highway authority and include a combination of unclassified roads, B roads and A roads.

10.4.35 Sizewell Gap is the main access to the existing Sizewell power station complex. Sizewell Gap connects with Lover's Lane at the priority junction with King George's Avenue, east of Leiston.

10.4.36 Lover's Lane is a single carriageway road of about 2km in length to the north east of Leiston. It connects Sizewell Gap to the east with the B1122 to the north west.

10.4.37 King George's Avenue is a single carriageway road connecting Sizewell Gap and Lover's Lane to the east with the centre of Leiston to the west. It is the main route to Leiston from the Sizewell power station complex.

10.4.38 The B1122 is a rural B-road that connects the A12 in Yoxford to the north with the A1094 in Aldeburgh to the south. The road is approximately 15km in length and routes through the settlements of Middleton Moor, Theberton, Leiston and Aldringham.

10.4.39 The A12 is the main route between Ipswich and Lowestoft. It is principally single carriageway with a short section of dual carriageway between the A14 south-east of Ipswich and Woodbridge. The A12 connects with the Strategic Road Network at Junction 58 of the A14 to the south-east of Ipswich and A47 at the Bascule Bride across the Inner Harbour in Lowestoft.

10.4.40 The A12 routes through the villages of Wrentham, Yoxford, Farnham, Stratford St Andrew and Little Glenham and bypasses the villages of Saxmundham, Woodbridge and Martlesham.

10.4.41 Parts of the A12 are dual carriageway with some single carriageway sections, including through the four villages of Marlesford, Little Glemham, Stratford St Andrew and Farnham as well as Yoxford. The road narrows, and has a tight bend at Farnham, referred to as the 'Farnham bend', which reduces capacity and creates a potential safety concern, particularly when two large vehicles are passing at once.

10.4.42 The Strategic Road Network (SRN) is managed by Highways England. The A14 forms part of the SRN and connects the M6 at the Catthorpe Interchange at the end of the M6 and Junction 19 of the M1 in Leicestershire with the Port of Felixstowe. It runs in an east-west direction serving Cambridge, Newmarket, Bury St Edmunds, Stowmarket, Ipswich and Felixstowe. The road provides connectivity to the wider SRN at Junction 55 for the A12. The road is a grade separated dual carriageway for its entire length.

10.4.43 The section of the A12 between London and Junction 55 of the A14 forms part of the SRN. The road varies between a two and three lane grade separated dual carriageway and provides access to settlements to the south of Ipswich, including Colchester and Chelmsford.

10.4.44 The A47 is an east-west A road connecting the A1 at Peterborough with Lowestoft, via King's Lynn, Norwich and Great Yarmouth. The A47 between Great Yarmouth and Lowestoft is single carriageway.

vii. Accident history

10.4.45 Personal injury collision (PIC) data has been obtained from SCC for the most recent five-year period (1 May 2014 to 1 May 2019).

10.4.46 The analysis identified 1,410 PICs across the study area during the five-year period of which, 27 were of fatal severity, 195 were of serious severity and 1,188 were of slight severity. This equates to an average of 282 PICs per year across the study area. Slight PICs accounted for 84% of all PICs across all roads within the study area.

10.4.47 The majority of PICs (c.85%) involved motor vehicle users alone, followed by cyclists (c.9%), pedestrians (c.7%) and horse riders (c.0.1%).

10.4.48 The majority of fatal PICs involved motor vehicles (c.78%), whilst fewer fatal PICs involved pedestrians (c.19%) and cyclists (c.4%). No fatal PICs involved horse riders.

10.4.49 Similarly, the majority of serious PICs involved motor vehicles (c.78%), however more serious PICs involved cyclists (c.14%) than pedestrians (c.8%). No serious PICs involved horse riders.

10.4.50 The majority of slight PICs also involved motor vehicles (c.86%), whilst fewer slight PICs involved cyclists (c.8%) and pedestrians (c.6%). Approximately 0.1% of slight PICs involved horse riders.

10.4.51 The highest number of incidents involving non-motorised users was in the Lowestoft area (c.36%). This is likely to be associated with its urban nature and the higher prevalence of non-motorised users.

10.4.52 A detailed summary of accident data for the study area is provided in the **Transport Assessment** (Doc Ref. 8.5).

viii. Baseline sensitivity

10.4.53 Baseline sensitivity has been determined in accordance with **Table 10.1**. This was based on a review of each road link, taking account of a desk top review, information gathered from site visits, accident analysis and consultee engagement.

10.4.54 The joint response of SCDC and SCC to SZC Co.'s Stage 3 Consultation identified a number of junctions that the joint authorities considered should be included in the assessment and which may potentially require mitigation as a result of the Sizewell C Project. These links have been crossed checked with those previously assessed with any additional unassessed links now added to the assessment (i.e. links 83 – 88). These links have initially been given a high sensitivity, based on the stakeholder feedback. However, where required, the sensitivity of these links has been adjusted within the assessment based on evidence.

10.4.55 **Appendix 10A** sets out the justification of the baseline sensitivity for each link. The sensitivity of each road link is illustrated on **Figure 10.6** – **Figure 10.9** for Sub-Areas A – D respectively.

b) Future baseline

10.4.56 The assessment considers three future baseline scenarios, 2023 when early years construction is expected to occur, 2028 when the peak construction is expected to occur and 2034 when the operation of the proposed development is expected to occur.

10.4.57 Forecast year traffic demand for the three reference case scenarios has been estimated based on the following two components:

- Specific trip generation and distribution for committed developments; and
- Background traffic growth (applied across the model), for other developments and socio-economic factors such as changes in car ownership. This is reduced to avoid double-counting of committed development traffic.

10.4.58 A number of committed highway schemes were included in the forecast year reference case scenarios as follows:

- Beccles Relief Road; new road joining the A145 London Road south of Beccles with Ellough Road, to the north of Ellough Industrial Estate. This scheme is now built so is included in all forecast year models.
- Lake Lothing Third Crossing, Lowestoft; this would link from the A12 via Waveney Drive on the south side, to Denmark Road and Peto Way on the north side of Lake Lothing. Included in 2028 and 2034 reference cases but excluded from 2023.
- New roundabout on A12 as part of the Saxmundham Housing Site Allocations committed development. This is included in all forecast year models.
- New highway infrastructure on B1077 Westerfield Road and improvements to A1214 / Henley Road junction, as part of the Ipswich Garden Suburb committed development (2028 onwards).
- Improvements to A1189 roundabouts, south-east of Ipswich, as part of the Future Park committed development. These are included in all forecast year models.
- Junction improvements associated with Wolsey Grange committed development (included in all forecast year models):
  - A1214 / A1071.
  - A1071 / Hadleigh Road.
  - A1214 / Scrivener Road roundabout.
  - New site access on A1214.
- Junction improvements associated with Adastral Park committed development (2028 onwards):
  - A12 / A14 Seven Hills.
  - A12 / Foxhall Road.

- A12 / Barrack Square.
- New site access on A12.

10.4.59 A further proposed improvement at A12 / Anson Road was not included in any of the reference case models as this is assumed to not be in place until after 2034, corresponding to the assessed build out rate for the Adastral Park development.

10.4.60 The reference case vehicle flows for the three future year scenarios are included in the tables in **Appendix 10B**.

10.4.61 In addition to the committed highway schemes, the England Coast Path is a proposed National Trail around all of England's coast. The route within the study area has yet to be confirmed. Sizewell is located along the 60km stretch of coast identified as 'Aldeburgh to Hopton-on-Sea'. Natural England is proposing that the England Coast Path will follow the route of the Suffolk Coast Path past Sizewell C power station and through the site. Effects on users of the future England Coast Path would be the same as users of the Suffolk Coast Path.

c) Sizewell C traffic generation

10.4.62 The derivation of the vehicle trips forecast to be generated by the Sizewell C Project are provided in the **Transport Assessment** (Doc Ref 8.5).

10.4.63 The vehicle trips forecast to be generated by the Sizewell C Project for each of the seven modelled hours during the early years are summarised in **Table 10.4** for cars, **Table 10.5** for LGVs, **Table 10.6** for HGVs and **Table 10.7** for buses. Car trips do not include those workers living in caravans arriving at the start of the week or leaving at the end of the week. Numbers have been rounded to the nearest integer.

10.4.64 The vehicle trips forecast to be generated by the Sizewell Project for each of the seven modelled hours during peak construction are summarised in **Table 10.8** for cars, **Table 10.9** for LGVs, **Table 10.10** for HGVs, **Table 10.11** for buses and **Table 10.12** for coaches to the visitor centre.

10.4.65 The vehicle trips forecast to be generated by the Sizewell Project for each of the seven modelled hours during the operational phase are summarised in **Table 10.13** for cars, LGVs and HGVs.

Table 10.4: Sizewell C early years summary trips – car

Modelled Hour	Car Park		Caravan Site*		Southern Park and Ride		Northern Park and Ride & A12 / B1122		Two Village Bypass		Sizewell Link Road		Freight Management Facility		Elsewhere*	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
06:00-07:00	58	19	141	30	11	0	15	0	11	0	31	0	10	0	2	2
07:00-08:00	114	36	222	84	64	0	83	0	64	0	191	0	64	0	3	3
08:00-09:00	6	9	12	36	17	0	20	0	16	0	50	0	17	0	0	0
15:00-16:00	4	4	10	10	0	0	0	0	0	0	0	0	0	0	0	0
16:00-17:00	1	16	13	21	0	12	0	14	0	11	0	35	0	12	2	2
17:00-18:00	0	98	26	195	0	51	0	66	0	51	0	154	0	52	10	10
18:00-19:00	0	71	33	202	0	28	0	38	0	28	0	83	0	27	15	15
Total (modelled hours)	**182**	**253**	**457**	**578**	**91**	**91**	**118**	**118**	**91**	**91**	**273**	**273**	**91**	**91**	**31**	**31**
Total (24 hours)	268	268	704	704	91	91	118	118	91	91	273	273	91	91	59	59

** Includes non-work trips*

Table 10.5: Sizewell C early years summary trips – LGV

Modelled Hour	Main Development Site	
	In	Out
06:00-07:00	10	0
07:00-08:00	10	2
08:00-09:00	10	4
15:00-16:00	10	10
16:00-17:00	10	10
17:00-18:00	10	10
18:00-19:00	6	10
Total (modelled hours)	**64**	**44**
Total (24 hours)	**125**	**125**

Table 10.6: Sizewell C early years summary trips - HGV

Modelled Hour	Main Development Site				Associated Development Sites											
	SBA		SSE		Southern Park and Ride		Northern Park and Ride		A12 / B1122		Two Village Bypass		Sizewell Link Road		Freight Management Facility	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
06:00-07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-08:00	21	3	22	13	3	0	3	0	1	1	8	1	13	2	3	0
08:00-09:00	21	8	22	16	3	1	3	1	1	1	8	3	13	5	3	1
15:00-16:00	20	13	21	18	3	2	3	2	1	0	7	5	12	8	3	2
16:00-17:00	12	14	17	18	1	2	1	2	1	1	4	5	7	8	1	2
17:00-18:00	7	13	15	18	1	2	1	2	0	0	2	5	4	8	1	2
18:00-19:00	2	11	13	17	0	1	0	1	0	1	1	4	1	7	0	1
Total (modelled hours)	**83**	**61**	**110**	**100**	**11**	**8**	**11**	**8**	**5**	**3**	**30**	**22**	**50**	**37**	**11**	**8**
Total (24 hours)	**165**	**165**	**215**	**215**	**21**	**21**	**21**	**21**	**10**	**10**	**60**	**60**	**100**	**100**	**21**	**21**

Table 10.7: Sizewell C early years summary trips – bus

Hour	LEEIE To Main Development Site				Northern Park and Ride to A12 / B1122	
	SBA		SSE			
	To SBA	From SBA	To SSE	From SSE	To A12 / B1122	From A12 / B1122
06:00-07:00	3	3	3	3	0	0
07:00-08:00	6	6	6	6	2	0
08:00-09:00	3	3	3	3	0	0
15:00-16:00	3	3	3	3	0	0
16:00-17:00	3	3	3	3	0	0
17:00-18:00	6	6	6	6	0	2
18:00-19:00	3	3	3	3	0	0
Total (modelled hours)	**27**	**27**	**27**	**27**	**2**	**2**
Total (24 hours)	**45**	**45**	**45**	**45**	**2**	**2**

Table 10.8: Sizewell C peak construction summary trips – car

Modelled Hour	Car Park*		Southern Park and Ride		Northern Park and Ride		Caravan Site*		Freight Management Facility		Elsewhere *	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
06:00-07:00	254	32	329	6	310	10	2	2	0	0	15	15
07:00-08:00	291	51	198	39	228	39	4	4	0	0	28	28
08:00-09:00	83	24	8	28	21	20	5	5	0	0	37	37
15:00-16:00	40	196	6	141	9	148	5	5	0	0	38	38
16:00-17:00	35	111	7	97	11	78	6	6	0	0	57	57
17:00-18:00	39	253	1	100	2	127	9	9	0	0	78	78
18:00-19:00	47	238	0	278	0	277	12	12	0	0	106	106
Total (modelled hours)	**790**	**904**	**549**	**689**	**580**	**698**	**42**	**42**	**0**	**0**	**358**	**358**
Total (24 hours)	1,751	1751	1,151	1,151	1,150	1,150	100	100	20	20	874	874

** Includes non-work trips*

Table 10.9: Sizewell C peak construction summary trips - LGV

Modelled Hour	Main Development Site		Postal Consolidation Facility	
	In	Out	In	Out
06:00-07:00	20	0	1	0
07:00-08:00	20	3	10	3
08:00-09:00	20	8	26	17
15:00-16:00	20	20	3	4
16:00-17:00	20	20	0	2
17:00-18:00	20	20	0	0
18:00-19:00	13	20	0	0
Total (modelled hours)	**134**	**93**	**41**	**26**
Total (24 hours)	**263**	**263**	**88**	**88**

Table 10.10: Sizewell C peak construction summary trips – HGV

Modelled Hour	Main Development Site			
	Typical Day		Busiest Day	
	In	Out	In	Out
06:00-07:00				
07:00-08:00	48	11	71	14
08:00-09:00	48	22	71	31
15:00-16:00	45	31	66	44
16:00-17:00	29	33	41	47
17:00-18:00	19	32	26	45
18:00-19:00	9	28	11	40
Total (modelled hours)	**199**	**156**	**286**	**221**
Total (24 hours)	**395**	**395**	**570**	**570**

Table 10.11: Sizewell C peak construction summary tips – bus

Modelled Hour	Main Development Site	
	In	Out
06:00-07:00	31	31
07:00-08:00	31	30
08:00-09:00	15	15
15:00-16:00	25	25
16:00-17:00	17	17
17:00-18:00	28	29
18:00-19:00	28	27
Total (modelled hours)	**175**	**175**
Total (24 hours)	**350**	**350**

Table 10.12: Sizewell C peak construction summary trips – coach (for visitor centre)

Modelled Hour	Main Development Site	
	In	Out
06:00-07:00		
07:00-08:00		
08:00-09:00		
15:00-16:00		3
16:00-17:00		
17:00-18:00		
18:00-19:00		
Total (modelled hours)	**0**	**3**
Total (24 hours)	**16**	**16**

Table 10.13: Sizewell C operational traffic summary trips

Modelled Hour	Car		LGV				HGV			
	Main Development Site		Main Development Site		Master Lord Industrial Estate		Main Development Site		Master Lord Industrial Estate	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
06:00-07:00	0	0	2	2	1	1	0	0	0	0
07:00-08:00	128	0	2	2	1	1	2	0	1	0
08:00-09:00	568	41	2	2	1	1	2	1	1	1
15:00-16:00	0	0	2	2	1	1	0	1	0	0
16:00-17:00	0	655	2	2	1	1	0	0	0	0
17:00-18:00	0	0	2	2	1	1	0	0	0	0
18:00-19:00	0	0	2	2	1	1	0	0	0	0
Total (modelled hours)	**696**	**696**	**11**	**11**	**8**	**8**	**4**	**2**	**2**	**1**
Total (24 hours)	**777**	**777**	**20**	**20**	**15**	**15**	**10**	**10**	**5**	**5**

10.5 Environmental design and mitigation

10.5.1 As detailed in **Volume 1**, **Chapter 6**, a number of primary mitigation measures have been identified through the iterative EIA process and have been incorporated into the design and construction planning of the proposed development. Tertiary mitigation measures are legal requirements or are standard practices that will be implemented as part of the proposed development.

10.5.2 The assessment of likely significant effects of the proposed development assumes that primary and tertiary mitigation measures are in place. These measures are summarised in this section so that it is clear where and why these measures have been included and the way in which they have contributed to the management and reduction of environmental effects.

a) Environmental design and mitigation for the Sizewell B relocated facilities works during Phase 0

10.5.3 In line with the project programme set out in **Chapter 3** of this volume, it is anticipated that the first phase of the Sizewell B relocated facilities works, which is referred to as 'Phase 0', would be carried out pursuant to the planning permission granted by East Suffolk Council on 13 November 2019 (application ref. DC/19/1637/FUL). The second phase of the Sizewell B relocated facilities works would take place in Phases 1 and 2 in parallel with other DCO works due to take place at this time and would be carried out pursuant to the DCO.

10.5.4 Under the existing planning permission, mitigation measures for transport effects that occur as a result of Phase 0 of the Sizewell B relocated facilities works include the following:

- Primary mitigation:
  - provision of access to the proposed outage car park at Pillbox field via a new access road off Sandy Lane. To improve road user safety and provide improved visibility, a modified junction will be provided at Sandy Lane / Sizewell Gap.
- Tertiary mitigation:
  - production and implementation of a Construction Traffic Management Plan and Construction Workforce Travel Plan, setting out measures to reduce traffic impacts, maintain road cleanliness, manage access via any construction traffic access points to the site and limiting HGV deliveries to Monday to Friday 08:00-18:00 hours and on Saturdays to 09:00 – 16:00 hours.

10.5.5 Details of these measures are provided in Chapter 10 of the Sizewell B relocated facilities ES (refer to **Volume 1, Appendix 2A**).

10.5.6 It is anticipated that the mitigation measures summarised above would largely be in place or under way by the end of Phase 0. However, in order to allow for this mitigation to be implemented in Phases 1 and 2, if required (or if the works are instead carried out entirely under the DCO – see **Volume 2, Appendix 6A** of the ES), these measures have also been incorporated within the DCO.

b) Environmental design and mitigation for the DCO

i. Primary mitigation

10.5.7 Primary mitigation is often referred to as 'embedded mitigation' and includes modifications to the location or design of the development that are an inherent part of the project and a fundamental part of the design for which consent is sought.

10.5.8 A number of primary mitigation measures have been embedded into the design, and for the assessment, this chapter assumes that they are in place to mitigate otherwise potentially significant effects. The assessment notes that these mitigation measures would require construction and implementation themselves, and accounts for that transition period. These are identified in **Chapters 2** and **3** of this volume, and are summarised in this section. The summary makes clear where and why these measures have been included within the Sizewell C Project and the way in which they would contribute to the management and reduction of environmental effects.

10.5.9 The following primary mitigation, relevant to transport, has been embedded into the Sizewell C Project:

- accommodation campus at the main development site for up to 2,400 workers to reduce construction workforce trips on the up to highway network;
- 400 space caravan park at the LEEIE for 600 workers (based on 1.5 people per caravan), who will be bussed to site in order to reduce the construction workforce trips on the highway network;
- the proposed new north-south (off-road) bridleway, cycleway and footway parallel to Lover's Lane, B1122 and Eastbridge Road to provide a route for non-motorised users while the Sizewell C Project is constructed;
- park and ride facility at the LEEIE in the early years to bus workers to the main development site;
- northern park and ride facility at Darsham and southern park and ride facility at Wickham Market to intercept construction workforce trips and bus construction workers between the park and ride facilities and the main development site;
- direct bus services to bus workers to the main development site, to reduce construction workforce trips on the highway network;

- beach landing facility to enable the delivery of Abnormal Indivisible Loads (AILs) by sea during construction and operation;
- Saxmundham to Leiston branch line upgrades, rail extension into the LEEIE, and green rail route to enable the transportation of construction material by rail and thereby reduce the number of HGVs on the road;
- freight management facility at Seven Hills to manage the flow and route of HGVs on the highway network to the main development site; and
- package of highway improvement works, including the two village bypass, Sizewell link road, Yoxford roundabout and other highway improvement schemes, to mitigate the transport effects of the residual Sizewell C Project related traffic. The highway works also include improvements to walk and cycle infrastructure and PRoW diversions where necessary in order to maintain PRoW connectivity.

ii. Tertiary mitigation

10.5.10 Some mitigation measures comprise standard management practice, and are therefore included as tertiary mitigation against which impacts are assessed. These measures are embedded processes/procedures, rather than physical design measures.

10.5.11 These include best practice measures set out in the **Construction Traffic Management Plan** (CTMP) (Doc Ref. 8.7), the **Construction Workforce Travel Plan** (CWTP) (Doc Ref. 8.8), **Traffic Incident Management Plan** (TIMP) (Doc Ref. 8.6) and a **Worker Code of Conduct** (Doc Ref. 8.16) to help govern worker behaviour.

10.5.12 The implementation of the **CTMP** (Doc Ref. 8.7), **CWTP** (Doc Ref. 8.8), **TIMP** (Doc Ref 8.6) and **Worker Code of Conduct** (Doc Ref 8.16) will be secured through obligations in a Section 106 Agreement (see the draft **Section 106 Heads of Terms** at Appendix J of the **Planning Statement** (Doc Ref. 8.4)).

10.6 Assessment

a) Introduction

10.6.1 This section sets out the assessment of the transport effects arising from the construction and operation of the main development site and the construction, operation, and removal and reinstatement (where relevant) of the associated development sites. The decommissioning phase is qualitatively assessed within **Volume 2 Chapter 5**.

b) Sizewell B relocated facilities effects in Phase 0

10.6.2 An assessment of transport effects that would occur due to Sizewell B relocated facilities works prior to the implementation of the DCO (referred to as 'Phase 0') is presented in Chapter 10 of the Sizewell B relocated facilities ES (that ES is provided in full at **Volume 1, Appendix 2A**). The assessment considered effects on motorised and non-motorised users along A12, B1122, Lover's Lane, Sizewell Gap, Sandy Lane and King George's Avenue due to severance, driver delay, pedestrian, cyclist and equestrian delay, amenity, fear and intimidation, and accidents and safety. All effects were identified as minor adverse or negligible (**not significant**) (refer to **section 10.8** of this chapter for a summary of effect categories), with the exception of a moderate adverse effect on pedestrian and equestrians using Sandy Lane during outage periods due to the crossing with the new access road to the outage car park at Pillbox field. However, since the preparation of Sizewell B relocated facilities ES, an alternative junction arrangement is now proposed which would not require for the access road to cross Sandy Lane and therefore, this effect would no longer occur.

10.6.3 An assessment of the likely significant effects of the Sizewell B relocated facilities works that would occur concurrently with Phases 1 and 2 of construction and once the Sizewell C Project is operational is provided in the sections below.

c) Assessment of Sizewell C Project effects from Phase 1 onwards

10.6.4 The following activities associated with the Sizewell C Project could give rise to traffic and transport effects that are considered in this section:

- movement of materials, AILs, and workers via road and the potential effect on vulnerable road users and drivers and passengers;
- movement of materials via rail and the potential effect on rail passengers;
- construction of new highway infrastructure and the potential effect on vulnerable road users and drivers and passengers; and
- diversion of PRoW and the potential effect on pedestrians, cyclists, and equestrians. PRoW diversions are shown in the plans for approval in **Volume 2, Appendix 15I** for the main development site and **Chapter 2 of Volumes 3-9** for associated developments.

10.6.5 HGVs are proposed to route along prescribed routes via the A12 and B1122 / Sizewell link road, which are shown in **Figure 10.10**. HGVs will be required to adhere to the routes and these routes will be enforced through the **CTMP**

(Doc Ref. 8.7). Park and ride and direct buses will also be on fixed routes, which are shown in **Figure 10.11**.

10.6.6 **Section 10.7** identifies any likely significant effects that are predicted to occur.

10.6.7 The early years assessment includes traffic associated with Sizewell B relocated facilities, which would likely overlap with the early years of the Sizewell C Project.

d) Traffic link screening

10.6.8 **Appendix 10B** summarises the traffic link screening for each sub-area by applying Rules 1, 2, and 3 of the screening process to the 24hr AAWT vehicle flows and the 24hr AAWT HDV flows (i.e. HGVs and buses). The screening process is based on the percentage change in traffic and sensitivity of the link, as described earlier in this chapter.

10.6.9 The screening process is provided within the tables included in **Appendix 10B** based on applying Rules 1, 2, and 3 and those links that have been screened out of the assessment are highlighted in grey in the table within the appendix. **Figures 10.12** – **10.23** illustrate the screening for each link within Sub Areas A-D and for each of the assessment years (i.e. 2023, 2028 and 2034).

e) Early years construction assessment

i. Severance

10.6.10 The approach used for assessing the effects on severance is summarised in **Volume 1, Appendix 6F**. IEMA guidance (Ref. 1.17) suggests that changes in traffic flow of 30%, 60% and 90% would be likely to low, medium and high magnitude of impact on severance, respectively. The complete assessment of severance is included in **Appendix 10C**.

10.6.11 The assessment shows that, based on the 24 hour AAWT flows, no road links would experience a moderate or major adverse effect on severance in the early years and the effect is considered to be **not significant**.

10.6.12 **Table 10.14** summarises the road links that experience a moderate or major adverse effect on severance during the representative hour of 07:00-08:00 in the early years.

Table 10.14 : Severance 2023 Representative Hour (07:00-08:00) Total Traffic

Link Number	Link Name	2023 Reference case (total traffic in the hour)	2023 Reference + Sizewell (busiest) total traffic in the hour	% Change	Magnitude	Sensitivity	Effect Significance
11	B1125 through Westleton	235	375	59.6%	Low	High	**Moderate adverse**
13d	A1120	287	399	39.0%	Low	High	**Moderate adverse**
17b	B1125	191	319	67.0%	Medium	High	**Major adverse**
90	A1120 Sibton (east of Mill Hill)	272	383	40.8%	Low	High	**Moderate adverse**

10.6.13 The early years assessment of severance for the representative hour (07:00-08:00) in **Table 10.14** identifies one **major adverse** and three **moderate adverse** effects during the early years for severance based on the thresholds provided in the IEMA guidance (Ref 10.17). The IEMA guidance (Ref 10.17) goes on to state at paragraph 4.31 that:

> *"the assessment of severance should pay full regard to specific local conditions e.g. whether crossing facilities are provided or not, traffic signal settings etc."*

10.6.14 Link 11 - B1125 through Westleton was classified as high sensitivity due to the proximity of the adventure playground and there being a higher than average accident rate. The assessment shows that there are no significant effects on severance based on 24 hour AAWT flows and the effects arise in the representative hour of 07:00-08:00. The adventure playground is unlikely to be used during the hour of 07:00-08:00. In addition, the Sizewell C traffic routing through Westleton will all be cars/LGVs, given that the village is not on a Sizewell C HGV or bus route. The absolute increase in traffic flows in the hour of 07:00-08:00 equate to an increase in traffic from an average of 1 vehicle movement every 15 seconds to an average of 1 vehicle movement every 10 seconds. This increase in traffic flow in absolute terms is unlikely to have a significant effect on severance. Given this, the professional judgement is that the effect on severance on link 11 would be **not significant**.

10.6.15 Link 13d – A1120 is within an urban setting with potential for pedestrian and cycle demand due to a number of amenities and residential housing on both sides of the link. Due to the presence of Yoxford and Peasenhall Primary School in close proximity to the road the link is classed as highly sensitive. The assessment shows that there are no significant effects on severance based on 24 hour AAWT flows and the effects arise in the representative hour of 07:00-08:00. During the representative hour, children would not be accessing the primary school and, given this, the professional judgement is that the effect on severance on link 13d would be **not significant**.

10.6.16 Link 17b – B1125 south of Blythburgh was classified as high sensitivity due to there being a higher than average accident rate. This would not impact severance but is considered later in this chapter as part of the assessment of accidents. Given this, it is considered that the effect on severance on link 17b would be **not significant**.

10.6.17 Link 90 – A1120 Sibton (east of Mill Hill) runs through Sibton and Peasenhall villages and was classified as having high sensitivity due to Sibton Nursery School. As for other links assessed above, children would be unlikely to be arriving at the nursery school during the representative hour and therefore it

is considered that the effect on severance on link 90 would be **not significant**.

10.6.18 Based on the above assessment and the professional judgement applied, it is considered that the effect of the Sizewell C Project during the early years on severance would be **not significant**.

ii. Pedestrian delay

10.6.19 The approach used for assessing the effects on pedestrian delay is summarised in **Volume 1, Appendix 6F**. The IEMA guidance (Ref 10.17) refers to a report published by the Transport Research Laboratory (TRL SR356, Goldschmidt, 1976) (Ref 10.19) as providing a useful approximation for determining pedestrian delay. A two-way flow of 1,400 vehicles per hour has been adopted as a lower threshold for assessment (equating to a mean 10 second delay for a link with no pedestrian facilities in the TRL report).

10.6.20 The complete assessment is included in **Appendix 10C** of this chapter. Based on the assessment of pedestrian delay for pedestrians to cross roads within the study it can be concluded that there would be a **negligible** or **minor adverse** effect. Therefore, the effect of the Sizewell C Project on pedestrian delay in the early years would be **not significant**.

10.6.21 The assessment in **Appendix 10C** is only concerned with the increase/decrease in pedestrian delay to cross existing and proposed roads within the study area. It does not consider pedestrian delay as a result of PRoW diversions during the construction of the two-village bypass and Sizewell link road. This is dealt with in the Amenity and Recreation assessment for the two village bypass (**Volume 5, Chapter 8**) and the Sizewell link road (**Volume 6, Chapter 8**).

10.6.22 During construction of the two village bypass, footpaths E-137/028/0, E-137/029/0 and E-243/001/0 would remain on their existing alignments during the construction of the two village bypass until the permanent diversions of the public footpaths are available, which would have a **negligible** effect on pedestrian delay which would be **not significant**.

10.6.23 During the construction stage of the two village bypass, two footpaths (E-243/003/0 and E-243/004/0) would be subject to temporary diversions. These are intended to facilitate construction of the proposed development while ensuring that users continue to have access to a safe, well connected PRoW network. In all cases, diversions would be kept as short as possible to minimise disruption. The proposed temporary diversions would be as follows and would last for up to 24 months:

- footpath E243/003/0 would be temporarily diverted south to cross the work area at grade, approximately 350m south of its existing location; and
- footpath E-243/004/0 would be temporarily diverted north to cross the work area at grade, approximately 200m north of its existing location (on the current alignment of E-137/029/0).

10.6.24 The pedestrian delay impact on users of footpaths E-243/003/0 and E-243/004/0 during the construction of the two village bypass would be of low magnitude and, taking into consideration the medium sensitivity of PRoW users, would result in a **short term minor adverse** effect on pedestrian delay which is **not significant**.

10.6.25 During the construction stage of the Sizewell link road, eleven PRoW (E-344/013/0, E-344/014/0, E-396/015/0, E-396/017/0, E-396/023/0, E-515/003/0, E-515/004/0, E-515/005/0, E-515/013/0, E-584/016/0 and E-584/016/A) would be subject to diversions, as seen in detailed **Rights of Way Plans** (Doc Ref. 2.4). These are intended to facilitate construction of the proposed development while ensuring that users continue to have access to a safe, well connected PRoW network. In all cases, diversions would be kept as short as possible to minimise disruption. The proposed diversions would be as follows:

- users of footpath E-344/014/0 would be permanently diverted east by approximately 25m to allow the route to accommodate the proposed embankment slopes of the proposed Sizewell link road;
- users of footpaths E-344/013/0 and E-584/016/A would be diverted south-west along the proposed route of Sizewell link road and cross the proposed Sizewell link road approximately 250m south-west of the existing location;
- users of footpath E-584/016/0 would be diverted east along the proposed route of the Sizewell link road and cross the proposed road approximately 270m east of the existing location;
- users of footpath E-396/017/0 would be diverted west along the proposed Sizewell link road, to cross the proposed road approximately 60m west of the existing location;
- users of footpath E-396/023/0 would be diverted west of its existing alignment to avoid the construction work area whilst the staggered junction north of Trust Farm is being constructed;
- users of footpath E-396/015/0 would be diverted in two separate locations. At the proposed junction of the B1122 and the B1125 there

would be a short diversion to accommodate the new eastern junction towards Theberton. Where the alignment of footpath E-396/015/0 and E-515/005/0 meets the proposed Sizewell link road they would be temporarily diverted 100m to the south of their existing alignment whilst earthworks are being constructed, to cross the work area where the land is at grade;

- users of footpath E-515/003/0 would be diverted south-east along the route of the proposed Sizewell link road to cross the proposed road approximately 120m from the existing location;
- users of footpath E-515/004/0 would be diverted south-east along the route of the proposed Sizewell link road to cross the proposed road approximately 50m from the existing location;
- users of footpath E-515/013/0 would be diverted along the route of the proposed Sizewell link road to cross the proposed road approximately 45m south of the existing location; and
- users of footpath E-515/007/0 would be temporarily diverted for 25m to the west of its existing alignment whilst earthworks are being constructed, to cross the work area where the land is at grade.

10.6.26 The pedestrian delay impact on users of these footpaths during the construction of the Sizewell link road would be of low magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a **short term minor adverse** effect on pedestrian delay which is **not significant**.

10.6.27 During the construction of the main development site, a number of PROWs would be subject to diversions, see **Figure 15.5 in the Rights of Way and Access Strategy in Appendix 15I.** These are namely;

- Bridleway 19 within the site would be temporarily closed for the construction phase until reinstatement during Phase 5, and the route of Regional Cycle Route 42 on Eastbridge Road permanently closed and diverted. Both routes would be diverted onto the new off-road bridleway. The new off-road bridleway would be established before the temporary closure of Bridleway 19. The new bridleway requires users to cross Lover's Lane at four locations using Pegasus crossings. There will be a delay associated with this.
- Bridleway E-363/013/0 on Lover's Lane would be permanently closed, with an alternative route provided on the new off-road bridleway.

- Sandlings Walk would be temporarily diverted northwards along the coast to Minsmere Sluice and inland along PRoW E-363/020/0 to Eastbridge, for the construction phase until reinstatement.
- Footpath E-363/021/0 along the coast would be temporarily diverted eastwards during the construction of the sea defences. The Suffolk Coast Path and Sandlings Walk would be diverted onto this route.

10.6.28 The pedestrian delay impact on users of Bridleway 19 during the construction of the main development site would be of low magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a **minor adverse effect** on pedestrian delay which is **not significant.**

10.6.29 The pedestrian delay impact on users of Sandlings Walk and footpath E-363/021/0 during the construction of the main development site would be of low magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a **short term minor adverse** effect on pedestrian delay which is **not significant.**

iii. Amenity

10.6.30 The approach used for assessing the effects on amenity is summarised in **Volume 1, Appendix 6F**. The IEMA guidance (Ref 10.17) considers that an effective threshold against which to assess the effect upon amenity is where traffic flow or HDV composition is halved or doubled. Below these levels the magnitude of impact is taken to be low. The IEMA guidance (Ref 10.17) require a judgement to be made on the magnitude of impact based on the routes with greater than 100 % change in traffic or HDV flow.

10.6.31 The complete assessment of amenity in the early years is included in **Appendix 10C** of this chapter. There are no road links that experience a doubling or halving of total traffic flows for 24 hour AAWT or the representative hour in the early years.

10.6.32 **Tables 10.15** and **10.16** provide a summary of the road links that are forecast to experience a doubling or halving of HDVs in the early years based on the 24 hour AAWT HDV flows and representative hour (07:00-08:00) HDV flows.

Table 10.15: Amenity 2023 24hr AAWT HDVs

Link Number	Link Name	2023 Reference Case 24hr AAWT HDVs	2023 Reference + Sizewell (busiest) 24hr AAWT HDVs	% Change	Magnitude	Sensitivity	Effect Significance
1	Sizewell Gap	99	639	547%	High	Low	**Moderate adverse**
4c	B1122 (N)	212	812	284%	High	Medium	**Major adverse**
10	B1122 through Theberton	216	816	278%	High	Medium	**Major adverse**
13b	B1122	177	801	352%	High	Low	**Moderate adverse**
64	B1122 north of SZC access	216	816	278%	High	Medium	**Major adverse**
66	B1122 west of B1125	165	765	363%	High	Medium	**Major adverse**
74	B1122 (Middleton Moor)	177	777	339%	High	Medium	**Major adverse**

Table 10.16: Amenity 2023 Representative Hour (07:00-08:00) HDVs

Link Number	Link Name	2023 Reference Case HDVs in the hour	2023 Reference + Sizewell (busiest) HDVs in the hour	% Change	Magnitude	Sensitivity	Effect Significance
1	Sizewell Gap	4	50	1,150%	High	Low	**Moderate adverse**
4c	B1122 (N)	10	54	440%	High	Medium	**Major adverse**
10	B1122 through Theberton	10	54	440%	High	Medium	**Major adverse**
13b	B1122	12	58	383%	High	Low	**Moderate adverse**
64	B1122 north of SZC access	10	54	440%	High	Medium	**Major adverse**
66	B1122 west of B1125	12	56	367%	High	Medium	**Major adverse**
74	B1122 (Middleton Moor)	12	56	367%	High	Medium	**Major adverse**

10.6.33 It can be seen from **Tables 10.15** and **10.16** that for the 24 hr AAWT and representative hour assessment of HDVs there are five **major adverse** effects on amenity on the assessed road links and two **moderate adverse** effects.

10.6.34 The IEMA guidance (Ref 10.17) states that amenity is broadly defined as:

> *"The relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition and pavement width / separation from traffic."*

10.6.35 Link 1 – Sizewell Gap is classified as having a low sensitivity but a high magnitude of impact on amenity, resulting in a **moderate adverse** effect in the early years. A relatively wide footway is provided along one side of Sizewell Gap with landscaping along the footway edge. Whilst there would be a significant increase in HDV traffic on Sizewell Gap during the early years, based on on-site observations, there is minimal pedestrian demand along this link. Notwithstanding this, there would be a **short-term moderate adverse** effect on amenity during the early years on this link, which would be **significant**.

10.6.36 **Tables 10.15** and **10.16** show that there would be a **moderate** or **major adverse** effect on amenity on the entire stretch of B1122 between the A12 and the main development site (i.e. links 4c, 10, 13b, 64, 66, 74) during the early years as a result of the forecast percentage change in HDVs on these links. Some of the links on the B1122 that are assessed as having a moderate adverse effect are outside of the settlement areas and there is negligible pedestrian demand and limited or no footway provision as a result of this (i.e. links 4c, 13b, 64, 66 and 74). As such it is considered that the effect of the Sizewell C Project during the early years on amenity on these links would be **not significant**.

10.6.37 The exception to this is link 10 (B1122 through Theberton), which has been assessed as having a **major adverse** effect on amenity in the early years as a result of the Sizewell C Project and does have pedestrian demand associated with the village environment. It is considered that the effect of the Sizewell C Project during the early years on pedestrian amenity on link 10 (B1122 through Theberton) would be **significant**, albeit this effect would be of a temporary nature and last until the Sizewell link road is operational.

10.6.38 Whilst the B1122 links outside of Theberton (i.e. links 4c, 10, 13b, 64, 66, 74) would not have a significant effect on pedestrian amenity, cyclists may use these links and therefore there may be a **moderate to major adverse** effect on cycle amenity on the B1122 during the early years as a result of the increase in HDVs, which would be **significant**.

iv. Fear and intimidation

10.6.39 The approach used for assessing the effects on fear and intimidation is summarised in **Volume 1, Appendix 6F**. In the absence of commonly agreed thresholds, the IEMA guidance (Ref 10.17) provides a set of thresholds that could be used as an approximation of the likelihood of fear and intimidation. The thresholds define the degree of hazard to vulnerable road users by average traffic flow and 18 hour HDV flow over an 18 hour day.

10.6.40 A very low level of fear and intimidation is likely if a road link has less than an 18 hour average flow of 600 vehicles per hour and less than 1,000 HDVs in the 18 hour period. The threshold used to assess a low magnitude of fear and intimidation is taken as a link having an 18 hour average flow of 600-1,200 vehicles per hour and 1,000-2,000 HDVs in the 18 hour period. The threshold used to assess a medium magnitude of fear and intimidation is taken as a link having an 18 hour average flow of 1,200-1,800 vehicles per hour and 2,000-3,000 HDVs in the 18 hour period. A high magnitude of fear and intimidation is taken as a link having an 18 hour average flow of over 1800 vehicles per hour and over 3,000 HDVs in the 18 hour period.

10.6.41 All of the links scoped into the study have been assessed using these thresholds to determine what the level of fear and intimidation would be with and without the Sizewell C Project during the early years. The detailed assessment is included in **Appendix 10C**.

10.6.42 The assessment shows that there are no links that would experience an increased magnitude of impact in fear and intimidation as a result of the change in total traffic during the early years. However, there would be some links that would experience an increased magnitude of impact in fear and intimidation as a result of the forecast increase in HDVs.

10.6.43 **Table 10.17** below provides a summary of the links which experience an increase in magnitude of impact in fear and intimidation as a result of the increase in HDVs in the early years of the Sizewell C Project. The complete assessment for HDVs is included in **Appendix 10C** and shows that all of the links not included in **Table 10.17** have a negligible or minor adverse effect on fear and intimidation in both the 2023 Reference and 2023 Reference + Sizewell scenarios.

Table 10.17: 2023 Fear and Intimidation 18 hour Average HDVs

Link Number	Link Name	2023 Reference Case				2023 Reference + Sizewell (busiest)			
		18hr AAWT HDVs	Magnitude	Sensitivity	Effect Significance	18hr AAWT HDVs	Magnitude	Sensitivity	Effect Significance
13c	A12 (middle)	830	Very Low	Low	Negligible	1,452	Low	Low	Minor adverse
27	A12 south of Wickham Market	1,151	Low	Medium	Minor adverse	2,025	Medium	Medium	**Moderate adverse**
32a	A12 (N)	1,155	Low	Very Low	Negligible	2,029	Medium	Very Low	Minor adverse
32c	A12 (S)	2,172	Medium	Medium	**Moderate adverse**	3,040	High	Medium	**Major adverse**
34a	A12 (N)	1,157	Low	Very Low	Negligible	2,019	Medium	Very Low	Minor adverse
34c	A12 (S)	2,294	Medium	Medium	**Moderate adverse**	3,152	High	Medium	**Major adverse**

10.6.44 It can be seen from **Table 10.17** above that all of the links that are forecast to have an increase in fear and intimidation in the early years are on the A12 corridor.

10.6.45 Two links on the A12 (links 13c and 32a) would increase from a negligible to a minor adverse effect in fear and intimidation, which would be **not significant**.

10.6.46 Only one link on the A12 (link 27) would increase from a **minor adverse** effect to a **moderate adverse** effect in fear and intimidation in the early years, as a result of the forecast increase in HDVs. The other two links on the A12 (links 32c and 34c) already experience a significant effect in fear and intimidation and the increase in HDVs on these links as a result of the early years of the Sizewell C Project would not change this effect. All three links are dual carriageway sections of the A12 with no footways or cycleways and therefore there would not be any pedestrians or cyclists using these links. As such, it can be concluded that the effect of the Sizewell C Project on fear and intimidation in the early years would be **not significant**.

v. Driver and passenger delay

10.6.47 The approach used for assessing the effects on driver and passenger delay is summarised in **Volume 1, Appendix 6F**. The assessment of driver delay is considered fully within the **Transport Assessment** (Doc Ref 8.5) and this section summaries the effects of the Sizewell C Project on vehicle journey time in the early years.

10.6.48 During the early years of construction, before any of the primary transport mitigation measures are completed, the journey time analysis shows that all of the routes would have less than 2% increase in journey time in the 08:00–09:00 peak hour with the exception of the A12 around Ipswich, which would increase by 15–17 seconds equating to up to 7% of the journey time as a result of the short distance of the route.

10.6.49 In the 17:00–18:00 peak hour, the changes in journey time are all within 5% (except for route 11 which is a short distance), which is less than daily variation.

10.6.50 The proposed highway schemes are to be constructed during the early years and have been designed to be built off-line as much as possible in order to minimise delay to existing road users. Notwithstanding this, there will be short-term delay to drivers when the off-line highway works are tied into the existing highway.

10.6.51 During the early years there will be AIL movements by road to the main development site, particularly prior to the beach landing facility being

available. These will be managed through consultation with the relevant authorities and statutory notice provided prior to moving loads. Where possible AILs will be moved outside of peak periods in order to minimise delay to road users.

10.6.52 There is expected to be a **minor adverse** effect on driver delay and bus passenger delay during the early years, which would be **not significant**.

10.6.53 With regards to rail, the early years rail operation associated with the movement of construction material would consist of two return freight trains per day operating once the Saxmundham to Leiston branch line had been upgraded and sidings had been constructed in the LEEIE. Freight trains associated with the early years would operate after the last passenger train in the evening and before the first passenger train the following morning and would therefore not have any effect on rail passenger journey times. There would therefore be no effect on rail passenger delay during the early years.

vi. Accidents and road safety

10.6.54 The approach used for assessing the effects on accidents and road safety is summarised in **Volume 1, Appendix 6F**. An assessment of accidents and road safety is provided in the **Transport Assessment** (Doc Ref 8.5).

10.6.55 At the main development site access, there would be a **minor adverse** effect on road safety in the early years during construction of the highway works, which would be **not significant**.

10.6.56 At the northern and southern park and ride sites there is likely to be a **minor adverse** road safety effect in the early years during construction of the accesses to the facilities, which would be **not significant**.

10.6.57 Prior to the delivery of the two village bypass and Sizewell link road, there would be a **minor adverse** effect on the A12 at Farnham and on the B1122 southeast of Yoxford, which would be **not significant**.

10.6.58 At Yoxford, during construction of the roundabout in the early years, there would be a **minor adverse** road safety effect, which would be **not significant**.

10.6.59 It is considered that there would be **minor adverse** road safety effects at the A1094/B1069, A12/A144 and A12/B1119 junctions during the early years and **negligible** effects at the B1078 near Otley College and at the A140 junction, which would be **not significant**.

10.6.60 On the heavily trafficked A14 and A12 as far north as Woodbridge, traffic flow increases in the early years are low and the road safety effects would be **negligible**, which would be **not significant**.

10.6.61 Further north on the A12 around Blythburgh, there would be **minor adverse** effects on road safety in the early years due to the increased traffic volumes.

10.6.62 There would also be a **minor adverse** effect on road safety on the B1125 to the south of Blythburgh during the early years prior to the northern park and ride being operational, which would be **not significant**.

f) Peak construction assessment

i. Severance

10.6.63 The approach used for assessing the effects on severance is summarised in **Volume 1, Appendix 6F**. The complete assessment of severance during the peak construction is included in **Appendix 10C** and a summary of those links that experience a **moderate or major adverse** effect during the 24 hr AAWT assessment and representative hour of 07:00-08:00 are included in **Tables 10.18** and **10.19** below.

Table 10.18: Severance 2028 24hr AAWT Total Traffic

Link Number	Link Name	2028 Reference Case (24hr AAWT total traffic)	2028 Reference+ Sizewell (busiest) 24hr AAWT total traffic	% Change	Magnitude	Sensitivity	Effect Significance
4a	B1122 (S)	3,723	6,968	87%	Medium	Medium	**Moderate adverse**
5	B1122 Abbey Road	4,946	8,240	67%	Medium	Medium	**Moderate adverse**
10	B1122 through Theberton	6,183	552	-91%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	8,808	880,800%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	21,805	819	-96%	High	Medium	**Major beneficial**
23	A12 Farnham bend	21,806	275	-99%	High	Medium	**Major beneficial**
23a	Two village bypass	0	22,397	2,239,700	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	21,166	584	-97%	High	Medium	**Major beneficial**
34b	Main Road (E)	2,854	5,245	84%	Medium	High	**Major adverse**
57	Sizewell Link Road (east A12)	0	2,543	254,300%	High	Medium	**Major adverse**
63	Theberton bypass (west B1125)	0	6,781	678,100%	High	Medium	**Major adverse**
65	SLR Middleton Moor link	0	4,386	438,600%	High	Medium	**Major adverse**
66	B1122 west of B1125	3,593	122	-97%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	4,284	370	-91%	High	Medium	**Major beneficial**

Table 10.19: Severance 2028 Representative Hour (07:00-08:00) Total Traffic

Link Number	Link Name	2028 Reference Case (total traffic in the hour)	2028 Reference + Sizewell (busiest) total traffic in the hour	% Change	Magnitude	Sensitivity	Effect Significance
4a	B1122 (S)	228	536	135%	High	Medium	**Major adverse**
4c	B1122 (N)	515	854	66%	Medium	Medium	**Moderate adverse**
5	B1122 Abbey Road	256	566	121%	High	Medium	**Major adverse**
10	B1122 through Theberton	513	55	-89%	Medium	Medium	**Moderate beneficial**
10a	Theberton bypass part of SLR	0	685	685,000%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	1,511	25	-98%	High	Medium	**Major beneficial**
23	A12 Farnham bend	1,507	20	-99%	High	Medium	**Major beneficial**
23a	Two village bypass	0	1,568	1,568,000	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	1,505	18	-99%	High	Medium	**Major beneficial**
34b	Main Road (E)	35	366	946%	High	High	**Major adverse**
57	Sizewell Link Road (east A12)	0	157	157,000%	High	Medium	**Major adverse**
63	Theberton bypass (west B1125)	0	515	515,000%	High	Medium	**Major adverse**
65	SLR Middleton Moor link	0	365	365,000%	High	Medium	**Major adverse**
66	B1122 west of B1125	300	9	-97%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	342	24	-93%	High	Medium	**Major beneficial**

10.6.64 It can be seen from **Table 10.18** that for the 24 hr AAWT assessment there is expected to be two **moderate adverse**, six **major adverse** and six **major beneficial** effects on severance during peak construction.

10.6.65 Based on **Table 10.19**, the assessment of the representative hour of 07:00-08:00 (i.e. hour of greatest change in traffic) identifies one **moderate adverse**, eight **major adverse,** one **moderate beneficial** and five **major benefical** effects on severance during peak construction.

10.6.66 The IEMA guidance (Ref 10.17) requires the assessment to pay full regard to specific local conditions when making judgements, as set out below. In the following paragraphs, first the links with an adverse effect are considered followed by the links with a beneficial effect.

10.6.67 Link 4a – B1122 Abbey Road, south of the junction with Lover's Lane, has been classified as having a medium sensitivity due to a PRoW starting mid-way along the link. There are no other sensitive receptors along this link. The link forms the northern approach to Leiston and there are houses set back along the western side of the road with a footway also provided along the entire length of the western side of the carriageway. To the east of the road are fields with a very small number of houses intermitantly along the link and set back from the road. The speed limit is 30mph. There is currently limited demand for pedestrians to cross the road, except for the limited number of residents living on the eastern side of the road crossing to access the footway.

10.6.68 New areas of Open Access Land, a car park and a surfaced footpath will be provided within Aldhurst Farm habitat creation area in accordance with condition 25 of planning permission DC/14/4224/FUL. The details are shown in **Chapter 15, Appendix 15H** of this volume. Once the proposed new habitats are established, the Open Access Land will be opened for quiet public recreation access. A vehicular access off Abbey Road (link 4a) and 5 car parking spaces are to be provided. As a result there is expected to be some recreational demand for pedestrians to cross the road, albeit low.

10.6.69 The increased level of traffic on Abbey Road (link 4a) as a result of the Sizewell C Project would still be considerably below the 1,400 vehicles per hour threshold for assessing pedestrian delay (i.e. average of 290 vehicles per hour and 526 vehicles in the representative hour). Given the low hourly vehicular flows and speeds, it is not considered that the forecast absolute level of traffic as a result of the Sizewell C Project would reduce the ability of pedestrians to access the new areas of Open Access Land or for residents of properties on the eastern side of Abbey Road to access the footway on the western side. It is therefore considered that the effect on severance on Abbey Road (link 4a) would be limited, but is still deemed **significant**.

10.6.70 Link 4c – B1122 south of the main site access is classified as medium sensitivity due to the presence of the national cycle route. As part of the primary mitigation a shared footway/cycleway will be provided along this link with a Pegasus crossing. As such, it is considered that the effect on severance on link 4c would be **not significant**.

10.6.71 Link 5 – B1122 Abbey Road, in the vicinity of the existing level crossing has been classified as having medium sensitivity due to the Quaker meeting house and a ProW. It is a single carriageway road with a 30mph speed limit. Footways are provided on both sides of the road. The junction of B1122 with Waterloo Road, in the vicinity of the Quaker meeting house is signal controlled with pedestrian phases on three of the arms and a zebra crossing on Waterloo Avenue. It is therefore considered that the increase in traffic as a result of the Sizewell C Project would not affect the ability of pedestrians to access destinations along this link, given the presence of controlled pedestrian crossing facilities along the key desire lines. Given this, the professional judgement is that the effect on severance on link 5 would be **not significant**.

10.6.72 Link 34b – Main Road (east) at Martlesham has been classified as high sensitivity due to the presence of two childrens nurseries. The nurseries are located to the north of the built up area of Martlesham and, given the distance from a residential catchment, it is considered likely that children would be driven to/from the nurseries rather than arrive on foot/cycle. As such, it is considered that the effect on severance on link 34b would be **not significant**.

10.6.73 Link 23a is the two village bypass and has a medium sensitivity as a result of PRoWs intersecting the route. The magnitude of severance is forecast to be **major adverse** as a result of the increase in traffic from the reference case scenario, which does not include the two village bypass and users of the PRoW would not need to cross a road in this scenario. Primary mitigation for the two village bypass includes the Foxburrow Wood non-motorised user bridge. Footpaths E-243/003/0 and E-243/004/0 would be permanently diverted via the proposed bridge, which would act to mitigate the severance effect of the two village bypass on these PRoW, which would be **not significant**. Footpaths 243/001/0 and E-137/029/0 would cross the two-village bypass at grade. The pedestrian delay assessment estimates the delay to cross the road would be circa 11 seconds at peak construction, which is assessed as moderate adverse and would be significant. In addition, the speed of the traffic may result in an element of 'barrier' effect. However, footpath E-137/029/0 is on the approach to the A12/A1094 roundabout and as such vehicle speeds, and consequently the severance effect, will be reduced. Notwithstanding this, the vehicle speeds and delay to cross the road are considered to have a **significant** severance effect on footpaths 243/001/0 and E-137/029/0.

10.6.74 Links 10a, 57, 63 and 65 – Sizewell link road have all been classified as medium sensitivity due to the presence of PRoW intersecting the proposed new road. The magnitude of severance is forecast in the assessment to be **major adverse** as a result of the increase in traffic from the reference case scenario, which does not include the Sizewell link road and users of the PRoW would not need to cross a road in this scenario. There are proposed to be a number of PRoW diversions as part of the Sizewell link road and the effect of PRoW diversions on pedestrian delay is dealt with later in this section. The average hourly vehicle flow on the Sizewell link road ranges between circa 100 and 360 vehicles, which is considerably below the 1,400 vehicles per hour threshold for assessing pedestrian delay, and therefore users of the PRoW that intersect the Sizewell link road would not be delayed crossing the road. However, Sizewell link road has been designed with a speed limit of 60mph, which is considered will provide an element of 'barrier effect' to users of the PRoWs intersecting the link. Links 10a, 57, 63 and 65 are considered in turn below from east to west:

- It is proposed that the PRoW that intersects Sizewell link road just east of the A12 (link 57) would cross at grade. Given the low vehicle flows on this link (average hourly flow of 106 vehicles) and the lower vehicle speeds as a result of the proximity to the roundabout with A12, it is considered that the effect on severance on link 57 would be **not significant**.

- Link 65 is the Middleton Moor link road that is proposed to connect the B1122 to the Sizewell link road. As part of the primary mitigation, a new walking and cycling route from the existing Littlemore Road is proposed, which would continue along the proposed Middleton Moor link, to allow a crossing point over the route of the proposed Sizewell link road east of the junction with the Middleton Moor link, before re-joining Littlemore Road on the south side of the route. It is therefore considered that the effect on severance on link 65 would be **not significant**.

- Link 63 is the section of Sizewell link road to the east of the Middleton Moor link. Users of footpath E-396/023/0 would be diverted to run alongside the realigned access road for Trust Farm, and cross Sizewell link road between the northern and southern junctions of the proposed staggered crossroads. It is also proposed to extend footpath E-396/020/0 from the existing Hawthorn Road along the proposed route of the Sizewell link road approximately 50m to the east, to cross Sizewell link road before heading west along the north side of the road to re-join Hawthorn Road. The PRoWs that intersect link 63 are proposed to cross Sizewell link road at grade. The average hourly flows on the link at peak construction are forecast to be relatively low and considerably below the threshold for assessing pedestrian delay. It is therefore considered that users of the PRoW on that intersect link 63

would not be unduly delayed crossing the road but the vehicle speed would provide an element of 'barrier effect' to users of the PRoWs intersecting the link. It is therefore considered that the effect on severance on link 63 would be **significant**.

- Link 10a is the section of Sizewell link road that bypasses the village of Theberton. As part of the primary mitigation, a new overbridge would be provided at Pretty Road, which would carry non-motorised users only (pedestrians, cyclists, equestrians). PRoWs would be diverted to direct users to cross Sizwell link road via the proposed non-motorised user bridge. The effect of the proposed diversions on pedestrian delay is dealt with later but it is considered that the effect on severance on link 10a would be **not significant**.

10.6.75 As a result of the implementation of the two village bypass, traffic flows through Farnham and Stratford St Andrew (links 22c, 23 and 24) would reduce significantly, resulting in a **major beneficial** effect on severance, which would be **significant**.

10.6.76 As a result of the implementation of the Sizewell link road, traffic flows along the B1122 (links 10, 66 amd 74) would reduce significantly, resulting in a **moderate** to **major beneficial** effect on severance, which would be **significant**.

ii. Pedestrian delay

10.6.77 The approach used for assessing the effects on pedestrian delay is summarised in **Volume 1, Appendix 6F**. The complete assessment of pedestrian delay during peak construction is included in **Appendix 10C.**

10.6.78 For those links that exceed the 1,400 threshold in the 24 hr AAWT (average hourly flows) scenario, there are no links that would have a moderate or major effect on pedestrian delay and the effect would be **not significant**.

10.6.79 **Table 10.20** summarises the links that exceed the low threshold of 1,400 vehicles per hour for the representative hour (07:00-08:00). Based on the hourly flows in **Table 10.20**, an assessment has been undertaken to estimate the potential increase/decrease in pedestrian delay (to the nearest 0.5 second) on each link, utilising graphs included in the TRL report on 'Mean pedestrian delays associated with different road crossing situations' (Ref 10.19). Those links with a moderate or major effect on pedestrian delay at peak construction are summarised in **Table 10.20**.

Table 10.20: Pedestrian Delay 2028 Representative Hour (7:00-08:00) Effect Significance

Link Number	Link Name	2028 Reference Case		2028 Reference Case + Sizewell (busiest)		Mean Pedestrian Delay Change (seconds)	Magnitude	Sensitivity	Effect Significance
		2028 Reference case (total vehicles)	Mean Pedestrian Delay (seconds)	2028 Reference + Sizewell (busiest)	Mean Pedestrian Delay (seconds)				
22c	A12 (S) (Farnham)	1,511	11	25	1	-10	Medium	Medium	**Moderate beneficial**
23	A12 Farnham bend	1,507	11	20	1	-10	Medium	Medium	**Moderate beneficial**
23a	A12 two village bypass	0	0	1,568	11.5	11.5	Medium	Medium	**Moderate adverse**
24	A12 Stratford St Andrew	1,505	11	18	1	-10	Medium	Medium	**Moderate beneficial**

10.6.80 Based on the assessment included in **Tables 10.20** on pedestrian delay for pedestrians to cross roads at peak construction, it is concluded that there would be a **moderate adverse** effect on pedestrian delay for pedestrians to cross the two village bypass (link 23a) and a **moderate beneficial** effect on pedestrian delay for pedestrians crossing the former A12 through Stratford St Andrew (link 24) and Farnham (links 22c and 23).

10.6.81 The links included in the assessment in **Appendix 10C** only include those links that exceed the 1,400 hourly vehicle threshold and those links not included in the assessment have hourly vehicle flows below this threshold. The links that form the Sizewell link road all fall below the 1,400 hourly vehicle threshold and would therefore have a **negligible** effect on pedestrian delay for pedestrians crossing the proposed road, which would be **not significant**.

10.6.82 The assessment in **Appendix 10C** is only concerned with the increase/decrease in pedestrian delay to cross existing and proposed roads within the study area. It does not consider pedestrian delay as a result of PRoW diversions associated with the two-village bypass and Sizewell link road. This is dealt with in the Amenity and Recreation assessment for the two village bypass (**Volume 5, Chapter 8**) and the Sizewell link road (**Volume 6, Chapter 8**).

10.6.83 The permanent PRoW diversions proposed as part of the operation of the two village bypass would be as follows:

- footpaths E-243/003/0 and E-243/004/0 would be permanently diverted via the proposed Foxburrow Wood non-motorised user bridge, which would result in an increase of approximately 155m for footpath E-243/004/0 and an increase of approximately 355m for footpath E-243/004/0 compared to the existing alignment;
- footpath 243/001/0 would be diverted east by approximately 25m to allow the public footpath to cross the proposed two village bypass at grade; and
- footpath E-137/029/0 would be diverted south-west by approximately 25m to allow the alignment of the diversion to accommodate the proposed embankment slopes of the proposed two village bypass.

10.6.84 Whilst the alignment of footpaths E-243/003/0 and E-243/004/0 would be less direct that the existing routes, safe and continuous footpath connectivity across the route of the proposed two village bypass would be maintained, and new connections between footpaths E-243/003/0 and E-243/004/0 would be created providing new options for circular routes.

10.6.85 The pedestrian delay impact on users of the footpaths during the operation of the two village bypass would be of low magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a **minor adverse** effect on pedestrian delay which is **not significant**.

10.6.86 During the operational phase of the Sizewell link road, the following permanent diversions of PRoW are proposed:

- footpath E-344/014/0 would continue to utilise the diversion from the construction phase increasing the length of the footpath by approximately 25m compared to its existing alignment;
- footpaths E-344/013/0 and E-584/016/A would utilise a shorter diversion compared to the temporary diversion during construction, increasing the length of the footpath by approximately 20m compared to its existing alignment;
- footpath E-584/016/0 would be permanently diverted increasing the length of the footpath by approximately 155m compared to its existing alignment;
- footpath E-396/017/0 would continue to use the diversion created during the construction phase, increasing the length of the footpath by approximately 115m compared to its existing alignment;
- the permanent diversion of footpath E-396/023/0 would increase the length of the footpath relative to its existing length by approximately 20m;
- the diversion of footpath E-515/004/0 used during construction would continue during the operational phase, increasing the length of the footpath by approximately 85m compared to its existing alignment;
- footpaths E-396/015/0 and E-515/005/0 would be permanently diverted across Pretty Road overbridge, which would increase footpath E-396/015/0 by approximately 995m and footpath E-15/005/0 by approximately 880m compared to its existing alignment;
- the permanent diversion of footpath E-515/003/0 would be either northwards to cross the proposed Sizewell link road at the Pretty Road overbridge (leading to an increase of approximately 400m compared to the existing route) or southwards to join the realigned footpath E-515/004/0 which connects back to E-515/003/0 (leading to an increase by approximately 640m compared to the existing route);

- E-515/007/0 would be diverted east of its existing alignment by approximately 55m to connect to the stopped up section of Moat Road; and
- footpath E-515/013/0 would be diverted to cross the route of the proposed Sizewell link road south-east of its existing position, increasing the length of the footpath by approximately 95m compared to its existing alignment.

10.6.87 The pedestrian delay impact on users of the footpaths during the operation of Sizewell link road would be of low magnitude, with the exception of footpaths E-396/015/0 and E-515/005/0, and taking into consideration the medium sensitivity of PRoW users, would result in a **minor adverse** effect on pedestrian delay which is **not significant**.

10.6.88 The pedestrian delay impact on users of footpaths E-396/015/0 and E-515/005/0 during the operation of Sizewell link road would be of high magnitude, and taking into consideration the medium sensitivity of PRoW users, would result in a **major adverse** effect on pedestrian delay which is **significant**.

10.6.89 With regards to PRoW in the vicinity of the main development site, the pedestrian delay impact on users of Bridleway 19 during the construction of the main development site would be of low magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a **minor adverse effect** on pedestrian delay which is **not significant.**

10.6.90 The pedestrian delay impact on users of Sandlings Walk and footpath E-363/021/0 during the construction of the main development site would be of low magnitude and taking into consideration the medium sensitivity of PRoW users, would result in a **short term minor adverse** effect on pedestrian delay which is **not significant.**

iii. Amenity

10.6.91 The approach used for assessing the effects on amenity is summarised in **Volume 1, Appendix 6F**. The IEMA guidance (Ref 10.17) requires a judgement to be made on the magnitude of impact on amenity based on the routes with greater than 100 % change in traffic or HDV flow. The complete assessment is included in **Appendix 10C** of this chapter.

10.6.92 **Tables 10.21** and **10.22** provide a summary of the road links for the 24hr AAWT total traffic and representative hour (07:00-08:00) scenarios that are forecast to experience a moderate or major effect in amenity during peak construction.

10.6.93 **Tables 10.23** and **10.24** provide a summary of the road links for the 24hr AAWT HDVs and representative hour (07:00-08:00) HDVs scenarios that are forecast to experience a moderate or major effect in amenity during peak construction.

10.6.94 **Table 10.25** provides a summary of the amenity effects for all four scenarios assessed (i.e. 24hr AAWT and representative hour for total traffic and HDVs).

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Table 10.21: Amenity 2028 24hr AAWT Total Traffic

Link Number	Link Name	2028 Reference Case 24 hr AAWT total traffic	2028 Reference + Sizewell (busiest) 24 hr AAWT total traffic	% Change	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	6,183	552	-91%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	8,808	880,800%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	21,805	819	-96%	High	Medium	**Major beneficial**
23	A12 Farnham bend	21,806	275	-99%	High	Medium	**Major beneficial**
23a	Two village bypass	0	22,397	22,397,000	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	21,166	584	-97%	High	Medium	**Major beneficial**
57	Sizewell link rd (east of A12)	0	2,543	2,543,000%	High	Medium	**Major adverse**
63	Theberton bypass (west of B1125)	0	6,781	6,781,000%	High	Medium	**Major adverse**
65	Middleton Moor Link	0	4,386	4,386,000%	High	Medium	**Major adverse**
66	B1122 west of B1125	3,593	122	-97%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	4,284	370	-91%	High	Medium	**Major beneficial**

Table 10.22: Amenity 2028 Representative Hour (07:00-08:00) Total Traffic

Link Number	Link Name	2028 Reference Case total traffic in hour	2028 Reference + Sizewell (busiest) total traffic in hour	% Change	Magnitude	Sensitivity	Effect Significance
4a	B1122 (S)	228	536	135%	Medium	Medium	**Moderate adverse**
5	B1122 Abbey Road	256	566	121%	Medium	Medium	**Moderate adverse**
10	B1122 through Theberton	513	55	-89%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	685	685,000%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	1,511	25	-98%	High	Medium	**Major benefical**
23	A12 Farnham bend	1,507	20	-99%	High	Medium	**Major beneficial**
23a	Two village bypass	0	1,568	1,568,000	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	1,505	18	-99%	High	Medium	**Major beneficial**
34b	Main Road (E)	35	366	946%	High	High	**Major adverse**
57	Sizewell Link Road (east of A12)	0	157	157,000%	High	Medium	**Major adverse**
63	Theberton Bypass (west of B1125)	0	515	515,000%	High	Medium	**Major adverse**
65	Middleton Moor Link	0	365	365,000%	High	Medium	**Major adverse**
66	B1122 west of B1125	300	9	-97%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	342	24	-93%	High	Medium	**Major beneficial**

Table 10.23: Amenity 2028 24hr AAWT HDVs

Link Number	Link Name	2028 Reference 24hr AAWT HDVs	2028 Reference + Sizewell (busiest) 24hr AAWT HDVs	% Change	Magnitude	Sensitivity	Effect Significance
5	B1122 Abbey Road	142	359	152%	Medium	Medium	**Moderate adverse**
10	B1122 through Theberton	218	0	-100%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	1,726	172,600%	High	Medium	**Major adverse**
13b	B1122	177	520	194%	High	Low	**Moderate adverse**
21b	A12 (north of B1119)	681	1,778	161%	High	Medium	**Major adverse**
21c	A12 (middle)	688	1,785	159%	Medium	Medium	**Moderate adverse**
21e	A12 (south of B1119)	718	1,812	153%	Medium	Medium	**Moderate adverse**
22c	A12 (S) (Farnham)	917	58	-94%	High	Medium	**Major beneficial**
23	A12 Farnham bend	919	11	-99%	High	Medium	**Major beneficial**
23a	Two village bypass	0	1,980	1,980,000	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	911	44	-95%	High	Medium	**Major beneficial**
57	Sizewell Link Road (east of A12)	0	1,235	1,235,000%	High	Medium	**Major adverse**
63	Theberton Bypass (west of B1125)	0	1,749	1,749,000%	High	Medium	**Major adverse**
64	B1122 north of SZC access	218	1,728	692%	High	Medium	**Major adverse**
65	Middleton Moor Link	0	518	518,000%	High	Medium	**Major adverse**
66	B1122 west of B1125	169	0	-100%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	177	4	-98%	High	Medium	**Major beneficial**

Link Number	Link Name	2028 Reference 24hr AAWT HDVs	2028 Reference + Sizewell (busiest) 24hr AAWT HDVs	% Change	Magnitude	Sensitivity	Effect Significance
78	A12 (north of B1121)	718	1,812	153%	Medium	Medium	**Moderate adverse**

Table 10.24: Amenity 2028 Representative Hour HDVs (07:00-08:00)

Link Number	Link Name	2028 Reference Case HDVs in the hour	2028 Reference + Sizewell (busiest) HDVs in the hour	% Change	Magnitude	Sensitivity	Effect Significance
4a	B1122 (S)	9	27	200%	High	Medium	**Major adverse**
4c	B1122 (N)	11	41	273%	High	Medium	**Major adverse**
5	B1122 Abbey Road	12	29	142%	Medium	Medium	**Moderate adverse**
7	B1069 Coldfair Green	13	29	123%	Medium	Medium	**Moderate adverse**
10a	Theberton bypass part of SLR	0	124	124,000%	High	Medium	**Major adverse**
13b	B1122	12	45	273%	High	Low	**Moderate adverse**
21b	A12 (north of B1119)	63	141	124%	Medium	Medium	**Moderate adverse**
22c	A12 (S) (Farnham)	80	1	-99%	Medium	Medium	**Moderate beneficial**
23	A12 Farnham bend	80	1	-99%	Medium	Medium	**Moderate beneficial**
23a	Two village bypass	0	156	156,000	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	80	1	-99%	Medium	Medium	**Moderate beneficial**
57	Sizewell Link Road (east of A12)	0	80	80,000%	High	Medium	**Major adverse**
63	Theberton bypass (west of B1125)	0	125	125,000%	High	Medium	**Major adverse**
64	B1122 north of SZC access	11	124	1,025%	High	Medium	**Major adverse**
65	Middleton Moor Link	0	45	445,000%	High	Medium	**Major adverse**
76	B1069 (north of Aldringham Lane)	12	28	133%	Medium	Medium	**Moderate adverse**

Table 10.25: Summary of 2028 Peak Construction Amenity Effects

Link Number	Link Name	Effect Significance				Effect Significance
		24hr AAWT total traffic	Representative hour total traffic	24hr AAWT HDVs	Representative hour HDVs	
4a	B1122 (S)	Minor adverse	**Moderate adverse**	Minor adverse	**Major adverse**	Minor - Major adverse
4c	B1122 (N)	Negligible	Minor adverse	Minor adverse	**Major adverse**	Negligible – Major adverse
5	B1122 Abbey Road	Minor adverse	**Moderate adverse**	**Moderate adverse**	**Moderate adverse**	Minor - Moderate adverse
7	B1069 Coldfair Green	Minor adverse	Minor adverse	Minor adverse	**Moderate adverse**	Minor - Moderate adverse
10	B1122 through Theberton	**Major beneficial**	**Major beneficial**	**Major beneficial**	Minor beneficial	Minor - Major beneficial
10a	Theberton bypass part of SLR	**Major adverse**	**Major adverse**	**Major adverse**	**Major adverse**	Major adverse
13b	B1122	Negligible	Negligible	**Moderate adverse**	**Moderate adverse**	Negligible - Moderate adverse
21b	A12 (north of B1119)	**Minor adverse**	Minor adverse	**Major adverse**	**Moderate adverse**	Moderate - Major adverse
21c	A12 (middle)	**Minor adverse**	Minor adverse	**Moderate adverse**	Minor adverse	Minor - Moderate adverse
21e	A12 (south of B1119)	**Minor adverse**	Minor adverse	**Moderate adverse**	Minor adverse	Minor - Moderate adverse
22c	A12 (S) (Farnham)	**Major beneficial**	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Moderate - Major beneficial
23	A12 Farnham bend	**Major beneficial**	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Moderate - Major beneficial
23a	Two village bypass	**Major adverse**	**Major adverse**	**Major adverse**	**Major adverse**	Major adverse
24	A12 Stratford St Andrew	**Major beneficial**	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Moderate - Major beneficial
34b	Main Road (E)	Minor adverse	**Major adverse**	Negligible	Negligible	Negligible - Major adverse
57	Sizewell link rd (east of A12)	**Major adverse**	**Major adverse**	**Major adverse**	**Major adverse**	Major adverse
63	Theberton bypass (west of B1125)	**Major adverse**	**Major adverse**	**Major adverse**	**Major adverse**	Major adverse
64	B1122 north of SZC access	Minor adverse	Minor adverse	**Major adverse**	**Major adverse**	Minor - Major adverse

Link Number	Link Name	Effect Significance				Effect Significance
		24hr AAWT total traffic	Representative hour total traffic	24hr AAWT HDVs	Representative hour HDVs	
65	Middleton Moor Link	**Major adverse**	**Major adverse**	**Major adverse**	**Major adverse**	Major adverse
66	B1122 west of B1125	**Major beneficial**	**Major beneficial**	**Major beneficial**	Minor beneficial	Minor - Major beneficial
74	B1122 (Middleton Moor)	**Major beneficial**	**Major beneficial**	**Major beneficial**	Minor beneficial	Minor - Major beneficial
76	B1069 (north of Aldringham Lane)	Minor adverse	Minor adverse	Minor adverse	**Moderate adverse**	Minor - Moderate adverse
78	A12 (north of B1121)	Minor adverse	Minor adverse	**Moderate adverse**	Minor adverse	Minor - Moderate adverse

10.6.95 It can be seen from **Table 10.25** above that there are expected to be a range of amenity effects during peak construction. First, the links with an adverse effect are considered followed by the links with a beneficial effect.

10.6.96 Some of the links that have an adverse effect on amenity are on sections of the A12 that are derestricted and outside of setttlements (i.e. links 21b, 21c, 21e and 78) and would not be suitable for use by pedestrians or cyclists either currently or in the future. As such the effect on amenity on these links during peak construction would be **not significant**.

10.6.97 The two village bypass (link 23a) would experience a **major adverse** effect on amenity during peak construction. The road has not been designed for pedestrians or cyclists to use and would have high vehicular speeds with a relatively high HDV component during peak construction. There is not expected to be any pedestrians or cyclists travelling along the two village bypass and, as such, the amenity effect would be **not significant**.

10.6.98 Sizwell link road (links 10a, 57, 63, 64, 65) would result in an adverse effect in amenity along the proposed route as a result of the increase in traffic compared to the reference case, which does not include the Sizewell link road. There would be a **major adverse** effect on amenity for all scenarios assessed on links 10a, 57 and 63 and a **minor – major adverse** effect on amenity on link 64 during peak construction. The road has not been designed for pedestrians or cyclists to use and would be derestricted, with relatively high HDV component during peak construction. However, once Sizewell link road is operational, the B1122 would have low levels of traffic and would provide an attractive cycle route and pedestrian environment within the settlements of Theberton and Middleton Moor. It is therefore considered that the effect on amenity along Sizewell link road during peak construction would be **not significant**.

10.6.99 There are a number of links in and around Leiston that would have an adverse effect on amenity (i.e. links 4a, 5, 7 and 76). They are all classified as having medium sensitivity as a result of shops with roadside frontage, Quaker House and PRoW intersecting some links. All four links are expected to experience a **minor adverse** effect on amenity as a result of total traffic over the course of the day but a **minor – moderate** adverse effect on amenity as a result of the increase in HDVs on the links during the day. In the representative hour (07:00-08:00) the links would experience a **minor – moderate adverse** effect as a result of total traffic but a **moderate – major adverse effect** on amenity as a result of increase in HDVs in the hour or 07:00-08:00. The increase in HDVs is as a result of Sizewell C buses travelling between Knodishall, Leiston and the main development site but no HGVs would route along these links. It is considered that when the effect on amenity is greatest in the early morning there would be minimal

pedestrian/cycle demand on the links and the effect on amenity would be **not significant**. Notwithstanding this, there is expected to be a moderate adverse effect on amenity on Abbey Road in Leiston (links 4a and 5) over the course of the day, which would be **significant**.

10.6.100 Link 4c – B1122 south of the main site access is classified as medium sensitivity due to the presence of the national cycle route. As part of the primary mitigation a shared footway/cycleway will be provided along this link with a Pegasus crossing. As such, it is considered that the effect on amenity on link 4c would be **not significant**.

10.6.101 The assessment also shows that there would be a major adverse effect on amenity on link 34b, Main Road at Martlesham, during the representative hour of 07:00-08:00. Main Road is classified as highly sensitive as a result of children nurseries on the link. However, as started earlier, the nurseries are located to the north of the built up area of Martlesham and, given the distance from a residential catchment, it is considered likely that children would be driven to/from the nurseries rather than arrive on foot/cycle. In addition, given that the hour of greatest change in traffic on the link is early in the morning when there would be negligible pedestrian/cycle demand on the link, it is considered that the effect on amenity on link 34b would be **not significant**.

10.6.102 The two village bypass would result in a significant reduction in traffic through Stratford St Andrew (link 24) and Farnham (links 22c, 23), which is expected to provide **moderate - major beneficial** effect on amenity in the representative hour (07:00-08:00) and a **major beneficial** effect over the course of a day, which would be **significant**.

10.6.103 The Sizewell link road would result in a significant reduction in traffic along the B1122 corridor (i.e. links 10, 66 and 74), which would provide a beneficial effect on amenity. During the representative hour there would be a **minor beneficial** effect on amenity on these links as a result of the reduction in HDVs but a **major beneficial** effect on amenity as a result of the reduction in total traffic on the links in the representative hour of 07:00-08:00. There would also be a **major beneficial** effect on amenity over the course of a day, which would be **significant**.

iv. Fear and intimidation

10.6.104 The approach used for assessing the effects on fear and intimidation is summarised in **Volume 1, Appendix 6F**. All of the links scoped into the study have been assessed using the thresholds set out in the IEMA guidance (Ref 10.17) to determine what the level of fear and intimidation would be with and without the Sizewell C Project during peak construction. The detailed assessment is included in **Appendix 10C**.

10.6.105 **Tables 10.26** and **10.27** below provide a summary of the links which experience an increased magnitide of impact in fear and intimidation as a result of the increase in total traffic and HDVs, respectively, during peak construction of the Sizewell C Project.

Table 10.26: Fear and Intimidation 2028 18hr AAWT

Link No.	Link Name	2028 Reference Case					2028 Reference + Sizewell (busiest)				
		18hr AAWT veh	Ave veh per hour	Magnitude	Sensitivity	Effect Significance	18hr AAWT veh	Ave veh per hour	Magnitude	Sensitivity	Effect Significance
23	A12 Farnham bend	20,443	1,136	Low	Medium	Minor adverse	258	14	Very Low	Medium	Minor beneficial
23a	Two village bypass	0	0	Nil	Medium	Negligible	19,947	1,108	Low	Medium	Minor adverse
24	A12 Stratford St Andrew	19,824	1,101	Low	Medium	Minor adverse	527	29	Very Low	Medium	Minor beneficial
57	Sizewell Link Road (east of A12)	0	0	Nil	Medium	Negligible	1,254	70	Very Low	Medium	Minor adverse
63	Theberton Bypass (west of B1125)	0	0	Nil	Medium	Negligible	4,872	271	Very Low	Medium	Minor adverse
65	Middleton Moor Link	0	0	Nil	Medium	Negligible	3,759	209	Very Low	Medium	Minor adverse
66	B1122 west of B1125	3,338	185	Very Low	Medium	Minor adverse	115	6	Very Low	Medium	Minor beneficial
74	B1122 (Middleton Moor)	4,007	223	Very Low	Medium	Minor adverse	358	20	Very Low	Medium	Minor beneficial

Table 10.27: Fear and Intimidation 2028 18hr HDVs

Link Number	Link Name	2028 Reference Case				2028 Reference + Sizewell (busiest)			
		18hr AAWT HDVs	Magnitude	Sensitivity	Effect Significance	18hr AAWT HDVs	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	214	Very Low	Medium	Minor adverse	0	Very Low	Medium	Minor beneficial
10a	Theberton bypass part of SLR	0	Nil	Medium	Negligible	1,702	Low	Medium	Minor adverse
13a	A12 (N)	887	Very Low	Low	Negligible	1,271	Low	Low	Minor adverse
21b	A12 (north of B1119)	667	Very Low	Medium	Negligible	1,752	Low	Medium	Minor adverse
23	A12 Farnham bend	900	Very Low	Medium	Negligible	11	Very Low	Medium	Minor beneficial
23a	Two village bypass	0	Nil	Medium	Negligible	1,950	Low	Medium	Minor adverse
24	A12 Stratford St Andrew	893	Very Low	Medium	Minor adverse	44	Very Low	Medium	Minor beneficial
27	A12 south of Wickham Market	1,155	Low	Medium	Minor adverse	2,063	Medium	Medium	**Moderate adverse**
32c	A12 (S)	2,194	Medium	Medium	**Moderate adverse**	3,110	High	Medium	**Major adverse**
34a	A12 (N)	1,167	Low	Very Low	Negligible	2,060	Medium	Very Low	Minor adverse
34c	A12 (S)	2,288	Medium	Medium	**Moderate adverse**	3,143	High	Medium	**Major adverse**
57	Sizewell Link Road (east of A12)	0	Nil	Medium	Negligible	1,221	Low	Medium	Minor adverse
63	Theberton Bypass (west of B1125)	0	Nil	Medium	Negligible	1,724	Low	Medium	Minor adverse
65	Middleton Moor Link	0	Nil	Medium	Negligible	508	Very Low	Medium	Minor adverse
66	B1122 west of B1125	166	Very Low	Medium	Minor adverse	0	Nil	Medium	Minor beneficial
74	B1122 (Middleton Moor)	173	Very Low	Medium	Minor adverse	4	Very Low	Medium	Minor beneficial

10.6.106 It can be seen from **Tables 10.26** and **Tables 10.27** that a number of links are expected to experience **negligible** fear and intimidation in the reference case and **minor adverse** effect in the with development scenario.

10.6.107 First, links 10a, 57, 63 and 65, which all form part of the Sizewell link road, are expected to experience a **minor adverse** effect on amenity. As stated previously, Sizewell link road has a design speed of 60mph and is not designed to accommodate pedestrians and cyclists. Instead, the B1122, which would have a significantly reduced vehicular flow, would act as an east-west pedestrian/cycle route. The effect on fear and intimidation on the Sizewell link road (links 10a, 57, 63 and 65) would be **not significant**.

10.6.108 The two village bypass (link 23a) would experience a **minor adverse** effect in fear and intimidation, which would be **not significant** and in any case, as with the Sizewell link road, there is not expected to be any pedestrians or cyclists using the two village bypass.

10.6.109 The assessment also shows that there are a number of links on the A12 that would experience an increase in fear and intimidation as a result of the increase in HDVs (i.e. links 13a, 21b, 27, 32c, 34a, 34c). Links 13a, 21b and 34a would experience an increase in fear and intimidation from **negligible** to **minor adverse**, which is **not significant**. The other links on the A12 (links 27, 32c and 34c) are all dual carriageway sections of the A12 with no footways and therefore there should not be any pedestrians/cyclists using these links. As such, it can be concluded that the effect of the Sizewell C Project on fear and intimidation on these A12 links during peak construction would be **not significant**.

10.6.110 The assessment shows that links on the B1122 (i.e. links 10, 66 and 74) would experience a reduction in fear and intimiation from a **minor adverse** effect in the Reference Case to a **minor beneficial** effect in the 'with development' scenario, which would be **not significant**.

10.6.111 Finally, the assessment shows that, as a result of two village bypass, there would be a significant reduction in traffic through Stratford St Andrew (link 24) and Farnham (link 23), which would result in a reduction in fear and intimidation from **minor adverse** to **minor beneficial**, which would be **not significant**.

v. Driver delay

10.6.112 The approach used for assessing the effects on driver delay is summarised in **Volume 1, Appendix 6F**. The assessment of driver delay is considered fully within the **Transport Assessment** (Doc Ref 8.5) and this section summaries the effects of the Sizewell C Project on journey time during peak construction.

10.6.113 At peak construction all of the highway improvement schemes will be operational. The journey time analysis shows that on some routes small increases in journey time may occur but these are generally less than one minute, or within 5% of the reference case travel time, and unlikely to be distinguishable from daily variation in travel time. Where larger increases occur, for example on routes 2 and 8 southbound during 17:00–18:00 hours, traversing the A12 through Woodbridge, proportionately these are still within 5% of reference case travel time so unlikely to be noticeable day to day.

10.6.114 During peak construction there will be AIL movements by road to the main development site, some of which will utilise the beach landing facility but others will be transported via the highway network. These will be managed through consultation with the relevant authorities and statutory notice provided prior to moving loads. Where possible AILs will be moved outside of peak periods in order to minimise delay to road users.

10.6.115 There is expected to be a **minor adverse** effect on driver delay and bus passenger delay during peak construction, which would be **not significant**.

10.6.116 With regards to rail, the peak construction rail operation associated with the movement of construction material would consist of three return freight trains per day once the green rail route is operational. Freight trains associated with the peak construction would operate after the last passenger train in the evening and before the first passenger train the following morning, with the exception of one inbound train which would utilise an existing gap in the passenger timetable between 08:00-09:00. The freight rail movements during peak construction would would therefore not have any effect on rail passenger journey times. There would therefore be **negligible** effect on rail passenger delay during peak construction, which would be **not significant**.

vi. Accidents and road safety

10.6.117 The approach used for assessing the effects on accidents and road safety is summarised in **Volume 1, Appendix 6F**. An assessment of accidents and road safety is provided in the **Transport Assessment** (Doc Ref 8.5) and summarised in this section.

10.6.118 At the main development site access, there would be a **minor adverse** effect on road safety during peak construction.

10.6.119 At the northern and southern park and ride sites there would be a **minor adverse** effect on road safety during peak construction, through the introduction of a new access on the highway network.

10.6.120 The two village bypass and Sizewell link road would improve road safety through Stratford St Andrew and Farnham and along the B1122 to result in a **minor beneficial** road safety impact during peak construction.

10.6.121 At Yoxford roundabout there is expected to be a **negligible** effect on road safety during peak construction.

10.6.122 There would be **minor beneficial** road safety effects at the A1094/B1069 and the A140/B1078 junctions, **negligible** effects at the B1078 near Otley College and A12/B1119 junction and **minor adverse** road safety effect at the A12/A144 junction.

10.6.123 On the heavily trafficked A14 and A12 as far north as Woodbridge, traffic flow increases at peak construction are low and the road safety effects at peak construction would be **negligible**.

10.6.124 Further north on the A12 around Blythburgh, there would be **minor adverse** effects on road safety at peak construction due to the increased traffic volumes. There would also be a **negligible** effect on road safety on the B1125 to the south of Blythburgh once construction worker traffic starts to use the northern park and ride and traffic volume increases on the B1125 reduce compared to the early years assessment.

g) Operational assessment

10.6.125 As stated previously, all future year scenarios have been modelled including traffic flows generated by an outage at Sizewell B. A scenario of an outage at Sizewell B and C occurring concurrently during the operational phase has not been assessed as the outages would be planned to not coincide. Whilst there is a possibility for unplanned outages at Sizewell B or C to coincide with a planned outage, this is highly unlikely to occur and, therefore, is not considered to be a typical or reasonable scenario to assess.

i. Severance

10.6.126 The approach used for assessing the effects on severance is summarised in **Volume 1, Appendix 6F**. The complete assessment of severance is included in **Appendix 10C**.

10.6.127 **Tables 10.28** and **10.29** summarise the road links that are forecast to experience a **moderate** or **major adverse** effect on severance based on the 24hr total traffic assessment and representative hour assessment, respectively. It should be noted that for the operational scenario, the hour of greatest change in traffic (i.e. the representative hour) is expected to be 16:00-17:00.

Table 10.28: Severance 2034 24hr AAWT Total Traffic

Link Number	Link Name	2034 Reference Case 24hr AAWT total traffic	2034 Reference + Sizewell (busiest) 24hr AAWT total traffic	% Change	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	6,506	421	-94%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	7,182	718,200%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	23,032	828	-96%	High	Medium	**Major beneficial**
23	A12 Farnham bend	23,041	291	-99%	High	Medium	**Major beneficial**
23a	A12 two village bypass	0	22,454	2,245,400%	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	22,384	581	-97%	HIgh	Medium	**Major beneficial**
34b	Main Road (E)	4,196	5,622	34%	Low	High	**Moderate adverse**
57	Sizewell link road (east A12)	0	1,385	138,500%	High	Medium	**Major adverse**
63	Theberton bypass (west B1125)	0	5,185	518,500%	High	Medium	**Major adverse**
65	Sizewell link road	0	3,942	394,200%	High	Medium	**Major adverse**
66	B1122 west of B1125	3,797	94	-98%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	4,563	376	-92%	High	Medium	**Major beneficial**

Table 10.29: Severance 2034 Representative Hour (16:00-17:00) Total Traffic

Link Number	Link Name	2034 Reference case total traffic in the hour	2034 Reference + Sizewell (busiest) total traffic in the hour	% Change	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	532	41	-92%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	697	697,000%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	1934	23	-99%	High	Medium	**Major beneficial**
23	A12 Farnham bend	1935	23	-99%	High	Medium	**Major beneficial**
23a	A12 two village bypass	0	1,987	1,987,000%	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	1,935	26	-99%	High	Medium	**Major beneficial**
57	Sizewell link road (east A12)	0	109	109,000%	High	Medium	**Major adverse**
63	Theberton bypass (west B1125)	0	435	435,000%	High	Medium	**Major adverse**
65	Sizewell link road	0	335	335,000%	High	Medium	**Major adverse**
66	B1122 west of B1125	315	13	-96%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	370	29	-92%	High	Medium	**Major beneficial**

10.6.128 The IEMA guidance (Ref 10.17) requires the assessment to pay full regard to specific local conditions when making judgements, which is set out below. First the links with an adverse effect are considered followed by the links with a beneficial effect.

10.6.129 The links that form the Sizewell link road (links 10a, 57, 63 and 65) have all been classified as medium sensitivity due to the presence of PRoWs intersecting the proposed new road. The magnitude of severance is forecast in the assessment to be **major adverse** as a result of the increase in traffic from the reference case scenario, which does not include the Sizewell link road and users of the PRoW would not need to cross a road in this scenario. The same professional judgement applied to the peak construction scenario would apply to the operational phase. It is therefore concluded that the severance effect on links 10a, 57 and 65 would be **not significant** but that the severance effect on link 63 would be **significant**.

10.6.130 The two village bypass (link 23a) has been classified as medium sensitivity due to the presence of PRoWs intersecting the proposed new road. The magnitude of severance is forecast to be **major adverse**. The same professional judgement applied to the peak construction scenario would apply to the operational phase. It is therefore concluded that the severance effect on footpaths E-243/003/0 and E-243/004/0 would be **not significant** but that the severance effect on footpath 243/001/0 and E-137/029/0 would be **significant**.

10.6.131 During operation of the main development site, footpath E-363/021/0 along the coast would be diverted westwards onto its permanent alignment on the new sea defences. The Suffolk Coast Path and Sandlings Walk would be permanently diverted onto this route. It is therefore considered that the effect on severance on E-363/021/0 and Suffolk Coast Path and Sandlings Walk would be **not significant**.

10.6.132 Link 34b – Main Road (east) at Martlesham has been classified as high sensitivity due to the presence of two childrens nurseries. The nurseries are located to the north of the built up area of Martlesham and, given the distance from a residential catchment, it is considered likely that children would be driven to/from the nurseries rather than arrive on foot/cycle. As such, it is considered that the effect on severance on link 34b would be **not significant**.

10.6.133 As a result of the implementation of the two village bypass, traffic flows through Farnham and Stratford St Andrew (links 22c, 23 and 24) would reduce significantly, resulting in a **major beneficial** effect on severance, which would be **significant**.

10.6.134 As a result of the implementation of the Sizewell link road, traffic flows along the B1122 (links 10, 66 amd 74) would reduce significantly, resulting in a **major beneficial** effect on severance, which would be **significant**.

ii. Pedestrian delay

10.6.135 The approach used for assessing the effects on pedestrian delay is summarised in **Volume 1, Appendix 6F**. The complete assessment of pedestrian delay during the operational phase is included in **Appendix 10C.**

10.6.136 There are no links that exceed the 1,400 threshold in the 24 hr AAWT (average hourly flows) scenario and the effect on pedestrian delay would be **not significant**.

10.6.137 **Table 10.30** summarises the links that exceed the low threshold of 1,400 vehicles per hour for the representative hour (07:00-08:00). Based on the hourly flows in **Table 10.30**, an assessment has been undertaken to estimate the potential increase/decrease in pedestrian delay (to the nearest 0.5 second) on each link, utilising graphs included in the TRL report on 'Mean pedestrian delays associated with different road crossing situations' (Ref 10.19). Those links with a moderate or major effect on pedestrian delay during the operational phase are summarised in **Table 10.30**.

Table 10.30: Pedestrian Delay 2034 Representative Hour (16:00-17:00) Effect Significance

Link Number	Link Name	2034 Reference Case		2034 Reference Case + Sizewell (busiest)		Mean Pedestrian Delay Increase (seconds)	Magnitude	Sensitivity	Effect Significance
		Vehicles per hour	Mean Pedestrian Delay (seconds)	Vehicles per hour	Mean Pedestrian Delay (seconds)				
22c	A12 (S) (Farnham)	1,934	16.5	23	1	-15.5	High	Medium	**Major beneficial**
23	A12 Farnham bend	1,935	16.5	23	1	-15.5	High	Medium	**Major beneficial**
23a	A12 two village bypass	0	0	1,987	19.5	19.5	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	1,935	16.5	26	1	-15.5	HIgh	Medium	**Major beneficial**

10.6.138 Based on the assessment included in **Tables 10.30** on pedestrian delay for pedestrians to cross roads within the study area, it is concluded that there would be one **major adverse** effect and three **major beneficial** effects during the operational phase of the Sizewell C Project.

10.6.139 The reduction in traffic through Stratford St Andrew (link 24) and Farnham (links 22c and 23) as a result of the diversion of traffic onto the two village bypass will result in a **major beneficial** effect on pedestrian delay through the villages, which would be **significant**.

10.6.140 The assessment shows that there would be a **major adverse** effect on pedestrians crossing the two village bypass. The bypass has not been designed to cater for pedestrian movement along either side of the carriageway and the only pedestrian demand will be from PRoW users of the four footpaths that intersect the proposed road. Two of these footpaths will be diverted to the proposed Foxburrow Wood non-motorised user bridge (i.e. footpaths E-243/003/0 and E-243/004/0) and the effect on pedestrian delay to cross the road would therefore be **not significant**. However, footpaths 243/001/0 and E-137/029/0 would cross the two-village bypass at grade. The pedestrian delay assessment estimates the delay to cross the road where these footpaths intersect the two village bypass would be 19.5 seconds during the operation phase in 2034, which is considered to be **significant**.

10.6.141 The links included in the assessment in **Appendix 10C** only include those links that exceed the 1,400 hourly vehicle threshold and those links not included in the assessment have hourly vehicle flows below this threshold. The links that form the Sizewell link road all fall below the 1,400 hourly vehicle threshold and would therefore have a **negligible** effect on pedestrian delay for pedestrians crossing the proposed road, which would be **not significant**.

10.6.142 The assessment in **Appendix 10C** is only concerned with the increase/decrease in pedestrian delay to cross existing and proposed roads within the study area. It does not consider pedestrian delay as a result of PRoW diversions associated with the two village bypass, Sizewell link road or main development site. This is dealt with in the Amenity and Recreation assessment for the two village bypass (**Volume 5, Chapter 8**) and the Sizewell link road (**Volume 6, Chapter 8**). The same professional judgement applied to the peak construction scenario would apply to the operational phase.

10.6.143 It is therefore concluded that the pedestrian delay impact on users of the footpaths during the operation of the two village bypass and main development site would be of low magnitude and taking into consideration

the medium sensitivity of PRoW users, would result in a **minor adverse** effect on pedestrian delay which is **not significant**.

10.6.144 The pedestrian delay impact on users of the footpaths during the operation of Sizewell link road would be of low magnitude, with the exception of footpaths E-396/015/0 and E-515/005/0, and taking into consideration the medium sensitivity of PRoW users, would result in a **minor adverse** effect on pedestrian delay which is **not significant**.

10.6.145 The pedestrian delay impact on users of footpaths E-396/015/0 and E-515/005/0 during the operation of Sizewell link road would be of high magnitude as a result of the diversion of the footpaths to join the proposed Pretty Road non-motorised user bridge, and taking into consideration the medium sensitivity of PRoW users, would result in a **major adverse** effect on pedestrian delay which is **significant**.

iii. Amenity

10.6.146 The approach used for assessing the effects on amenity is summarised in **Volume 1, Appendix 6F**. The assessment of amenity for the operational phase is included in **Appendix 10C**.

10.6.147 **Tables 10.31** and **10.32** provide a summary of the road links for the 24hr AAWT total traffic and representative hour (07:00-08:00) scenarios that are forecast to experience a moderate or major effect in amenity during the operational phase.

10.6.148 **Tables 10.33** and **10.34** provide a summary of the road links for the 24hr AAWT HDVs and representative hour (07:00-08:00) HDVs scenarios that are forecast to experience a moderate or major effect in amenity during the operational phase.

10.6.149 **Table 10.35** provides a summary of the amenity effects for all four scenarios assessed (i.e. 24hr AAWT and representative hour for total traffic and HDVs).

Table 10.31: Amenity 2034 24hr AAWT

Link Number	Link Name	2034 Reference Case 24hr AAWT total traffic	2034 Reference + Sizewell (busiest) 24hr AAWT total traffic	% Change	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	6,506	421	-94%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	7,182	7,182,000%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	23,032	828	-96%	High	Medium	**Major beneficial**
23	A12 Farnham bend	23,041	291	-99%	High	Medium	**Major beneficial**
23a	A12 two village bypass	0	22,454	22,454,000%	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	22,384	581	-97%	High	Medium	**Major beneficial**
57	Sizewell Link Road (east of A12)	0	1,385	1,385,000%	High	Medium	**Major adverse**
63	Theberton Bypass (west of B1125)	0	5,185	5,185,000%	High	Medium	**Major adverse**
65	Middleton Moor Link	0	3,942	3,942,000%	High	Medium	**Major adverse**
66	B1122 west of B1125	3,797	94	-98%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	4,563	376	-92%	High	Medium	**Major beneficial**

Table 10.32: Amenity 2034 Representative Hour (16:00-17:00)

Link Number	Link Name	2034 Reference Case total traffic in the hour	2034 ref + Sizewell (busiest) total traffic in the hour	% Change	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	532	41	-92%	High	Medium	**Major beneficial**
10a	Theberton bypass part of SLR	0	697	697,000%	High	Medium	**Major adverse**
22c	A12 (S) (Farnham)	1,934	23	-99%	High	Medium	**Major beneficial**
23	A12 Farnham bend	1,935	23	-99%	High	Medium	**Major beneficial**
23a	A12 two village bypass	0	1,987	1,987,000%	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	1,935	26	-99%	High	Medium	**Major beneficial**
57	Sizewell Link Road (east of A12)	0	109	109,000%	High	Medium	**Major adverse**
63	Theberton Bypass (west of B1125)	0	435	435,000%	High	Medium	**Major adverse**
65	Middleton Moor Link	0	335	335,000%	High	Medium	**Major adverse**
66	B1122 west of B1125	315	13	-96%	High	Medium	**Major beneficial**
74	B1122 (Middleton Moor)	370	29	-92%	High	Medium	**Major beneficial**

Table 10.33: Amenity 2034 24hr AAWT HDVs

Link Number	Link Name	2034 Reference Case 24hr AAWT HDVs	2034 Reference + Sizewell (busiest) 24hr AAWT HDVs	% Change	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	222	0	-100%	Medium	Medium	**Moderate beneficial**
10a	Theberton bypass part of SLR	0	259	259,000%	Medium	Medium	**Moderate adverse**
22c	A12 (S) (Farnham)	931	58	-94%	High	Medium	**Major beneficial**
23	A12 Farnham bend	933	11	-99%	High	Medium	**Major beneficial**
23a	A12 two village bypass	0	921	921,000%	High	Medium	**Major adverse**
24	A12 Stratford St Andrew	921	44	-95%	High	Medium	**Major beneficial**
57	Sizewell Link Road (east of A12)	0	156	156,000%	Medium	Medium	**Moderate adverse**
63	Theberton bypass (west of B1125)	0	280	280,000%	Medium	Medium	**Moderate adverse**
65	Middleton Moor Link	0	151	151,000%	Medium	Medium	**Moderate adverse**
66	B1122 west of B1125	169	0	-100%	Medium	Medium	**Moderate beneficial**
74	B1122 (Middleton Moor)	181	4	-98%	Medium	Medium	**Moderate beneficial**

Table 10.34: Amenity 2034 Representative Hour HDVs (16:00-17:00)

Link Number	Link Name	2034 Reference Case HDVs in the hour	2034 Reference + Sizewell (busiest) HDVs in the hour	% Change	Magnitude	Sensitivity	Effect Significance
22c	A12 (S) (Farnham)	72	4	-94%	Medium	Medium	**Moderate beneficial**
23	A12 Farnham bend	72	4	-94%	Medium	Medium	**Moderate beneficial**
23a	A12 two village bypass	0	67	67,000%	Medium	Medium	**Moderate adverse**
24	A12 Stratford St Andrew	72	5	-93%	Medium	Medium	**Moderate beneficial**

Table 10.35: Summary of 2034 Amenity Effects

Link Number	Link Name	Effect Significance				Effect Significance
		24hr AAWT total traffic	Representative hour total traffic	24hr AAWT HDVs	Representative hour HDVs	
10	B1122 through Theberton	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Minor beneficial	Minor – Major beneficial
10a	Theberton bypass part of SLR	**Major adverse**	**Major adverse**	**Moderate adverse**	Minor adverse	Minor – Major adverse
22c	A12 (S) (Farnham)	**Major beneficial**	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Moderate – Major beneficial
23	A12 Farnham bend	**Major beneficial**	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Moderate – Major beneficial
23a	A12 two village bypass	**Major adverse**	**Major adverse**	**Major adverse**	**Moderate adverse**	Moderate – Major adverse
24	A12 Stratford St Andrew	**Major beneficial**	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Moderate – Major beneficial
57	Sizewell Link Road (east A12)	**Major adverse**	**Major adverse**	**Moderate adverse**	Minor adverse	Minor – Major adverse
63	Theberton bypass (west B1125)	**Major adverse**	**Major adverse**	**Moderate adverse**	Minor adverse	Minor – Major adverse
65	Middleton Moor Link	**Major adverse**	**Major adverse**	**Moderate adverse**	Minor adverse	Minor – Major adverse
66	B1122 west of B1125	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Minor beneficial	Minor – Major beneficial
74	B1122 (Middleton Moor)	**Major beneficial**	**Major beneficial**	**Moderate beneficial**	Minor beneficial	Minor – Major beneficial

10.6.150 It can be seen from **Table 10.35** above that there are expected to be a range of amenity effects during the operational phase. First the links with an adverse effect are considered followed by the links with a beneficial effect.

10.6.151 Links along the Sizewell link road (links 10a, 57, 63 and 65) would result in an adverse effect in amenity as a result of the increase in traffic compared to the reference case, which does not include the Sizewell link road. There would be a **major adverse** effect on amenity over the course of the day and during the representative hour (16:00-17:00) as a result of the total vehicular increase in traffic. There would be a **minor – moderate adverse** effect on amenity on the links as a result of the increase in HDVs in the operational phase. The Sizewell link road has not been designed to cater for pedestrian/cycle flow as it will act as a distributor road. During the operational phase the B1122 would have low levels of traffic and would provide an attractive cycle route and pedestrian environment within the settlements of Theberton and Middleton Moor. It is therefore considered that the effect on amenity along Sizewell link road during the operational phase would be **not significant**.

10.6.152 The two village bypass would experience a **moderate – major adverse** effect on amenity during the operational year. It has not been designed to cater for pedestrian and cycle movement along the route as it will form part of the A12 corridor. Pedestrian and cycle movement would be able to take place within the villages of Stratford St Andrew and Farnham that the road will bypass. Therefore the effect on amenity would be **not significant**.

10.6.153 The two village bypass would result in a significant reduction in traffic through Stratford St Andrew (link 24) and Farnham (links 22c and 23), which is expected to provide minor beneficial **moderate - major beneficial** effect on amenity in the representative hour (16:00-17:00) and a **major beneficial** effect over the course of a day, which would be **significant**.

10.6.154 The Sizewell link road would result in a significant reduction in traffic along the B1122 corridor (i.e. links 10, 66 and 74), which would provide a beneficial effect on amenity. During the representative hour there would be a **minor beneficial** effect on amenity on these links as a result of the reduction in HDVs but a **major beneficial** effect on amenity as a result of the reduction in total traffic on the links in the representative hour of 16:00-17:00. There would also be a **major beneficial** effect on amenity over the course of a day, which would be **significant**.

iv. Fear and intimidation

10.6.155 The approach used for assessing the effects on fear and intimidation is summarised in **Volume 1, Appendix 6F**. All of the links scoped into the study have been assessed using the thresholds set out in the IEMA guidance (Ref

10.17) to determine what the level of fear and intimidation would be with and without the Sizewell C Project during the operational phase. The detailed assessment is included in **Appendix 10C**.

10.6.156 **Tables 10.36** and **10.37** below provide a summary of the links which experience an increased magnitide of impact in fear and intimidation as a result of the increase in total traffic and HDVs, respectively, during the operation of the Sizewell C Project.

Table 10.36: Fear and Intimidation 2034 18hr AAWT

Link Number	Link Name	2034 Reference Case					2034 Reference + Sizewell (busiest)				
		18hr AAWT veh	Average veh per hour	Magnitude	Sensitivity	Effect Significance	18hr AAWT veh	Average veh per hour	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	6,133	341	Very Low	Medium	Minor adverse	412	23	Very Low	Medium	Minor beneficial
10a	Theberton Bypass part of SLR	0	0	Nil	Medium	Negligible	6,764	376	Very low	Medium	Minor adverse
22c	A12 (S) (Farnham)	21,631	1,202	Medium	Medium	Moderate adverse	754	42	Very Low	Medium	Minor beneficial
23	A12 Farnham bend	21,639	1,202	Medium	Medium	Moderate adverse	274	15	Very Low	Medium	Minor beneficial
23a	A12 two village bypass	0	0	Nil	Medium	Negligible	21,079	1,171	Low	Medium	Minor adverse
24	A12 Stratford St Andrew	21,007	1,167	Low	Medium	Minor adverse	525	29	Very Low	Medium	Minor beneficial
57	Sizewell Link Road (east of A12)	0	0	Nil	Medium	Negligible	1,203	67	Very Low	Medium	Minor adverse
63	Theberton Bypass (west of B1125)	0	0	Nil	Medium	Negligible	4,788	266	Very Low	Medium	Minor adverse
65	Middleton Moor Link	0	0	Nil	Medium	Negligible	3,698	205	Very Low	Medium	Minor adverse
74	B1122 (Middleton Moor)	4,277	238	Very Low	Medium	Minor adverse	364	20	Very Low	Medium	Minor beneficial

Table 10.37: Fear and Intimidation 2034 18hr HDVs

Link Number	Link Name	2034 Reference Case				2034 Reference + Sizewell (busiest)			
		18hr AAWT HDVs	Magnitude	Sensitivity	Effect Significance	18hr AAWT HDVs	Magnitude	Sensitivity	Effect Significance
10	B1122 through Theberton	218	Very Low	Medium	Minor adverse	0	Nil	Medium	Minor beneficial
10a	Theberton Bypass	0	Nil	Medium	Negligible	254	Very Low	Medium	Minor adverse
22c	A12 (S) (Farnham)	912	Very Low	Medium	Minor adverse	57	Very Low	Medium	Minor beneficial
23	A12 Farnham bend	914	Very Low	Medium	Minor adverse	11	Very Low	Medium	Minor beneficial
23a	A12 Two Village Bypass	0	Nil	Medium	Negligible	903	Very Low	Medium	Minor adverse
24	A12 Stratford St Andrew	903	Very Low	Medium	Minor adverse	44	Very Low	Medium	Minor beneficial
57	Sizewell Link Road (east of A12)	0	Nil	Medium	Negligible	153	Very Low	Medium	Minor adverse
63	Theberton Bypass (west of B1125)	0	Nil	Medium	Negligible	275	Very Low	Medium	Minor adverse
65	Middleton Moor Link	0	Nil	Medium	Negligible	148	Very Low	Medium	Minor adverse
66	B1122 west of B1125	166	Very Low	Medium	Minor adverse	0	Nil	Medium	Minor beneficial
74	B1122 (Middleton Moor)	177	Very Low	Medium	Minor adverse	4	Very Low	Medium	Minor beneficial

10.6.157 It can be seen from **Tables 10.36** and **Tables 10.37** that a number of links are expected to experience **negligible** fear and intimidation in the reference case and **minor adverse** effect in the 'with development' scenario.

10.6.158 First, links 10a, 57, 63 and 65, which all form part of the Sizewell link road, are expected to experience a **minor adverse** effect on amenity. The effect on fear and intimidation on the Sizewell link road (links 57, 63 and 65) would be **not significant**.

10.6.159 The two village bypass (link 23a) would experience a **minor adverse** effect in fear and intimidation, which would be **not significant** and in any case, as with the Sizewell link road, there is not expected to be any pedestrians or cyclists using the two village bypass.

10.6.160 The assessment shows that links on the B1122 (i.e. links 10, 66 and 74) would experience a reduction in fear and intimiation from a **minor adverse** effect in the reference case to a **minor beneficial** effect in the with development scenario, which would be **not significant**.

10.6.161 Finally, the assessment shows that as a result of two village bypass, there would be a significant reduction in traffic through Stratford St Andrew (link 24) and Farnham (link 23), which would result in a reduction in fear and intimidation from **minor adverse** to **minor beneficial**, which would be **not significant**.

v. Driver delay

10.6.162 The approach used for assessing the effects on driver delay is summarised in **Volume 1, Appendix 6F**. The assessment of driver delay is considered fully within the **Transport Assessment** (Doc Ref 8.5) and this section summaries the effects of the Sizewell C Project on journey time during the operational phase.

10.6.163 During the operational phase Sizewell C traffic volumes would be much lower than during construction and would have a negligible impact on journey times through the highway network.

10.6.164 There is expected to be a **negligible** effect on driver delay during the operational phase, which would be **not significant**.

vi. Accidents and road safety

10.6.165 The approach used for assessing the effects on accidents and road safety is summarised in **Volume 1, Appendix 6F**. During the operational phase of Sizewell C, traffic volumes would be much lower than during construction. The package of highway improvements proposed as part of

the Sizewell C Project have all been designed in accordance with DMRB standards.

10.6.166 There is expected to be a **minor adverse** effect on accidents and road safety at the main site access, a **minor beneficial** effect at the two village bypass, Sizewell link road, Yoxford roundabout, the A1094/B1069 and A140/B1078 junctions, and a **negligible** effect on road safety elsewhere on the road network during the operational phase.

vii. Hazardous loads

10.6.167 The IEMA guidance (Ref 10.17) notes that some developments may involve the transportation of dangerous or hazardous loads by road and that, where this is likely to occur, the ES should clearly outline the estimated quantity of dangerous substances and estimate of number of loads.

10.6.168 The full details for the expected hazardous substances and related quantities to be stored on site during the operational phase are not yet known but preliminary information has been compiled and it is estimated that there would be circa 11 hazardous deliveries per month to the Sizewell C main development site during the operational phase.

10.6.169 All hazardous loads will comply with existing and anticipated legal and regulatory duties. They will follow best practice guidance, and undergo thorough checks. They will also be subject to a system of risk assessment, monitoring, and route planning.

10.6.170 Regulation of hazardous loads is currently via the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) (Ref 10.20). ADR sets out the requirements for the classification, packaging, labelling, and certification of dangerous goods. It also includes specific vehicle and tank requirements and other operational requirements. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (as amended) apply ADR in Great Britain.

10.6.171 Risk analysis has been undertaken for the hazardous loads which are anticipated to be required during the operation of Sizewell C and this analysis assumes that:

- The anticipated number of hazardous deliveries per annum is circa 48.
- A collision rate of 82 killed or seriously injured (KSI) per billion vehicle kilometres has been obtained from Department for Transport statistics (Ref 10.21).
- The operational design life of the Sizewell C Project is assumed to be 60 years.

10.6.172 Given the assumptions set out above, the risk of a KSI collision occurring is 0.06 over the 60 year operational period. This means that 1 person would be killed or seriously injured over a 1,000 year period.

10.6.173 To summarise, there is a **negligible** risk of a killed or seriously injured hazardous load collision over the 60 year operational period.

10.7 Mitigation and monitoring

10.7.1 Primary mitigation measures, which have already been 'embeded' within the design of the proposed development are summarised earlier within this chapter as well as tertiary mitigation.

10.7.2 This section summarises any secondary mitigation proposed in order to manage and reduce any significant effects.

10.7.3 In terms of monitoring, the freight traffc and construction workforce movements during the construction phase of the Sizewell C Project will be monitored through the **CWTP** (Doc Ref. 8.8), **CTMP** (Doc Ref. 8.7) and **TIMP** (Doc Ref. 8.6). The implementation of the **CWTP, CTMP** and **TIMP** will be secured through obligations in a Section 106 Agreement (see the draft **Section 106 Heads of Terms** at Appendix J of the **Planning Statement** (Doc Ref 8.4)). In addition, an Operational Travel Plan will be prepared to manage and monitor workforce movements to Sizewell C during operation. The preparation and implementation of the Operational Travel Plan will be secured through obligations in a Section 106 Agreement (see the draft **Section 106 Heads of Terms**).

10.7.4 A Transport Review Group (TRG) will be established with members taken from the key transport stakeholders and SZC Co. and would meet quarterly (unless the TRG decides to meet at a different frequency) to review the monitoring of the management plans. The establishment of the TRG, as well as its governance, scope and authority, will be secured through obligations in a Section 106 Agreement (see the draft **Section 106 Heads of Terms** at Appendix J of the **Planning Statement** (Doc Ref 8.4)).

a) Early years

10.7.5 The assessment within this chapter has concluded that there are expected to be the following significant adverse effects in the early years of the Sizewell C Project:

- short-term **moderate adverse** effect on amenity on Sizewell Gap (link 1) prior to the main development site access being operational;

- short-term **moderate adverse** effect on cycle amenity on B1122 (link 13b) prior to the Sizewell link road being operational;
- short-term **major adverse** effect on pedestrian amenity on the B1122 through Theberton village (link 10) prior to the Sizewell link road being operational; and
- short-term **major adverse** effect on cycle amenity on the B1122 (links 4c, 10, 64, 66, 74) prior to the Sizewell link road being operational.

10.7.6 With regards to secondary mitigation for Sizewell Gap (link 1), the road is currently derestricted and therefore, it is proposed to reduce the speed limit on Sizewell Gap to 40mph in order to mitigate the amenity effects. The draft DCO (Doc Ref 3.1) would grant SZC Co. the necessary power to do this and the residual effect would be **not significant**.

10.7.7 The speed limit on the B1122 through Theberton (link 10) is already 30mph and driver education is included as part of the tertiary mitigation to further enforce driver behaviour and adherence to speed limits along the HGV routes. It is considered that there is limited scope for secondary mitigation to reduce the short-term adverse effects on pedestrian amenity within Theberton and the residual effects on pedestrian amenity in Theberton would be **short-term major adverse**, which would be **significant**. Once the Sizewell link road is operational, traffic flows through Theberton are forecast to decrease substantially and the amenity effects would be major beneficial.

10.7.8 In order to mitigate the **moderate – major** adverse cycle amenity effect on the B1122, SZC Co. will carry out a pre-condition highway survey on the B1122 prior to commencement. SZC Co. will also provide funding for the maintenance of the road during the early years of construction when it is to be used by Sizewell C construction traffic. The completion of the highway survey and the provision of maintenance funding will be secured through obligations in a Section 106 Agreement (see the draft **Section 106 Heads of Terms** at Appendix J of the **Planning Statement** (Doc Ref. 8.4)). The maintenance of the road surface during the early years would mitigate to some extent the adverse cycle amenity effects on the B1122 during the early years but it is considered that the residual effect would still be **significant**.

b) Peak construction

10.7.9 The assessment within this chapter has concluded that there are expected to be the following significant adverse effects during peak construction:

- **Major adverse** effect on severance on Abbey Road, Leiston (links 4a, 5);

- **Major adverse** effect on severance on footpaths 243/001/0 and E-137/029/0, as a result of the two village bypass;
- **Moderate adverse** effect on pedestrian delay for PRoW users of footpaths 243/001/0 and E-137/029/0 to cross the two village bypass at grade;
- **Major adverse** effect on pedestrian delay as a result of footpaths E-396/015/0 and E-515/005/0 being permanently diverted to join the proposed Pretty Road non-motorised user overbridge, which would increase the walking distances for PRoW users; and
- **Minor – moderate adverse** effect on amenity on routes within Leiston, including Abbey Road (links 4a, 5) and B1069 (links 7, 76).
- **Minor adverse effects** on driver and passenger delay causing some traffic to divert on less suitable routes.

10.7.10 In order to mitigate the **major** adverse effect on severance within Leiston, SZC Co. will provide funding for pedestrian, cycle and public realm improvements in Leiston. The provision of this funding will be secured through obligations in a Section 106 Agreement (see the draft **Section 106 Heads of Terms** at Appendix J of the **Planning Statement** (Doc Ref. 8.4)). It is considered that the residual effect would be **not significant**.

10.7.11 In order to mitigate the **minor** adverse effect on driver delay, SZC Co. will provide funding for pedestrian, cycle and public realm improvements in Wickham Market with the aim of directing traffic to use the A12 rather than reassign to less suitable routes, such as the B1078 through Wickham Market. The provision of this funding will be secured through obligations in a Section 106 Agreement (see the draft **Section 106 Heads of Terms** at Appendix J of the **Planning Statement** (Doc Ref. 8.4)). The residual effect would be **not significant**.

10.7.12 It is considered that there is no further scope for mitigation of the adverse effects on the footpaths in terms of severance and pedestrian delay. It should be noted that the only mitigation that would be available to reduce the severance and pedestrian delay effects would be to provide formal pedestrian crossing facilities on the two village bypass and Sizewell link road. However, the roads have been designed to cater for high vehicular flows and speeds and formalised pedestrian crossings would not be acceptable to SCC.

c) Operational phase

10.7.13 The assessment within this chapter has concluded that there are expected to be the following significant adverse effects during the operational phase of the Sizewell C Project:

- **Major adverse** effect on severance on footpaths 243/001/0 and E-137/029/0, as a result of the two village bypass;
- **Major adverse** effect on severance of footpath E-396/023/0, as a result of the Sizewell link road;
- **Moderate adverse** effect on pedestrian delay for PRoW users of footpaths 243/001/0 and E-137/029/0 to cross the two village bypass at grade; and
- **Major adverse** effect on pedestrian delay as a result of footpaths E-396/015/0 and E-515/005/0 being permanently diverted to join the proposed Pretty Road non-motorised user overbridge, which would increase the walking distances for PRoW users.

10.7.14 It is considered that there is no further scope for mitigation of the adverse effects on the footpaths in terms of severance and pedestrian delay for the same reasons as set out for the peak construction.

10.8 Residual effects

10.8.1 Based on the assessment, the residual significant effects of the Sizewell C Project are summarised in **Table 10.38** below.

Table 10.38: Summary of Residual Transport Effects

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
Sizewell B relocated facilities effects during Phase 0						
Severance	0700 and 0800 in the AM Peak and 1700 and 1800 in the PM Peak	Sizewell Gap A12, B1122, Lover's Lane, King George's Avenue	Provision of a new junction to proposed outage car park at Pillbox field Construction traffic management measures, including a Construction Traffic Management Plan and Construction Workforce Travel Plan, as set out in the Sizewell B relocated facilities planning application.	Negligible (**not significant**)	None	Negligible (**not significant**)
Driver delay				Negligible (**not significant**)		Negligible (**not significant**)
Pedestrian delay				Negligible (**not significant**)		Negligible (**not significant**)
Amenity				Negligible (**not significant**)		Negligible (**not significant**)
Fear and intimidation				Negligible to minor (**not significant**)		Negligible to minor (**not significant**)
Accidents and safety				Negligible to minor (**not significant**)		Negligible to minor (**not significant**)
Early Years Construction (2023) (including Sizewell B relocated facilities traffic)						
Severance	24hr AAWT	Sizewell Gap (1) Lover's Lane (3, 4b, 75) B1122 (13b) A1094 (22b)	Saxmundham to Leiston branch line upgrades	Negligible (**not significant**)	None	Negligible (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		A12 (13c, 17c, 22a, 32a, 33, 34a, 38b, 58, 59, 70)	400 space caravan park at the LEEIE Park and ride facility at the LEEIE Construction Traffic Management Plan Construction Workforce Travel Plan Traffic Incident Management Plan Delivery Management System Driver behaviour Worker code of conduct			
		B1122 (4c, 10, 64, 66, 74) B1125 (11, 17b) B1121 (12c) A1120 (13d, 90) B1438 (82) A12 (13e, 17a, 21b, 21c, 21e, 22c, 23, 24, 25, 26, 27, 32c, 34c, 78)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
	Representative hour 07:00-08:00) (hour of greatest change)	Sizewell Gap (1) A1094 (22b) A12 (13c, 17c, 22a, 32a, 33, 34a, 38b, 58, 59)		Negligible (**not significant**)	None	Negligible (**not significant**)
		Lover's Lane (3, 4b, 75) B1122 (4c, 10, 13b, 64, 66, 74) B1121 (12c) B1438 (82) A12 (13e, 17a, 21b, 21c, 21e, 22c, 23, 24, 25, 26, 27, 32c, 34c, 70, 78)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		B1125 (11) A1120 (13d, 90)		Moderate adverse, in line with assessment criteria – professional judgement applied to conclude that	None	**Not significant**

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
				the effect is **not significant**		
		B1125 (17b)		Major adverse, in line with assessment criteria - professional judgement applied to conclude that the effect is **not significant**	None	**Not significant**
Pedestrian delay – Crossing roads	24hr AAWT (average hourly flows)	All roads within study area	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
	Representative hour 07:00-08:00) (hour of greatest change)	All roads within study area except for parts of A12 listed below for minor adverse effect		Negligible (**not significant**)	None	Negligible (**not significant**)
		A12 through Farnham (22c, 23), Stratford St Andrew (24), Little Glemham (25), Marlesford (26), Woodbridge (32c)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
Pedestrian delay – ProW diversions	24hr AAWT	Footpaths E-137/028/0, E-137/029/0 and E-243/001/0 retained on existing alignment during the construction of the two village bypass	Signage and traffic management during construction of two village bypass and Sizewell link road	Negligible (**not significant**)	None	Negligible (**not significant**)
		Footpaths 243/003/0 and E-243/004/0 temporarily diverted		Minor adverse	None	Minor adverse

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		during the construction of the two village bypass resulting in increase walking distance		(**not significant**)		(**not significant**)
		Footpaths E-344/013/0, E-344/014/0, E-396/015/0, E-396/017/0, E-396/023/0, E-515/003/0, E-515/004/0, E-515/005/0, E-515/013/0, E-584/016/0 and E-584/016/A subject to diversion during the construction of Sizewell link road resulting in increase walking distance		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
Amenity	24hr AAWT and representative hour (07:00-08:00) total traffic	Sizewell Gap (1) Lover's Lane (3, 4b, 75) B1122 (13b) A1094 (22b) A12 (13c, 17c, 22a, 32a, 33, 34a, 38a, 38b, 58, 59, 70)	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
		B1122 (4c, 10, 64, 66, 74) B1125 (11, 17b) B1121 (12c) A1120 (13d, 90) B1438 (82)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		A12 (13e, 17a, 21b, 21c, 21e, 22c, 23, 24, 25, 26, 27, 32c, 34c, 78)				
	24hr AAWT and representative hour (07:00-08:00) HDVs	B1125 (11, 17b) B1121 (12c) A1120 (13d, 90) B1438 (82) A1094 (22b) A12 (13c, 17c, 32a, 33, 34a, 38b, 58, 59, 70)		Negligible (**not significant**)	None	Negligible (**not significant**)
		Lover's Lane (3, 4b, 75) A12 (13e, 17a, 21b, 21c, 21e, 22a, 22c, 23, 24, 25, 26, 27, 32c, 34c, 78)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		Sizewell Gap (1) B1122 (13b)		Moderate adverse (**significant**)	Speed limit reduction to 40mph on Sizewell Gap (1) Highway condition survey of B1122 prior to commencement of construction. B1122 maintenance fund for the maintenance of B1122 during the early years of construction to	Minor adverse (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
					mitigate cycle amenity effects (secured by Section 106 Agreement).	
		B1122 (4c, 10, 64, 66, 74)		Major adverse (**significant**)	Highway condition survey of B1122 prior to commencement of construction. Maintenance fund for the B1122 during the early years of construction to mitigate cycle amenity effects (secured by Section 106 Agreement).	**Short term major adverse (significant)** effects prior to Sizewell link road
Fear and Intimidation	18hr AAWT HDVs	All links within the study area except those links identified below.	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
		A12 at Yoxford (13c), south of Wickham Market (27), Woodbridge (32a, 32c) and Martlesham (34a, 34c)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
Driver and passenger delay	Network peak periods	All links within the study area	Same as for severance	Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
Accidents and safety	24hr AAWT	A14 and A12 south of Woodbridge and B1078 near Otley College and at the A140 junction	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
		A12 through Farnham, and B1122 as well as A1094/B1069, A12/A144 and A12/B1119 junctions and in the vicinity of the associated development site and main development site accesses under construction		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
Peak Construction (2028)						
Severance	24hr AAWT total traffic and HDVs	Lover's Lane (3, 4b, 75) B1122 (13b) A12 (13a, 17c, 22a, 29, 33, 34a, 38b, 53b, 59, 84, 85, 86)	Southern and northern park and ride facilites Freight management facility Beach landing facility Green rail route Accommodation campus	Negligible (**not significant**)	None	Negligible (**not significant**)
		B1122 (4c, 64) B1125 (11, 41) A1120 (13d, 90) B1438 (82) B1078 (51, 73)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		B1119 (6, 12b) B1069 (7, 76) Snape Road (9) A144 (53a) A145 (83) A12 (16, 17a, 21b, 21c, 21e, 25, 26, 27, 32c, 70, 78)	400 space caravan park at the LEEIE Two village bypass Sizewell link road Yoxford roundabout Highway improvement works Construction Traffic Management Plan Construction Workforce Travel Plan Traffic Incident Management Plan Delivery Management System Driver behaviour Worker code of conduct			
		B1122 Abbey Road, Leiston (4a, 5) Main Road, Martlesham (34b) Two village bypass (23a) Sizewell link road (10a, 57, 63, 65)		Major adverse in line with assessment criteria but professional judgement applied, as follows: Effects on Abbey Road, Leiston (4a, 5) would be **major adverse (significant)** Professional judgement applied to Main Road, Martlesham (link 34b) and effects would be **not significant** in the early morning.	Financial contribution to fund pedestrian, cycle and public realm improvements in Leiston to mitgate adverse transport effects of Project within town (secured through section 106 agreement).	Severance effect on Abbey Road (links 4a, 5) would be **not significant** Severance effect of the two village bypass intersecting footpaths 243/001/0 and E-137/029/0 is expected to be **significant**. Severance effect of Sizewell link road intersecting footpath E-396/023/0 is

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
				Footpaths E-243/003/0 and E-243/004/0 would be permanently diverted via the proposed Foxborrow Wood bridge, which would mitigate the severance effect resulting in **not significant** effect. Severance effect of two village bypass intersecting footpath E-137/029/0 would be **significant**. The severance effect of the two village bypass intersecting footpath 243/001/0 is expected to be **significant**. Severance effect of Sizewell link road intersecting footpath E-		expected to be **significant**.

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
				396/023/0 is expected to be **significant**.		
		A12 at Martlesham (34c)		Minor beneficial (**not significant**)	None	Minor beneficial (**not significant**)
		B1122 (10, 66, 74) A12 through Farnham (22c, 23) and Stratford St Andrew (24)		**Major beneficial** (**significant**)	None	**Major beneficial** (**significant**)
Pedestrian delay – Crossing roads	24hr AAWT (average hourly flows)	All roads within study area	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
	Representative hour 07:00-08:00) (hour of greatest change)	All roads within study area except for parts of A12 listed below for moderate adverse and moderate beneficial effect		Negligible (**not significant**)	None	Negligible (**not significant**)
		Two village bypass (23a)		**Moderate adverse** (**significant**) for PRoW users to cross the two village bypass. Footpaths E-243/003/0 and E-243/004/0 would be permanently diverted via the proposed Foxborrow Wood bridge	None	**Moderate adverse** (**significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
				and users would not need to cross a road. Footpaths 243/001/0 and E-137/029/0 would cross two village bypass at grade and the pedestrian delay is expected to be **moderate adverse**, which is **significant**.		
		Farnham (22c, 23) and Stratford St Andrew (24)		Moderate beneficial (**significant**)	None	Moderate beneficial (**significant**)
Pedestrian delay – ProW diversions	24hr AAWT	Footpaths E-243/003/0 and E-243/004/0 that intersect the two village bypass would be permanently diverted via the proposed Foxburrow Wood non-motorised user bridge, which would result in an increased distance for users of the PRoWs. Footpaths 243/001/0 and E-137/029/0 that intersect the two village bypass would be	Same as for severance	Minor adverse (**not significant**)	None	Minor adverse (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		permanently diverted by approximately 25m. All footpaths that are to be diverted as part of the Sizewell link road would have a minor adverse effect on pedestrian delay except for footpaths E-396/015/0 and E-515/005/0.				
		Footpaths E-396/015/0 and E-515/005/0 would be permanently diverted across Pretty Road overbridge, which would increase footpath E-396/015/0 by approximately 995m and footpath E-15/005/0 by approximately 880m compared to its existing alignment		Major adverse (**significant**)	None – non-motorised bridge is proposed to mitigate severance effect of Sizewell link road but will result in longer walking distances on the diverted footpaths.	Major adverse (**significant**)
Amenity	AAWT total traffic and HDVs	Lover's Lane (4b) B1125 (41) A12 (13a, 17c, 29, 33, 34a, 38b, 53b, 84, 85, 86)	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
		Lover's Lane (3, 75) B1122 (4a, 4c) B1119 (6, 12b)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		B1069 (7, 76) Snape Road (9) B1125 (11) A1120 (13d, 90) Main Road, Martlesham (34b) B1078 (51, 73) B1438 (82) A144 (53a) A145 (83) A12 (16, 17a, 22a, 25, 26, 27, 32c, 34c, 59, 70)				
		Links in and around Leiston including B1122 Abbey Road (4a, 5), B1069 (7, 76)		Minor - moderate adverse (**significant**)	Financial contribution to fund pedestrian, cycle and public realm improvements in Leiston to mitgate adverse transport effects of Project within town (secured through section 106 agreement).	**Not significant**
		A12 (21c, 21e, 78)		**Moderate adverse** in line with assessment criteria but applied professional judgement to conclude	None	**Not significant**

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
				that the effect is **not significant**. Road not designed to cater for pedestrian and cycle movement along them. Alternative suitable routes available.		
		Two village bypass (23a) Sizewell link road (57, 63, 64, 65) A12 (21b)		**Major adverse** in line with assessment criteria but applied professional judgement to conclude that the effect is **not significant**. Roads not designed to cater for pedestrian and cycle movement along them. Alternative suitable routes available.	None	**Not significant**
		B1122 (10, 66, 74) A12 through Farnham (22c, 23) and Stratford St Andrew (24)		Major beneficial (**significant**)	None	Major beneficial (**significant**)
Fear and intimidation	18hr AAWT	All links within the study area except those links identified below.	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		Sizewell link road (10a, 57, 63 and 65) Two village bypass (23a) A12 (13a, 21b)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		B1122 (10, 66, 74) Farnham (23) Stratford St Andrew (24)		Minor beneficial (**not significant**)	None	Minor beneficial (**not significant**)
Driver and passenger delay	Network peak periods	All links within the study area	Same as for severance	Minor adverse (**not significant**)	Financial contribution to fund pedestrian, cycle and public realm improvements in Wickham Market with the aim of directing traffic to use the A12 rather than reassign to less suitable routes, such as the B1078 through Wickham Market (secured through section 106 agreement).	Minor adverse (**not significant**)
Accidents and safety	24hr AAWT	Yoxford roundabout B1078 near Otley College and A12/B1119 junction	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		A14 and A12 south of Woodbridge B1125 Westleton				
		Main development site roundabout and northern and southern park and ride acceses once operational A12/A144 junction A12 near Blythburugh		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		Two village bypass (23a) A1094/B1069 and the A140/B1078 junctions		Minor beneficial (**not significant**)	None	Minor beneficial (**not significant**)
Operational Phase (2034) ***(including operation of Sizewell B relocated facilities)***						
Severance	24hr AAWT	Main Road , Martlesham (34b)	Two village bypass Sizewell link road Yoxford roundabout	**Moderate adverse** in line with assessment criteria but applied professional judgement	Preparation and implementation of an Operational Travel Plan (secured	**Not significant**

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
			Other highway improvements Beach landing facility	to conclude that the effect is **not significant**. Classified high sensitivity due to the presence of two childrens nurseries. Given the distance from a residential catchment, it is considered likely that children would be driven to/from the nurseries rather than arrive on foot/cycle.	through Section 106 Agreement)	
		Two village bypass (23a) Sizewell link road (10a, 57, 63, 65)		**Major adverse** (**significant**) Except for footpaths E-243/003/0 and E-243/004/0 would be permanently diverted via the proposed Foxborrow Wood bridge, which would mitigate the severance effect resulting in **not significant** effect.	Preparation and implementation of an Operational Travel Plan (secured through Section 106 Agreement)	**Major adverse** (**significant)** Severance effect of the two village bypass intersecting footpaths 243/001/0 and E-137/029/0 is expected to be **significant**. Severance effect of Sizewell link road intersecting

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
						footpath E-396/023/0 is expected to be **significant**.
		B1122 (10, 66, 74) Farnham (22c, 23) Stratford St Andrew (24)		**Major beneficial** (**significant**)	Preparation and implementation of an Operational Travel Plan (secured through Section 106 Agreement)	**Major beneficial** (**significant**)
Pedestrian delay – crossing roads	24 hr AAWT (average hourly flows)	All links in the study area	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
	Representative hour (16:00-17:00)	Two village bypass (23a)		**Major adverse (significant)** Footpaths 243/001/0 and E-137/029/0 would cross the two-village bypass at grade. The pedestrian delay estimated to be 19.5 seconds, which is considered to be **significant**.	None	**Major adverse** (**significant**) effect on pedestrian delay for footpaths 243/001/0 and E-137/029/0 to cross the two village bypass

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		Farnham (22c, 23) Stratford St Andrew (24)		**Major beneficial (significant)**	None	**Major beneficial (significant)**
Pedestrian delay – PRoW diversions	24hr AAWT	Footpaths E-243/003/0 and E-243/004/0 that intersect the two village bypass would be permanently diverted via the proposed Foxburrow Wood non-motorised user bridge, which would result in an increased distance for users of the PRoWs. Footpaths 243/001/0 and E-137/029/0 that intersect the two village bypass would be permanently diverted by approximately 25m. All footpaths that are to be diverted as part of the Sizewell link road would have a minor adverse effect on pedestrian delay except for footpaths E-396/015/0 and E-515/005/0.	Same as for severance	Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		Footpaths E-396/015/0 and E-515/005/0 would be permanently		Major adverse (**significant**)	None –	Major adverse (**significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
		diverted across Pretty Road overbridge, which would increase footpath E-396/015/0 by approximately 995m and footpath E-15/005/0 by approximately 880m compared to its existing alignment			non-motorised bridge is proposed to mitigate severance effect of Sizewell link road but will result in longer walking distances on the diverted footpaths.	
Amenity	24hr AAWT	Main Road, Martlesham (34b)	Same as for severance	Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		Two village bypass (23a) Sizewell link road (10a, 57, 63, 65)		**Major adverse** in line with assessment criteria but applied professional judgement to conclude that the effect is **not significant**. Roads not designed to cater for pedestrian and cycle movement along them. Alternative suitable routes available.	None	**Not significant**
		B1122 (10, 66, 74) A12 through Farnham (23) and Stratford St Andrew (24)		Major beneficial (**significant**)	None	Major beneficial (**significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
Fear and intimidation	18hr AAWT	All links within the study area except those links identified below.	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
		Sizewell link road (10a, 57, 63 and 65) Two village bypass (23a)		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		B1122 (10, 66, 74) Farnham (23) Stratford St Andrew (24)		Minor beneficial (**not significant**)	None	Minor beneficial (**not significant**)
Driver and passenger delay	Network peak periods	All links in the study area	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
Accidents and safety	24hr AAWT	All road links within the study area except for those below.	Same as for severance	Negligible (**not significant**)	None	Negligible (**not significant**)
		Main site access		Minor adverse (**not significant**)	None	Minor adverse (**not significant**)
		Two village bypass Sizewell link road Yoxford roundabout A1094/B1069 and A140/ B1078 junctions		Minor beneficial (**not significant**)	None	Minor beneficial (**not significant**)
Hazardous loads	Operational period (60 years)	All hazardous load delivery routes.	Same as severance.	Negligible (**not significant**)	None	Negligible (**not significant**)

Impact	Time period	Road (link reference)	Primary or Tertiary Mitigation	Assessment of Effects	Additional Mitigation	Residual Effects
			Best practice guidance. Vehicle checks. Risk assessments. Monitoring. Route planning.			

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