



# The Sizewell C Project

## 6.8 Volume 7 Yoxford Roundabout and Other Highway Improvements

### Chapter 2 Description of Yoxford Roundabout and Other Highway Improvements

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Revision: 1.0  
Applicable Regulation: Regulation 5(2)(a)  
PINS Reference Number: EN010012

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May 2020

Planning Act 2008  
Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009



## Contents

2	Description of Development.....	1
2.1	Introduction.....	1
2.2	Overview of proposed highway improvements .....	2
2.3	Overview of construction activities.....	2
2.4	Description of proposed improvement works.....	7
2.5	Overview of highway safety measures .....	17
2.6	Overview of construction activities.....	18
2.7	Description of highway safety measures .....	18
2.8	Parameters .....	21
	References .....	22

## Tables

Table 2.1:	Locations and summary of proposed highway improvement works.....	2
Table 2.2:	Anticipated material quantities - Yoxford roundabout .....	3
Table 2.3:	Anticipated material quantities - other highway improvements .....	4
Table 2.4:	Indicative locations and summary of proposed highway safety measures.....	18

## Plates

**None provided.**

## Figures

Figure 2.1: Illustrative masterplan for A12 and B1122 east of Yoxford (Yoxford roundabout)

Figure 2.2: Illustrative masterplan for A1094/B1069 junction south of Knodishall

Figure 2.2: Illustrative masterplan for A12/A144 junction south of Bramfield

Figure 2.4: Illustrative masterplan for A12/B1119 junction at Saxmundham

Figure 2.5: Illustrative masterplan for B1078/B1079 junction east of Easton and Otley College

Figure 2.6: Illustrative masterplan for A140/B1078 junction west of Coddendam

Figure 2.7: Site clearance plan for A12 and B1122 east of Yoxford (Yoxford roundabout)

## Appendices

Appendix 2A: Indicative construction equipment for the proposed Yoxford roundabout

Appendix 2B: Proposed development drawings



## 2 Description of Development

### 2.1 Introduction

2.1.1 This chapter of the **Environmental Statement (ES)** (Doc Ref. Book 6) has been prepared in respect of the proposed Yoxford roundabout and other highway improvements associated with the Sizewell C Project. These other highway improvements are in addition to those proposed by the Sizewell link road and two village bypass.

2.1.2 The construction of Sizewell C would generate additional vehicular traffic on the local highway and transport networks due to the daily movement of construction workers as well as the movement of building materials and equipment. A requirement for highway improvements has been identified to ensure that the routes concerned can meet the construction access requirements for the Sizewell C Project. Following an examination of the geometry of roads, visibility and the constraints to their use by Heavy Goods Vehicles (HGVs) required for the construction and operation of the Sizewell C Project, modifications have been proposed to reduce adverse transport effects, and address capacity and safety issues on the network.

2.1.3 This chapter is divided as follows:

- overview of four proposed highway improvements (shown on **Figures 2.1 to 2.4**);
  - A12 and B1122 junction east of Yoxford;
  - A1094/B1069 junction south of Knodishall;
  - A12/A144 junction south of Bramfield; and
  - A12/B1119 junction at Saxmundham.
- overview of construction works; and
- description of the highway improvements.

2.1.4 This chapter also describes the highway safety measures that are envisaged at the two sites where road safety analysis has identified potential highway safety issues (the B1078 and B1079 junction east of Easton and Otley College and the A140 and B1078 junction west of Coddenham), shown on **Figures 2.5 and 2.6**. Highway safety measures at these sites will be secured by an obligation in the Section 106 Agreement, provided in the **Section 106 Heads of Terms** appended to the **Planning Statement** (Doc. Ref. 8.4). An overview of the construction works and description of the safety measures are also included in this chapter of the **ES** (Doc Ref. Book 6).

## 2.2 Overview of proposed highway improvements

2.2.1 Four locations have been identified where there is a need to provide highway improvement works. A summary of the proposed works is provided in **Table 2.1**. All proposed works would be permanent.

**Table 2.1: Locations and summary of proposed highway improvement works**

Highway Improvement	Summary of Works	Figure Reference
A12 and B1122 junction east of Yoxford.	Provision of a new roundabout at the junction (referred to as the 'Yoxford roundabout').	<b>Figure 2.1</b>
A1094/B1069 junction south of Knodishall.	Improvements of visibility splays and provision of signage and road markings. SZC Co. would also seek to reduce the speed limit from 60 miles per hour (mph) to 40mph.	<b>Figure 2.2</b>
A12/A144 junction south of Bramfield.	Provision of central reservation island and waiting area.	<b>Figure 2.3</b>
A12/B1119 junction at Saxmundham.	Improvements of visibility splays, alteration of the B1119 at the junction with the A12, and provision of signage and road markings.	<b>Figure 2.4</b>

## 2.3 Overview of construction activities

### a) Introduction

2.3.1 The construction described in this chapter provide the basis for the assessment presented in this volume. Details of construction are necessarily broad and may be subject to modification during the detailed design stage and/or once a contractor has been appointed.

2.3.2 Construction works would take place during Monday to Saturday 07:00 to 19:00 hrs, with no working on Sundays or bank holidays. However, some activities may require working outside of these hours and East Suffolk Council would be notified in advance.

2.3.3 Any site-specific construction activities are reported within **section 2.4** of this chapter.

b) Construction sequence and duration

2.3.4 It is envisaged that all highway improvement works would be undertaken in the early stages of construction of Sizewell C. Due to the varying nature of the works proposed, the duration of construction works would vary across the highway improvement sites; further details are provided within the description of each site in **section 2.4** of this chapter.

c) Anticipated plant and equipment for construction

2.3.5 Due to the varying nature of the works proposed across the highway improvement sites, the anticipated plant and equipment required for construction would vary.

2.3.6 Further details of the anticipated construction plant and equipment for the construction of Yoxford roundabout is provided in **Appendix 2A** of this volume. Construction works for the Yoxford roundabout, A12/A144 junction south of Bramfield and A12/B1119 junction at Saxmundham would include the breaking up of hardstanding to facilitate the proposed development.

d) Construction workforce

2.3.7 Due to the varying nature of the works proposed across the highway improvement sites, the number of workers needed to construct the highway improvements would vary between the sites and would change during the course of the construction programme.

2.3.8 Site specific construction workforce numbers are reported within **section 2.4** of this chapter.

e) Indicative material quantities

2.3.9 The anticipated material quantities expected to be required during the construction of Yoxford roundabout are set out in **Table 2.2**.

**Table 2.2: Anticipated material quantities - Yoxford roundabout**

Material	Mass of material required (tonnes)
Granular sub-base (similar to gravel)	5,900 tonnes (t)
Steel	10t
Asphalt surfacing (including bitumen)	4,800t

2.3.10 The combined anticipated material quantities expected to be required during the construction of the other highway improvements are set out in **Table 2.3**.

**Table 2.3: Anticipated material quantities - other highway improvements**

Material	Mass of material required (tonnes)
Granular sub-base (similar to gravel)	5,000 tonnes (t)
Steel	10t
Asphalt surfacing (including bitumen)	4,000t

2.3.11 Earthworks would be designed to maximise cut and fill balance across the Sizewell C Project. It is envisaged that the required fill material for earthworks for the proposed Yoxford roundabout would be provided from site-won material therefore negating the need to import fill materials to the site.

f) **Waste quantities**

2.3.12 Waste generated from the construction and earthworks activities associated with the proposed highway improvements is likely to include:

- vegetation;
- packaging, including wood pallets, plastics, cardboard, tins;
- plasterboard;
- rubble (broken bricks, blocks, tiles, etc.);
- timber (excluding pallets);
- cement;
- insulation;
- metal;
- dry concrete products (blocks, slabs, etc.);
- plaster products (excluding packaging);
- ceramic materials; and
- hazardous waste (e.g. remedial wastes, paint cans, oil/lubricants, etc.).

- 2.3.13 Earthworks would be designed to maximise cut and fill balance in order to prevent material being sent off-site. Where appropriate, topsoil and subsoil would be stored on site. Furthermore, contractors would be required to investigate opportunities to minimise and reduce waste generation.
- 2.3.14 Any inert and non-hazardous waste material that cannot be reused on-site would be removed by licensed waste carriers and sent for reuse, recycling or recovery, or for disposal at appropriately licenced facilities (these are expected to be inert waste landfill sites) in accordance with the Waste Hierarchy, as defined in the EU Waste Framework Directive (2008/98/EC). However, works would be carried out in such a way that, as far as is reasonably practicable, the amount of waste to be disposed at landfill is minimised.
- 2.3.15 It is estimated that approximately 7,400t of construction waste would be created as a result of the proposed highway improvement works described in this chapter. Refer to **Chapter 8** of **Volume 2** of the **ES** for further details.

g) **Construction and environmental management**

- 2.3.16 A **Code of Construction Practice (CoCP)** (Doc Ref. 8.11) is included in Development Consent Order application for the Sizewell C Project, which sets out the measures and controls that SZC Co. will require its contractors to adopt during construction of the proposed development, where appropriate. This is secured by requirement included in Schedule 2 of the **Draft Development Consent Order (DCO)** (Doc Ref. 3.1). In summary, the **CoCP** (Doc Ref. 8.11) sets out the following:

- General construction environmental management arrangements, including details of the environmental management system.
- How construction environmental management arrangements will be implemented, reviewed and monitored.
- Community and stakeholder engagement that will be implemented during the construction period.
- General measures relating to topics such as training and competence, construction consents, workforce code of conduct, working hours and construction site layout.
- Measures relating to waste management and resource use, land quality, ecology, landscape, cultural heritage, noise and vibration, air quality, water environment, traffic and transport, amenity and recreation, carbon emissions, and emergency arrangements.



- Any site-specific controls to be applied at any of the Sizewell C Project sites.

2.3.17 The construction environmental management measures and controls included in the **CoCP** (Doc Ref. 8.11) have been identified through the EIA process and will act to deliver environmental protection, or minimise impacts on the environment and human receptors, as far as reasonably practicable.

2.3.18 In addition to the **CoCP** (Doc Ref. 8.11), the arrangements for the management of construction traffic and workforce travel are set out in the **Construction Traffic Management Plan (CTMP)** (Doc Ref. 8.7) and **Construction Worker Travel Plan (CWTP)** (Doc Ref. 8.8). These documents include a series of measures to reduce the impact of construction vehicle traffic upon the highway network and for the sustainable travel of construction workforce to the Sizewell C Project sites.

2.3.19 The appointed contractors will be required to undertake the construction works in accordance with the arrangements set out within the **CoCP** (Doc Ref. 8.11), **CTMP** (Doc Ref. 8.7) and **CWTP** (Doc Ref. 8.8). Any work undertaken by a contractor would be reviewed and approved by relevant SZC Co. personnel prior to the work commencing.

2.3.20 In addition, there may be a need to apply for additional permits, consents or licences prior to and during the construction works (such as Land Drainage Consents, Environmental Permits, or protected species licences, if required). As the programme of works and design are progressed, these permissions will be identified and scheduled in a timely manner to enable determination by the appropriate regulatory body. Any requirements of a granted permission will be provided to contractors undertaking the work.

#### h) Construction lighting

2.3.21 During construction of the proposed development, lighting would be required for certain periods to enable the safety and security of the site, construction staff, and members of the public. Construction lighting would be designed to comply with relevant regulations and standards, and would meet health and safety requirements. In accordance with the **CoCP** (Doc Ref. 8.11), lighting would be positioned to minimise the potential impact upon the surrounding area as far as practicable.

2.3.22 Artificial lighting during the construction phase would only be used during the hours of darkness, low levels of natural light or specific construction methods or phases to ensure the health, safety and welfare of construction staff and members of the public.

2.3.23 It is envisaged that construction lighting would generally be required to provide illumination for:

- access/roads, where required to meet safety requirements;
- safe movement of construction workers and pedestrians around the construction work site boundaries;
- specific construction tasks;
- site security; and
- temporary contractor compounds, materials storage facilities, and construction plant and equipment, where required.

2.3.24 Where required, construction lighting would be provided at the minimum luminosity and would be designed, positioned and/or directed so as not to unnecessarily intrude on adjacent buildings, ecological receptors or habitat used by protected species, and other land uses to prevent unnecessary disturbance, interference with local residents, passing motorists, or the navigation lights for air.

2.3.25 In addition, at construction sites where potentially significant effects are identified, the lead contractor will develop and implement lighting controls as part of their environmental management plan, which could include measures such as shielding of luminaires to reduce backward spill of light or use of sensors or timing devices to automatically switch off lighting where appropriate.

i) **Construction drainage**

2.3.26 Construction drainage would be implemented early in the construction phase, where required, and would be contained within the site, with drainage to ground. Only if full infiltration is not possible would these systems discharge into the surface drainage network at greenfield run-off rates to minimise the potential for impact. The temporary construction drainage would intercept surface run-off, sediment, and contaminants.

## 2.4 **Description of proposed improvement works**

a) **A12 and B1122 Yoxford roundabout**

2.4.1 The A12 and B1122 Junction is located to the east of Yoxford. This site is approximately 2.9 hectare (ha), comprising agricultural land (which accounts for 1.9 ha of the site) as well as highway and areas of hardstanding.

Approximately 1.56 ha of agricultural land would be required permanently. See **Figure 2.1** for the Yoxford roundabout illustrative masterplan and Figure 2.7 for the site clearance plan for further detail.

2.4.2 Further details on the site location and environmental context can be found in **Chapter 1** of this volume.

2.4.3 This section details the following:

- proposed development;
- landscaping and drainage strategy;
- lighting strategy and utilities;
- description of construction activities; and
- description of operation of the site.

i. **Proposed development**

2.4.4 The proposed Yoxford roundabout would be a permanent, three-arm roundabout, and would replace the existing ghost island for this junction to the east of Yoxford. The roundabout would increase capacity of the existing A12 and B1122 junction to minimise disruption during the peak construction phase of the Sizewell C Project.

2.4.5 The new roundabout would be approximately 90 metres (m) north of the existing junction, largely on grazing land adjacent to the existing A12. It would have a diameter of 60m and would include a realignment of the A12 in order to connect to the roundabout. The A12 realignment would measure approximately 120m in length to the north and 160m to the south. The eastern side of the roundabout would be in a cutting approximately 2m deep (+/- 1m vertically, as per the parameters described in **section 2.8** of this chapter), and would be closer to grade where it ties-in to the B1122 to the south-east.

2.4.6 The B1122 would also be realigned to join the proposed roundabout via a new section of road which would cross the existing agricultural land in a north-westerly direction. The B1122 realignment would be approximately 220m in length.

2.4.7 The new sections of the A12 leading in to the A12 and B1122 Yoxford roundabout would be 7.3m in width, with the B1122 approach road 6m wide. All three of the approaches would flare to create additional width at their respective give way lines at the proposed roundabout.

- 2.4.8 As part of the works, a new access road, measuring approximately 75m in length, would be provided off the realigned B1122 to the south of the roundabout to maintain access to the row of houses south of the junction including Pinn’s Piece and Rookery Lodge, as well as Public Right of Way (PRoW) E-584/020/0.
- 2.4.9 It is anticipated that an infiltration basin will be provided, which would be located between the roundabout and the new southern access road, details provided in **section a) ii)** of this chapter, Landscape and drainage strategy.
- 2.4.10 Across the roundabout’s central island there would be a partially demountable section allowing for Abnormal Indivisible Loads (AILs) to pass through the proposed Yoxford roundabout. This is required as vehicles transporting AILs would be of a size that could not negotiate the roundabout.
- ii. **Landscaping and drainage strategy**
- 2.4.11 The proposed landscaping for the site has been designed specifically to minimise potential effects on ecological, heritage and landscape and visual receptors planting and will follow the design principles set out in the **Associated Development Design Principles** (Doc Ref. 8.3) document. The illustrative masterplan shows the indicative location of proposed landscaping (see **Figure 2.1**).
- 2.4.12 Existing trees and hedgerows adjoining the Yoxford roundabout site boundary would be retained where possible. This includes the retention of the tree belt to the north-west of the site, along the boundary of Satis House Hotel, as well as the hedgerow along the southern side of the B1122 (Middleton Road). The removal of a tree to the south-west of the existing A12 and B1122 junction and two small trees on the northern edge of the B1122 near The Piggeries would be required.
- 2.4.13 The Roadside Nature Reserve 197<sup>1</sup>, on the southern side of the B1122, is situated outside of the site boundary.
- 2.4.14 The proposed Yoxford roundabout works would include grassed areas, including on the proposed cutting and embankment slopes, and new tree and hedgerow planting along the eastern edge of the realigned roads and around the proposed infiltration basin south of the new roundabout. Replacement planting would follow the new line of the A12. See **Figure 2.1** for the illustrative masterplan for further detail.

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<sup>1</sup> Designated by Suffolk County Council for presence of the Sandy Stilt Puffball fungus



- 2.4.15 Fence lines, where required, would be positioned generally 5m back from the top or base of any earthworks in accordance with the Design Manual for Roads and Bridges (Ref. 2.1) and to provide space for maintenance post-construction.
  
- 2.4.16 The proposed Yoxford roundabout drainage system will incorporate channels, kerb drains or gullies to remove surface water run-off into underground drains. Underground drains would convey the run-off to an infiltration basin located between the proposed roundabout and the proposed access road to the south. The infiltration basin would hold the run-off and discharge run-off through infiltration to ground. The use of petrol/oil interceptors and silt traps would be incorporated within the drainage design where considered necessary. The indicative drainage for the Yoxford roundabout site is illustrated in **Figure 2.1**.
  
- 2.4.17 The proposed drainage would result in a reduction in surface water run-off which currently flows along the existing A12 into Yoxford at Brook Street where it is removed by the existing highway drainage network.
  
- 2.4.18 The drainage would be designed and constructed in accordance with highway authority standards for adoption. Further engagement with the Lead Local Flood Authority (Suffolk County Council (SCC)) and the Environment Agency will be undertaken as required to develop the final drainage design. In the unlikely event that ground conditions prevent full use of infiltration to ground, the proposed infiltration basin would become a combined infiltration and attenuation basin. Run-off which does not infiltrate would discharge at a controlled flow rate lower than the current rate of run-off into Yoxford to the existing highway drainage network, the detailed design of which is to be agreed with the Highway Authority.

iii. **Lighting strategy and utilities**

- 2.4.19 An indicative lighting plan is included in **Figure 2.1**. It is envisaged that street lighting columns would be up to 10m in height and would be located around the new roundabout in compliance with the Design Manual for Roads and Bridges (Ref 2.1) and the Code of Practice for the Design of Road Lighting, Lighting of Roads and Public Amenity Areas BS 5489-1:2013 (Ref 2.2).
  
- 2.4.20 All lighting would be of appropriate adoptable standards and would seek to minimise light-spill into adjacent habitats and to reduce impacts on the Yoxford Conservation Area. The lighting design will achieve a balance between providing lighting appropriate for all road users whilst applying suitable mitigation measures in keeping with the local environment.

2.4.21 Existing utilities within the site may require diversion. Discussions with utility providers are underway to confirm whether utility infrastructure will need to be diverted or whether there will be sufficient clearance from the works that they will not be affected. An appropriate approach will be agreed with the relevant statutory undertaker (i.e. the utility company) and will include appropriate protective measures where required.

2.4.22 Connections would also be made to existing local utility services (such as electricity for lighting) in the public highway, where practicable. Engagement is ongoing with utility companies to confirm suitable points of connection within the highway.

#### iv. Description of construction activities

2.4.23 The proposed Yoxford roundabout is estimated to take up to nine months to construct and work would start in the early years of the Sizewell C construction period, as shown in the Indicative Phasing Schedule in the **Implementation Plan** appended to the **Planning Statement** (Doc Ref 8.4).

2.4.24 The roundabout would be largely constructed offline, avoiding the need for long-term temporarily road closures or the diversion of the A12 in this location. However, traffic management measures would be required during construction of the tie-ins back to the A12 and B1122 once the roundabout is constructed. This would likely comprise shuttle working under traffic light control when the two A12 and B1122 tie-ins are being undertaken. Each is anticipated to last approximately two weeks and access to properties on the south side of the site would be maintained throughout construction.

2.4.25 There would be no requirement to divert any local PRoW.

2.4.26 The anticipated construction sequence would comprise of the following stages:

- site set up and clearance;
- earthworks;
- drainage;
- pavements;
- kerbs, footways and paved areas;
- fencing;

- traffic signs; and
- road lighting.

2.4.27 A temporary contractor compound would be constructed in the field immediately to the north of the B1122 (see **Figure 2.1**). Construction vehicles would access the compound from the B1122, utilising the existing access to The Piggeries. Construction traffic using the temporary contractor compound would approach via the A12 and would not increase the number of vehicles using the level crossing on the B1122, approximately 300m to the east of the site access.

2.4.28 Construction workers would be able to park at the northern park and ride construction site, see **Volume 3, Chapter 2** of the **ES**, with two buses per day (each way) bringing workers to the site.

2.4.29 During the peak period of its construction, the Yoxford roundabout is anticipated to be served by 10 HGVs and 30 construction workers per day.

2.4.30 Following completion of construction, the temporary contractor compound and working areas would be removed, and approximately 0.34 ha would be returned to agricultural use.

v. **Description of the operation of the site**

2.4.31 Upon completion of construction, the Yoxford roundabout would remain in place as a permanent improvement to the highway network.

2.4.32 Once operational, the roundabout would be used by members of the public and Sizewell C construction traffic, where Sizewell C construction traffic from the south would access the B1122 from the Sizewell link road.

2.4.33 On a typical day during the peak period of Sizewell C construction there would be 4,550 vehicles (including 220 HGV and 250 buses) per day travelling along the B1122 immediately east of the proposed roundabout at Yoxford. Approximately 700 of these vehicles would be Sizewell C related. It is anticipated that 16,400 vehicles (including 830 HGV and 10 buses) per day would use the southern A12 arm of the roundabout (including 850 Sizewell C vehicles) and 16,900 vehicles (including 980 HGV and 260 buses) per day would use the northern A12 arm (including 1,050 Sizewell C vehicles). During operation, AILs bound for Sizewell B or Sizewell C would need to pass through the Yoxford roundabout using the AIL route illustrated on **Figure 2.1**.

2.4.34 Upon completion of construction of Sizewell C main development site there would be 4,150 vehicles (including 130 HGV) per day travelling along the B1122 immediately east of the proposed roundabout at Yoxford.

Approximately 50 of these would be Sizewell C related. It is anticipated that 16,550 vehicles (including 850 HGV) per day, none of which would be Sizewell C related, would use the southern A12 arm of the roundabout, and 16,900 vehicles (including 910 HGV) would use the northern A12 arm (including 50 Sizewell C related vehicles).

**2.4.35** During operation, routine maintenance of the proposed Yoxford roundabout would be undertaken to maintain appropriate standards. Subject to the adoption of the highway by the highway authority, routine highway maintenance would be carried out by the highway authority. However, prior to the adoption, SZC Co. would be responsible for carrying out any required highway maintenance.

**2.4.36** This would include periodic inspection and maintenance of the SuDS to ensure the continued efficiency of the drainage system. Routine maintenance would also include vegetation clearance, maintenance of road signs and road markings, and litter collection. Material use and waste generation from these maintenance activities are expected to be minimal during operation of the proposed Yoxford roundabout, and would generally be the same (in both type and quantity) as that generated by the existing roads in the area. The wastes will be managed using the established procedures and facilities adopted by the local authority.

**b) Improvements at the A1094 and B1069 junction south of Knodishall**

**2.4.37** The A1094 and B1069 junction is situated to the south of Knodishall. The improvements have been proposed as traffic modelling indicates the increase in vehicles using the junction may impact road safety.

**2.4.38** The site area would be approximately 1.5ha. The site location and surroundings is detailed in **Chapter 1** of this volume.

**2.4.39** This section relates to the proposed improvements at the A1094 and B1069 junction and details the following:

- Proposed development;
- Description of construction activities; and
- Description of the operation of the site.

**i. Proposed development**

**2.4.40** The improvements to the junction of the A1094 and B1069 near Knodishall would take place over a length of approximately 1km on the A1094 and



**NOT PROTECTIVELY MARKED**

approximately 250m on the B1069 and adjacent land around the existing junction.

2.4.41 The following junction improvements are proposed:

- Vegetation along the highway boundary will continue to be maintained by the Highway Authority to improve visibility both to the left and right for vehicles exiting the B1069.
- Provision of signage and road markings: update these to comply with current regulations and add signage, including speed limit reduction signs, to increase driver awareness prior to the junction.

2.4.42 SZC Co. is also engaging with SCC to reduce the speed limit at the junction to 40mph to improve the safety of the junction. This would match the required stopping distance to the visibility available when vegetation has been maintained, assisting vehicles turning right out of the B1069 to find suitable gaps in the A1094 traffic and safely complete the manoeuvre.

2.4.43 The works proposed would not involve any diversions of local PRowS and would be set within the existing presence of road infrastructure.

2.4.44 See **Figure 2.2** for further detail.

ii. [Description of construction activities](#)

2.4.45 It is envisaged construction works would be one month in duration.

2.4.46 The works would not require the use of HGVs and would be undertaken by approximately five workers. No construction compound would be required. Localised, short-term (less than one week) traffic measures would be required during construction to update the road markings.

iii. [Description of operation of the site](#)

2.4.47 Vegetation along the highway boundary will continue to be maintained by the Highway Authority. The condition of road signs and road markings would be checked, and where necessary, signs would be cleaned or replaced during the Sizewell C construction period and road markings refreshed.

c) [Improvements at the A12 and A144 junction south of Bramfield](#)

2.4.48 The A12 and A144 junction is situated to the south of Bramfield. The improvements have been proposed to increase capacity and accommodate additional Sizewell C traffic. The works would increase the capacity for the right-turn movement from the A144 onto the A12.

- 2.4.49 The site area would be approximately 1.2ha. The site location and environmental context is detailed in **Chapter 1** of this volume.
- 2.4.50 This section relates to the proposed improvements at the A12 and A144 junction and details the following:
- proposed development;
  - description of construction activities; and
  - description of the operation of the site.
- i. **Proposed development**
- 2.4.51 The proposed improvements to the A12 and A144 junction would comprise:
- Provision of a physical central reservation island and waiting area is proposed. The waiting area within the junction allows vehicles turning right from the A144 to legally undertake the manoeuvre in two stages. Drivers would need to find a suitable gap in the northbound A12 traffic, move to the central area and then find a gap in the southbound A12 traffic.
  - Widening of the A12 from approximately 8m to approximately 10m, to facilitate the provision of the central reservation island and waiting area.
  - Provision of pedestrian walkways and dropped kerbs to the east of the A12 and on the junction to allow for the safe crossing of pedestrians across the roads.
  - Provision of a verge, approximately 350m in length to the south-east of the site, east of the A12.
- 2.4.52 The proposed works would result in approximately 0.3ha of agricultural land being required permanently.
- 2.4.53 Further detail can be found on **Figure 2.3**.
- ii. **Description of construction activities**
- 2.4.54 It is envisaged construction works would take approximately six months.
- 2.4.55 Traffic management for up to six months would be required during construction to facilitate the proposed road-widening to a design and

sequence to be agreed with SCC. Vegetation clearance and changes to the existing drainage at the site would be required as shown in **Figure 2.3**.

2.4.56 The works would require the use of an estimated five HGVs and would be undertaken by approximately 20 workers per day. No stand-alone construction compound would be required as it is anticipated that the contractor would be managed from the northern park and ride site, refer to **Volume 3** of the **ES**.

iii. [Description of operation of the site](#)

2.4.57 The condition of road signs and road markings would be checked, and where necessary, cleaned or replaced during the Sizewell C construction period and road markings refreshed.

d) [Improvements at the A12 and B1119 junction at Saxmundham](#)

2.4.58 The A12 and B1119 junction is situated to the west of Saxmundham. There are a number of concerns relating to the safety of the existing junction due to a combination of high speeds on the B1119 approaching the junction, poor signage, lighting, and misjudging the speed of vehicles travelling on the A12.

2.4.59 The site area would be approximately 0.9ha. The site location and environmental context is detailed in **Chapter 1** of this volume.

2.4.60 This section relates to the proposed improvements at the A12 and B1119 junction and details the following:

- proposed development;
- description of construction activities; and
- description of the operation of the site.

i. [Proposed development](#)

2.4.61 The improvements to the A12 and B1119 junction comprise:

- Vegetation along the highway boundary will continue to be maintained by the Highway Authority to improve visibility from the B1119.
- Alteration of the B1119 at the junction with the A12, including:
  - Widening the B1119 east bound approach lane up to approximately 2.8m wide at the junction where it meets the A12 to improve the left turn vehicle manoeuvre.

**NOT PROTECTIVELY MARKED**

- Widening the A12 north bound right turn approach lane to the B1119 by up to approximately 1.5m for a length of approximately 55m to improve visibility sight lines.
- Alteration of existing drainage along the B1119 at the junction, comprising realignment of the drains within existing highway verges adjacent to the proposed kerb line realignments in order to accommodate the change in junction layout.
- Provision of additional or alterations to existing signage. In some locations existing signage interferes with driver visibility. In these locations, therefore signs would be mounted higher, or relocated if necessary. New ‘give way’ signs would also be situated before the bend on the B1119 approach to the northern junction to raise awareness of the junction.
- New road markings would be provided within the junction, to clarify the priority within the central reserve and allow right-turning vehicles from the B1119 to negotiate the junction in two manoeuvres, improving operation and safety.

2.4.62 See **Figure 2.4** for further detail.

ii. **Description of construction activities**

2.4.63 It is envisaged construction works would be one month in duration.

2.4.64 The works would require the use of an estimated twelve HGVs and would be undertaken by approximately 10 workers. No construction compound would be required but localised, temporary traffic measures would be required during construction. This would likely comprise shuttle working under traffic light control when the B1119 tie-ins are being undertaken. It is estimated that these temporary traffic measures would be in place for two weeks.

iii. **Description of operation of the site**

2.4.65 Vegetation along the highway boundary will continue to be maintained by the Highway Authority. The condition of road signs and road markings would be checked, and where necessary, cleaned or replaced during the Sizewell C construction period or road markings refreshed.

## 2.5 **Overview of highway safety measures**

2.5.1 Two locations have been identified where there is a need to provide highway safety measures which would be secured by an obligation in the **Section 106 Agreement**, provided in the **Section 106 Heads of Terms** appended to the



**Planning Statement** (Doc. Ref. 8.4). A summary of the indicative proposed measures is provided in **Table 2.4**. These measures would be permanent.

2.5.2 The likely significant environmental effects during construction and operation of these highway safety measures is assessed in this volume of the **ES** (Doc Ref. Book 6) as forming part of the package of sustainable transport measures proposed to minimise the impact of traffic associated with the construction of Sizewell C on the road network.

**Table 2.4: Indicative locations and summary of proposed highway safety measures**

Safety Measures	Summary of Works	Figure Reference
B1078/B1079 junction east of Easton and Otley College.	Improvements of visibility splays and provision of signage and road markings.	<b>Figure 2.5</b>
A140/B1078 junction west of Coddenham.	Improvements of visibility splays and provision of signage and road markings.	<b>Figure 2.6</b>

## 2.6 Overview of construction activities

2.6.1 It is anticipated that the construction principles described in section 2.3 of this chapter would also be applied to the highway safety measures. The envisaged activities specific to these sites are set out in further detail in section 2.7.

## 2.7 Description of highway safety measures

a) **Measures at the B1078 and B1079 junction east of Easton and Otley College**

2.7.1 The B1078 and B1079 junction is situated to the east of Easton and Otley College. The indicative site location and surroundings is detailed in **Chapter 1** of this volume.

2.7.2 This section describes the envisaged highway safety measures to improve the safety of the B1078 approach and the B1078 and B1079 junction and details the following:

- safety measures;
- description of construction activities; and
- description of the operation of the site.

i. **Safety measures**

2.7.3 The indicative safety measures to the B1078 and B1079 junction would comprise (see **Figure 2.5**):

- Vegetation along the highway boundary will continue to be maintained by the Highway Authority to improve visibility on the B1078;
- Provision of signage and road markings, including provision of signs on the B1078 approach to the junction. The centre warning line of the carriageway would be highlighted with road studs to increase driver awareness. The works would fall within the highway boundary and there would be no physical changes to the junction. There would also be no requirement to divert any local PRow.

ii. **Description of construction activities**

2.7.4 It is envisaged that construction works would be less than a month in duration.

2.7.5 The works would not require the use of HGVs and would be undertaken by approximately two workers. No construction compound would be required. Localised, short-term (less than one week) traffic measures would be required during construction to update the road markings and centre warning line.

iii. **Description of operation of the site**

2.7.6 Vegetation along the highway boundary will continue to be maintained by the Highway Authority. The condition of road signs would be checked, and where necessary, cleaned or replaced during the Sizewell C construction period.

b) Measures at the A140 and B1078 junction west of Coddenham

2.7.7 The A140 and B1078 junction is situated to the west of Coddenham. The indicative site location and environmental context is detailed in **Chapter 1** of this volume.

2.7.8 This section describes the envisaged highway safety measures to improve the safety of the A140 and B1078 junction and details the following:

- safety measures;
- description of construction activities; and
- description of the operation of the site.

i. Proposed safety measures

2.7.9 The indicative safety measures to the A140 and B1078 junction would comprise:

- Vegetation along the highway boundary will continue to be maintained by the Highway Authority to improve visibility for vehicles turning right into the B1078 and left onto the A140.
- Provision of additional or alterations to existing signage and road markings:
  - A change to the existing ‘Give way’ sign at the right turn from the A140 northbound towards the B1078 to a ‘Stop’ sign, requiring drivers to observe oncoming vehicles on the A140 southbound before crossing safely.
  - Provision of additional signs and update existing signs to comply with highway regulations and provide sufficient notice in advance of the junction.
  - Extend the existing hatching to the full length of the right turn lane on both sides, preventing vehicles from stopping parallel to each other and obscuring visibility.

2.7.10 These measures would not increase the capacity of the junction but they have been proposed to improve the safety of the A140 and B1078 junction. See **Figure 2.6** for further detail.

ii. Description of construction activities

2.7.11 It is envisaged that construction works would be one month in duration.

- 2.7.12 The works would not require the use of HGVs and would be undertaken by approximately five workers. No construction compound would be required. Localised, short-term (less than one week) traffic measures would be required during construction to update the road markings.

iii. Description of operation of the site

- 2.7.13 Vegetation along the highway boundary will continue to be maintained by the Highway Authority. The condition of road signs and road markings would be checked, and where necessary, cleaned or replaced during the Sizewell C construction period or road markings refreshed.

## 2.8 Parameters

- 2.8.1 SZC Co. has adopted a parameters approach which defines the envelope for the proposed development. A parameter approach has been adopted in order to ensure that the design process has adequate flexibility in order that the Sizewell C Project can be delivered. This approach has followed the Rochdale Envelope, as set out in Planning Inspectorate Advice Note Nine (Ref 2.3). These parameters have informed the assessment presented in the **ES** (Doc Ref. Book 6) and the flexibility being sought is consistent with the findings of the **ES**. The assessment has used a reasonable worst-case basis on which to assess and mitigate potential adverse impacts arising from the scheme.
- 2.8.2 The site location plan and illustrative masterplans for the proposed highway improvements and highway safety measures are shown in **Figure 1.1** and **Figures 2.1** to **2.6**. The illustrative masterplans show one possible iteration of the schemes delivered within the defined parameters set out within the application. The parameters of the sites assessed within the **ES** (Doc Ref. Book 6), within which the proposed development may be constructed, operated and maintained are shown on the **Work Plans** (Doc Ref. 2.3), reproduced in **Appendix 2B** of this volume.
- 2.8.3 **Schedule 1** of the **Draft DCO** (Doc Ref. 3.1) describes the authorised development. The **Draft DCO** states that the development will be: constructed, operated and maintained anywhere within the area as shown on the **Work Plans** (Doc Ref. 2.3) (showing lateral limits of deviation) and to a maximum of +/- 1 metre vertically; carried out in accordance with the relevant plans set out in Schedule 7 of the **Draft DCO**; and, carried out in general accordance with the design principles set out in the **Associated Development Design Principles** (Doc Ref. 8.3) document, save to the extent that alternative plans or details relating to siting, scale or appearance are submitted by the undertaker and approved by the local planning authority.

## References

- 2.1 Highways England, Design Manual for Roads and Bridges (last updated 2018). Available at: <http://www.standardsforhighways.co.uk/ha/standards/dmrb/>.
- 2.2 British Standards Institute, Code of Practice for the Design of Road Lighting, Lighting of Roads and Public Amenity Areas BS 5489-1:2013 (2012). Available at <https://shop.bsigroup.com/ProductDetail?pid=000000000030217237>.
- 2.3 Planning Inspectorate Advice Note Nine: Rochdale Envelope, July 2018. Available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf>