The Sizewell C Project

5.1 Consultation Report Appendices F.1 - F.2 Part F: Stage Four Pre-application Consultation

Revision: 1.0

Applicable Regulation: Regulation 5(2)(q)

PINS Reference Number: EN010012

May 2020

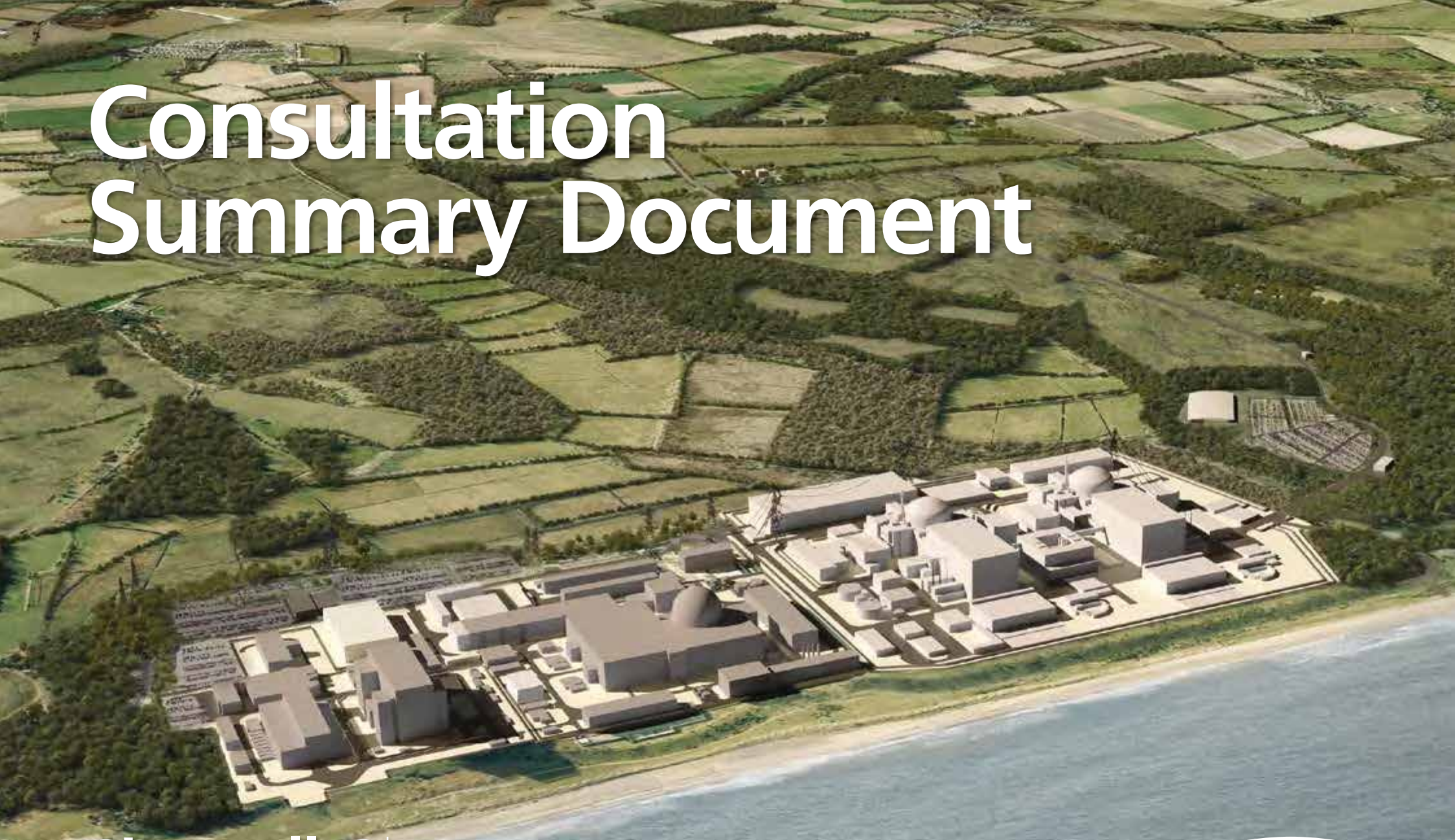
Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

CONTENTS

Appendices (Evidence of consultation)

Appendix F.1 Stage 4 Consultation Summary Document (July 2019)

Consultation Summary Document



Sizewell C

Proposed Nuclear Development

Stage 4 Pre-Application Consultation

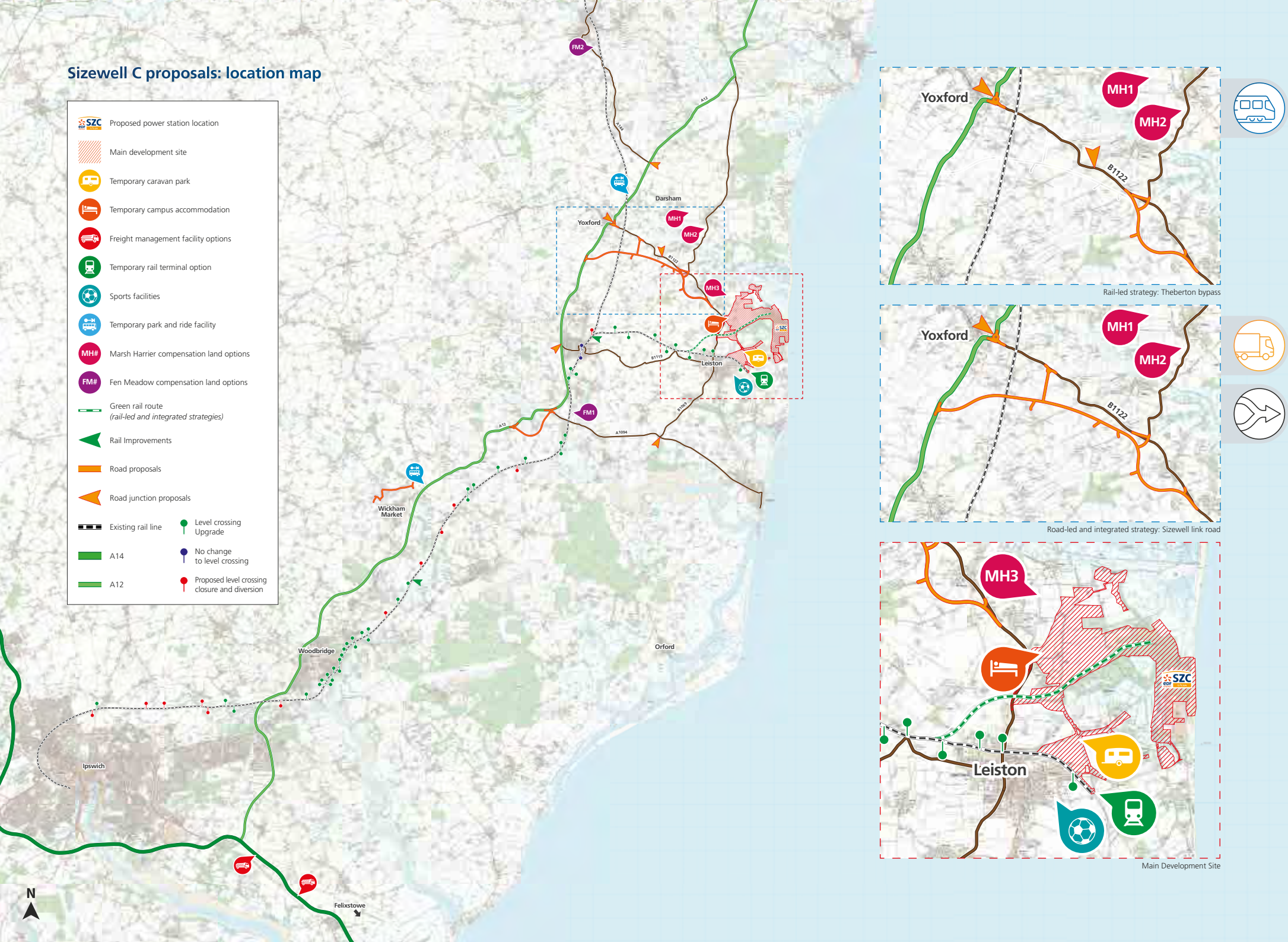
Summer 2019

SZC

EDF ENERGY

CGN

Sizewell C proposals: location map



Rail-led strategy: Theberton bypass

Road-led and integrated strategy: Sizewell link road

Main Development Site

Foreword

I am very pleased to present the latest proposals for Sizewell C, the new nuclear power station we are proposing to build on the Suffolk Coast.

Building Sizewell C would help the country move away from polluting fossil fuels like coal and gas and play a major role in fighting climate change. Alongside our Sizewell B and Hinkley Point C power stations, it will help an almost totally carbon-free electricity system work more reliably and affordably. Our nuclear power stations will help the electricity system cope better when there is little wind and solar power produced.

Consultation has been central to the way in which the Sizewell C proposals have evolved and the feedback we have received has been invaluable in shaping our proposals. We have continued to update and improve them with the benefit of that feedback and continued environmental and technical studies. Before we finalise our application, we are seeking your views on a number of potential changes which we think may improve the proposals further. These potential changes are explained in this Stage 4 consultation. They include a new integrated freight management strategy, which we think is deliverable and which seeks to combine many of the benefits of the alternative road and rail strategies we presented at Stage 3.

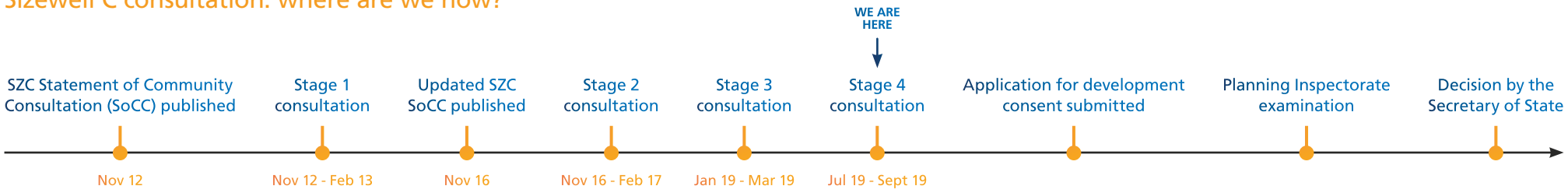
We are still considering options presented in Stage 3 alongside those put forward in this Stage 4 consultation, and also welcome your comments on these during the course of the current consultation. If you commented at Stage 3 and your views have not changed, there is no need to re-submit your feedback as all Stage 3 and Stage 4 comments will be considered before we finalise our proposals and submit an application for development consent.

I am very grateful to everyone for your interest so far. Do please contribute further to the development of our plans by participating in this Stage 4 consultation, which closes on 27 September.

I look forward to hearing your views.

Jim Crawford, Sizewell C Project Development Director

Sizewell C consultation: where are we now?



Contents

The Stage 4 questionnaire is attached to the back of this summary document. Please detach and return it in the prepaid envelope. Alternatively, go to www.sizewell.co.uk to share your feedback.

Highlights a change to this element since Stage 3

Highlights where options are presented for feedback

Highlights proposals related to the road-led strategy

Highlights proposals related to the rail-led strategy

Highlights proposals related to the integrated strategy

1. The consultation

Stage 4: 18 July to 27 September 2019

EDF Energy[1] intends to submit an application for development consent to build and operate a new nuclear power station, Sizewell C, along with the associated development required to enable construction and operation. Before submitting the application, we are consulting on our proposals. If you commented at Stage 3 and your views have not changed, there is no need to re-submit your feedback as all Stage 3 and Stage 4 comments will be considered before we finalise our proposals and submit an application for development consent.

The purpose of this Stage 4 consultation is to provide you with an update on some of the proposals that have changed since Stage 3 and to introduce an alternative, third option for moving materials on and off site during the construction period. These proposals have emerged in light of feedback at Stage 3, on-going engagement with stakeholders, further technical and environmental assessments, close working with Network Rail, and learnings from Hinkley Point C. They are outlined in this summary document, with more detailed information available in the Stage 4 Consultation Document.

We are also continuing to consider the proposals and options in our Stage 3 consultation before deciding on the proposals for which we will seek development consent. We welcome your feedback on both our Stage 3 and Stage 4 proposals during the current consultation period.

The consultation is being carried out in accordance with our updated Statement of Community Consultation (SoCC), published in 2016 and agreed with Suffolk Coastal District Council (SCDC) (now East Suffolk Council) and Suffolk County Council, and available online at: www.sizewellc.co.uk. It will include the following consultation exhibitions:

VENUE	DATE	TIME
Leiston, Leiston United Church, High Street, Leiston, IP16 4EL	23 July	2pm - 8pm
Yoxford, Village Hall, Old High Road, Yoxford, IP17 3HN	24 July	1pm - 6pm
Wickham Market, Village Hall, High Street, Wickham Market, IP13 0HE	25 July	12pm - 3pm
Hacheston, Village Hall, The Street, Hacheston, IP13 0DW	25 July	5pm - 8pm
Woodbridge, Community Hall, Station Road, Woodbridge, IP12 4AU	26 July	2pm - 8pm
Stratford St Andrew, Riverside Centre, Great Glemham Road, Stratford St Andrew, IP17 1LL	27 July	10am - 4pm

1 NNB Generation Company (SZC) Limited has been formed as a separate company (Company No 9284825) to finance and construct Sizewell C. It is currently a joint venture company between EDF Energy and China General Nuclear Power Corporation (CGN). EDF Energy will seek additional shareholders in NNB Generation Company (SZC) Limited and is currently in discussion with UK pension funds. NNB Generation Company (SZC) Limited is referred to in this document as EDF Energy.

Learn about the proposals

Read this **Stage 4 Consultation Summary Document**

Find out more detail in the **Stage 4 Consultation Document**

Attend **our exhibitions**

Visit the **Sizewell C Information Office** in Leiston

Check out the website: **www.sizewellc.co.uk**

Call freephone **0800 197 6102** during normal office hours.

Follow us on Twitter @edfesizewellc

Respond to the consultation

Complete a questionnaire: **www.sizewellc.co.uk**
Or in hard copy and post it to our freepost address (see below)

Email your comments to **info@sizewellc.co.uk**

Post your written responses to **FREEPOST SZC Consultation**
(no stamp or further address required)

Call freephone **0800 197 6102** during normal office hours.

If you are unable to attend the exhibitions, copies of the exhibition boards and other consultation materials are available to download from our website: www.sizewellc.co.uk.

Copies of all the consultation documents are available to take away on USB memory sticks and to view in hard copy at our exhibitions and at the Sizewell C Information Office, open from 9.30am - 5pm Monday to Friday and 9am - 12pm Saturday (48-50 High Street, Leiston, IP16 4EW) throughout the Stage 4 consultation. Hard copies will be available to view during normal office hours in East Suffolk Council's offices in Melton (East Suffolk House, Station Road, Melton, Woodbridge, IP12 1RT and Lowestoft (Riverside, 4 Canning Road, Lowestoft, NR33 0EQ), as well as in local public libraries. Documents are also available online: www.sizewellc.co.uk.

If you require the consultation information in a different format for accessibility reasons, please call 0800 197 6102 or email info@sizewellc.co.uk.

Status and scope of consultation

Sizewell C is classed as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008. Following public consultation, we will make an application for development consent for Sizewell C. The Planning Inspectorate will process and examine the application, and will encourage the submission of views from interested parties, before making a recommendation to the Secretary of State, who will make the final decision on whether or not to grant consent. More information on the NSIP planning process is available at: http://infrastructure.planninginspectorate.gov.uk.

Please note that the principle of the need for new nuclear power stations and the choice of Sizewell as a potentially suitable site have already been determined by Parliament. Therefore, these issues are outside the scope of this consultation. For more information, see Volume 1, Chapter 3 of the Stage 3 Consultation Document.

Proposed changes since Stage 3

We are considering some changes to our proposals as a result of feedback at Stage 3 consultation, on-going engagement with stakeholders, further technical and environmental assessments, close working with Network Rail, and learnings from Hinkley Point C. The aim of Stage 4 consultation is to provide an update on these changes and to introduce an alternative, third option for moving materials on and off the construction site.

This Stage 4 Consultation Summary Document outlines our proposed updates and changes. Further details, including preliminary environmental information are available in the Stage 4 Consultation Document. A number of the proposed changes relate to the development boundaries - or red line boundaries - we are proposing. Red line boundaries show the extent of the land we will seek to gain powers over in our application for development consent. This document uses the term 'development boundary' throughout when referring to these changes.

Much of the detail from Stage 3 remains the same and is therefore not repeated here. The start of each section in this document includes headline information about unchanged proposals. The exception to this is the section on freight management, where the Stage 3 options are also included for ease of comparison.

For details - and to provide feedback - about the unchanged proposals, please refer to the Stage 3 consultation documents:

- Stage 3 Consultation Summary Document.
- Stage 3 Consultation Document, comprising:
  - Volume 1 Development Proposals;
  - Volume 2 Preliminary Environmental Information; and
  - Volume 3 Preliminary Environmental Information Figures.

When you see 'Stage 3 consultation documents' in the text, it is a reference to these documents. All of these documents are available in the same places as the Stage 4 consultation documents (see page 3).

Preliminary environmental information

The environmental sensitivities of the local area have been a key consideration in the development of our proposals. We provided preliminary environmental information (PEI) as part of the Stage 1, Stage 2 and Stage 3 consultations and have continued to collect information in preparation for submission of the application for development consent. In doing so, we are considering how potential effects may be addressed.

An Environmental Impact Assessment (EIA) process is ongoing and is being used to identify any likely significant effects arising as a result of Sizewell C. Where necessary, our design is being refined or mitigation measures developed to reduce the significance of these effects. The outcomes of the EIA will play a key role in finalising our proposals. A full Environmental Statement (ES) and non-technical summary will be submitted as part of our application for development consent, which will be available for you to read once our application has been accepted.

PEI related to the updates and new proposals is available in the Stage 4 Consultation Document. PEI for the Stage 3 proposals can be found in Volume 1, Chapter 4 and Volume 2 of the Stage 3 Consultation Document.

2. Sizewell C power station

We plan to build and operate a new nuclear power station in Suffolk on land immediately to the north of the Sizewell B power station, adjacent to an area that has had nuclear power stations operating since 1966. Should we receive the necessary consents, we expect construction of the power station to take between 9 and 12 years.

The permanent components of Sizewell C would be:›

› two UK EPR™ reactor units made up of reactor and associated buildings, plant and infrastructure, and turbine halls and electrical buildings;

› fuel and waste facilities, including interim storage for radioactive waste and spent fuel;

› an operational service centre (including offices), a training building, and ancillary office and storage buildings;

› a cooling water system and combined drainage outfall in the North Sea;

› drainage and sewerage infrastructure;

› transmission infrastructure including 400kV overhead lines and **pylons**, a National Grid 400kV substation and associated modifications to the existing National Grid transmission lines;

› a backup power source and emergency response equipment store at Upper Abbey Farm;

› internal roads, a causeway to cross the Sizewell Marshes Site of Special Scientific Interest (SSSI), an access road linking the SSSI crossing with a **new roundabout** onto Abbey Road (B1122), car parking, and a vehicle search area;

› sea defences and a beach landing facility;

› a helipad for infrequent use by Sizewell B and Sizewell C, replacing the existing emergency landing site at Sizewell B on the outage car park;

› an access road including a new roundabout to join the B1122; and

› landscaping of the areas to be restored following use during construction.

Temporary components

Construction of Sizewell C would also require the following temporary developments on the main site:

› construction working compounds (parking, laydown areas, working areas, and related works and structures);

› an induction centre, site offices, and temporary structures, including a concrete batching plant;

› temporary rail infrastructure (for the rail-led and integrated strategies);

› site access, construction roads, fencing, lighting, security features, landscape bunds and screening;

› temporary spoil management areas, including borrow pits and stockpiles;

› public access works, including permanent and temporary closures and diversions of **public rights of way**;

› water management zones, utilities and services infrastructure; and

› an accommodation campus.

More detail on the permanent and temporary main development site works and related environmental studies can be found in the Stage 3 Consultation Document.

Changes since Stage 3

While the boundary of the main development site would remain broadly the same as shown at Stage 3 consultation, there are some minor proposed changes to allow for updated proposals or as a result of discussions with landowners. The location map on the inside front cover shows the proposed boundary of the main development site.

Site access: roundabout and approach roads

A new, permanent, two-lane access road with a segregated route for cyclists and pedestrians would link Sizewell C to the B1122. This would be the main route to bring workers and materials onto the site during construction and the main access for Sizewell C when operational.

Our proposal, unchanged since Stage 3 consultation, is that a roundabout would link the access road with the B1122. Feedback from Suffolk County Council (SCC) included a preference for the speed limit through the roundabout to be 40mph, rather than the 30mph design proposed at Stage 3. We are now proposing to extend the development boundary to allow for a larger roundabout if needed (see Chapter 5 of the Stage 4 Consultation Document for more detail). We are assessing the environmental impacts of this change, including on woodland, Greenhouse Plantation, and Leiston Abbey, and will take steps to minimise the impact.

Highlights a change to this element since Stage 3

Electricity pylons

At Stage 3 we proposed four pylons to export electricity generated by Sizewell C via overhead lines to the National Grid substation. In recent months, National Grid has been examining our proposals and refining the design. This has resulted in a proposed extension of the development boundary to include the full area underneath the overhead lines to allow the works to be carried out.

We are also seeking feedback on two options we have developed for minimising the visual impact of the pylons (see Chapter 5, Stage 4 Consultation Document for further detail):

- Option 1 (four pylons): reducing the height of three pylons (excluding the northernmost pylon) by around 25%.
- Option 2 (five pylons): reducing the height of all pylons by 25%, but with the requirement for an additional pylon near to the SSSI crossing. This would be needed to ensure the overhead lines go around the emergency diesel generator building rather than over it.

Pylons
2 available options

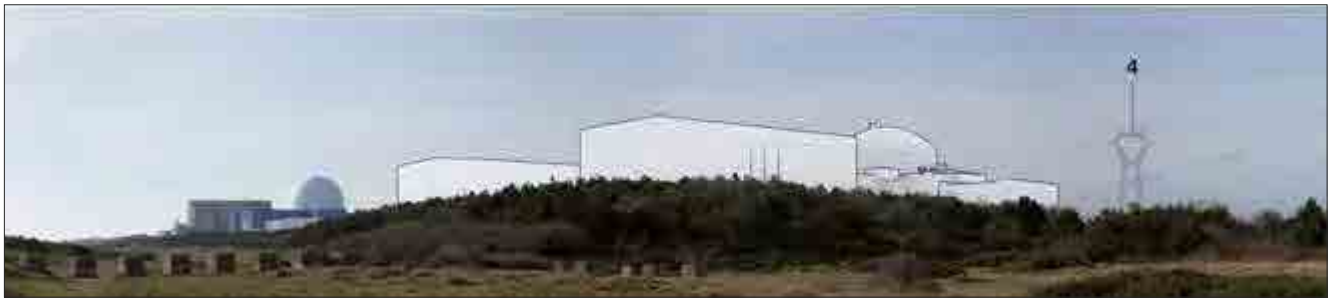


Fig 2.1: Option 1 - View from beach east of Goose Hill

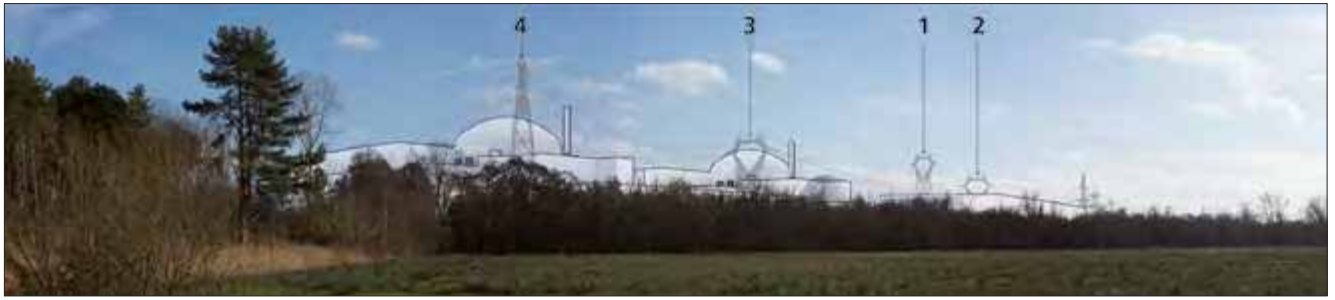


Fig 2.3: Option 1 - View from Sandlings Walk at Goose Hill

Fig 2.3: Option 2 - View from beach east of Goose Hill

Fig 2.4: Option 2 - View from Sandlings Walk at Goose Hill

Public rights of way and Bridleway 19 diversion

We are continuing to work with SCC to develop appropriate diversion proposals where public rights of way (PROWs) must be closed - temporarily or permanently - to ensure public safety during construction and operation. Details of the affected PROWs can be found in the Stage 3 Consultation Document.

Bridleway 19 currently runs through what would be the main construction area for Sizewell C. It would be diverted throughout the construction phase onto a single 3m-wide route, surfaced to bridleway standards and with waiting boxes at crossing points. While the route remains broadly the same as at Stage 3, we are now proposing to include more land to allow for improvements including a footpath linking the caravan site to the main construction site, a design change reducing the number of crossings users would need to make, and a wider development corridor (see Chapter 5, Stage 4 Consultation Document for further detail).

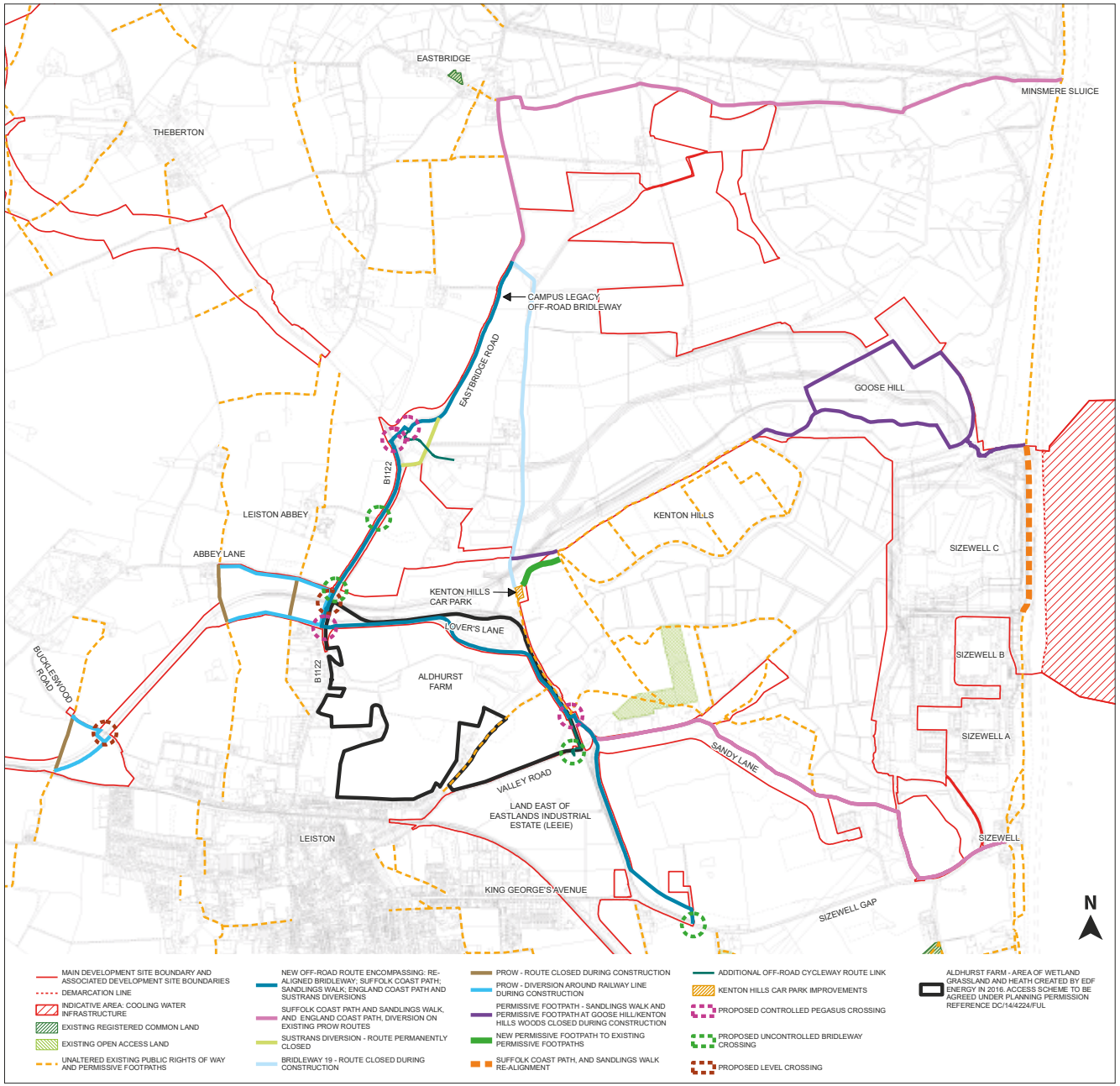


Fig 2.5: Public rights of way and access strategy - construction phase

Additional land for mitigation

Construction of the power station would have an impact on the surrounding environment. We have created a new wildlife habitat at Aldhurst Farm, Leiston, to benefit people and wildlife, and to help compensate for any future potential land-take from the Sizewell Marshes Site of Special Scientific Interest (SSSI). In response to feedback from Stage 3 consultation and further technical and environmental work, we are also now proposing to include additional land for mitigation within the development boundary, including:

- Kenton Hills car park - for improvements to the car park as well as the access into the Kenton Hills woodland. For more information see Chapter 5, Stage 4 Consultation Document.
- Three additional potential sites (see location map on inside front cover) to support the marsh harrier breeding population in case our current work to establish habitats on the EDF Energy estate does not provide sufficient foraging area. Works to create the habitats would be similar to normal farming operations. It is unlikely that all three sites will be needed in their entirety. The proposals will be refined further prior to our application for development consent. For more information see Chapter 5, Stage 4 Consultation Document.
- Two potential sites (see location map on inside front cover) to compensate for the loss of fen meadow habitats from the SSSI. Further assessment will determine the viability of each site, including the need for any engineering operations to modify existing landforms, soils and raise water levels where necessary. Any such works are likely to involve a small amount of equipment, such as a single excavator. It is unlikely that both sites will be needed in their entirety. The proposals will be refined further prior to our application for development consent. For more information see Chapter 5, Stage 4 Consultation Document.
- Around 90,000 cubic metres of replacement floodplain in two locations to mitigate for losses due to the construction and operation of the SSSI crossing. The locations of the flood compensation areas are within the main development site. The flood compensation areas would be permanent features with a naturalistic design. Any wetlands created would remain after construction is complete. For more information see Chapter 5, Stage 4 Consultation Document.

3. Accommodation and transport

Building Sizewell C would involve the daily movement of large numbers of construction workers and significant amounts of materials and equipment. Our proposals include mitigation measures to limit potential effects on local communities and the environment.

Throughout the Stage 3 consultation period, we continued work and detailed assessments of our proposals for moving people and freight. Along with feedback from Stage 3 consultation, working closely with Network Rail, and learning from construction at Hinkley Point C, this has resulted in changes to some proposals and the emergence of a new option for the movement of freight.

We continue to propose the following as part of our accommodation and transport strategies (see Stage 3 Consultation Document for details):

- a single, on-site accommodation campus for 2,400 workers including self-contained rooms, a canteen/restaurant and kitchen facilities, a launderette/laundry service, a shop, bars and recreational areas, a gym, parking spaces for around 1,500 cars, refuse stores, utilities (including a water treatment plant), site security, fencing, a perimeter road , and appropriate lighting;
- off-site sports facilities, including a full-sized synthetic sports pitch and two multi-use games areas, on land between Leiston Leisure Centre and Alde Valley Academy, with **proposed amendments** to the development boundary included at Stage 4 (see Chapter 5, Stage 4 Consultation Document);
- a caravan site of around 400 pitches on land east of Eastlands Industrial Estate (LEEIE), available in the early years before the campus is established and retained throughout construction as an option for workers;
- use of the existing rail terminal known as Sizewell Halt or construction of a new rail siding or **spur on LEEIE** as well as rail branch line upgrades and level crossings works, with the boundary amended since Stage 3;
- a beach landing facility that would also remain for occasional use during operation;
- a road-led or rail-led approach to moving freight, along with a new, additional, **integrated strategy** proposed at Stage 4 (see Chapter 3, Stage 4 Consultation Document);
- a freight management facility to serve as a holding area for HGVs, helping to regulate timing and flow of vehicles to the main development site under the road-led and integrated strategies;
- two park and ride facilities at key locations on the A12 to reduce the amount of traffic generated by the construction workforce on local roads, with some proposed **minor amends** since Stage 3 (see Chapter 6, Stage 4 Consultation Document);
- direct bus services to the construction site from Ipswich, Lowestoft, and Leiston, as well as to and from Saxmundham station;
- working patterns planned to minimise the number of workers travelling at peak times;
- HGV management strategies including an electronic web-based Delivery Management System to allocate HGV delivery slots and ensure compliance with agreed controls and limits, use of mandatory routes for Sizewell C HGV construction traffic, enforced with the use of Automatic Number Plate Recognition (ANPR) cameras, and temporary holding or controlled release of HGVs from the Sizewell C site; and
- road improvements where necessary to mitigate the impact of construction traffic, with some **minor improvements** proposed at Stage 4 (see Chapter 6, Stage 4 Consultation Document).

Along with the new, integrated option for the movement of freight, our proposed development boundary changes and minor updates are outlined in the following pages, and detailed, with related environmental information, in the Stage 4 Consultation Document. For ease of comparison, we have included all three freight management strategies in the following pages.

Transport - movement of freight

In developing our freight management strategies, we have aimed to:

- maximise use of rail infrastructure while avoiding disruption of existing passenger services;
- limit the impact of Sizewell C construction on the local highway network wherever possible; and
- mitigate environmental impacts.

Learning from Hinkley Point C has shown that Sizewell C could be built with fewer HGVs on the busiest day than previously predicted. The 'busiest day' numbers at Stage 4 have been reduced since Stage 3 - where the assumption was that they would be twice the 'typical day' numbers - to around 1.5 times the 'typical day' numbers. This reduction applies to all three freight movement strategies.

Highlights a change to this element since Stage 3

In recent months we have worked closely with Network Rail to understand the constraints associated with moving freight by rail, particularly on the East Suffolk line, which has sections that are single-track. Network Rail has identified a number of risks to delivery of the infrastructure required for the rail-led strategy in time to meet the Sizewell C construction programme. In order to maximise use of rail that is deliverable within our control and ensure mitigation measures are in place for the communities most affected, we have developed an additional option for freight management.

We are now considering three options for the movement of freight - the rail-led and road-led strategies presented at Stage 3, and a new integrated strategy being presented in our Stage 4 consultation.

Figure 3.1 shows a comparison of the features of each of the three proposed strategies (see Stage 3 and Stage 4 Consultation Documents for more detailed information and environmental studies). An outline of each feature is included over the following pages, with symbols indicating to which strategies they belong. The three strategies we are considering are:

› A rail-led strategy (part of our Stage 3 proposals) providing direct access into the main site for five trains a day (10 movements) along a proposed new rail route (known as the green rail route), together with road improvements including a bypass of Theberton and improvements to the junction of the B1122 with Mill Street (reducing the road level to the west of the junction to improve visibility and help traffic exiting Mill Street). In the early years while the green rail route is being constructed, there would be up to two trains a day travelling to either Sizewell Halt or a new rail siding or spur on LEEIE. The strategy would require refurbishment of the branch line, new rail infrastructure on the East Suffolk line (a passing loop, a track crossover to allows these trains to travel during the day without affecting passenger trains, and up to 45 upgrades or closures of level crossings on the main line and branch line). For further details and environmental information, please see Volume 1, Chapter 5 and Volume 2, Chapters 3 and 4 of the Stage 3 Consultation Document.

› A road-led strategy (part of our Stage 3 proposals) would include up to two trains a day (to Sizewell Halt or a new rail siding or spur on LEEIE) throughout construction but we would not build the green rail route or undertake works to the East Suffolk line. Instead, we would construct a new Sizewell link road from the A12 to the B1122 east of Theberton (either as a temporary route during construction or as a permanent road) to relieve the B1122, Middleton Moor and Theberton of traffic. This strategy also includes a freight management facility, near Ipswich, which would serve as a holding area for HGVs, regulating the timing and flow of vehicles to the Sizewell C main development site. For further details and environmental information, please see Volume 1, Chapter 5 and Volume 2, Chapters 3 and 4 of the Stage 3 Consultation Document.

› An integrated strategy (a new proposal in our Stage 4 consultation) combining elements of both the rail-led and road-led strategies. It would provide direct access into the main site for three trains a day (six movements) along the green rail route off the Saxmundham - Leiston branch line. One of these movements would be during the day and five overnight (travelling straight from the East Suffolk line to site without being held outside of Leiston). Three trains at peak would require refurbishment of the branch line and upgrades to level crossings on that line, but no rail infrastructure works or level crossing closures or upgrades on the East Suffolk line. In the early years while the green rail route is being constructed, there would be up to two trains a day travelling to either Sizewell Halt or a new rail siding or spur on LEEIE. We would also provide road improvements including the Sizewell link road and a freight management facility, near Ipswich. For further details and environmental information, please see Chapter 3 of the Stage 4 Consultation Document.

Movement of freight
3 alternative strategies

		PAGE			
RAIL PROPOSALS	Sizewell Halt or rail siding or spur at LEEIE for early years	11	✓	✓	✓
	Saxmundham to Leiston branch line upgrades and level crossings works	12	✓	✓	✓
	Green rail route to the temporary construction area	12	✓	✓	
	East Suffolk line upgrades and level crossing works	12	✓		
ROAD IMPROVEMENTS	A12 - Two village bypass	13	✓	✓	✓
	A12 / B1122 - Yoxford roundabout	14	✓	✓	✓
	B1122 - Theberton bypass	15	✓		
	B1122 - Sizewell link road	16		✓	✓
	Other minor road improvements	17	✓	✓	✓
	Freight management facility	12		✓	✓
	Beach landing facility	12	✓	✓	✓
	HGV operational hours		07:00 - 23:00	Potential for extended hours	
	HGVs - typical day (number of movements)		225 (450)	325 (650)	375 (750)
	HGVs - busiest day (number of movements)		350 (700)	500 (1,000)	575 (1,150)
	Trains per day (up to) (number of movements)		5 (10)	3 (6)	2 (4)

Fig 3.1: comparison of freight management strategies

Rail proposals

› Sizewell Halt or rail siding or spur at LEEIE for early years - We are proposing to use the existing rail terminal known as Sizewell Halt or a new rail siding or spur on LEEIE for freight deliveries in the early years of construction. Under the road-led strategy, the proposal for two trains a day will continue throughout the construction phase. We are now considering a third option (in addition to the two presented at Stage 3) for development at LEEIE:

- **Option 1:** reconfiguration of the existing Sizewell Halt rail terminal on the branch line to accommodate longer trains, and an overhead conveyor system to move material over King George's Avenue into land east of Eastlands Industrial Estate;
- **Option 2:** a new rail siding adjacent to the existing branch line in the land east of Eastlands Industrial Estate;
- **Option 3:** a new rail spur located more centrally within the LEEIE, allowing longer trains to be used and more freight to be delivered per train. The railway track would have a straighter alignment compared with Option 2 and would avoid the need to cross King George's Avenue (Option 1).

Sizewell Halt or new rail siding or spur
3 available options

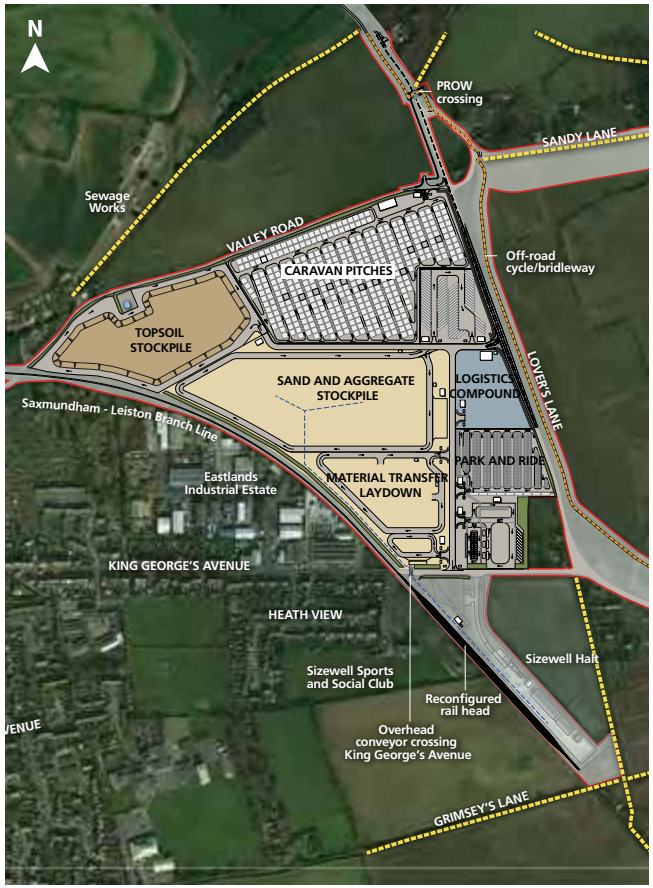


Fig 3.2: LEEIE - Option 1: Sizewell Halt

Fig 3.3: LEEIE - Option 2: Rail Siding

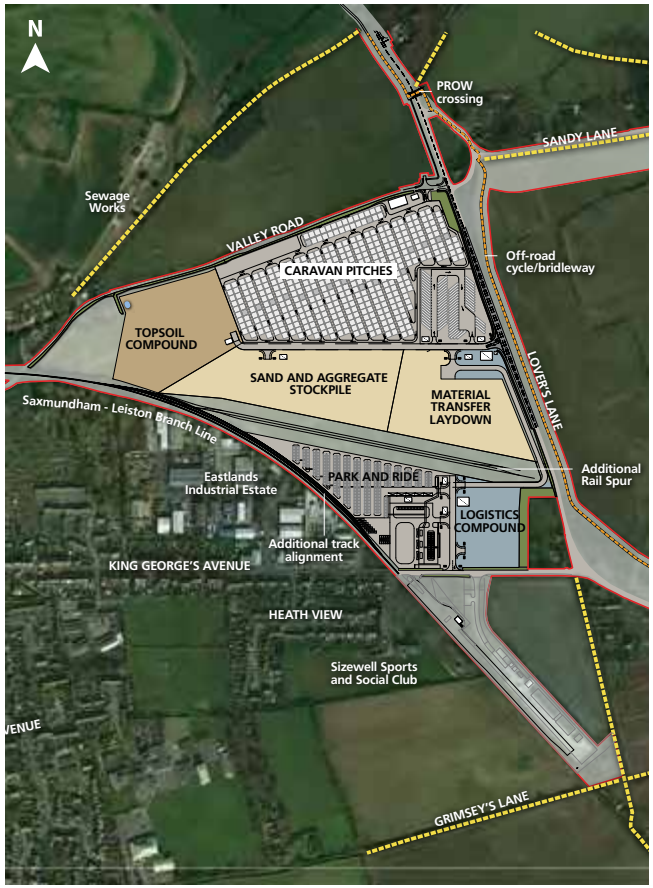


Fig 3.4: LEEIE - Option 3: Rail Spur

› Saxmundham - Leiston branch line upgrades and level crossing works - All three options would require

track upgrades to the Saxmundham to Leiston branch line. Nine level crossings between the Saxmundham junction and Sizewell Halt would also need to be upgraded. There is no change to the nature of the works proposed at Stage 3, however we are now proposing to **include the entirety of the branch line** within our development boundary to enable either EDF Energy or Network Rail to do the upgrades.

› Green rail route to the temporary construction area

- The green rail route is a proposed new rail route off the Saxmundham - Leiston branch line. Once construction is complete, the green rail route would be removed and the land on which it was located would be restored.

› East Suffolk line upgrades and additional level crossings works - Significant improvements to the East

Suffolk line - including a passing loop at a location between Melton and Wickham Market stations and a track crossover at Saxmundham - would be needed under the rail-led strategy. Upgrades of 33 level crossings as well as closures and diversion of 12 others would also be needed.

Freight management facility

We are proposing a freight management facility near Ipswich to serve as a holding area for HGVs, helping to regulate timing and flow of vehicles to the main development site. It would be a secure facility accommodating up to 150 parking spaces for HGVs, along with toilets, a rest room, and administration and security offices. Landscape planting would form part of the design and we would maintain a 5-10m buffer between buildings and the site boundary.

We are still considering two sites - known as Seven Hills and Innocence Farm, both located in the vicinity of the A12/A14 junction - for the freight management facility (please see Volume 3, Chapter 15 of the Stage 3 Consultation Document for further information).

We are consulting on some minor **proposed changes** to both sites at Stage 4:

› Seven Hills - an extension to the development boundary to include a section of Felixstowe Road, a reduction to exclude an existing drainage feature along the A14, and other changes to align more accurately with land ownership boundaries.

› Innocence Farm - relocation of the site access for improved visibility and an extension to the development boundary along the A14.

Further details on these changes and related environmental information are available in Chapter 6 of the Stage 4 Consultation Document.

Beach landing facility

A beach landing facility would be used throughout the construction phase to remove the need for particularly heavy and oversized loads to be taken on the road network. It would be designed for use by barges, loaded with deliveries elsewhere, which would be towed to the coast, and moored in position before the barge is beached. The abnormally large deliveries would be transported to site along an access road.

The beach landing facility would be a permanent feature, remaining in place for the handling of abnormally large deliveries during the construction and operational phases of the power station. Further details and environmental information on the beach landing facility are available in the Stage 3 consultation documents. No changes to the beach landing facility are proposed in the Stage 4 consultation.

Highlights a change to this element since Stage 3

Road improvements

A12 two village bypass

We are proposing a bypass of Farnham and Stratford St Andrew (a two village bypass) to significantly reduce the traffic passing through the narrow bend at Farnham. The single carriageway road would leave the A12 to the west of Stratford St Andrew via a new roundabout near Parkgate Farm, following the route shown on Figure 3.5, and re-join the A12 with a roundabout to the east of Farnham at the A12/ A1094 Friday Street junction. This remains unchanged since Stage 3 consultation; however, in this Stage 4 consultation we are proposing some minor changes in response to feedback and our further environmental studies (see Chapter 6 of the Stage 4 Consultation Document). This would require amendments to the proposed **development boundary** to allow:

- repositioning of the western roundabout so it is further away from Red House Farm;
- accommodation of farm traffic and bicycles travelling along the national cycle route across the A12 along Tinker Brook. This boundary change also avoids encroachment into Stratford Plantation which has historic parks and gardens designation;
- exclusion of the north-west corner of Foxburrow Wood which will not be affected;
- additional land for construction of the proposed pedestrian, cyclist, and equestrian bridge at Farnham Hall track;
- a 4.5m cutting, a public rights of way ramp, and a 2.5m embankment to significantly reduce impacts for properties near to Farnham Hall; and
- sufficient space for the north eastern roundabout and a revised drainage strategy developed following feedback from the local community.

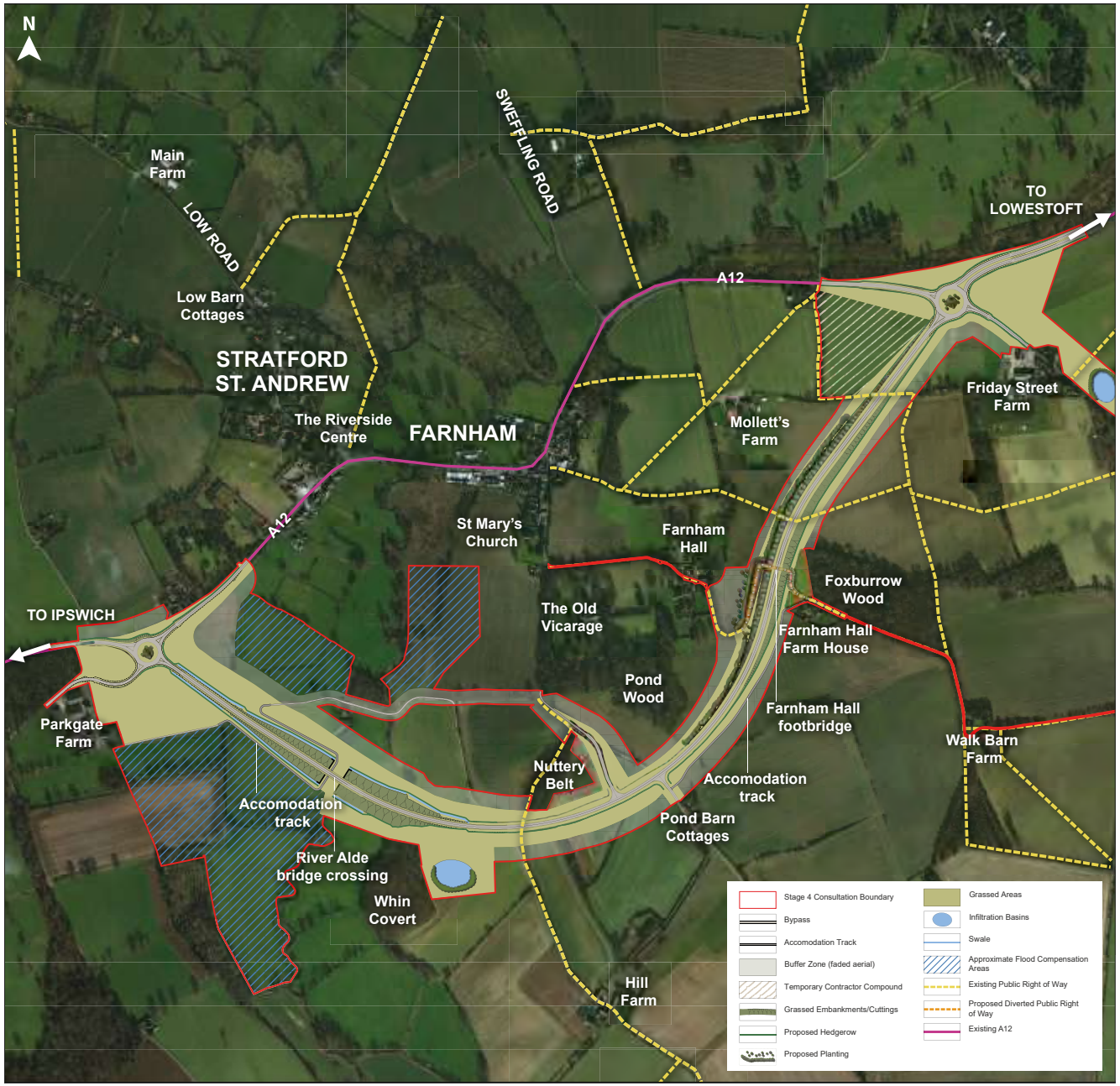


Fig 3.5: Two village bypass masterplan

A12/B1122 Yoxford roundabout

The B1122 would experience a significant increase in traffic as a result of Sizewell C. Our proposal to improve the junction of the B1122 with the A12 at Yoxford is a roundabout. It would replace the existing priority junction and is considered to be safer and more efficient than signalising the existing A12/B1122 junction.

The proposed location of the **roundabout** has changed since Stage 3. We are now proposing to locate it approximately 20m to the south east with a revised development boundary to the south of the site (see Figure 3.6). These changes will enable us to reduce traffic delays due to construction vehicles and avoid encroaching into the adjoining nature reserve. For more information, please see Chapter 6 of the Stage 4 Consultation Document.

Highlights a change to this element since Stage 3

Fig 3.6: A12/B1122 Yoxford roundabout masterplan

B1122 Theberton bypass

We are proposing a bypass to reduce the impact of peak construction traffic on the B1122 through Theberton. Under the rail-led strategy, the Theberton bypass would run from a point between Middleton Moor and Theberton, and end on the B1122 east of Theberton, close to the main site entrance (see Figure 3.7). In this Stage 4 consultation we have slightly amended the proposed **development boundary** shown at Stage 3 to include a section of Pretty Road and a public right of way. This will allow us to tie in the Pretty Road footbridge (for pedestrians, cyclists and horse riders) with the existing road and make physical improvements to these routes. Access for vehicles would be maintained from the west through a junction off Pretty Road. For further details, please see Chapter 6 of the Stage 4 Consultation Document.

The bypass would relieve the B1122 through Theberton of peak construction phase traffic, substantially reducing impacts associated with Sizewell C. It would be open for use by the general public during construction, relieving Theberton of through traffic.

At Stage 3 we proposed that the bypass would remain in place after construction is completed. At Stage 4, we are seeking your views on whether all or part of it should be a **temporary feature**, removed and the land restored once Sizewell C is operational.

Fig 3.7: Theberton bypass masterplan

Sizewell link road

Under the road-led and integrated strategies, we are proposing a Sizewell link road from the A12 to the B1122. The route of the Sizewell link road would incorporate the design of the Theberton bypass, extending further to bypass Middleton Moor, and joining the A12 south of Yoxford (see Figure 3.8). It would substantially reduce Sizewell C traffic volumes passing through Yoxford, Middleton Moor and Theberton, reducing noise, vibration and severance impacts for the residents of these villages. At Stage 4 we are consulting on whether some or all of the Sizewell link road should be removed and the land restored once Sizewell C is operational.

Traffic travelling from the south (Ipswich) on the A12 will turn onto the Sizewell link road prior to Yoxford, thereby avoiding the village. Traffic travelling from the north (Lowestoft) will use the proposed new roundabout A12/B1122 junction and follow the B1122 for a short distance before accessing the Sizewell link road from a new roundabout located to the west of Middleton Moor. The existing B1122 would remain open but would largely be used to access Theberton, Middleton Moor, and properties fronting the existing road.

We are proposing some minor changes to parts of the **development boundary** for Sizewell link road to:

- create a junction onto the Sizewell link road at Fordley Road to replace the Littlemoor Road junction proposed at Stage 3. During construction of the Fordley Road connection, all local road users would be diverted via Littlemoor Road. This will be a temporary diversion during the construction of the Sizewell link road compared to the permanent diversion presented in Stage 3;

Fig 3.8: Sizewell link road masterplan

- include land to the north of Trust Farm, allowing access to the farm's land to the north of the existing B1122; and
- include a section of Pretty Road and a public right of way, allowing us to tie in the Pretty Road footbridge with the existing road (for pedestrians, cyclists, and horse riders) and make physical improvements to these routes. Access for vehicles would be maintained from the west through a junction off Pretty Road. During the construction of the Pretty Road footbridge and the connection to Sizewell link road (from the west side), Pretty Road would be closed west of the Theberton Hall access and all users would be diverted via Moat Road or Hawthorn Road.
- For more information on the development boundary changes and related environmental information, please refer to Chapter 6 of the Stage 4 Consultation Document.

At Stage 3 we proposed that the Sizewell link road would remain in place after construction is completed. At Stage 4, we are seeking your views on whether all or part of it should be a **temporary feature**, removed and the land restored once Sizewell C is operational.

Other road improvements

At Stage 4 we continue to propose a number of other road improvements - mainly changes to signage, road markings, and vegetation maintenance to improve safety - at key junctions (see Stage 3 consultation documents for details). While our Stage 3 proposals for the B1078/B1079 east of Easton and Otley College, and the A12/A1094 Friday Street, north of Farnham remain unchanged, some **minor changes** are proposed at:

- A140/B1078 west of Coddenham - development boundary changes to allow for additional signage.
- A12/A144 south of Bramfield - development boundary changes to reduce the impact on Stone Cottage and on residential gardens to the south east of the junction.
- A12/B1119 Saxmundham - development boundary changes to increase flexibility as detailed design work progresses.
- A1094/B1069 south of Knodishall - development boundary changes to allow for speed limit signs at an appropriate distance from the junction.

For further details, see Chapter 6 of the Stage 4 Consultation Document.

For the rail-led strategy only, we continue to propose improvements to the junction of the B1122 with Mill Street by reducing the road level to the west of the junction to improve visibility for traffic on the B1122 and help traffic exiting Mill Street. There are no changes to this proposal since Stage 3.

Further details and related environmental information are available in the Stage 3 consultation documents.

Transport - movement of people

Reducing the amount of additional traffic generated by the movement of the construction workforce remains a key part of our transport plans.

Park and ride

We continue to propose two park and ride sites on the A12 to intercept traffic coming from the north and south (see Stage 3 consultation documents for more details). Both sites would have:

- parking for around 1,250 cars (40 of which would be accessible spaces and 10 would be pick-up only spaces), 10 minibuses/buses/vans, 80 motorcycles, and around 20 bicycles;
- a secure bus terminus and parking, shelters, a welfare building (comprising toilets, bus drivers' rest room, security and administration offices), a security building and security booth, with buildings likely to be single storey;
- sensitive lighting that will seek to limit the potential impact of light pollution; and
- on-site soil storage to support site restoration when the facility is no longer needed.

Our proposed locations for the park and ride facilities - Darsham in the north and Wickham Market in the south - remain, however we are proposing some minor changes since Stage 3 consultation.

Highlights a change to this element since Stage 3

Northern park and ride - Darsham

The proposed site is located west of the village of Darsham and has been designed, as far as possible, to keep buildings near to the existing built-up area and railway station (see Figure 3.9).

Updates to our proposals since Stage 3 consultation include:

- a slightly larger roundabout; and
- changes to the development boundary to more closely align with land ownership boundaries.

Further details on these changes and related environmental information are available in Chapter 6 of the Stage 4 Consultation Document.

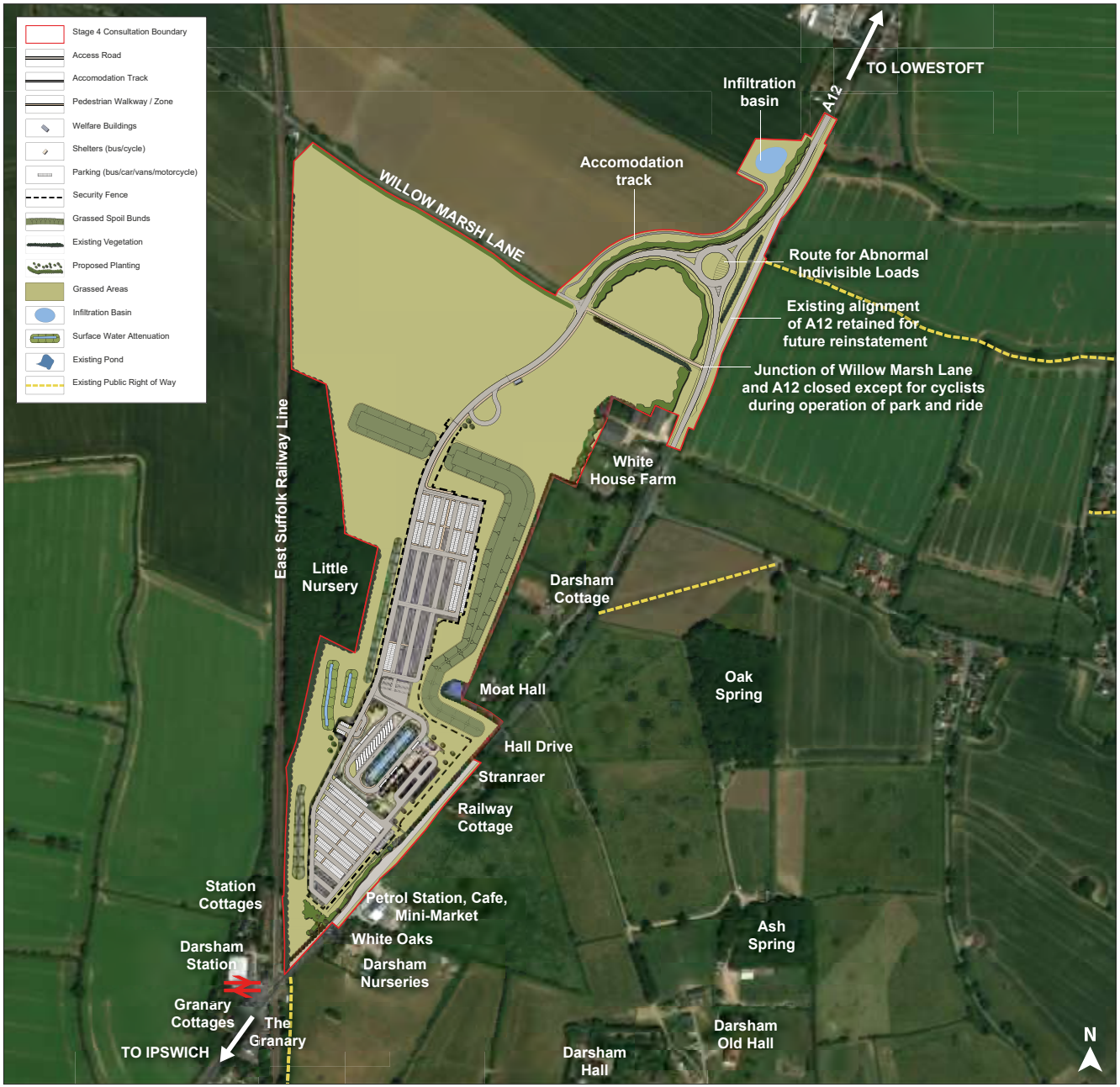


Fig 3.9: Northern park and ride (Darsham) masterplan

Southern park and ride - Wickham Market

Our proposed site for the southern park and ride is to the north-east of Wickham Market (see Figure 3.10).

Updates to our proposals for the Wickham Market site since Stage 3 consultation, include:

- minor changes to the development boundary to more closely align with ownership boundaries;
- extension of the development boundary to include the B1078/B1116 roundabout to allow for pedestrian/cycle improvements within the highways land if necessary; and
- extension of the development boundary to the south to provide additional space for road marking and signage.

Further details on these changes and related environmental information are available in Chapter 6 of the Stage 4 Consultation Document.

Wickham Market mitigation

At Stage 3 we proposed two options to mitigate potential delays on the B1078 between Border Cot Lane and the River Deben bridge that may occur as a result of the southern park and ride (see Stage 3 consultation documents for details).

Following feedback at Stage 3, we are now also considering **an alternative approach** of working with the Parish Council to bring forward a public realm improvement scheme within the public highway which would represent the first phase of implementation of the Neighbourhood Plan. This would consider footpath and pedestrian crossing provision as well as the best location of on-street parking to meet demand and minimise delay to through traffic. The scheme would provide a legacy benefit to Wickham Market.

Fig 3.10: Southern park and ride (Wickham Market) masterplan

4. Additional information and next steps

UK EPR™ technology

The UK EPR™ marks significant progress towards sustainability. It has been designed to use less uranium and produce almost a third less long-lived radioactive waste compared with water reactors in operation today. The spent fuel and intermediate level radioactive waste would be kept on-site until a national geological disposal facility becomes available. Low-level waste would be treated on-site to limit its volume and, after appropriate conditioning and packaging, it would be removed for disposal.

The UK EPR™ meets the most stringent safety standards, having gone through the UK's rigorous, four-year ONR Generic Design Assessment (GDA) process. For more information on GDA see: www.onr.org.uk/new-reactors.

At the end of its electricity generation lifetime, Sizewell C would be decommissioned in a process likely to take about 20 years and requiring consent from the Office for Nuclear Regulation (ONR) before it can take place. However, the interim spent fuel store would continue to operate until a national geological disposal facility is available and the spent fuel is ready for disposal.

Fig 4.1: EPR nuclear power plant

Purchase of land

As part of this consultation, EDF Energy will continue consulting with land owners whose land would need to be acquired to deliver the proposals. EDF Energy is committed to acquiring all interests in land by private agreement wherever possible. However, in the event that negotiations with some land owners are unsuccessful, EDF Energy would propose to acquire land via compulsory purchase and will seek the necessary powers in the application for development consent over all third party land required for the development.

Project benefits

The impacts of the Project overall will be overwhelmingly positive. Sizewell C would aim to replicate and build on the benefits of Hinkley Point C. The benefits of Sizewell C will include:

- up to 8,500 workers (7,900 on the main development site and 600 on the associated development sites), comprising approximately 25,000 roles on the main development site during the construction phase, as well as 900 new jobs once the station becomes operational;
- a minimum target of 1,000 apprentices;
- apprentice schemes to link the south-west (i.e. the location of Hinkley Point C) and the east (i.e. the location of Sizewell C) of England;
- continuing work with Suffolk colleges and businesses to maximise the opportunities for their involvement in Sizewell C;
- aiming to meet the nuclear sector target of a 40% female workforce; and
- maximising the opportunities arising from at least £100 million a year entering the regional economy during peak construction and £40 million per year during its 60 years of operation.

In all areas of work at Sizewell C there will be jobs and progression routes for local and regional people to develop into supervisor and management roles on the project. We will support an education, skills and employment programme specifically to ensure that a maximum number of local people benefit from opportunities on the project.

Figure 4.2 shows the types of jobs that will be available through the different phases of Sizewell C construction. Roles during the main phases of construction include:

- Long-term - with over 1,700 life-of-project roles available, including more than 700 high level security officers and drivers, and over 600 operations support, administrator, and document controller roles, there are excellent opportunities for returners to work and adult 're-skillers'. Investment in their training will take place following development consent and subsequent investment decision.
- Earthworks/enabling - includes a need for more than 1,900 people, including 650 construction general operatives. These roles will build on construction skills already prevalent in the local area and act as a route into the civil construction phase. Many of the qualifications required are already catered for by further education colleges in the region and will provide an excellent 'spring board' for local people who want to develop a sustainable career in construction or civil engineering. There will also be a requirement for plant roles including more than 300 excavator operators. Training for Heavy Plant is not commonly found in Suffolk. If the region is to plan and provide for such skills, investment is likely to be needed in this area.
- Civil construction - requires over 2,300 roles, including more than 800 steel fixers, 450 lifting operations technicians, over 450 qualified supervisors, and more than 225 site technicians and graduate engineers. All of these roles require training implementation at or before the start of construction in order to offer significant and sustainable opportunities for local people.
- Mechanical, electrical, and air conditioning - has a need for more than 3,300 roles, including 490 welders, 800 electricians, 600 engineers, and 300 cable installation workers. While this phase presents a significant challenge as there is a UK-wide skills shortage in this area, there is also an excellent opportunity to transfer and develop the training offer from Hinkley Point C to the East of England and broaden the pool of the local and regional workforce in these high demand areas. Training investments are likely to be required up to three years ahead of need if the region is to capitalise on these opportunities.

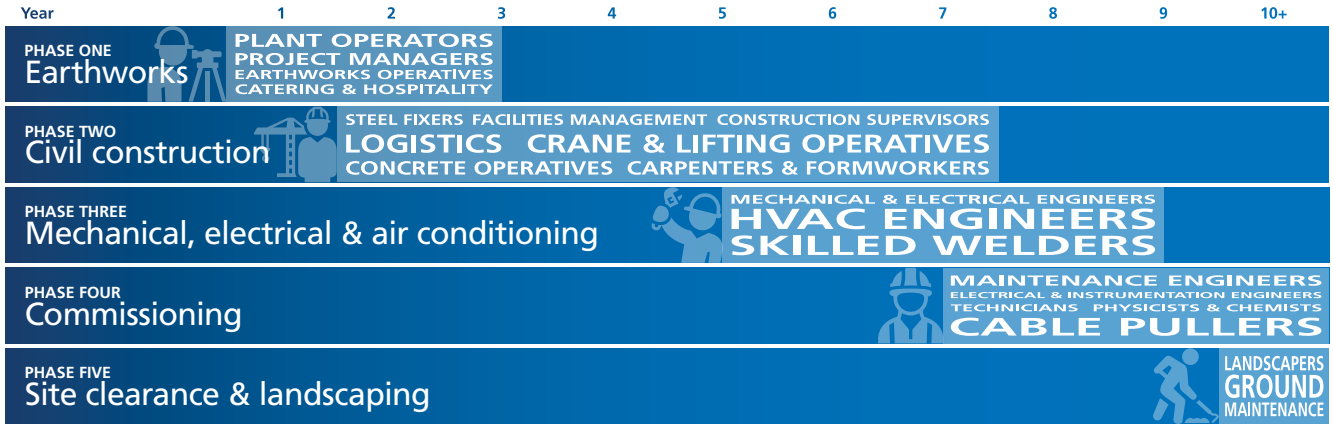


Fig 4.2: Examples of the skills we need throughout the build

Delivering our commitments and obligations

Throughout the development process, we have put mitigation and compensation at the heart of Sizewell C, embedding environmental principles into our proposals. This has enabled us to identify how negative impacts can be avoided or reduced, and how positive impacts can be further enhanced.

We are completing our environmental assessments to ensure that the mitigation and compensation measures identified in our application for development consent achieve the economic benefits that Sizewell C can deliver, whilst respecting environmental, economic and social concerns. Assessment within our Environmental Impact Assessment (EIA) will be done against an upper estimate to ensure we identify all potential significant impacts and ensure any mitigation and/or compensation would be sufficient to address these.

Next steps

Following Stage 4 consultation we will consider all responses and any additional comments on the Stage 3 proposals. We will use them - along with further environmental and modelling assessments, continued engagement with statutory authorities and others, and lessons from Hinkley Point C - to prepare and submit our application to the Planning Inspectorate (PINS) for development consent for Sizewell C.

PINS will examine the application and make a recommendation to the Secretary of State who will ultimately determine whether development consent is granted. As part of that process, PINS will encourage the submission of views from interested parties on the proposals. The application will be largely examined in writing, but it is likely that a series of open floor and issue-specific hearings will be held so that PINS is made fully aware of all views.

If you need help to understand this information in another language please call 0800 197 6102.

Portuguese
Se precisar de ajuda para ler estas informações em outra língua, por favor telefone para o número abaixo 0800 197 6102.

Polish
Jeżeli potrzebujesz pomocy w zrozumieniu tych informacji w swoim języku zaadzwoń na podany poniżej numer 0800 197 6102.

Bengali
এই লেখাটি যদি অন্য ভাষাতে বুঝতে চান তাহলে নিচের নম্বরে ফোন করুন 0800 197 6102.

Lithuanian
Jeigu jums reikia sios informacijos kita kalba, paskambinkite 0800 197 6102.

Romanian
Dacă aveți nevoie de ajutor pentru a înțelege această informație într-o altă limbă, vă rugăm să telefonați la numărul 0800 197 6102.

If you would like this information in another format, including audio or large print, please call 0800 197 6102.

edfenergy.com

NNB Generation Company (SZC) Limited, 90 Whitfield Street, London, England W1T 4EZ
Registered in England and Wales. Company registration number 09284825

Q11. Stage 3 proposals

We will take all consultation responses to Stage 3 and Stage 4 into account before finalising the proposals for which we will submit an application for development consent. If you commented at Stage 3 and your views have not changed, there is no need to re-submit your feedback as all Stage 3 and Stage 4 comments will be considered before we finalise our proposals and submit an application for development consent.

Please provide any comments you wish to make about Stage 3 in the box, or if you prefer, by filling in the Stage 3 questionnaire available online at www.sizewellc.com or by calling 0800 197 6102 for a hard copy.

Please specify the proposals or options to which your comments refer.

Q9. Park and ride

What are your views on our amended proposals for the park and ride sites (see pages 18 and 19), including the alternative approach to Wickham Market mitigation (see page 19)?

Please specify the proposals to which your comments refer.

Q10. Consultation process

Please let us know if you have any comments about the consultation process.

Q8. Sizewell Halt or rail siding or spur at LEEIE for early years

We are proposing to use the existing rail terminal known as Sizewell Halt or a new rail siding or spur on LEEIE for freight deliveries in the early years of construction (see page 11). Under the road-led strategy, the proposal for two trains a day will continue throughout the construction phase. We are now considering a third option (in addition to the two presented at Stage 3).

Option 1: reconfiguration of the existing Sizewell Halt rail terminal on the branch line to accommodate longer trains, and an overhead conveyor system to move material over King George's Avenue into land east of Eastlands Industrial Estate.

- Appropriate ☐
- Inappropriate ☐
- Don't Know ☐

Option 2: a new rail siding adjacent to the existing branch line in the land east of Eastlands Industrial Estate.

- Appropriate ☐
- Inappropriate ☐
- Don't Know ☐

Option 3: a new rail spur located more centrally within the LEEIE, allowing longer trains to be used and more freight to be delivered per train. The railway track would have a straighter alignment compared with Option 2 and would avoid the need to cross King George's Avenue (Option 1).

- Appropriate ☐
- Inappropriate ☐
- Don't Know ☐

Please explain your views.

Q6. Transport: Sizewell link road and Theberton bypass

We are proposing a bypass to reduce the impact of peak construction traffic on the B1122 through Theberton. Under the rail-led strategy, the Theberton bypass (see page 15) would run from a point between Middleton Moor and Theberton, and end on the B1122 east of Theberton. Under the road-led and integrated strategies, we propose a Sizewell link road (see page 16). It would incorporate the route of the Theberton bypass and extend further to also bypass Middleton Moor, joining the A12 south of Yoxford.

Please provide your views on whether some or all of Sizewell link road/Theberton bypass should be removed and the land restored once Sizewell C is operational.

Q7. Road improvements

Please provide comments on the changes to any or all of our proposed road improvements, including the A12 two village bypass and others (see pages 13, 14, and 17).

Please specify the changes to which your comments refer.

Q5. Transport: movement of freight

The construction of Sizewell C would require large volumes of bulk and other materials to be delivered to the main development site. We are considering three options for supporting the movement of construction materials needed for Sizewell C (see pages 9-10).

A rail-led strategy: providing direct access into the main site for five trains a day (via the proposed 'green rail route') along with a new road bypassing Theberton. The rail-led strategy would include the upgrade or closure of multiple level crossings, a passing loop - or section of double tracking - on the East Suffolk line at a location between Melton and Wickham Market stations, and a track crossover at Saxmundham. In the early years while the green rail route is being constructed, there would be up to two trains a day travelling to Sizewell Halt or new rail siding or spur on land east of Eastlands Industrial Estate (LEEIE).

Do you think this strategy is:

Appropriate ☐ Inappropriate ☐ Don't Know ☐

A road-led strategy: providing a new Sizewell link road from the A12 to the B1122 east of Theberton, and a freight management facility to the east of Ipswich, along with two trains a day (travelling along the existing Saxmundham to Lesiston branch line to Sizewell Halt or new rail siding or spur on LEEIE) throughout construction.

Do you think this strategy is:

Appropriate ☐ Inappropriate ☐ Don't Know ☐

An integrated strategy: providing direct access into the main site for three trains a day (via the proposed green rail route) along with the Sizewell link road, and a freight management facility to the east of Ipswich. In the early years while the green rail route is being constructed, there would be up to two trains a day travelling to either Sizewell Halt or a new rail siding or spur on LEEIE.

Appropriate ☐ Inappropriate ☐ Don't Know ☐

Please explain your views.

Q3. Sizewell C pylon options

At Stage 3 we proposed four pylons to export electricity generated by Sizewell C via overhead lines to the National Grid substation. We have also developed two options for minimising the visual impact of the pylons (see page 6):

Option 1 (four pylons): reducing the height of three pylons (excluding the northernmost pylon) by around 25%.

- Appropriate ☐
- Inappropriate ☐
- Don't Know ☐

Option 2 (five pylons): reducing the height of all pylons by 25%, but with the requirement for an additional pylon near to the SSSI crossing. This would be needed to ensure the overhead lines go around the emergency diesel generator building rather than over it.

- Appropriate ☐
- Inappropriate ☐
- Don't Know ☐

Please explain your views.

Q4. Freight management facility

Please provide comments on the changes proposed to the two potential sites for the freight management facility (see page 12). Please specify the changes to which your comments refer.

Please explain your views.

Q1. Sizewell C proposals

What are your views on EDF Energy's proposals to build a new nuclear power station, Sizewell C, and associated development?

Q2. Main development site

Please provide comments on any or all of the changes proposed to the main development site (see pages 5, 7, 8, and 9). Please specify the changes to which your comments refer.

Respond to the consultation

Complete a questionnaire:
www.sizewellc.co.uk
Or in hard copy and post it to our freepost address

Post your written responses to
FREEPOST SZC Consultation
(no stamp or further address required)

Email your comments to
info@sizewellc.co.uk

Call freephone **0800 197 6102**
during normal office hours.

Privacy notice

Our privacy notice provides information on what personal data we will collect as part of this process, how we will collect it and what we will use it for. You can access our privacy notice at: **https://sizewell.edfenergyconsultation.info/privacy-policy** or you can request a paper copy by emailing: **dpo@edfenergy.com**

Consultation Questionnaire

Introduction

This questionnaire has been designed to be answered having read the information in our Stage 4 Consultation Summary Document, which is available at:

- consultation exhibitions;
- Sizewell C Information Office, 48-50 High St, Leiston IP16 4EW;
- the Melton and Lowestoft offices of East Suffolk Council; and
- a number of local libraries.

Or you can read the consultation documents - including the Stage 4 Consultation Document and Stage 4 Consultation Summary Document - and answer the questionnaire online at www.sizewellc.co.uk. All page references within this questionnaire relate to the Stage 4 Consultation Summary Document.

Our Stage 4 consultation is primarily intended to provide updates and give you a chance to comment on changes we are considering to different elements of our proposals as a result of continuing feedback and environmental studies. We would also like to hear your views on an alternative freight management strategy, which combines elements of the road-led and rail-led strategies we presented at Stage 3.

We are also continuing to consider the proposals and options set out in our Stage 3 consultation before deciding on the proposals for which we will seek development consent. We welcome your feedback on both our Stage 3 and Stage 4 proposals during the current consultation period.

We will take all consultation responses to Stage 3 and Stage 4 into account before finalising the proposals for which we will submit an application for development consent.

If you commented at Stage 3 and your views have not changed, there is no need to re-submit your feedback as all Stage 3 and Stage 4 comments will be considered before we finalise our proposals and submit an application for development consent.

Your details

Name

Email

Address

Are you responding on behalf of an organisation?

yes ☐ no ☐

If so, which?

Job title

Appendix F.2 Stage 4 Consultation Document (July 2019)

Sizewell C

Proposed
Nuclear
Development

Stage 4 Pre-Application Consultation

Summer 2019

Consultation Document

EDF ENERGY SZC CGN

Sizewell C

Proposed Nuclear Development

Stage 4 Pre-Application Consultation

Summer 2019

Contents

EDF ENERGY SZC CGN

FOREWORD

I am pleased to be able to present developments in EDF Energy's proposals for a new nuclear power station, Sizewell C. The proposals for the power station have continued to develop following feedback from formal consultation, ongoing engagement, further technical work, and environmental studies.

Sizewell C would be built to the north of Sizewell B on the Suffolk coast and would make a major contribution to the economy of Suffolk and beyond, while also helping to meet the nation's future need for low carbon energy. EDF Energy and CGN are working in partnership to develop three new nuclear power stations in the UK. We are building Hinkley Point C in Somerset, and are jointly developing other proposals, with EDF Energy leading on Sizewell C and CGN leading on Bradwell B in Essex.

Our overarching aim for the development of Sizewell C remains to support the creation of significant business, training and job opportunities locally, regionally and nationally, while limiting or mitigating any adverse effects from construction for local people and the environment. We are also continuing to learn lessons from Hinkley Point C, already under construction, contributing significantly to the Somerset economy and on track to generate electricity from 2025.

The Stage 3 consultation, which ran from 4 January 2019 to 29 March 2019, described our development proposals for the Project and provided preliminary environmental information on its impacts. This Stage 4 consultation presents refinements to our plans in some areas, along with some new proposals, particularly for the transport of freight to and from the construction site and the provision of additional land to compensate for environmental impacts.

The Sizewell C team will be available at our consultation events to discuss our proposals and answer your questions. I hope you can join us and contribute to the further development of our plans. We look forward to receiving your views.

Jim Crawford
Sizewell C Project Development Director

1. INTRODUCTION

1.1. Introduction

1.1.1. NNB Generation Company (SZC) Limited1 is proposing to build and operate a new nuclear power station, Sizewell C, on the Suffolk Coast, on land immediately to the north of the existing Sizewell B power station. NNB Generation Company (SZC) Limited has been formed as a separate company to finance and construct Sizewell C. EDF Energy will seek additional shareholders in NNB Generation Company (SZC) Limited and is currently in discussion with UK pension funds. NNB Generation Company (SZC) Limited is referred to in this document as EDF Energy2. This document forms part of EDF Energy's Stage 4 public consultation, which is being undertaken in order to inform preparation of an application for development consent.

1.1.2. Our Stage 3 consultation was undertaken between 4 January and 29 March 2019. The Stage 3 Main Consultation Document includes our proposals for the construction, operation and maintenance of Sizewell C (the Project). We are grateful for the extensive feedback that has already been received from the local community, others with an interest in the Project and statutory consultees, including the local authorities. That feedback is helpful in guiding us to refine and revise our proposals and strategies for the development of Sizewell C.

1.1.3. EDF Energy is taking account of consultation feedback, further detailed studies and up to date learning from the construction of our sister project in Somerset, Hinkley Point C, to further develop our preferred proposals for Sizewell C. As our proposals continue to be refined in response to feedback and further learning, we want to share them with you and to seek any further views before we make our application.

1.1.4. The focus of this Stage 4 consultation is to obtain views on our evolving thinking since Stage 3 consultation on the management of freight, and on some potential changes to our development proposals.

1.1.5. In this Stage 4 consultation we are particularly interested in your views on:

- an alternative freight management option we are considering: a strategy we refer to as the "integrated strategy" because it combines features of both the rail-led and road-led strategies consulted on at Stage 3;
- an alternative approach for traffic management with regard to additional traffic movements through Wickham Market in connection with the southern park and ride facility;
- two new options for the formation of the Sizewell C pylons required to support overhead transmission lines;
- a new option for the rail head at land east of Eastland's Industrial Estate;
- whether the Sizewell link road should be a permanent development or whether sections of the road should be removed at the end of the construction period; and
- proposals to mitigate the ecological and flood risk impacts of our proposals, which require some significant additional land.

1.1.6. Other more minor changes from our Stage 3 proposals are also described in this Stage 4 consultation where these have arisen through developments in our design or mitigation proposals and require small areas of additional land.

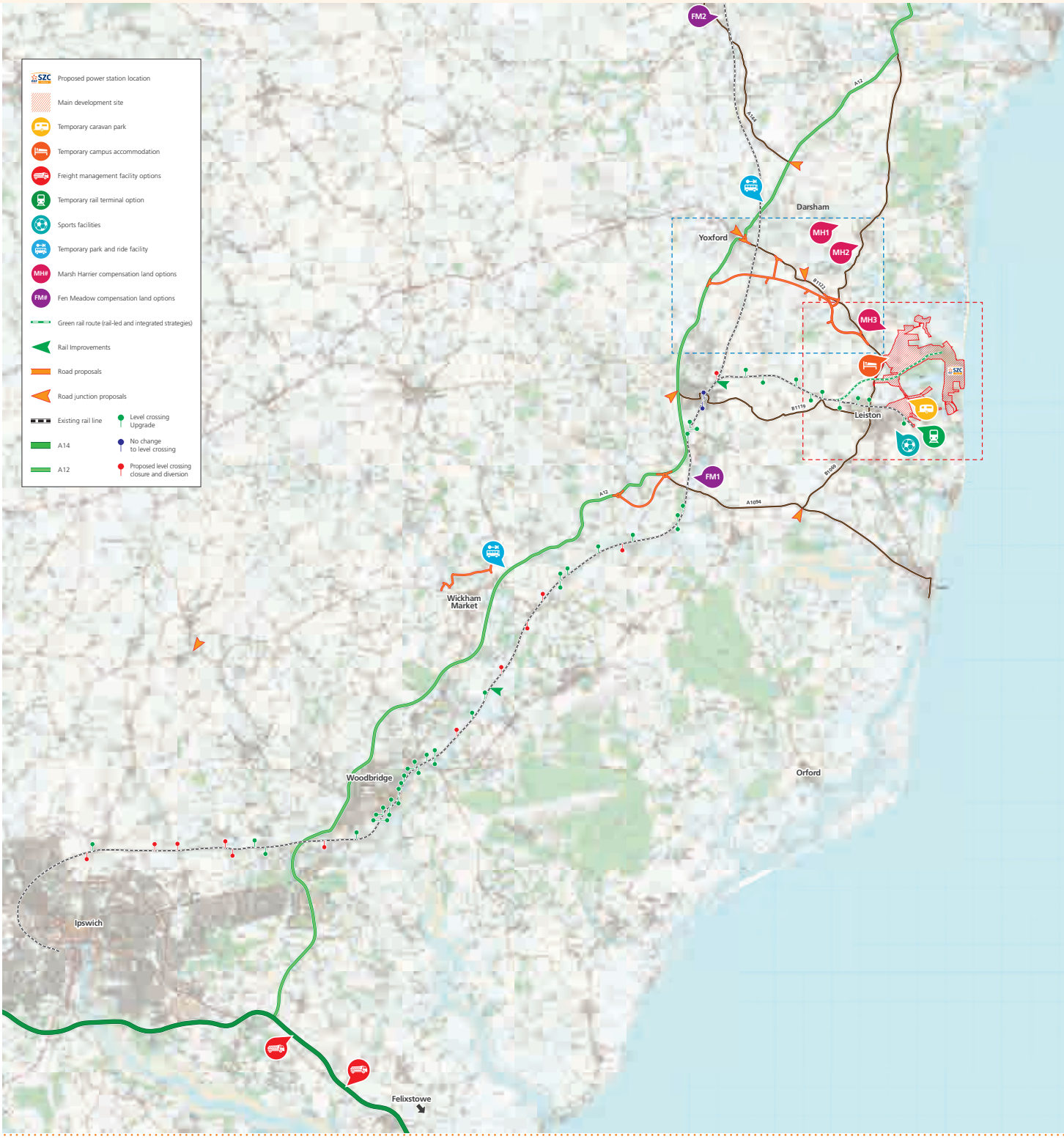
1.1.7. We are continuing to consider the options we put forward in our Stage 3 consultation, including in particular the adoption of a road-led or rail-led strategy. If you did not previously respond to our Stage 3 consultation and wish to do so, we would welcome your feedback on the options put forward in our Stage 3 consultation, as well as those put forward in this Stage 4 consultation. Consultation documents relating to both Stage 3 and Stage 4 consultations will be made available throughout the current consultation period (18 July 2019 to 27 September 2019). Much background information on the Project is set out in the Stage 3 consultation documents, including relevant preliminary environmental information, and is referred back to where relevant in this Stage 4 consultation document.

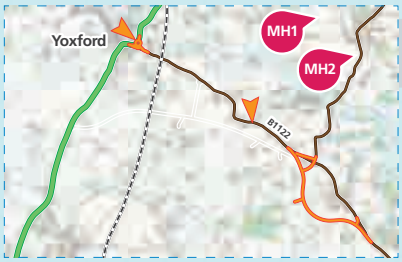
1.1.8. The locations of all elements of our proposals are shown in **Figure 1.1**. However, not all of this infrastructure will form part of our application for development consent. The nature of the proposals we take forward will depend upon decisions made following this consultation, and in particular which freight management strategy is adopted as explained in **section 1.4** of this chapter and Chapter 3 of this Stage 4 consultation document.

1.1.9. Information on where you can find copies of the Stage 3 and Stage 4 consultation documents, and how to respond to this consultation is set out on our website www.sizewellc.co.uk and in **Chapter 8** of this Stage 4 consultation document.

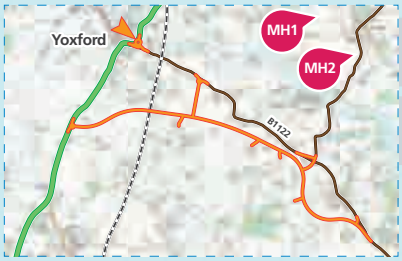
1 Company No. 9284825
2 NNB Generation Company (SZC) Limited is currently a joint venture company between EDF Energy and China General Nuclear Power Corporation (CGN)

Figure 1.1 Sizewell C Project, Suffolk





Rail-led strategy: Theberton bypass



Road-led and integrated strategy: Sizewell link road

Main development site

1.2. Policy context

1.2.1. The Overarching National Policy Statement (NPS) for Energy (NPS EN – 1) (Ref 1.1) and the NPS for Nuclear Power Generation (NPS EN – 6) (Ref 1.2) were formally designated by the Government in July 2011. Together they provide the primary basis for decisions on applications for development consent for nuclear projects.

1.2.2. The need for the Project is established in NPS EN – 6 which lists Sizewell as one of eight potentially suitable sites for the deployment of new nuclear power stations in England and Wales before the end of 2025. NPS EN – 1 confirms that all applications for development consent should be assessed on the basis that the Government has demonstrated that there is a need for those types of infrastructure. NPS EN – 1 confirms that it is Government policy that new nuclear power forms an important element of the strategy for moving towards a de-carbonised, diverse electricity sector by 2050, and that nuclear power should be able to contribute to the UK's need for new capacity. The need for new nuclear power generation is described as "urgent".

1.2.3. The Stage 3 consultation explained that in December 2017, the Government began the process of consulting on the preparation of a new NPS for nuclear power stations in light of the need to review and update government policy and, in particular, to take into account that progress with the development of new nuclear power stations has been relatively slow. Subject to the outcome of the Government's consultation, the document explains that the Government proposes to carry forward the sites listed in NPS EN – 6 as the list of sites potentially suitable for the deployment of nuclear power stations under the new NPS (including Sizewell), except for Hinkley Point C which has already secured consent. In the meantime, the consultation makes clear that the Government will continue to consider those sites to be appropriate and that they will retain strong Government support pending the designation of the new NPS.

1.2.4. A more detailed explanation of the planning policy context of the Project can be found in Volume 1, Chapter 3 of the Stage 3 Consultation Main Consultation Document.

1.3. Decarbonisation and the need for new nuclear capacity

1.3.1. Climate change is one of the greatest global challenges we face. To meet agreed global climate change targets, CO2 emissions from all sectors must be reduced to near zero levels. (Ref 1.3). The UK has recently announced a new target to reach net zero emissions by 2050. This represents a strengthening of the previous target set under the Climate Change Act to reduce greenhouse gas emissions to at least 80% of 1990 levels by 2050. Alongside this legally binding target, there is also a requirement to set carbon budgets every five years (Ref 1.4). On 12 June 2019, the Secretary of State for Business, Energy and Industrial Strategy Greg Clark announced the proposal to commit the UK to achieving a net zero carbon economy by 2050 (Ref 1.5). Legislation is now being brought forward to amend the Climate Change Act to reflect the increased targets implied by the net zero target.

1.3.2. Nuclear power is the largest source of low-carbon electricity in the developed world (Ref 1.6) and the UK Government recognises that new nuclear power stations will form a prominent part of the country's transition to a low-carbon energy system that is resilient, diverse and value for money for end users (Ref 1.7). Nuclear generation has a lower carbon footprint than low-carbon alternatives, such as large-scale solar and carbon capture and storage and a similar footprint to wind generation. It also has a significantly lower physical footprint, requiring around 1,000 times less land than solar and 1,500 times less land than onshore wind.

1.3.3. Renewable generation such as wind and solar are intermittent and their supply of electricity does not vary in line with variations in the demand for electricity. When it is not sunny or windy this intermittency can currently be accommodated by switching on coal and gas generation, but the ability to do this reduces as coal and gas are removed from the generation mix to meet decarbonisation targets. At times when wind and solar generation is high, renewable output can exceed demand and the potential electricity generation may go unused.

1.3.4. Storage of electricity (e.g. using batteries) is useful for managing very short, intra-day fluctuations in demand. But it is prohibitively expensive for long periods (e.g. to provide electricity for a wind lull that lasts several days) remains prohibitively expensive. Carbon capture and storage could allow coal and gas to manage the intermittency, but the technology is not yet widely proven and there are residual emissions released at the point of generation and in the extraction and transport of the coal and natural gas fuel.

1.3.5. Renewable energy will play a crucial and major role in meeting decarbonisation and wider energy policy objectives, but the baseload generation profile of nuclear means new nuclear is an essential complement to renewable generation to meet the UK's decarbonisation and security of supply objectives while minimising costs to consumers.

1.3.6. The UK Government recognises that new nuclear power stations are critical to the country's transition to a more resilient, affordable, and diverse low-carbon energy system. National Policy Statement EN-1 states that:

"Nuclear power generation is a low carbon, proven technology, which is anticipated to play an increasingly important role as we move to diversify and decarbonise our sources of electricity…[i]t is Government policy that new nuclear power should be able to contribute as much as possible to the UK's need for new capacity."

1.3.7. The UK Government's most recent published scenario for power generation envisages 12.3GW of new nuclear capacity by 2035 (Ref 1.8). Sizewell C would provide 3.2GW and therefore be meeting over a quarter of this capacity.

1.4. Structure of the Stage 4 consultation document

a) Overview of our proposals

1.4.1. **Chapter 2** of this Stage 4 consultation document gives an overview of all proposals, but focuses on the elements of the Project that are additional or different to those presented in Stage 3, including any likely differences in environmental impacts. The Stage 3 Main Consultation Document includes detailed descriptions, and justification for the selection of particular sites and proposed designs. Preliminary environmental information (PEI) on each element of the proposals is presented in Volumes 2 and 3 of the Stage 3 Main Consultation Document.

b) Freight management strategy

1.4.2. At this Stage 4 consultation, EDF Energy is consulting on a further alternative freight management strategy. In response to information from Network Rail and early analysis of feedback on the alternatives set out in Stage 3, we have developed an "integrated" freight management strategy, which we think may combine the benefits of the two alternative options presented at Stage 3. The integrated strategy would use three trains every 24 hours to transport freight directly to the main construction area via the green rail route at peak construction but removes the need for the new rail infrastructure and upgrade works on the East Suffolk line that would be necessary for the rail-led strategy. The integrated strategy also proposes to build the Sizewell link road and freight management facility along the A14 which were previously proposed in the road-led strategy.

1.4.3. The need to consider this additional integrated strategy has arisen from a concern that we may not be able to rely upon the rail-led strategy consulted on at Stage 3 because the extent of improvement works necessary to the East Suffolk line means that Network Rail is unable to guarantee that the works would be ready in time. We have therefore sought to identify the optimum rail strategy that could be delivered within our control.

1.4.4. **Chapter 3** of this Stage 4 consultation document describes the infrastructure that would be required for each of the alternative freight management strategies (road-led, rail-led and integrated) and explains how each would operate. The likely traffic and environmental impacts are summarised in **Chapter 3**, with justifications for why there are differences between the three strategies. **Chapter 4** of this Stage 4 consultation document presents the traffic modelling for the integrated strategy and compares that with the traffic modelling for the road-led and rail-led strategies that was explained at Stage 3.

c) Changes to the main development site and associated developments

1.4.5. We have been continuing to develop our proposals to reduce the impacts of construction and operation of Sizewell C on landowners and the environment. Some additional land requirements have been identified for these design changes or to accommodate the needs of affected stakeholders and we want to make you aware of them.

1.4.6. **Chapter 5** of this Stage 4 consultation document describes proposed changes to the main development site boundary (the "red line") with a justification for each change and an assessment of whether that change has any impact on the PEI presented at Stage 3. We have now identified sites that could be used to compensate some of the potential ecological and flood risk impacts of the Project. These are in addition to the mitigation that was proposed at Stage 3 and specifically relate to potential impacts on recreation, marsh harriers, fen meadow and compensatory flood land.

1.4.7. **Chapter 6** of this Stage 4 consultation document describes changes to our proposed associated developments. These are primarily changes to our red line boundaries as a result of design development or engagement with the relevant stakeholders. There is a description of our alternative approach with regard to traffic through Wickham Market associated with our proposals for a southern park and ride facility, which is presented as an alternative to the two traffic management

options presented at Stage 3 (see Chapter 14 of the Stage 3 Main Consultation Document).

1.4.8. Table 1.1 summarises the design or scheme changes to each element of development consulted on at Stage 3. The table also indicates where more detailed descriptions of the development and full PEI can be found in the Stage 3 Main Consultation Document.

1.4.9. Chapter 7 of this Stage 4 consultation document explains that large complex projects, such as Sizewell C generate a wide range of impacts both positive and negative. This chapter describes our efforts to maximise the benefits of the Project both nationally and to the local area and our proposals to mitigate and compensate where we cannot avoid or minimise negative impacts.

Table 1.1: Changes from Stage 3 described in this Stage 4 consultation document

Element of Development	Description of Change Proposed at Stage 4	Stage 3 Main Consultation Document Reference
Freight management strategy	Alternative freight management strategy option – the "integrated strategy". See **Chapter 3** of this Stage 4 consultation document.	Volume 1, Chapter 5, Transport Strategy PEI: Throughout Volume 2
Main development site	Minor red line changes to include an alternative entrance roundabout layout. See **Chapter 5, section 5.2** of this Stage 4 consultation document.	Volume 1, Chapter 7, Main Development Site, section 7.5 PEI: Volumes 2A and 3, Chapter 2, Main Development Site PEI
	Minor red line changes to include land necessary for National Grid's electricity pylons. See **Chapter 5, section 5.3** of this Stage 4 consultation document.	Volume 1, Chapter 7, Main Development Site, section 7.5 PEI: Volumes 2A and 3, Chapter 2, Main Development Site PEI
	Two new options presented for the Sizewell C electricity pylons. See **Chapter 5, section 5.4** of this Stage 4 consultation document.	Volume 1, Chapter 7, Main Development Site, section 7.4 PEI: Volumes 2A and 3, Chapter 2, Main Development Site PEI
	A new option for the rail head at land east of Eastland's Industrial Estate. See **Chapter 5, section 5.5** of this Stage 4 consultation document.	Volume 1, Chapter 7, Main Development Site, section 7.5 PEI: Volumes 2A and 3, Chapter 2, Main Development Site PEI
	Minor red line changes to accommodate public rights of way diversions. See **Chapter 5, section 5.6** of this Stage 4 consultation document.	Volume 1, Chapter 17, Highway Improvements, Cycling and Rights of Way PEI: Volumes 2A and 3, Chapter 2, Main Development Site PEI
	Minor red line changes to amend the off-site sports facilities red line. See **Chapter 5, section 5.7** of this Stage 4 consultation document.	Volume 1, Chapter 7, Main Development Site, section 7.6 PEI: Volumes 2A and 3, Chapter 2, Main Development Site PEI
	Minor red line changes to include the Round House. See **Chapter 5, section 5.8** of this Stage 4 consultation document.	Volume 1, Chapter 7, Main Development Site, section 7.5 PEI: Volumes 2A and 3, Chapter 2, Main Development Site PEI
	Minor red line changes to include the Kenton Hills car park. See **Chapter 5, section 5.9** of this Stage 4 consultation document.	Volume 1, Chapter 7, Main Development Site, section 7.5 PEI: Volumes 2A and 3 Chapter 2, Main Development Site PEI

Element of Development	Description of Change Proposed at Stage 4	Stage 3 Main Consultation Document Reference
	Proposed sites for ecological compensation land for marsh harriers. See **Chapter 5, section 5.10** of this Stage 4 consultation document.	New at Stage 4
	Proposed sites for ecological compensation land for fen meadows. See **Chapter 5, section 5.11** of this Stage 4 consultation document.	New at Stage 4
	Proposed sites for flood compensation land. See **Chapter 5, section 5.12** of this Stage 4 consultation document.	New at Stage 4
Green rail route and other rail improvements	Red line changes as a result of design development and stakeholder engagement. See **Chapter 6, section 6.2** of this Stage 4 consultation document.	Volume 1, Chapter 8, Rail and Chapter 9, Level Crossings PEI: Volumes 2A and 3, Chapters 3 (Rail PEI) and Chapter 4 (Other Rail Improvements PEI)
Sizewell link road	Red line changes as a result of design development and stakeholder engagement and consideration of whether all or part of the Sizewell link road should be temporary only. See **Chapter 6, section 6.3** of this Stage 4 consultation document.	Volume 1, Chapter 10, Sizewell Link Road PEI: Volumes 2A and 3, Chapter 5, Sizewell Link Road PEI
Theberton bypass	Red line changes as a result of design development and stakeholder engagement. See **Chapter 6, section 6.4** of this Stage 4 consultation document.	Volume 1, Chapter 11, Theberton Bypass PEI: Volumes 2A and 3, Chapter 6, Theberton Bypass PEI
Two village bypass	Red line changes as a result of design development and stakeholder engagement. See **Chapter 6, section 6.5** of this Stage 4 consultation document.	Volume 1, Chapter 12, Two Village Bypass PEI: Volumes 2B and 3, Chapter 7, Two Village Bypass PEI
Northern park and ride (Darsham)	Red line changes as a result of design development and stakeholder engagement. See **Chapter 6, section 6.6** of this Stage 4 consultation document.	Volume 1, Chapter 13, Northern Park and Ride PEI: Volumes 2B and 3, Chapter 8, Northern Park and Ride PEI
Southern park and ride (Wickham Market)	Description of an alternative approach for managing traffic impacts through Wickham Market. Red line changes as a result of design development and stakeholder engagement. See **Chapter 6, section 6.7** of this Stage 4 consultation document.	Volume 1, Chapter 14, Southern Park and Ride PEI: Volumes 2B and 3, Chapter 9, Southern Park and Ride PEI
Freight management facility	Red line changes as a result of design development and stakeholder engagement. See **Chapter 6, section 6.8** of this Stage 4 consultation document.	Volume 1, Chapter 15, Freight Management Facility PEI: Volumes 2B and 3, Chapter 10, Freight Management Facility PEI
Yoxford roundabout and other highway improvements	Red line changes as a result of design development and stakeholder engagement. See **Chapter 6, section 6.9** and **6.10** of this Stage 4 consultation document.	Volume 1, Chapter 16 (Yoxford Roundabout) and Chapter 17 (Other Highway Improvements) PEI: Volumes 2B and 3, Chapter 11 (Yoxford Roundabout PEI) and Chapter 12 (Other Highway Improvements PEI)

1.5. Approach to consultation

1.5.1. This Stage 4 consultation is being carried out in accordance with EDF Energy's Updated Statement of Community Consultation (SoCC) (2016), which has been agreed with Suffolk Coastal District Council (SCDC) (now East Suffolk Council) and SCC. As the SoCC explains, we have committed to undertaking three main stages pre-application consultation and further stages of limited, focused consultation as necessary prior to submitting our application for development consent. This Stage 4 consultation is a further focused consultation aimed at presenting refinements to our proposals. The planning process is illustrated in **Figure 1.2**.

Figure 1.2: Planning process

1.5.2. This Stage 4 consultation is planned to run between 18 July 2019 and 27 September 2019. Full details of the planned consultation activities are set out in **Chapter 8** of this Stage 4 consultation document.

1.5.3. The final proposals included in the application for development consent will have regard to the outcome of this consultation, further engagement with statutory consultees, and further environmental and modelling assessments.

1.5.4. Following the submission of the application for development consent, consultation will continue to be an important feature of the planning process. The application will be submitted to the Planning Inspectorate who will examine the application and make a recommendation to the Secretary of State who will ultimately determine whether development consent is granted. As part of that process, the Planning Inspectorate will encourage the submission of views on the entire Project from interested parties. The application will be largely examined in writing but it is likely that a series of open floor and issue specific hearings will be held so that the Planning Inspectorate is made fully aware of all the views of interested parties.

1.5.5. If stakeholders wish to understand more about the planning process for nationally significant infrastructure projects, further information is available on the Planning Inspectorate's website: http://infrastructure.planninginspectorate.gov.uk/

1.5.6. Outside these formal stages of the process we will continue to engage informally with interested parties.

1.6. Approach to acquisition of land

1.6.1. As part of this consultation, EDF Energy will continue to consult with land owners whose land would need to be acquired to deliver the proposals. EDF Energy is committed to acquiring all interests in land by private agreement wherever possible. However, EDF Energy will seek powers of compulsory purchase in the application for development consent over all third party land required for the development. In the event that negotiations with some land owners are unsuccessful, EDF Energy would propose to acquire land via compulsory purchase.

2. PROJECT OVERVIEW

2.1. Introduction

2.1.1. The Stage 3 Main Consultation Document provided detailed information on the Project as a whole, including the relevant planning policy context, our socio-economic and transport strategies, and detailed scheme descriptions for the development at the main site and each of the different associated development components - based on the two alternative freight management strategies: a rail-led and a road-led strategy.

2.1.2. The purpose of this Stage 4 consultation is to provide an update on EDF Energy's thinking in relation to the various components of the Project and to introduce, and seek views upon, an alternative third option for the management of freight transport, which we refer to as the 'integrated strategy'.

2.1.3. EDF Energy believes that rail should play an important role in the delivery of freight during construction, but feedback from Network Rail to our Stage 3 consultation has highlighted a risk that works to the East Suffolk line (which would be necessary as part of the rail-led strategy) could impact negatively on the programme for construction of the Project. Network Rail's consultation response states that *"…Network Rail has identified a number of risks to the rail-led solution that could potentially impact the programme in terms of the submission date for the DCO".* Due to Network Rail's obligations as a statutory undertaker with responsibilities across the whole rail network, Network Rail would not be able to commit to a definitive programme for carrying out works to the East Suffolk line, even after carrying out further assessment and design work. Pursuing the rail-led strategy would therefore mean accepting greater uncertainty about when the power station would become operational, which may be of concern to potential investors and to the Government given the "urgent" need for new nuclear capacity identified in the NPS for Nuclear Power Generation (NPS EN – 6). While we are continuing to consider the rail-led strategy as an option, the integrated strategy has the advantage that it uses rail freight deliveries to the maximum extent possible without requiring works to the East Suffolk line.

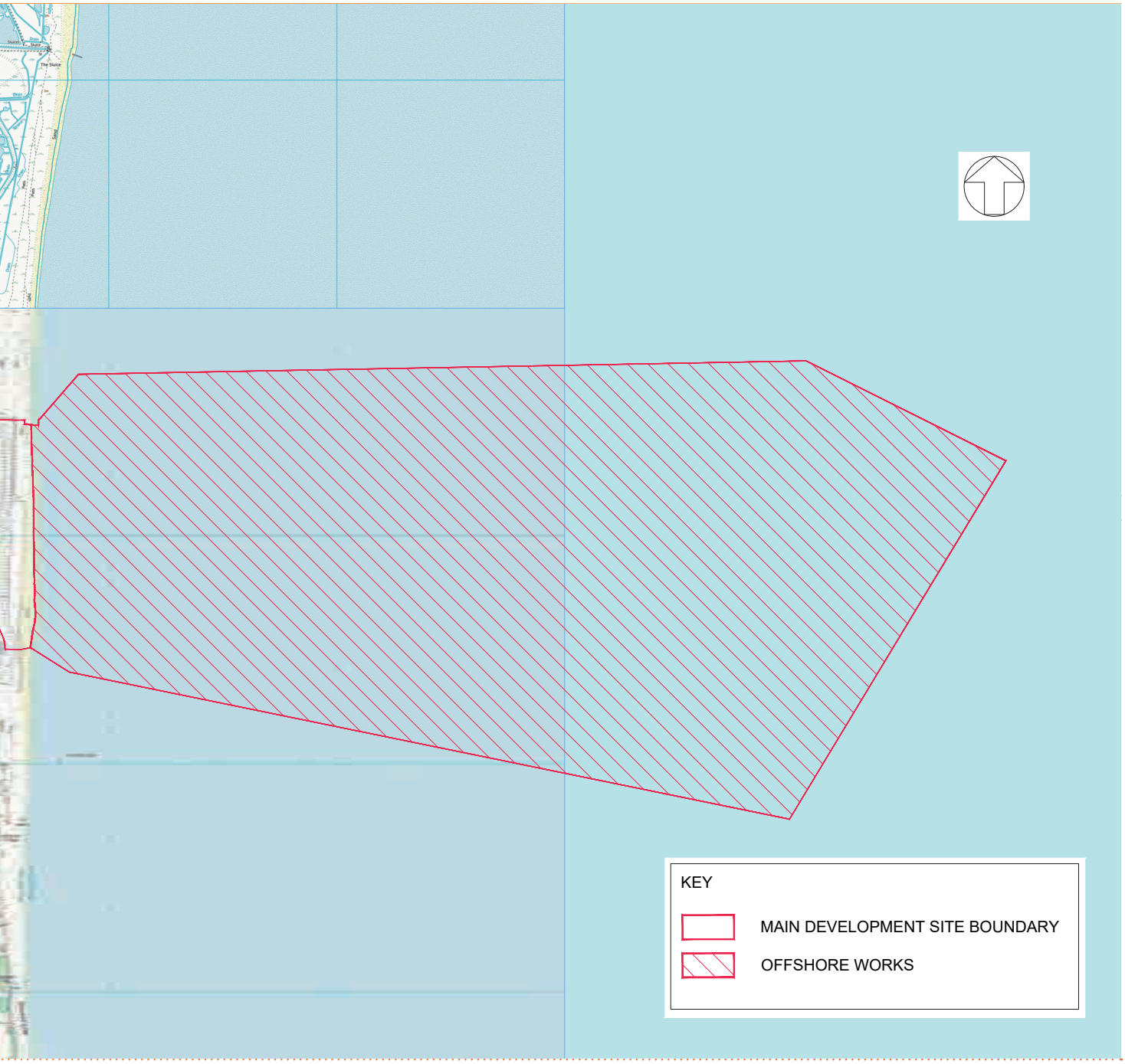
2.1.4. Details of the integrated strategy are set out in **Chapter 3** of this Stage 4 consultation document with updated traffic modelling information at **Chapter 4**.

2.1.5. Much of the detail of the rest of our proposals set out at Stage 3 remains unchanged and has not therefore been repeated in full in this Stage 4 consultation document. This chapter provides a high-level overview of each element of the Project - with cross references to the Stage 3 material where details have not changed. Changes and alternative options that are proposed in this Stage 4 consultation are highlighted. We provide further details of the proposed changes and options at **Chapters 5** and **6** of this Stage 4 consultation document for the main development site and associated developments respectively.

2.2. Site and scheme overview

2.2.1. The Sizewell C site is located on the Suffolk Coast, approximately half way between Felixstowe and Lowestoft, to the north-east of the town of Leiston (see **Figure 2.1**). The proposed nuclear power station would be located immediately to the north of the existing Sizewell B power station and would comprise two United Kingdom European Pressurised Reactor (UK EPR™) units with an expected net electrical output of approximately 1,670 megawatts (MW) per unit, giving a total site capacity of approximately 3,340MW.

Figure 2.1: Main Development Site context


KEY
MAIN DEVELOPMENT SITE BOUNDARY
OFFSHORE WORKS

2.2.2. The design of the UK EPR™ units is based on technology used successfully and safely around the world for many years, including innovations to enhance performance and safety. The UK EPR™ design has passed the Generic Design Assessment (GDA) process undertaken by United Kingdom (UK) regulators, and has been licensed and permitted at Hinkley Point C. Once operational, Sizewell C would be able to generate enough electricity to supply approximately six million homes (about 20% of Britain's homes).

2.2.3. In addition to the key operational elements of the power station, the Project would comprise other permanent and temporary development to support the construction and operation of the power station, including temporary campus accommodation, two park and ride facilities, a freight management facility and various road and rail improvements. Different permutations of these associated development components would be progressed depending on which strategy is progressed for the management of construction freight (the road, rail or integrated strategies).

2.3. Main Development Site

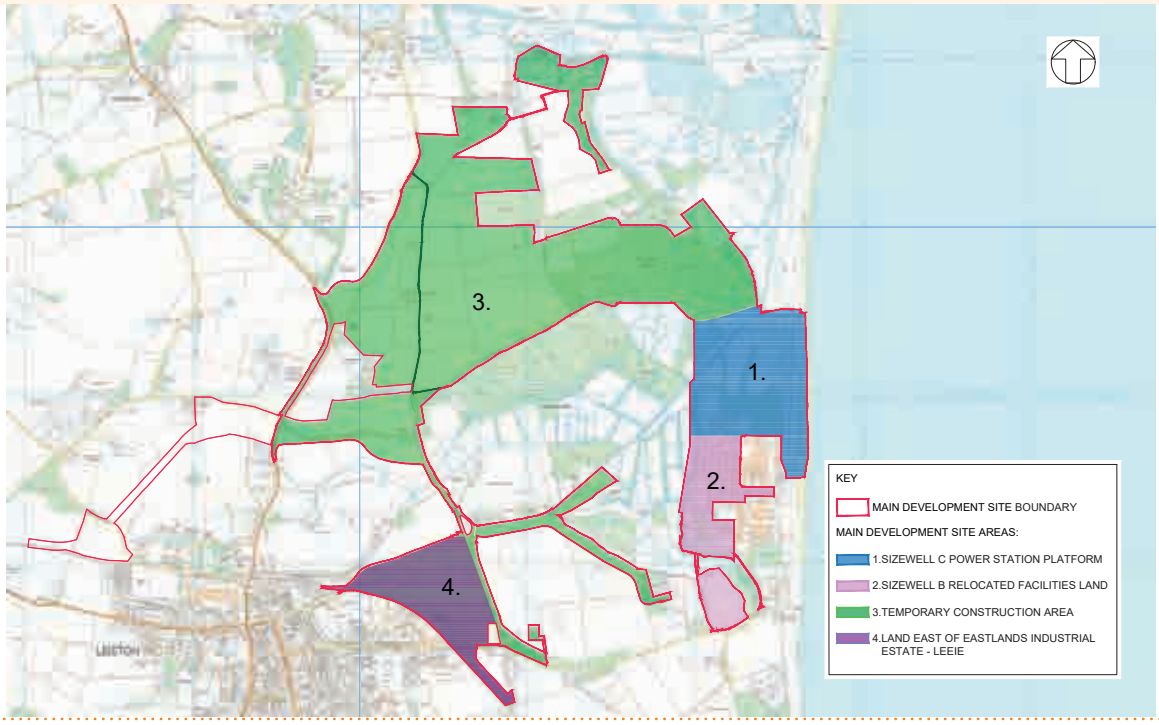
a) Introduction

2.3.1. The main development site, located on the Suffolk coast to the north-east of Leiston, comprises the total area needed for the construction and operation of the Sizewell C power station. It includes land required for permanent development to the north of the existing Sizewell B power station as well as additional land required to support the construction of the Sizewell C power station.

2.3.2. The main development site is made up of four principal components as shown at **Figure 2.2**, namely:

- **The power station platform (main platform):** the area that would become the power station itself.
- **Sizewell B relocated facilities land:** the area that certain Sizewell B facilities would be moved to in order to release other land for Sizewell C.
- **Temporary construction area:** the area located primarily to the north and west of the Site of Special Scientific Interest (SSSI) crossing, which would be used to support construction activity on the main platform.
- **Land east of Eastlands Industrial Estate (LEEIE):** the area directly north of Sizewell Halt, which would be used to support construction on the main platform and the temporary construction area.

Figure 2.2: Main development site and sub areas



b) Proposed development

i. Introduction

2.3.3. Development at the main development site is likely to comprise the following building, engineering or other operations:

- nuclear power station, including two UK EPR™ reactor units capable of exporting a total of approximately 3,340MW to the National Grid;
- associated buildings, plant and infrastructure within the power station perimeter, including overhead power lines and pylons;
- associated buildings, plant and infrastructure outside of the power station perimeter, including a training building, beach landing facility and flood defences;
- marine works and associated infrastructure, including a cooling water system and combined drainage outfall in the North Sea;
- a temporary accommodation campus for up to 2,400 construction workers and associated facilities, buildings and infrastructure, located east of Eastbridge Road;
- connection to the National Grid 400 Kilovolts (kV) substation to the south of Sizewell C by overhead lines;
- relocation of certain Sizewell B supporting buildings, plant and infrastructure south of Sizewell C;
- vehicular and pedestrian crossing over the Sizewell Marshes SSSI south of Goose Hill;
- power station access road, linking the SSSI crossing with a new roundabout onto Abbey Road (B1122);
- public access works including permanent and temporary closures and diversions of public rights of way;
- diversion and installation of utilities and services;
- temporary construction compounds, parking, laydown areas and working areas, plus related works and structures;
- temporary spoil management areas, including borrow pits and stockpiles;
- temporary rail infrastructure associated with the green rail route (for the rail-led and integrated strategies only);
- landscape restoration works and planting; and
- flood compensation areas.

2.3.4. Development at the LEEIE would comprise the following buildings, engineering or other operations. The majority of this development, unless otherwise stated, would be temporary and required only during the construction phase. This includes alternative options for either the reconfiguration of the existing Sizewell Halt (Option 1), the rail siding identified at Stage 3 (Option 2) or a new rail spur as described in **Chapter 5** of this document (Option 3):

- construction compounds, laydown areas and working areas, plus related works and structures;
- spoil management areas, including stockpiles;
- accommodation for approximately 400 caravans and associated welfare and parking;
- Heavy Goods Vehicle (HGV) and bus management area;
- a park and ride facility;
- reconfiguration of the existing railhead at Sizewell Halt to accommodate longer trains (for Option 1– permanent);
- overhead conveyor system to transfer freight material into LEEIE over King George's Avenue (for Option 1);
- a rail siding adjacent to the existing railway track (for Option 2);
- a new rail spur located centrally within the LEEIE (Option 3); and
- landscape restoration works and planting (permanent).

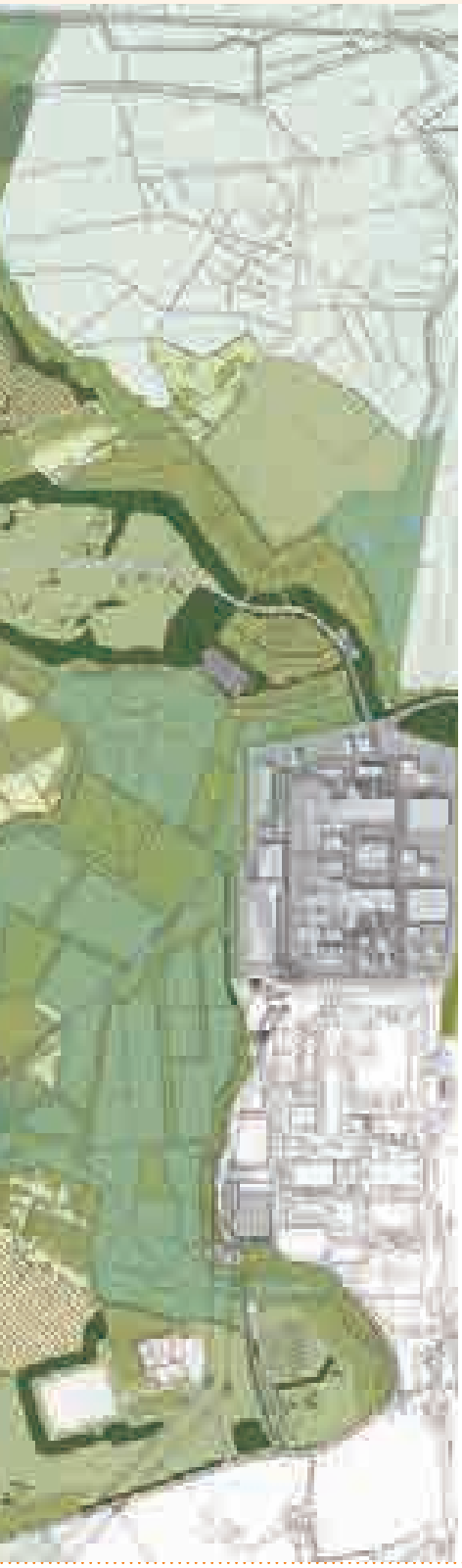
2.3.5. In addition to development within the boundary of the main development site, additional works are proposed as part of the development, which are directly related to works within the main development site. These include:

- ecological compensation sites;
- flood compensation areas; and
- new sports facilities at Leiston.

2.3.6. We provided an overview of how nuclear power works, including how the buildings and structures that serve a UK EPR™ reactor are typically arranged at Volume 1, Chapter 7, section 7.2 of the Stage 3 Main Consultation Document as well as the design principles and design brief that will guide the development of the main site.

2.3.7. A summary of the permanent development and construction phase at the main development site as proposed at Stage 4 is provided in **sections 2.3.8** to **2.3.32** of this chapter, followed by a summary in **sections 2.3.33** to **2.3.36** of this chapter of how this differs from what was proposed at Stage 3.

Figure 2.3: Operational masterplan




KEY

ii) Permanent development

2.3.8. The Sizewell C power station would operate 24 hours a day for 60 years, with around 900 staff during normal periods of operation.

2.3.9. The operational masterplan for the main development site is shown at **Figure 2.3**.

2.3.10. The power station itself, to be located directly to the north of Sizewell B, is comprised of components including the nuclear safety buildings (including reactor building), turbine halls, cooling water pump houses, Operational Service Centre (OSC), interim spent fuel store, intermediate level waste interim store and the raw water supply and storage facility.

2.3.11. As explained at Stage 3, the nuclear safety buildings would be physically defined by their functions and operational requirements. We explained that these buildings would have an exposed concrete finish and that the Sizewell C reactor buildings cannot have cladding or be painted as this would mask any deterioration of the concrete. This principle applies to all the safety buildings.

2.3.12. The two turbine halls, along with the reactor buildings, would be the most prominent buildings on the power station. We recognise that their relationship with designated landscapes within the Area of Outstanding Natural Beauty (AONB) and Suffolk Heritage Coast is particularly important. We set out at Stage 3 how we are seeking to design the buildings and put forward two potential options for the colour and cladding of the buildings. We are continuing to consider these options.

2.3.13. The OSC, located between the two turbine halls, would be the main focus for the workforce during the power station's operational lifetime. It would be in operation 24 hours a day, seven days a week and largely comprise office space with workshop and warehouse functions at the lower levels.

2.3.14. The interim spent fuel store building would be located to the south-east of the power station platform. The design of the building means that the external facades do not need to be constructed of concrete, so cladding could be applied.

2.3.15. There is a requirement for one forebay for each UK EPR™ reactor unit, which would receive water from the intake tunnels and a single cooling water intake would feed directly into each open forebay. The forebay structures are not visible from the majority of public viewpoints.

2.3.16. It would be necessary to provide an electrical connection between Sizewell C and a National Grid substation to export the electrical output of Sizewell C. This connection will be provided via an overhead line, subject to the assessment of alternatives. As set out at Stage 3, four pylons are likely to be necessary. Further design work in response to consultation feedback has shown that we may be able to reduce the height of three of these four pylons by 25%. Alternatively, we could introduce an extra fifth pylon, which would allow all pylons to be 25% shorter than the heights set out at Stage 3.

2.3.17. We explained at Stage 3 the need for the relocation of the existing Sizewell B facilities that are currently on the Sizewell C site to other areas to the south of the Sizewell B complex.

2.3.18. The operational masterplan at **Figure 2.3** illustrates the layout of the remainder of the EDF Energy estate during the operational phase, including the proposed access from the B1122, staff car park, a training building, a SSSI crossing (at the point that the access road crosses the Sizewell Marshes SSSI), the northern mound, new sea defences, cooling water infrastructure, emergency equipment store and a backup generator at Upper Abbey Farm, an electrical substation, and a helipad.

2.3.19. The masterplan proposals would help to mitigate the landscape and visual effects of the power station development within the AONB as well as delivering ecological mitigation. This mitigation includes measures both on- and off-site, for example our Aldhurst Farm habitat creation scheme.

2.3.20. Further details on the layout and design of the power station when operational, the relocation of Sizewell B facilities currently on the Sizewell C site and the remainder of the EDF Energy estate during operation are provided at Volume 1, Chapter 7, section 7.4 of the Stage 3 Main Consultation Document, which should be read alongside the changes set out in this document, but which are summarised below and set out in detail at **Chapter 6** of this Stage 4 consultation document.

iii) Construction phase

2.3.21. The main development site can be divided into seven areas for the construction phase, as shown at **Figure 2.4**, namely:

1. land at, west and south of Sizewell A and Sizewell B power stations;
2. north of Sizewell B power station;
3. east of Bridleway 19 and north of Kenton Hills;
4. west of Bridleway 19;
5. land east of Eastlands Industrial Estate including Sizewell Halt;
6. north of Sizewell Gap and south of Sandy Lane; and
7. Suffolk Coast.

Figure 2.4: Main development site and sub areas during construction

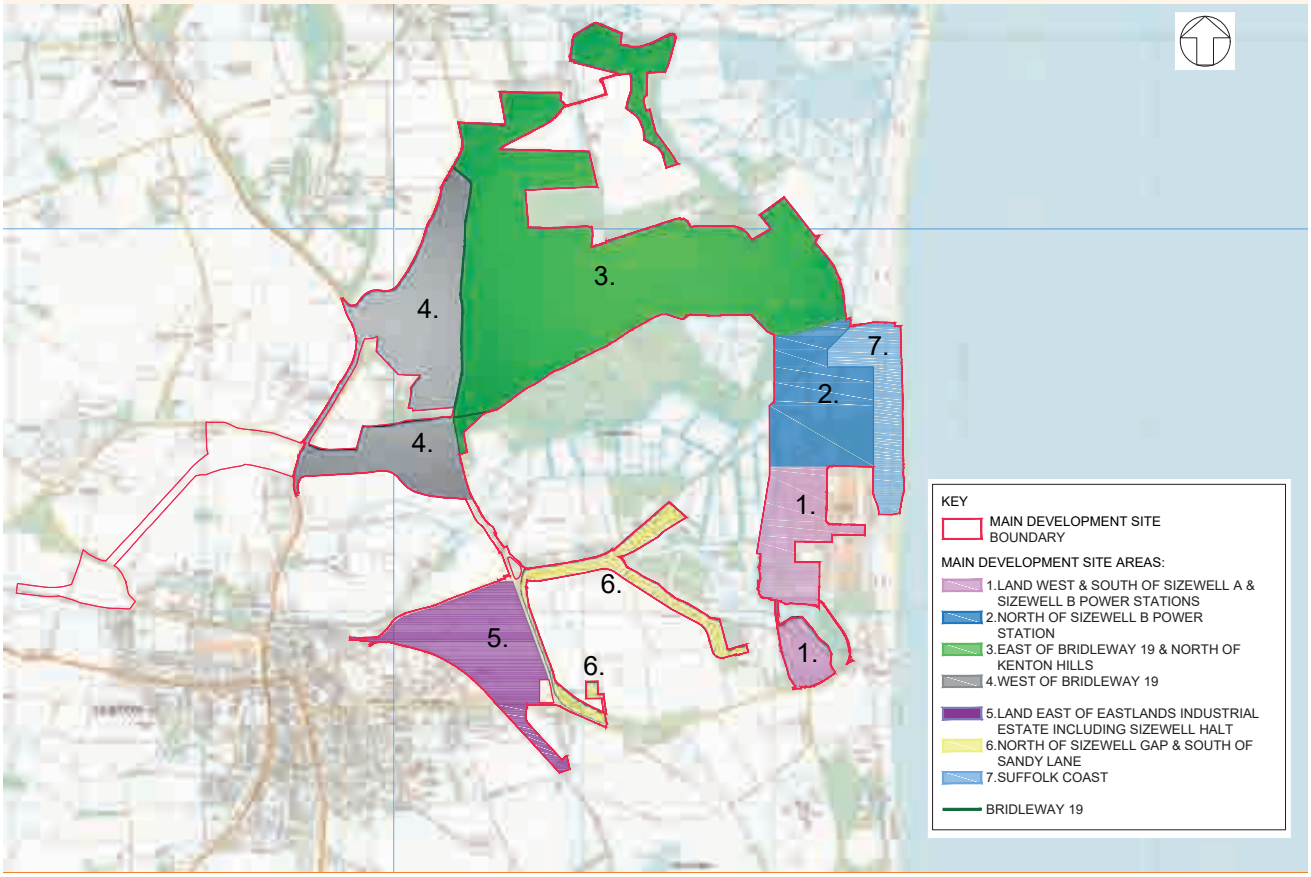
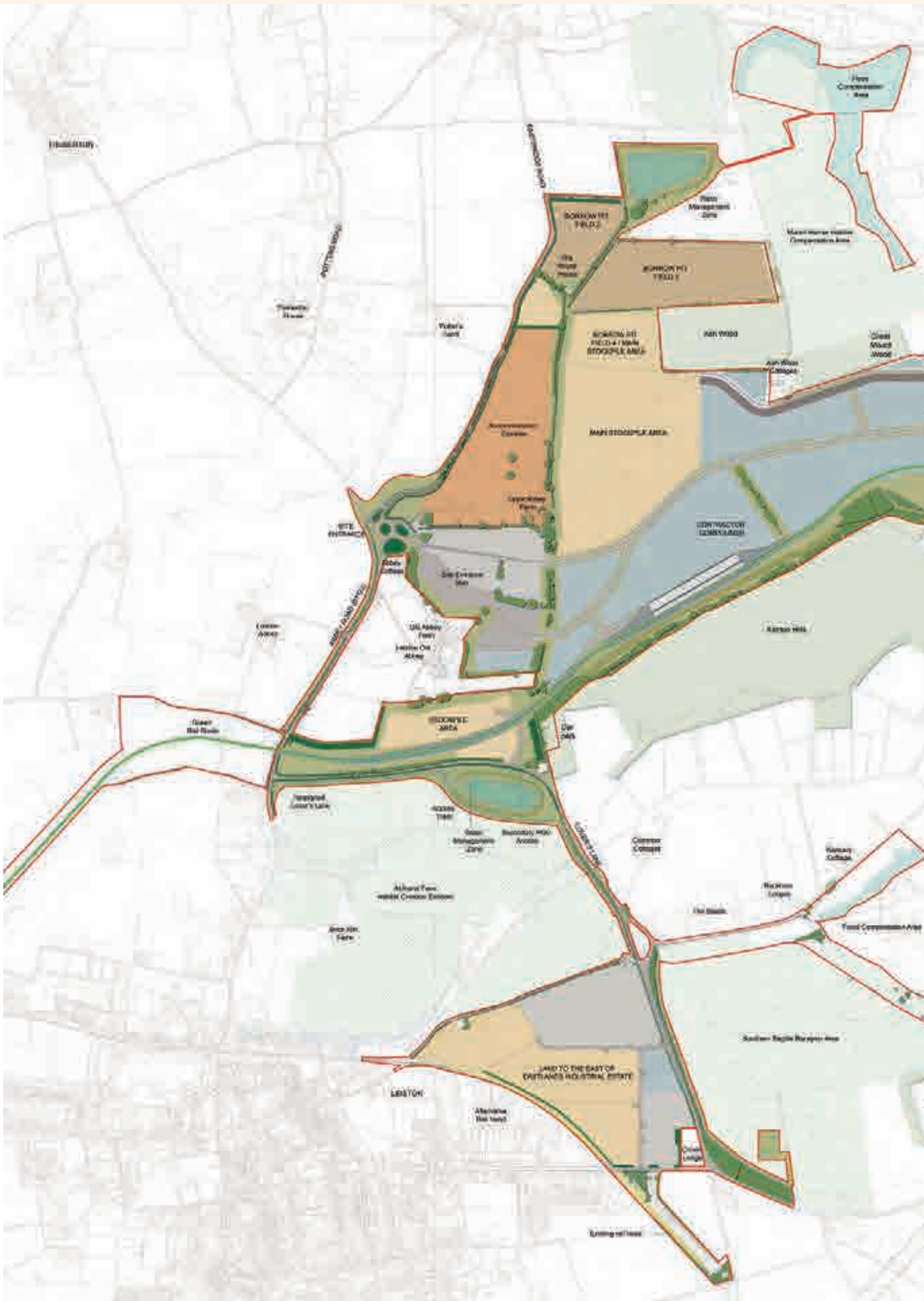
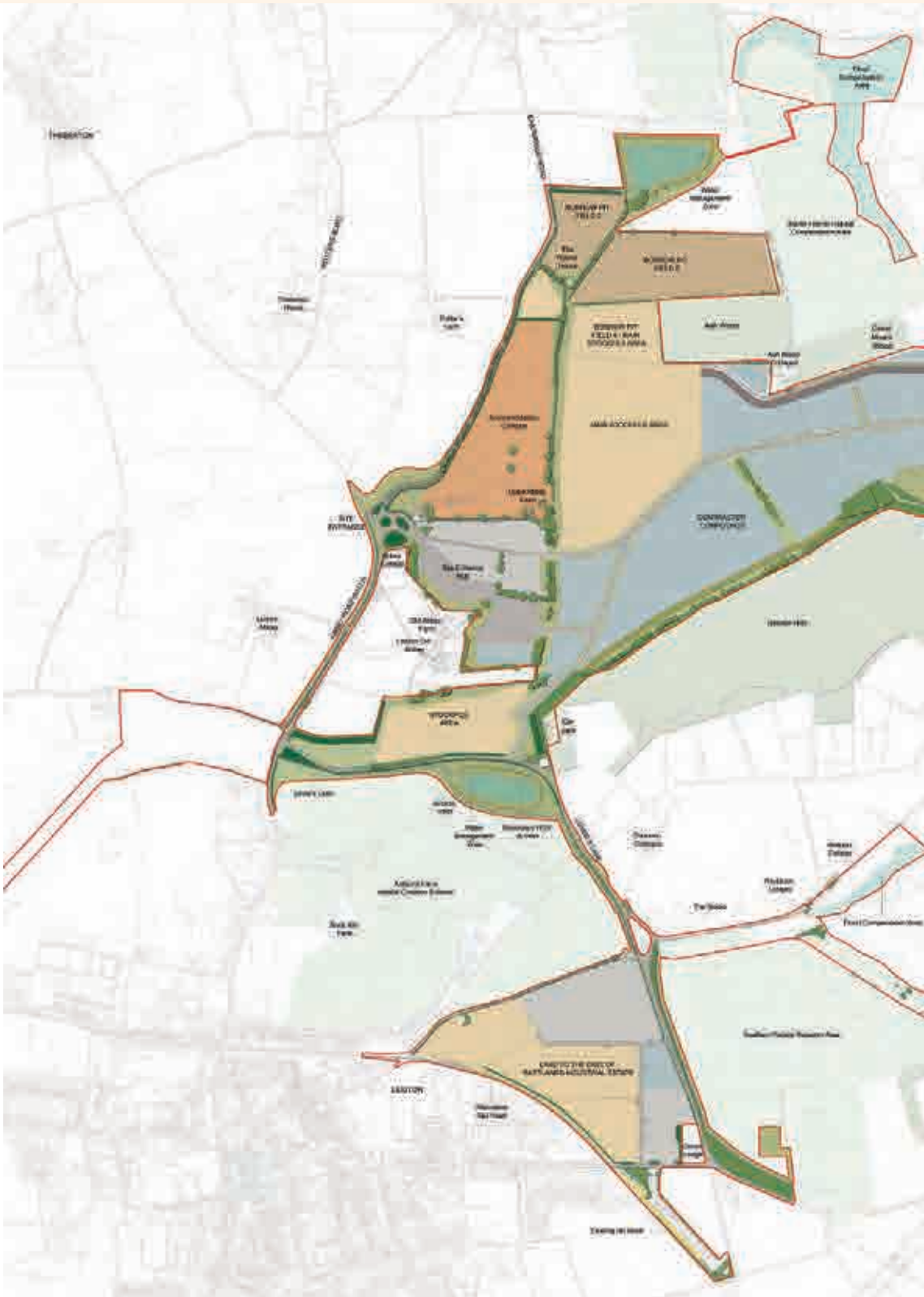


Figure 2.5: Construction masterplan: rail-led and integrated strategies




NORTH SEA
NORTH SEA
KEY

Figure 2.6: Construction masterplan: road-led strategy




NORTH SEA
NORTH SEA
KEY

2.3.22. **Figures 2.5** and **2.6** illustrate two potential construction masterplans for the main development site for the rail-led or integrated strategies (where the masterplan would be the same) and for the road-led strategy.

2.3.23. The rail-led and integrated strategies include the green rail route, whereas the road-led strategy does not.

2.3.24. Construction of the power station would take between nine and twelve years, and we set out a five phase construction programme (from initial site establishment and preparation for earthworks through to the removal of the temporary facilities and site restoration) at Volume 1, Chapter 2 of the Stage 3 Main Consultation Document.

2.3.25. As we set out at Stage 3, in order to establish the main platform it would be necessary to develop on a small part of the Sizewell SSSI, involving the establishment of a cut off wall and dewatering and ground excavation and refilling to form the foundations of the power station. It would be necessary to provide a connection across the SSSI during both operation and construction and we outlined four different options for achieving this crossing at Stage 2. We explained our preference for a causeway over a culvert at Stage 3 (Volume 1, Chapter 7, section 7.4 of the Main Consultation Document).

2.3.26. The LEEIE plays an important role during construction by enabling the delivery of bulk materials by rail and providing other key functions including 400 temporary caravans for construction workers, a logistics compound, and a park and ride. We are still considering options for the delivery of freight to the LEEIE (either for a temporary period under the rail-led or integrated strategies or for the duration of the construction period under the road-led strategy), namely the Sizewell Halt (Option 1), a new rail siding adjacent to the existing Saxmundham to Leiston branch line on the LEIEE (Option 2) or a new rail spur located more centrally within the LEEIE (Option 3).

2.3.27. The land within the main development site to the east of Bridleway 19 and north of Sizewell Marshes includes the locations for a series of borrow pits and stockpile areas. The details and phasing for these were set out at Volume 1, Chapter 7 of the Stage 3 Main Consultation Document.

2.3.28. Development on the land to the north of the Sizewell Gap includes proposed underground cables between the Leiston 132kV substation at Sizewell Wents and a new substation located to the east of Old Abbey Farm.

2.3.29. The land to the west of Bridleway 19 and east of the B1122 would accommodate the site entrance hub, located to the east of the proposed new access junction off the B1122. This area would accommodate a number of site facilities during construction including the main site offices and induction facilities, site canteen, bus and car parking areas, freight areas, and security facilities. A roundabout is proposed at the junction with the B1122 to facilitate the main access to Sizewell C (as shown on the construction masterplan).

2.3.30. The proposed accommodation campus for up to 2,400 construction workers would be located to the north-east of the site entrance hub.

2.3.31. A secondary access road would be required to connect the main development site from Lover's Lane to the LEEIE during construction, to facilitate the early delivery of materials from the existing and proposed (if selected) rail infrastructure to the east of Leiston. This secondary entrance junction would be situated a short distance west of the survey laboratory off Lover's Lane (as also shown on the construction masterplan at **Figures 2.5** and **2.6**).

2.3.32. The area within the Suffolk coast section of the main development site would include the phased delivery of sea defences during construction and the beach landing facility to the north-east of the main power station platform.

c) Changes from Stage 3

2.3.33. We summarise in this section how the proposals we are consulting on at this Stage 4 differ from those presented at Stage 3. The main development site boundary as shown at **Figure 2.1** would remain largely the same as the boundary shown at Stage 3, subject to some slight amendments to accommodate changes to the Project in response to the development of more detailed design, further assessment work and responses to feedback provided at Stage 3 in order to limit environmental effects.

2.3.34. The potential changes to the scheme proposed during operational and construction phases are summarised below and set out in more detail at **Chapter 5**:

- **Access roundabout and approach roads** – we are proposing an extension to the red line boundary at the proposed access to the main entrance hub in order to accommodate a change to the location and increase in size of the proposed roundabout. An illustrative layout of the site entrance hub is shown at **Figure 2.7**.
- **Electricity pylons** – we are proposing a change to the red line which would be required for National Grid to carry out the required transmission line modifications. We are also continuing to assess options for the electrical connection between Sizewell C and the National Grid substation. These proposals are shown at **Figures 5.3 – 5.14** at **Chapter 5** of this document.

- **Public rights of way and Bridleway 19 diversion** – we are proposing the inclusion of additional land within the red line to allow for a wider bridleway corridor and to reflect other proposed minor design changes. This is shown at **Figures 5.15 – 5.17** at **Chapter 5** of this document.
- **Leiston off-site sports facilities** – we are proposing the inclusion of additional land between Leiston Leisure Centre and Alde Valley Academy to accommodate new sports facilities. The proposed location of the off-site sports facilities is shown at **Figure 2.8** of this chapter.
- **Round House** – we are now proposing the inclusion of the Round House property within the red line boundary, as shown at **Figure 5.20** at **Chapter 5** of this document.
- **Kenton Hills car park** – as shown at **Figure 5.21** at chapter 5 of this document we are proposing modifications to the site boundary at the Kenton Hills car park to enhance the access to Kenton Hills and the wider estate.
- **Marsh Harrier compensation land** – we have identified three possible sites which could provide suitable compensation for the potential impact of the construction site on Marsh Harriers. These areas are identified at **Figures 5.22 – 5.24** at **Chapter 5** of this document.
- **Fen meadow compensation land** – we have identified two possible locations which could provide appropriate compensation for the loss of Fen Meadow habitat within the Sizewell Marshes SSSI. These areas are identified at **Figures 5.25 – 5.26** at **Chapter 5** of this document.
- **Flood compensation land** – we have identified a requirement for additional land to compensate for the loss of floodplain within the main development site. These areas are identified at **Figures 5.27 – 5.28** at **Chapter 5** of this document.

2.3.35. Further details of the changes are provide in **Chapter 5** of this Stage 4 consultation document.

2.3.36. More detail on the development proposals for the main development site are provided at Volume 1, Chapter 7 of the Stage 3 Main Consultation Document. That chapter should be read alongside the changes set out in this Stage 4 document.

Figure 2.7: Site entrance hub, illustrative layout

Figure 2.8: Proposed location of the off-site sports facilities

2.4. Green rail route

a) Introduction

2.4.1. The green rail route involves the construction of a rail extension which would branch off the existing Saxmundham to Leiston branch line into the main construction area on a temporary basis during construction. It would form part of the rail-led or integrated strategy options, but would not form part of the road-led strategy.

2.4.2. The purpose of the green rail route would be to facilitate the delivery of freight directly to the main development site - up to three freight deliveries per day during peak construction under the integrated strategy or up to five freight deliveries per day under the rail-led strategy.

Figure 2.9: Summary of rail proposals for the rail-led and integrated strategies

b) Proposed development

2.4.3. The route would extend in a north-easterly direction from the existing Saxmundham to Leiston branch line, approximately 1.5 kilometres (km) west of Leiston, into the main development site. A more detailed description of the land on and around the proposed route of the green rail route is provided in Volume 1, Chapter 8, section 8.4 of the Stage 3 Main Consultation Document.

2.4.4. The green rail route is comprised of a single line rail extension which would connect into the existing Saxmundham to Leiston branch line via a new junction (approximately 500 metres (m) east of the Saxmundham Road level crossing), travelling north-east though open countryside and into the main development site.

2.4.5. It would be constructed early in the construction phase of the Project (under the rail-led and integrated strategies) and construction of the rail infrastructure itself is envisaged to start at the eastern end and progress westwards. Once construction of the power station is complete, the green rail route would be removed and the land on which it was located restored to agricultural use.

2.4.6. At Stage 3 we presented two options: either for part of Buckleswood Road to be stopped up and a new footbridge constructed (Option 1 as shown at **Figure 2.10**) or for a level crossing to be provided at Buckleswood Road (Option 2 as shown at **Figure 2.11**).

Figure 2.10: Green rail route masterplan - option 1 closure of Buckleswood Road

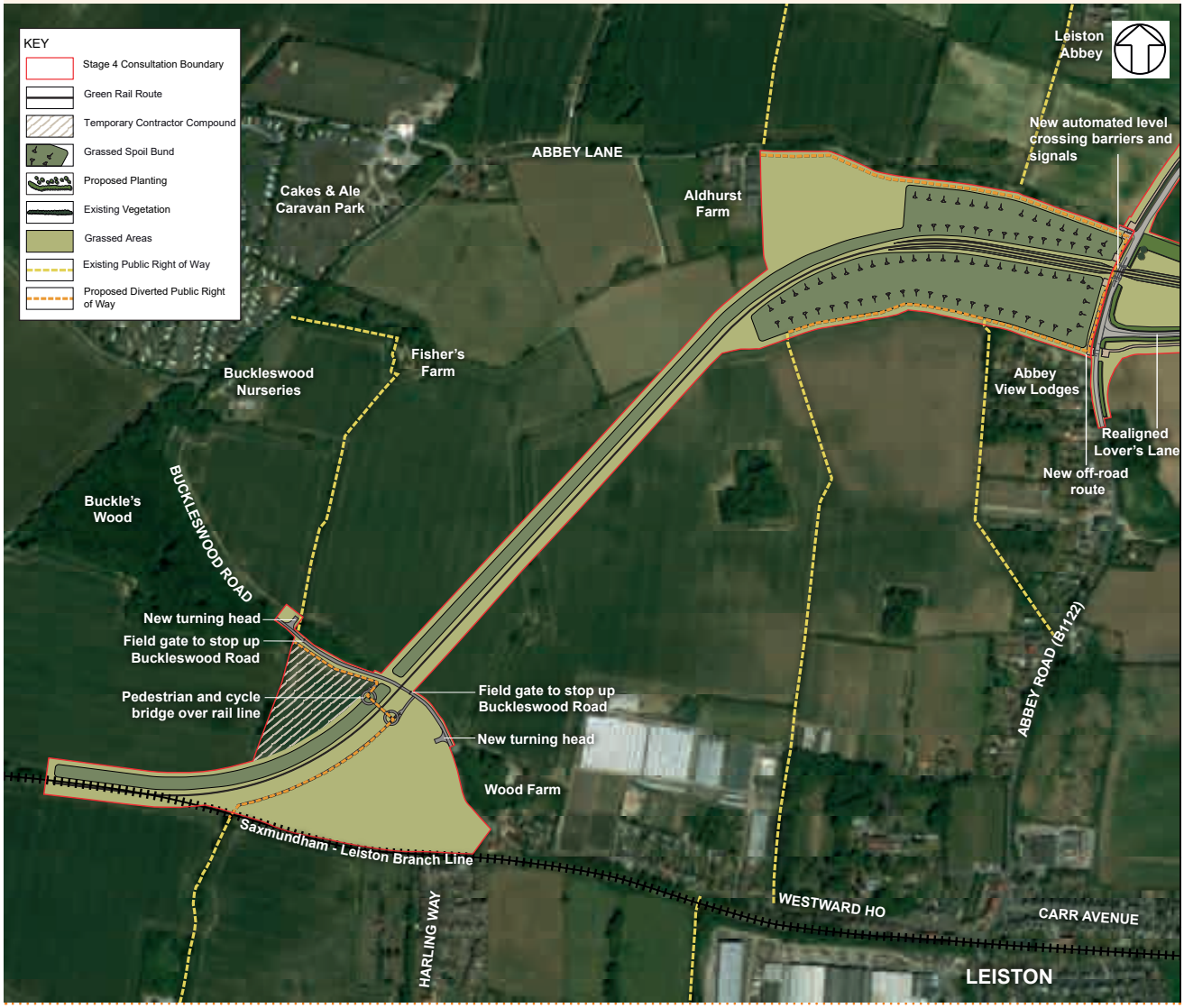
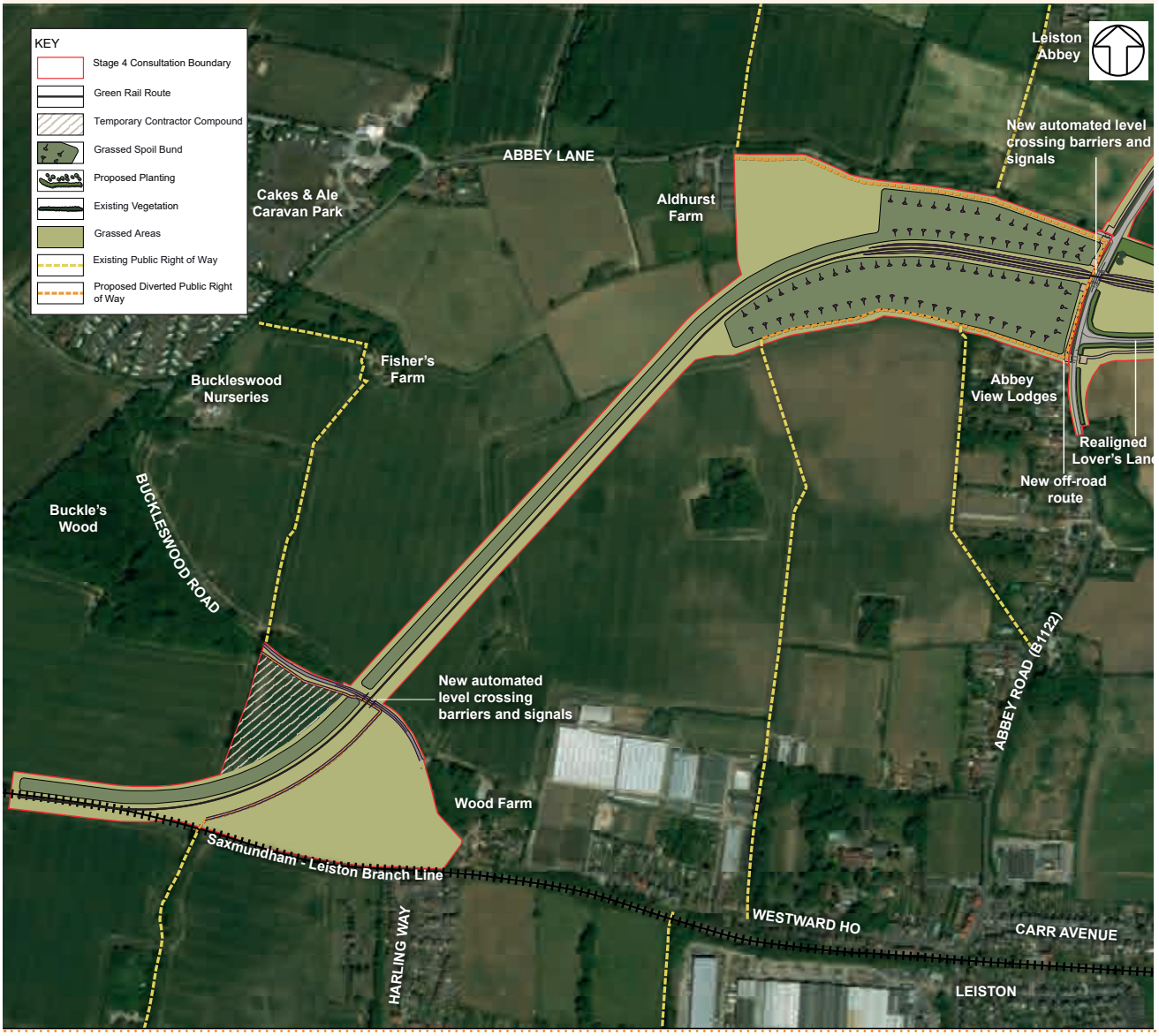


Figure 2.11: Green rail route masterplan - option 2 proposed level crossing



2.4.7. We are currently considering the responses received on these two options at Stage 3.

c) Changes from Stage 3

2.4.8. The physical details of the proposals for the green rail route being consulted on in this Stage 4 consultation remain unchanged from those shown at Stage 3.

2.4.9. The only difference is that under the integrated strategy the green rail route would accommodate three freight trains per day at peak construction (six movements per day) compared to five freight trains proposed under the rail-led strategy (ten movements per day). The implications of this difference are addressed in **Chapter 4** of this Stage 4 consultation document.

2.5. Other rail improvements and changes to level crossings

a) Introduction

2.5.1. The road-led and rail-led strategies we presented at Stage 3 involve different combinations of rail improvement works. These are outlined at Table 8.1 of Volume 1, Chapter 8 of the Stage 3 Main Consultation Document.

2.5.2. The rail-led strategy, in summary, includes:

- alternative options for freight deliveries during the early years of construction either using the existing Sizewell Halt (Option 1) or construction of a new rail siding adjacent to the Saxmundham to Leiston branch line on the LEEIE (Option 2). This strategy could now also be delivered with the construction of a new rail spur located more centrally within the LEEIE (Option 3), as summarised in **section 2.3** and **Chapter 5**;
- the green rail route (as summarised in **section 2.4**);
- infrastructure upgrades to the East Suffolk line, including a passing loop between Ipswich and Saxmundham, signalised upgrades, a track crossover at Saxmundham, 45 level crossings to be upgraded or closed, and rights of way to be diverted; and
- upgrades to the Saxmundham to Leiston branch line, including the upgrading of nine level crossings.

2.5.3. The road-led strategy also includes the three options for freight delivery by rail (i.e. the Sizewell Halt, the rail siding or the rail spur) though it would use whichever option was chosen throughout the entire construction phase, rather than developing the green rail route as per the rail-led and integrated strategy. The Saxmundham to Leiston branch line upgrades would be delivered under the road-led strategy but the East Suffolk line upgrades would not be required.

2.5.4. The new integrated strategy option would involve each of these elements, with the exception of the upgrades to the East Suffolk line.

b) Proposed development

i) Sizewell Halt, rail siding or rail spur

2.5.5. For each of the potential freight transport strategies, EDF Energy is considering using the existing Sizewell Halt rail terminal on the Saxmundham to Leiston branch line during this period, with some reconfiguration of the existing railhead to accommodate longer trains (as shown at **Figure 2.12**). Alternatively, we are considering the construction of a rail siding adjacent to the existing Saxmundham to Leiston branch line on the LEEIE (as shown at **Figure 2.13**) , or a new rail spur located more centrally within the LEEIE (as shown at **Figure 2.14**). Each option could support up to two freight trains per day.

Figure 2.12: Land east of eastlands industrial estate - option 1 Sizewell Halt

Figure 2.13: Land east of eastlands industrial estate - option 2 rail siding

Figure 2.14: Land east of eastlands industrial estate – option 3 rail spur

2.5.6. Freight would then be transferred by HGV along Lover's Lane to the main development site for any of the options (throughout construction in the road-led strategy or until the green rail route is provided in the rail-led and integrated strategies).

2.5.7. With the exception of the introduction of an option to provide a new rail spur in the LEEIE, the details of the road- and rail-led strategies have not changed since the Stage 3 consultation. A more detailed description of the strategies is provided at Volume 1, Chapter 8, section 8.3 of the Stage 3 Main Consultation Document.

2.5.8. We are still considering responses received at Stage 3 on the Sizewell Halt and rail sidings options, which will inform the final decision of which to progress in the Development Consent Order (DCO) application. We welcome your thoughts on the new option for a rail spur located more centrally within the LEEIE (Option 3). Further details are set out in **Chapter 5**.

ii) Upgrades to the East Suffolk line and changes to level crossings

2.5.9. At Stage 3 we presented a number of infrastructure upgrades and changes to level crossings to the East Suffolk line required for the rail-led strategy once the green rail route was operational. These works would be required in order to accommodate the additional five freight trains over a 24 hour period on the line.

2.5.10. These upgrades included:

- a passing loop between Ipswich and Saxmundham;
- improvements to the junction of the East Suffolk line and the Saxmundham to Leiston branch line (the Saxmundham crossover);
- signalling improvements as a result of the new passing loop and Saxmundham crossover; and
- upgrade or closure of 45 level crossings along the route.

2.5.11. These capacity upgrades to the East Suffolk line would be necessary for the rail-led strategy in order to facilitate up to ten freight train movements per day at peak construction. These improvements would not be necessary for the road-led strategy or the integrated strategy.

2.5.12. The details of these works have not changed since the Stage 3 consultation, although we have become concerned at Network Rail's ability to deliver them in line with the required programme for the delivery of the Project. A more detailed description of the options is provided at Volume 1, Chapter 8, sections 8.5 and 9.3 of the Stage 3 Main Consultation Document.

iii) Saxmundham to Leiston branch line and changes to level crossings

2.5.13. The Saxmundham to Leiston branch line includes the entirety of the line from the junction with the East Suffolk line to the Sizewell Halt to the east.

2.5.14. We explained at Stage 3 that the Saxmundham to Leiston branch line would require upgrades in order to handle the freight trains required for the Project. These include:

- track repairs or replacement works to the standard required for freight transport; and
- upgrades to each of the nine operational level crossings on the line.

2.5.15. These works would be necessary for each of the road-led, rail-led and integrated strategy options.

2.5.16. These changes would be retained following completion of construction of Sizewell C. For full details of the options, refer to Volume 1, Chapter 8, sections 8.6 and 9.4 of the Stage 3 Main Consultation Document.

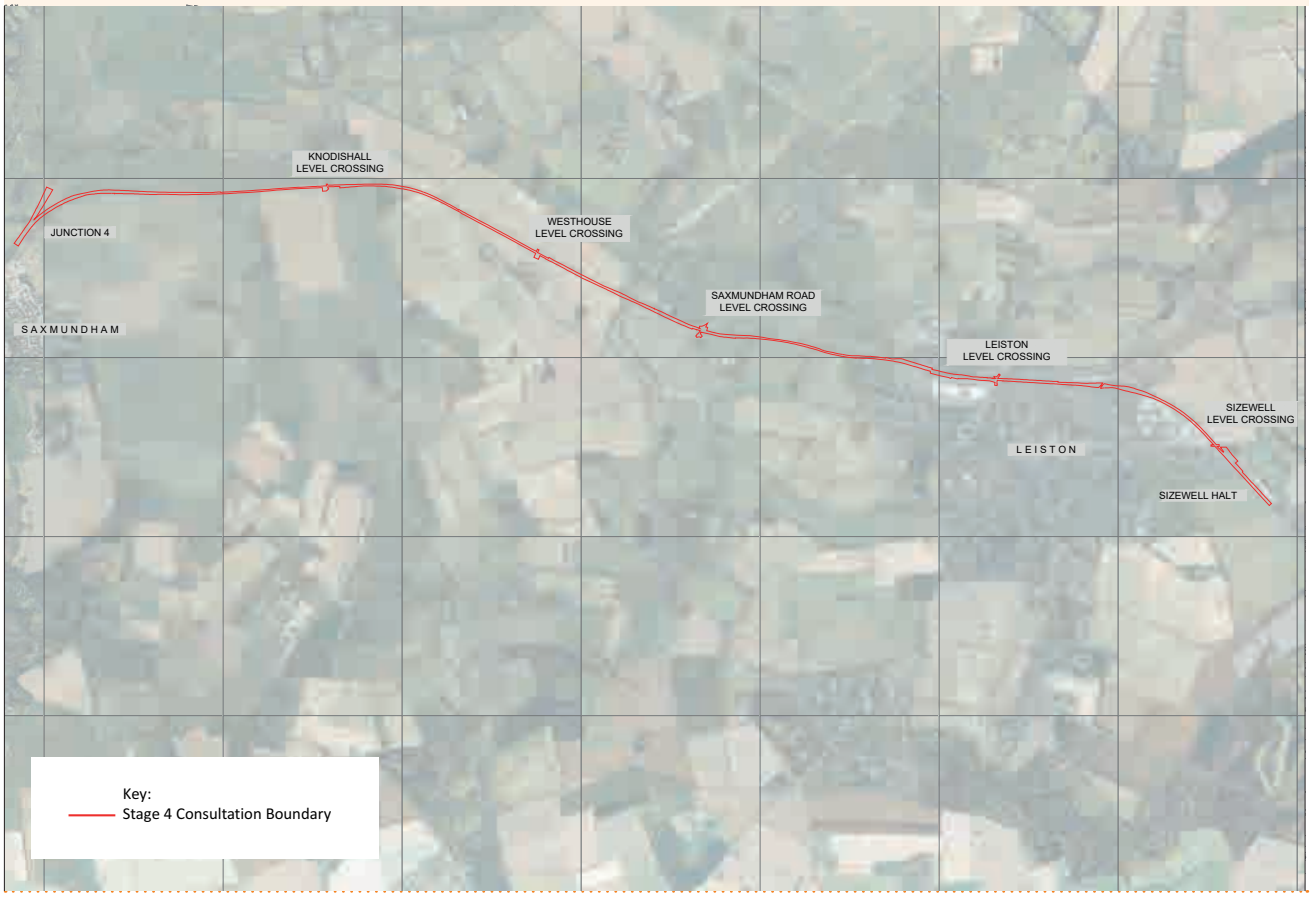
c) Changes from Stage 3

2.5.17. The two options for either the Sizewell Halt or new rail siding, as described at Stage 3, remain unchanged in this Stage 4 consultation. A new option for a rail spur located more centrally within the LEEIE is now included and more details are set out in **Chapter 5**. One of these options would be required for each of the rail-led, integrated or road-led strategies (temporarily for rail-led and integrated, or for the entire construction phase for the road-led strategy).

2.5.18. The upgrades to the East Suffolk line would only be required for the rail-led strategy and remain unchanged from Stage 3. Discussions with Network Rail, however, have identified that there are risks and uncertainty around the timing and deliverability of these improvements.

2.5.19. The upgrades to the Saxmundham to Leiston branch line are required for all strategy options and also remain largely unchanged in principle from Stage 3. However, in order to have control over the delivery of the necessary works, we now propose that the entire route of the Saxmundham to Leiston branch line (as shown at **Figure 2.15**) and all the land required to undertake the upgrade works would be included within the application red line. This includes extensions to the red line boundaries at five of the nine level crossings, to more accurately align with land ownership boundaries. This change of application boundary would mean that EDF Energy could deliver the upgrade works if necessary.

Figure 2.15: Saxmundham to Leiston branch line



2.6. Sizewell link road

a) Introduction

2.6.1. The Sizewell link road was introduced at Stage 3 as part of EDF Energy's proposals for the road-led transport strategy. It would not be required as part of the rail-led strategy, though it is proposed as part of the new integrated strategy option.

2.6.2. The Sizewell link road would involve the construction of a new road originating at the A12 to the south of Yoxford and heading east to the main development site, thereby providing a bypass for the B1112.

2.6.3. The traffic using all or part of the Sizewell link road would include construction workers arriving by car, park and ride buses from both the proposed northern and southern park and ride sites, and goods vehicles delivering freight to the construction site. The Sizewell link road would be open to public use alongside construction traffic associated with the Project.

2.6.4. The Sizewell link road would therefore relieve the B1122 through Theberton and Middleton Moor of this traffic. It would also substantially reduce Project-related traffic flow through Yoxford, by removing the need for traffic from the south to access the B1122 from the A12 at Yoxford.

b) Proposed development

2.6.5. The single carriageway 6.8km Sizewell link road would provide a bypass to the existing B1122 across predominantly agricultural land to the south-west of the B1122.

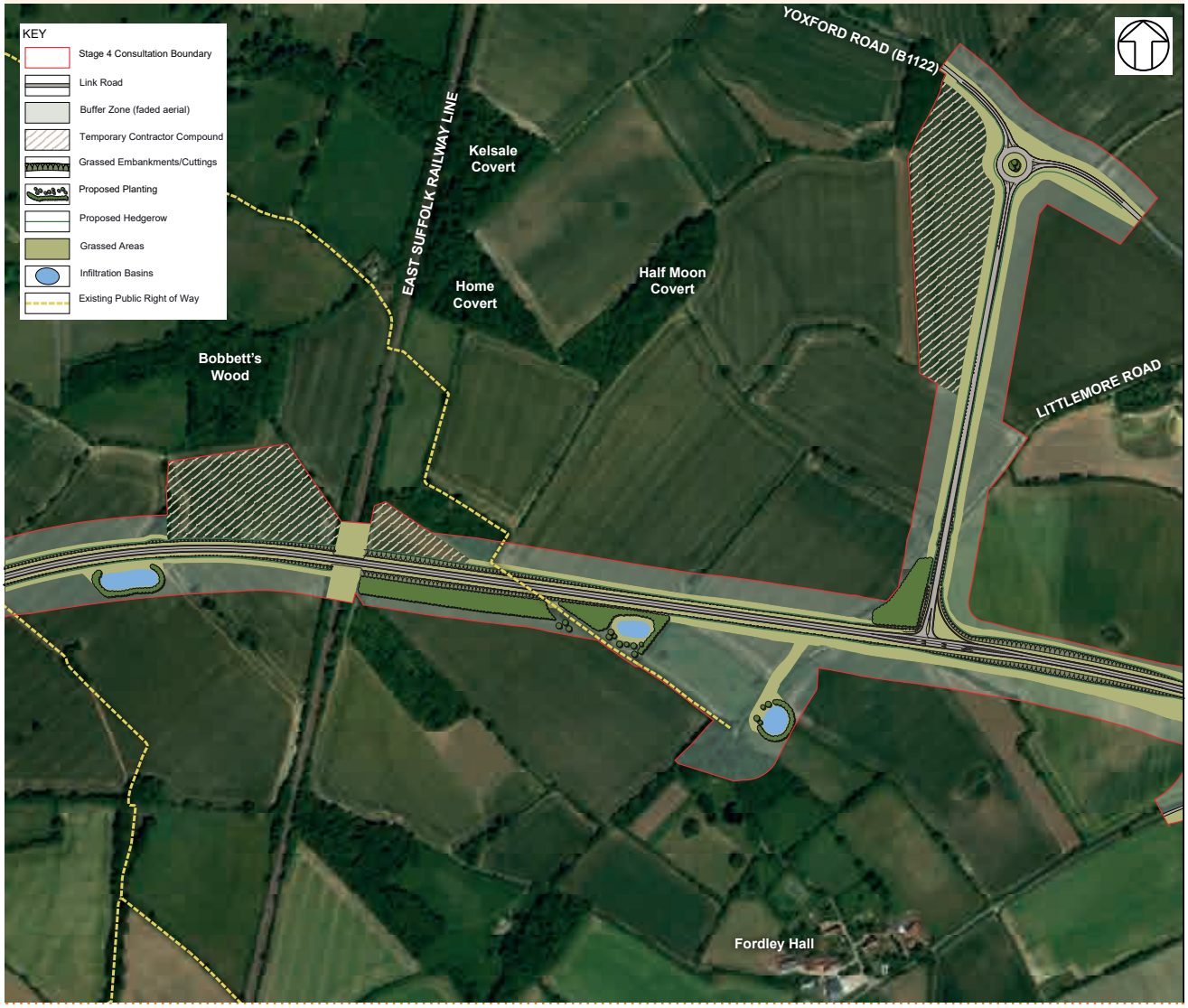
2.6.6. The proposed masterplan is shown at **Figures 2.16 – 2.21**.

Figure 2.16: Sizewell link road masterplan

Figure 2.17: Sizewell link road masterplan – Area 1

2.6.7. Running from west to east, the proposed route would start at the A12, south of Yoxford, and run northeast at existing ground level over an existing channel.

Figure 2.18: Sizewell link road masterplan – Area 2



2.6.8. The route would then cross over the existing East Suffolk railway line before continuing east on an embankment before turning south to run broadly parallel to the B1122. A link north to the B1122 to the west of Middleton Moor is provided so that Sizewell C construction traffic would be removed from that settlement. Littlemoor Road, which the Sizewell link road would bisect, would be stopped up.

Figure 2.19: Sizewell link road masterplan – Area 3

2.6.9. The route would continue along an embankment to where it meets Fordley Road which would also be stopped up to the north but with a new junction from the Sizewell link road to the south.

2.6.10. Junctions leading off the Sizewell link road would also be provided to the north and south at Trust Farm, to provide access to the B1122.

Figure 2.20: Sizewell link road masterplan – Area 4

2.6.11. The route would then head in a south-east direction with a new ghost island junction provided along with an extension of the B1125 and reconfiguration of the existing B1122 to form suitable new junctions.

2.6.12. The route would continue south through a cutting underneath Pretty Road which would bridge over the Sizewell link road for use by non-motorised users. A vehicular junction is proposed between the Sizewell link road and Pretty Road (to the west) in order to provide vehicular access to and from Saxmundham.

Figure 2.21: Sizewell link road masterplan – Area 5

2.6.13. The road would progress along the cutting before the provision of a new junction at Moat Road to maintain access to the existing properties. The route would continue at ground level with a new junction to provide access to Theberton and would re-join the B1122 on a low embankment adjacent to Brown's Plantation.

2.6.14. Further details in relation to the earthworks required for the construction of the road, proposals for surface water drainage, vehicle restraint systems, rights of way and lighting, as well as information on the construction of the Sizewell link road were all provided in Volume 1, Chapter 10 of the Stage 3 Main Consultation Document.

c) Changes from Stage 3

2.6.15. The proposed route for the Sizewell link road being consulted on at Stage 4 has not changed since Stage 3.

2.6.16. At Stage 3 we set out a number of different potential route alignments for the Sizewell link road (Chapter 10, Volume 1 of the Main Consultation Document). These included four routes (Routes W, X, Y and Z) and variations of these options. Route W would join the A12 to the south of Saxmundham, with the other three routes and their variations connecting into the A12 at points between Dorley's Corner and Yoxford. We explained the justification for the selection of 'Route Z' at Stage 3 and explained why route "D2" (the route put forward in the 1980s to facilitate proposal for the construction of the Sizewell B power station) would not represent a viable option.

2.6.17. Further analysis undertaken by EDF Energy since Stage 3, of criteria including the relief each route would provide to communities on the routes from the A12 to the main development site, route length, transport policy, engineering impact and other environmental topics (including potential effects on PRoWs, local road character, heritage assets, landscape designations, landscape character and views, and residential amenity), supports our selection of Route Z as the most appropriate option. We are not therefore proposing any changes to the overall route alignment at Stage 4.

2.6.18. The point that Route Z connects with the A12 is located away from existing settlements and the route is generally positioned away from existing properties. Route Z is the shortest route of the options considered, minimises the effect on the existing road network and is most related to the communities on the B1122 that it the Sizewell link road seeks to relieve. Whilst there is potential for the significance of several heritage assets to be affected and localised effects on the amenity of residents it would be the least intrusive option overall in terms of engineering impact, and it remains our conclusion that it represents the most appropriate route.

2.6.19. As a result of design development we have, however, now refined the site area required for the development.

2.6.20. The changes since Stage 3 that we are proposing in this Stage 4 consultation are set out in detail in **Chapter 6** of this Stage 4 consultation document and are summarised below:

- a minor change to the red line boundary to exclude part of Fir Tree Farm (Area 1);
- inclusion of the public right of way to the south of the Sizewell link road within the red line boundary, in order to facilitate physical improvements (Area 2);
- the exclusion of land from the red line to remove a residential property on Fordley Road from the boundary of our proposals. Fordley Road would be stopped up to the north (Area 3);
- stopping up Litttlemoor Road rather than providing a connection onto the Sizewell Link Road as proposed as Stage 3;
- the addition of a new road link to the north of Trust Farm, from the Sizewell link road to the B1122 (Area 3);
- making the main alignment around Theberton in a deeper cut to enable the bridging of Pretty Road over the Sizewell link road (Area 4);
- inclusion of stretches of Pretty Road to the west and east of the Sizewell link road, and additional land for a compound area, to facilitate the connection of the bridge to the existing road (Area 4); and
- inclusion of the public right of way to the south-west of the Sizewell link road within the red line boundary, in order to facilitate physical improvements to the path (Area 4).

2.6.21. Further details on these changes are provided in **Chapter 6** of this Stage 4 consultation document.

2.6.22. We proposed at Stage 3 that the Sizewell link road would remain in place following construction for general traffic use, thereby reducing traffic and environmental impacts in Theberton, Middleton Moor and Yoxford in the long term. However, we are seeking views in this Stage 4 consultation on whether all or some of the route should only be provided temporarily during the construction phase and removed once Sizewell C is operational.

2.7. Theberton Bypass

a) Introduction

2.7.1. Whilst the rail-led strategy would not require the full Sizewell link road, it would include the Theberton Bypass, in order to reduce traffic volumes passing through Theberton, resulting in the reduction in noise, vibration, and severance impacts during the construction phase.

2.7.2. The Theberton bypass would only be progressed in isolation as part of the rail-led strategy.

b) Proposed development

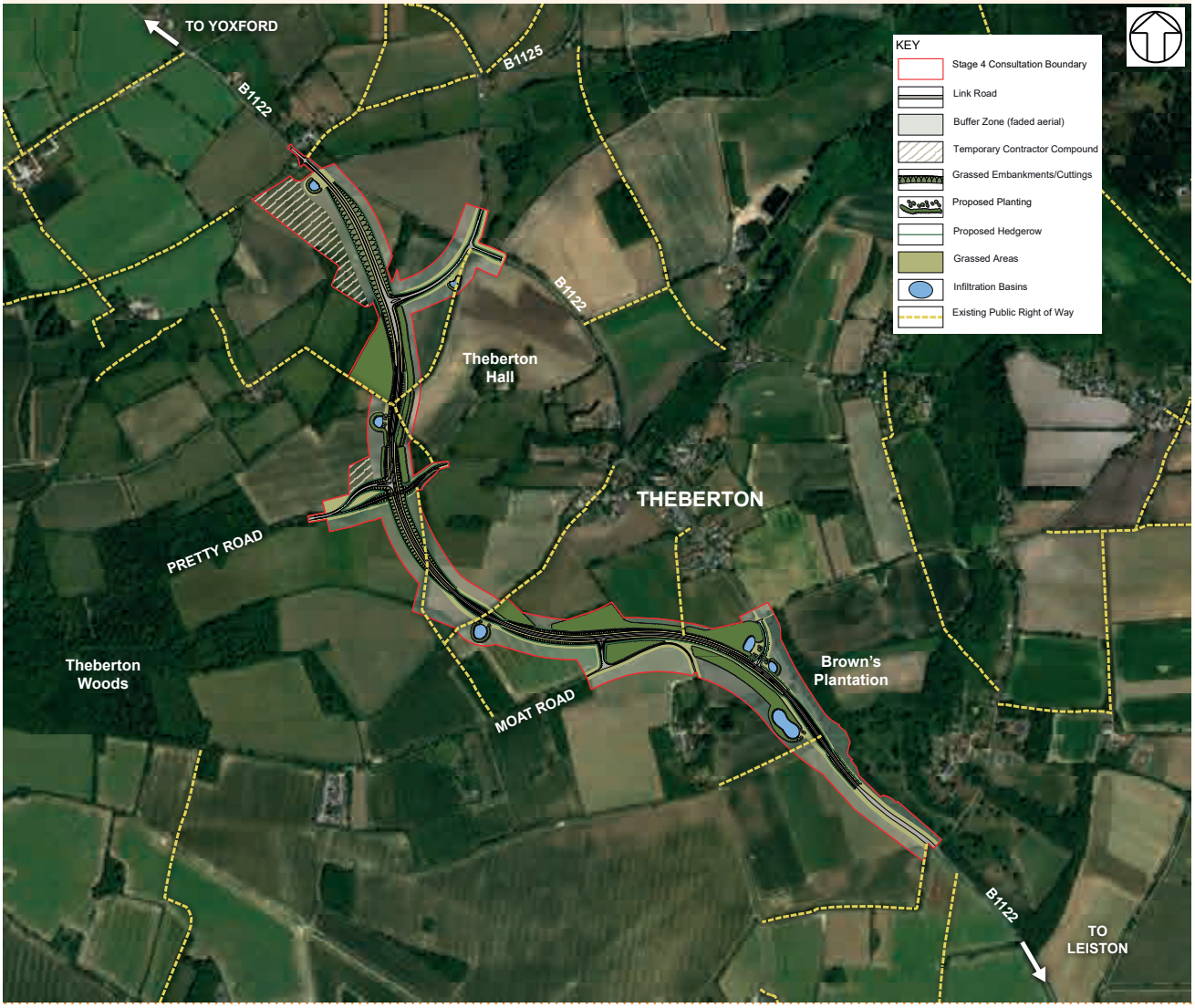
2.7.3. The route, as shown at **Figure 2.22**, would bypass the B1122 through Theberton with a new single carriageway road to the south-west.

2.7.4. The Theberton bypass would be very similar to Areas 4 and 5 of the Sizewell link road, with the exception that it would leave the B1122 at Anneson's Corner near to Coronation Cottages before heading south-east (on a similar line to the Sizewell link road) to the proposed ghost island junction with the B1125.

2.7.5. The Theberton bypass then progresses on the same route as the Sizewell link road across Pretty Road, providing the new junction with Moat Road and linking back onto the B1122 at Brown's Plantation.

2.7.6. Further details in relation to the earthworks required for the construction of the road, proposals for surface water drainage, vehicle restraint systems, rights of way, and lighting, as well as information of the construction of the Theberton bypass were all provided in Chapter 11, Volume 1 of the Stage 3 Main Consultation Document.

Figure 2.22: Theberton bypass masterplan



c) Changes since Stage 3

2.7.7. The route of the Theberton bypass as proposed in this Stage 4 consultation has not changed since Stage 3.

2.7.8. The only changes proposed are those set out above for Area 4 of the Sizewell link road, which are common for both roads, namely:

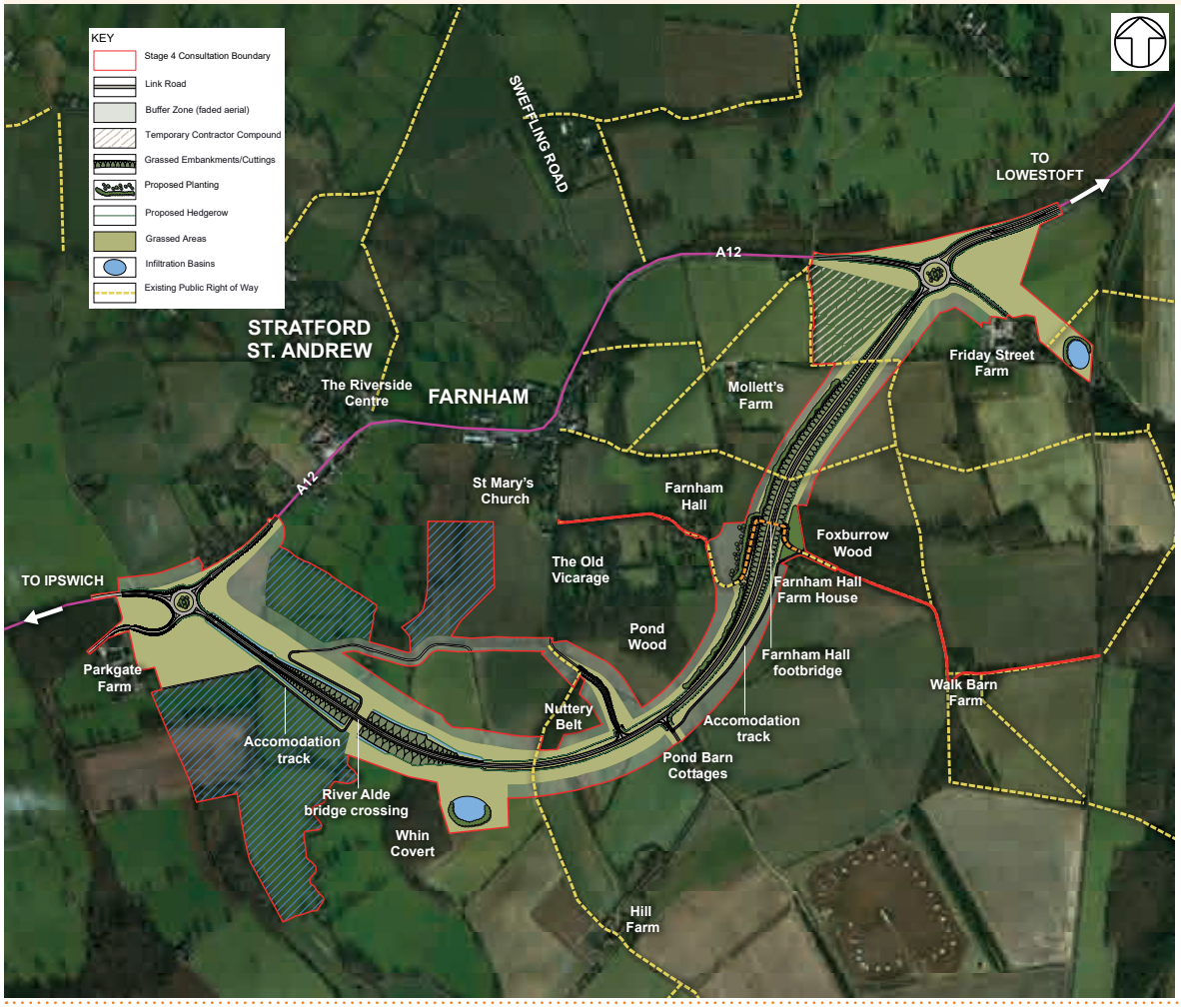
- making the main alignment around Theberton in a deeper cut to enable the bridging of Pretty Road over the Theberton bypass;
- inclusion of stretches of Pretty Road to the west and east of the Theberton bypass and additional land for a compound area, to facilitate the connection of the bridge to the existing road (Area 4); and
- inclusion of the public right of way to the south-west of the Theberton bypass within the red line boundary, in order to facilitate physical improvements to the path.

2.8. Two village bypass

a) Introduction

2.8.1. The two village bypass of Farnham and Stratford St Andrew was one of the options put forward for the mitigation of traffic and traffic-related effects consulted on during the Stage 2 consultation, and was selected as part of our proposals under both the rail-led or road-led strategies. The two village bypass would also be required as part of the new alternative integrated strategy.

Figure 2.23: Two village bypass masterplan



b) Proposed development

2.8.2. The two village bypass begins at a new four arm roundabout near Parkgate Farm, with the route of the bypass (as shown at **Figure 2.23**) leading south-east before turning east around Nuttery Belt before continuing north-east in between Farnham Hall and Foxburrow Wood, crossing the Farnham Hall track (which provides access to Pond Barn Cottages and Farnham Hall Farm House) before reconnecting at a second four arm roundabout.

2.8.3. As well as crossing local roads the route would also cross public rights of way in four locations as shown at **Figure 2.23**.

2.8.4. A detailed description of the proposals for the two village bypass is set out at Volume 1, Chapter 12 of the Stage 3 Main Consultation Document. This includes further detail on the required structures and lighting, landscaping and drainage and construction of the bypass.

2.8.5. The two village bypass would be permanent infrastructure which would not be removed when the construction of Sizewell C is complete.

c) Changes from Stage 3

2.8.6. Subject to further consideration of responses to Stage 3 and Stage 4 consultation, our provisional view is that the route proposed represents the most appropriate option.

2.8.7. We are not, therefore, currently proposing any significant changes to the route of the bypass, though we are proposing various minor changes in response to consultation and further survey work. In summary, the changes we are proposing at this Stage 4 include:

- the repositioning of the western roundabout;
- the inclusion of additional land to accommodate flood compensation land;
- a higher alignment over the River Alde to enable agricultural movements between land either side of the bypass;
- an extension of the site boundary along Tinker Brook;
- a change to the site boundary at the Farnham Hall track to exclude the north-west corner of Foxburrow Wood;an extension of the site boundary to the south of Foxburrow Wood in connection with the proposed pedestrian bridge crossing over the bypass;
- positioning of the bypass in a deeper cutting to help facilitate this bridge and reduce noise impacts on Farnham Hall and surrounding properties;
- at the north-eastern roundabout, an extension to the site boundary to accommodate potential changes to the drainage strategy; and
- the inclusion of additional land to accommodate the existing Farnham Hall track to enable it to be upgraded from a footpath to a bridleway.

2.8.8. These changes are explained in more detail in **Chapter 6** of this Stage 4 consultation document.

2.9. Northern park and ride (Darsham)

a) Introduction

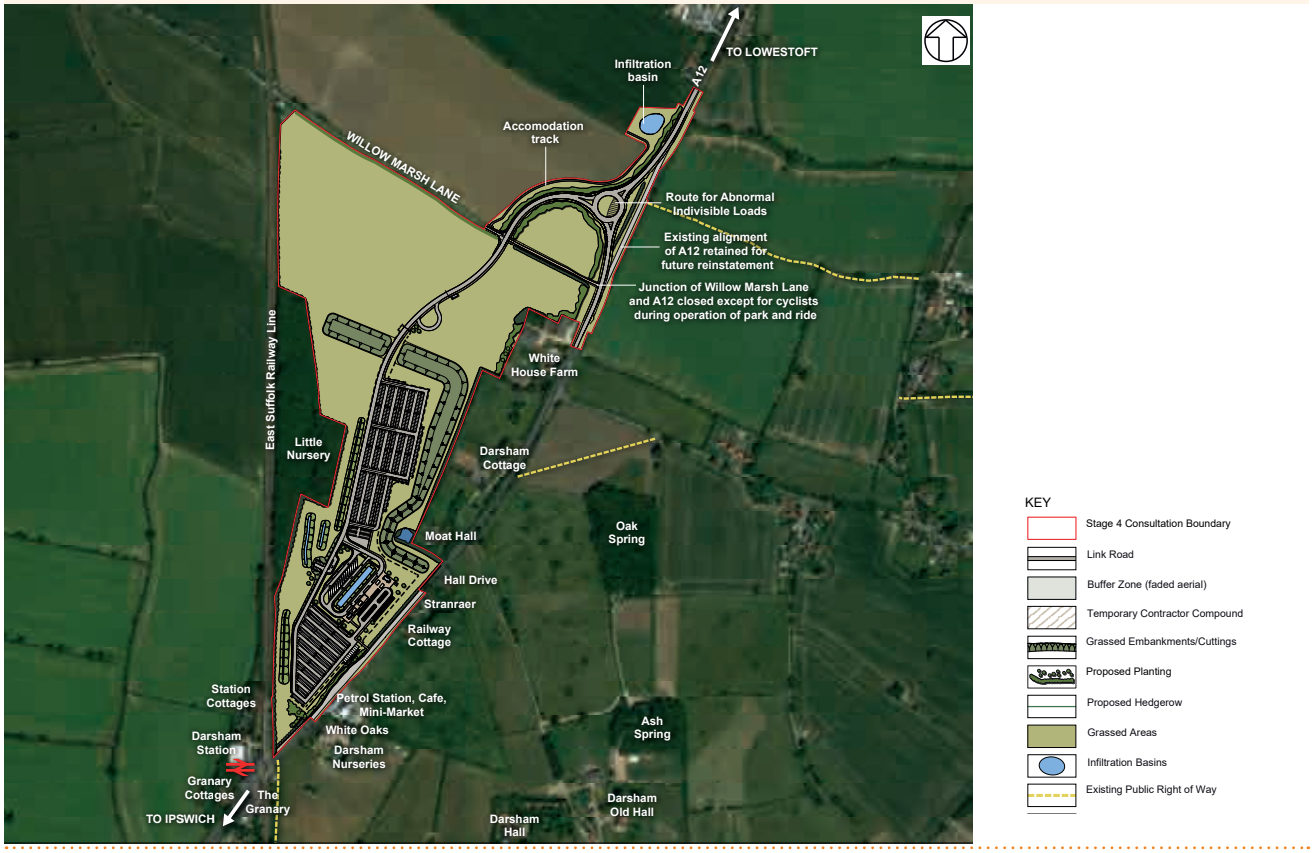
2.9.1. The northern park and ride at Darsham forms part of EDF Energy's commitment to reducing the amount of traffic generated by the construction workforce on local roads and through local villages.

2.9.2. EDF Energy's strategy for transporting the Project workforce has not changed since Stage 3. Some minor alterations to the design of the park and ride proposals are, however, proposed as a result of further survey and design work.

2.9.3. The park and ride proposals are required as part of the Project irrespective of which strategy is progressed in relation to the management of freight transport.

2.9.4. The northern park and ride site comprises 29 hectares (ha) of agricultural land located to the west of the village of Darsham, to the north of Darsham Station, to the west of the A12, and to the east of the East Suffolk line.

Figure 2.24: Northern park and ride (Darsham)



b) Proposed development

2.9.5. At Stage 3 we set out the operational requirements for the park and ride sites, which include parking provision for around 1,250 cars and associated infrastructure. The proposed masterplan for the northern park and ride is shown at **Figure 2.24**.

2.9.6. As explained at Stage 3, the overriding aim for the site has been to locate structures as far away as practicable to the southern end of the site. This would concentrate the operational elements around other development and keep the development as near to the existing built up area and station as possible.

2.9.7. Further details in relation to the buildings and structures, access, landscaping and drainage, and the operation and construction of the northern park and ride are provided at Volume 1, Chapter 13 of the Stage 3 Main Consultation Document.

2.9.8. The northern park and ride buildings and infrastructure would be removed following the construction of Sizewell C and the site returned to agricultural use.

c) Changes from Stage 3

2.9.9. Only very minor design changes are proposed to the northern park and ride as part of this Stage 4 consultation. The overall scale and composition of the proposal and its purpose remains unchanged.

2.9.10. The design changes that we propose to make include, in summary:

- minor alterations to the red line boundary to more closely align with land ownership boundaries; and
- a minor increase in the size of the roundabout diameter and also a small extension of the site boundary to the north of the roundabout.

2.9.11. These changes are explained in more detail at **Chapter 6** of this Stage 4 consultation document.

2.10. Southern park and ride (Wickham Market)

a) Introduction

2.10.1. The southern park and ride at Wickham Market also forms part of EDF Energy's strategy for transporting the construction workforce in order to reduce the amount of traffic generated during the construction phase.

2.10.2. Like the northern park and ride, the southern park and ride proposals are required as part of the Project irrespective of which strategy is progressed in relation to the management of freight transport.

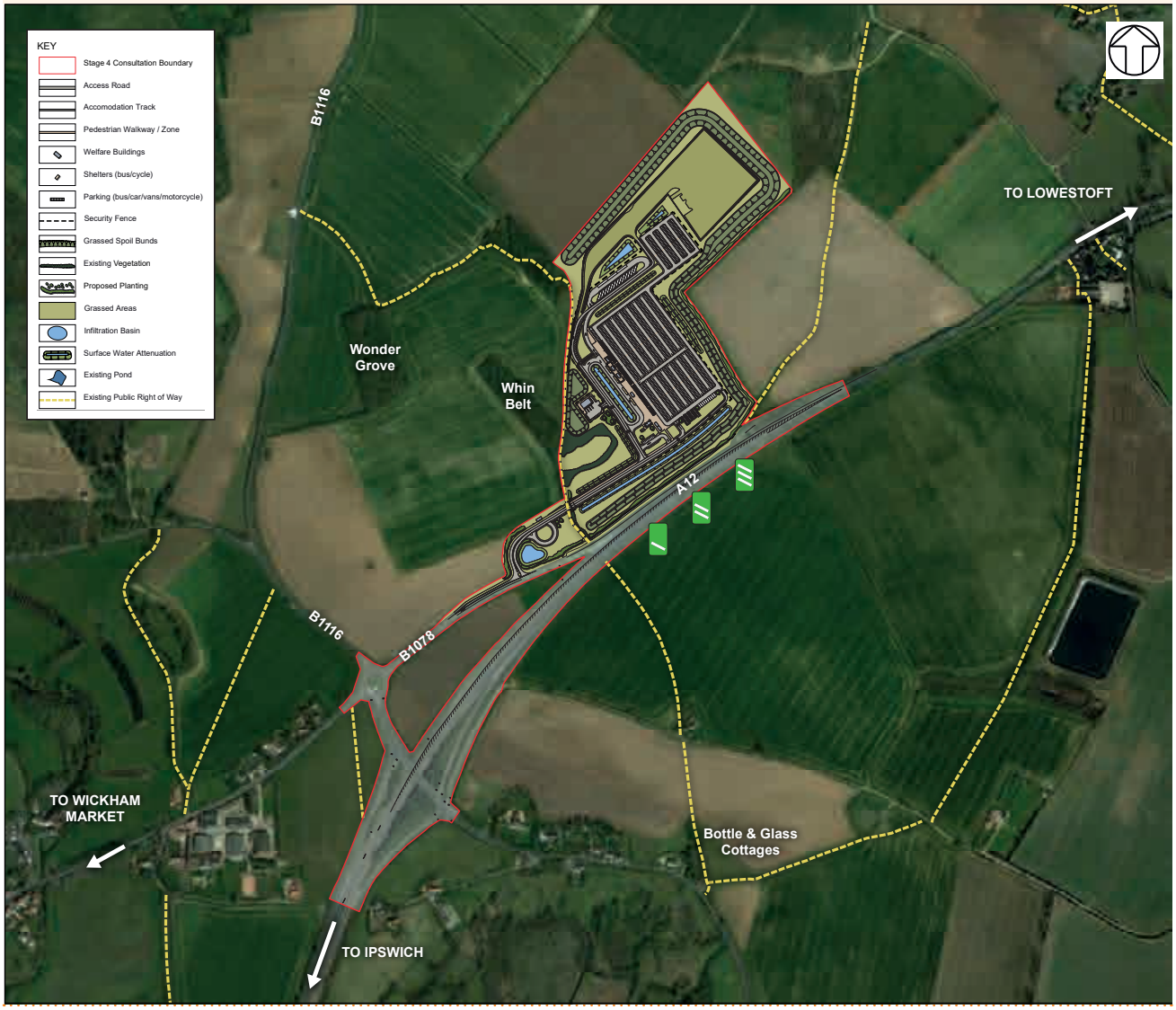
2.10.3. The southern park and ride facilities (as shown at **Figure 2.25**) comprise a park and ride scheme on 18ha of primarily agricultural land located to the north-east of Wickham market plus additional highways land.

b) Proposed development

i) The southern park and ride site

2.10.4. The proposals for the northern park and ride are shown at Figure 2.25 and include parking provision for around 1,250 cars and associated infrastructure.

Figure 2.25: Southern park and ride (Wickham Market)



2.10.5. As explained at Stage 3, the overriding aim for the site has been to locate structures away from the north and north-eastern parts of the site as the land generally rises in this direction and is less well screened by woodland.

2.10.6. The southern park and ride buildings and infrastructure would be removed following the construction of Sizewell C and the site returned to agricultural use.

2.10.7. Further details in relation to the buildings and structures, access, landscaping and drainage and the operation and construction of the southern park and ride are provided at Volume 1, Chapter 14 of the Stage 3 Main Consultation Document.

ii) Wickham Market congestion mitigation

2.10.8. At Stage 3 we identified that the southern park and ride development may increase congestion on the B1078 to the east of Spring Lane when traffic leaves the park and ride site. We therefore identified two different potential options proposed to mitigate these effects through Wickham Market. These included either: a) the temporary removal of on-street parking on the B1078 between Border Cot Lane and River Deben Bridge and reprovision elsewhere; or b) improvements to Valley Road and Easton Road to form a diversion route avoiding Wickham Market.

c) Changes from Stage 3

2.10.9. Like the northern park and ride, only very minor design changes are proposed to the southern park and ride in this Stage 4 consultation. The overall scale and composition of the proposal and its purpose remain unchanged.

2.10.10. The design changes that we propose to make include, in summary:

- minor alterations to the red line boundary to more closely align with land ownership boundaries; and
- the extension of the red line to include the B1078/B1116 roundabout in order to facilitate pedestrian and cycle improvements within the highway land.

2.10.11. In addition to the two alternative options consulted on at Stage 3 for the mitigation of traffic congestion at Wickham Market, with the benefit of feedback from Stage 3, we are now also proposing a potential alternative approach. This alternative option would be to work with the Parish Council to bring forward a public realm improvement scheme within the public highway which would represent the first phase of the implementation of the Neighbourhood Plan. This would consider footway and pedestrian crossing provision as well as the optimal location of on-street parking to meet parking demand. The scheme would provide a legacy benefit to Wickham Market.

2.10.12. These changes are explained in more detail at **Chapter 6** of this Stage 4 consultation document.

2.11. Freight Management Facilities

a) Introduction

2.11.1. The construction of Sizewell C would involve the movement of large amounts of building materials, equipment, and resources. EDF Energy's vision is to deliver the Project so that adverse transport effects on the environment and local communities are limited through mitigation before they arise, where reasonably practicable.

2.11.2. The road-led strategy, which involves more road-based transport, requires the construction of a freight management facility to serve as a holding area for HGVs away from the main development site. This will enable us to regulate the timing and flow of vehicles to the Sizewell construction site in conjunction with a Delivery Management System. The freight management facility will therefore facilitate a controlled pattern of deliveries by road with reduced movements during peak or sensitive hours.

2.11.3. The freight management facility would not be necessary under the rail-led strategy, but we propose that it would form part of the new integrated strategy.

b) Proposed development

2.11.4. At Stage 3 we identified two site options for the freight management facility: namely at Seven Hills (Option 1) and Innocence Farm (Option 2). Both are located on the A14 to the south-east of the A12 junction. We are still considering feedback received on these options at Stage 3 and continuing to undertake further feasibility work before making a decision on which option to progress through the DCO application.

Figure 2.26: Freight management facility site options

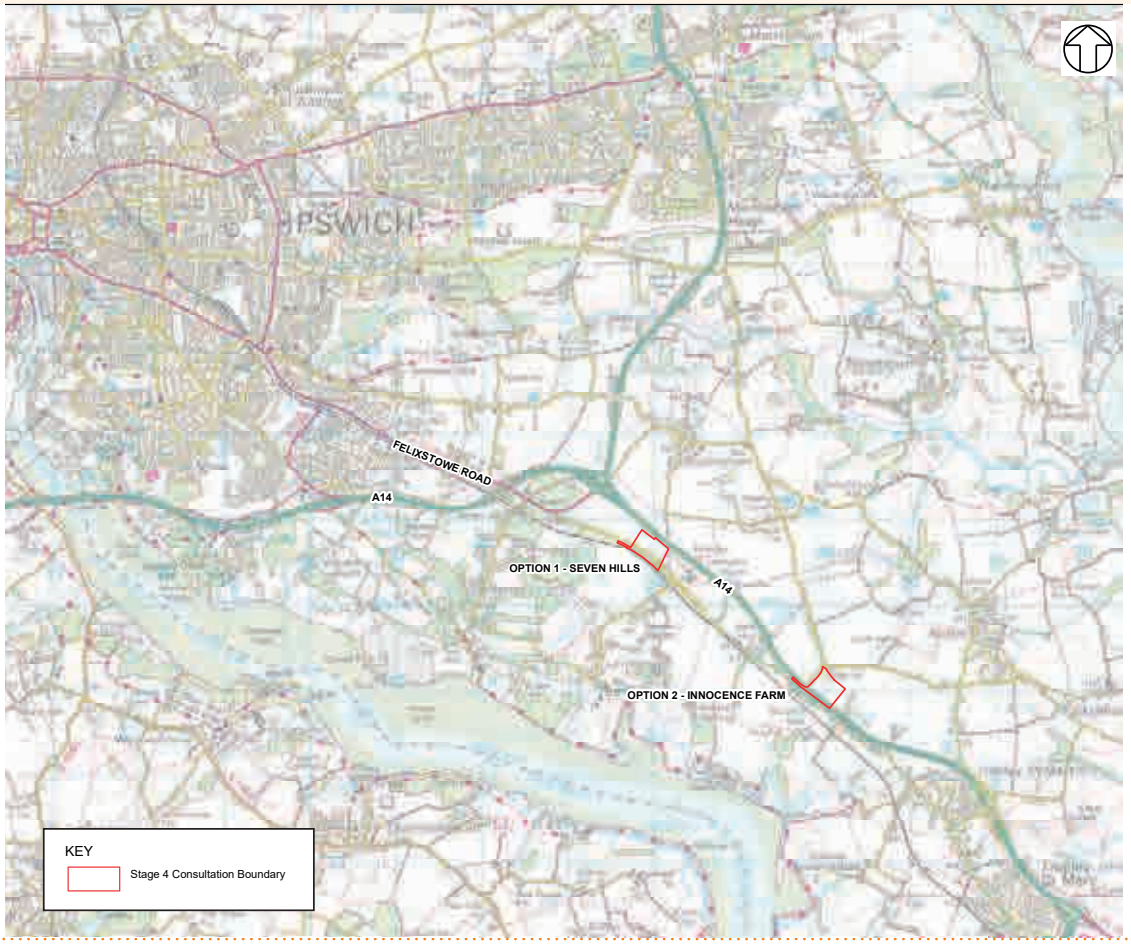


Figure 2.27: Freight management facility option 1 - Seven Hills

2.11.5. The Seven Hills site (Option 1) is an approximately 10ha area of agricultural land located on the southern side of the A14 to the south-east of the A12/A14 junction.

2.11.6. The site is accessed off the Felixstowe Road which runs parallel with the A14. A more detailed description of the site was provided in Volume 1, Chapter 15 of the Stage 3 Main Consultation Document. The proposed indicative site layout for this option is shown in **Figure 2.27**, which shows the access from Felixstowe Road centrally on the southern boundary and a landscaping buffer around the entire perimeter of the site.

2.11.7. A stretch of Felixstowe Road is included within the site boundary which provides the flexibility to provide a ghost island junction to accommodate right-turning HGVs.

Figure 2.28: Freight management facility option 2 – Innocence Farm

2.11.8. The Innocence Farm site (Option 2) forms part of a larger site which is located adjacent to Kirton and Trimley St Martin and immediately to the north of the A14 of which 9ha would be used for the freight management facility. The site is located further south-east along the A14 compared to the Seven Hills option. The proposed indicative site layout for this option is shown in **Figure 2.28**, which shows the access from Croft Lane and an area of perimeter landscaping. It also shows the extent of highways land required to accommodate the required visibility splays to the north on the A14.

2.11.9. The detailed design and layout for either site including landscaping and boundary treatment would be progressed further and included in the final development proposals. When no longer required the sites would be returned to agricultural use.

c) Changes from Stage 3

2.11.10. The Stage 4 proposals for the two freight management facility options remain largely unaltered from Stage 3, other than some minor changes to the site boundaries as a result of further design development.

2.11.11. The details of the proposals remain as set out in Volume 1, Chapter 15 of the Stage 3 Main Consultation Document, subject to the changes summarised below:

i) Option 1: A12/A14 Seven Hills site

- extension of the red line boundary to include a section of Felixstowe Road, to facilitate the inclusion of the ghost island;
- a reduction in the red line to exclude an existing drainage feature along the A14, to the north west of the site; and
- minor changes to the site boundary to align more accurately with land ownership boundaries.

ii) Option 2: Innocence Farm

- site access moved slightly south so visibility to the north remains within highway boundary; and
- red line extension north along the A14 as a cautious approach in case works are required.

2.11.12. These changes are explained in more detail at **Chapter 6** of this Stage 4 consultation document.

2.12. Yoxford roundabout

a) Introduction

2.12.1. At Stage 3 we set out our proposals for a new roundabout in Yoxford to replace the existing A12/B1122 ghost island junction.

2.12.2. This roundabout was required to support both the rail- and road-led strategies, and is retained as part of the integrated strategy being consulted on at Stage 4.

2.12.3. The purpose of the roundabout is to increase the capacity of the junction. The roundabout would be located approximately 90m to the north of the existing junction and built on agricultural land to the east of the A12. It would have an inscribed circle diameter of 60m and would include a realignment of the A12 at this point in order to facilitate use of the roundabout.

b) Proposed development

2.12.4. **Figure 2.29** shows the layout of the proposed new Yoxford roundabout.

Figure 2.29: Yoxford roundabout masterplan

2.12.5. The B1122 would be realigned to join the proposed roundabout via a new section of road that starts to the north of "the Cottage".

2.12.6. The A12 approach roads leading into the 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 the proposed roundabout give way line.

c) Changes from Stage 3

2.12.7. The proposals for the roundabout, as shown at **Figure 2.29**, which are the subject of this Stage 4 consultation are very similar to the scheme put forward in Volume 1, Chapter 16 of the Stage 3 Main Consultation Document, though further detailed design work has resulted in minor proposed changes namely:

- the relocation of the roundabout approximately 20m to the south-east to meet highways design requirements, including enabling off line construction to reduce traffic management delays; and
- a revision to the red line to the south to avoid Sandy Stilt Puffball fungi found in this location.

2.12.8. These changes are explained in more detail at **Chapter 6** of this Stage 4 consultation document.

2.13. Other highways improvements

a) Introduction

2.13.1. A number of highways improvements would be delivered as part of the mitigation proposals to mitigate traffic impacts arising from the construction of Sizewell C.

2.13.2. The list of potential highways improvements we are considering include works at:

- A140 / B1078 west of Coddenham;
- B1078 / B1079 east of Easton & Otley College;
- A12 / A144 south of Bramfield;
- A12 / B1119 at Saxmundham;
- A1094 / B1069 south of Knodishall;
- A12 / A 1094 Friday Street north-east of Farnham;
- B1122 Mill Street improvement works; and
- the Wickham Market diversion route.

2.13.3. As explained above, we are also proposing an alternative approach at Wickham Market (to the options included at Stage 3, which included the Wickham Market diversion route) to ease the effect of traffic associated with the southern park and ride.

2.13.4. The highway works would all be required to support each of the road-led, rail-led or integrated strategies other than the Mill Street improvements previously consulted upon, which would only be required to support the rail-led strategy (associated with the Theberton bypass).

Figure 2.30: A140/B1078 west of Coddenham – proposed highway improvements

b) Proposed development

i) A140/B1078 west of Coddenham

2.13.5. The A14/B1078 junction is a priority T-junction on a dual carriageway, situated approximately 3.2km east of Needham Market. The A140 northbound to B1078 movement is provided by a right turn off slip, whilst the B1078 traffic is restricted to a left turn movement only onto the A140.

2.13.6. The works proposed at this junction are shown at **Figure 2.30**. This includes a minor change to the red line boundary as set out below and at **Chapter 6**.

Figure 2.31: B1078/B1079 east of Easton and Otley College – proposed highway improvements

ii) B1078 / B1079 east of Easton & Otley College

2.13.7. The B1078/B1079 junction is a rural priority T-junction approximately 1.5km south of Otley.

2.13.8. In order to mitigate the additional traffic generated from the Sizewell C development, we are proposing minor safety improvements for the B1078 and at the B1078 / B1079 junction.

2.13.9. The works proposed at this junction are shown at **Figure 2.31**. These works have not changed since Stage 3.

2.13.10. The works include vegetation maintenance to improve visibility, various new signage and road markings, and site monitoring.

Figure 2.32: A12 / A144 south of Bramfield - proposed highways improvements

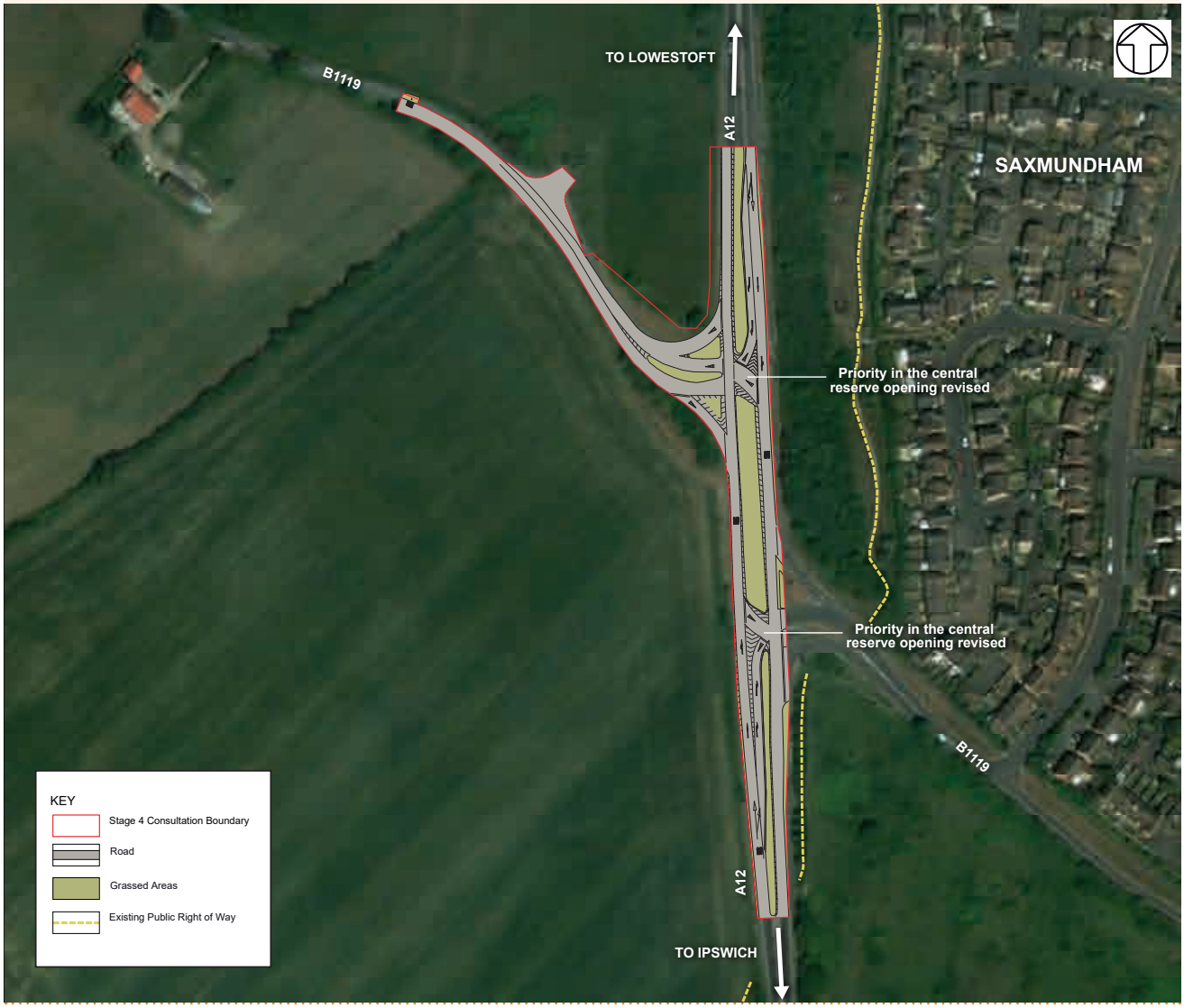
iii) A12 / A144 south of Bramfield

2.13.11. The A12/A144 junction is a rural ghost island priority T-junction situated approximately 2.7km south of Bramfield and around 950m north of the northern park and ride access

2.13.12. The works proposed at this junction are shown at **Figure 2.32**. This includes minor site boundary and design changes since Stage 3 as set out below and at **Chapter 6**.

2.13.13. The proposed works include the addition of a central reservation island and waiting area to increase the capacity for the right turn from the A144 onto the A12.

Figure 2.33: A12 / B1119 Saxmundham – proposed highway improvements



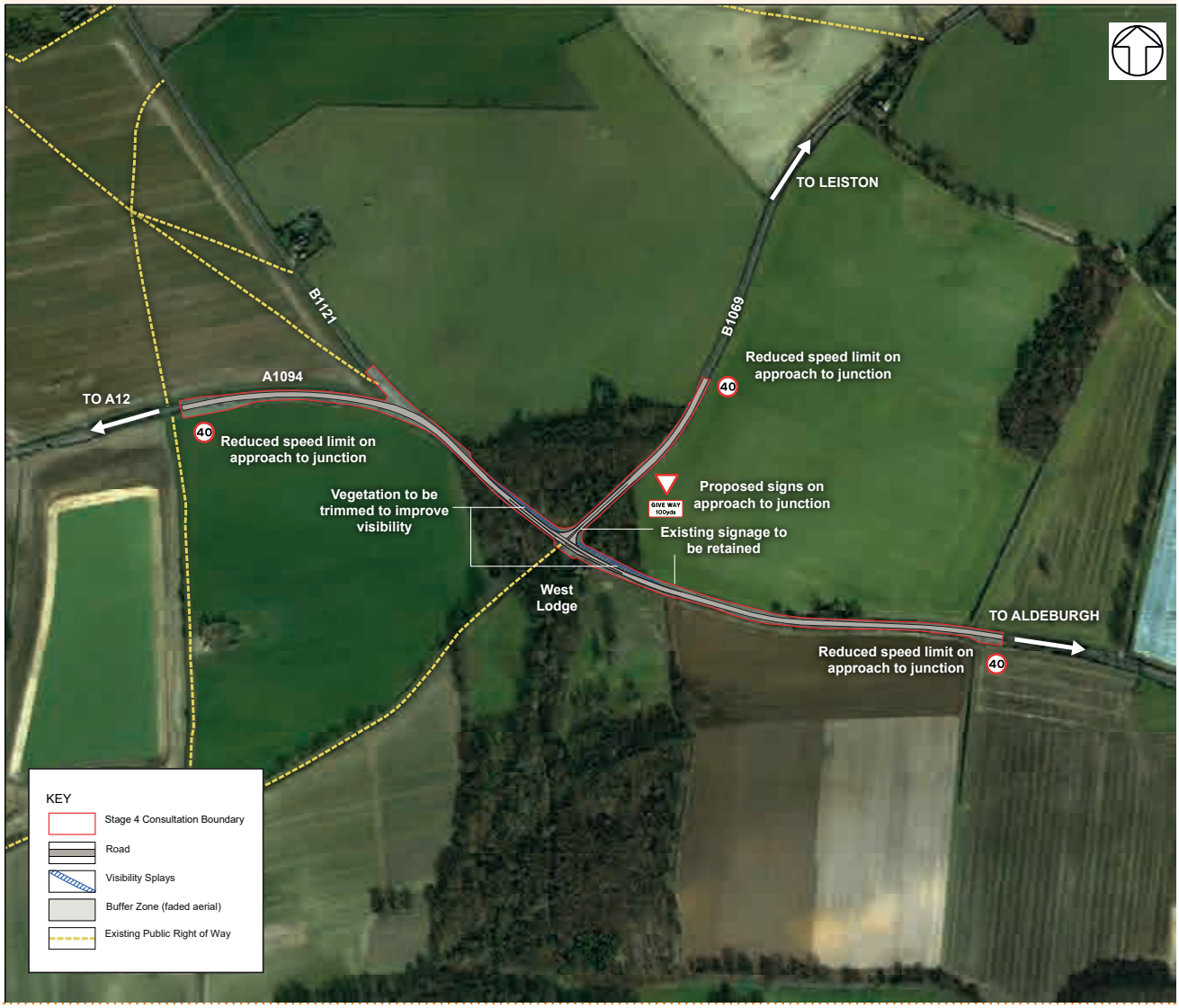
iv) A12 / B1119 at Saxmundham

2.13.14. The A12/B1119 junction is a ghost island staggered crossroads on the A12 situated 1.1km to the west of Saxmundham.

2.13.15. The works proposed at this junction are shown at **Figure 2.33**. This includes a minor change to the red line boundary since Stage 3.

2.13.16. The works include vegetation maintenance to improve visibility, various new signage and road markings, and site monitoring.

Figure 2.34: A1094 / B1069 – proposed highway improvements



v) A1094 / B1069 south of Knodishall

2.13.17. The A1094/B1069 junction is a single carriageway priority T-junction situated approximately 2.6km south of Knodishall and 1.1km south-east of Friston.

2.13.18. The junction has a narrow painted island provided for right turning traffic from the A1094 onto the B1069, but this is not wide enough for through traffic to pass a vehicle waiting to turn right.

2.13.19. The works proposed at this junction are shown at **Figure 2.34**. This includes a minor change to the red line boundary since Stage 3.

2.13.20. The works include vegetation maintenance to improve visibility, various new signage and road markings, and site monitoring, as well as a reduction of the current 60 miles per hour (mph) speed to 40mph to assist vehicles turning right out of the B1069.

2.13.21. The further detailed information provided at Volume 1, Chapter 11 of the Stage 3 Main Consultation Document should now be read alongside the changes set out in this Stage 4 document.

Figure 2.35: Friday Street north-east of Farnham – proposed highways improvements

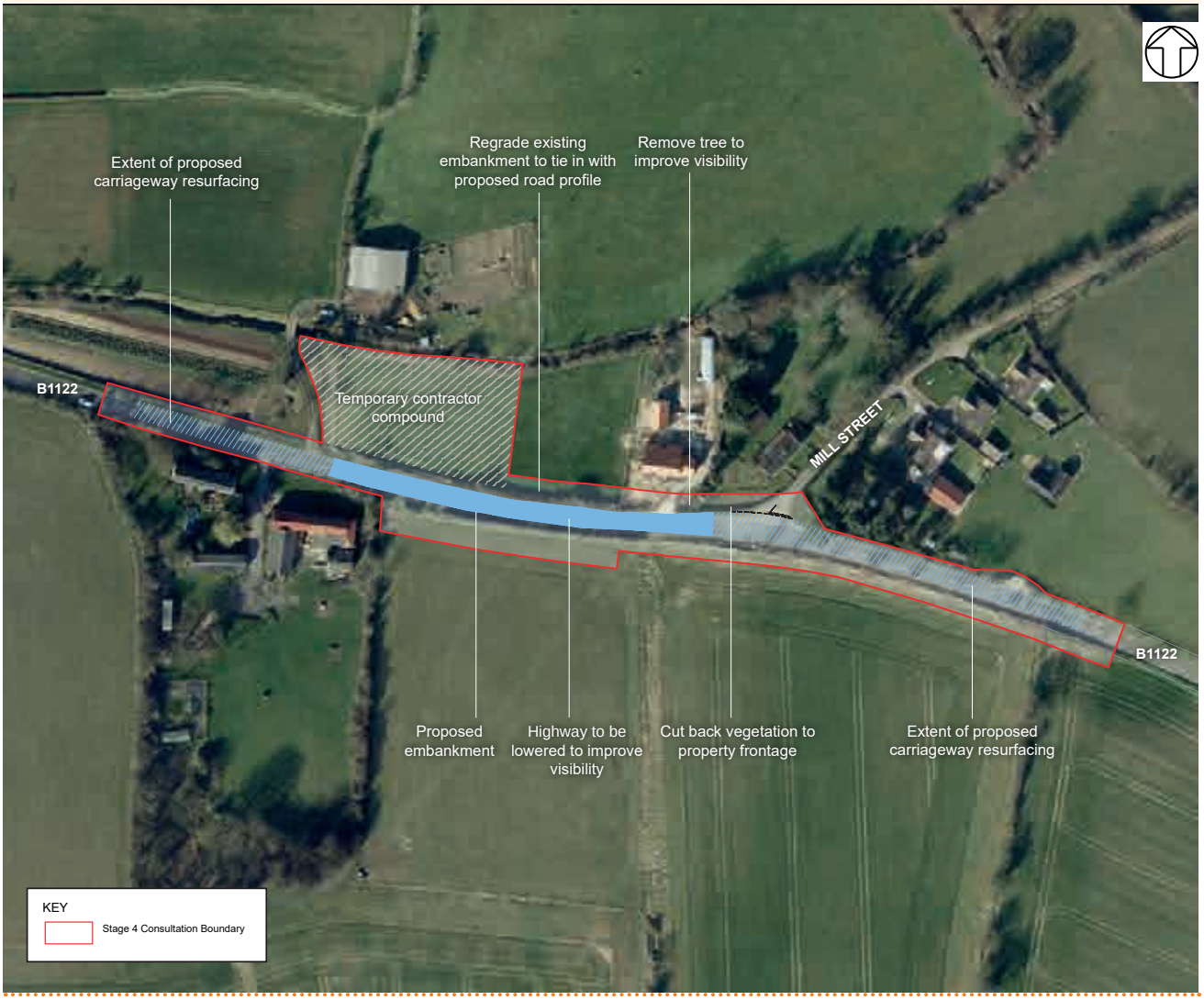
vi) A12/A1094 Friday Street north-east of Farnham

2.13.22. The A12/A1094 junction is a T-junction situated on a dual carriageway section of the A12 approximately 1km north-east of Farnham and 4km south of Saxmundham.

2.13.23. The proposed works would involve the construction of a four arm roundabout to replace the existing junction as shown at **Figure 2.35**.

2.13.24. These works would form part of the two village bypass proposals as summarised in **section 2.8**. They have not changed since Stage 3.

Figure 2.36: Mill Street (B1122) – proposed highways improvements



vii) B1122 Mill Street improvement works

2.13.25. Highways improvements to the Mill Street B1122 junction would be delivered in conjunction with the Theberton bypass under the rail-led strategy.

2.13.26. The works, as shown at **Figure 2.36**, would involve improvements to the vertical alignment of the B1122 just west of the junction, by reducing the road level. This would increase forward visibility for westbound traffic. The works have not changed since Stage 3.

2.13.27. These improvements would not be required under the road-led or integrated strategies given the B1122 would be relieved by the Sizewell link road.

Figure 2.37: Wickham Market diversion route

viii) The Wickham Market diversion route

2.13.28. The Wickham Market diversion route introduced at Stage 3 as part of the southern park and ride proposals would (as shown at **Figure 2.37**) start on the B1078 to the west of Wickham Market along a new Valley Road alignment, and provide road widening and improvements to the junction south of Glevering Bridge, before carrying on along to the junction of Easton Road. Easton Road then leads east to the B1116, providing an alternative route to Border Cot Lane / High Street through Wickham Market.

2.13.29. The details of this option were set out at Volume 1, Chapter 17 of the Stage 3 Main Consultation Document.

c) Changes from Stage 3

2.13.30. Since Stage 3 consultation, we have undertaken further detailed modelling in order to further understand the traffic impacts arising from the construction of Sizewell C, and have modified the proposals being consulted on at Stage 4 for some of these highways improvements. These changes are summarised in **sections 2.13.31** to **2.13.35** of this chapter.

i) A140/B1078 west of Coddenham

2.13.31. The only proposed change since Stage 3 which we are consulting on at Stage 4 is an extension of the red line boundary to the north and south along the A140 to allow for additional signage within the highways boundary.

ii) A12 / A144 south of Bramfield

2.13.32. We have made a series of proposed changes to the site boundary since Stage 3 which we are consulting on at Stage 4, namely:

- widening the boundary along the A12 on the west of the site, and reduction to the south-east, to reduce impact on residential gardens to the south-east of the junction; and
- relocation of the A144 arm to the south.

iii) A12 / B1119 at Saxmundham

2.13.33. The revised proposed design at Stage 4 includes a minor extension of the red line boundary to the south to include additional highway land on the A12 and to the west along the B1119.

iv) A1094 / B1069 south of Knodishall

2.13.34. The revised proposed design at Stage 4 includes a very minor extension of the red line boundary to allow for additional signage.

2.13.35. These changes are explained in more detail at **Chapter 6** of this Stage 4 consultation document.

3. FREIGHT MANAGEMENT STRATEGY

3.1. Introduction

3.1.1 At Stage 3 we presented two options: a road-led strategy and a rail-led strategy. We are still considering both of these options but we have become concerned that the rail-led strategy may not be deliverable within the necessary timescale to limit the impacts of construction traffic and, accordingly at this Stage 4 consultation, we are seeking views on a further alternative freight management strategy option: an integrated strategy.

3.1.2 The purpose of the integrated strategy is to optimise the extent of rail use that can be achieved for the transport of construction materials but to do so within a strategy that EDF Energy can be confident can be delivered.

3.1.3 Since the start of the Stage 3 consultation, EDF Energy has continued to develop transport and environmental assessments, working closely with Network Rail and learning lessons from Hinkley Point C. We have engaged with the local authorities, Network Rail, stakeholders and the public to gain a greater understanding of views about the freight management strategy across the region.

3.1.4 This chapter explains the potential integrated strategy, with comparisons to the road-led and rail-led strategies described at Stage 3:

- **section 3.2** describes the road-led and rail-led strategies presented at Stage 3.
- **section 3.3** describes the new integrated strategy.
- **section 3.4** compares the infrastructure and works that would be necessary for the three strategies.
- **section 3.5** compares the operation of the three strategies, primarily the level of heavy goods vehicles (HGVs) and railway movements.
- **section 3.6** describes the key differences between the three strategies and explains the reasons for those differences.
- **section 3.7** explains why we have developed and are now considering an integrated strategy.
- **section 3.8** describes the expected environmental impacts of the integrated strategy with comparison to the road-led and rail-led strategies.
- **section 3.9** compares the advantages and disadvantages of each strategy to assist you with your consultation response.
- **section 3.10** explains our next steps following the Stage 4 consultation and what further information will be available when EDF Energy applies for development consent.

3.1.5 The freight management assumptions, proposals for managing, monitoring and controlling HGVs, and proposals for managing worker transport remain as described in Volume 1, Chapter 6 of the Stage 3 Main Consultation Document and are not repeated in this chapter.

3.1.6 Traffic modelling for the integrated strategy, including a comparison with road-led and rail-led strategies is provided in **Chapter 4** of this Stage 4 consultation document.

3.2. Stage 3: road-led and rail-led strategies

3.2.1 At Stage 3 we presented two alternative freight management strategies:

- **A rail-led strategy** – This strategy would involve up to two freight trains per day travelling to the land east of Eastland's Industrial Estate (LEEIE) in the early years of construction for unloading and loading at either Sizewell Halt or a new rail siding adjacent to the existing Saxmundham to Leiston branch line. A new rail line (the "green rail route") would also be constructed as a spur off the Saxmundham to Leiston branch line into the main development site. Once constructed, up to five freight trains per day would use the green rail route at peak construction. Five trains at peak construction would require the refurbishment of the Saxmundham to Leiston branch line, but we would also be dependent on Network Rail providing new rail infrastructure on the East Suffolk line and upgrades to and closure of a large number of level crossings along the route. To reduce the impact on the B1122, a Theberton bypass is proposed as part of this strategy. A beach landing facility would allow some large deliveries to be delivered by sea.
- **A road-led strategy** – Unlike the rail-led strategy, this strategy would not include construction of the green rail route. However, it would still involve transporting some materials by rail. Through the construction period, up to two freight trains per day would travel to the LEEIE and terminate for unloading and loading at either Sizewell Halt or a new rail siding adjacent to the existing Saxmundham to Leiston branch line, with the remainder of freight transported by road. This would only require the refurbishment of the Saxmundham to Leiston branch line and upgrades to the level crossings on that branch

line. No works to the East Suffolk line are likely to be required. A new Sizewell link road from the A12 north of Saxmundham to the B1122 east of Theberton is proposed to relieve the B1122, Middleton Moor and Theberton of Sizewell traffic. This strategy also includes a freight management facility, near Ipswich, which would serve as a holding area for HGVs, regulating the timing and flow of vehicles to the Sizewell C main development site. A beach landing facility would allow some large deliveries to be delivered by sea.

3.3. Stage 4: integrated strategy

3.3.1 At this Stage 4, we are introducing a further alternative freight management strategy, which we think combines many of the benefits of both the rail-led and road-led strategies but, unlike the rail-led strategy is more within our control to deliver. Under the integrated strategy, the green rail route (proposed as part of the rail-led strategy) would be constructed, as well as the Sizewell link road and the freight management facility (proposed as part of the road-led strategy). Up to two freight trains per day would travel to the LEEIE in the early years of construction and terminate for unloading and loading at either Sizewell Halt or a new rail siding adjacent to the existing Saxmundham to Leiston branch line. At peak of construction, up to three freight trains per day would use the green rail route providing direct access to the main construction area. Like the alternative strategies, refurbishment of the branch line and upgrades to level crossings on that line would be required, but no rail infrastructure works or level crossing closures or upgrades would be proposed on the East Suffolk line. In order to provide more certainty that the branch line upgrades could be delivered on time, EDF Energy proposes to include the branch line in the application red line boundary, which would give it powers under a development consent order approval to agree to undertake the works. A beach landing facility is also proposed under this strategy to allow some large deliveries to be delivered by sea.

3.4. Comparison of the infrastructure and works under each strategy

3.4.1 All three strategies would utilise a beach landing facility for delivering freight to site by sea. The two village bypass and other highway improvements would be necessary under all three strategies. The only exception being the Mill Street junction improvements which are only necessary under the rail-led strategy which includes the Theberton bypass. Under the road-led and integrated strategies the B1122 would be bypassed by the Sizewell link road.

3.4.2 The five daily freight trains proposed under the rail-led strategy would require Network Rail to undertake works along the East Suffolk line, including upgrades to 33 level crossings and the closure of 12 level crossings, and the construction of a passing loop and crossover. However, under the integrated and road-led strategies these works would not be necessary. **Table 3.1** shows the infrastructure and works required under each freight management strategy, including highway and marine works. Full descriptions of all these works can be found in the Stage 3 Main Consultation Document (see Volume 1, Chapters 7–17) subject to the changes and alternative options presented in this document.

3.4.3 An explanation of why the infrastructure and works required under each strategy is different is set out in **section 3.6**.

Table 3.1: Comparison of the infrastructure and works required under the proposed freight management strategies.

Rail-led	Integrated	Road-led
Rail works proposed		
Green rail route	Green rail route	-
East Suffolk line improvements including a new passing loop between Melton and Campsea Ashe	-	-
East Suffolk line level crossing works: 12 closures, 33 upgrades	-	-
Saxmundham to Leiston branch line track upgrade	Saxmundham to Leiston branch line track upgrade	Saxmundham to Leiston branch line track upgrade
Saxmundham to Leiston branch level crossing works: 9 upgrades	Saxmundham to Leiston branch level crossing works: 9 upgrades	Saxmundham to Leiston branch level crossing works: 9 upgrades
Highway works proposed		
Theberton bypass	Sizewell link road	Sizewell link road
Two village bypass	Two village bypass	Two village bypass
Nine other highway improvements (including Yoxford roundabout and Mill Street)	Eight other highway improvements (including Yoxford roundabout)	Eight other highway improvements (including Yoxford roundabout)
-	Freight management facility along the A14	Freight management facility along the A14
Marine works proposed		
Beach landing facility	Beach landing facility	Beach landing facility

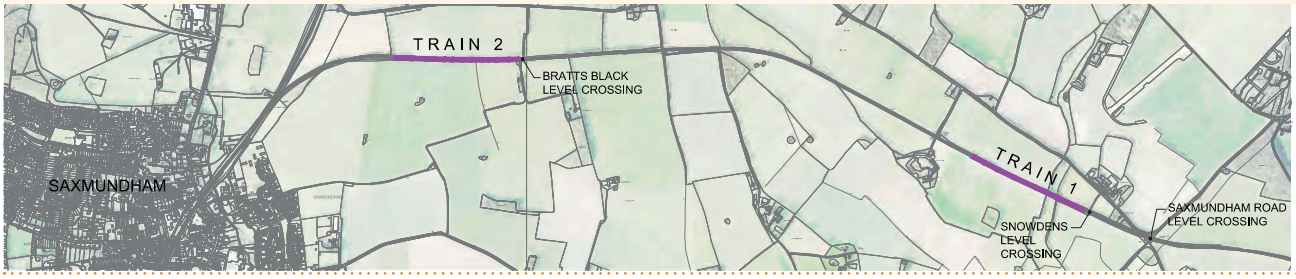
3.5. Comparison of the operation of each strategy

a) Rail movements

3.5.1 As explained, all three strategies would use two trains per day (four movements) to transport freight to the LEEIE in the early years. The trains would travel along the East Suffolk line overnight stopping at the designated holding places on the Saxmundham to Leiston branch line (see **Figure 3.1**) and continue to the LEEIE after 7:00 the next morning. At the LEEIE, freight would be unloaded and transferred to HGVs at the Sizewell Halt or new rail siding and transported along Lover's Lane to the main construction area. Under the road-led strategy, rail would continue to be used in this way throughout the construction period.

3.5.2 For the rail-led and integrated strategies, the frequency of rail movements increases once the green rail route and any associated rail works are completed.

Figure 3.1: Stabling locations on the Saxmundham to Leiston branch line



3.5.3 Under the rail-led strategy, once the green rail route, passing loop, track crossover and East Suffolk line upgrades have been completed, five trains per day (ten movements) would travel along the East Suffolk line, onto the Saxmundham to Leiston branch line and directly into the main construction area without going through Leiston. The passing loop and track crossover allow these trains to travel during the day without affecting the operational passenger service on the East Suffolk line.

3.5.4 Under the integrated strategy EDF Energy anticipates that three trains per day would be utilised to deliver freight direct to the main construction area once the green rail route has been completed. This would consist of five overnight movements and one daytime movement. Overnight movements would be necessary because the main line would not have been upgraded (with the level crossing works, the passing loop and crossover etc.) to provide additional daytime train capacity.

3.5.5 **Table 3.2** summarises the differences in the proposed rail movements under the three strategies.

b) HGV management

3.5.6 Volume 1, Chapter 6 of the Stage 3 Main Consultation Document described how EDF Energy would monitor HGV deliveries and manage any incidents on the road network. All strategies would rely on an electronic web-based Delivery Management System (DMS). Under the road-led and integrated strategies, a freight management facility on the A14 is also proposed to manage HGV deliveries. Under the rail-led strategy, HGV movements (using the proposed Theberton bypass) would be limited to 7:00 to 23:00, whereas hours of use might be extended under the road-led and integrated strategies as the Sizewell link road (proposed by these two strategies instead of the Theberton bypass) takes HGVs further from residential areas. **Table 3.2** summarises the differences in the proposed HGV movements under the three strategies.

3.5.7 At Stage 3 our traffic modelling assumed that the "busiest day" for HGV construction traffic would require twice the number of HGVs required on a "typical day". However, learning from Hinkley Point C has shown that the construction of Sizewell C could reliably be delivered with fewer HGVs on the busiest day under all strategies. In this Stage 4 consultation, modelling is based on the assumption that the busiest day would require only around 1.5 times the number of HGVs required on a typical day. This is based on HGV monitoring data from Hinkley Point C reported to the Transport Review Group. This assumption has been applied to all three strategies in **Table 3.2** for the purpose of comparison.

3.5.8 An explanation of why the number of rail and HGV movements would be different under the three strategies is set out in **section 3.6**.

Table 3.2: Comparison of rail and HGV movements under the proposed freight management strategies.

Rail-led	Integrated	Road-led
Proposed rail movements		
Early years: 2 movements to and 2 movements from LEEIE per 24-hour period (i.e. 4 total movements). Overnight movements along the East Suffolk line to and from the hold points on the Saxmundham to Leiston branch line, and during the day movements along the Saxmundham to Leiston branch line from the hold points to and from the LEEIE.	Early years: 2 movements to and 2 movements from LEEIE per 24-hour period (i.e. 4 total movements). Overnight movements along the East Suffolk line to and from the hold points on the Saxmundham to Leiston branch line, and during the day movements along the Saxmundham to Leiston branch line from the hold points to and from the LEEIE.	Early years: 2 movements to and 2 movements from LEEIE per 24-hour period (i.e. 4 total movements). Overnight movements along the East Suffolk line to and from the hold points on the Saxmundham to Leiston branch line, and during the day movements along the Saxmundham to Leiston branch line from the hold points to and from the LEEIE.
When the green rail route, passing loop, crossover and East Suffolk line upgrades delivered: 10 daytime movements directly to and from the main construction area.	When the green rail route is operational: 5 overnight movements and 1 daytime movement directly to and from the main construction area.	The early years movements continue throughout the construction period: 2 movements to and 2 movements from LEEIE per 24-hour period (i.e. 4 total movements). Overnight movements along the East Suffolk line to and from the hold points on the Saxmundham to Leiston branch line, and during the day movements along the Saxmundham to Leiston branch line from the hold points to and from the LEEIE.
Proposed HGV management		
Delivery Management System (DMS).	Freight management facility on the A14 and DMS.	Freight management facility on the A14 and DMS.
HGV operation 07:00 – 23:00	HGV operation potentially over extended hours.	HGV operation potentially over extended hours.
Typical day at peak: 225 HGVs (450 movements) Busiest day: 350 HGVs (700 movements)	Typical day at peak: 325 HGVs (650 movements) Busiest day: 500 HGVs (1000 movements)	Typical day at peak: 375 HGVs (750 movements) Busiest day: 575 HGVs (1150 movements)

3.6. Explanation of the differences in infrastructure and operations between the strategies

3.6.1 In developing alternative freight management strategies, EDF Energy has been driven by the desire to maximise the use of rail infrastructure, while balancing and mitigating environmental impacts, taking into account cost and potential delivery risks.

3.6.2 All three strategies involve use of rail, to different degrees. For safety and operational reasons, there is a difference in the scale of works to the existing rail network required to enable different numbers of rail movements, overnight or during the day.

3.6.3 All freight travelling by rail would need to use the East Suffolk line, which has sections of single track railway line, without disrupting the existing passenger service. These factors significantly constrain the East Suffolk line's potential for use for freight deliveries. EDF Energy has been working with Network Rail to understand these capacity constraints and develop freight strategies that can operate within these.

3.6.4 The premise of each strategy is that:

- the movement of materials by rail under each strategy is maximised, taking into account the capacity and operational constraints in each case;
- all material that cannot be transported by rail (or the beach landing facility) must be transported by road; and
- where the impact on communities of road transport on the existing road network would otherwise be unacceptable, new bypasses, highway improvements or constraints on the timing of HGV movements are proposed.

a) Rail constraints and opportunities

3.6.5 The road-led strategy operates in the same way as the integrated and rail-led strategies in the early years, with trains travelling overnight along the East Suffolk line to holding points on the Saxmundham to Leiston branch line to the west of Leiston before travelling through Leiston to the LEEIE in the mornings. This would continue throughout the construction period under the road-led strategy and there would be a heavier reliance on HGV movements to meet peak construction needs than under the other two strategies.

3.6.6 Network Rail carried out a feasibility study of the five trains per day (ten movements) proposed under the rail-led strategy and concluded that a passing loop between Melton and Campsea Ashe and track crossover at Saxmundham would be required in order to provide additional capacity to operate within the passenger train timetable on the East Suffolk line. This rail infrastructure would allow freight trains to operate on the East Suffolk line during the daytime and pass the passenger service trains at the designated places. In order for five trains to travel on the East Suffolk line within the timetable constraints, the freight trains would have to travel up to 40mph (compared with the 20 mph restrictions currently in place). This increased speed requires upgrade works to 33 level crossings and the closure of 12 level crossings for safety and operational efficiency reasons.

3.6.7 Under the integrated strategy there would only be one daytime freight movement (running in a gap in the passenger timetable) and the five other movements would need to run along the East Suffolk line overnight. These train movements would not be subject to the same capacity constraints because they would run outside of the passenger service hours. For this reason there would be no need to increase the speed above the current 20mph: these trains would travel within the current operation controls in place on the East Suffolk line and no changes to level crossings would be necessary.

3.6.8 The green rail route would be built under both the rail-led and integrated strategies. This temporary railway line would leave the Saxmundham to Leiston branch line west of Leiston and deliver freight directly to the main construction area. In the early years of construction, when rail freight deliveries are made to LEEIE under all three strategies, the volume of freight delivered by rail would be constrained by the length of trains which could be accommodated at Sizewell Halt or a new rail siding. Following the construction of the green rail route, longer trains with more wagons could be utilised therefore maximising volumes of material per train and HGVs would not be required to transport the freight to site along Lover's Lane. Under the rail-led strategy there would be ten movements travelling along the East Suffolk line, onto the branch line and direct into site via the green rail route through the day. Under the integrated strategy there would be one movement during the day and five movements would be overnight but travelling directly from the East Suffolk line to site without being held outside of Leiston.

3.6.9 Following the construction of the green rail, no trains would travel through Leiston under the rail-led and integrated strategies, reducing the noise impact through that area.

b) Theberton bypass or Sizewell link road

3.6.10 In order to consider the highway infrastructure necessary to support delivery of freight under the three different rail scenarios, we forecast the residual road traffic movements at key locations assuming HGVs were used on the existing road network to transport all freight not capable of being accommodated by rail or the beach landing facility. Traffic modelling shows that in 2027 without Sizewell C traffic there would be 6,800 two-way vehicles daily on the B1122 through Theberton over a 24 hour period. Without any mitigation, at peak construction the forecast daily vehicles that would route through Theberton on the B1122 for the rail-led strategy would be 9,150 two-way vehicles which compares to 9,350 under the integrated strategy and 9,450 under the road-led strategy. These forecasts include general traffic as well as the Sizewell C construction traffic (i.e. cars, light goods vehicles, buses and HGVs). The noise analysis has shown that the noise impacts on Theberton from the increase in vehicular movements under all three strategies would, at times, be significant. For this reason, to avoid the impacts on Theberton, a bypass is proposed under the rail-led strategy. Bypassing Theberton is proposed under the integrated and road-led strategies for the same reason, but, given that these strategies also give rise to significant impact on Middleton Moor (discussed in **section 3.6.11**), a longer bypass, (i.e. the Sizewell link road) of both Theberton and Middleton Moor, is considered justified for the integrated and road-led strategies.

3.6.11 In Middleton Moor, traffic modelling shows that in 2027 without Sizewell C traffic there would be 4,600 two-way vehicles on the B1122. Without any mitigation, at peak construction the forecast daily vehicles that would route through Middleton Moor on the B1122 for the rail-led strategy would be 6,200 two-way vehicles which compares to 6,400 under the integrated strategy and 6,500 under the road-led strategy. The rail-led strategy would necessitate 225 HGV deliveries per day (450 two-way HGV movements); the integrated strategy would necessitate 325 HGV deliveries per day (650 two-way HGV movements); and the road-led strategy would necessitate 375 HGV deliveries per day (750 two-way HGV movements). Noise analysis shows that the resultant noise impacts are not significant in Middleton Moor at the traffic volumes created by the rail-led strategy. Consequently, the Sizewell link road is not proposed under the rail-led strategy and Sizewell C traffic would continue to use the existing B1122 through Middleton Moor under that strategy.

3.6.12 Although the integrated strategy includes a greater use of rail than the road-led strategy to deliver freight to site, it would still require a greater use of the road network than the rail-led strategy because, without upgrade works to the East Suffolk line, rail freight deliveries are more limited even with the green rail route in

place (as explained in **section 3.5**). Our noise analysis has shown that, even with fewer HGV movements than proposed under the road-led strategy, it is still likely that there would be times where there would be significant impacts on Middleton Moor. As such the Sizewell link road is proposed to mitigate these impacts.

c) Timing and quantity of HGVs

3.6.13 Through the early years for the rail-led and integrated strategies, before the green rail route has been delivered, the freight brought by train to the LEEIE would be transported to the main construction site via HGVs. Once the green rail route has been built, there would be an average of 225 HGV deliveries per day at peak construction, with 350 HGV deliveries on the busiest day under the rail-led strategy. Under the integrated strategy there would be an average of 325 HGV deliveries per day at peak with 500 on the busiest day.

3.6.14 The road-led strategy includes two freight trains delivering freight to the LEEIE to be transported to site via HGV throughout the construction period. At peak construction there would be an average of 375 HGV deliveries per day, with 575 on the busiest day.

3.6.15 Under the rail-led strategy, where a bypass of Theberton alone is proposed, our assessments show that limiting HGV movements to between 07:00 and 23:00 would be necessary to avoid unacceptable noise and vibration impacts to residents along the A12 in Yoxford and the B1122 in Middleton Moor and Theberton. The Sizewell link road proposed under the road-led and integrated strategies would result in a reduction in noise and vibration impacts affecting these residents. This mitigation may allow the hours of operation of HGVs to be extended under these strategies without significant impact on residents. However, we are carrying out further noise assessments to understand the impacts of extended hours on these areas ahead of our application for development consent.

d) Freight management facility

3.6.16 As explained at Stage 3, a freight management facility is proposed under the road-led strategy to manage the additional HGVs along the A14. Under the integrated strategy this freight management facility would also be proposed. The lower number of HGVs required for the rail-led strategy could effectively be managed using the electronic web-based DMS. For this reason, the freight management facility is not proposed as part of the rail-led strategy.

3.7. Why are we considering an integrated strategy?

3.7.1 EDF Energy believes that rail should play an important role in the delivery of freight during construction and has explained this through each stage of formal consultation. This belief has driven the development of our freight management strategy from the start and has been maintained as the strategies have developed and more information has come to light. We have looked for opportunities to maximise the use of rail whilst considering the capacity restrictions on site, the types and quantities of freight needed at different times and the reliability of delivery.

3.7.2 The Government's overarching National Policy Statement for Energy states that rail transport is preferred to road transport at all stages of the Project where cost-effective (para 5.13.10, NPS EN-1 Ref 4.1).

3.7.3 In response to the Stage 3 consultation, Suffolk County Council (SCC) and Suffolk Coastal District Council (now East Suffolk Council) submitted a joint response. While preferring a marine-led strategy overall, between the road-led and rail-led strategies, both local authorities expressed support for the rail-led strategy, emphasising their support for 'sustainable' modes of transport. However, they acknowledged the difficulties of introducing additional rail movements to the existing rail network without impacting passenger trains or the economy of East Suffolk. In developing our proposals, we are aware that it is a priority of Network Rail not to impact the passenger services or the use of rail in the economy of East Suffolk. The local authorities also acknowledged the number of level crossing closures and upgrades along the East Suffolk line that would be necessary under the rail-led strategy.

3.7.4 The public demonstrated a clear preference for the rail-led strategy through their feedback at Stage 3. Many responses commented on the lower number of HGVs required under a rail-led option, and the associated emissions, as the reason for their preference. The impact on the local road network, especially the A12, was a concern, in part because of the impact of congestion on tourists and local residents.

3.7.5 As the Project progresses towards submitting the application for development consent, we are developing our construction programme based on learning from Hinkley Point C, input from potential contractors, and technical developments. Any uncertainty on programme for delivery of crucial rail infrastructure makes it difficult for EDF Energy to develop a reliable construction programme for the Project or provide Government or potential investors with assurance on the expected completion of construction and ultimately when

Sizewell C could start generating low-carbon energy. This is a concern in particular given the Government's policy position that new nuclear power is needed "*urgently*" (see **Chapter 1, section 1.2**). The earliest delivery of Sizewell C would also realise the public benefits of the Project including the direct employment benefits and estimated £4 billion impact on the regional economy and the contribution to meeting climate change targets.

3.7.6 Certainty is important. Given the scale of the investment necessary and the need to be able to rely on a clear, deliverable programme, EDF Energy, contractors, and investors will need to know as far as practicable when key infrastructure can be expected to be in place. A lack of timely delivery, or even the uncertainty that would be caused by a lack of confidence in the delivery plans could have severe impacts on costs, the length of the construction period and on communities (if the necessary mitigation is not in place by the time the principal Project impacts are felt).

3.7.7 Over the last six months, Network Rail has carried out further assessments of the estimated programme and cost of the additional rail infrastructure and works required for the rail-led strategy. In their Stage 3 consultation response, Network Rail stated that they have identified a number of risks to implementing the full infrastructure required for the rail-led strategy that could potentially impact on the programme for their delivery. In particular, they identified that completing the detailed design work and construction works along the East Suffolk line within EDF Energy's construction programme would be challenging.

3.7.8 At this stage Network Rail is unable to give EDF Energy any assurances on the programme for the works on the East Suffolk line. As these rail works are crucial for the safe and effective operation of freight delivery to site under the rail-led strategy, any delay in their completion would have an impact on the delivery of the rest of the Project. Due to their obligations as a statutory undertaker with responsibilities across the whole rail network, Network Rail will not be able to commit to a definitive programme, even after conducting further assessments. Neither would Network Rail accept liabilities for delay in construction. The Office of Rail and Road has also recognised the challenges of delivering rail for key infrastructure projects in part due to this uncertainty (Ref 4.2).

3.7.9 These concerns led EDF Energy and Network Rail to explore alternative ways to use rail to deliver freight to site while reducing the risk of programme delays to the Project.

3.7.10 Network Rail has recently concluded an updated capacity study of the East Suffolk line and Saxmundham to Leiston branch line. This revealed that there is now a gap in the passenger timetable that would allow for an additional train path along the rail network during the day without impacting the existing passenger service. Historically this train path was used by Sizewell A to transport nuclear fuel to and from the operational power station. As Sizewell A has entered the decommissioning phase it no longer requires use of this path.

3.7.11 The additional path would allow one freight train movement during the day on the East Suffolk line. Our analysis showed that with the addition of five overnight movements and construction of the green rail route, the delivery of freight by rail at peak construction could be maximised while avoiding the need to be reliant on upgrade works to the East Suffolk line (which as explained gives rise to a programme risk). While works to the Saxmundham to Leiston branch line would be required for each strategy, the scale and nature of these works is much less likely to give rise to delays, in part because the branch line is unused by passenger services. EDF Energy is also exploring with Network Rail the possibility that EDF Energy could carry out all works to the branch line, rather than Network Rail. This would give EDF Energy a higher degree of control over the programme for delivery of these works. This possibility does not exist on the East Suffolk line (if the rail-led strategy were pursued) given operational and safety issues associated with its passenger use.

3.7.12 By bringing forward the maximum scale of rail use that can confidently be delivered but also putting in place the road infrastructure to relieve impacts on the B1122 communities (as well as a freight management facility to regulate HGV movements), the integrated strategy may offer the optimum deliverable freight management strategy for the Project.

3.8. Environmental impacts of an integrated strategy

3.8.1 PEI for the road-led and rail-led strategies is provided in Volumes 2 and 3 of the Stage 3 Main Consultation Document. Volume 2 of the Stage 3 Main Consultation Document includes a comparison of the potential environmental effects of the two strategies at the end of each chapter. As the integrated strategy is made up of components from the road-led and rail-led strategies, this section describes the potential environmental effects under the integrated strategy in comparison to the other two strategies.

a) Preliminary environmental information for the integrated strategy

3.8.2 The integrated strategy is made up of infrastructure which is also proposed under the road-led and rail-led strategies. At Stage 3 we presented the PEI for each proposed infrastructure element. This included a description of the baseline, any environmental design or embedded mitigation, a preliminary assessment of effects, any additional mitigation required, and a preliminary assessment of any residual effects throughout the construction and operational phases of each development. **Table 3.3** shows where PEI which is relevant to the individual elements of the integrated strategy can be found in the Stage 3 Main Consultation Document, and any relevant differences in environmental effects under the integrated strategy.

Table 3.3: PEI for the integrated strategy

Elements of the Project under the integrated strategy	Environmental impacts of each element of the Project under the integrated strategy
Main development site	During the construction phase, under the integrated strategy, the number of train movements to the main development site would be less than those predicted to occur under the rail-led strategy but greater than under the road-led strategy. In addition, train movements would occur overnight, once the green rail route has been constructed. Therefore, whilst the worst-case air quality and noise effects associated with the day-time movements of trains under the integrated strategy would be less than the effects that are likely to occur under the rail-led strategy as presented in Volume 2A, Chapter 2 of the Stage 3 Main Consultation Document, additional significant noise effects may occur due to night-time train movements on the green rail route. There would be fewer HGVs travelling to and from the main development site than proposed under the road-led strategy but more than proposed under the rail-led strategy. Therefore, the worst-case air quality and noise and vibration effects associated with the movement of HGVs under the integrated strategy would be less than the effects that would occur under the road-led strategy as presented in Volume 2A, Chapter 2 of the Stage 3 Main Consultation Document. All other environmental impacts of the construction of the main development site would be the same as presented for the assessment under the rail-led strategy in Volume 2A, Chapter 2 of the Stage 3 Main Consultation Document. The operational impacts would be the same under all three strategies and are presented in Volume 2A, Chapter 2 of the Stage 3 Main Consultation Document. Changes to the preliminary environmental information (PEI) presented at Stage 3 as a result of other scheme changes at the main development site included in this Stage 4 consultation are described in **Chapter 5**, **section 5.13** of this document.
Green rail route	Under the integrated strategy, the green rail route would be constructed in the same way as under the rail-led strategy. Therefore, all of the environmental impacts for the construction of the green rail route under the integrated strategy would be the same as presented in Volume 2A Chapter 3 of the Stage 3 Main Consultation Document. Once the green rail route is operational there would be fewer train movements along the green rail route compared to the rail-led strategy, however some of these would be overnight movements. Therefore, under the integrated strategy, there is the potential for additional significant noise effects on sensitive receptors close to the green rail route due to the overnight rail movements than presented for the operation of the green rail route under the rail-led strategy. All other environmental impacts of the integrated strategy of the green rail route would be the same as presented for the operational assessment under the rail-led strategy in Volume 2A, Chapter 3 of the Stage 3 Main Consultation Document. The green rail route is not proposed under the road-led strategy, therefore, potential impacts associated with the construction and operation of the green rail route would not occur. Not included in Stage 4 PEI, as there were no design or red line boundary changes to the green rail route.
East Suffolk line upgrades including the passing loop etc.	Under the integrated strategy, upgrades to the East Suffolk line and the additional rail infrastructure would not be required. Therefore, the potential environmental impacts associated with the construction of the upgrades as identified in Volume 2A, Chapter 4 of the Stage 3 Main Consultation Document under the rail-led strategy, would not occur. For the rail operations during the construction of Sizewell C, there would be the same number of train movements on the than East Suffolk line under all three strategies in the early years. Therefore, the environmental impacts of the operation of the branch line in the early years presented in Volume 2A, Chapter 4 of the Stage 3 Main Consultation Document would be the same under the integrated strategy. Once the green rail route is operational, under the integrated strategy, there would be more train movements on the East Suffolk line than under the road-led strategy but fewer than under the rail-led strategy. However, under the integrated strategy, these would be predominantly overnight movements and therefore, there is a potential for significant noise effects overnight on sensitive receptors. All other environmental impacts associated with the operation of the East Suffolk line would be the same as presented for the rail-led strategy in Volume 2A Chapter 4 of the Stage 3 Main Consultation Document. Not included in Stage 4 PEI, as there were no design or red line boundary changes to the East Suffolk line.

Elements of the Project under the integrated strategy	Environmental impacts of each element of the Project under the integrated strategy
Saxmundham to Leiston branch line	The upgrade works on the Saxmundham to Leiston branch line are proposed under all three strategies. Therefore, all of the environmental impacts for the construction works associated with the upgrades to the Saxmundham to Leiston branch line under the integrated strategy would be the same as under the road-led and rail-led strategies presented in Volume 2A, Chapter 4 of the Stage 3 Main Consultation Document. Under the integrated strategy, the number of trains that would run on the Saxmundham to Leiston branch line would be the same as the road-led and rail-led strategies in the early years. Therefore, the environmental impacts of the operation of the branch line in the early years presented in Volume 2A, Chapter 4 of the Stage 3 Main Consultation Document would be the same under the integrated strategy. However, once the green rail route is operational, under the integrated strategy (the same as under the rail-led strategy) there would be no train movements through Leiston as proposed under the road-led strategy. There would be fewer train movements along the Saxmundham to Leiston branch line between Saxmundham and the green rail route than under the rail-led strategy but these would be predominantly overnight movements. Therefore, the potential noise effects through Leiston would be less than under the road-led strategy, but there is a potential for additional significant noise effects on nearby sensitive receptors than the rail-led strategy because of the increased overnight movements. All other environmental impacts associated with the operation of the Saxmundham to Leiston branch line would be the same as presented for the rail-led strategy in Volume 2A Chapter 4 of the Stage 3 Main Consultation Document. Changes to the PEI presented at Stage 3 as a result of changes to Saxmundham to Leiston branch line included in this Stage 4 consultation, are described in **Chapter 6, section 6.2** of this document.
Sizewell link road	Under the integrated strategy, the Sizewell link road would be constructed in the same way as under the road-led strategy. Therefore, all of the environmental impacts for the construction of the Sizewell link road under the integrated strategy would be the same as presented in Volume 2A Chapter 5 of the Stage 3 Main Consultation Document. Once the Sizewell link road is operational, there would be fewer HGVs travelling along this road under the integrated strategy compared to the road-led strategy. Therefore, the associated traffic noise impacts and emissions to air would be less than for the road-led strategy, as presented in Volume 2A Chapter 5 of the Stage 3 Main Consultation Document. All other environmental impacts associated with the operation of the Sizewell link road would be the same as presented in Volume 2A Chapter 5 of the Stage 3 Main Consultation Document. The Sizewell link road would not be built under the rail-led strategy and therefore, potential construction and operational impacts associated with the Sizewell link road in its entirety would not occur under the rail-led strategy. Changes to the PEI presented at Stage 3 as a result of changes to Sizewell link road included in this Stage 4 consultation, are described in **Chapter 6, section 6.3** of this document.
Theberton bypass	The Theberton bypass would only be built on its own under the rail-led strategy. Under the road-led and integrated strategies, Theberton bypass would form part of the Sizewell link road. However, as the design of the Theberton bypass is similar under all three strategies,-the likely impacts of construction would occur under all three strategies. Once the Theberton bypass is operational (as part of the Sizewell link road), there would be fewer HGVs travelling along this road under the integrated strategy compared to the road-led strategy but more than under the rail-led strategy. Therefore, the associated traffic noise impacts and emissions to air would be less than under the road-led strategy utilising the Sizewell link road but greater than the under the rail-led strategy, as presented in Volume 2A Chapter 6 of the Stage 3 Main Consultation Document. All other environmental impacts associated with the operation of the Theberton would be the same as under the Sizewell link road presented in Volume 2A Chapter 6 of the Stage 3 Main Consultation Document. Changes to the PEI presented at Stage 3 as a result of changes to Theberton bypass included in this Stage 4 consultation, are described in **Chapter 6, section 6.4** of this document.
Two village bypass	The two village bypass would be constructed in the same way under all three freight management strategies. Therefore, all of the environmental impacts for the construction of the two village bypass under the integrated strategy would be the same as presented in Volume 2B, Chapter 7 of the Stage 3 Main Consultation Document. Once the two village bypass is operational, there would be fewer HGVs travelling along the A12 and the two village bypass under the integrated strategy compared to the road-led strategy, however a greater number compared to the rail-led strategy. Therefore, the associated traffic noise impacts and emissions to air would be less than for the road-led strategy but greater than for the rail-led strategy. All other environmental impacts associated with the operation of the two village bypass would be the same as presented in Volume 2B Chapter 7 of the Stage 3 Main Consultation Document. Changes to the PEI presented at Stage 3 as a result of design changes to two village bypass included in this Stage 4 consultation, are described in **Chapter 6, section 6.5** of this document.
Northern park and ride	The northern park and ride would be constructed and operated in the same way under all three freight management strategies. Therefore, all of the environmental impacts for the construction and operation of the northern park and ride under the integrated strategy, would be the same as presented in Volume 2B, Chapter 8 of the Stage 3 Main Consultation Document. Changes to the PEI presented at Stage 3 as a result of design changes to the northern park and ride included in this Stage 4 consultation, are described in **Chapter 6, section 6.6** of this document.

Elements of the Project under the integrated strategy	Environmental impacts of each element of the Project under the integrated strategy
Southern park and ride	The southern park and ride would be constructed and operated in the same way under all three freight management strategies. Therefore, all of the environmental impacts for the construction and operation of the southern park and ride under the integrated strategy, would be the same as presented in Volume 2B, Chapter 9 of the Stage 3 Main Consultation Document. Changes to the PEI presented at Stage 3 as a result of changes to the southern park and ride included in this Stage 4 consultation, are described in **Chapter 6, section 6.7** of this document**.**
Freight management facility	Under the integrated strategy, a freight management facility would be constructed and operated in the same way as under the road-led strategy. Therefore, all of the environmental impacts for the construction and operation of a freight management facility under the integrated strategy would be the same as presented in Volume 2B, Chapter 9 of the Stage 3 Main Consultation Document. A freight management facility is not proposed under the rail-led strategy, therefore, the potential impacts associated with the construction and operation of a freight management facility would not occur. Changes to the PEI presented at Stage 3 as a result of design changes to the freight management facility included in this Stage 4 consultation, are described in **Chapter 6, section 6.8** of this document**.**
Other highways improvements including Yoxford roundabout	The Mill Street improvement would not be required under the integrated strategy, unlike the rail-led strategy. Therefore, the construction and operation impacts of this highway improvement would not occur under the integrated strategy. All other highway improvements are proposed under all three strategies therefore the environmental impacts associated with their construction under the integrated strategy would be the same as presented in Volume 2B, Chapters 11 and 12 of the Stage 3 Main Consultation Document. As the integrated strategy would utilise fewer HGVs than the road-led strategy but more than the rail-led strategy, the air quality and noise and vibration impacts would be no worse than those presented for the road-led strategy. All other environmental impacts associated with the operation of other highway improvements would be the same as presented in Volume 2B Chapters 11 and 12 of the Stage 3 Main Consultation Document. Changes to the PEI as a result of changes to the other highway improvements included in this Stage 4 consultation are described in **Chapter 6, sections 6.9** and **6.10**.

b) Environmental effects of the integrated strategy compared against the road-led and rail-led strategies

3.8.3 The proposed Sizewell link road would reduce traffic along the B1122 and therefore have a beneficial noise effect to both Middleton Moor and Theberton. This would be an improvement compared to the rail-led strategy where Middleton Moor would not be bypassed. Noise impacts associated with the operation of the Sizewell link road under the integrated strategy would be less than those predicted for the road-led strategy, and are predicted not to be significant with the provision of screening as appropriate.

3.8.4 Along the A12, the road traffic and associated noise impacts under the integrated strategy would be less than under the road-led strategy, but greater than the rail-led strategy. The proposed two village bypass is common to all options and would reduce traffic through Stratford St Andrew and Farnham under all three strategies. Noise impacts associated with the operation of the two village bypass under the integrated strategy would be less than those predicted for the road-led strategy, and are not predicted to be significant with the provision of screening as appropriate.

3.8.5 Traffic noise impacts on the wider highway network would be less for the integrated strategy than for the road-led strategy, but greater than for the rail-led strategy. Further modelling and assessment is being undertaken to fully understand the potential impact of traffic noise across the network, and if any further mitigation is required.

3.8.6 Under the integrated strategy, once the green rail route is operational, there would be up to three train deliveries (six rail movements) per day to the main development site. Five of these trains would operate at night, and could have significant noise impacts on properties close to the green rail route, Saxmundham to Leiston branch between Saxmundham and the green rail route, and on the East Suffolk line. This is greater than both the road-led and rail-led strategies because it introduces more overnight movements.

3.8.7 Preliminary assessment work indicates that properties close the green rail route on Abbey Road are likely to experience significant adverse noise effects at night, similarly on the existing branch line between Saxmundham and the western end of the proposed green rail route at the two closest receptors: Kelsale Covert and Westhouse Crossing Cottage.

3.8.8 To the west of Saxmundham junction, along the East Suffolk line north of Westerfield Junction, the passenger service operates between 06:00 and 23:00 with the occasional Network Rail maintenance train operating outside of these hours. The existing Felixstowe Branch Line joins the East Suffolk Line at Westerfield junction, freight trains currently run on the Felixstowe Branch Line and the East Suffolk line to the west and south of this junction. North of this, up to Saxmundham, the overnight movements from the freight trains associated with the construction of Sizewell C are predicted to give rise to significant adverse noise effects from train movements at night on properties close to the line in Martlesham, Woodbridge, Melton, Wickham Market and Saxmundham. Further modelling and assessment is being undertaken to fully understand the potential impact of these rail movements. If this assessment shows that noise from the train movements would reach levels that would require noise insulation, EDF Energy would offer noise insulation to the affected properties.

3.9. Which freight management strategy?

3.9.1 We consider that the integrated strategy could be suitable for freight delivery for the Project. However, we would welcome your feedback before we decide which is the most appropriate of the three strategies consulted on to include in our application for development consent.

3.9.2 In assessing the merits of the three options, it is important to have regard to the physical infrastructure and level of HGV movements proposed for each option as set out in **Figure 3.2**.

3.9.3 The integrated strategy involves elements of both the road-led and rail-led strategies. The key advantages and disadvantages of the integrated strategy are set out in **Table 3.4.**

3.9.4 **Table 3.5** draws out the advantages and disadvantages of the three alternative strategies to capture the principal points of comparison.

Figure 3.2: Freight management strategy options

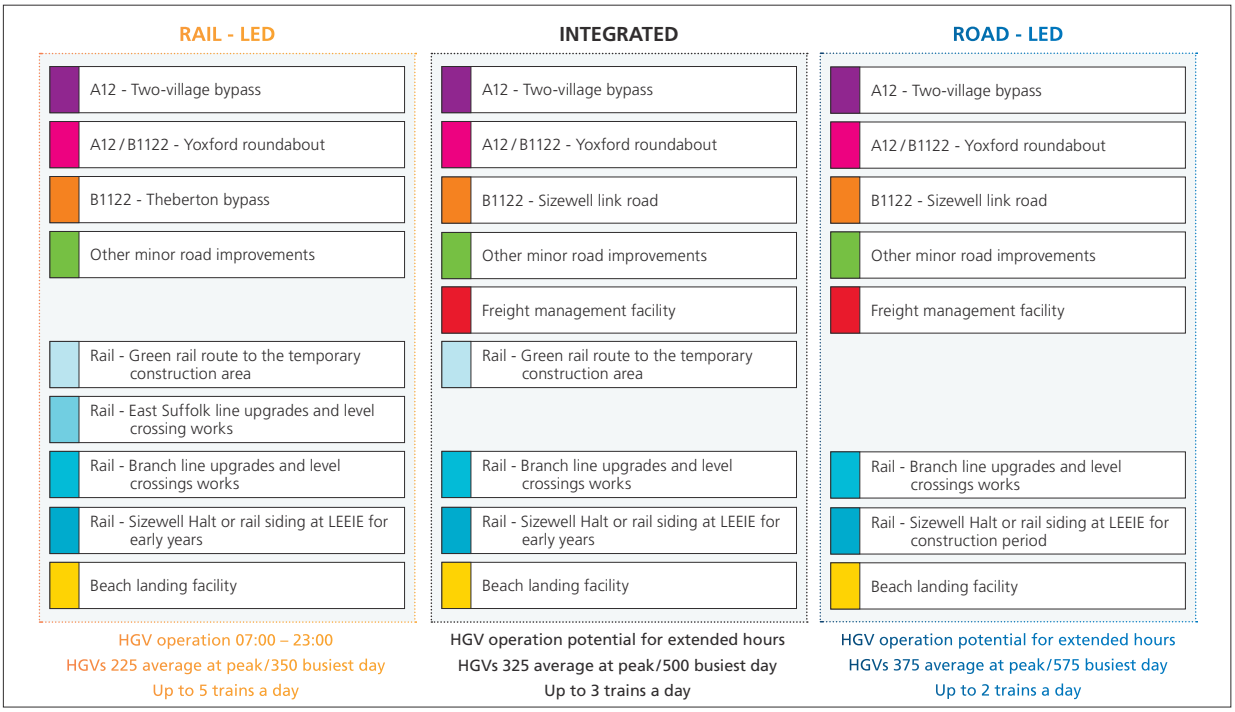


Table 3.4: Key advantages and disadvantages of the integrated strategy

Advantages	Disadvantages
Construction would be more within EDF Energy's control providing greater certainty of the Project programme being met and the necessary mitigation being in place in accordance with the programme than under the rail-led strategy.	There would be no East Suffolk line legacy benefits (e.g. passing loop) which would improve reliability and capacity of the main line rail network in the longer term.
No requirement to close and divert 12 level crossings and carry out upgrade works to 33 level crossings on the East Suffolk line.	The construction and later removal of the green rail route would have temporary environmental effects. These include effects on the setting of Leiston Abbey, already impacted by the temporary construction area to the east, and potentially additional effects on great crested newts and bats. These effects would be the same as for the rail-led strategy.
Abbey Road level crossing would only be used once during the daytime, unlike under the rail-led strategy, which would require closures 10 times during the day time.	There would be overnight train movements on the western end of the Saxmundham-Leiston branch line before trains join the green rail route.
Lower HGV impacts than the road-led strategy on Lover's Lane as more freight would be carried by rail directly into site once the green rail route is operational (as for the rail-led strategy).	The Sizewell link road would have environmental effects and an impact on more land owners than the Theberton bypass under the rail-led strategy. These adverse effects could include effects on great crested newts and bats but would be the same as for the road-led strategy.
Lower HGV impacts on the A12 and local road network than the road-led as more freight would be carried by rail directly into site.	Higher HGV impacts on the A12 than the rail-led strategy, except through Yoxford. However, the impacts and volumes of HGVs would be lower than under the road-led strategy.
Noise, air quality and road network improvements to Theberton and Middleton Moor as the Sizewell link road would remove Sizewell C and some existing traffic. This is the same as road-led strategy, whereas the rail-led strategy benefits only Theberton rather than the full B1122 corridor.	
Yoxford traffic impacts are significantly lower than in the rail-led strategy, including the complete removal of all Sizewell C HGV and buses because of the Sizewell link road. The impacts are also lower than for the road-led strategy as fewer HGVs would be used.	
Reduces impacts on B1122, B1119 and B1121 routes as some traffic chooses to use the Sizewell link road instead.	

Table 3.5: Advantages and disadvantages of the alternative freight management strategy options

Advantages

	Rail-led	Integrated	Road-led
Construction mostly under EDF Energy's control providing greater certainty of delivery to meet the Project programme and deliver timely mitigation.	N	Y	Y
Green rail route constructed allowing freight to be delivered directly to the main construction area.	Y	Y	N
Green rail route constructed removing trains travelling through Leiston.	Y	Y	N
Reduced traffic impacts on Lover's Lane as no HGVs travelling to/from LEEIE transporting freight to site after the early years of construction.	Y	Y	N
Reduced requirement to use Abbey Road level crossing during the day time.	N	Y	Y
No overnight movements on the East Suffolk line after the early years of construction.	Y	N	N
East Suffolk line upgrades would increase line capacity, creating a legacy.	Y	N	N
Noise, air quality and road network improvements to Theberton as traffic moved to Theberton bypass or Sizewell link road.	Y	Y	Y
Noise, air quality and road network improvements to Middleton Moor as Sizewell C and some existing traffic moved to Sizewell link road.	N	Y	Y
Reduced Sizewell C traffic impacts in Yoxford.	N	Y	Y
Comprehensively responds to the call for direct mitigation for all the communities along the B1122.	N	Y	Y

Disadvantages

	Rail-led	Integrated	Road-led
Reliant on Network Rail to deliver infrastructure in challenging timescales.	Y	N	N
Adverse environmental effects, particularly noise and amenity loss from the East Suffolk line improvements including the closure and diversion of 12 and upgrade works to 33 level crossings.	Y	N	N
Adverse environmental effects of the construction, operation and removal and reinstatement of the green rail route.	Y	Y	N
Adverse environmental effects and impact on more land owners of the construction and operation of the western 4.2km of the Sizewell link road.	N	Y	Y
Higher HGV impacts on the A12, except through Yoxford.	N	Y	Y
Some rerouting of existing traffic to B1069, B1078, A1120 and A143 as alternatives to the A12 due to more HGVs.	N	Y	Y
Traffic impacts on Lover's Lane from HGVs transporting freight to/from LEEIE after the early years	N	N	Y

3.10. Next Steps

3.10.1 EDF Energy will continue discussions with SCC to review any updates to the traffic modelling which inform our freight management proposals and will carry out further specific analysis as required with input from SCC. We are also continuing discussions with Network Rail to develop our rail proposals.

3.10.2 We will continue to work closely with Network Rail to develop the required infrastructure proposals and upgrades to help inform our decision on which freight management strategy to take forward to our application for development consent. The Governance for Railway Investment Projects (GRIP) is the process used by Network Rail to deliver infrastructure projects on the rail network. The next stage of the process, GRIP stage three, will commence during 2019 and will focus on option selection followed by option development, including detailed design.

3.10.3 Following analysis of the Stage 3 and Stage 4 consultation responses as well as further technical and environmental assessments, EDF Energy will decide which freight management strategy to take forward into its application for development consent. All necessary measures to control and mitigate the impact of rail and HGV movements will be taken into account in the assessment of environmental impacts presented as part of the application. EDF Energy will identify any necessary commitment and controls within its application for development consent, and comply with those imposed on any consent granted by the Secretary of State.

3.10.4 This will determine the modelling inputs, including freight mode split for the relevant strategy in order to inform the transport assessment for the application for development consent. All necessary measures to control and mitigate the impact of rail and HGV movements will be taken into account in the assessment of environmental impacts presented as part of the application, and EDF Energy would commit to relevant measures as part of any consent granted by the Secretary of State.

4. TRAFFIC MODELLING

4.1. Introduction

4.1.1. In order to assess the likely traffic effects of the Project, EDF Energy has modelled the potential effects of each of the three alternative freight management strategies. The modelling shows what the expected levels of traffic would be at particular points of time at different parts of the road network.

4.1.2. EDF Energy has developed a VISUM[1] traffic model of the local road network (refer to **Figure 4.1**). A 'base model' which aims to replicate the existing conditions on the local road network was produced and has gone through a process of calibration and validation so that the model gives a good reflection of observed traffic conditions. Expected general traffic growth and traffic associated with other 'committed developments' (major developments with planning permission but not yet built) are then added to the base traffic model, along with any known transport improvements associated with these or other schemes. This allows EDF Energy to estimate the future conditions on the road network without Sizewell C: the 'reference case' model. A reference case model has been produced for two forecast years, to enable assessment of different phases of construction:

- 2022 – early years construction phase, which would comprise a smaller construction workforce but before any principal mitigation has been put in place; and
- 2027 – peak construction period, which would comprise the peak construction workforce and the completed mitigation measures described in Volume 2 of the Stage 3 Main Consultation Document.

4.1.3. To examine the likely effects of the development on the road network, the forecast traffic generated by the Project is added to the two reference case models.

4.1.4. As the integrated strategy would operate in the same way as the road-led and rail-led strategies in the early years, the likely traffic effects are also the same. The early years modelling assumptions and likely effects of the Project would be as described in sections 6.5 and 6.6, Volume 1, Chapter 6 of the Stage 3 Main Consultation Document. The results of the early years modelling are therefore not repeated here. However, we would encourage you to review these sections of Stage 3 if you would like further information.

4.1.5. This chapter includes estimates of the additional traffic that the Project would generate during the period of peak construction under the integrated strategy. The modelling under road-led and rail-led strategies has also been repeated here to assist with the comparison. The period of peak construction is when the maximum number of construction workers would be on-site and is anticipated to be in the middle of the construction phase, assumed to be around 2027 for the purposes of the transport modelling, and to last one to two years. For robustness, we have assumed that the maximum number of workers would coincide with the peak number of Heavy Goods Vehicle (HGV) movements.

This chapter is structured as follows:

- **section 4.2** summarises the traffic conditions on the future highway network without the Project so that the effects of Sizewell C's construction and operational traffic can be assessed against it;
- **section 4.3** sets out the inputs to the peak construction traffic modelling and how they differ for each strategy; and
- **sections 4.4** to **4.11** describe the assessment of the effects of construction traffic during the peak construction phase comparing the three freight management strategies.

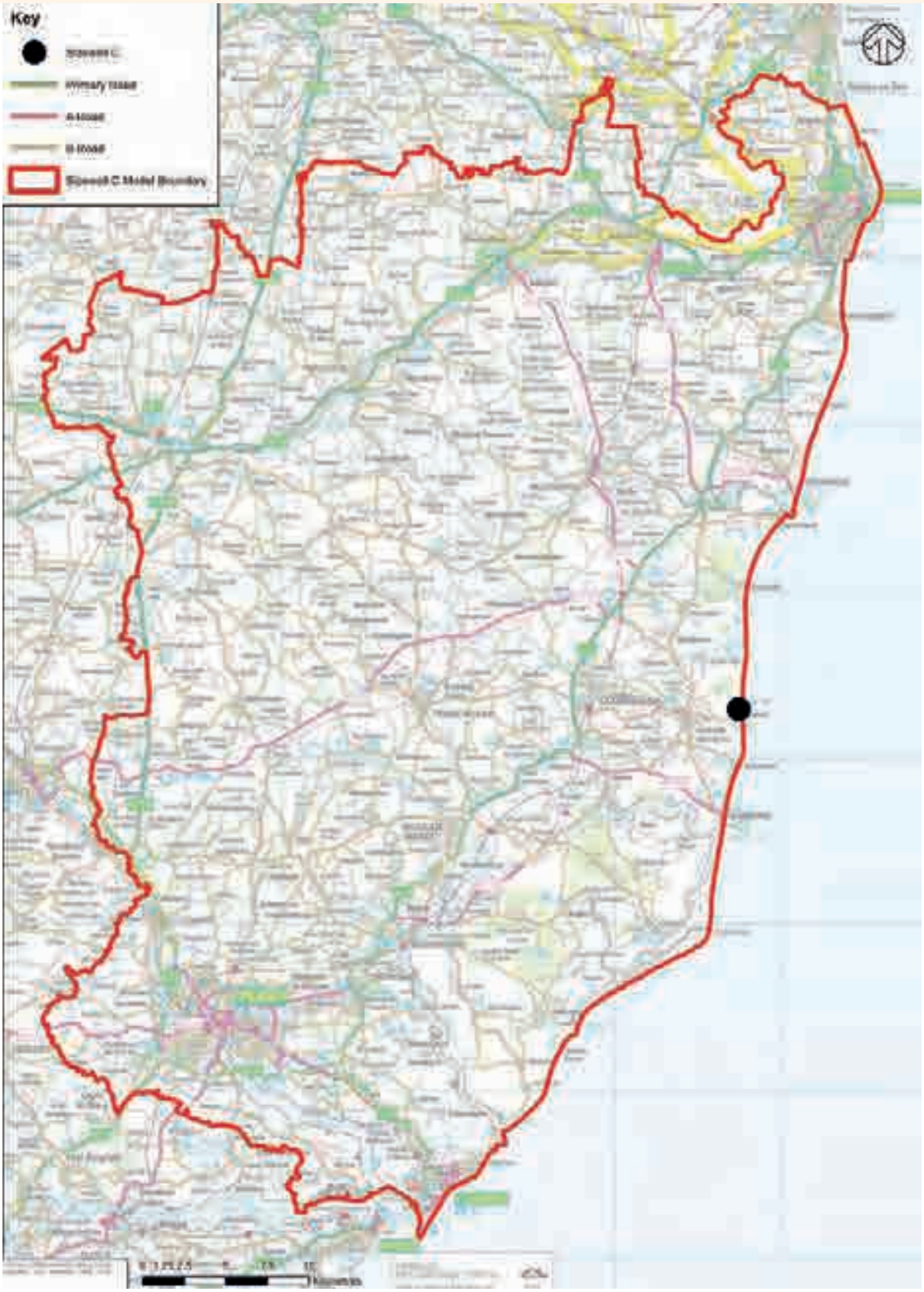
4.2. 'Without Sizewell C' traffic modelling

4.2.1. Since EDF Energy started modelling the traffic in the study area, the model has developed and been refined to improve the accuracy and reliability of the assessments it produces. As new developments have been committed, their impact on the study area has been included in the VISUM model. Analysis of how the traffic in the study area is likely to increase without Sizewell C has been carried out and discussed with Suffolk County Council (SCC).

4.2.2. The assumption at Stage 3, and not changed at this Stage 4 consultation is that peak construction would occur around the year 2027. A VISUM traffic model has been developed for the purposes of assessing Sizewell C traffic effects. VISUM is an industry standard software package used for transport modelling and is widely used in transport studies. The study area and modelled network for the VISUM model has been agreed with SCC and remains the same as that shown at Stage 2 and Stage 3: it extends to Lowestoft to the north, Ipswich to the south and the A140 to the west. The geographic extent of the model is shown in **Figure 4.1**.

1 VISUM is a widely used transport modelling platform developed by PTV VISION. More information on the model and methodology is provided in Volume 1, Chapter 6 of the Stage 3 Main Consultation Document

Figure 4.1: Geographic extent of the Sizewell C VISUM traffic model



4.2.3. In order to obtain the most reliable forecasts from the VISUM model, EDF Energy has considered how other factors affect the traffic levels on the road network in the reference case. EDF Energy has worked closely with SCC to ensure that there is a high level of agreement on the development of the transport modelling. The evolution of these considerations is described in section 6.2, Volume 1, Chapter 6 of the Stage 3 Main Consultation Document and they have not changed for this Stage 4 consultation. but there are two points are of particular note explained below.

a) Modelled time periods

4.2.4. The modelled time periods are:

- 06:00 to 09:00 hours in the weekday morning period: For robustness, this uses the average of Monday to Thursday morning traffic data because analysis has indicated that these periods are consistently busier than Friday mornings; and
- 15:00 to 19:00 hours in the weekday afternoon/evening period: Conversely, this uses the average of Friday traffic data because analysis has indicated that Friday afternoon and early evening traffic is consistently the busiest of the week and higher than in any other "neutral" month[2] weekday or weekend period.

b) Sizewell B outage

4.2.5. An 'outage' is performed periodically (typically over a six week period every 18 months) at Sizewell B, during which periods traffic flows in the area are higher than usual. So that the future year assessments are robust, trips generated by these periodic Sizewell B outages have been incorporated in all future year (for the reference case and with Sizewell C development) modelling scenarios. This is a robust assessment since there is no outage taking place for about 90% of the time and traffic flows would be lower than have been modelled during these periods.

4.3. Traffic modelling of the Sizewell C peak construction phase

4.3.1. The assumption in Stage 3 and this Stage 4 is that peak construction would occur around the year 2027. The traffic modelling assessment has been based on a workforce of 7,900 construction workers at peak and 600 associated development operational workers. This section sets out the key input parameters which have been used to generate the assessments of Sizewell C construction traffic on weekdays at peak construction. The figures are shown for the typical and busiest day under the integrated strategy and compared with the typical and busiest days under rail-led and road-led.

4.3.2. The only difference to the modelling presented at Stage 3 is that we have varied the assumption used for the number of HGVs needed on the busiest day compared with a typical day under each strategy. At Stage 3 it was assumed that the busiest day would require twice the number of HGVs on a typical day. However, learning from Hinkley Point C has shown that the construction of Sizewell C could reliably be delivered with fewer HGVs on the busiest day. In this Stage 4 consultation it is assumed that the busiest day would require around 1.5 times the number of HGVs required on the typical day. This assumption has been applied to all three strategies. Modelling under the road-led and rail-led strategies referring to the busiest day is therefore different to what was shown at Stage 3 in this respect.

4.3.3. The input parameters used for the modelling are collated in **Table 4.1** for ease of reference. The only difference between the assessments is the number of HGVs per day and the level of mitigation on the B1122, which can be summarised as follows:

- **Rail-led strategy**: Theberton bypass
  - bypassing Theberton and connecting with the B1122 to the east and west of Theberton.
- **Integrated strategy**: Sizewell link road
  - bypassing Theberton and Middleton Moor, and connecting with the A12 to the south of Yoxford.
- **Road-led strategy**: Sizewell link road
  - bypassing Theberton and Middleton Moor, and connecting with the A12 to the south of Yoxford.

2 A month avoiding main and local holiday periods, local school holiday and other abnormal traffic periods.

Table 4.1: Main input parameters relating to Sizewell C peak construction traffic

Issue	Input Parameter
Assessment construction workforce (basis for traffic modelling)	7,900
Associated development operational workers	600
Residential location of workforce	Based on Gravity Model
Working patterns of the construction workforce	Unchanged from Stages 2 and 3
Size of development site accommodation campus	2,400 on campus, plus 400 caravans on Land east of Eastlands Industrial Estate (LEEIE) (1.5 people per caravan, so 600 workers)
Frequency of shuttle buses from LEEIE (caravan site) to main site	12 buses from LEEIE to main site at 07:30, and returning at 17:00
Frequency of park and ride buses	Three to nine buses from northern and southern park and ride sites per hour during staff changeover periods, hourly service outside staff changeover periods
Frequency of direct buses from Ipswich and Lowestoft	Half hourly during staff changeover periods, four to eight buses per hour from Leiston plus hourly shuttle bus from Saxmundham station
Total number of direct and park and ride buses	644 movements per day
Routing of park and ride and direct buses	**Rail-led:** A12, B1122 and Theberton bypass **Integrated:** A12, B1122 (from north only) and Sizewell link road **Road-led:** A12, B1122 (from north only) and Sizewell link road
No. of workers travelling by direct bus	200 from Ipswich and Lowestoft, plus all residents in Leiston and Knodishall (a further 950 construction and associated development workers)
No. of workers travelling by rail	100
No. of workers walking / cycling / motorcycling to construction site or park and ride sites	No workers assumed to use these modes to give a robust assessment
Average level of car sharing	1.1 workers per car for home based (HB) workers and 2 workers per car for non-home based (NHB) workers
Weekend travel	A proportion of NHB workers likely to travel directly from their permanent home at the start of the week, and returning directly to their permanent home at the end of the week
Non-work trips (leisure, shopping etc.)	Included for all NHB workers (campus/caravan and off-site), based on national travel statistics
Visitors	It is assumed that there would be 200 daily visitors to the Sizewell B and C construction site and up to 800 daily visitors to the Sizewell C visitor centre, travelling in a combination of cars and larger vehicles (coaches and mini-buses)
LGVs	700 movements per day, of which 175 are to and from the postal consolidation facility at Wickham Market
Typical day – average number of HGVs per day at peak construction	**Rail-led:** 450 movements (225 deliveries) **Integrated:** 650 movements (325 deliveries) **Road-led:** 750 movements (375 deliveries)
Busiest day – maximum number of HGVs per day	**Rail-led:** 700 movements (350 deliveries) **Integrated:** 1000 movements (500 deliveries) **Road-led:** 1150 movements (575 deliveries)
Routing of HGVs	**Rail-led:** A12, B1122 and Theberton bypass **Integrated:** A12, B1122 (from north only) and Sizewell link road **Road-led:** A12, B1122 (from north only) and Sizewell link road
Origin of HGVs	85% from A12 south 15% from A12 north

Table 4.1: Main input parameters relating to Sizewell C peak construction traffic

Issue	Input Parameter
HGVs from LEEIE to main construction site	**Rail-led:** 140 movements (70 deliveries) **Integrated:** 140 movements (70 deliveries) **Road-led:** 280 movements (140 deliveries)
Freight management facility (FMF)	Under the **integrated** and **road-led** strategies, all HGVs from the south stop at the FMF adjacent to the A14 for around 1 hour, before moving on to the main construction site. Under the **rail-led** strategy, all HGVs go straight to site.
HGV delivery profile	**Rail-led:** between 07:00 and 20:00 **Integrated:** hours may be extended but this does not affect daily flows **Road-led:** hours may be extended but this does not affect daily flows

4.3.4. The inputs and assumptions set out in **Table 4.1** and used in the traffic modelling conducted for this Stage 4 consultation are the latest available, but may be subject to final refinements prior to submission of the application for development consent. EDF Energy considers the inputs used represent a sound basis for assessing potential Sizewell C traffic effects.

4.3.5. EDF Energy has taken a cautious approach in the considerations that have informed the traffic model. Taking account of these considerations, EDF Energy's view is that during many periods of the construction phase, the actual level of traffic generated by the construction of Sizewell C would be lower than has been considered in the traffic modelling.

4.3.6. Outputs from the modelling work are presented in **section 4.4** of this chapter, which sets out predicted traffic changes and effects of Sizewell C peak construction, together with mitigation proposals.

4.4. Peak construction traffic effects across the modelled area

4.4.1. The VISUM traffic model that is being used to assess Sizewell C traffic effects is a dynamic highway assignment model. This means that it replicates likely real life behaviour. Existing and development related traffic within the model can re-route to choose the best available routes, taking account of distance and journey time (other than HGVs and buses which are assigned to fixed routes).

4.4.2. This means that flow changes within the traffic model on any given route are not a simple direct addition of Sizewell C traffic onto a fixed and unchanging future year traffic flow. For this reason, a flow 'range' is presented that demonstrates the likely flow with or without any re-routeing. The potential scale of changes in daily traffic flows for the locations shown in **Figure 4.2** across the network is shown in **Table 4.2**.

4.4.3. The narrative throughout **sections 4.5 to 4.11** of this chapter focus on the estimated traffic effects of the integrated strategy. All tables referred to in this section can be found at the end of this chapter. Any changes to the estimates modelled under the road-led or rail-led strategies presented at Stage 3 as a result of the HGV busiest day calculation change are also highlighted. There is narrative explanation of the rest of the estimates for road-led and rail-led in section 6.4, Volume 1, Chapter 6 of the Stage 3 Main Consultation Document.

Figure 4.2: Locations in Tables 4.2 to 4.11 and Tables 4.13 to 4.18

4.5. Forecast daily 24 hour weekday traffic flows

4.5.1. This section provides a commentary of the traffic modelling data set out in **Table 4.2** at the end of this Chapter. **Table 4.2** shows the forecast daily 24 hour weekday traffic flows at the range of locations shown in **Figure 4.6** during the peak period of Sizewell C construction.

a) Traffic impacts of the integrated strategy

4.5.2. The most notable effects on traffic flows under the integrated strategy are on the A12 at Farnham (and Stratford St. Andrew) and the B1122 at Theberton, where traffic flows show substantial reductions due to the bypasses being proposed around these villages as part of the mitigation. The proposed two village bypass and Sizewell link road, along with improvements to the A12/B1122 junction provide a legacy benefit to the area, by taking traffic away from villages.

4.5.3. In some locations there is a large proportionate increase in traffic compared with the reference case (without Sizewell C), such as the B1122 Abbey Road in Leiston (location B), B1119 Saxmundham Road (location C) and the B1125 (locations F and L), however these increases are from low existing levels and the road capacity would not be exceeded. Similarly on the B1122 east of Yoxford the predicted increase of 15-22% is from a relatively low existing flow, and the Sizewell link road provides an alternative route to relieve some of the impact of additional traffic on this road.

4.5.4. There are no locations where the increase in daily traffic volume generated by the Project construction causes the road capacity to be exceeded.

4.5.5. As described at section 6.4, Volume 1, Chapter 6 of the Stage 3 Main Consultation Document, some locations may experience re-routeing of traffic away from or onto alternative roads as a result of congestion, which is generally present in the future year reference case scenarios (without Sizewell C). This is reflected by the flow 'range' that is presented to give an indication of the likely traffic flows with or without such re-routeing.

4.5.6. This occurs most notably on the A12 at Woodbridge (location AA), where road capacity is already exceeded in the reference case, without Sizewell C, and as a result around 2,250 vehicles per day could potentially re-route. SCC has recognised the need for improvements here to mitigate the effects of general traffic growth on this road and other roads that are affected by re-routing behaviour.

b) Comparison with rail-led and road-led strategies

4.5.7. Traffic flows on the A14 and the A12 would be lower under the integrated strategy than the road-led, though higher than under the rail-led strategy. With the Sizewell link road in place, a greater stretch of the B1122 would be relieved under both the integrated and road-led strategies than under the rail-led strategy, resulting in a reduction in traffic at Middleton Moor (location AH) compared with an increase under the rail-led strategy, and a smaller increase on the B1122 east of Yoxford (location R) compared with the rail-led strategy.

4.5.8. In some locations such as B1122 east of Yoxford (location R) and A14 east of Seven Hills junction (location T) the reported traffic flows are not noticeably different between the integrated and road-led strategies, however this is due to the rounding of traffic volume changes to the nearest 50 vehicles. Flows will in fact be slightly lower with the integrated strategy compared to the road-led strategy.

4.5.9. The levels of re-routing likely to happen under the integrated strategy are not noticeably different to those reported at Stage 3 under the rail-led and road-led strategies. In most of these locations the re-routed traffic volume is less than 5% of daily flows and would not be noticeable when spread over a whole day[3]. Further description of the circumstances and impacts of re-routeing is provided in section 6.4, Volume 1, Chapter 6 of the Stage 3 Main Consultation Document.

4.6. Peak hour percentage increases in weekday traffic

4.6.1. This section provides a commentary on the traffic modelling data set out in **Table 4.3** at the end of this Chapter. **Table 4.3** details the changes in weekday traffic flows during peak hours (rather than 24 hours as reported in **Table 4.2**) on the highway network arising from the peak period of Sizewell C construction as a percentage increase over the reference case.

a) Traffic impacts of the integrated strategy

4.6.2. **Table 4.3** demonstrates that, for the same locations considered in **Table 4.2**, the scale of changes in traffic at network peak hours, under the integrated strategy, is generally similar or somewhat lower than overall daily changes in traffic flows. This is because non-Sizewell C traffic is higher at network peak hours and also reflects that, due to the working patterns and other features of the development, Sizewell C-related construction traffic is relatively well spread across the day.

3 Variation in daily traffic flow levels is usually in the region of ±5%

b) Comparison with rail-led and road-led strategies

4.6.3. The pattern of changes in the integrated strategy is not noticeably different to those shown by the rail-led or road-led strategies.

4.7. Changes in HGV and bus flows (typical and busiest day) at ten locations identified in Figure 4.6

4.7.1. This section provides a commentary on the traffic modelling data set out in **Tables 4.4** and **4.5** at the end of this Chapter. **Table 4.4** shows the changes in HGV and bus movements across the highway network, on a typical day at the range of locations shown in **Figure 4.6**. The same figures are presented for a busiest day in **Table 4.5**. Note that the rail-led and road-led figures include the updated HGV busiest day flows, therefore differ from those presented at Stage 3.

a) Traffic impacts of the integrated strategy

4.7.2. This section provides a commentary on the traffic modelling data set out in **Tables 4.5 and 4.6** at the end of this chapter.

4.7.3. HGVs serving the Sizewell C construction site would be restricted to using the A12 and the Sizewell link road under the integrated strategy. Near the site, the only other road carrying Sizewell HGVs is Lover's Lane, as this route provides access from the LEEIE to the secondary site entrance.

4.7.4. The two largest proportionate increases in HGV and bus flow occur on Lover's Lane (location A), which carries the LEEIE HGVs along with buses from the caravan site, and the B1122 east of Yoxford (location R) which carries the Darsham park ride buses, direct buses to/from Lowestoft and some of the HGVs.

4.7.5. Significant reductions however are shown on the B1122 at Theberton (location Q) and Middleton Moor (location AH) as a result of the Sizewell link road which carries the bulk of the Project-related traffic along with the majority of existing traffic which would otherwise use the B1122 through these villages. A substantial reduction is also shown on the A12 at Farnham (location U) and also Stratford St. Andrew, due to the two village bypass providing relief to these villages.

4.7.6. In some locations, such as B1122 Abbey Road in central Leiston (location B) and B1069 Coldfair Green (location D), the relative increase in bus flows is substantial but this is from a low base level, and would not cause the road capacity to be exceeded. The B1122/Mill Street improvement would be in place by the very early stages of construction.

4.7.7. Most locations which show a high relative increase in HGV/bus volumes are those situated on the A12, for example south of Wickham Market (location Z), Woodbridge (location AA) and Marlesford (location AB). As indicated in **Table 4.2**, the total daily traffic volumes are unlikely to exceed the road capacity in any of these locations, except potentially at Woodbridge which is already congested in the reference case, as described in section 6.4, Volume 1, Chapter 6 of the Stage 3 Main Consultation Document.

b) Comparison with rail-led and road-led strategies

4.7.8. Increases in HGV volumes are generally lower under the integrated strategy than under the road-led strategy, but higher than under the rail-led strategy. However, for much of the B1122 traffic flows are also lower than under the rail-led strategy due to the Sizewell link road, for example at location R, east of Yoxford, under the integrated strategy this section only carries those vehicles from the north, whereas under the rail-led strategy all Project-related HGVs and buses would use this route.

4.7.9. There is also a substantial reduction in HGV and bus flows through the village of Middleton Moor, compared with rail-led, as a result of the Sizewell link road in the integrated strategy.

4.8. Traffic increases on the B1122

Tables 4.6, 4.7 and **4.8** which can be found at the end of this Chapter summarise the daily, peak hour and HGV and bus flow changes on the B1122, and the alternative routes offered by the proposed mitigation, at various locations under the rail-led, integrated and road-led strategies respectively.

a) Traffic impacts of the integrated strategy

4.8.1. As a result of the mitigation proposed on the B1122 in the integrated strategy, the effects of Project-related traffic are largely removed at Theberton and Middleton Moor.

4.8.2. Current weekday all-vehicle daily traffic flows on the section of the B1122 between the junction with the A12 east of Yoxford and the Sizewell C construction site are between around 3,450 and 5,150 vehicle movements per day. Flows at the higher end of this range are more characteristic of the section south-east of the B1122/B1125 junction and through Theberton. Future flows by the time of Sizewell

C peak construction (but without Sizewell C-related traffic) are predicted to rise to between around 4,600 and 6,800 vehicle movements per day.

4.8.3. EDF Energy's analysis shows that Sizewell C traffic at peak construction could add approximately a further 1,000 vehicles at the western end of B1122, east of Yoxford, with the Sizewell link road under the integrated strategy. Daily traffic flows on the B1122 at Theberton and Middleton Moor would reduce by around 90%.

4.8.4. The modelling work shows that all existing through traffic and Sizewell C HGVs, park and ride and direct buses to and from the south serving the construction site use the A12 and Sizewell link road under the integrated strategy. Traffic from the north would use the A12/B1122 roundabout and the B1122 until reaching the Sizewell link road to the west of Middleton Moor.

4.8.5. At B1122 Abbey Road in Leiston, flows increase significantly from a low existing level but the road capacity would not be exceeded. Traffic increases at the B1122 in Aldeburgh are small and are unlikely to cause any congestion, delays or significant environmental effects.

b) Comparison with rail-led and road-led strategies

4.8.6. Through the villages of Theberton and Middleton Moor, flows on the B1122 are lower under the integrated strategy than either rail-led or road-led strategies.

4.8.7. Under the road-led strategy there would be more Project-related HGVs and buses on the B1122 at the western end, east of Yoxford, and an even greater number under the rail-led strategy since all of the HGVs would use this route in the absence of the Sizewell link road.

4.8.8. The integrated strategy removes the majority of traffic from Middleton Moor as well as Theberton, which is also the case under the road-led strategy. Under the rail-led strategy all of the Project-related HGVs and buses would go through Middleton Moor.

4.9. Traffic increases on the A12

4.9.1. **Tables 4.9, 4.10** and **4.11** which can be found at the end of this Chapter summarise the daily, peak hour and HGV and bus flow changes on the A12, and the alternative routes offered by the proposed mitigation, at various locations under the rail-led, integrated and road-led strategies respectively.

a) Traffic impacts of the integrated strategy

4.9.2. The daily traffic flows at Sizewell C peak construction, under the integrated strategy, would be well within the traffic-carrying capacity of the A12 at Wrentham (location V), Blythburgh (location W), Darsham (location X), Yoxford (location Y) and Wickham Market (location Z).

4.9.3. The proposed two village bypass removes all Project-related traffic and the majority of existing traffic from the villages of Farnham and Stratford St. Andrew.

4.9.4. At locations to the north of the B1122, where traffic increases are proportionally higher than more southerly locations, these increases are from relatively low existing flows and would not exceed the road capacity.

4.9.5. At Woodbridge (location AA), the Sizewell C effect would be proportionally least, as the existing flows are higher. There is some evidence that non-Sizewell C traffic would choose other routes to avoid delay in this area, irrespective of whether Sizewell C goes ahead or not.

b) Comparison with rail-led and road-led strategies

4.9.6. Traffic flows under the integrated strategy generally fall somewhere between those reported of the rail-led and road-led strategies, so the extent of impacts are not substantially different to those presented at Stage 3.

4.9.7. For all locations on the A12, the predicted increase in traffic arising from wider economic growth and development unrelated to Sizewell C is broadly similar to the effect related to Sizewell C under all three strategies.

4.10. Traffic increases elsewhere

4.10.1. **Tables 4.12, 4.13** and **4.14** which can be found at the end of this Chapter summarise the daily, peak hour and HGV and bus flow changes at other locations on the network under the rail-led, integrated and road-led strategies respectively.

a) Traffic impacts of the integrated strategy

4.10.2. Aside from the A12 and B1122, the largest proportional increases in traffic arising from the construction phase under the integrated strategy, are predicted to occur near Leiston and Saxmundham, and in Westleton, mainly due to low existing flows and the introduction of bus services.

4.10.3. Under the integrated strategy, in the locations listed below the relative increase in either bus flows or overall traffic volume is substantial but this is from a low base level, and would not cause the road capacity to be exceeded:

- Lover's Lane, Leiston (location A);
- B1069 Coldfair Green (location D);
- B1125 Westleton (location F);
- B1069 Tunstall (location H);
- A1120 Yoxford (location J);
- B1125 Blythburgh (location L); and
- B1078 Wickham Market (location O).

4.10.4. On the A14, west of the Seven Hills roundabout (location S), a large volume of Sizewell C-related trips is expected including a significant proportion of HGVs. However, the Sizewell C traffic is a very small percentage of the existing traffic levels and is not expected to exceed the capacity of the junction. EDF Energy will discuss the investigation of effects on the A12/A14 junctions 55 and 58 with Highways England, prior to the application for development consent.

b) Comparison with rail-led and road-led strategies

4.10.5. These impacts reported under the integrated strategy are similar to those of the rail-led and road-led strategies reported at Stage 3.

4.10.6. EDF Energy will continue to engage with parish councils with regards to potential additional mitigation in these areas following this Stage 4 consultation.

4.11. Summary

4.11.1. NPS-EN1 (Ref. 6.3) recognises that Nationally Significant Infrastructure Projects (NSIPs) can create substantial effects on local transport infrastructure. These effects would be significantly reduced by the embedded mitigation included within the proposals set out in this Stage 4 consultation, namely:

- the construction of an accommodation campus for construction workers, so reducing journeys to work on the local road network;
- direct bus services from Ipswich and Lowestoft, as well as the Leiston area;
- the development of park and ride facilities to reduce car journeys by those living at home or in non-campus accommodation;
- the use of rail to deliver freight and the beach landing facility (BLF) for Abnormal Indivisible Loads (AILs);
- the provision of a two village bypass on the A12 to remove through-traffic from the villages of Farnham and Stratford St Andrew;
- the provision of a Sizewell link road (integrated and road-led strategies) or Theberton bypass (rail-led strategy) to reduce the amount of traffic on much of the B1122; and
- various junction improvement schemes to improve safety and/or increase capacity.

4.11.2. **Tables 4.2** to **4.5** present the residual traffic effects after these measures have been included. EDF Energy recognises that they represent, in many cases, significant increases in traffic flows over conditions that would be experienced in 2027 if Sizewell C were not under construction. However, in the great majority of cases, these increases are from low existing traffic volumes and the resulting traffic volumes would not exceed the traffic-carrying capacity of the road network. Consequently, they are unlikely to cause additional congestion or delays. It should also be noted that all forecast year traffic flows (both with and without Sizewell C) include Sizewell B outage traffic, which occurs periodically (typically over a six-week period every 18 months) therefore typical daily flows would be lower than those reported in this section, particularly on the B1122, B1125 and A12.

4.11.3. EDF Energy recognises that the environmental effects (such as noise and air quality effects) of the traffic increases generated by the construction of Sizewell C also need to be considered. These effects were presented for the rail-led and road-led strategies at Volumes 2A and 2B of the Stage 3 Main Consultation Document (with a comparison of the road and rail led strategies for the relevant elements of the proposal provided at the end of each chapter).

4.11.4. Under the integrated strategy as presented in this Stage 4 Main consultation document, the traffic flows

will generally be lower than for the road-led strategy, and therefore the associated effects are predicted to be less. The Stage 3 assessment (available as part of the current consultation at Volumes 2 and 3 of the Stage 3 Main Consultation Document) of the road-led strategy presents a worst-case for environmental effects associated with the Sizewell C traffic. However, further modelling work is being undertaken to better understand how significant the traffic impacts associated with the integrated strategy would be.

4.11.5. **Tables 4.4** and **4.5** also illustrate that, at locations geographically more distant from the construction site, the increases arising from the Project diminish and become an increasingly small increment on predicted future traffic flows. On nearly all these roads, save for the A145 at Beccles (location M) and on the A12, there is no increase in HGV and bus movements. The increase on the A14 at Ipswich is small when compared to the existing traffic flows.

4.11.6. In some locations, such as Farnham, Stratford St Andrew, Theberton, Middleton Moor and Yoxford, specific proposals to mitigate these effects were identified and presented at Stage 3, and any changes to the proposed schemes are presented in **Chapter 6** of this Stage 4 consultation document. Here and elsewhere on the local highway network EDF Energy has undertaken further investigations of the likely environmental effects of increased traffic flows, which are discussed in the relevant chapters of Volume 2 and 3 of the Stage 3 Main Consultation Document.

Table 4.2: Peak period of Sizewell C construction – forecast daily 24 hour weekday traffic flows at a range of locations

Location	Current average daily (24 hour) weekday all-vehicle traffic flows (based on 2015 data)	Estimated future weekday daily traffic flows without Sizewell C (reference case)	Rail-led			Integrated			Road-led		
			Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C	Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C	Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C
Lover's Lane, Leiston (location A)	2,500	3,850	450	4,300	12%	450	4,300 – 4,550	12% - 18%	600	4,450 – 4,700	16% - 22%
B1122 Abbey Road, central Leiston (location B)	4,450	5,050	3,550	8,550 – 8,600	69% - 70%	3,300	8,300 – 8,350	64% - 65%	3,300	8,300 – 8,350	64% - 65%
B1119 Saxmundham Road, Leiston (location C)	3,750	4,550	1,450	5,950 – 6,000	31% - 32%	1,250	5,450 – 5,800	20% - 27%	1,250	5,450 – 5,800	20% - 27%
B1069 Coldfair Green (location D)	5,400	7,300	1,150	8,450	16%	1,150	8,450	16%	1,150	8,400 – 8,450	15% - 16%
B1122 Aldeburgh (location E)	3,300	4,250	700	4,900 – 4,950	15% - 16%	700	4,900 – 4,950	15% - 16%	700	4,850 – 4,950	14% - 16%
B1125 Westleton (location F)	2,400	2,950	650	3,600	22%	650	3,500 – 3,600	19% - 22%	650	3,500 – 3,600	19% - 22%
A1094 west of Snape Road (location G)	7,550	9,100	250	9,350 – 9,450	3% - 4%	250	9,350 – 9,450	3% - 4%	250	9,350 – 9,500	3% - 4%
B1069 Tunstall (location H)	3,050	4,400	650	4,900 – 5,050	11% - 15%	650	4,900 – 5,050	11% - 15%	600	4,900 – 5,000	11% - 14%
B1121 Saxmundham (location I)	4,550	5,400	450	5,750 – 5,850	6% - 8%	250	5,200 – 5,650	-4% - 5%	250	5,200 – 5,650	-4% - 5%
A1120 Yoxford (location J)	3,650	4,500	800	5,300	18%	800	5,300 – 5,350	18% - 19%	800	5,300	18%
A144 Halesworth (location K)	6,900	8,250	600	8,800 – 8,850	7% - 7%	600	8,850	7%	600	8,800 – 8,850	7% - 7%
B1125 Blythburgh (location L)	1,650	2,050	500	2,550	24%	500	2,500 – 2,550	22% - 24%	500	2,500 – 2,550	22% - 24%

Location	Current average daily (24 hour) weekday all-vehicle traffic flows (based on 2015 data)	Estimated future weekday daily traffic flows without Sizewell C (reference case)	Rail-led			Integrated			Road-led		
			Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C	Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C	Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C
A145 Beccles (location M)	15,350	17,100	400	17,500	2%	400	17,500	2%	400	17,500	2%
B1119 between Framlingham and A12 (location N)	2,400	2,750	50	2,750 – 2,800	0% - 2%	100	2,800 – 2,850	2% - 4%	100	2,800 – 2,850	2% - 4%
B1078 Wickham Market (location O)	3,850	6,200	1,050	7,250	17%	1,000	7,200 – 7,250	16% - 17%	1,050	7,250 – 7,350	17% - 19%
B1116 Hacheston (location P)	6,650	7,250	250	7,500	3%	200	7,450 – 7,500	3% - 3%	200	7,450	3%
B1122 Theberton (location Q)	5,150	6,800	50	350	-95%	100	600	-91%	100	650	-90%
B1122 east of Yoxford (location R)	3,450	4,600	1,600	6,200 – 6,250	35% - 36%	1,000	5,300 – 5,600	15% - 22%	1,000	5,300 – 5,600	15% - 22%
A14 south of Ipswich (west of Seven Hills junction) (location S)	56,900	69,550	1,550	70,450 – 71,100	1% - 2%	1,750	70,850 – 71,300	2% - 3%	1,850	70,800 – 71,400	2% - 3%
A14 Felixstowe Branch (east of Seven Hills junction) (location T)	44,850	53,300	200	53,400 – 53,500	0% - 0%	200	53,500	0%	200	53,500	0%
A12 Farnham (location U)	18,900	21,400	0	300	-99%	0	300	-99%	0	300	-99%
A12 Wrentham (location V)	9,800	11,450	1,350	12,700 – 12,800	11% - 12%	1,350	12,700 – 12,800	11% - 12%	1,350	12,700 – 12,800	11% - 12%
A12 Blythburgh (location W)	10,350	11,900	1,950	13,750 – 13,850	16% - 16%	2,000	13,700 – 13,900	15% - 17%	2,000	13,750 – 13,900	16% - 17%
A12 north of Darsham Park & Ride (location X)	14,000	16,050	2,300	18,100 – 18,350	13% - 14%	2,300	18,200 – 18,350	13% - 14%	2,350	18,200 – 18,400	13% - 15%

Location	Current average daily (24 hour) weekday all-vehicle traffic flows (based on 2015 data)	Estimated future weekday daily traffic flows without Sizewell C (reference case)	Rail-led			Integrated			Road-led		
			Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C	Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C	Estimated future daily weekday Sizewell C peak construction flows	Estimated future daily weekday traffic flows with Sizewell C peak construction traffic	Estimated percentage traffic increase from Sizewell C
A12 Yoxford (location Y)	14,700	16,650	1,800	18,200 – 18,450	9% - 11%	1,100	16,900 – 17,750	2% - 7%	1,100	16,900 – 17,750	2% - 7%
A12 south of Wickham Market Park & Ride (location Z)	24,550	27,000	2,850	29,500 – 29,850	9% - 11%	3,000	29,550 – 30,000	9% - 11%	3,100	29,550 – 30,100	9% - 11%
A12 Woodbridge (location AA)	37,800	40,500	2,450	41,050 – 42,950	1% - 6%	2,650	40,900 – 43,150	1% - 7%	2,700	40,900 – 43,200	1% - 7%
A12 Marlesford (south of two village bypass) (location AB)	18,800	21,450	1,850	23,150 – 23,300	8% - 9%	1,950	23,300 – 23,400	8% - 9%	2,100	23,300 – 23,550	9% - 10%
B1078 Wickham Market (east of B1438) (location AC)	3,650	5,250	1,100	6,350 – 6,400	21% - 22%	1,100	6,350 – 6,400	21% - 22%	1,100	6,350 – 6,500	21% - 24%
B1438 High Street, Wickham Market (location AD)	2,200	3,250	50	3,250 – 3,300	0% - 2%	50	3,250 – 3,300	0% - 2%	50	3,250 – 3,300	0% - 2%
Two village bypass (location AE)	-	-	1,800	22,200	-	1,950	21,750	-	2,050	22,400	-
Theberton bypass (location AF)	-	-	2,300	8,850	-	2,650	9,550	-	2,750	9,650	-
Sizewell link road east of A12 (location AG)	-	-	-	-	-	1,050	2,200	-	1,150	2,300	-
B1122 Middleton Moor (location AH)	3,450	4,600	1,600	6,250	36%	0	450	-90%	0	450	-90%

Table 4.3 Peak period of Sizewell C construction – peak hour percentage increases in weekday traffic flows at a range of locations

Location	Rail-led		Integrated		Road-led	
	Percentage increase in traffic at peak Sizewell C construction in the weekday AM peak period (07:00-09:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday PM peak period (16:00-18:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday AM peak period (07:00-09:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday PM peak period (16:00-18:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday AM peak period (07:00-09:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday PM peak period (16:00-18:00)
Lover's Lane, Leiston (location A)	10%	12%	14%	19%	18%	24%
B1122 Abbey Road, central Leiston (location B)	60%	47%	57%	43%	57%	43%
B1119 Saxmundham Road, Leiston (location C)	25%	21%	15%	14%	15%	14%
B1069 Coldfair Green (location D)	12%	12%	12%	12%	12%	12%
B1122 Aldeburgh (location E)	15%	12%	15%	11%	15%	11%
B1125 Westleton (location F)	12%	16%	7%	14%	7%	14%
A1094 west of Snape Road (location G)	5%	4%	6%	4%	6%	4%
B1069 Tunstall (location H)	8%	3%	10%	3%	10%	3%
B1121 Saxmundham (location I)	7%	5%	-3%	-4%	-3%	-4%
A1120 Yoxford (location J)	10%	12%	11%	13%	11%	12%
A144 Halesworth (location K)	5%	3%	5%	4%	5%	4%
B1125 Blythburgh (location L)	9%	17%	6%	16%	6%	16%
A145 Beccles (location M)	1%	2%	1%	2%	1%	2%
B1119 between Framlingham and A12 (location N)	1%	-1%	1%	1%	1%	-1%
B1078 Wickham Market (location O)	14%	7%	15%	8%	18%	9%
B1116 Hacheston (location P)	3%	3%	3%	3%	2%	3%
B1122 Theberton (location Q)	-95%	-94%	-88%	-92%	-87%	-92%
B1122 east of Yoxford (location R)	28%	29%	8%	11%	6%	10%
A14 south of Ipswich (west of Seven Hills junction) (location S)	Less than 1%	Less than 1%	1%	2%	1%	1%
A14 Felixstowe Branch (east of Seven Hills junction) (location T)	0%	Less than 1%	0%	Less than 1%	Less than 1%	Less than 1%
A12 Farnham (location U)	-98%	-99%	-98%	-99%	-98%	-99%
A12 Wrentham (location V)	8%	3%	8%	4%	8%	3%
A12 Blythburgh (location W)	10%	8%	9%	8%	10%	8%

Location	Rail-led		Integrated		Road-led	
	Percentage increase in traffic at peak Sizewell C construction in the weekday AM peak period (07:00-09:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday PM peak period (16:00-18:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday AM peak period (07:00-09:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday PM peak period (16:00-18:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday AM peak period (07:00-09:00)	Percentage increase in traffic at peak Sizewell C construction in the weekday PM peak period (16:00-18:00)
A12 north of Darsham Park & Ride (location X)	10%	6%	11%	6%	11%	6%
A12 Yoxford (location Y)	7%	5%	-2%	0%	-2%	-1%
A12 south of Wickham Market Park & Ride (location Z)	6%	5%	6%	6%	6%	5%
A12 Woodbridge (location AA)	-1%	-1%	-2%	-1%	-2%	-1%
A12 Marlesford (south of two village bypass) (location AB)	6%	6%	6%	6%	6%	6%
B1078 Wickham Market (east of B1438) (location AC)	20%	9%	21%	11%	22%	12%
B1438 High Street, Wickham Market (location AD)	-1%	1%	Less than 1%	0%	3%	0%
Two village bypass (location AE)	-	-	-	-	-	-
Theberton bypass (location AF)	-	-	-	-	-	-
Sizewell link road east of A12 (location AG)	-	-	-	-	-	-
B1122 Middleton Moor (location AH)	28%	29%	-90%	-89%	-90%	-89%

Table 4.4: Peak period of Sizewell C construction – changes in HGV and bus flows (typical day) at the locations identified in Figure 4.2

Location	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	Rail-led				Integrated				Road-led			
			Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase
Lover's Lane, Leiston (location A)	80	90	20	140	250	178%	20	140	260	189%	20	280	400	344%
B1122 Abbey Road, central Leiston (location B)	140	150	210	0	370	147%	210	0	360	140%	210	0	360	140%
B1119 Saxmundham Road, Leiston (location C)	60	80	30	0	100	25%	30	0	90	13%	30	0	90	13%
B1069 Coldfair Green (location D)	190	210	190	0	390	86%	190	0	390	86%	190	0	390	86%

Location	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	Rail-led				Integrated				Road-led			
			Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase
B1122 Aldeburgh (location E)	90	100	0	0	100	0%	0	0	100	0%	0	0	100	0%
B1125 Westleton (location F)	80	80	0	0	80	0%	0	0	80	0%	0	0	80	0%
A1094 west of Snape Road (location G)	180	200	0	0	210	5%	0	0	210	5%	0	0	210	5%
B1069 Tunstall (location H)	150	160	0	0	160	0%	0	0	160	0%	0	0	160	0%
B1121 Saxmundham (location I)	50	60	0	0	60	0%	0	0	60	0%	0	0	60	0%
A1120 Yoxford (location J)	180	200	0	0	200	0%	0	0	200	0%	0	0	200	0%
A144 Halesworth (location K)	240	270	0	0	270	0%	0	0	270	0%	0	0	270	0%
B1125 Blythburgh (location L)	60	60	0	0	60	0%	0	0	60	0%	0	0	60	0%
A145 Beccles (location M)	440	490	0	50	540	10%	0	70	560	14%	0	80	570	16%
B1119 between Framlingham and A12 (location N)	30	30	0	0	30	0%	0	0	30	0%	0	0	30	0%
B1078 Wickham Market (location O)	160	190	0	0	190	0%	0	0	190	0%	0	0	190	0%
B1116 Hacheston (location P)	70	80	0	0	80	0%	0	0	80	0%	0	0	80	0%
B1122 Theberton (location Q)	210	230	0	0	0	-100%	0	0	0	-100%	0	0	0	-100%
B1122 east of Yoxford (location R)	170	180	450	450	1,080	500%	230	100	510	183%	230	110	530	194%
A14 south of Ipswich (west of Seven Hills junction) (location S)	8,860	10,880	10	300	11,200	3%	10	530	11,430	5%	10	610	11,500	6%

Location	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	Rail-led				Integrated				Road-led			
			Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase
A14 Felixstowe Branch (east of Seven Hills junction) (location T)	7,190	9,150	0	50	9,190	0%	0	70	9,210	1%	0	80	9,220	1%
A12 Farnham (location U)	910	1,000	0	0	10	-99%	0	0	10	-99%	0	0	10	-99%
A12 Wrentham (location V)	430	480	40	20	540	13%	40	30	550	15%	40	40	550	15%
A12 Blythburgh (location W)	650	720	40	70	820	14%	40	100	850	18%	40	110	860	19%
A12 north of Darsham Park & Ride (location X)	820	920	40	70	1,020	11%	40	100	1,050	14%	40	110	1,060	15%
A12 Yoxford (location Y)	840	930	220	380	1,520	63%	0	0	910	-2%	0	0	910	-2%
A12 south of Wickham Market Park & Ride (location Z)	1,180	1,270	20	380	1,660	31%	20	550	1,830	44%	20	640	1,910	50%
A12 Woodbridge (location AA)	1,070	1,210	20	380	1,590	31%	20	550	1,760	45%	20	640	1,840	52%
A12 Marlesford (south of two village bypass) (location AB)	900	990	220	380	1,580	60%	220	550	1,750	77%	220	640	1,830	85%
B1078 Wickham Market (east of B1438) (location AC)	170	200	0	0	200	0%	0	0	200	0%	0	0	200	0%
B1438 High Street, Wickham Market (location AD)	10	10	0	0	10	0%	0	0	10	0%	0	0	10	0%
Two village bypass (location AE)	-	-	220	380	1,550	-	220	550	1,720	-	220	640	1,810	-
Theberton bypass (location AF)	-	-	450	450	1,120	-	450	650	1,330	-	450	750	1,430	-
Sizewell link road east of A12 (location AG)	-	-	-	-	-	-	220	550	900	-	220	640	980	-
B1122 Middleton Moor (location AH)	170	180	450	450	1,050	483%	0	0	30	-83%	0	0	30	-83%

Table 4.5: Peak period of Sizewell C construction – changes in HGV and bus flows (busiest day) at the locations identified in Figure 4.2

Location	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	Rail-led				Integrated				Road-led			
			Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase
Lover's Lane, Leiston (location A)	80	90	20	140	250	178%	20	140	260	189%	20	280	400	344%
B1122 Abbey Road, central Leiston (location B)	140	150	210	0	370	147%	210	0	360	140%	210	0	360	140%
B1119 Saxmundham Road, Leiston (location C)	60	80	30	0	100	25%	30	0	90	13%	30	0	90	13%
B1069 Coldfair Green (location D)	190	210	190	0	390	86%	190	0	390	86%	190	0	390	86%
B1122 Aldeburgh (location E)	90	100	0	0	100	0%	0	0	100	0%	0	0	100	0%
B1125 Westleton (location F)	80	80	0	0	80	0%	0	0	80	0%	0	0	80	0%
A1094 west of Snape Road (location G)	180	200	0	0	210	5%	0	0	210	5%	0	0	210	5%
B1069 Tunstall (location H)	150	160	0	0	160	0%	0	0	160	0%	0	0	160	0%
B1121 Saxmundham (location I)	50	60	0	0	60	0%	0	0	60	0%	0	0	60	0%
A1120 Yoxford (location J)	180	200	0	0	200	0%	0	0	200	0%	0	0	200	0%
A144 Halesworth (location K)	240	270	0	0	270	0%	0	0	270	0%	0	0	270	0%
B1125 Blythburgh (location L)	60	60	0	0	60	0%	0	0	60	0%	0	0	60	0%
A145 Beccles (location M)	440	490	0	70	560	14%	0	100	590	20%	0	120	610	24%
B1119 between Framlingham and A12 (location N)	30	30	0	0	30	0%	0	0	30	0%	0	0	30	0%
B1078 Wickham Market (location O)	160	190	0	0	190	0%	0	0	190	0%	0	0	190	0%
B1116 Hacheston (location P)	70	80	0	0	80	0%	0	0	80	0%	0	0	80	0%
B1122 Theberton (location Q)	210	230	0	0	0	-100%	0	0	0	-100%	0	0	0	-100%
B1122 east of Yoxford (location R)	170	180	450	700	1,330	639%	230	150	560	211%	230	170	590	228%
A14 south of Ipswich (west of Seven Hills junction) (location S)	8,860	10,880	10	470	11,360	4%	10	810	11,690	7%	10	930	11,820	9%

Location	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	Rail-led				Integrated				Road-led			
			Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase	Sizewell C buses	Sizewell C HGVs	With Sizewell C daily HGV and bus flow	% increase
A14 Felixstowe Branch (east of Seven Hills junction) (location T)	7,190	9,150	0	70	9,220	1%	0	100	9,240	1%	0	120	9,260	1%
A12 Farnham (location U)	910	1,000	0	0	10	-99%	0	0	10	-99%	0	0	10	-99%
A12 Wrentham (location V)	430	480	40	40	550	15%	40	50	560	17%	40	60	570	19%
A12 Blythburgh (location W)	650	720	40	110	860	19%	40	150	900	25%	40	170	920	28%
A12 north of Darsham Park & Ride (location X)	820	920	40	110	1,050	14%	40	150	1,100	20%	40	170	1,120	22%
A12 Yoxford (location Y)	840	930	220	600	1,730	86%	0	0	910	-2%	0	0	910	-2%
A12 south of Wickham Market Park & Ride (location Z)	1,180	1,270	20	600	1,870	47%	20	850	2,120	67%	20	980	2,240	76%
A12 Woodbridge (location AA)	1,070	1,210	20	600	1,800	49%	20	850	2,030	68%	20	980	2,160	79%
A12 Marlesford (south of two village bypass) (location AB)	900	990	220	600	1,790	81%	220	850	2,040	106%	220	980	2,170	119%
B1078 Wickham Market (east of B1438) (location AC)	170	200	0	0	200	0%	0	0	200	0%	0	0	200	0%
B1438 High Street, Wickham Market (location AD)	10	10	0	0	10	0%	0	0	10	0%	0	0	10	0%
Two village bypass (location AE)	-	-	220	600	1,770	-	220	850	2,010	-	220	980	2,140	-
Theberton bypass (location AF)	-	-	450	700	1,370	-	450	1,000	1,680	-	450	1,150	1,830	-
Sizewell link road east of A12 (location AG)	-	-	-	-	-	-	220	850	1,200	-	220	980	1,320	-
B1122 Middleton Moor (location AH)	170	180	450	700	1,300	622%	0	0	30	-83%	0	0	30	-83%

Table 4.6: Peak period of Sizewell C construction – changes in daily, peak hour and HGV and bus flows (rail led strategy) at the B1122 locations identified in Figure 4.2

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
B1122 Abbey Road, central Leiston (location B)	4,450	5,050	3,550	8,550 – 8,600	69% - 70%	60%	47%	140	150	370	147%	370	147%
B1122 Aldeburgh (location E)	3,300	4,250	700	4,900 – 4,950	15% - 16%	15%	12%	90	100	100	0%	100	0%
B1122 Theberton (location Q)	5,150	6,800	50	350	-95%	-95%	-94%	210	230	0	-100%	0	-100%
B1122 east of Yoxford (location R)	3,450	4,600	1,600	6,200 – 6,250	35% - 36%	28%	29%	170	180	1,080	500%	1,330	639%
Theberton bypass (location AF)	-	-	2,300	8,850	-	-	-	-	-	1,120	-	1,370	-
B1122 Middleton Moor (location AH)	3,450	4,600	1,600	6,250	36%	28%	29%	170	180	1,050	483%	1,300	622%

Table 4.7: Peak period of Sizewell C construction – changes in daily peak hour and HGV and bus flows (integrated strategy) at the B1122 locations identified in Figure 4.2

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
B1122 Abbey Road, central Leiston (location B)	4,450	5,050	3,300	8,300 – 8,350	64% - 65%	57%	43%	140	150	360	140%	360	140%
B1122 Aldeburgh (location E)	3,300	4,250	700	4,900 – 4,950	15% - 16%	15%	11%	90	100	100	0%	100	0%
B1122 Theberton (location Q)	5,150	6,800	100	600	-91%	-88%	-92%	210	230	0	-100%	0	-100%
B1122 east of Yoxford (location R)	3,450	4,600	1,000	5,300 – 5,600	15% - 22%	8%	11%	170	180	510	183%	560	211%
Theberton bypass (location AF)	-	-	2,650	9,550	-	-	-	-	-	1,330	-	1,680	-
Sizewell link road east of A12 (location AG)	-	-	1,050	2,200	-	-	-	-	-	900	-	1,200	-
B1122 Middleton Moor (location AH)	3,450	4,600	0	450	-90%	-90%	-89%	170	180	30	-83%	30	-83%

Table 4.8: Peak period of Sizewell C construction – changes in daily, peak hour and HGV and bus flows (road led strategy) at the B1122 locations identified in Figure 4.2

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
B1122 Abbey Road, central Leiston (location B)	4,450	5,050	3,300	8,300 – 8,350	64% - 65%	57%	43%	140	150	360	140%	360	140%
B1122 Aldeburgh (location E)	3,300	4,250	700	4,850 – 4,950	14% - 16%	15%	11%	90	100	100	0%	100	0%
B1122 Theberton (location Q)	5,150	6,800	100	650	-90%	-87%	-92%	210	230	0	-100%	0	-100%
B1122 east of Yoxford (location R)	3,450	4,600	1,000	5,300 – 5,600	15% - 22%	6%	10%	170	180	530	194%	590	228%
Theberton bypass (location AF)	-	-	2,750	9,650	-	-	-	-	-	1,430	-	1,830	-
Sizewell link road east of A12 (location AG)	-	-	1,150	2,300	-	-	-	-	-	980	-	1,320	-
B1122 Middleton Moor (location AH)	3,450	4,600	0	450	-90%	-90%	-89%	170	180	30	-83%	30	-83%

Table 4.9: Peak period of Sizewell C construction – changes in daily, peak hour and HGV and bus flows (rail led strategy) at the A12 locations identified in Figure 4.2

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
A12 Farnham (location U)	18,900	21,400	0	300	-99%	-98%	-99%	910	1,000	10	-99%	10	-99%
A12 Wrentham (location V)	9,800	11,450	1,350	12,700 – 12,800	11% - 12%	8%	3%	430	480	540	13%	550	15%
A12 Blythburgh (location W)	10,350	11,900	1,950	13,750 – 13,850	16% - 16%	10%	8%	650	720	820	14%	860	19%
A12 north of Darsham Park & Ride (location X)	14,000	16,050	2,300	18,100 – 18,350	13% - 14%	10%	6%	820	920	1,020	11%	1,050	14%
A12 Yoxford (location Y)	14,700	16,650	1,800	18,200 – 18,450	9% - 11%	7%	5%	840	930	1,520	63%	1,730	86%
A12 south of Wickham Market Park & Ride (location Z)	24,550	27,000	2,850	29,500 – 29,850	9% - 11%	6%	5%	1,180	1,270	1,660	31%	1,870	47%
A12 Woodbridge (location AA)	37,800	40,500	2,450	41,050 – 42,950	1% - 6%	-1%	-1%	1,070	1,210	1,590	31%	1,800	49%
A12 Marlesford (south of two village bypass) (location AB)	18,800	21,450	1,850	23,150 – 23,300	8% - 9%	6%	6%	900	990	1,580	60%	1,790	81%
Two village bypass (location AE)	-	-	1,800	22,200	-	-	-	-	-	1,550	-	1,770	-

Table 4.10: Peak period of Sizewell C construction – changes in daily peak hour and HGV and bus flows (integrated strategy) at the A12 locations identified in Figure 4.2

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
A12 Farnham (location U)	18,900	21,400	0	300	-99%	-98%	-99%	910	1,000	10	-99%	10	-99%
A12 Wrentham (location V)	9,800	11,450	1,350	12,700 – 12,800	11% - 12%	8%	4%	430	480	550	15%	560	17%
A12 Blythburgh (location W)	10,350	11,900	2,000	13,700 – 13,900	15% - 17%	9%	8%	650	720	850	18%	900	25%
A12 north of Darsham Park & Ride (location X)	14,000	16,050	2,300	18,200 – 18,350	13% - 14%	11%	6%	820	920	1,050	14%	1,100	20%
A12 Yoxford (location Y)	14,700	16,650	1,100	16,900 – 17,750	2% - 7%	-2%	0%	840	930	910	-2%	910	-2%
A12 south of Wickham Market Park & Ride (location Z)	24,550	27,000	3,000	2,9550 – 30,000	9% - 11%	6%	6%	1,180	1,270	1,830	44%	2,120	67%
A12 Woodbridge (location AA)	37,800	40,500	2,650	40,900 – 43,150	1% - 7%	-2%	-1%	1,070	1,210	1,760	45%	2,030	68%
A12 Marlesford (south of two village bypass) (location AB)	18,800	21,450	1,950	23,300 – 23,400	8% - 9%	6%	6%	900	990	1,750	77%	2,040	106%
Two village bypass (location AE)	-	-	1,950	21,750	-	-	-	-	-	1,720	-	2,010	-

Table 4.11: Peak period of Sizewell C construction – changes in daily, peak hour and HGV and bus flows (road-led strategy) at the A12 locations identified in Figure 4.2

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
A12 Farnham (location U)	18,900	21,400	0	300	-99%	-98%	-99%	910	1,000	10	-99%	10	-99%
A12 Wrentham (location V)	9,800	11,450	1,350	12,700 – 12,800	11% - 12%	8%	3%	430	480	550	15%	570	19%
A12 Blythburgh (location W)	10,350	11,900	2,000	13,750 – 13,900	16% - 17%	10%	8%	650	720	860	19%	920	28%
A12 north of Darsham Park & Ride (location X)	14,000	16,050	2,350	18,200 – 18,400	13% - 15%	11%	6%	820	920	1,060	15%	1,120	22%
A12 Yoxford (location Y)	14,700	16,650	1,100	16,900 – 17,750	2% - 7%	-2%	-1%	840	930	910	-2%	910	-2%
A12 south of Wickham Market Park & Ride (location Z)	24,550	27,000	3,100	29,550 – 30,100	9% - 11%	6%	5%	1,180	1,270	1,910	50%	2,240	76%
A12 Woodbridge (location AA)	37,800	40,500	2,700	40,900 – 43,200	1% - 7%	-2%	-1%	1,070	1,210	1,840	52%	2,160	79%
A12 Marlesford (south of two village bypass) (location AB)	18,800	21,450	2,100	23,300 – 23,550	9% - 10%	6%	6%	900	990	1,830	85%	2,170	119%
Two village bypass (location AE)	-	-	2,050	22,400	-	-	-	-	-	1,810	-	2,140	-

Table 4.12: Peak period of Sizewell C construction – changes in daily, peak hour and HGV and bus flows (rail-led strategy) at the remaining locations

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
Lover's Lane, Leiston (location A)	2,500	3,850	450	4,300	12%	10%	12%	80	90	250	178%	250	178%
B1119 Saxmundham Road, Leiston (location C)	3,750	4,550	1,450	5,950 – 6,000	31% - 32%	25%	21%	60	80	100	25%	100	25%
B1069 Coldfair Green (location D)	5,400	7,300	1,150	8,450	16%	12%	12%	190	210	390	86%	390	86%
B1125 Westleton (location F)	2,400	2,950	650	3,600	22%	12%	16%	80	80	80	0%	80	0%
A1094 west of Snape Road (location G)	7,550	9,100	250	9,350 – 9,450	3% - 4%	5%	4%	180	200	210	5%	210	5%
B1069 Tunstall (location H)	3,050	4,400	650	4,900 – 5,050	11% - 15%	8%	3%	150	160	160	0%	160	0%
B1121 Saxmundham (location I)	4,550	5,400	450	5,750 – 5,850	6% - 8%	7%	5%	50	60	60	0%	60	0%
A1120 Yoxford (location J)	3,650	4,500	800	5,300	18%	10%	12%	180	200	200	0%	200	0%
A144 Halesworth (location K)	6,900	8,250	600	8,800 – 8,850	7% - 7%	5%	3%	240	270	270	0%	270	0%
B1125 Blythburgh (location L)	1,650	2,050	500	2,550	24%	9%	17%	60	60	60	0%	60	0%
A145 Beccles (location M)	15,350	17,100	400	17,500	2%	1%	2%	440	490	540	10%	560	14%
B1119 between Framlingham and A12 (location N)	2,400	2,750	50	2,750 – 2,800	0% - 2%	1%	-1%	30	30	30	0%	30	0%
B1078 Wickham Market (location O)	3,850	6,200	1,050	7,250	17%	14%	7%	160	190	190	0%	190	0%
B1116 Hacheston (location P)	6,650	7,250	250	7,500	3%	3%	3%	70	80	80	0%	80	0%
A14 south of Ipswich (west of Seven Hills junction) (location S)	56,900	69,550	1,550	70,450 – 71,100	1% - 2%	Less than 1%	Less than 1%	8,860	10,880	11,200	3%	11,360	4%
A14 Felixstowe Branch (east of Seven Hills junction) (location T)	44,850	53,300	200	53,400 – 53,500	0% - 0%	0%	Less than 1%	7,190	9,150	9,190	0%	9,220	1%

Table 4.13: Peak period of Sizewell C construction – changes in daily, peak hour and HGV and bus flows (integrated strategy) at the remaining locations

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
Lover's Lane, Leiston (location A)	2,500	3,850	450	4,300 – 4,550	12% - 18%	14%	19%	80	90	260	189%	260	189%
B1119 Saxmundham Road, Leiston (location C)	3,750	4,550	1,250	5,450 – 5,800	20% - 27%	15%	14%	60	80	90	13%	90	13%
B1069 Coldfair Green (location D)	5,400	7,300	1,150	8,450	16%	12%	12%	190	210	390	86%	390	86%
B1125 Westleton (location F)	2,400	2,950	650	3,500 – 3,600	19% - 22%	7%	14%	80	80	80	0%	80	0%
A1094 west of Snape Road (location G)	7,550	9,100	250	9,350 – 9,450	3% - 4%	6%	4%	180	200	210	5%	210	5%
B1069 Tunstall (location H)	3,050	4,400	650	4,900 – 5,050	11% - 15%	10%	3%	150	160	160	0%	160	0%
B1121 Saxmundham (location I)	4,550	5,400	250	,5200 – 5,650	-4% - 5%	-3%	-4%	50	60	60	0%	60	0%
A1120 Yoxford (location J)	3,650	4,500	800	5,300 – 5,350	18% - 19%	11%	13%	180	200	200	0%	200	0%
A144 Halesworth (location K)	6,900	8,250	600	8,850	7%	5%	4%	240	270	270	0%	270	0%
B1125 Blythburgh (location L)	1,650	2,050	500	2,500 – 2,550	22% - 24%	6%	16%	60	60	60	0%	60	0%
A145 Beccles (location M)	15,350	17,100	400	17,500	2%	1%	2%	440	490	560	14%	590	20%
B1119 between Framlingham and A12 (location N)	2,400	2,750	100	2,800 – 2,850	2% - 4%	1%	1%	30	30	30	0%	30	0%
B1078 Wickham Market (location O)	3,850	6,200	1,000	7,200 – 7,250	16% - 17%	15%	8%	160	190	190	0%	190	0%
B1116 Hacheston (location P)	6,650	7,250	200	7,450 – 7,500	3% - 3%	3%	3%	70	80	80	0%	80	0%

A14 south of Ipswich (west of Seven Hills junction) (location S)	56,900	69,550	1,750	70,850 – 71,300	2% - 3%	1%	2%	8,860	10,880	11,430	5%	11,690	7%
A14 Felixstowe Branch (east of Seven Hills junction) (location T)	44,850	53,300	200	53,500	0%	0%	Less than 1%	7,190	9,150	9,210	1%	9,240	1%

Table 4.14: Peak period of Sizewell C construction – changes in daily, peak hour and HGV and bus flows (road-led strategy) at the remaining locations

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
Lover's Lane, Leiston (location A)	2,500	3,850	600	4,450 – 4,700	16% - 22%	18%	24%	80	90	400	344%	400	344%
B1119 Saxmundham Road, Leiston (location C)	3,750	4,550	1,250	5,450 – 5,800	20% - 27%	15%	14%	60	80	90	13%	90	13%
B1069 Coldfair Green (location D)	5,400	7,300	1,150	8,400 – 8,450	15% - 16%	12%	12%	190	210	390	86%	390	86%
B1125 Westleton (location F)	2,400	2,950	650	3,500 – 3,600	19% - 22%	7%	14%	80	80	80	0%	80	0%
A1094 west of Snape Road (location G)	7,550	9,100	250	9,350 – 9,500	3% - 4%	6%	4%	180	200	210	5%	210	5%
B1069 Tunstall (location H)	3,050	4,400	600	4,900 – 5,000	11% - 14%	10%	3%	150	160	160	0%	160	0%
B1121 Saxmundham (location I)	4,550	5,400	250	5,200 – 5,650	-4% - 5%	-3%	-4%	50	60	60	0%	60	0%
A1120 Yoxford (location J)	3,650	4,500	800	5,300	18%	11%	12%	180	200	200	0%	200	0%
A144 Halesworth (location K)	6,900	8,250	600	8,800 – 8,850	7% - 7%	5%	4%	240	270	270	0%	270	0%
B1125 Blythburgh (location L)	1,650	2,050	500	2,500 – 2,550	22% - 24%	6%	16%	60	60	60	0%	60	0%
A145 Beccles (location M)	15,350	17,100	400	17,500	2%	1%	2%	440	490	570	16%	610	24%
B1119 between Framlingham and A12 (location N)	2,400	2,750	100	2,800 – 2,850	2% - 4%	1%	-1%	30	30	30	0%	30	0%

Location	Current weekday traffic flows	Pre-Sizewell C weekday traffic flows	Sizewell C weekday peak construction traffic flows (typical day)	With Sizewell C weekday peak construction traffic flows (typical day)	% increase	07:00-09:00 weekday construction traffic % increase (typical day)	16:00-18:00 weekday construction traffic % increase (typical day)	Current daily HGV and bus flow	Pre-Sizewell C daily HGV and bus flow	With Sizewell C daily HGV and bus flow (typical day)	% increase	With Sizewell C daily HGV and bus flow (busiest day)	% increase
B1078 Wickham Market (location O)	3,850	6,200	1,050	7,250 – 7,350	17% - 19%	18%	9%	160	190	190	0%	190	0%
B1116 Hacheston (location P)	6,650	7,250	200	7,450	3%	2%	3%	70	80	80	0%	80	0%
A14 south of Ipswich (west of Seven Hills junction) (location S)	56,900	69,550	1,850	70,800 – 71,400	2% - 3%	1%	1%	8,860	10,880	11,500	6%	11,820	9%
A14 Felixstowe Branch (east of Seven Hills junction) (location T)	44,850	53,300	200	53,500	0%	Less than 1%	Less than 1%	7,190	9,150	9,220	1%	9,260	1%

5. MAIN DEVELOPMENT SITE

5.1. Introduction

5.1.1. The main development site comprises the total area needed for constructing and operating Sizewell C. The buildings, engineering and operations that make up the main development site are summarised in **Chapter 2** of this Stage 4 consultation document and detailed in Volume 1, Chapter 7 of the Stage 3 Main Consultation Document. The preliminary environmental information (PEI) available about the likely impacts of the main development site is in Volume 2A, Chapter 2 of the Stage 3 Main Consultation Document.

5.1.2. This chapter describes and explains changes to the main development site red line and mitigation proposals from those that were presented at Stage 3. Except for the changes included in this chapter, our proposals for the main development site are as described in Volume 1, Chapter 7 and Volume 2A, Chapter 2 of the Stage 3 Main Consultation Document. The red line boundary shows the extent of land that we propose to apply for powers over through our application for development consent. Since the start of Stage 3, we have continued to develop our proposals and engage with relevant stakeholders, and this has resulted in additional land being required for the main development site. **Figure 5.1** shows the red line boundary presented at Stage 3 compared with the red line boundary presented at this Stage 4.

5.1.3. EDF Energy continues to carry out environmental assessments to understand the likely impacts of the construction and operation of Sizewell C on the environment. At Stage 3, PEI was presented for each proposed development site in Volumes 2 and 3 of the Stage 3 Main Consultation Document. The PEI included proposals for both embedded and additional mitigation measures to reduce potential adverse impacts where possible. The mitigation that EDF Energy relies on will also include land not within the red line but under EDF Energy's control.

5.1.4. For clarity, each change has been summarised and compared to the Stage 3 proposal with an explanation. For each change, we have included a figure that clearly compares the Stage 3 red line site boundary with the Stage 4 red line boundary and shows the additional land included at this Stage 4 consultation in blue. We have also provided a description of any changes to the PEI presented at Stage 3 that arise as a result of the red line changes or mitigation proposals described in this chapter.

5.1.5. Most of the changes are a result of designs developing in detail and assessments reaching a new level of maturity. We welcome your views on the changes presented here.

5.1.6. This chapter is structured as follows:

- **section 5.2:** access roundabout and approach roads;
- **section 5.3:** National Grid pylons;
- **section 5.4:** Sizewell C pylons;
- **section 5.5:** a rail spur at land east of Eastlands Industrial Estate;
- **section 5.6:** Bridleway 19;
- **section 5.7:** Leiston off-site sports facilities;
- **section 5.8:** Round House;
- **section 5.9:** Kenton Hills car park;
- **section 5.10:** marsh harrier compensation land;
- **section 5.11:** fen meadow compensation land; and
- **section 5.12:** flood compensation land; and
- **section 5.13:** describes changes to the PEI presented at Stage 3 as a result of the proposed changes included in this chapter.

Figure 5.1: Changes to the main development site red line