



# West Bexhill multi-modal corridor and low carbon growth area

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## West Bexhill multi-modal corridor and low carbon growth area

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## 1. Introduction

### 1.1 Study overview

Jacobs has been commissioned by Rother District Council (RDC) to prepare an evidence base document to support their plan making process. RDC are in the process of preparing their New Local Plan 2019-2039 which will set out the district's spatial strategy for the distribution and development of new homes, employment and supporting infrastructure in Rother, while protecting the district's valued natural and historic environment. It will also incorporate detailed development management policies to guide and manage development across the district.

RDC is in the process of developing its Local Plan for Regulation 18 consultation in early 2023 where formal views will be sought on a series of issues and spatial options. One of the options for potential consideration is a major extension to the west of the district's largest town – Bexhill, however it is known that the road network is at capacity and public and active transport options are limited. To support the assessment of these sites, Jacobs has been commissioned by RDC to undertake a study to establish the problems and opportunities of a transport intervention and review the requirement for and the feasibility of a multi-modal transport corridor connecting the A259 and A269 in West Bexhill and whether it could help to enable a zero-carbon transport vision for the area.

The study is a phased exercise with stage gateway reviews with RDC and East Sussex County Council (ESCC) Officers at intermediate points to validate that the study should continue.

In line with the Department for Transport's (DfT) Transport Analysis Guidance (TAG) the study initially explores the strategic context for the scheme and identifies the wider problems and opportunities an intervention would address. It also explores the feasibility of potential routes, integration with sustainable transport networks and how the project could be funded.

If commissioned, subsequent phases of the study will involve transport modelling work to assess the current network performance and the level of growth it could accommodate. If that assessment confirms that network impacts potentially merit a significant intervention, then further modelling will be undertaken to assess the impact of potential feasible options on the highway network.

### 1.2 Study area

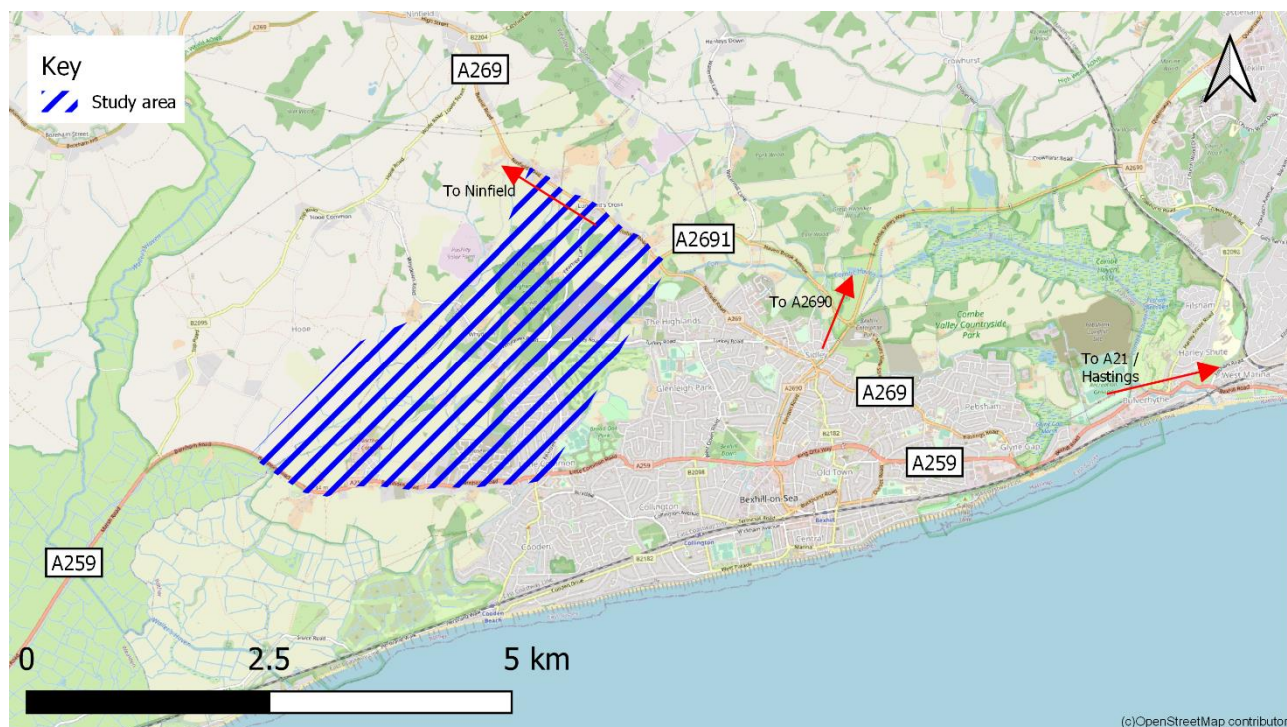
Bexhill with just under 50,000 people is home to around half of the population of Rother district. It has well-established public transport links and a range of community services. RDC recognise Bexhill as one of the most sustainable settlements in the district and it has been identified as a potential location for growth, as long as the transport network has sufficient capacity to accommodate the additional demand.

Figure 1 shows the study area. The A259 connects Bexhill with Hastings in the east and Eastbourne and the A27 in the west. The A259 connects with the A2690 in Bexhill approximately 400m north of Bexhill town centre. This new road, locally dubbed the Bexhill-Hastings Link Road, opened in 2015. This road creates a direct connection between the A259 and the A21 north of Hastings. The A269 is also accessed from the A259 at the A2690 junction. The A269 connects the centre of Bexhill, via Sidley and Ninfield to the A271 north-west of Bexhill for cross-country travel to Hailsham and the A22. Another new road, the A2691, connects the A269, north of Sidley (south of Lunsford's Cross) with the A2690 Bexhill-Hastings Link Road north of Bexhill and with the A2036, which connects to the A259 on the eastern edge of Bexhill. The A2691 forms a northern distribution road for Bexhill and has been the main focus for new development on both sides of the A2690 Link-Road. There is an historic expectation that this new road network (A2690 and A2691) around the northern half of Bexhill will connect with the A259 west of Bexhill

The A259 through Bexhill is part of the Strategic Road Network (managed by National Highways), although it is notable that east of its junction with the A2036 (the border between Rother and Hastings) it ceases to be so. As it traverses through Hastings, the A259 is the responsibility of the County Council and has been designated part of the Government's Major Road Network. The A259 becomes part of the Strategic Road Network again where it leaves Hastings to the east towards Rye and onwards along the coast to Folkestone. The A21 is also part of the Strategic Road Network, north of Hastings, connecting both Bexhill and Hastings north to Royal Tunbridge Wells and onwards to the M25 and London.

As with the A259, the A21 in Hastings is the responsibility of the County Council and is part of the Major Road Network.

**Figure 1. Study Area Map**



Bexhill is served by three railway stations, Bexhill, Collington and Cooden Beach operated by Southern Railway and offering direct connections to Ashford International, Hastings, Eastbourne, Brighton and London Victoria. There is a bus route (Stagecoach Service No. 99) which is an inter-urban connection between Hastings and Eastbourne, providing local connections between the west of Bexhill, Little Common, Bexhill town centre and railway stations. There are currently limited segregated cycle facilities in the vicinity of potential development areas to the west of Bexhill. Existing and proposed sustainable transport networks serving the west of Bexhill are described in more detail in section 5 of this report.

### 1.3 Background

Peter Davison Consultancy Ltd previously produced a Highways Capacity Assessment Report<sup>1</sup> in 2018 assessing highway capacity in Bexhill using transport modelling. The modelling and assessment looked at the ability of the highway network to accommodate substantial development of 1,500 dwellings west of Bexhill between 2028 and 2035. As part of that assessment, they tested three indicative routing options for a new corridor between the A259 and A269. The study did not explore the feasibility of the routes that were tested nor any of the wider strategic context that would eventually be required to support a future business case for a new transport corridor.

This previous work forms the starting point for further consideration – this study does not seek to just duplicate its work or its assessments and conclusions on routes. Further discussion on our approach is provided in Section 3.1.

### 1.4 Structure of report

This report documents the outcomes of the first three tasks of the study, outlined below:

<sup>1</sup> [https://www.rother.gov.uk/wp-content/uploads/2020/01/14\\_Bexhill\\_Highways\\_Capacity\\_Assessment\\_Report\\_Nov18.pdf](https://www.rother.gov.uk/wp-content/uploads/2020/01/14_Bexhill_Highways_Capacity_Assessment_Report_Nov18.pdf)

- **Task 1: Determine the potential strategic case and infrastructure / housing relationship**  
Documenting the problems and opportunities (not just the release of housing) that a transport intervention in the west Bexhill area is trying to solve, with a focus on the legal requirement for local planning authorities to contribute to the mitigation of climate change, the Council's vision for a Local Plan that is 'green to the core' and the corporate aim to be carbon neutral by 2030. No quantitative analysis of these problems was undertaken in this study, but it is important to understand this context when considering options and provide this starting point for future work.
- **Task 2: Determine potentially feasible options for a significant intervention**  
Reporting the outcomes of the desktop review of possible options (broad corridors) to connect the A259 with the A269 in the west of Bexhill and a follow-on route through to the North Bexhill Access Road (NBAR) (A2691). This high-level route appraisal uses:
  - High level environmental constraints mapping using publicly available desktop datasets.
  - High level engineering feasibility considering maps, google street view etc.
  - Town and Country Planning considerations as advised by ESCC and RDC.

We have produced a summary proforma for each option setting out the key strengths and weaknesses in terms of engineering feasibility, environmental constraints, town and country planning, indicative cost, and funding routes.

Whilst significant additional housing may trigger the need for a transport intervention, it is important to understand whether this could potentially be funded by housing or would need additional public sector support. We have undertaken website research into recent housing led road schemes elsewhere in south east and eastern England analysing the scale of development and outturn (or published) scheme costs to help provide an indication.

The summary of strengths and weaknesses would also note which additional constraints and criteria become pertinent if a scheme requires government funding support. This could mean that an option that delivered more housing, but had greater environmental impacts, would struggle to be funded.

### **Gateway 1: Confirm that feasible options exist for a significant transport intervention to take forward for further analysis**

- **Task 3: Consider how feasible options could be integrated into sustainable travel networks and carbon management strategies.**  
Following the outcome of Gateway 1, for options which remain potentially feasible, we set out the opportunities and threats associated with integrating a multi-modal corridor into existing and planned sustainable travel networks. We refer to the East Sussex Local Cycling and Walking Infrastructure Plan (LCWIP) including proposals for the Bexhill area, and information supplied by ESCC on its Bus Service Improvement Plan (BSIP). We also refer to the Royal Town Planning Institute (RTPI)'s net zero transport guide and DfT Carbon Management Guidance to identify high level problems and opportunities in relation to a bolder zero carbon vision.

The remainder of the report is structured as follows:

- Chapter 2: Early strategic case and infrastructure/ housing relationship.
- Chapter 3: Route option feasibility.
- Chapter 4: Funding opportunities.
- Chapter 5: Sustainable transport network integration.
- Chapter 6: Conclusions and next steps.

## **1.5 About this report**

This report relies on information that was readily available or provided directly by RDC or ESCC at the time of the study. It does not comprehensively cover all required content and level of evidence typically required in the Strategic Dimension of a Business Case submission to DfT and further analysis and investigations would be required to achieve this.

## 2. Strategic context, problems and opportunities

### 2.1 Introduction

This chapter establishes the strategic context for considering a new transport corridor west of Bexhill. In line with the DfT's TAG process, it outlines the problems and opportunities any such intervention would be trying to solve and which would need to be evidenced through further analysis including traffic modelling in order to build a robust business case for public sector funding.

### 2.2 Network operation and congestion

Prior to considering the potential for future growth, it is important to be aware of the existing transport situation. While traffic modelling would need to be undertaken to quantify current demand patterns, how well the network currently operates, and how it would be impacted by future growth, there are existing indicators of known congestion in the Bexhill urban area and along its key approaches such as the A259:

- National Highways has previously objected to development proposals in the west of Bexhill citing significant congestion on A259 and local junctions.
- National Highways previously stated position strongly suggests that any significant development in the west of Bexhill without sufficient mitigation would attract objections from them due to the impact on the A259 and key junctions. A significant intervention is likely to be required if growth is to be achieved.
- Politically, further development in the area without sufficient mitigation is likely to be resisted due to local concern with additional traffic on the A259 particularly through Little Common. As a significant potential growth area in the district, this issue is key to determining the RDC spatial strategy and the extent to which RDC can meet their objectively assessed need for housing. This is the key reason for the consideration of a multi-modal corridor in west Bexhill.
- Within the Bexhill urban area (including A269 London Road), ESCC are consulting on highway junction interventions to address existing congestion issues. Specifically, this is the southern section of the A269 going into Bexhill town centre and the junction improvements are focussed on London Road/Beeching Road, Town Hall Square and Sackville Road/Buckhurst Place/Terminus Road.

A transport intervention to the west of Bexhill could support and supplement schemes located in the town by providing alternative route options that divert traffic away from known congestion hotspots and heavily used junctions on the A259 and potentially re-allocate road space for shared and active travel modes.

### 2.3 Growth aspirations and physical constraints

The town of Bexhill is home to approximately half of Rother district's population with well-established public transport links and services. It is the most sustainable settlement in the district and has been identified as a potential location for growth, providing the transport network has sufficient capacity to accommodate the additional demand.

The Local Plan is required to plan for housing need through promoting a sustainable pattern of development that meets the identified need unless the adverse impacts of doing so would significantly and demonstrably outweigh the benefits.

The government's objectively assessed need for housing in Rother is 740 dwellings per annum (with a 2021 base date). This is a significant uplift compared with the adopted Core Strategy target of around 335 dwellings per annum.

A large proportion of the land in Rother District, outside of the main built-up area of Bexhill is the subject of landscape and environmental protections. As a result, historic and committed growth has tended to be concentrated within and around the town of Bexhill.

Land to the west of Bexhill could be used to provide an option for sustainable growth in conjunction with a wider place-based approach to minimise the need to travel and thereby reduce carbon emissions.



There is the opportunity as part of addressing capacity to integrate sustainable transport, including public transport and active mode provision.

## 2.4 Climate change and sustainable development

The Government's Net Zero Strategy policy paper<sup>2</sup> sets out policies and proposals for meeting the Government's net zero emissions commitment by 2050. Key commitments include investments in local cycling, walking and bus transport systems.

Government requires local planning authorities to contribute to the mitigation of climate change when preparing Local Plans and taking planning decisions. The National Planning Policy Framework (NPPF) sets out economic, social and environmental objectives to achieving sustainable development, which includes mitigating and adapting to climate change and moving to a low carbon economy. It states in paragraph 73 that the *"supply of large numbers of new homes can often be best achieved through planning for larger scale development such as new settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities (including a genuine choice of transport modes)."* Additionally, paragraph 154 notes that *"new development should be planned for in ways that can help to reduce greenhouse gas emissions, such as through its location, orientation and design."*<sup>3</sup>

The Government's Clean Growth Strategy<sup>4</sup> focuses on the need to grow the economy, whilst reducing greenhouse gas emissions. One of the key aims is to 'accelerate the shift to low carbon transport'. The strategy proposes a number of actions, including increasing the take up of ultra-low emission vehicles, developing an electric vehicle charging network and making cycling and walking the natural choice.

In line with Government requirements for local planning authorities to contribute to the mitigation of climate change and RCD's corporate aim to be carbon neutral by 2030, RDC's vision is for a Local Plan that is 'green to the core'.

The new Local Plan will also include a policy for biodiversity net gain from any new development and transport corridor as a result of the Environmental Act 2021 provisions. In parallel, ESCC are pursuing a people and place vision led approach to transport planning which recognises the value and importance of community and environment. In 2019, the County Council declared a climate change emergency and transport is one of the biggest, if not the biggest, contributor to carbon emissions in the county. As a result, there will be an increased emphasis on the County Council in the review of its Local Transport Plan to decarbonise transport.

The DfT's Transport Decarbonisation Plan<sup>5</sup> sets out the government's commitments and the actions needed to decarbonise the entire transport system in the UK. Strategic priorities include accelerating modal shift to public and active transport, decarbonising road transport and how we get our goods, and place based solutions to reduce emissions. Alongside this plan, the DfT has initiated a Carbon Management Programme to embed an integrated system for managing the whole life carbon of infrastructure projects. All transport infrastructure projects seeking government funding are expected to develop a Carbon Management Plan early in their lifecycle to manage and reduce whole life carbon impacts.

## 2.5 Planning for sustainable growth

Options for sustainable growth in Rother are limited because large parts of the district are the subject of landscape and environmental protections. Land to the west of Bexhill could be an option for sustainable growth in conjunction with a place-based approach to reduce carbon emissions. A transport intervention to the west of Bexhill could reduce pressure on the local road network and unlock sustainable development opportunities.

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<sup>2</sup> Net Zero Strategy: Build Back Greener, UK Government, October 2021

<sup>3</sup> National Planning Policy Framework, paragraph 72, MHCLG, July 2021. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [accessed 14 March 2022]

<sup>4</sup> Clean Growth Strategy, HM Government, October 2017. Available at <https://www.gov.uk/government/publications/clean-growth-strategy> [accessed 14 March 2022]

<sup>5</sup> Decarbonising transport: a better, greener Britain, Department for Transport, July 2020. Available at: <https://www.gov.uk/government/publications/transport-decarbonisation-plan> [accessed 10 May 2022]

RDC officers have indicated that the maximum development potential on sites in west Bexhill would be 2,500 homes. This is based on a desktop assessment of committed developments, allocations in the current local plan, and sites being considered through the Housing and Economic Land Availability Assessment (HELAA). The HELAA is considering sites submitted by landowners through the call for sites and sites identified by RDC officers. This maximum potential does not take account of land availability, highway and access constraints, landscape impact or any other planning matters.

## 2.6 Opportunity for modal shift

A multi-modal corridor with active mode facilities could help facilitate the introduction of an enhanced local cycle network serving the whole of Bexhill with links to Eastbourne, Hastings and St Leonards. Potential provision of new network infrastructure should be planned and designed with consideration of:

- East Sussex's Shared Transport Evidence Base (STEB) – a suite of evidence and modelling tools associated with the planning of future development and transport in the county;
- ESCC's Local Cycling and Walking Infrastructure Plan (LCWIP)<sup>6</sup>;
- The role and remit of Active Travel England to manage the national active travel budget in accordance with national standards – an executive agency of the DfT set up in 2022<sup>7</sup>;
- ESCC are reviewing their Local Transport Plan and considering the need to decarbonise transport as a key objective; and
- ESCC have developed a Bus Service Improvement Plan (BSIP). Whilst there are no planned bus priority measures in the Bexhill area to be funded through the £41m ESCC have secured for their BSIP, there are measures to increase service frequencies on key bus corridors, especially evenings and weekends as well as fare revenue incentives to encourage greater bus patronage. As such, multi-modal corridor could/should build upon this.

Segregated facilities would help cyclists and other active modes feel safe and respond proactively to the Government's Cycling and Walking Strategy – "Gear Change"<sup>8</sup> and Local Transport Note 1/20<sup>9</sup> on the design of the cycle infrastructure. Increased road capacity could give an opportunity to enhance bus network connections and service levels as well as provide additional road space for segregated cycle routes.

## 2.7 Opportunity to support public realm improvements in Bexhill

A multi-modal corridor to the west of Bexhill could help reduce traffic on the A259 and other main roads through the town and support plans to improve traffic management and enhance the public realm in the A269 London Road area.

Furthermore, pride and engagement in a local area has been linked to decarbonisation of the road network. Engaged communities, accepting the need for behaviour change and modal shift can help support decarbonised growth from 'the bottom up'.

## 2.8 Opportunity for Biodiversity net gain

Development of a new multi-modal corridor could create an opportunity to increase biodiversity through repurposing of parcels of land adjacent to the route currently used as existing rights of way or for agricultural purposes. Indeed, any scheme would need to meet the requirements of the Environment Act 2021 in respect of providing Biodiversity Net Gain either on-site or off-site.

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<sup>6</sup> ESCC LCWIP - <https://www.eastsussex.gov.uk/roads-transport/cycling-walking-cycling-plans/cycling-walking-infrastructure-plan> [accessed 23 May 2022]

<sup>7</sup> New executive agency Active Travel England launches, Department for Transport, 24 January 2022 <https://www.gov.uk/government/speeches/new-executive-agency-active-travel-england-launches> [accessed 24 May 2022]

<sup>8</sup> Gear Change, Department for Transport, July, 2020. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf) [accessed 15 March 2022]

<sup>9</sup> Cycle infrastructure design (LTN 1/20), Department for Transport, 27 July 2020. Available at: <https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120> [accessed 15 March 2022]

### 3. Route option feasibility

#### 3.1 Overview

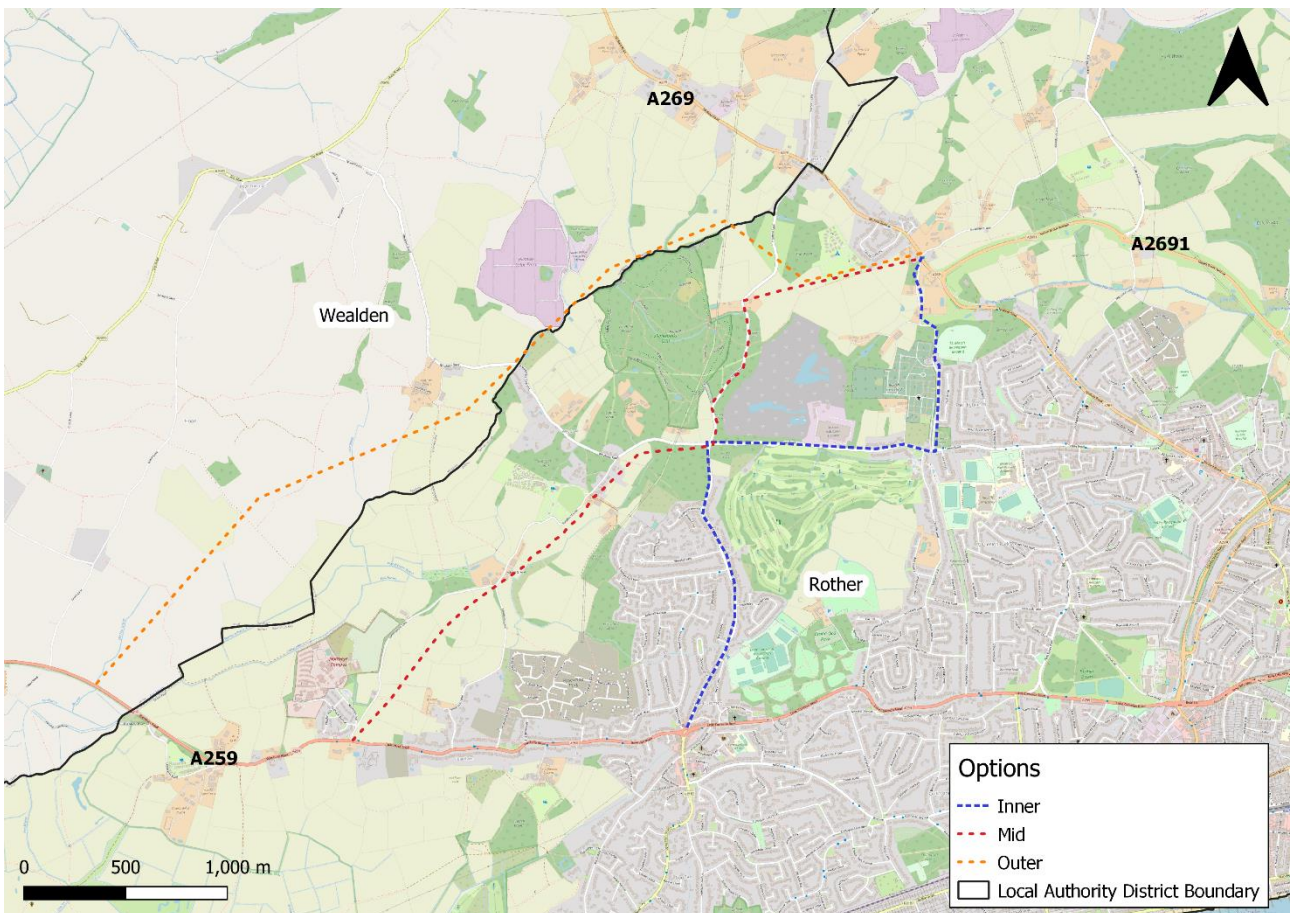
High level assessments of environmental and engineering constraints have been undertaken to determine the feasibility of constructing a new route, or improving existing connections, between the A259 and A269.

The environmental and engineering constraints have initially been assessed on the basis of the three indicative route options set out in the Peter Davidson Consultancy Ltd (2018) Highways Capacity Assessment Report<sup>10</sup>. The three options are listed below and presented in Figure 2.

- Inner Route
- Mid Route
- Outer Route

These routes have been taken as a starting point for the feasibility assessments with the understanding that other alternatives may emerge as the study progresses.

Figure 2. Peter Davidson Consultancy Ltd Study route options



The following sub-sections detail the environmental and engineering constraints based on the feasibility analysis for each route.

<sup>10</sup> Peter Davidson Consultancy Ltd (2018) Highways Capacity Assessment Report (2035 Development and Western Avenue)

## 3.2 Environmental constraints

The environmental constraints mapping analysis was undertaken using a 2 km study area buffer centred on the three indicative alignments. The analysis was desktop based and used readily available information.

The references used to draw up the Environmental Constraints plan are listed below:

- East Sussex Public Rights Of Way Map [online]. Available from: <https://row.eastsussex.gov.uk/standardmap.aspx> (Accessed 17 December 2021).
- Designated Site Natural England [online]. Available from: <https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1001606> (Accessed 17 December 2021).
- EA Main River Map [online]. Available from: <https://www.arcgis.com/apps/webappviewer/index.html?id=17cd53dfc524433980cc333726a56386> (Accessed 17 December 2021).
- Extrium [online]. Available from: <http://www.extrium.co.uk/> (Accessed 17 December 2021)
- GOV.UK Flood Map [online]. Available from: <https://flood-map-for-planning.service.gov.uk/confirm-location?eastings=572916&northing=109036&placeOrPostcode=TN39%204BY> (Accessed 17 December 2021).
- MAGIC DEFRA [online]. Available from: <https://magic.defra.gov.uk/MagicMap.aspx> (Accessed 17 December 2021).
- Information provided by RDC on the extent of the High Peartree, Smiths & Highwoods Local Wildlife Site.
- ROWMAPS [online]. Available from: <https://www.rowmaps.com/datasets/ES/> (Accessed 17 December 2021).

The results of the environmental constraints mapping exercise are summarised in Figure 3 and an Environmental Constraints Plan is provided in Appendix A. The key constraints found within the 2 km study area buffer are labelled in Figure 3 and discussed below.

**Table 3.1. Summary of environmental constraints**

Environmental Constraints	Indicative Western Avenue Route Options		
	Outer Route	Mid Route	Inner Route
Flood Zones	Crosses Flood Zone 3 twice (flooding from the East Stream River).	Crosses Flood Zone 3 (flooding from the East Stream River) via the existing Sandhurst Lane road bridge.	Crosses Flood Zone 2 (flooding from the East Stream River) via the existing Peartree Lane road bridge.
Source Protection Zones (SPZ)	<p>SPZ 2c lies within the footprint of this route.</p> <p>SPZ 1c lies 30 m to the north west of this route.</p> <p>SPZ 1 lies 85 m to the north west of this route.</p>	<p>SPZ 2c lies 515 m to the north west of this route.</p> <p>SPZ 1c lies 725 m to the north west of this route</p> <p>SPZ 1 lies 785 m to the north west of this route.</p>	<p>SPZ 2c lies 810 m to the north west of the route.</p> <p>SPZ 1c lies 980 m to the north west of this route</p> <p>SPZ 1 lies 1.05 km to the north west of this route.</p>
Protected Drinking Water Areas	The southern extent of this route crosses a Protected Drinking Water Area.	A Protected Drinking Water Area lies 1.2km to the north west of this route.	A Protected Drinking Water Area lies 2 km to the west of this route.
Scheduled Monuments	<p>One scheduled monument is present within 2 km of this route.</p> <p>The closest scheduled monument is 1.2 km to the south of the route.</p>	<p>Two scheduled monuments are present within 2 km of this route.</p> <p>The closest scheduled monument is 1.2 km to the south east of the route.</p>	<p>One scheduled monument is present within 2 km of this route.</p> <p>The closest scheduled monument is 860 m to the south west of the route.</p>

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Environmental Constraints	Indicative Western Avenue Route Options		
	Outer Route	Mid Route	Inner Route
Listed Buildings	<p>57 listed buildings are present within 2 km of this route.</p> <p>The closest listed building is The High House (Grade II) (Ref. 1044248) which lies 35 m north of the route.</p>	<p>39 listed buildings are present within 2 km of this route.</p> <p>The closest listed building is The High House (Grade II) (Ref. 1044248) which lies 35 m north of the route.</p>	<p>29 listed buildings are present within 2 km of this route.</p> <p>The closest listed building is The High House (Grade II) (Ref. 1044248) which lies 35 m north of the route.</p>
Public Rights of Way (PRoW)	<p>Six PRoWs cross this route.</p> <p>One PRoW lies along the path of the route along its northern extent.</p>	<p>One PRoW crosses this route.</p> <p>One PRoW lies along the path of the route along its northern extent.</p> <p>Seven PRoWs can be accessed from the existing roads along this route.</p>	<p>No PRoWs cross this route.</p> <p>One PRoW lies along the path of the route along its northern extent.</p> <p>Five PRoWs can be access from the existing roads along this route.</p>
Registered Parks and Gardens	None present within 2 km of this route.	None present within 2 km of this route.	None present within 2km of this route.
World Heritage Sites	None present within 2 km of this route.	None present within 2 km of this route.	None present within 2 km of this route.
Registered Battlefields	None present within 2 km of this route.	None present within 2 km of this route.	None present within 2 km of this route.

West Bexhill multi-modal corridor and low carbon growth area

Environmental Constraints		Indicative Western Avenue Route Options		
		Outer Route	Mid Route	Inner Route
Ramsar	<p>Hydrological Catchment area for Pevensey Levels Ramsar</p> <p>Notified for:</p> <p>Lowland Grazing Meadows</p> <p>Wetland Flora and Fauna</p> <p>Outstanding Invertebrate</p> <p>Lowland Wet Grassland e.g. Wintering Lapwing and Snipe</p>	Pevensey Levels Ramsar lies 80 m to the south west of this route.	Pevensey Levels Ramsar lies 80 m to the south west of this route.	Pevensey Levels Ramsar lies 80 m to the south west of this route.
Special Protection Area (SPA)		None present within 2 km of this route.	None present within 2 km of this route.	None present within 2 km of this route.
Special Area of Conservation (SAC)	<p>Hydrological Catchment area for Pevensey Levels SAC</p> <p>Notified for:</p> <p>Inland Water Bodies</p> <p>Humid, Mesophile Grassland</p> <p>Ramshorn snail <i>Anisus vorticulus</i></p> <p>Habitat Regulation Appropriate Assessment would be required to ensure impact on the protected site is avoided.</p> <p>Sustainable Drainage Systems (SuDS) would need to be considered for each option</p>	<p>Pevensey Levels SAC lies 80 m to the south west of this route.</p> <p>The tributaries of the river and river itself are all within hydrological connectivity.</p>	<p>Pevensey Levels SAC lies 540 m to the south west of this route.</p> <p>The tributaries of the river and river itself are all within hydrological connectivity.</p>	<p>Pevensey Levels SAC lies 910 m to the south of this route.</p> <p>The tributaries of the river and river itself are all within hydrological connectivity.</p>

West Bexhill multi-modal corridor and low carbon growth area

Environmental Constraints		Indicative Western Avenue Route Options		
		Outer Route	Mid Route	Inner Route
Site of Special Scientific Interest (SSSI)	<p>High Woods SSSI</p> <p>A mosaic woodland with sessile oak <i>Quercus petraea</i> coppice. Supports yellow-necked mouse <i>Apodemus flavicollis</i> and nesting birds such as sparrowhawk <i>Accipiter nisus</i>, willow tit <i>Poecile montanus</i>, and greater-spotted woodpecker <i>Dendrocopos major</i>.</p>	High Woods SSSI lies 45 m to the south of this route.	High Woods SSSI lies 80 m to the north of this route.	High Woods SSSI lies 200 m to the north of this route.
	<p>Pevensey Levels SSSI</p> <p>An area of low-lying grazing meadows. Supports communities of wetland flora and fauna, including wintering Lapwing <i>Vanellus vanellus</i> and Ramshorn snail <i>Segmentina nitida</i>.</p>	Pevensey SSSI lies 50m to the north of this route.	Pevensey SSSI lies 560m to the north of this route.	Pevensey SSSI lies 910m to the north of this route.
National Nature Reserves (NNR)	<p>Pevensey Levels NNR</p> <p>Notified for:</p> <p>Inland Water Bodies</p> <p>Humid, Mesophile Grassland</p> <p>Ramshorn snail <i>Anisus vorticulus</i></p>	Pevensey Levels NNR lies 1.8km to the south west of this route.	Pevensey Levels NNR is not present within 2km of this route.	Pevensey Levels NNR is not present within 2km of this route.
Local Nature Reserve (LNR)		No LNRs present within 2km of this route.	No LNRs present within 2km of this route.	No LNRs are present within 2km of this route.



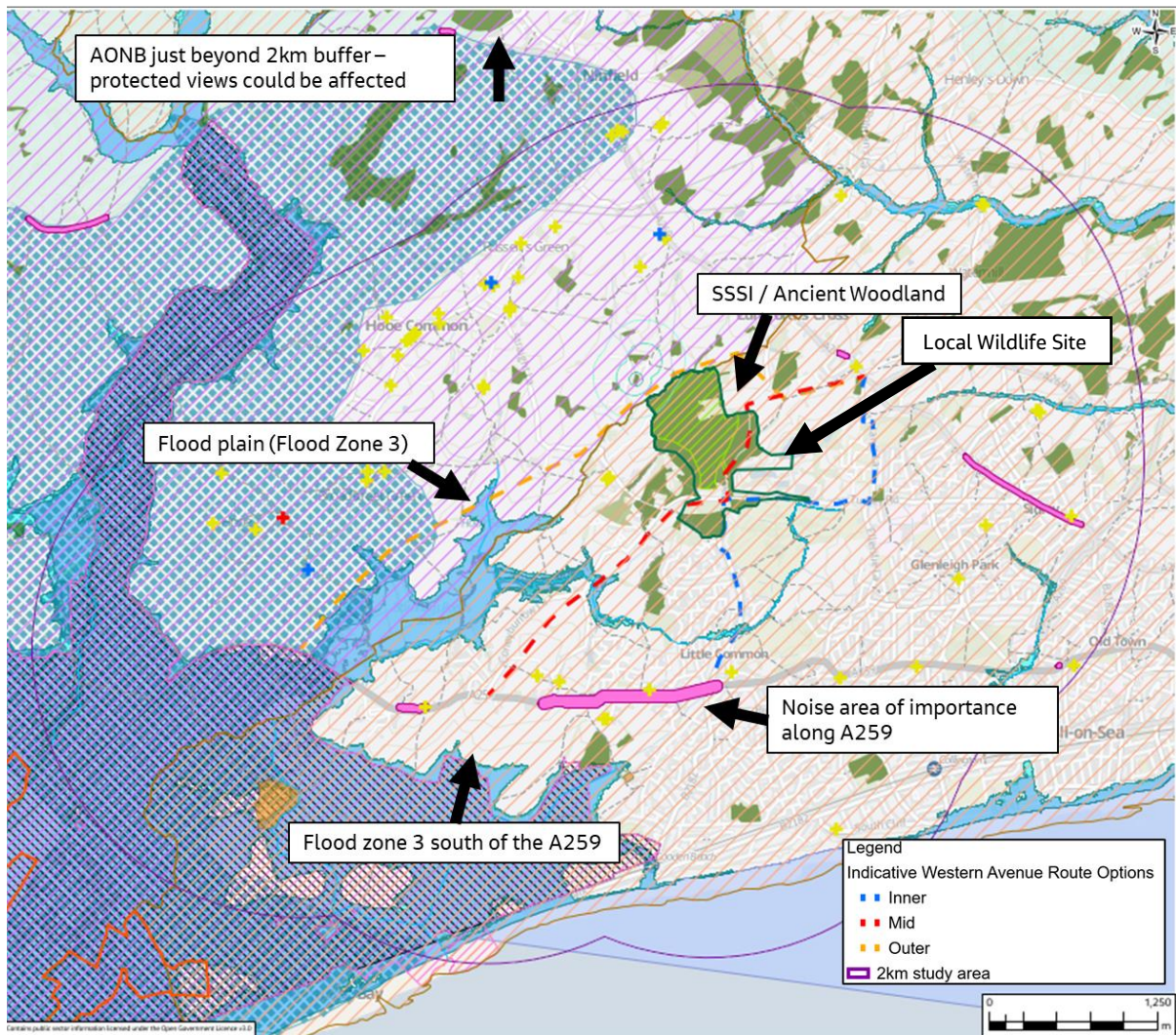
## West Bexhill multi-modal corridor and low carbon growth area

Environmental Constraints	Indicative Western Avenue Route Options		
	Outer Route	Mid Route	Inner Route
Non statutory sites – Local Wildlife Sites	None	CR05 – High Peartree, Smiths & Highwoods LWS covers a 750 metre section of Peartree. Likely to be strong local interest in the site given the designation and local use.	CR05 – High Peartree, Smiths & Highwoods LWS covers a 300 metre section of Peartree Lane and a 500 metre section of Turkey Road. Likely to be strong local interest in the site given the designation and local use.
Ancient Woodland, Tree Protection Orders (TPO) and historic hedgerows	Potential constraint, further assessment would be required along the corridor	Potential constraint, further assessment would be required along the corridor	Potential constraint, further assessment would be required along the corridor
Noise Important Area (NIA)	Five NIAs lie within 2km of this route. Three of these NIAs (references 12280, 14854 and 12260) lie on the A259, and two of the NIAs (references 12279 and 12278) lie on the A269.  This route would connect with both the A259 and A269.	Five NIAs lie within 2.4km of this route. Two of these NIAs (references 12280 and 14854) lie on the A259, and two of the NIAs (references 12279 and 12278) lie on the A269.  This route would connect with both the A259 and A269.	Five NIAs lie within 2km of this route. Three of these NIAs (references 12280, 14854 12260) lie on the A259, and two of the NIAs (references 12279 and 12278) lie on the A269.  This route would connect with both the A259 and A269.
Air Quality Management Area (AQMA)	No AQMAs lie within 2km of this route.	No AQMAs lie within 2km of this route.	No AQMAs lie within 2km of this route.

West Bexhill multi-modal corridor and low carbon growth area

Environmental Constraints	Indicative Western Avenue Route Options		
	Outer Route	Mid Route	Inner Route
Area of Outstanding Natural Beauty (AONB)	<p>No AONBs lie within 2km of the route.</p> <p>The closest AONB is High Weald is 2.7km the north of this route.</p>	<p>No AONBs lie within 2km of the route.</p> <p>The closest AONB is High Weald is 2.3km to the north of this route.</p>	<p>No AONBs lie within 2km of the route.</p> <p>The closest AONB is High Weald is 2.4km to the north of this route.</p>

Figure 3. Key environmental constraints (full key shown in the version of the map in Appendix A)



The Inner Route has no major natural environmental constraints however any significant increase in traffic would be likely to cause some noise, dust, air quality and severance impacts for the local community.

The SSSI and Ancient Woodland, located between the mid and outer routes, are significant environmental constraints. Development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest. Ancient Woodland is an irreplaceable habitat and development resulting in its loss or deterioration would be refused unless there are wholly exceptional reasons and a suitable compensation strategy.<sup>11</sup> Furthermore, these areas, together with other natural habitats within the vicinity of the route, are likely to contain protected species.

Planning permission would be required to widen the existing carriageway (even if within the highway boundary) for all of the route options given the close proximity to SSSIs and interface with various other environmental constraints. Furthermore, there would need to be consideration given to air quality impacts from resulting from increased and changed traffic volumes.

The original Outer Route could be routed to the west to avoid the SSSI and Ancient Woodland. However, if the alignment intersects Flood Zone 3, embankments and bridges would be required, adding to the capital cost

<sup>11</sup> National Planning Policy Framework (2021), paragraph 180

of the scheme Flood modelling would also be needed to determine the impacts further and in order to receive planning permission. The route alignment could be refined to avoid the flood zone once the local topography is known.

The environmental constraints analysis also highlighted the following additional considerations:

- To the north of the 2 km study area there is an AONB which could have protected views. In relation to NPPF para 176, great weight should be given to conserving and enhancing landscape and scenic beauty in AONB which have the highest status of protection in relation to these issues. Development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas. Any proposal will be considered against a significant backdrop of constraints associated with planning consents, SSSI and AONB.
- The A259 currently has three noise areas of importance however these are not likely to impact on the feasibility of a new corridor.
- Drainage modelling may be required to assess the impact of the new corridor on the Flood Zone 3 to the south and north of the A259 and to assess impacts on the Pevensy Levels Hydrological Catchment Area.
- Further assessment of the impact on tree protection orders and historic hedgerows would be needed.
- Outer and Mid routes intersect with existing Public Rights of Way.

Whilst this report considers a series of specific route options the potential for developing hybrid route alignments, combining specific components of the identified routes could also be considered. In considering hybrid options, the route could still meet scheme objectives but avoid critical environmental constraints.

### 3.3 Engineering constraints

#### 3.3.1 Engineering feasibility review scope and standards

An engineering feasibility review was undertaken in accordance with the current version of Design Manual for Road and Bridges (DMRB), as of December 2021. The review was undertaken with reference to the following Standards:

- CD 109- Highway Link Design.
- CD 127- Cross-sections and Headrooms.

The assessment was limited to reviewing satellite and street view imagery, therefore no appraisal of the 3D alignment was assessed.

The general (not route specific) key constraints noted at this initial stage of design include the following:

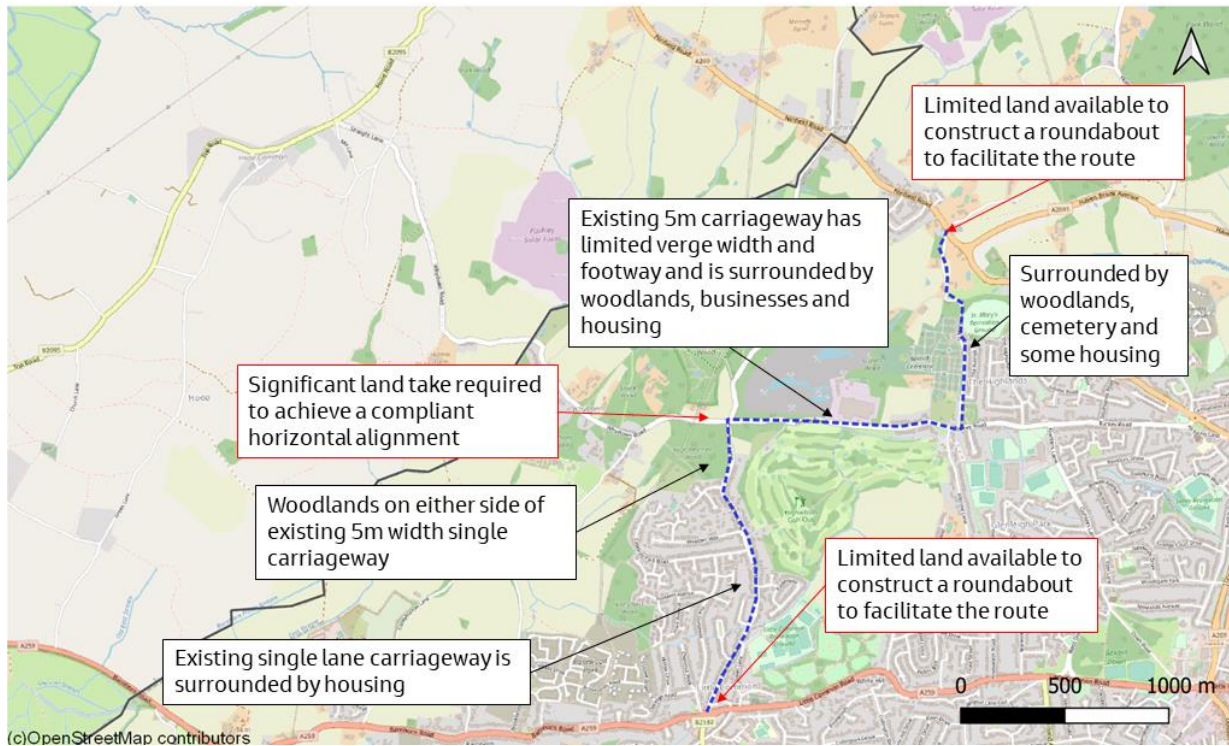
- Businesses, farms, residential properties and Bexhill Cemetery.
- Landscape, topography and existing woodlands (SSSI Highwoods).
- Utilities.

Sections 3.2.1 to 3.2.3 provide a summary of the key engineering considerations for each route option.

### 3.3.2 Inner Route

The Inner Route option would start at the A259/ Peartree Lane junction and travel north along Peartree Lane, east along Turkey Road and north along St Mary's Lane to join the A269. Figure 4 presents the key constraints for the Inner Route.

Figure 4. Inner Route key constraints



If the existing roads along this route were repurposed to form this link road, substantial sections would need to be reconstructed and widened to cater for additional traffic load and meet modern design standards.

Although visibility at the connection of the link road with A2691 is in keeping with 70 kph design speed and existing A2691 current speed limit, to the north of Peartree Lane the link road route is substandard for all design speeds.

A reduced requirement of 6 m wide carriageway with 2 m wide footway was considered along the built-up section of Peartree Lane where lower speed limits would apply. If this reduced requirement were used along the full route, it would still require 50% of the route to be improved and involve land take including existing residential properties. Without further land take this would also not deliver a 3m wide segregated route for cycling in line with LTN 1/20 along its length.

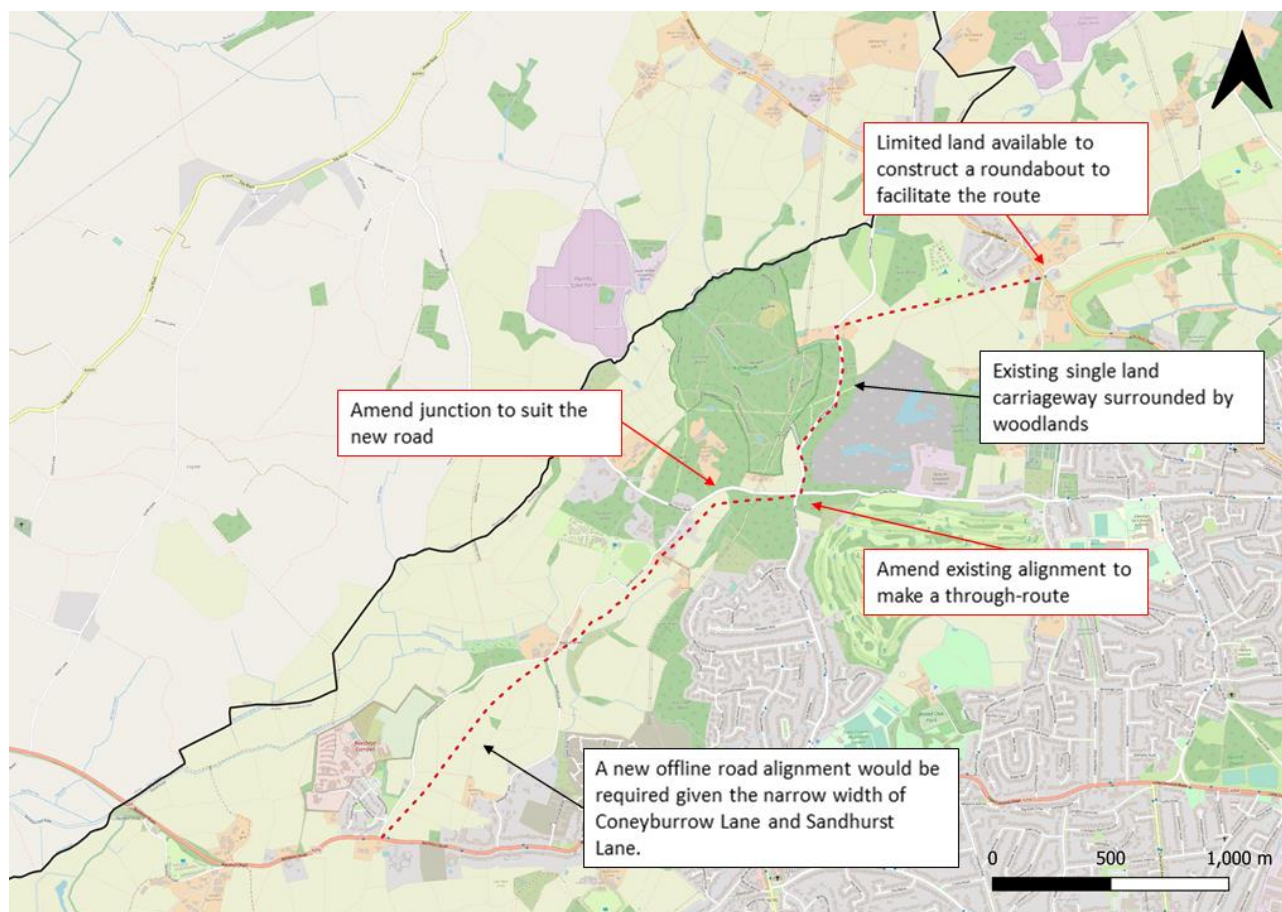
Acquiring residential properties to enable widening would be detrimental to public acceptability and construction activities would cause significant disruption for residents. Widening of Peartree Lane and Turkey Road would also impinge on the High Peartree, Smiths & Highwoods Local Wildlife Site.

Ultimately the biggest issue is that the Inner Route does not actually solve the traffic congestion problem, as it still utilises Little Common Roundabout (although this junction could be remodelled) and adds to its usage. This option could come forward in sections according to the different parcels of growth, which could potentially assist with external funding.

### 3.3.3 Mid Route

The Mid Route option would follow a new alignment from a new junction with the A259 to Whydown Road. It would run loosely parallel with Coneyburrow Lane and Sandhurst Lane in a north-east direction given that the existing single track country lanes are unsuitable for widening. It would then follow Whydown Road in an easterly direction, north along Peartree Lane and then head east across open land to join the A269. Figure 5 presents the key constraints. Constraints caused by the Highwoods SSSI and Ancient Woodland do though mean it is not possible to significantly widen this road, which in-turn is likely to mean that this route is not viable.

Figure 5. Mid route key constraints

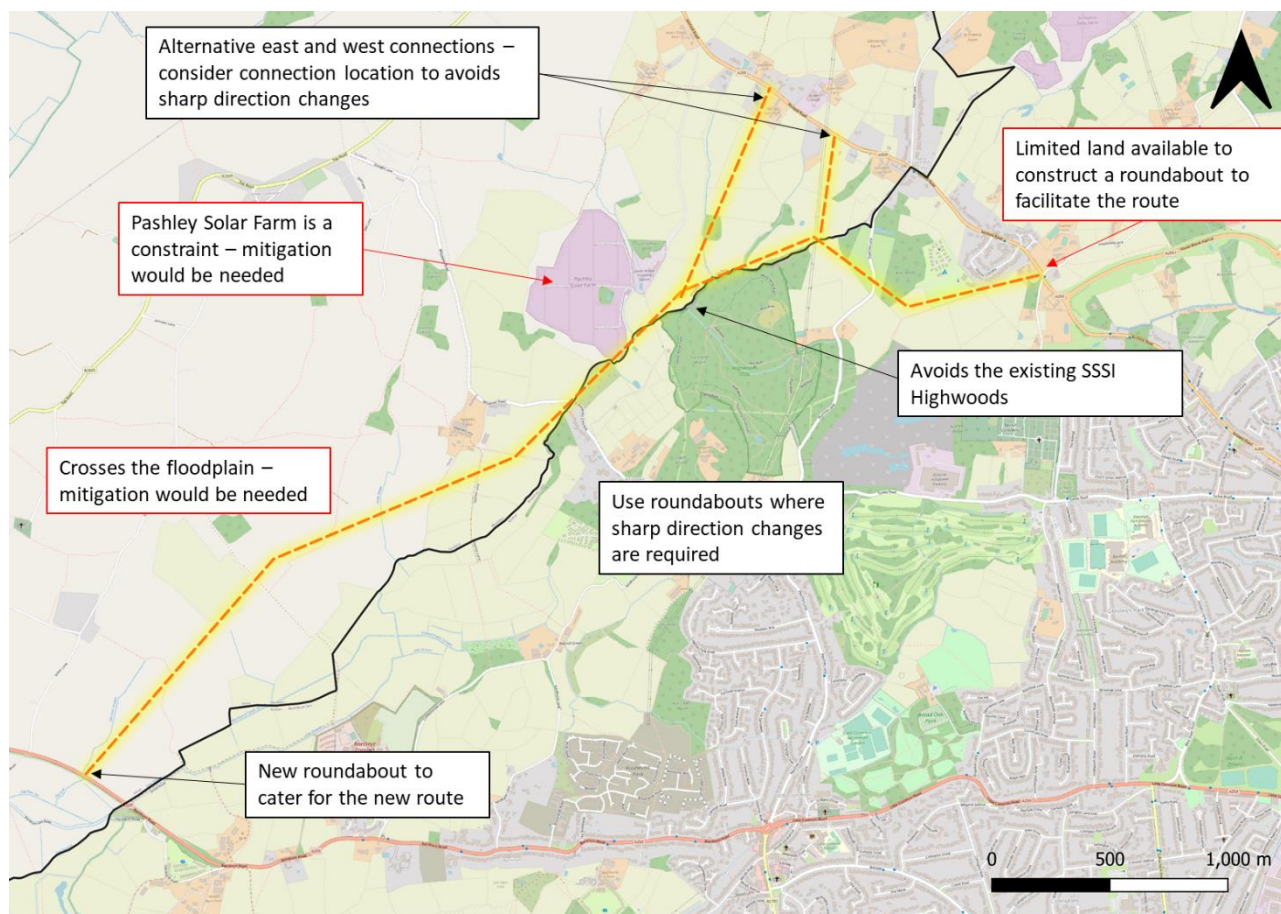


If Whydown Road and Peartree Lane were incorporated into a new single carriageway road they would need to be reconstructed to cater for additional traffic load and significant sections would need to be widened or new alignments created, which would be likely to impact on the Highwoods SSSI & Ancient Woodland, Local Wildlife Site and some existing residential properties. These constraints mean the northern part of the mid-route is unlikely to be achievable. Roundabouts would need to be constructed to facilitate connections at the A259 and A269. Consideration would need to be given to traffic calming measures along Peartree Lane to the south towards Little Common as there is the potential for it to become a rat-run.

### 3.3.4 Outer Route

The route does not follow an existing highway. It would start at a new junction with the A259 and travel northeast, crossing Whydown Road and continuing across open land to join the A269 east of Green Lane. Two alternative connection locations on A269 further west from the alignment modelled in the 2018 study have also been considered.

**Figure 6. Outer Route key constraints**



A new carriageway following this route would meet modern design standards and could be defined to avoid the SSSI and other physical constraints such as the Pashley Solar Farm. The section that crosses the flood plain would require mitigation such as an embankment or bridge. Alternatively, there is potential that the route could be refined to avoid the flood plain, subject to the findings of topographical and environmental surveys. Sharp changes in direction along the route could be accommodated using roundabouts. Connecting to A269 further north between Crouch Lane and Peartree junctions could also reduce sharp changes in direction, however any connection north of Lunsford’s Cross would add traffic to a section of the A269 that might not be suitable for upgrading.

### 3.4 Planning considerations

As illustrated in Figure 2, the Inner and Mid Route options are located entirely within Rother District whereas the Outer Route option also crosses into Wealden District. Should a version of the Outer Route be taken forward in the alignment shown above, there would need to be further additional consultation with Wealden District Council. It would also need to be taken forward with Wealden District Council as a joint project.

Planning permission and Environmental Impact Assessments would be required for any new carriageway route and would also be required to widen an existing carriageway such as Peartree Lane or Turkey Road in close proximity to SSSI or other major environmental constraints and receptors.

Furthermore, consideration would need to be given to air quality impacts resulting from increased traffic.

Land availability would also need to be considered as part of future work, both in terms of the land needed to build mid and outer routes away from development sites, and to also construct new junctions on the A259 and A269. Land ownership would need to be established, and landowners consulted to understand their willingness to negotiate or whether a Compulsory Purchase Order would be required, and all the risks that this would entail.

### 3.5 Construction cost estimates

High level estimates of construction costs have been calculated for the three main route options, including some variations on the outer route alignment. In the absence of a quantified risk analysis being undertaken at this early stage, an uplift of 46% has been applied to represent risk. This figure corresponds to the Treasury's recommended Optimism Bias<sup>12</sup> uplift for projects at Strategic Outline Case stage.

The assumptions used to calculate the construction costs are presented in Table 3.2.

Table 3.2. Cost assumptions

Unit Cost (2017 prices) <sup>13</sup>	Average (£mil)	Lower Quartile (£mil)	Upper Quartile (£mil)
Single carriageway per KM	8.2	4.8	11.9
Geometric junction improvement	1.8	1.1	2.5
Unit costs for flood protection (2019 prices) <sup>14</sup>	Average (£mil)	Lower bound ( 25%)	Upper bound (+25%)
Flood protection £ per KM	10.1	7.6	12.7
Inflation based on a scheme construction in 2029 to open in 2030 <sup>15</sup>			
2017 – 2019	8.7%		
2017 - 2021	12.6%		
2021 - 2029	30.6%		
Stage 1 Optimism Bias figure in the absence of a risk figure.			
46%			
Land take			
English Housing Survey (2020-21) average usable floor space of a dwellings in 2020	96 m <sup>2</sup>		
Rother Local Plan Viability Assessment (RDC, 2018) Average sales Value per sqm, existing houses Bexhill Fringe	£3,188		

Table 3.3 presents a summary of the length and cost of construction (based on the assumptions presented in Table 3.2) for the Inner route.

<sup>12</sup> Optimism bias is the demonstrated systematic tendency for appraisers to be over-optimistic about key project parameters, including capital costs, operating costs, project duration and benefits delivery. The Green Book recommends applying specific adjustments for this at the outset of an appraisal. Optimism bias estimates are a form of reference class forecasting, which predicts future outcomes based on the outcomes for a group of similar past projects. HM Treasury (2020) The Green Book

<sup>13</sup> Costs benchmarked from Jacobs' work on Transport for the North's Road Report and Strategic Development Corridors

<sup>14</sup> Based on Hertfordshire County Council's Little Hadham Bypass scheme with a £39.58m cost for 3.9 km road and flood mitigation measures, (2019 prices for completion 2021)

<sup>15</sup> Derived from the General Civil Engineering Index



**Table 3.3. Inner Route summary**

	£36M - £60M
	£17M - £29M

Table 3.4 presents a summary of the length and cost of construction (based on the assumptions presented in Table 3.2 for the Mid Route.

**Table 3.4. Mid Route summary**

	£67M - £111M
	£2M - £4M

Table 3.5 presents the length and cost of construction (based on the assumptions presented in Table 3.2 for the Outer Route are provided in the table below.

**Table 3.5. Outer route summary**

	Outer western alternative: 4.2 km
	Outer eastern alternative: 4.3 km
	Section intersecting flood plain: 1.2 km
	Outer original: £81M - £134M
	Outer western alternative: £64M - £106M
	Outer eastern alternative: £65M - £109M

Table 3.6 provides a summary of the three initial route options and the additional alternative outer option alignments in terms of route length and construction cost.

**Table 3.6. Route option summary**

	1.75 km	4.2 km	Outer original: 5 km
			Outer western alternative: 4.2 km
			Outer eastern alternative: 4.3 km
			Section intersecting flood plain: 1.2 km
Estimated construction cost (inc. risk, inflation based on an opening year of 2030)	£36M - £60M	£67M - £111M	Outer original: £81M - £134M
			Outer western alternative: £64M - £106M
			Outer eastern alternative: £65M - £109M
Estimated cost of purchasing existing residential units	£17M - £29M	£2M - £4M	N/A
Totals (inc. risk, inflation based on an opening year of 2030)	£53M - £89M	£69M - £115M	Outer original: £81M - £134M
			Outer western alternative: £64M - £106M
			Outer eastern alternative: £65M - £109M

### **3.6 Feasibility summary**

Table 3.7 provides a summary of the feasibility assessments for three indicative route options defined in the 2018 study. The performance criteria has been given a RAG (Red-Amber-Green) rating to indicate the potential impact, with red indicating the most severe, and likely insurmountable impacts; amber representing adverse impacts which require either further study or are likely to be mitigated and green representing minimal impact or benefits.

The table shows that each of the options have at least one significant challenge in their initial guise. As a result, further options and alternative alignments are discussed in section 5.4 of this report.

**Table 3.7. Option feasibility summary**

Performance Criteria	Route Option		
	Inner Proposal	Mid Proposal	Outer Proposal
<b>Land take requirement</b>	Significant land required to widen the existing route and bring up to standard. Some existing buildings affected. Difficulty near existing quarry.	Significant land would be required to widen the existing carriageway to meet 100kph standard. Some existing buildings affected.	Completely new route across farmland, solar farm, no buildings affected.
<b>Landscape and townscape impacts</b>	Significant townscape impacts	Significant townscape impacts	Very significant landscape impacts
<b>Proximity to existing dwellings</b>	Proposal through existing conurbation.	Alignment past some existing buildings.	Minimal impact.
<b>Delivery of Bexhill Expansion</b>	While traffic movements will be improved majority of route is already developed Likely to encourage traffic towards Little Common roundabout.	Access improved to wider Bexhill. Potential to open up land for developments to the south of the new transport corridor.	On its own the route does not offer the biggest improvement for development as the land on its route is not developable. It would need to be accompanied by local sustainable access improvements to access developable land.
<b>Biodiversity /Ecology Impact</b>	Impact on Local Wildlife Site. Likely to be some impact on dust as a result of increased traffic.	Potential impacts on SSSI and Ancient Woodland which are nationally protected habitats. Air quality might also have an impact on the SSSI and Ancient Woodland. Impact on Local Wildlife Site.	No major biodiversity impacts and opportunity for biodiversity corridor. Routing further west to avoid the SSSI and Ancient Woodland may require embankments and bridges, which could cause minor

Performance Criteria	Route Option		
	Inner Proposal	Mid Proposal	Outer Proposal
			disruption to wildlife habitats.
<b>Flood Zone</b>	Minimal impact.	Minimal impact.	Intersects Flood Zone 3, flood mitigation measures would be required.
<b>Air Quality Impact</b>	Likely to be some impact on air quality as a result of increased traffic.	Likely to be some impact on air quality as a result of increased traffic.	Likely to be some impact on air quality as a result of increased traffic.
<b>Noise Impact on existing properties</b>	Widened route is proposed through built up areas so there likely to be some impact on noise. Construction will also have a significant impact on noise.	Widened route is proposed through built up areas so there likely to be some impact on noise. Construction will also have a significant impact on noise.	The proposed route is away from existing conurbation. Impact of construction would be low. However, the use of a new road would create a new noise source impacting on rural character, wildlife and any existing dwellings.
<b>Embodied carbon</b>	An estimate of embodied carbon can be made from estimates of carbon emissions from road building activities. Embodied carbon calculations are per kilometre, hence construction of longer road lengths lead to greater levels of embodied carbon emissions <sup>16</sup> .	The Mid route is almost double the length of the Inner route with greater levels of embodied carbon.  Further work would be required to assess the whole lifecycle carbon impacts of the road and the extent to which it offset emissions from reduced congestion	The Outer route is almost double the length of the Inner route with greater levels of embodied carbon  Further work would be required to assess the whole lifecycle carbon impacts of the road and the extent to

<sup>16</sup> <https://decarbon8.org.uk/wp-content/uploads/sites/59/2022/02/Everything-Counts-Why-transport-infrastructure-emissions-matter-for-decision-makers.pdf> [Accessed 23 May 2022]

Performance Criteria	Route Option		
	Inner Proposal	Mid Proposal	Outer Proposal
	At 1.75 km and with re-use of existing sections of road with the potential to recycle materials the inner route is the shortest and is likely to have lower levels of embodied carbon. However this option would not solve congestion problems (and the related carbon emissions) at Little Common roundabout.		which it offset emissions from reduced congestion
Traffic Impact	Proposal through existing conurbation. This design does not bypass but incorporates Little Common Roundabout. Volumes of traffic would increase here as Little Common is the nearest local centre to new developments to the south of the new transport corridor.	Some properties affected but fewer than for the Inner proposal.	Construction mainly offline, minimal disruption to existing routes.
Highway Function	If it were accepted that the route was widened it is believed there will still be issue with the horizontal alignment without further land take.	If it were accepted that the route was widened it is believed there will still be issue with the horizontal alignment without further land take.	The route can be built to standard. The route would mainly function as a bypass for through-traffic with little opportunity for enhancing public transport connections with Bexhill town centre as there are no key attractors in the vicinity.

Performance Criteria	Route Option		
	Inner Proposal	Mid Proposal	Outer Proposal
<b>Buildability</b>	Difficulty with construction in built up area and amount of widening with difficult access.	Difficulty with construction due to amount of widening with difficult access.	While the route is longer, construction would be relatively uncomplicated.
<b>Estimated cost range (inc. risk, inflation based on an opening year of 2030 and land take)</b>	£53M - £89M	£69M - £115M	Original: £81M - £134M Western alternative: £64M - £106M Eastern alternative: £65M - £109M

## 4. Potential funding opportunities

### 4.1 Introduction

A new multi-modal corridor would require some funding from public sector sources as it is very unlikely that private sector funding obtained from the Community Infrastructure Levy (CIL) and Section 106 contributions would be sufficient to cover the full required costs.

### 4.2 Private sector funding opportunities

The Community Infrastructure Levy (CIL) is a charge which can be levied by local authorities on new developments in their area to help them deliver the infrastructure needed to support that development. Most new development which creates net additional floor space of 100 square metres (sqm) or more, or creates a new dwelling, is potentially liable for the levy, (although it is important to note that affordable housing does not pay the levy).

Within Rother District, the CIL Charging Rate for Strategic Urban Extensions in Bexhill is currently £75 per sqm. However, it should be noted that 15% of CIL is directed to town / parish councils and 5% for administrative costs prior to use on projects, resulting in £60 per sqm as the remaining maximum sum available per sqm. Table 4.1 below presents the number of homes that would be needed to deliver a single carriageway in Rother using CIL funding alone. The estimates are presented based on the costs with and without optimism bias<sup>17</sup> calculated as described in section 3.5.

**Table 4.1 No. of private homes needed to deliver a single carriageway using CIL funding (based on construction cost in 2021 prices, available CIL value per sqm of £60 and average sqm per dwelling of 96 sqm)**

Route option	Without optimism bias	With optimism bias (46%)
Inner	6,300 to 10,500	9,200 to 15,400
Mid	6,500 to 10,800	9,500 to 15,800
Outer Original	7,300 to 12,200	10,700 to 17,900
Outer Western Alternative	5,800 to 9,700	8,500 to 14,200
Outer Eastern Alternative	5,900 to 9,900	8,700 to 14,500

The calculations above assume that the full amount of any remaining CIL contribution would be available to fund the new transport corridor. In reality it is unlikely that the full amount could be used for a transport corridor as there would be other essential infrastructure needs competing for the same funds.

RDC has indicated that around 2,500 homes is the maximum potentially developable in west Bexhill as a result of committed developments, allocations in the current local plan, and HELAA identified sites. Even if a further 3,500 homes associated with allocations and land in North and East Bexhill were also included, the level of CIL from development would be significantly below that required (note that to be policy compliant, 30% of homes development would be affordable homes, and would not be liable to pay CIL) to fund a new road and further funding sources will have to be pursued.

Section 106 (S106) contributions can also be sought from developers towards the costs of providing community and social infrastructure needs arising from the new development. These are charged based on the specific needs of the local community. It is not guaranteed that the full amount of contributions would be

<sup>17</sup> Optimism bias is the demonstrated systematic tendency for appraisers to be over-optimistic about key project parameters, including capital costs, operating costs, project duration and benefits delivery. The Green Book recommends applying specific adjustments for this at the outset of an appraisal. Optimism bias estimates are a form of reference class forecasting, which predicts future outcomes based on the outcomes for a group of similar past projects. HM Treasury (2020) The Green Book

available to fund transport improvements as they may also be used towards schools, affordable housing and other infrastructure projects. Significant S106 would also impact the viability and likelihood of a development coming forward.

The calculations above demonstrate that private sector contributions would not be sufficient to cover the full costs of a multi-modal corridor, so public sector funding sources would also be required. Some potential funding opportunities are outlined in the following section.

### 4.3 Potential public sector funding opportunities

Historically UK governments have created a relatively complex and fragmented funding landscape for local authorities. While a significant and increasing amount of funding has been made available, there has often been a competitive and time bound element to these funds.

Ministers have tailored funding to new policy initiatives, often seeking rapid delivery within the parliamentary cycle, thereby placing a premium on the development of compelling and robust business cases and 'shovel-ready' designs. The Levelling Up the United Kingdom White Paper recognises the frustration of local authorities and has committed to setting out a plan to streamline the funding landscape in 2022.

In the recent past, a plethora of funding streams have been made available to support local economic and housing growth in counties such as East Sussex. Examples of previous funding programmes from Homes England have included the Garden Communities fund, the Housing Infrastructure Fund and the Large Sites and Housing Zones Capacity fund. Whilst these are either closed for funding or too soon for a multi-modal transport corridor, they provide a reasonable guide as to the scale of funding that may become available for authorities in England during the Local Plan period, in addition to what we are able to comment on further below.

- £12bn Local Growth Fund (2015/16-2020/21)
- £4.8bn Levelling Up Fund (2021/22-2024/25)
- £4bn+ Housing Infrastructure Fund (2020/21-2024/25)
- £3.6bn Towns Fund (2020/21-2024/25).

Given the above, we have sought to provide a focus on known and realistic public sector funding streams for delivery of schemes after 2025, providing a summary of the fund, and their relative strengths, weaknesses, opportunities and threats (SWOT) in relation to a new multi-modal transport corridor and likely quantum of development in west Bexhill. These are listed below and described in more detail in the following sections:

- A second round of the Housing Infrastructure Fund.
- UK Shared Prosperity Fund
- Large Local Majors / Major Road Network
- Funding through National Highways.

#### **A second round of the Housing Infrastructure Fund (National Home Building Fund)**

Government has allocated £10bn of investment to boost housing supply over the lifetime of the current parliament, including over £4bn for the Housing Infrastructure Fund (HIF), which invested in schemes up to the value of £250m through the Forward Fund, and smaller value schemes up to a value of £25m through the Marginal Viability Fund<sup>18</sup>. The HIF is at this time closed for further funding but has been used elsewhere in the country to unlock major housing sites where the private sector is unable to fund the necessary infrastructure – whether that be roads, railway, utilities or land assembly.

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<sup>18</sup> Marginal Viability Funding projects in contract, HM Government, April 2021. Available at: <https://www.gov.uk/government/publications/housing-infrastructure-fund/marginal-viability-funding-projects-in-contract-accessible-version> [accessed 24 May 2022]



The Marginal Viability Fund delivered schemes such as:

- Dover Bus Rapid Transit - £16.1m – supporting the delivery of up to 6,250 homes.<sup>19</sup>
- Ash Road Bridge, Guildford - £23.9m – mitigating the delivery of 1,750 homes.<sup>20</sup>
- Staplegrove Spine Road and new primary school, Taunton - £14.2m – delivering up to 1,628 homes.<sup>21</sup>

The Forward Fund<sup>22</sup> delivered schemes ranging from 2,500 to over 10,000 homes, such as:

- South West Exeter where 2,500 homes (2,000 in Teignbridge, 500 in Exeter) and received £55m of funding for new roads, junction improvements, pedestrian/cycle bridge, community building, sustainable alternative natural green space.
- Colchester & Tendring where a 7,500 home urban extension received £100m of funding to provide was a new link road and rapid transit system.
- North East Chelmsford where over 10,000 homes were unlocked through a new north east bypass and Beaulieu railway station.

At the expression of interest stage in 2017 these schemes were at varying levels of development – for example, the Chelmsford North East Bypass had a preferred option that had been subject to public consultation, Beaulieu station had outline planning consent, whilst the schemes in Colchester were at more conceptual levels of design. The development phase of the bid in 2018/19 enabled Essex County Council to progress further the design of the projects.

The Department of Levelling Up, Housing and Communities (DLUHC) had been developing plans for a second round of HIF, to be called the National Homes Building Fund (NHBF). However, with the immediate focus of government on recovering from the COVID-19 pandemic, the Spending Review instead sought to focus housing investment on unlocking brownfield development and £1.5bn of loans to Small and Medium Enterprises in areas that are a priority for levelling up.

It is our expectation that any future edition of HIF/NHBF will need to wait until the next Spending Review, with delivery between 2025 and 2030.

Strengths/ Opportunities	Weaknesses/ Threats
<ul style="list-style-type: none"> <li>▪ National housing pressures remain – government is investing £10bn to unlock supply over this parliament – it is reasonable to assume that future governments would look to invest further significant sums.</li> <li>▪ The likely timescales for a future bidding round (2024/25+) align well with the needs of the scheme and provide the ability to consider other funding streams if this does not materialise.</li> <li>▪ Available to a wide range of development sizes, with funding given to previous schemes unlocking developments of the potential scale of west Bexhill.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Dependent on an allocation in the next Spending Review.</li> <li>▪ Exact timescales unknown.</li> <li>▪ Likely to be a competitive exercise.</li> <li>▪ The South East of England was very successful with the HIF. Government has commented that there is a need to do more to support housing growth in the Midlands and the North to support levelling up.</li> <li>▪ Business case appraisal is based on the land value uplift compared to the cost of the scheme. Smaller housing schemes with expensive infrastructure will be harder to develop a strong business case for.</li> <li>▪ Required housing to be allocated in the Local Plan, although this can create difficulties for local planning authorities in demonstrating a deliverable infrastructure strategy.</li> </ul>
Consider further?	Yes

<sup>19</sup> Dover Bus Rapid Transit System to Accelerate Housing Growth. Available at: <https://www.dover.gov.uk/News/Press-Releases/2018/Dover-Bus-Rapid-Transit-BRT-System-to-Accelerate-Housing-Growth.aspx> [24 May 2022]

<sup>20</sup> Ash Road Bridge archive, Available at: <https://www.guildford.gov.uk/article/23057/Ash-Road-Bridge-archive> [accessed 24 May 2022]

<sup>21</sup> Staplegrove New Community - Housing Infrastructure Fund, Somerset West and Taunton Council, Special Full Council 1 December 2020. Available at: <https://democracy.somersetwestandtaunton.gov.uk/documents/s12546/Staplegrove%20New%20Community%20-%20Housing%20Infrastructure%20Fund.pdf> [accessed 24 May 2022]

<sup>22</sup> Housing Infrastructure Fund, HM Government, April 2021. Available at: <https://www.gov.uk/government/publications/housing-infrastructure-fund> [accessed 24 May 2022]

## UK Shared Prosperity Fund (UKSPF)

The UKSPF is designed as a replacement of previous EU structural funds which totalled €11bn between 2014 and 2020. Key features include:

- Allocation of £2.6bn of new funding for local investment by March 2025.
- £1.5bn a year available by 2024/25 nationwide.
- All areas of the UK receiving an allocation from the Fund via a funding formula rather than a competition.
- Places will be empowered to identify and build on their own strengths and needs at a local level, focused on 'pride in place'.
- Three investment priorities: communities and place; local businesses; and people and skills.
- In East Sussex funding is allocated to lower tier authorities, with only £1m allocated to Rother for the years 2022-23, 2023-24 and 2024-25.

Local places will be able to use the Fund in conjunction with other funding to maximise impact and simplify delivery.

While previous European regional development funds targeted transport schemes, in the short term at least the funding available from the UKSPF is insufficient to do anything other than develop the evidence base for a project.

Strengths/ Opportunities	Weaknesses/ Threats
<ul style="list-style-type: none"> <li>▪ A long-term stable funding stream available for all places.</li> <li>▪ Rother has been categorised as a category 1 place for levelling up.</li> <li>▪ Funding would be devolved to Rother, supporting local decision making</li> <li>▪ Ability to complement other funding streams with mixture of revenue and capital from the UKSPF.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Amount of funding currently available is insufficient to do anything other than to develop some of the evidence base for a project such as this. There are likely to be other projects which can make a more meaningful and immediate impact on levelling up locally.</li> <li>▪ Amount of funding available in the next Spending Review period is unknown, but given Manifesto commitments, it is expected that the level should be maintained to at least £1.5bn p.a.</li> </ul>
Consider further?	No

## Large Local Majors / Major Road Network Fund<sup>23</sup>

The Large Local Major (LLM) programme was set up in 2016 to cater for the small number of exceptionally large local highway authority transport schemes that could not be funded through the normal routes, such as the Local Growth Fund or other devolved allocations. The 2018 Budget saw the government announce a £28.8bn National Roads Fund for the 2020-2025 period, with £1.4bn of this available for local roads.

The core principle of the LLM programme remains that it is for schemes that cannot reasonably be funded through any other route. They should be single schemes that can only be delivered or justified as a whole, as opposed to being split into phases or smaller elements. In addition, the following principles apply:

- The lower threshold for consideration for the LLM programme will be £50m. The related Major Road Network (MRN) programme is for schemes between £20m and £50m.
- LLM schemes are not limited to roads on the MRN.
- As a general guideline LLM schemes should aim for the local or third-party contribution to be at least 15% of the total scheme costs.

In 2018 the Department for Transport (DfT) asked sub-national transport bodies (STBs) to work with local highway authorities to develop their regional evidence base and priorities for investment, including LLM schemes. These had to be eligible schemes that could realistically be able to start construction within the first five year National Roads Fund period – up to and including 2024/25.

<sup>23</sup> [Major Road Network and Large Local Majors Programmes: programme investment planning - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/major-road-network-and-large-local-majors-programmes-programme-investment-planning) [accessed 11 February 2022]

Our expectation is that the DfT will again seek the advice of STBs for the second National Roads Fund period (2025/26-2029/30) to carefully select which schemes it wishes to take forward for further development and may provide a funding contribution to do so. A definitive commitment to funding for construction of a scheme will only come following the Outline Business case stage. While no date has been set for when this advice would be sought, it would be reasonable to assume that this would be during early 2024/25 (five years after the first round of advice).

As with the previous round, schemes with either a Strategic Outline Case (SOC) or a pre-SOC would be considered; albeit a compelling, well-developed SOC would provide greater reassurance and certainty during the prioritisation process.

Strengths/ Opportunities	Weaknesses/ Threats
<ul style="list-style-type: none"> <li>▪ LLM funding has historically funded schemes of similar scale.</li> <li>▪ Some developer funding would strengthen value for money and the financial dimension</li> <li>▪ Whilst schemes do not need to be associated with the government's MRN, a new multi-modal transport corridor could allow this corridor and the A2691/A2690 to fulfil the A259's current MRN role between Bexhill and Hastings.</li> <li>▪ Allows scheme to be delivered within Plan Period.</li> <li>▪ A strong strategic case for investment, aligning with levelling up and housing growth could be developed</li> <li>▪ An outer or mid route could enhance connectivity to and the resilience of the SRN (A259 and A21).</li> <li>▪ The development of a multi-modal corridor aligns with the government's policy shift for the MRN programme to cover more holistic solutions, with public transport, walking and cycling – something which ESCC have been embracing with the current A22 Corridor Business Case in south Wealden and Eastbourne.</li> <li>▪ Bexhill and Hastings distributor roads identified in the Transport for the South East draft Strategic Investment Plan published for consultation in summer 2021 as one of the transport investment priorities to support the delivery of the TfSE Transport Strategy by 2050. The SIP will be finalised and approved by its constituent authorities by March 2023.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Requires prioritisation by relevant STB Transport for the South East – further engagement with them will help to enhance visibility of the scheme for their pipeline planning.</li> <li>▪ Government will not be able to confirm its budget allocation for the LLM programme until the next Spending Review.</li> <li>▪ Embodied carbon from new road construction is facing greater scrutiny in DfT business cases.</li> <li>▪ Carbon emissions associated with any induced traffic would weaken any transport led business case.</li> </ul>
Consider further?	Yes

## Funding through National Highways

Figure 7 illustrates the extent of the MRN and SRN in the study area, with responsibility for the management and maintenance of the A259 and A21 falling to ESCC within the Hastings borough council area<sup>24</sup>. Providing a connection between the A259 to the west of Bexhill with the A2691/A2690 would complete an east-west route between the A21 at Baldslow and the A259 west of Bexhill. This could present a rationale for transferring the management responsibility of this route from ESCC to National Highways.

Route strategies are one of the key steps of initial research in the development of the Road Investment Strategy (RIS). National Highways consulted with stakeholders in the period up to December 2021 on the current round of Route Strategies to inform the strategy underpinning the RIS3 period (2025-2030), where views were sought on topics such as strategic developments, congestion and safety.

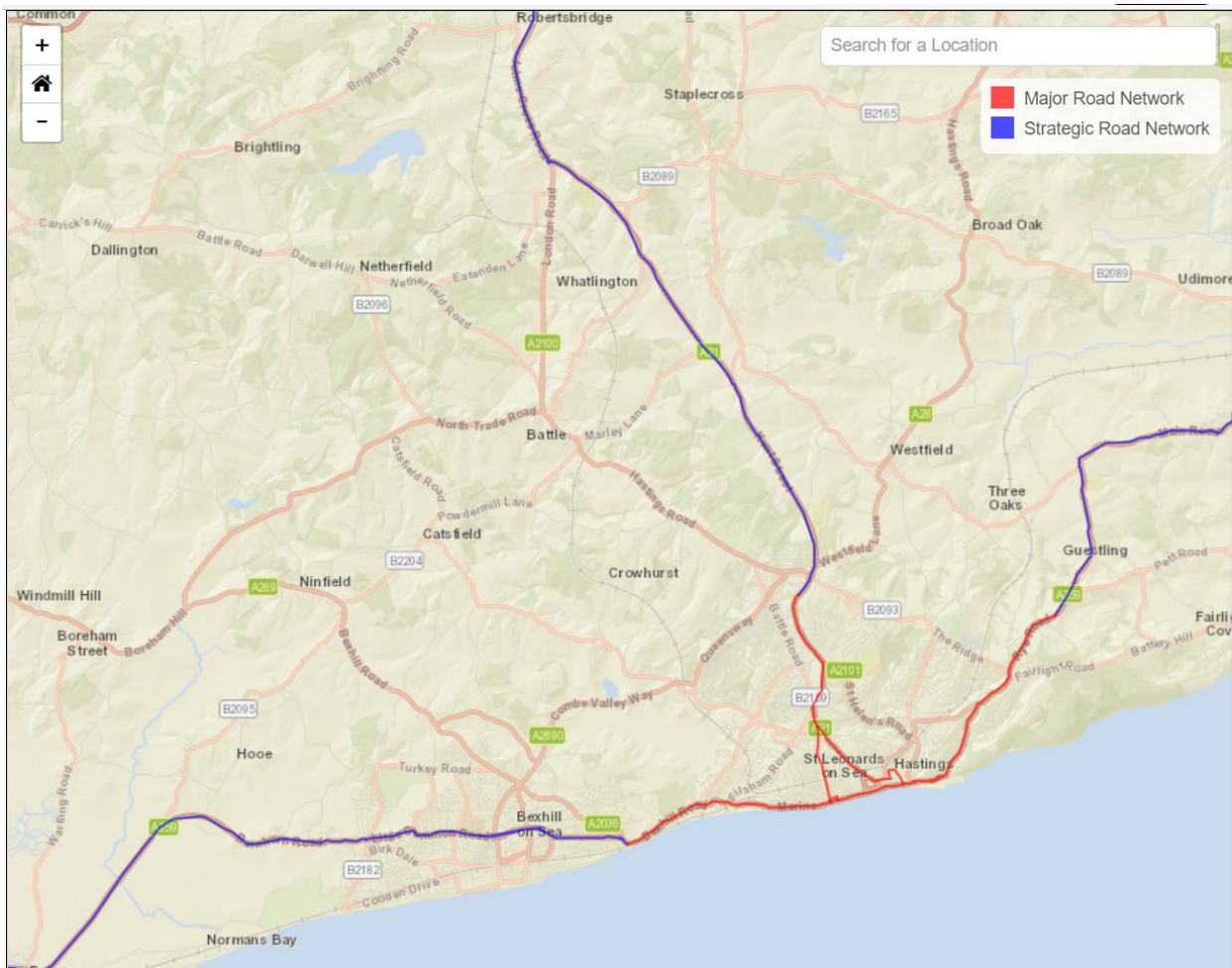
Engagement with National Highways is recommended if the scheme is pursued further to explore:

- The route's form and function, including design standards and access points (if not an ESCC road);
- Integration with the A259 to the west of Bexhill (regardless of the funding route) and impacts on the A21 at Baldslow; and

<sup>24</sup> This is a legacy of when Hastings was a County Borough up until the 1974 Local Government reorganisation (arising from the 1972 Act) when it became a borough (alongside Brighton and Eastbourne) within the administrative county of East Sussex County Council.

- Whether it could/should be (partially) funded through the RIS.

Figure 7. Extent of the MRN and SRN. Source: DfT, 2017.



#### 4.4 Other sources of funding and finance

Capital grants are only one of the sources of funding for capital projects. Prudential borrowing makes up a significant chunk of spending, with the total amount that a local authority may borrow related to the revenue streams available to repay the debt.

Both public sector and private sector finance routes exist to raise capital, although this is not a means to increase the total amount of borrowing. Brief mention is made of the following options:

- Public Works Loan Body.
- Municipal Bonds Agency.
- UK Infrastructure Bank.
- Bespoke borrowing arrangements with Government.
- Tax Increment Financing.

These sources would work best in the following circumstances:

- Where there is a cashflow issue preventing a developer delivering something in full, with a mechanism such as CIL, Section 106 or the mooted Infrastructure Levy associated with the Planning White Paper to recoup this funding at a later date.

- As part of a funding mix to incentivise housing delivery, with this offset against expected New Homes Bonus receipts, Council tax revenues and Business rate revenues. The future potential of the first of these is somewhat dependent on the outcome of the February 2021 consultation on the future of the New Homes Bonus from 2022/23 onwards<sup>25</sup>

### **Public Works Loan Body (PWLB)**

The PWLB is currently able to lend £95bn across the country and has provided most loans to public bodies, as this has normally offered the lowest rate of interest to local authorities. However, in recent years a minority of councils have used this cheap finance to buy very significant amounts of commercial property for rental income, which reduced the availability of PWLB finance for core local authority activities.

To address this, the government announced its intention to revise the terms of PWLB lending to ensure that local authorities continue to invest in housing, infrastructure, and public services. Since late 2020, the stricter governance and £1.15bn of discounted loans for local infrastructure projects, should make this again attractive for infrastructure projects.

### **Municipal Bonds Agency**

The Municipal Bonds Agency was established in 2016. It is owned by 56 local authorities, with the intention to make it easier and cheaper for smaller local authorities to issue bonds. Lancashire County Council were the first authority to issue bonds via the Municipal Bonds Agency, with £350m issued in February 2020. At least three other local authorities have since issued bonds via this Agency route.

### **UK Infrastructure Bank**

The new government-owned policy bank was launched in June 2021 to finance innovative infrastructure projects, tackle climate change and boost growth in partnership with the private sector and local government. The Bank is operationally independent from Government – projects are assessed by the Bank, approved through an Investment Committee and signed off by the UK Infrastructure Bank Board.

It has £22bn of financing capacity – with £12bn for lending and investment and £10bn of government guarantees. £4bn of the £12bn is earmarked for lending to local and mayoral authorities for strategic and high value projects of at least £5m. In due course the Bank will launch an expert local advisory service for local authorities<sup>26</sup>.

Transport is one of its five priority sectors for investment, although it sees its focus more for helping to procure zero-emission public transport and electrify the road fleet, rather than help fund new roads.

### **Bespoke borrowing arrangements with government**

DLUHC has the flexibility to provide loans (potentially alongside a grant funding package) to support investment required to unlock housing. This was an option that was made available to local authority bidders during the HIF process.

In addition, dialogue with government could explore the potential for an innovative repayable central government grant, with any funding to be repaid upon realisation of future revenue streams. This would provide the Council with greater flexibility in its ability to recoup development contributions as new development is brought forward to respond to when developer receipts were expected.

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<sup>25</sup> [The Future of the New Homes Bonus: consultation - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/new-homes-bonus) [accessed 11 February 2022]

<sup>26</sup> [UK Infrastructure Bank discussion paper - Potential private sector opportunities in priority sectors Jan 2022.pdf \(ukib.org.uk\)](#) [accessed 11 February 2022]

## Tax Increment Financing (TIF)

Whilst popular in the United States, its use has been limited in England. Schemes so far have only been based on business rate revenues as this is the only local authority tax whose revenues are directly affected by infrastructure projects. It needs substantial business rate growth to be viable and in reality, there are less risky methods of raising necessary finance. Two TIF schemes, to support rail infrastructure upgrades and regeneration programmes have so far been trialled in the UK at Nine Elms and Rochester Riverside.

### 4.5 Timescales for business case development and funding opportunity applications

Further opportunities and information are likely to arise within the timescales required to develop a business case to a sufficient level to make an application. Any business case would need to be underpinned by a significant level of environmental surveys, consultation, design, transport modelling and analysis which would incur substantial time, cost and resource. Our experience from other projects at similarly early stage of development<sup>27</sup> would suggest that whilst a Strategic Outline Case could be developed at a high level within 6-9 months, further work on a new greenfield road would take 8-10 years through to construction opening. Indicative timescales are as follows:

- Strategic Outline Case: Year 1
- Outline Business Case production informed by a preliminary design and environmental impact assessment: Years 2 & 3
- Submit and Determine Planning Application: Years 4 & 5
- Detailed Design & Full Business Case: Years 6 & 7
- Construction: Years 8 & 9.

An initial commitment for government funding would follow after approval of the Outline Business Case, which could either be submitted prior to or after planning consent, recognising that this process has the potential to add to scheme cost. As a consequence, should work proceed on a Strategic Outline Case in 2022/23, then it is likely that the scheme could be in a position to bid for government funds at some stage between 2024/25 and 2026/27.

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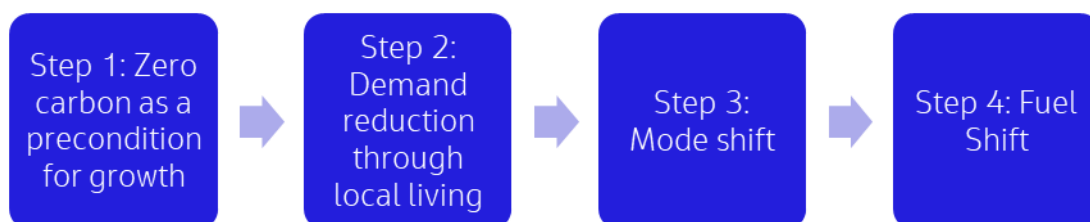
<sup>27</sup> For example the A10 Junctions and Dualling Strategic Outline Business Case produced for Cambridgeshire and Peterborough Combined Authority in July 2020 - <https://cambridgeshirepeterborough-ca.gov.uk/wp-content/uploads/documents/transport/A10/SOBC/Key-SOBC-Documents/A10-Dualling-and-Junctions-SOBC-rev2-compressed.pdf> [accessed 15 March 2022]

## 5. Integration with sustainable travel networks

### 5.1 Planning for sustainable development

There is a plethora of good practice and guidance around on planning for sustainable development, which makes it clear that any new development west of Bexhill would need to be built sustainably at the outset through good masterplanning. For example, RTPI research<sup>28</sup> recognises a clear relationship between spatial planning and carbon. The research sets out a four-step pathway to net zero transport, summarised in Figure 8 below.

Figure 8. RTPI net zero pathway



Steps 2 and 3 of the pathway are particularly pertinent to any new transport corridor to unlock growth to the west of Bexhill, by facilitating local living as well as mode shift. The starting point has to be creation of a sustainable pattern of development which means firstly reducing the need to travel and then integration, connectivity and opportunities to enable a shift to sustainable modes.

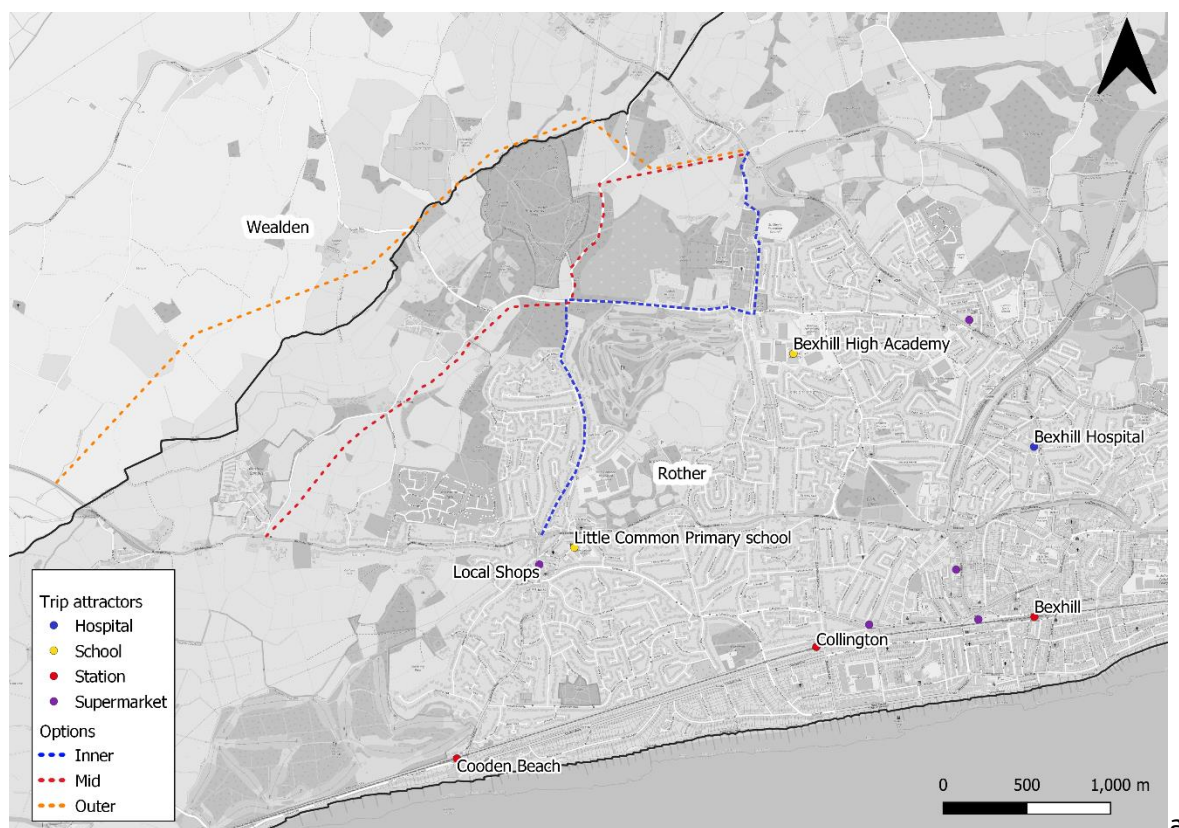
A key concept in the RTPI net zero approach is the idea of a 15-minute neighbourhood, where people are able to access their daily essential services within a 15 minute walk or cycle from their home. Figure 9 presents the location of existing services and amenities that could be key trip attractors from new developments west of Bexhill.

For new residential developments located towards the southern end of a new transport corridor Little Common would be the nearest local centre. There is a GP surgery and primary school and along the high street there are a range of local services, shops and places to eat. These would be in the region of 20-25 minutes' walk away, depending on the availability of new direct walking connections.

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<sup>28</sup> Net Zero Transport: The role of spatial planning and place-based solutions, RTPI Research Paper, January 2021

Figure 9. West Bexhill trip attractors in relation to multi-modal corridor options



**Gear Change: a bold vision for cycling and walking (DfT 2020)**<sup>29</sup> states that “all new developments should be easily and safely accessible and navigable by foot and bike, and to make existing cycling and walking provision better”. The strategy also sets out the requirement for separation of travel modes where possible, stating that “On urban streets, cyclists must be physically separated from pedestrians and should not share space with pedestrians. Where cycle routes cross pavements, a physically segregated track should always be provided. At crossings and junctions, cyclists should not share the space used by pedestrians but should be provided with a separate parallel route” and “Cyclists must be physically separated and protected from high volume motor traffic, both at junctions and on the stretches of road between them.” The paper also requires cycling infrastructure to join together, be well sign-posted, of good quality and well-maintained.

**Bus Back Better (DfT, 2021)** sets out a national bus strategy for England. It sets out a vision to deliver better bus services for passengers across England, through ambitious reform of how services are planned and delivered. The strategy recognises that better bus services can deliver significant benefits within relatively short timescales and relatively small spend. It seeks to increase patronage and raise buses’ mode share, provide stronger bus networks, improve accessibility and achieve significant air quality improvements.

The starting point has to be creation of a sustainable pattern of development which means firstly reducing the need to travel and then integration with sustainable networks and connection to opportunities to enable a shift to sustainable modes.

<sup>29</sup> Gear Change: a bold vision for cycling and walking, July 2020. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf) [accessed 14 March 2022]



## 5.2 Walk and cycle connections

There are existing cycle links connecting Bexhill and Hastings to the north and south and some marked cycle lanes along the A259 between Coneyburrow Lane and Sandhurst Lane.

ESCC's LCWIP was partly informed by a series of geographically specific studies undertaken by Sustrans with the study of feasible routes in the Bexhill area completed in 2018. The LCWIP was then consulted on in 2020, with an updated version published in November 2021<sup>30</sup>. Figure 10 shows the proposed cycle network for Bexhill and Figure 11 shows the proposed walk network for Bexhill from the LCWIP. A key element of an LCWIP is the prioritised programme of infrastructure improvements for future investment. In the Bexhill area this included the following schemes:

- Collington Avenue/Sutherland Avenue junction pedestrian crossing
- Cycle Routes 1 - 9 (East & North Bexhill)

The focus of the preferred cycle routes from the LCWIP will be on supporting access to local services. The walking network improvements centre around supporting regeneration of town centre areas and enhancement of public realm.

Figure 10. Proposed Bexhill cycle network (ESCC LCWIP, 2021)



<sup>30</sup> <https://consultation.eastsussex.gov.uk/economy-transport-environment/escclcwip-2020/> [accessed 24 May 2021]

Figure 11. Proposed Bexhill walk network (ESCC LCWIP, 2021)

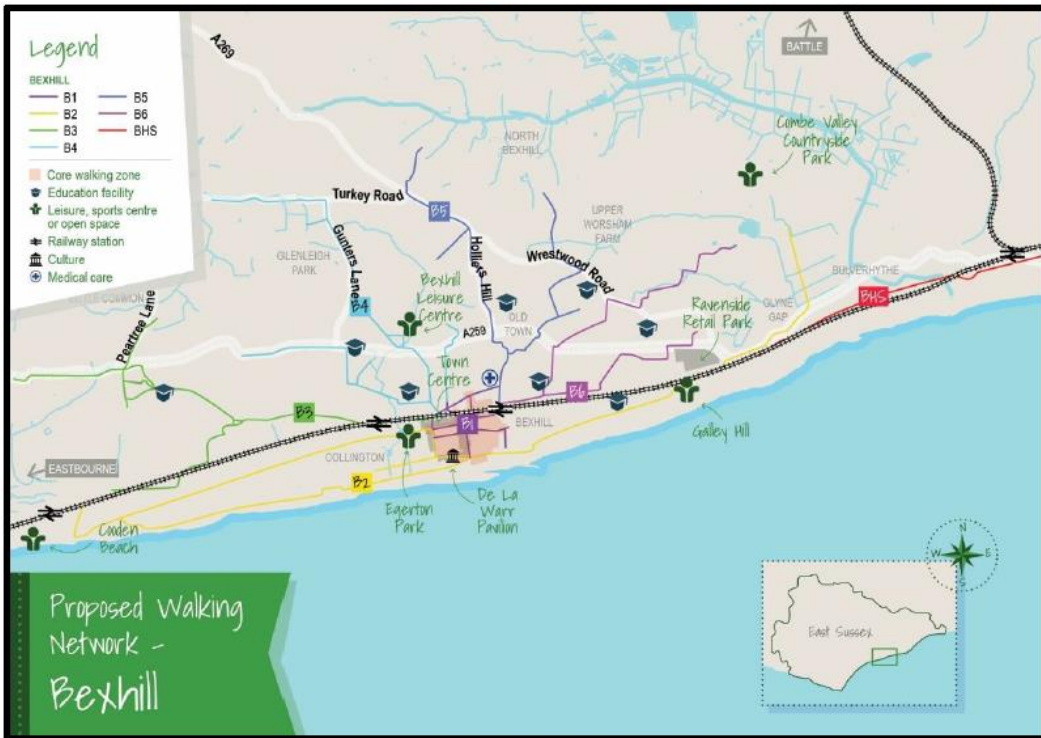
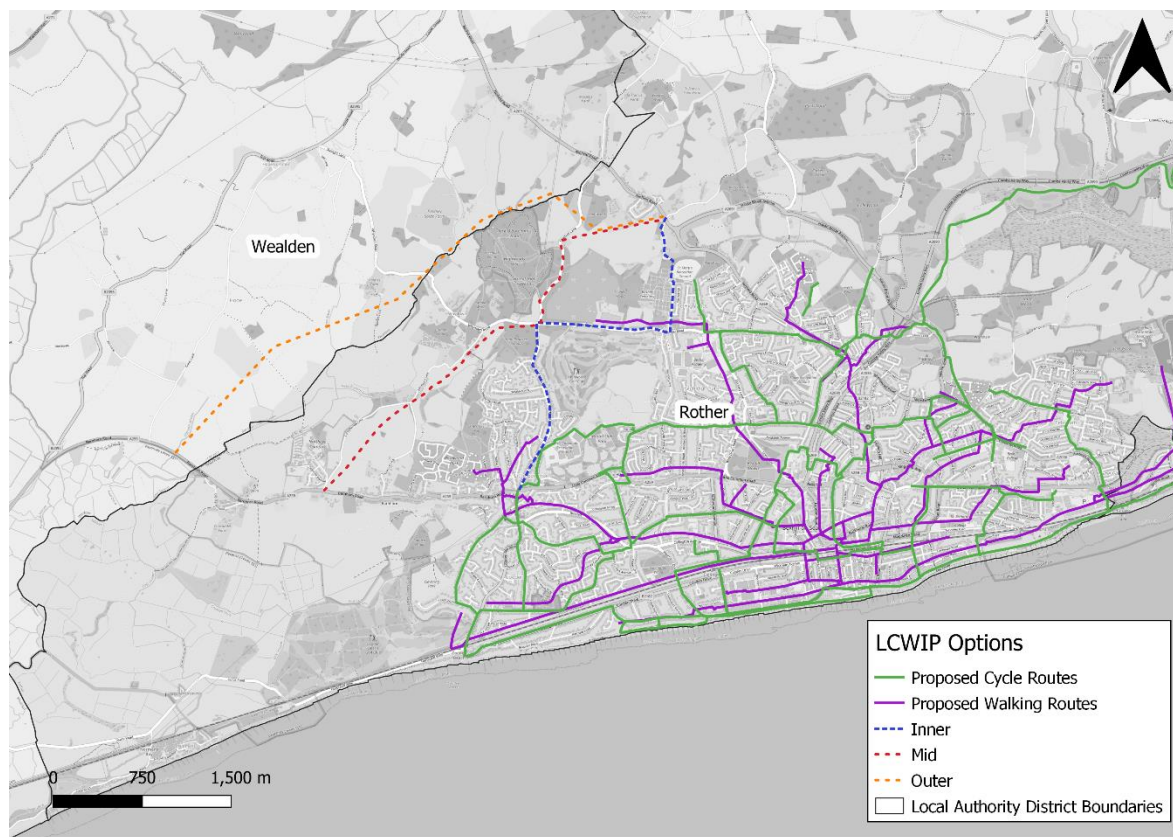


Figure 12 shows the three core corridor route options in relation to the proposed walk and cycle routes, highlighting that a west Bexhill allocation and multi-modal corridor would require extension of the proposed walk and cycle network to effectively integrate it into the existing urban fabric and support walking and cycling as a default mode of choice for local trips. The East Sussex LCWIP will be updated as part of the review of the LTP to review the opportunity for more area-based solutions.

**Figure 12. Proposed Bexhill walk and cycle routes (ESCC LCWIP, 2020) in relation to the potential multi-modal corridor options**



The Rother Sustainable Transport Audit<sup>31</sup> identifies a potential connection to the LCWIP Network from a development site located near the southern end of the 'Mid' route, following Sandhurst Lane and the A259 for 1.5km. Although this would be a direct and flat route, high traffic volumes along A259 reduce its safety score. Cyclists would benefit from increased width along the route and segregation from traffic.

Little Common would be the nearest local centre for new residential developments located towards the southern end of a new multi-modal corridor. It has a GP surgery and primary school along the high street there are a range of local services, shops and places to eat. Existing PROW could be used to provide walking routes between Sandhurst Lane and Peartree Lane. Some enhancements might be necessary such as improving surfacing and improving accessibility for wheelchair users.

Further north towards the A269, if agricultural land is repurposed for residential development, then existing PROW that would be no longer needed for farm access could potentially be repurposed to provide greenway links. Further work would be needed to investigate the suitability of PROW for this purpose and whether they could be enhanced to support better connections to new development.

Figure 13 highlights some of the public footpaths in the areas to the west of Bexhill, which have a possible role to play in connecting the potential development area to existing trip attractors and established walking routes, and/or either of the mid or outer link road options.

<sup>31</sup> PS-086 STEB – Sustainable Transport Audit Rother – Task 2 Technical Note, December 2021

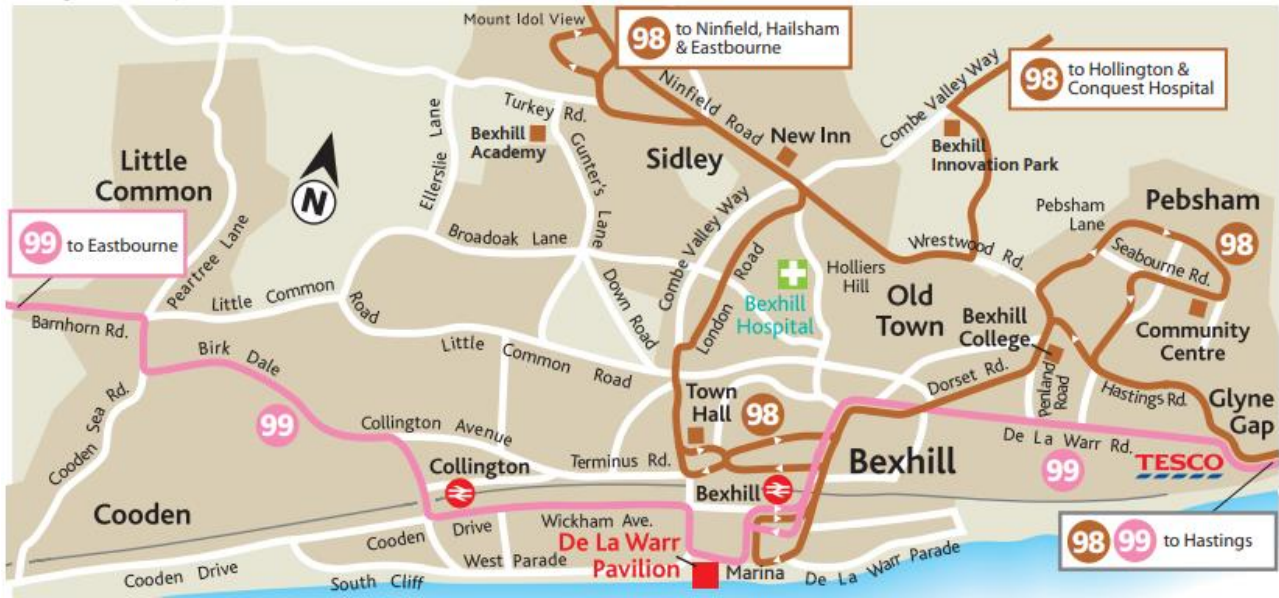
Figure 13. Footpaths in West Bexhill



### 5.3 Bus Service Improvement Plan (BSIP)

Stagecoach South East operate commercial bus services in Bexhill. Figure 14 shows the inter-urban bus network map for Bexhill. Route 98 travels along the A269 and operates about every 30 minutes between Hastings and Bexhill and hourly elsewhere. Route 99 travels along the A259 and runs every 20 minutes. The routes provide connections between the west of Bexhill, town centre and railway stations.

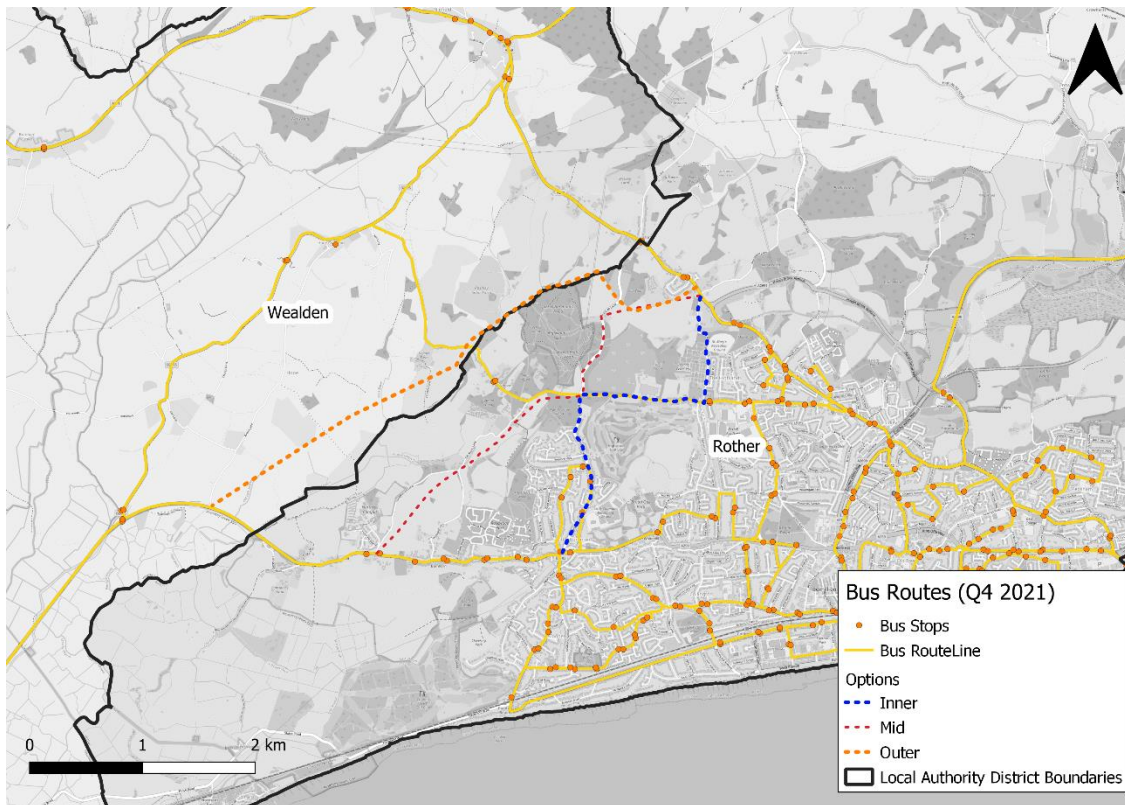
Figure 14. Bexhill inter-urban bus network map 2019



ESCC fund limited frequency routes 95, 96 and 97 serving Bexhill town and operated by Stagecoach. There are also several community bus services that serve residential areas in Bexhill, operated by Bexhill Community Bus.

Figure 15 presents the locations of bus stops and bus route corridors in and around Bexhill, in relation to the potential corridor route options considered for environmental and engineering feasibility.

Figure 15. Bexhill bus route context map

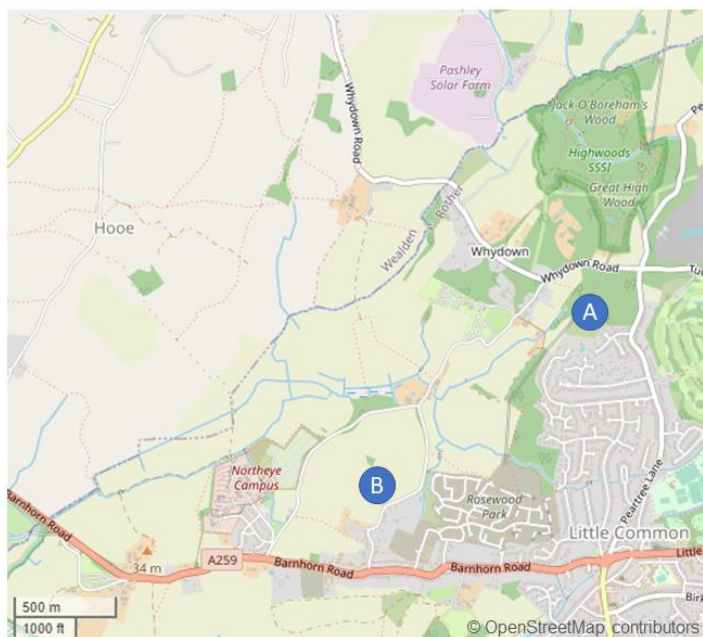


ESCC Bus Service Improvement Plan (Oct 2021) proposes that Bexhill town bus routes 96/97 would be replaced as part of the Bexhill Area Digital Demand Responsive Transport (DDRT), which would also include the Bexhill Enterprise Park.

The DDRT would be integrated with Stagecoach and Bexhill Community Bus services in the area and provide improved frequency including evenings and Sundays. In addition, further improvements are proposed related to service frequencies in Bexhill following the award of BSIP revenue funding.<sup>32</sup>

Opportunities to integrate with sustainable transport networks would be strongly dependent on the location of developments and services that residents would need to access as well as the level of existing provision available to connect with. This can be illustrated by comparing two hypothetical development sites at the locations shown in Figure 16.

**Figure 16. Comparison of bus connection options for hypothetical development sites**



For development at location A, a connection could be facilitated to current route 98, providing a quick link to the A269 corridor and to Bexhill Town Centre. This would require bus priority on A269 to get full benefit.

For development at location B walk connections could be created to connect with to bus route 99 running along the A259. Connections through to Hailsham could be provided through new diverted services along the route 98 corridor.

Access to the DDRT could be provided from the outset for either option.

## 5.4 Analysis of route option integration and alternative options

The route option feasibility analysis described in Chapter 3 demonstrates that the 'Inner' route alignment would not be a suitable alignment for a new multi-modal corridor, mainly related to its impact on existing residential communities. The analysis in Chapter 3 also showed that the northern part of the 'Mid' option is not achievable, due to the Highwoods SSSI/Ancient Woodland, and so the following alternative Mid-hybrid options have been developed:

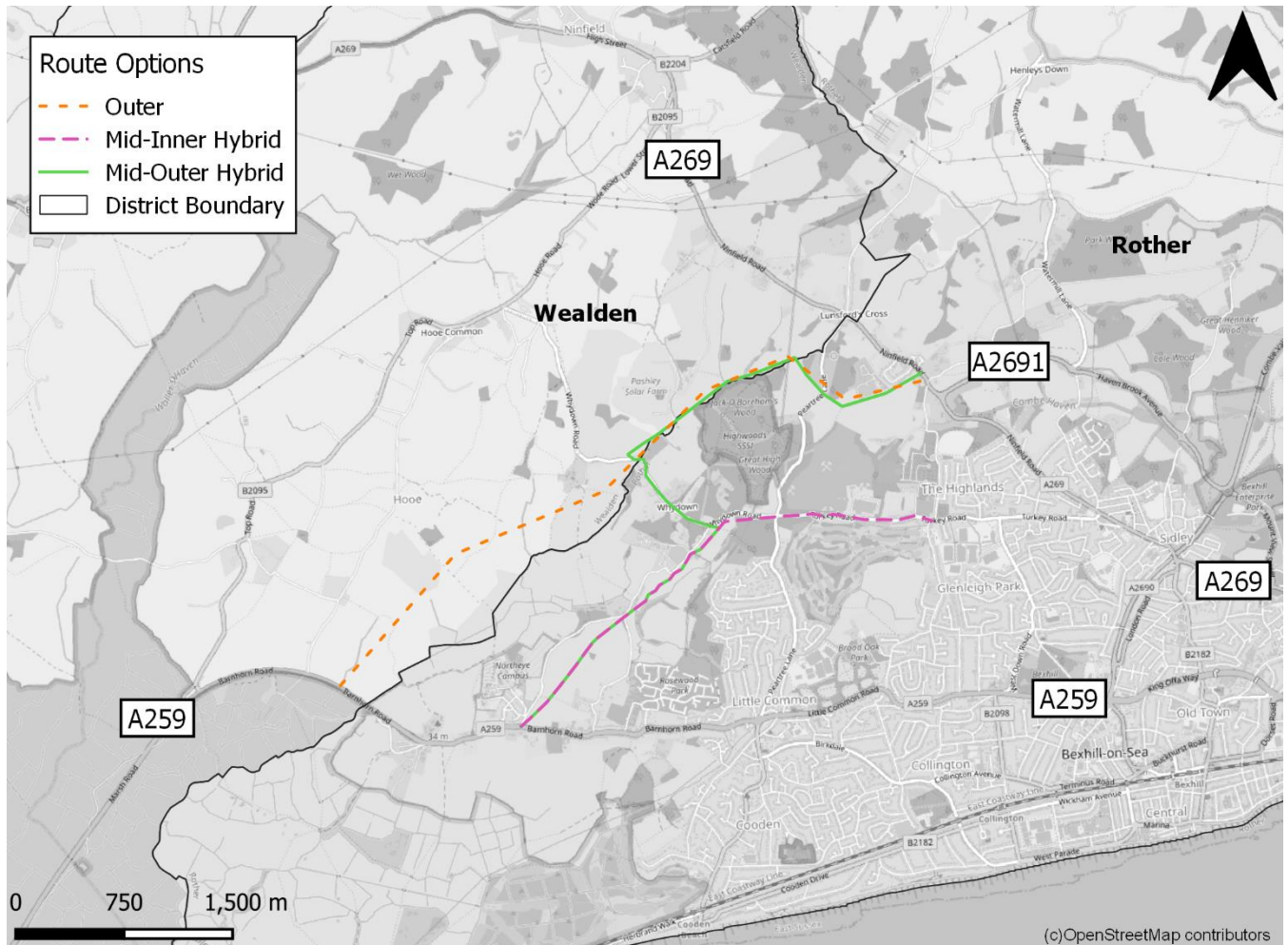
- Hybrid 'Mid-Inner' route, following the same alignment as the southern section 'Mid' route between A259 and Whydown Road, then continuing along Turkey Road. The southern section of the 'Mid' route would run parallel to, but not follow existing roads.
- Hybrid 'Mid-Outer' route, following the same alignment as the southern section of 'Mid' route from A259, then diverting west from Sandhurst Lane towards the boundary with Wealden district and continuing along an 'Outer' route alignment.
- A phased 'Mid' route corridor, to be constructed initially as a partial route to serve as an access road to new developments, to be extended with either outer or inner route options as further development comes online.

The remainder of this section discusses the opportunities for integrating a new multi-modal corridor with sustainable networks for the 'Mid'-hybrid and 'Outer' route options.

<sup>32</sup> <https://democracy.eastsussex.gov.uk/documents/s44535/Appendix%207.pdf>

Figure 17 shows the alignments of the routes considered. For all routes the road itself could have a segregated walk/cycle route offset as per the existing A2691 and could be designed with features to facilitate usage of electric vehicles (EV), such as fast-charging stations.

Figure 17. Alternative route options



Alternative options for limiting traffic on existing routes have also been considered, such as using bus gates or modal filters to ban certain types of vehicles at all or some times of the day, to maintain or encourage walking and cycling. Figure 18 provides examples of what a modal filter could look like from a low traffic neighbourhood implemented in 2021.

Figure 18. Modal filter example, Dulwich Village



### 5.4.1 Mid-Inner hybrid route and integration

This option would facilitate a more direct connection to the A269 and access to Bexhill Academy and inter-urban bus services than the core Mid route. It may offer the opportunity to provide direct access to better bus connections through minor adjustments to existing bus service routes.

Similar to the Mid route, this option would allow for Coneyburrow Lane and Whydown Road to be repurposed for walking and cycling, but only if closed to vehicular traffic.



Figure 19. Mid-Inner route, showing walking connections



However, such an option would result in the following additional challenges if the route was provided as a through route for all vehicular traffic:

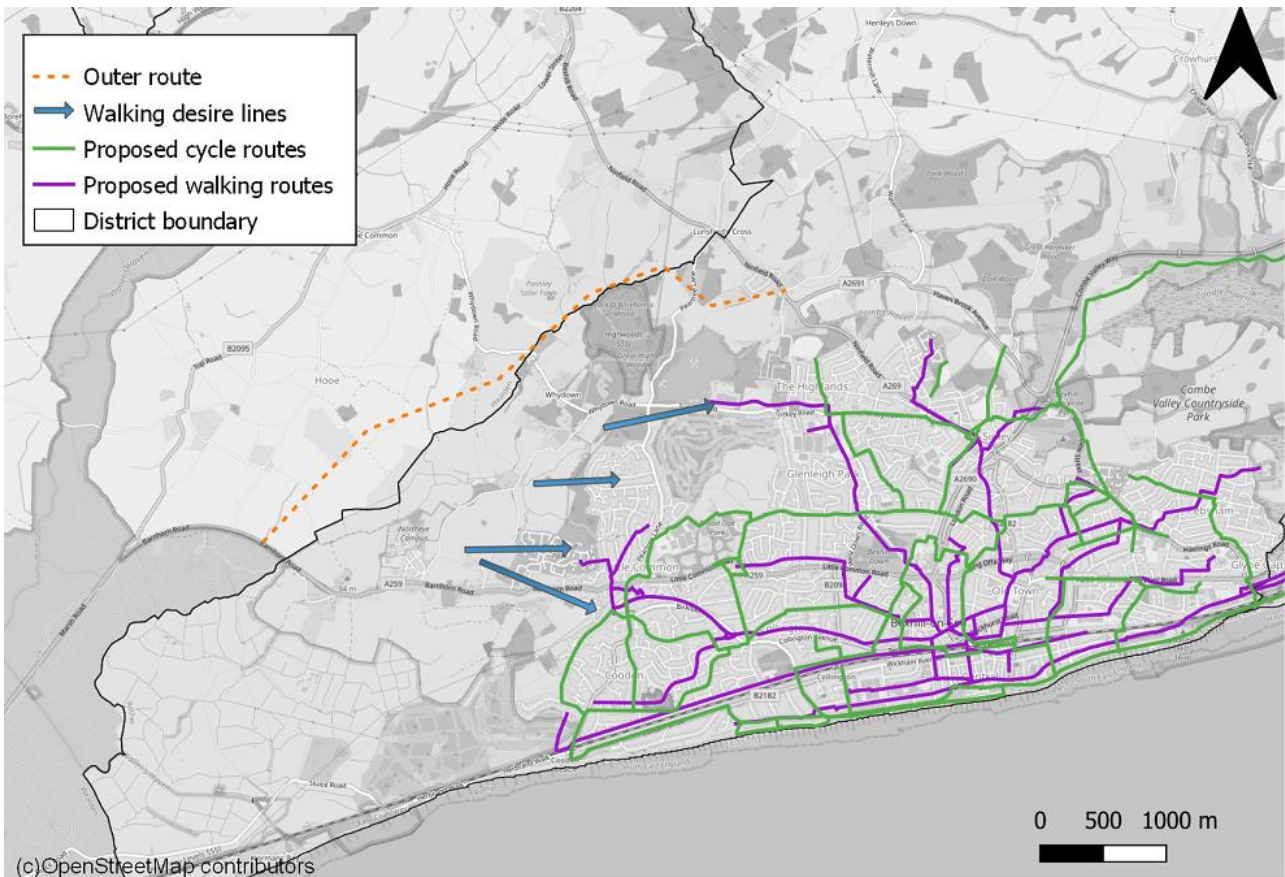
- Conflicts between additional vehicular traffic and the proposed LCWIP cycle route Along Turkey Road between Gunters Land and the A269
- Impacts on the Local Nature Reserve alongside Turkey Road
- Roads such as St Mary's Lane would require mitigation to avoid being used as a rat-run to the A269 Ninfield Road
- The A269 Ninfield Road has some narrow sections of road between Turkey Road and the A2691.

A further variation could be to limit through vehicular traffic to Turkey Road to buses, service and emergency vehicles at a point south of Whydown Road, with private car access to/from the A259 only. A more sustainable mode share could be expected from the development given the priority and incentive to use these modes in relation to the car. However, the impact of residual car trips on Little Common would need to be evaluated to assess whether this was acceptable.

### 5.4.2 Outer route integration

The outer route could draw traffic demand away from Peartree Lane and reduce existing noise, dust and air quality impacts for residents and the wider community. It could also enable Whydown Road to be prioritised for walking and cycling by either closing it to motor vehicles or use of modal filters to limit use at specific times of day. In this form, the route would mainly function as a bypass for through-traffic. Options would need to be considered to enhance public transport connections with Bexhill town centre. Developers would need to provide local access roads to/from the A259 and Whydown Road, which could lead to opportunities to add public transport connections.

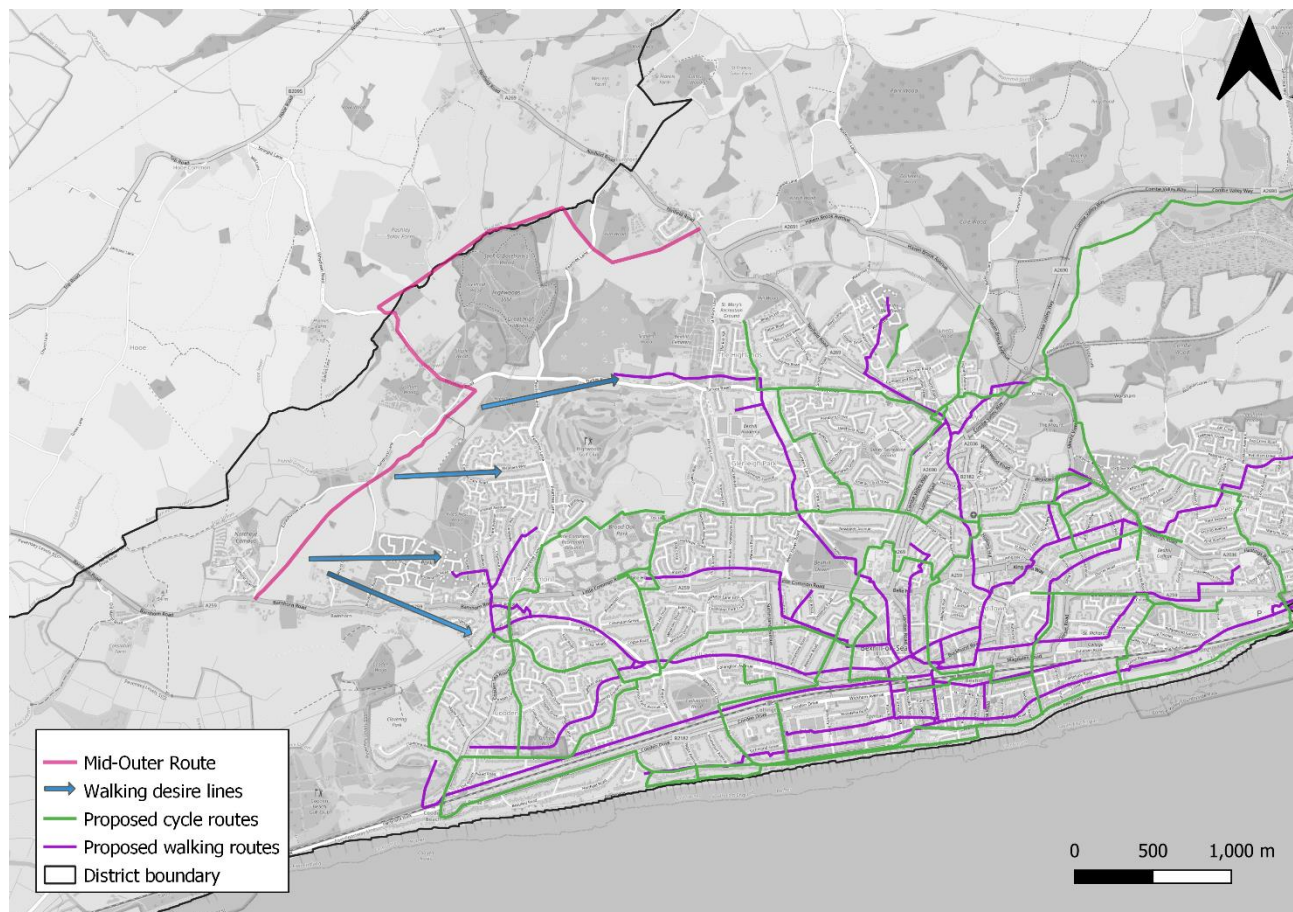
Figure 20. Outer route, showing walking connections



### 5.4.3 Mid-Outer hybrid route

Similar to the core Mid route, this option could allow for Coneyburrow Lane and Whydown Road to be repurposed for walking and cycling. It is likely to provide better opportunities for enhancing public transport connections than the outer route. It would provide the opportunity to mitigate some of the challenges noted for the outer and mid routes in Chapter 3, subject to further study and evaluation. These include landscape impacts, impacts on SSSIs, ancient woodland and local wildlife sites in and around Peartree Lane. Furthermore, the route would mainly be within Rother district.

Figure 21. Mid-Outer route, showing walking connections



### 5.4.4 Phased mid-hybrid route option

A phased 'Mid' hybrid (inner or outer) route corridor could initially be constructed as a partial route to serve as an access road to new developments. Eventually it could be expected to provide the same benefits and opportunities as the Mid-inner or Mid-outer route. Existing public rights of way could be enhanced to provide sustainable connections to new development before the full corridor is constructed. Whilst this is perhaps the most realistic option, it may not resolve transport issues. If it is an access road from the A259 then it is unlikely to alleviate traffic on the A259, and may only add to existing traffic issues, and therefore be likely to raise objections from National Highways.

## 6. Conclusions and next steps

### 6.1 Strategic context, problems and opportunities

Options for sustainable growth in Rother are limited because large parts of the district are the subject of landscape and environmental protections. Bexhill has been identified as a location for growth, providing the transport network has sufficient capacity to accommodate the additional demand. Land to the west of Bexhill could be used to provide an option for sustainable growth in conjunction with a place-based approach to reducing carbon emissions.

A transport intervention to the west of Bexhill could support and supplement schemes located in the town by alleviating congestion at critical junctions of the A259 and in turn, providing alternative route options that divert traffic away from the Bexhill urban area. There is the opportunity as part of addressing capacity to integrate sustainable transport, including public transport and active mode provision.

A new multi-modal corridor could help reduce traffic to the town centre and support plans to improve traffic management and enhance the public realm in the London Road area. Development of a new multi-modal corridor could also create an opportunity to increase biodiversity through repurposing of parcels of land adjacent to the route.

Any new road intervention would also need to be balanced against wider environmental policies within the emerging RDC Local Plan and those of East Sussex County Council – currently detailed within the East Sussex Environmental Strategy 2020. Both Councils will need to consider their position in these areas.

### 6.2 Route option feasibility assessments

High level engineering and environmental constraints assessments were undertaken to understand the feasibility of constructing a new transport corridor to the west of Bexhill should transport modelling later demonstrate one would be needed in order to facilitate growth aspirations.

The engineering and environmental constraints assessments considered three indicative routes that had been modelled as part a study undertaken in 2018 by Peter Davidson Consultancy, focusing on highway capacity. The routes have been referred to as 'Inner', 'Mid' and 'Outer'. Given some of the initial challenges with these routes, alternative hybrid routes have also been reviewed.

The feasibility assessment presented in this report has shown that the existing roads are highly constrained and there is very limited scope to increase capacity within existing footprint. Increasing the capacity of existing roads would require significant construction activity and is likely to adversely affect existing properties and/or the High Woods SSSI.

Our summary assessment of each route option and recommendation to discard or retain for potential further development and review is provided below.

Route Option	Retain?
The <b>Inner route</b> option has the most significant engineering constraints. There are significant feasibility challenges with the route section through built up areas and the close proximity to existing dwellings. It is recommended that this option should not be taken forward.	×
The original <b>Mid route</b> option has been dismissed and should not be taken forward. Alternative hybrid route options should be retained for future consideration and carried forward to a further stage. These could include a <b>mid-outer hybrid</b> route option which seeks to avoid/minimise SSSIs, ancient woodland, local nature reserve and landscape impacts; and a <b>mid-inner hybrid</b> option where the road performed a local access to the A259, with east-west connectivity to Turkey Road and the A269 limited to walking, cycling, public transport, service and emergency vehicles through the use of modal filters.	✓ (Hybrid route options only)

Route Option	Retain?
<p>An <b>outer route</b> option can feasibly be constructed to the west of Bexhill and routed to the west of the High Woods SSSI but it is likely to require expensive mitigation due to the Flood Zone 3. It also is likely to have significant landscape impacts. Further investigation and modelling would be required to determine a suitable outer route alignment and how much capacity it could provide, and whether the landscape impacts were acceptable. It should be noted that the outer route would only serve as a new strategic network route and would not open up opportunities for development along it given its location, landscape impact and unsuitability of land for development. It would offer little in the way of public transport, cycling or walking benefit on its own. Additional access roads would be required to connect new development to existing roads, and a proactive approach would be required to make best use of released capacity on existing roads for walking, cycling and public transport.</p>	<p>✓ (Subject to further assessment of flooding and landscape impacts, and the strategic role of the route)</p>

### 6.3 Funding options

Analysis has shown that an unrealistic scale of development would be needed to fund a full multi-modal route through CIL and S106. Significant additional funding from public sources would be necessary and at the present time there is limited certainty that these will materialise in the short term given pressure on government finances.

Potential opportunities beyond 2025 could include a second round of the Housing Infrastructure Fund, Large Local Majors and possibly even through National Highways given the inter-relationship with the A259 and A21. These opportunities could feasibly arise within the time it takes to develop a business case to apply for such opportunities. Early development of a business case would help to maximise RDC's/ESCC's chances of being successful once competitive funding streams are announced. Whilst there would be a significant revenue cost to develop to at least the Strategic Outline Case, evidence from around the country suggests that those authorities with 'oven ready' proposals are more likely to secure funding, provided the case is compelling, recognising there is no guarantee of success.

Funding options could include:

- Developer funding – If sufficient land is available and therefore large housing allocations could be accommodated, developers could be asked to fund any future West of Bexhill corridor travel enhancements or most certainly contribute to a large proportion of the scheme costs
- National funding – from Homes England or specifically the Housing Infrastructure Fund - may be feasible. To attract national funding, it would need to enable large scale development and high housing numbers. In terms of infrastructure the scheme should incorporate a multi modal solution to support wider policy areas such as carbon reduction and sustainability.
- Land value uplift

As it is not known exactly what the scheme might entail, the cost is unknown. Equally, it is not known what funding might be/become available during the plan period.

Furthermore, a range of borrowing options are available that could help bridge a funding gap or cashflow issue as part of a wider mix of public and private funding. However, given the scale of funding gap these will not be sufficient at the present time.

### 6.4 Integration with sustainable networks and other policy considerations

Key to creating sustainable low carbon development in west Bexhill is firstly to plan communities in a way which reduces the need to travel through initiatives such as 15 minute neighbourhoods and then to consider integration, connectivity and opportunities to enable a shift to sustainable modes.

Opportunities to integrate with sustainable networks have been illustrated for three corridor route options: Mid-Inner hybrid, Outer, Mid-Outer hybrid, with the additional potential for the mid-hybrid options to be phased.

The Mid-Inner hybrid and Mid-Outer hybrid options could offer the best opportunities with walking and cycling networks and connections to local services and amenities for developments close to the A259.

Each of the options could allow for Coneyburrow Lane and Whydown Road to be repurposed for cycling and walking. Furthermore, existing PROW could be upgraded to connect potential development areas to existing trip attractors and the current extent of the proposed Bexhill LCWIP network.

A variation on the Mid-Inner hybrid option could limit private car access to/from the A259, with east-west access along Turkey Road limited to walking, cycling and public transport. Such an option would need to be assessed in terms of its traffic impacts at Little Common.

The Outer route option offers the least opportunity for integration with existing public transport networks or for providing sustainable transport connections for new developments west of Bexhill.

It is recognised that this study has been undertaken during a time of fast-moving policy change in transport planning. The DfT is expected to release guidance on Local Transport Plans in England, and there is an ever-increasing focus on whole life cycle carbon costs of infrastructure including both the embodied carbon from construction and emissions from users. ESCC will need to consider its own policy position on these areas.

## 6.5 Summary and next steps

The study has concluded that there are potentially feasible options based on a variation of mid and outer route alignments, albeit there are significant constraints associated with their alignment and there is a significant funding challenge to deliver a full route between the A259 and A269, which cannot be met by the scale of potential development in north and west Bexhill. The funding challenges and delivery of a road on any of the options identified is likely to be challenging within the lifetime of the new Local Plan (2019-2039).

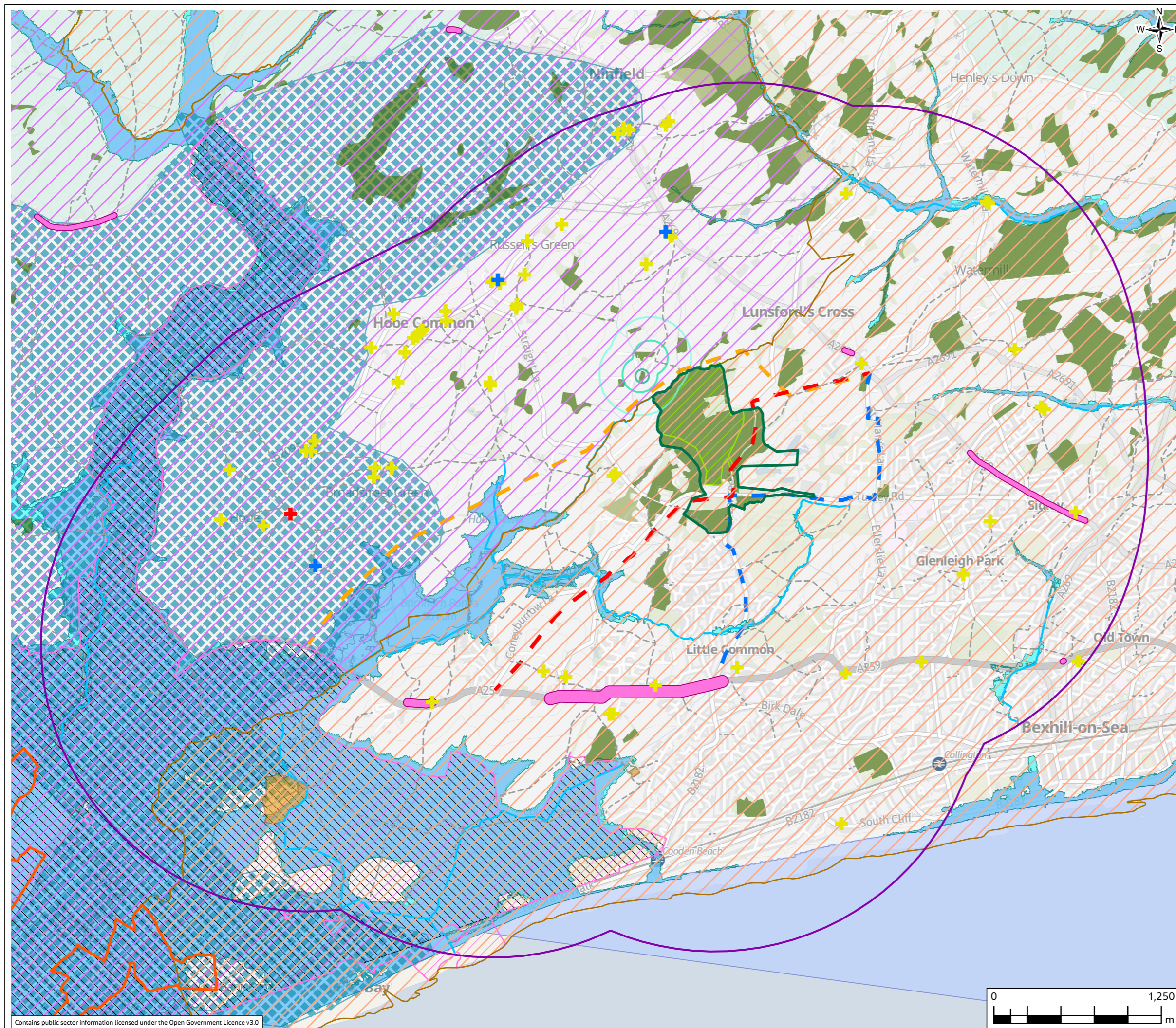
Should further study work be commissioned, it should consider the following steps, with material produced at a pre-Strategic Outline Case level of scheme maturity:

- Traffic modelling to determine current demand patterns and network operation.
- Traffic modelling to understand the demand patterns associated with proposed developments and the level of development in west Bexhill that could be accommodated without significant new infrastructure.
- Consideration of further route options or hybrids through further desktop study of environmental and engineering issues.
- A fresh review of walking, cycling and bus networks and proposals in the wider Bexhill area and the challenges and opportunities that feasible multi-modal corridors could provide
- Traffic modelling to understand the impacts of a feasible multi-modal corridors.
- More detailed consideration of gradient issues, terrain and topography to understand the feasibility and suitable locations for constructing a new transport corridor.
- All of the above should be undertaken in a manner that is consistent with the DfT's approach to Option Assessment, which would also require the investigation of lower cost options that do not necessarily provide a complete private vehicle connection between the A259 and A269. The work would need to be documented in an Option Assessment Report.

The ability to attract wider public sector funding will be dependent on the strategic role of the route, and so it is recommended that ESCC engage with National Highways to initiate collaboration and understanding of the strategic function of any route option in relation to the wider A27/A259 route.

## **Appendix A. Environmental Constraints**

**FIGURE 1**



- Legend**
- Indicative Western Avenue Route Options**
- Inner
  - Mid
  - Outer
- 2km study area
- Public Rights of Way
- Local Authority district boundary**
- Rother District
  - Wealden District
- Designations**
- Pevsey Levels Ramsar & Special Area of Conservation (SAC)
  - Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA)
  - High Woods Site of Special Scientific Interest (SSSI)
  - Pevsey Levels Site of Special Scientific Interest (SSSI)
  - Local Wildlife Site
  - Pevsey Levels National Nature Reserve
  - Ancient & Semi-Natural Woodland
  - Ancient Replanted Woodland
  - High Weald Area of Outstanding Natural Beauty
  - Noise Important Area
  - Main river
  - Drinking Water Protected Area (indicative)
  - Flood Zone 2
  - Flood Zone 3
- Source Protection Zone**
- 1
  - 1c
  - 2c
- Listed Building**
- Grade I
  - Grade II
  - Grade II\*
- Scheduled Monument**



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Client  
**East Sussex Highways**

Project  
 WEST BEXHILL LINK ROAD

Drawing Title  
 FIGURE 1: ENVIRONMENTAL CONSTRAINTS

Drawing Status  
 DRAFT

Scale @ A3  
 1:27,500 DO NOT SCALE

Jacobs No.  
 B23738P2

Drawing No.  
 FIGURE 1

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