

Wealden Local Plan Shared Transport Evidence Base (STEB): Assessment of New Growth Options 2-4 (Transport Note 02) – FINAL

Prepared for
ESCC & WDC

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Document Issue

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4			

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MASHH	Movement & Access Strategy for Hailsham & Hellingly
MEH	Major Economic Hub
MRN	Major Road Network
MSOA	Middle Layer Super Output Area
NCN	National Cycle Network
NH	National Highways / Formerly HE - Highways England
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NTS	National Transport Statistics
PCT	Propensity to Cycle Tool
PPG	Planning Policy Guidance
PRC	Practical Reserve Capacity
PT	Public Transport
QBP / QBC	Quality Bus Partnership / Quality Bus Corridor
RDC	Rother District Council
RIS	Road Investment Strategy
RTPI	Royal Town Planning Institute
SDNPA	South Downs National Park Authority
SELEP	South East Local Enterprise Partnership
SEP	Strategic Economic Plan
SIP	Strategic Investment Plan
SOBC	Strategic Outline Business Case
SRN	Strategic Road Network
STEB	Shared Transport Evidence Base
STA	Sustainable Transport Audit
STT	Sustainable Travel Town
SWETS	South Wealden & Eastbourne Transport Study
SVD	Select Vehicle Detection
TC	Town Centre
TEMPro	Trip End Model Presentation Program
TN	Transport Note
TfSE	Transport for the South East
TfWM	Transport for West Midlands
TRICS	Trip Rate Information Computer System
UCL	University College London
VoC	Volume Over Capacity
WDC	Wealden District Council
WLPTS	Wealden Local Plan Transport Study

Executive Summary

Purpose of this Transport Note

A new Local Plan for Wealden is currently being prepared and will be the key planning document to shape economic regeneration and the delivery of housing across the district up to 2039. The Council are continuing to prepare the supporting evidence base and review different growth options for further consultation and refinement into a preferred option to take forward in their forthcoming Regulation 18 Local Plan consultation.

A key consideration of the evidence base is the impact of new development on the transport network and the potential measures needed to mitigate any severe impacts. An 'Initial Growth Option' (Option 1) was tested previously and the outcomes, presented in Transport Note (TN)01, indicated that the level of growth could have severe traffic impacts on the network. The Council are now assessing three alternative 'New Growth Options' (Options 2-4) at a strategic level to test lower levels of development across the district. This document (Transport Note – TN02) provides the outcomes of the assessment of the three alternative new growth options and should be read as an update to the earlier assessment of the 'Initial Growth Option', in TN01, to understand any material changes in relation to impacts and to also further develop a package of mitigation. The growth options tested across both documents include the following:

Growth Option	Dwellings (Units)	Emp. / Retail / Other Floorspace (sqm)
(1) Initial Growth Option (TN01)	16,000	170,000
(2) High New Growth Option	12,301	201,200
(3) Medium New Growth Option	10,301	201,200
(4) Low New Growth Option	9,221	201,200

The assessment continues to make use of an interim high-level spreadsheet-based modelling tool, as an initial step known as the interim Wealden Local Plan Shared Transport Evidence Base (STEB), and in advance of using the recently developed East Sussex Countywide Transport Model (ESCWTM / "countywide model"). The countywide model will be used in subsequent stages to underpin and develop a more detailed Shared Transport Evidence Base (STEB) to assess the transport impacts of the emerging growth distribution in Wealden and from other emerging Local Plans in the county and surrounding area.

Local Plan context

Any Local Plan is expected to mitigate the severe impacts of new development on the transport system. However, the wider policy agenda looks beyond this expectation and identifies the need to deliver a decarbonised, sustainable transport system and healthy, inclusive and high-quality places. In 2019, the District Council declared a 'climate emergency' and the Council will need to provide the right framework in its Local Plan to assist the Council in becoming a net zero carbon district by 2050 at the

latest. The County Council similarly declared a climate emergency in 2019 and is working to achieving net zero carbon emissions by 2050 or earlier if possible.

The District Council set out the following objectives in its Local Plan Direction of Travel Consultation (November 2020) and considered these central to drafting a vision for its Local Plan:

- **Tackling Climate Change:** to achieve carbon zero outputs and improve air quality
- **Infrastructure Delivery:** to support growth and change, meeting the needs of communities
- **Housing:** deliver the right type of homes, in the right location and to a high standard
- **Commercial:** support local business, increase jobs and ensure a thriving, diverse and a locally sustainable economy
- **Tourism:** improve the existing offer and increase visitor spend
- **Town Centres:** support and regenerate local centres by attracting the right investment and create vibrant places that cater for community's needs
- **Natural Environment:** protect and enhance, increasing biodiversity and the quality of green and blue spaces
- **High Quality Landscapes:** protect heritage and cultural assets
- **High Quality Places:** through design and accounting for local character and distinctiveness
- **Local Communities:** help communities to thrive, living safe, inclusive and healthy lives

Key transport issues and challenges

The high level of car ownership and car travel, coupled with gaps in sustainable transport infrastructure and poor connectivity in rural areas, are key challenges within the district and the wider functional geography. The current transport scheme pipeline, being developed by ESCC, WDC and NH, seeks to address some of these issues through existing strategies. Funding transport schemes is a key constraint and more will need to be done to support delivery, as well as identifying funding for any more substantive measures needed to mitigate the impacts of Local Plan growth, such as those set out in the Transport for the South East (TfSE) Draft Strategic Investment Plan (SIP), which following consultation in summer 2022 is expected to be adopted in March 2023.

Transport impacts of Growth Options

The 'New Growth Options' have been assessed using the interim STEB spreadsheet-based modelling tool to understand the current and likely future impact on the highway network in the weekday AM and PM peak hours. The following scales of new development and associated total unmitigated peak hour vehicle trip generation have been assessed in STEB as part of this, and the previous, assessment:

Growth Option	Dwellings (Units)	Emp. / Retail / Other Floorspace (sqm)	AM Peak Vehicle Trip Generation	PM Peak Vehicle Trip Generation
(1) Initial Growth Option (TN01)	16,000	170,000	9,019	9,861
(2) High New Growth Option	12,301	201,200	7,618	8,154
(3) Medium New Growth Option	10,301	201,200	6,590	6,986
(4) Low New Growth Option	9,221	201,200	5,992	6,485

The 'New Growth Options' (2-4) test a lower level of growth and development traffic generation than the 'Initial Growth Option'(1) previously tested. The modelling outputs at this early stage of testing indicate that the overall impact on the network could add

between 18% and 28% peak hour vehicle trips, in the respective Low (4) to High (2) options, over and above the 2040 baseline Reference Case. The level of impact is still likely to be considered severe, for each of the alternative 'New Growth Options' where highway link and / or junction capacity could be significantly exceeded on key parts of the network, including:

- Parts of the single carriageway section of the A22 corridor and junctions north between Boship Roundabout up to the north of Uckfield
- The A27 SRN and A2770 corridors and key junctions around Polegate and south into Willingdon and Eastbourne
- Constrained parts of the A26 corridor in and around Crowborough

The STEB model is limited to static traffic assignment and does not fully account for dynamic reassignment to less congested parts of the network. The model assigns much of the wider north-south development trips to the A22 and A27 / A2270 corridors and the outputs are considered a robust case for stress testing the network. While the countywide model will need to be used to understand a more realistic level of future growth, the scale of impact from the 'New Growth Options' does not materially reduce from the 'Initial Growth Option' previously tested in TN01. Substantial mitigation is still likely to be needed to encourage sustainable modal shift and deliver potential highway improvements to address congestion on the highway network and at junctions.

Planning for sustainable transport and future mobility

The preferred approach to mitigating the impacts of future transport growth is to plan for people and places and consider the role sustainable and future mobility options could play prior to defaulting to traditional highway capacity solutions. An initial framework strategy has been included at this stage, which considers the following opportunities and the high level potential for mode shift and reducing car use:

Accessibility	development to plan for '20-minute' neighbourhoods with easy access to key services, public transport and active travel networks
Behaviour change	reduce the need to travel and level of car ownership in accessible town centre locations and support the switch to electric vehicles
Active travel	move away from car dominated roads to create safe and connected corridors for pedestrians, cyclists and other micro-mobility options
Bus	develop enhanced partnerships, prioritised zero-emission mass bus rapid transit (BRT) and digital demand responsive transport (DDRT) solutions to serve more remote rural areas
Rail	continued improvement to level of service, introduction of High-Speed rail and better integration with bus, active and micro-mobility options
Future mobility	explore the concept of Mobility as a Service (MaaS), potential for shared mobility hubs and alternatives to traditional car ownership
Last-Mile delivery	innovative solutions to consolidate deliveries and reduce goods vehicles on network

At this stage, a framework package of mitigation measures has been identified, which would need to be delivered at intervals across the Local Plan period with varying levels of complexity based on cost, deliverability and technological advancement. An early assumption for a range of 5% (less accessible locations) to 10% (more accessible areas and key corridors) reduction in forecast car use (modal shift) has been applied to the total traffic (i.e. background and new development traffic) outputs across the

district network to explore the likely impact of these sustainable measures and identify potential residual issues requiring further mitigation.

Further modelling will be needed in the countywide model with more detailed mode shift analysis of specific measures, journey-purposes and corridors to understand a more precise geographical distribution of modal shift on the Wealden network. Careful consideration will need to be given to how these measures can be funded and delivered within the context of a Local Plan Infrastructure Delivery Plan (IDP) and viability.

Planning for residual traffic impacts

The application of the initial headline mode shift targets could mitigate some, but not all, of the impacts of potential growth on the network in each of the alternative 'New Growth Options'. The key exceptions are the A27 Strategic Road Network (SRN), the A22 and A26 Major Road Network (MRN), and A2270 corridors where sections of the road are currently at or approaching capacity already. Other junction 'hotspots' across the wider district local road network could also be further impacted by potential cross-boundary growth from neighbouring districts and would need consideration going forward.

Junction capacity assessments and initial concept designs have been prepared for key junctions to demonstrate where selective capacity enhancements might reasonably mitigate the Local Plan traffic impact. The analysis indicates that the traffic impact can be mitigated at many of the junctions through the combination of reasonable physical mitigation solutions and the potential for sustainable modal shift. However, there are some key exceptions where the residual impact on the network is still likely to be severe and more substantial mitigation measures will be needed:

- The A27 / A2270 corridor between Wealden and Eastbourne
- The impact of overall link capacity on parts of the A22 corridor between Boship roundabout and to the north of Uckfield
- The A26 London Road junction in Crowborough

All junction designs set out as part of this report are concept only and will be subject to more detailed feasibility and, in all cases, the overall traffic impact will need to be tested further in the countywide model to fully understand the impacts of updated origin / destination information, traffic reassignment, modal shift and overall network capacity before finalising the level of mitigation required.

Consideration will need to be given to locations on the minor road network and in town centres such as Uckfield, which have not been assessed in detail at this stage. The impacts of wider additional cross-boundary Local Plan growth on the Wealden network will also need to be considered within the context of the eventual need for mitigation. Equally, the cross-boundary impacts of the Wealden Local Plan will need to be considered too, particularly in neighbouring Eastbourne and Lewes.

Initial engagement with NH has highlighted that a longer term 'monitor and manage' approach could be adopted across the Local Plan period. This would only require the implementation of proposed mitigation if the prevailing future traffic conditions actually increase to the modelled forecast levels. NH have clarified that, while this is a preferred, pragmatic and proportionate approach, they would still expect to see evidence that reductions in forecast car use can be achieved through modal shift and any necessary mitigation can be achieved if required in the future. This approach could

be similarly adopted, in agreement with ESCC, for any mitigation on the local road network.

Summary and next steps

This latest assessment of three 'New Growth Options' (2-4) indicates that the different levels of development growth could still have a severe traffic impact on parts of key corridors, including the A27 SRN, A22, A26 (MRN) and A2270. An initial framework of sustainable, and progressively innovative, transport solutions has been promoted as a priority, in advance of opting for physical highway interventions, to explore the potential for modal shift and reduce forecast levels of car use.

A range of 5% to 10% reduction in total peak hour car trips has been tested as a reasonable ambition for the district over the plan period and identifies that, even when taking modal shift into account, there are likely to be residual impacts on key corridors and key junctions. Initial concept designs have been assessed at these locations, however, the level of impact on parts of the A22, north of Hailsham, the A27 / A 2270, between Wealden and Eastbourne, and A26 corridors, is likely to require further consideration in the countywide model, further option testing and the consideration of possible additional mitigation over and above what has been identified in this report. Further consideration will also need to be given to the minor road network, town centres, such as Uckfield, Crowborough and Hailsham, and the cross-boundary impacts of Local Plan growth in neighbouring districts on the Wealden network. Equally, the corresponding impacts of the Wealden Local Plan growth on their networks will also need to be considered.

As a next step the SATURN-based strategic East Sussex Countywide Transport Model (ESCWTM / "countywide model") will be used to refine the modelling methodology, assess impacts in more detail and further develop the transport evidence base for the Local Plan.

1 Introduction

A new Local Plan for Wealden is currently being prepared and will be the key planning document to shape economic regeneration and the delivery of housing across the district up to 2039. The Council are continuing to prepare the supporting evidence base and review different growth options for further consultation and refinement into a preferred option.

A key consideration of the evidence base is the impact of new development on the transport network and the potential measures needed to mitigate any severe impacts. A Shared Transport Evidence Base (STEB) is being developed to test the emerging Local Plan options, and wider growth across the county, on the strategic network using a series of spreadsheet-based transport modelling tools, in advance of using the more detailed SATURN based East Sussex Countywide Transport Model (the “countywide model”).

An ‘Initial Growth Option’ (Option 1) was tested previously and the outcomes, presented in Transport Note (TN)01, indicated that the level of growth could have severe traffic impacts on the network. The Council are now assessing three alternative ‘New Growth Options’ (Options 2-4) to test lower levels of development across the district. This document (Transport Note – TN02) provides the outcomes of the assessment of the ‘New Growth Options’ and should be read as an update to the earlier assessment of the ‘Initial Growth Option’ in TN01 to understand any material changes in impact and also further develop a package of mitigation.

In developing a package of mitigation, the approach considers the role sustainable transport and future mobility options could play in reducing the need to travel and the level of predicted car use alongside the need for physical measures to increase highway capacity. At this stage, it provides a long list of potential measures for further consideration and more work will need to be done to develop this list into workable solutions within the context of Wealden and the Local Plan.

This assessment relies on the same interim STEB spreadsheet-based model, as a consistent and proportionate approach to previous work, and a separate A22 corridor spreadsheet-based tool to gain an early understanding of the transport impacts of the three latest growth options on key corridors. It is recommended that any further testing of Options 2-4 is undertaken in the countywide model, with a wider study area, to support the evidence base.

This TN02 references and, for the avoidance of duplication, summarises the key assumptions and approaches where there is overlap with the previous work set out in TN01. For completeness, both documents should be referred to as part of the emerging evidence base.

2 General Approach

2.1 Wider context

The Shared Transport Evidence Base (STEB) approach has been developed to consider the emerging status of all Local Plans within the county and to assess each Local Plan on its respective merits and potential in-combination effects with its neighbouring areas. This will enable the LPAs and ESCC to work collaboratively to consider the initial high-level impacts of each Local Plan and early scalable mitigation solutions likely to be needed across the county.

At this stage, the approach relies on traditional highway assessment spreadsheet-based modelling tools to understand how and where the transport network is likely to be constrained. However, it also gives consideration to approaches to deliver a decarbonised and sustainable transport system through the plan-making process by 'planning for people and places' to reduce the future level of car based trips.

The District Council has committed to working with stakeholders to deliver a carbon neutral district by 2050 at the latest. The County Council is equally working to achieving net zero carbon emissions by or before 2050. Transport plays an important role in achieving this and wider industry guidance from the RTPI¹, TRICS², CIHT³ and TfSE⁴ have identified complementary approaches that move away from the traditional 'planning for vehicles and capacity enhancements' to a more vision-led desired outcome of 'planning for people and places'. Figure 2-1 illustrates the RTPI framework to guide the role of spatial planning and achieve a decarbonised net-zero transport system.

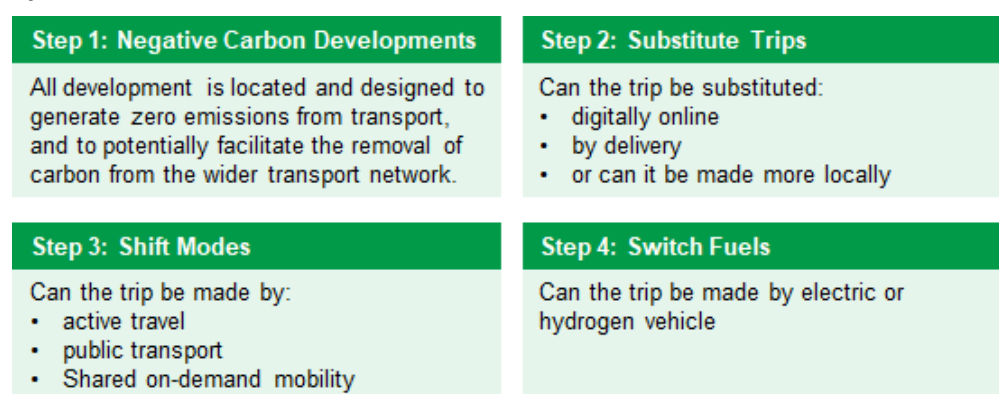


Figure 2-1 RTPI Sustainable Accessibility and Mobility Framework

2.2 Application of STEB

The assessment follows the same approach used to assess the Initial Growth Option in TN01 (as summarised in Figure 2-2). This initially uses a spreadsheet-based modelling tool to provide an early assessment of traffic growth from the New Growth Options (2-4) and the potential risks to key parts of the transport system. A long-list of

¹ [Net Zero Transport: the role of spatial planning and place-based solutions \(RTPI 2021\)](#)

² [Better planning, Better transport, Better places \(CIHT 2019\)](#)

³ [Guidance Note on The Practical Implementation of The Decide & Provide Approach \(TRICS 2021\)](#)

⁴ [Transport Strategy for the South East \(TfSE 2019\)](#)

future mobility and sustainable transport opportunities have then been considered across the network and at key developments to start ‘planning for people and places’. This will rely on evidence from elsewhere to start considering the high-level potential for modal shift as a starting point.

The approach also recognises that an element of ‘planning for vehicles and capacity enhancements’ is still likely to be needed to address potential residual impacts on the highway network. Any highway solutions should be on a monitor and manage basis throughout the Local Plan period and also consider integrating measures for all road users and not just vehicles. Key challenges and opportunities for all transport users will be identified to provide a starting point for more detailed testing of highway impacts, mitigation solutions and potential modal shift in the countywide model at a later stage.

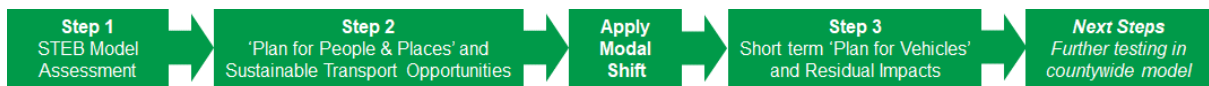


Figure 2-2 Summary of initial STEB approach

3 Wealden Local Plan Context

3.1 Growth Options

The new Local Plan for Wealden will plan and manage growth and change in the district up to 2039. Following an initial Direction of Travel Consultation (November 2020 – January 2021), the Council undertook an initial STEB assessment (TN01) of a growth option to deliver an additional 16,000 dwellings and 170,000sqm of employment, retail and other floorspace to understand the likely transport impacts and mitigation requirements.

The outcome of the earlier work highlighted some potential severe transport impacts on constrained parts of the network, including the A22 north of Hailsham towards Uckfield and parts of the A27 strategic road network (SRN) / A2270 to the south of the district. The Council undertook further analysis of incremental combinations of sites along the constrained A22, using a separate spreadsheet-based corridor tool, to identify three new alternative growth options (2-4) for further STEB assessment and to determine whether there is likely to be a material reduction in transport impacts compared to the initial growth option (1) (all options tested in STEB to date are summarised in Table 3.1):

Table 3.1 Local Plan Growth Options tested in STEB

Growth Option	Dwellings (Units)*	Emp. / Retail / Other Floorspace (sqm)*
(1) Initial Growth Option (TN01)	16,000	170,000
Alternative New Growth Options (TN02):		
(2) High New Growth Option	12,301	201,200
(3) Medium New Growth Option	10,301	201,200
(4) Low New Growth Option	9,221	201,200

**New development only and excludes 9,436 houses and 2,411 jobs committed development with consent granted in the plan period*

As with the initial growth option, these three new growth options are subject to further change and represent a point in time for assessment purposes to inform a Draft Local Plan (Regulation 18) consultation.

3.2 New Wealden Local Plan 2019-2039 Vision

In 2019 WDC declared a 'climate emergency' in the district and, in their Direction of Travel⁵ consultation document, identified the need for a Local Plan vision with clear objectives to support the delivery of a Climate Emergency Action Plan. Planning policy will be central to the success of this vision and the Local Plan will need to respond to a number of key issues, opportunities and challenges, as set out in the Council's early consultation. The Direction of Travel report was accompanied by a Sustainability Appraisal Scoping report. This also identified challenges as well as some key transport themes that the emerging Local Plan will need to consider. The opportunities, challenges and themes are summarised in Table 3.2.

⁵ [Wealden Local Plan – Direction of Travel](#)

Table 3.2 New Wealden Local Plan key opportunities, challenges and themes

Opportunities, Challenges and Themes	
• Tackling Climate Change: to achieve carbon zero outputs and improve air quality; • Infrastructure Delivery: to support growth and change, meeting the needs of communities; • Housing: deliver the right type of homes, in the right location and to a high standard; • Commercial: support local business, increase jobs and ensure a thriving, diverse and a locally sustainable economy; • Tourism: improve the existing offer and increase visitor spend; • Town Centres: support and regenerate local centres by attracting the right investment and create vibrant places that cater for community's needs; • Natural Environment: protect and enhance, increasing biodiversity and the quality of green and blue spaces; • High Quality Landscapes: protect heritage and cultural assets; • High Quality Places: through design and accounting for local character and distinctiveness; • Local Communities: help communities to thrive, living safe, inclusive and healthy lives.	
Key Challenges	Key Transport Themes ⁶
• High dependency on the private car for travel in the district • District suffers with poor public transport, primarily due to its rural nature • Funding the creation of new cycle/walking infrastructure • The district experiences high car use with transport infrastructure at capacity during peak time and congestion on the road network • Most people commute out of the district for work and do so by car/van. Those who work within the district rely heavily on private cars	• Encourage active and sustainable transport • Provision of walking & cycling infrastructure • Implementing parking standards • Ensure the right infrastructure is provided in sustainable locations at the appropriate time • Favour development in locations where existing sustainable routes are in place • Ensure distances to recreational facilities are minimised and can be made by foot/cycle • Public realm improvements • Design safe and accessible walking and cycling networks

3.3 Wider Policy Framework

The development of the Local Plan transport evidence base and the need for mitigation will also need to respond to wider policy objectives and guidance. Table 3.3 lists the key national, regional and local transport policy guidance relevant to plan-making.

Table 3.3 Wider transport policy and guidance

National Policy
• The National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2021) • National Planning Policy Guidance (NPPG) (Department for Communities and Local Government, 2021) • DfT Circular 20/2013 - The Strategic Road Network and the Delivery of Sustainable Development (2013) & The strategic road network Planning for the future - A guide to working with Highways England on planning matters (2015) • Bus Back Better: National bus strategy for England (DfT, 2021) • Gear Change: A bold vision for cycling and walking (DfT, 2020)
Regional Policy
• Transport for the South East Transport Strategy (TfSE)

⁶ WLP SA SEA Scoping Report November 2020 (Wealden.Gov.Uk)

-
- TfSE Draft Strategic Investment Plan (SIP, 2022)
 - South East Local Enterprise Partnership's (SELEP) Strategic Economic Plan (2014)
-

Local Policy

- ESCC Local Transport Plan 3 (LTP3) (2011-2026)
 - East Sussex Bus Service Improvement Plan (BSIP)
 - East Sussex's Local Cycling & Walking Infrastructure Plan: Let's get cycling and walking (ESCC, 2021)
 - Guidance for Parking at New Residential Development (ESCC, 2017)
 - Wealden District Core Strategy Local Plan (2013 – 2027)
-

4 Transport Scheme Pipeline

4.1 Long-list of potential schemes

In advance of identifying new mitigation options a long list of transport schemes has been identified with the District Council and ESCC and categorised by the 'level of certainty', mode of transport and body responsible for delivery in Table 4.1 and approximate locations shown in Figure 4-1.

Table 4.1 Wealden District Council Pipeline Schemes and Status

Ref	Scheme name	Mode(s)	Lead body
Committed (near certain / more than likely) – funding and permissions are largely secured either through developer S106 and / or public funding. It is either near certain or more than likely that the scheme will be delivered in its current form to address known issues on the network and the impacts of growth in the currently adopted Local Plan i.e. these schemes would be considered as part of the baseline and not necessarily to mitigate the impact of new Local Plan growth.			
1	Hailsham/Polegate/Eastbourne Sustainable Transport Corridor Phase 1	Bus/walk/cycle	ESCC
2	A27 Improvements – Shared-use path stretching from Polegate to the junction with Firle Bostal	Walk/cycle	NH
3	A27 Improvements – Berwick Roundabout Upgrade	Car/bus	NH
4	A27 Improvements – Wilmington Junction Upgrade	Car/walk	NH
5	A27/A2270 Polegate Junction	Car/walk	NH
6	A27 link lane widening between A2270 and Cophall Roundabout	Car	NH
7	A27 – Station Road Drusillas Roundabout	Car	NH
8	South Road / Ersham Road / Diplocks Road	Car	ESCC
9	Polegate High Street Public Realm Improvements	Walk/cycle	ESCC
Planned (reasonably likely) – permissions and funding yet to be confirmed, but options and feasibility designs have been progressed and a funding route has either been partially secured, or is known, and/or a business case is being developed			
10	A22 - B2124 Golden Cross Junction (A22 MRN OBC)	Car/bus	ESCC
11	Golden Cross to Boship Roundabout (A22 MRN OBC)	Bus	ESCC
12	Boship to Horsebridge	Bus	ESCC
13	Horsebridge to Hailsham	Car/bus	ESCC
14	A22 Boship Roundabout	Car/bus	ESCC
15	A22 Hempstead Lane New Roundabout	Bus	ESCC
16	A22 Eagles Roundabout	Bus	ESCC
17	A27 A22 Golden Jubilee Roundabout	Bus	ESCC
18	A22 Dittons Road Signalised Junction	Bus	ESCC
19	A22 Diplocks Way	Car	ESCC
20	A259 Brighton-Eastbourne- Pevensey (South Coast) MRN corridor	PT/walk/cycle	ESCC

Ref	Scheme name	Mode(s)	Lead body
21	Exceat Bridge replacement	Car/walk	ESCC
22	B2147 Dittons Road Cycle Provision	Cycle	ESCC
23	A22/A2270/A2021 Hailsham – Polegate – Eastbourne Movement and Access Corridor (Future phases)	Bus/walk/cycle /car	ESCC
24	Junction improvement at A27 / Gainsborough Lane	Car	NH
25	Re-configuration of The Triangle	All	ESCC
26	Coppice Avenue and Farmlands Way Traffic Calming	Walk/cycle	ESCC
27	Castle Road Shuttle Working	Car	ESCC
28	Pevensey High Street Pedestrian Crossing Facility	Walk	ESCC
29	Hailsham/Polegate/Eastbourne Sustainable Transport Corridor PHASE 3 Ersham Road roundabout, Hailsham	All	ESCC
30	Hailsham/Polegate/Eastbourne Sustainable Transport Corridor PHASE 4 A2021 Kings Drive/Rodmill Roundabout	All	ESCC
Concept (uncertain) – still at a hypothetical level of planning with options still to be considered, further feasibility needed and funding route to be confirmed.			
31	Hailsham/Polegate/Eastbourne Sustainable Transport Corridor PHASE 5 – Rodmill roundabout to town centre	All	ESCC
32	Uckfield Bypass	Car	ESCC
33	A27 - Cophall Roundabout	Car/bus	NH
34	Hawks Road Roundabout and Urban improvements Hailsham	Car/walk/cycle	ESCC
35	A27 Falmer Polegate bus laybys	Bus	NH
36	Strategic Mobility Hub - West of Polegate	PT/walk/cycle	Network Rail / ESCC
37	Uckfield electrification	Rail	Network Rail / TfSE
38	Reinstate Uckfield - Lewes Railway Line	Rail	Network Rail / TfSE
39	Hailsham to Eastbourne dedicated connected Quality Bus Corridor (QBC) / Bus Rapid Transit and Active Corridor	Active / Bus	ESCC / TfSE / NH
40	Potential off line A27 realignment scheme to the west of Polegate as part of RIS3	Car/PT/Active	NH

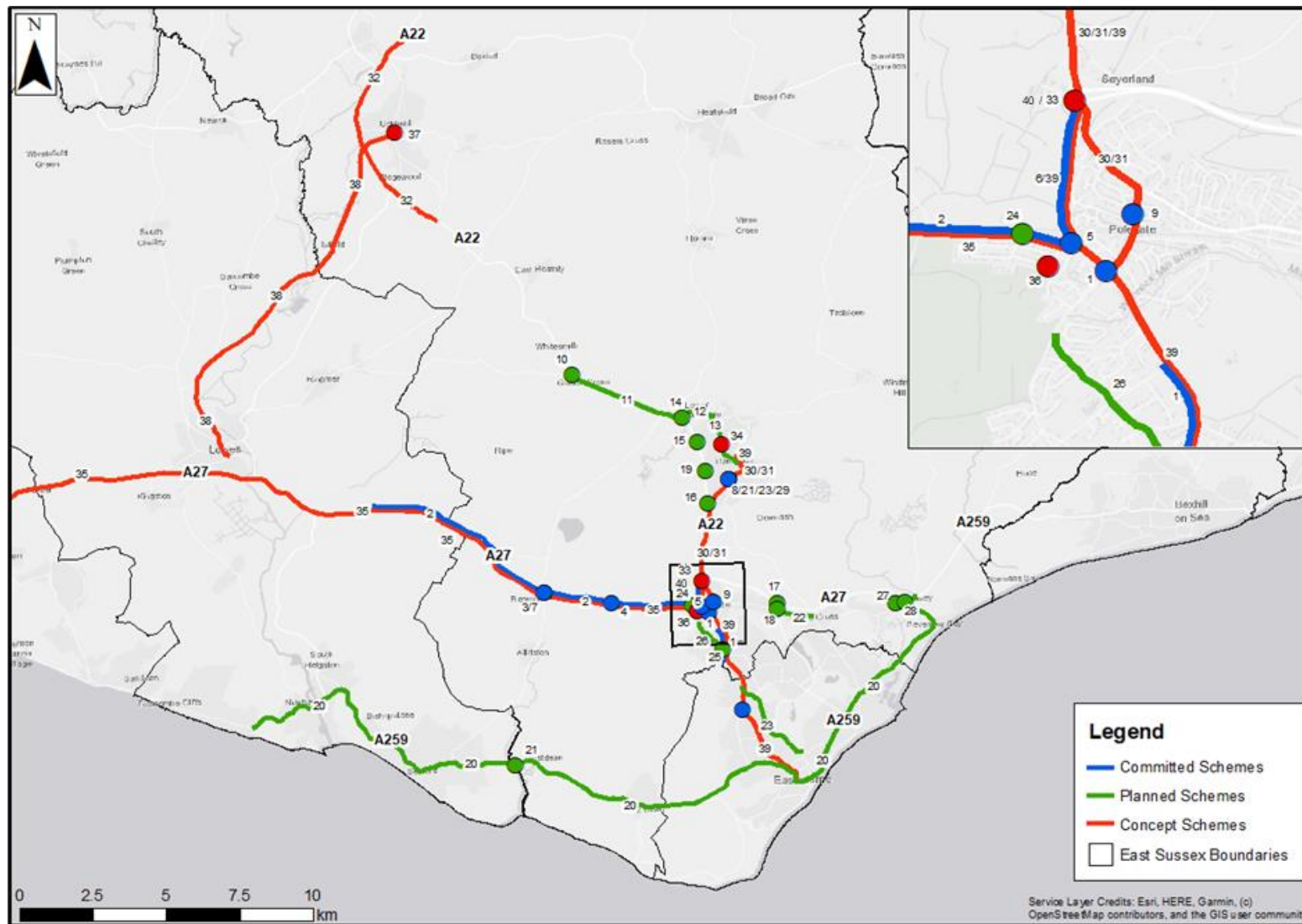


Figure 4-1 Scheme Pipeline by Status

4.2 LCWIP Schemes

The East Sussex Local Cycling & Walking Infrastructure Plan (LCWIP) sets out proposed cycling and walking networks and measures within specific areas of the County and received Member approval at a Cabinet meeting on 30th September 2021. It is focussed on areas of the county where there are the greatest opportunities to increase levels of cycling and walking, with an emphasis on delivering infrastructure improvements which will support those people who currently do not cycle or walk. The LCWIP proposals for Wealden are included in Appendix A.

4.3 East Sussex Bus Service Improvement Plan

In line with the expectations of the Bus Back Better: National bus strategy for England, ESCC have prepared a Bus Service Improvement Plan (BSIP). A key target of the BSIP is to initially reverse the decline in bus patronage and then grow it significantly in future years. This will be delivered by quality improvements, including:

- Bus priority schemes, including bus lanes and traffic lights to improve reliability and punctuality
- Districtwide rural digital demand responsive transit (DDRT) in Hailsham, Heathfield, Crowborough and Uckfield
- Mobility hubs across the district linking up with DDRT schemes and improved bus shelters or interchanges
- Simplified and reduced fares using a digital 'Sussex App' with improved real-time passenger information

4.4 TfSE Draft Strategic Investment Plan (SIP)

TfSE consulted on their Draft SIP⁷ in mid-2022 and the final draft was presented to their Partnership Board in November 2022 and, subject to board approval, will be adopted in March 2023.

Wealden is covered principally by the proposed London to Sussex Coast package of interventions, while the south of the district sits in the Solent & Sussex Coast package and the far east of the district sits in Kent, Medway & East Sussex package. These packages identify the need for a capital investment of approximately £35bn up to 2050 and includes key improvements to rail, a mass transit between Hailsham and Eastbourne, active mode and highway improvements in the district. The potential schemes are at various levels of certainty, which overlap with the existing wider scheme pipeline, set out earlier in this section. TfSE recognises that securing funding will be the principal financial challenge. Acknowledging that the draft SIP is pending board approval, Figure 4-2 illustrates the locations of the key schemes identified in the proposed London to Sussex Coast package of interventions in or on the border with Wealden. Further engagement with TfSE and key partner bodies, including Government and private investors, will be required to establish how these schemes will come forward within the Local Plan period.

⁷ [TfSE \(2022\) – Draft Strategic Investment Plan](#)

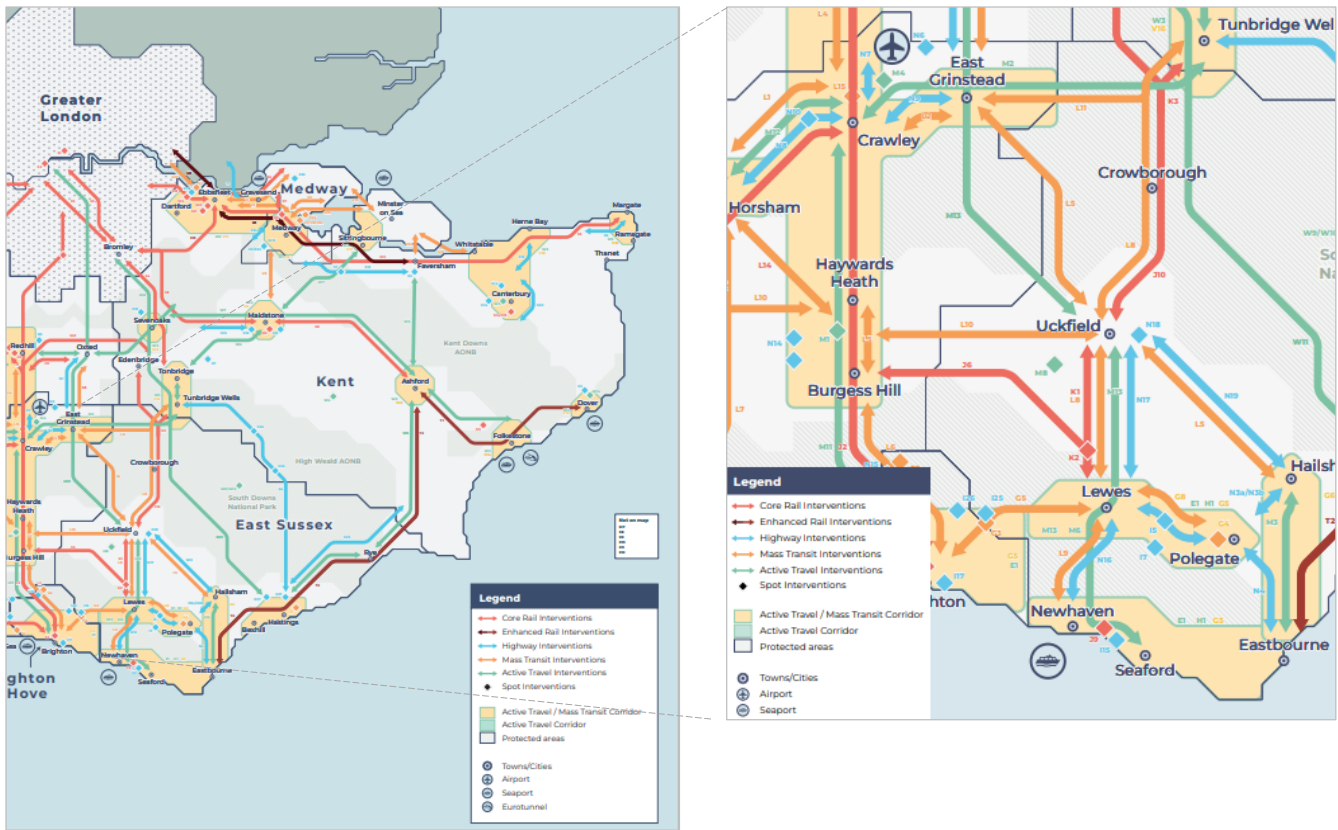


Figure 4-2 Map extract of TfSE draft SIP Packages and Wealden (TfSE, 2022)

5 Forecast Modelling



5.1 STEB model overview

The STEB highway assignment spreadsheet model (STEB Model) has been developed as one initial component of an overarching process to develop a common transport evidence base to support each of the emerging Local Plans across the county. This section gives a brief overview of the model structure and it is recommended that reference is made to the separate Phase 1 – Model Build Technical Note (East Sussex Highways April 2021) appended to TN01 for more detail.

The eventual objective is to develop a robust and appropriate evidence base for each Local Plan using the strategic countywide model in the next stage of assessment. The STEB Model is an interim modelling solution, developed in PTV VISUM, to assign new Local Plan development only vehicle trips to the highway network. The development only flows are then combined with existing baseline traffic flows (i.e. observed traffic data), where available, and TEMPro growth to take account of general traffic growth and emerging growth in neighbouring districts. This has allowed the development of a future Reference Case (without Local Plan) and future 'with Local Plan' traffic scenarios for assessment and benchmarking purposes. Table 5.1 summarises the key modelling parameters applied.

Table 5.1 Key STEB modelling parameters

Base Year	Forecast Year	Time Periods	Trip Generation	Trip Distribution	Assignment
2019	2040 using TEMPro* AM: 1.1951 / PM: 1.1922	08:00-09:00 17:00-18:00	TRICS v7.8.3	2011 Census Journey to Work (JTW)	VISUM based single route choice assignment based on road hierarchy.

* 2040 was agreed as a common forecast year to account for the varying horizon years of each Local Plan. TEMPro growth factors have been adjusted to account for committed development only as a Reference Case for comparing and adding Local Plan growth.

The STEB model has been used previously to assess the impacts of the Council's 'Initial Growth Option' (1) set out in TN01. The outcome of this modelling gave an indication on key parts of the highway network that are likely to be most affected by the future growth, particularly on the A22 corridor north of Hailsham and around Uckfield. A separate A22 focused spreadsheet-based corridor assignment tool was also created to assist the Council with assessing the traffic impacts of different development sites and combinations of development sites on this constrained section of the A22. The Council used this tool to calculate the number of trips generated by each possible development site, depending on the scale and proposed land use, to define three 'New Growth Options' (2-4) for further assessment and mitigation planning. This section discusses the initial STEB model outputs for these new growth options.

5.2 Limitations and assumptions

The STEB model is only intended to be an interim solution to support the Regulation 18 consultation and has a number of limitations with functionality and assumptions

made on how outputs should be interpreted. A summary of these limitations and assumptions are included at Appendix B and generally focus on trip purpose, network detail and the lack of a dynamic reassignment function to less congested routes in the STEB model.

Notwithstanding these limitations, the model provides an acceptable tool to gain an early understanding of where there is likely to be potential stress to the highway network, risks to capacity and where mitigation solutions are most likely needed to inform further assessment in the countywide model at a later stage.

5.3 STEB inputs

5.3.1 Background Traffic Growth

The STEB model is a development only highway assignment model and does not explicitly model background traffic and growth. Recent 2019 turning count and link count data has been extracted, where available, for junctions and links to establish a baseline. A 2040 TEMPro growth factor (AM: 1.1951 / PM: 1.1922) for East Sussex has been calculated using the default TEMPro growth data and adjusted to account for housing completions in Wealden between 2019 and 2021 and committed development with planning permissions (9,436 houses / 2,411 jobs). The default TEMPro planning assumptions for all LPAs in East Sussex were compared with each of the neighbouring districts and boroughs latest known emerging Local Plan options to ensure there were no significant differences with the TEMPro default assumptions. The growth factor has been applied to establish a 2040 future year Reference Case to compare the 'with' and 'without' Local Plan options.

It is acknowledged that, applied at a district wide average, this approach could underestimate some neighbouring Local Plan growth, particularly on or around the boundary with other LPAs, where larger or groups of specific developments could realistically have a higher impact on some parts of the network. The Reference Case will need to be reviewed as the STEB process evolves into the countywide modelling phase to agree an appropriate level of growth for inclusion in the baseline.

5.3.2 Local Plan Traffic Growth

The traffic growth for the Revised High / Medium / Low 'New Growth Options' (2-4) has been calculated by applying appropriate trip rates from the TRICS database for different land uses.

A plot showing the sites included in the different growth options is shown in Figure 5-1 and a summary of the trip rates⁸ applied to different sites and land uses for each option are included in Appendix C. The key differences between the three growth options are:

- High Growth Option (2)
- Medium Growth Option (3) includes all High Growth sites except for the Land at Owlsbury Farm, Uckfield site
- Low Growth Option (4) includes all Medium Growth sites except for 5 sites within the vicinity of Uckfield:
 - Land south of Maresfield

⁸ All trip rates have been provisionally agreed with ESCC and NH for the purposes of this assessment and are subject to further review and refinement as part of any subsequent option testing in the countywide model.

- Land off Old Eastbourne Road
- Cysleys Farm
- Land at White House Farm
- Land at Horstedpond Farm

The fundamental differences between the Initial Growth Option 1 and the High Growth Option are the removal of the large West Hailsham development site and the redistribution of 3000 dwellings, previously located at the East Hoathly site, to the West of Uckfield. Other notable differences include the removal of the Downlands Farm and the Hempstead sites in Uckfield. The allocation of windfall growth in the Initial Growth Option 1 was limited to housing only, in the new growth options employment growth has also been included, totalling 69,600 sqm.

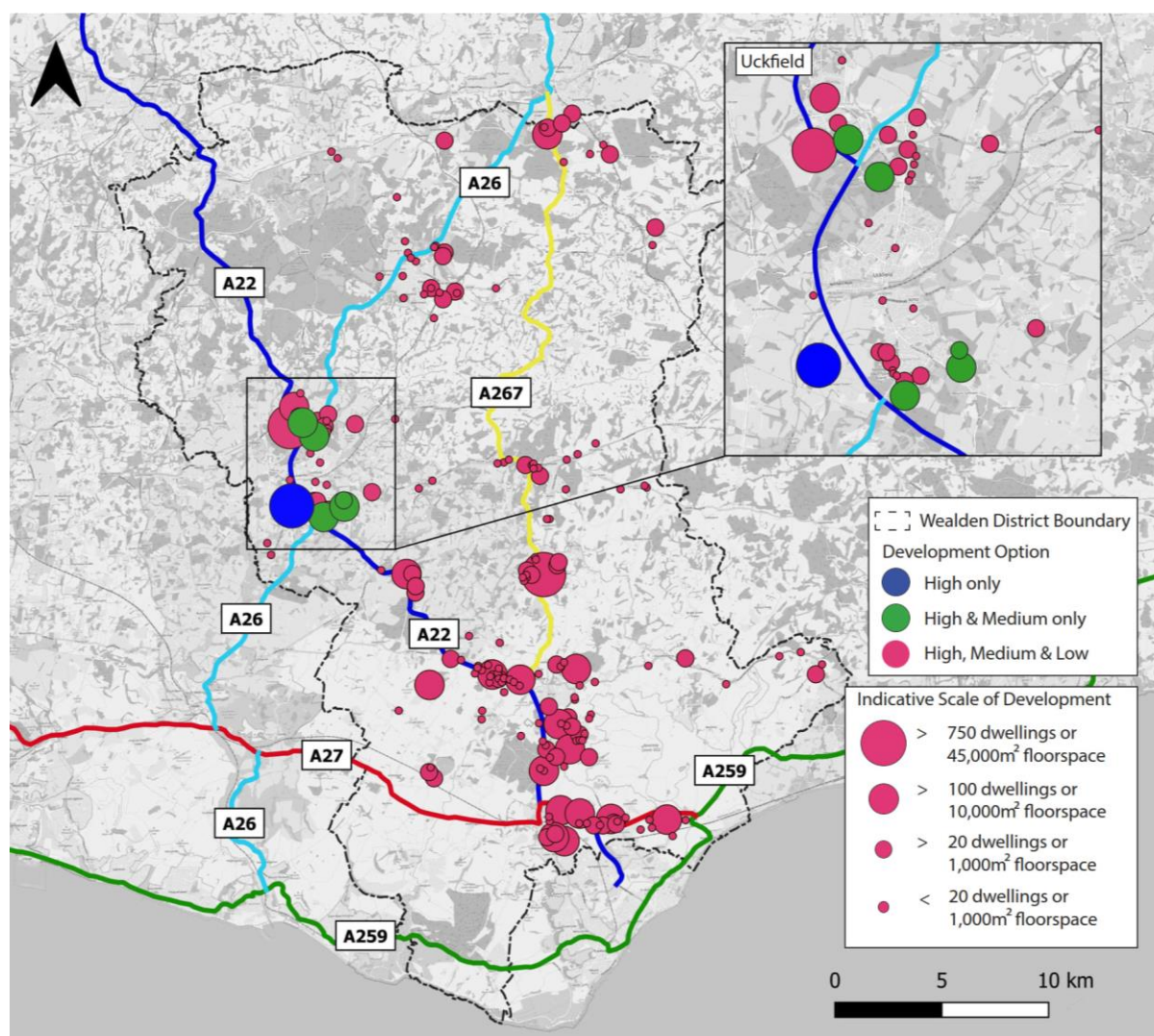


Figure 5-1 Wealden Development Site Locations

The unmitigated total vehicle trip generation by growth option and specific land use is summarised in Table 5.2 and shows that the High Growth option (2) will generate up to 14% more vehicle trips than the Medium Growth option (3) and up to 21% more vehicle trips than the Low Growth option (4).

The trip generation is considered robust and unmitigated at this stage, e.g. with no modal shift and site specific trip or parking characteristics, to present a robust case for initial stress testing of the network and identifying potential constraints on link and junction capacity. Further consideration and refinement to specific land use trip and parking characteristics will be needed as more development detail comes forward when the countywide model is used.

Table 5.2 Development only trip generation by land use and Local Plan option (Total Vehicles)

Spatial Option	Dwellings (units)	Employment / Retail / Other Floorspace (sqm)		
High Growth Option (2)	12,301	201,200	Total Trips	
AM Trips	6077	1541	7618	
PM Trips	6332	1822	8154	
Medium Growth Option (3)	10,301	201,200	Total Trips	% Change from High Growth Total Trips
AM Trips	5049	1541	6590	-13%
PM Trips	5164	1822	6986	-14%
Low Growth Option (4)	9,221	201,200	Total Trips	% Change from High Growth Total Trips
AM Trips	4541	1451	5992	-21%
PM Trips	4663	1822	6485	-20%

5.3.3 Potential development impacts

Further analysis has been undertaken of the larger potential development sites and clusters to understand their respective traffic impacts on the network. Table 5.3 summarises the total vehicle trip generation of these sites and the principal corridor where the traffic joins the Wealden network. A summary of the peak hour trip generation for all the sites included in each of the New Growth options is provided in Appendix C. The below table provides the key impacts only and does not account for cumulative impacts of each of the sites on other relevant junctions.

Table 5.3 Total peak hour trip generation of larger potential sites and key impact on the network

Corridor	Potential Development Site	Land Use	No. of Dwellings tested	Employment Floorspace (sqm)	Vehicle Trip Generation	
					AM	PM
A22 (between The Shaw Roundabout and Lampool Roundabout)	Land at Owlsbury Farm, Lewes Road, Uckfield	Res	2,000	-	1028	1168
	Cysleys Farm, Eastbourne Road, Uckfield	Res	150	-	75	73
	Land at Horstedpond Farm, Lewes Road, Uckfield	Res	450	-	225	218
	Land at White House Farm, London Road, Uckfield	Res	240	-	102	105
	Land south of Maresfield, A22, Maresfield	Res	210	-	90	92
	Uckfield Town Windfall	Mixed	194	5,000	147	180
	Land at Hesmonds Stud, East Hoathly	Res	170	-	88	94
	Ashdown Business Park, Michael Way, Maresfield	Emp	-	45,000	458	520
A22 (between Boship Roundabout and The Shaw Roundabout)	Deanland Wood Park, Deanland Road, Ripe	Res	105	-	54	61
	Harrison's, south of London Road, East Hoathly	Res	150	-	77	88
	Knights Farm, Lower Dicker, Hailsham	Emp	-	40,000	376	413
	Swallow Business Park Phase 2, A22, Lower Dicker	Emp	-	12,000	103	100
A22 (between Cophall Roundabout and Boship Roundabout)	Land east of A22, South Hailsham	Emp	-	20,000	73	66
	Hailsham Town Windfall	Mixed	278	12,000	284	326
	Land east of Battle Road, south of Harebeating Lane, Hailsham	Res	400	-	180	171
	Land to the east of Battle Road, Hailsham	Res	100	-	51	58
	Land south of Hailsham, Land east of Ersham Road and Land west of Station Road, Hailsham	Res	200	-	100	97
	Land at Park Farm, New Road, Hellingly	Res	360	-	180	174
A22 (between Dittons Roundabout and Cophall Roundabout)	Land bounded by A27 and Levett Road, Polegate	Res	180	-	93	100
	Land at Shepham Lane, Polegate	Res	300	-	156	166
	Land at Peelings Lane, Westham	Res	150	-	78	83
	Sharnfold Farm, Hailsham Road, Stone Cross	Res	120	-	62	70
	Hindsland Playing Fields, Eastbourne Road, Polegate	Res	180	-	93	100
	Polegate Town Windfall	Mixed	116	1,300	77	82
	Mornings Mill Farm, Lower Willingdon	Mixed	700	8,600	420	442

5.3.4 Development trip distribution and assignment

2011 Census journey to work (JTW) trip information, using a middle layer super output areas (MSOA) zoning system, was used for the distribution of development trips. An appropriate MSOA zone was identified for each Local Plan development site to generate development only trip distribution matrices. In the absence of detailed access information for all sites, each development zone is allocated up to three zone connectors, using development access information where possible, to best reflect likely loading points on to the network. Specific locations of windfall development are not known and up to five zone connectors have been allocated to distribute traffic at a local network level.

The VISUM component of STEB is then used to assign development vehicle trips on to the network using the 'most likely' route choice using a simplified single assignment and based exclusively on link length, road type and free-flow speed. It should be noted that the assignment process does not reflect full dynamic reassignment, in response to modelled congestion, generalised cost and driver behaviour.

5.4 Wealden Local Plan Outputs

5.4.1 Flow comparisons of Local Plan Options

The differences between the peak hour flows in the New Growth High / Medium / Low Options are shown in Figure 5-2 and Figure 5-3 where red indicates a higher flow in the High Growth option. Overall traffic growth patterns are similar between all three growth options in the south and the east of the district with the most notable difference in the High Growth Option (2) arising from areas of the A22 and A26 within the vicinity of the large Land at Owlsbury Farm development site to the west of Uckfield. The development sites included in the Medium Growth Option (3), and not included in the Lower Growth Option (4), are located to the east of the A22 near to Uckfield and Maresfield. As a result, there are flow increases of up to 180 two-way flows for the Medium option compared to the Low option on the B2102 through Uckfield town centre.

The principal flow differences between all options are largely confined to the A22 around Uckfield. The largest approximate increases include 560 two-way flows between the Medium and High options along the Uckfield Bypass and 640 two-way flows between Low and High options at the same location.

Given the geographic grouping of the development sites specific to the High and Medium options, the flow differences dissipate considerably further to the north and south of Uckfield on the A22 and A26 corridors:

- Approaching Boship roundabout in Hailsham, there is an approximate two-way flow increase of 280 vehicles between the High and Medium options and 340 between High and Low options.
- On the A26 between Little Horsted roundabout and Lewes, there is an approximate increase of 275 two-way flows between the High and Medium options and 360 two-way flows between High and Low options.

The STEB model assigns much of the growth to the same key corridors across the district. As highlighted throughout this report, these flow patterns could be subject to change when the development options are assessed in detail using the full assignment countywide model, where traffic may seek out alternative routes across the network to avoid congestion.

The High Growth option will have the greater overall impact on the network as a whole, particularly on the A22 Uckfield Bypass and A26 corridor between Little Horsted and Lewes.

5.4.2 Link capacities and impacts

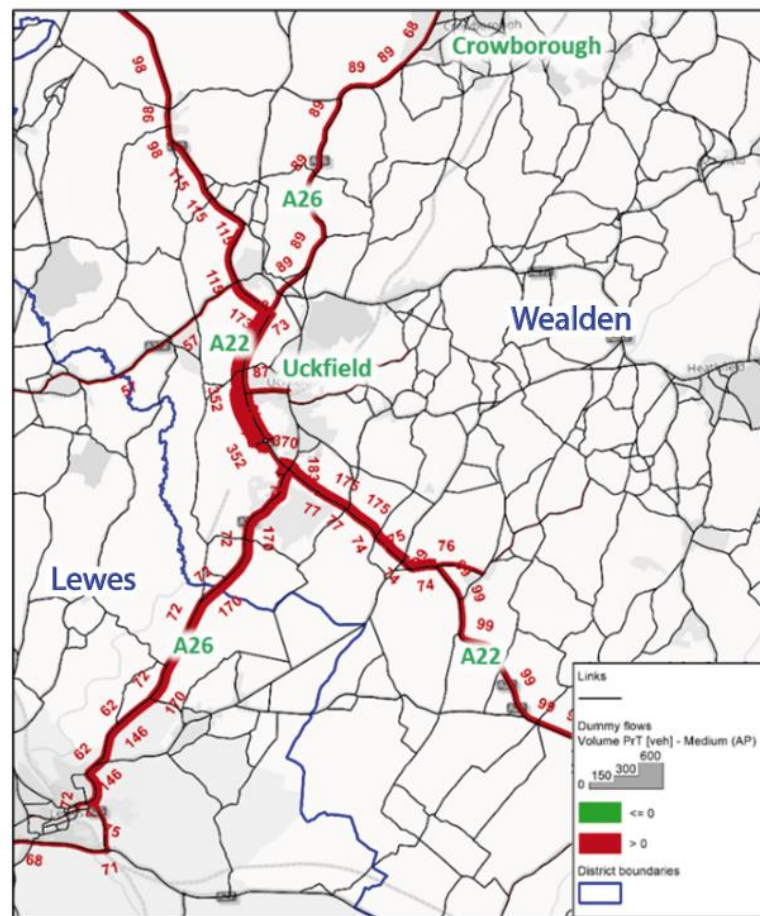
Observed 2019 road link flows, taken from peak hour traffic counts at or near key locations on the network (see corridor references in Figure 5-4), have been factored to a 2040 forecast year, using TEMPro and committed development growth, as a Reference Case. The STEB development only flows are then added to establish the forecast Local Plan options. Table 5.4 to Table 5.6 compare the directional impact of 2019, 2040 Reference Case and 2040 corresponding Local Plan option peak hour flows with the hourly theoretical road link design capacity for key routes across the district.

A link is generally considered to be approaching theoretical capacity when the volume over capacity (VOC) is between 75%-90%, given there is insufficient spare capacity to address typical (+/-) flow changes throughout the peak hour. This provides an early indication, prior to the consideration of further capacity constraints at individual junctions, of how severely different roads could be impacted and whether there is sufficient network capacity. It is acknowledged that link capacity is only one part of the assessment narrative and outputs should be reviewed with an element of caution, given the range of factors that contribute to capacity and the potential for additional reassignment, which can only be determined through the countywide model.

The results summarised in Table 5.4 to Table 5.6 highlight several locations along the A22, to the north of Hailsham (Ref. 2, 3, 6) and the A2270 between Wannock Road and Huggetts Lane close to the boundary with Eastbourne (Ref. 1), which are already approaching capacity in the 2019 AM and PM flows. The analysis indicates that the incremental impacts of the three different New Growth Options do not materially change between the Low and High options on much of the network. The key exception is on the A22 between Copwood and Black Down roundabouts where the High Growth option generates a notably higher volume of traffic from the addition of the large strategic site at the land at Owlsbury Farm development site near to Copwood roundabout. The A22, A27 and A2270 corridors will exceed capacity, by as much as 173% on the A22 eastbound between Boship Roundabout and Coldharbour Rd (Ref. 2), leading to potential severe delays on these corridors.

The three New Growth options (2-4) propose a lower level of development than the Initial Growth option (1) tested in TN01 with an overall lower level of traffic impact across the network. However, the level of impact of each of the New Growth options (2-4) is still likely to be severe on key parts of the network links and poses a risk to the operability of the network. Elsewhere, at a link level at least, the impacts are less severe, however, this will need further consideration at a junction capacity level.

High vs Medium AM Flow Difference



High vs Medium PM Flow Difference

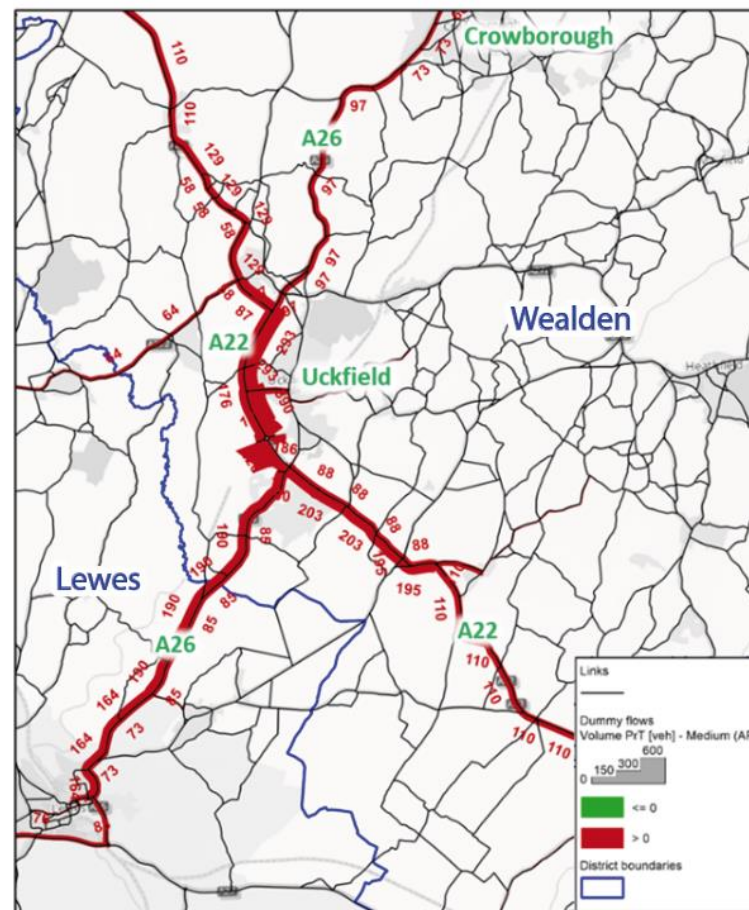
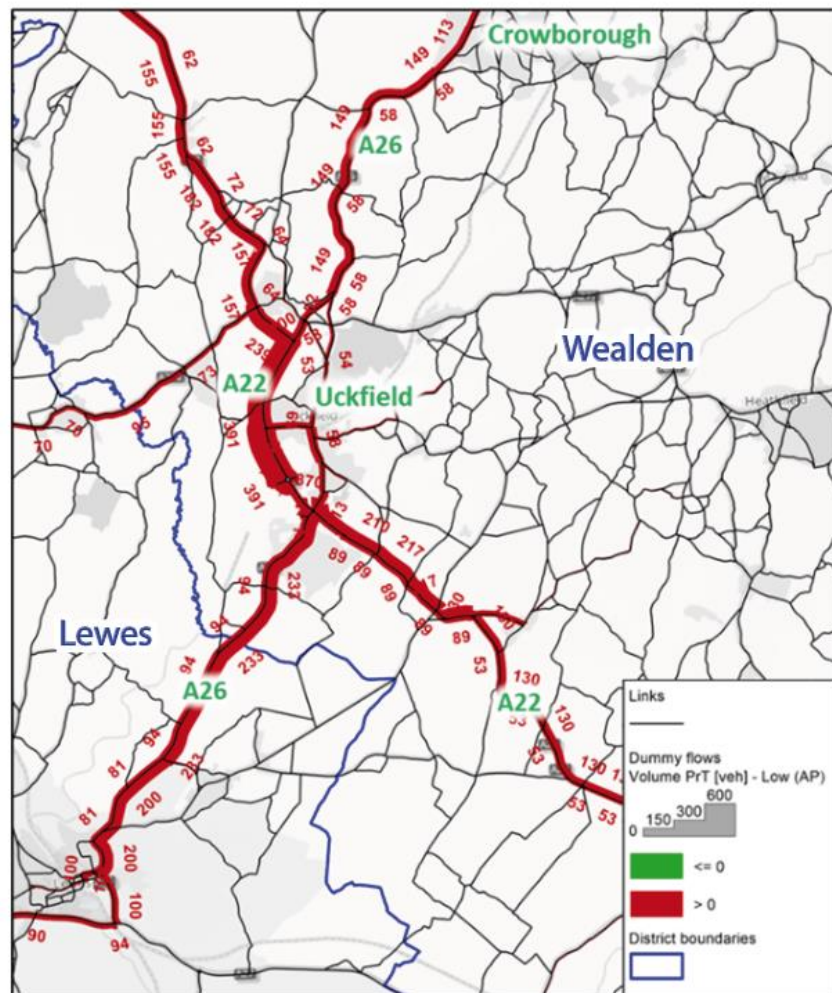


Figure 5-2 Wealden Local Plan High vs Medium Growth Flow Difference Plot (© OpenStreetMap contributors)

High vs Low AM Flow Difference



High vs Low PM Flow Difference

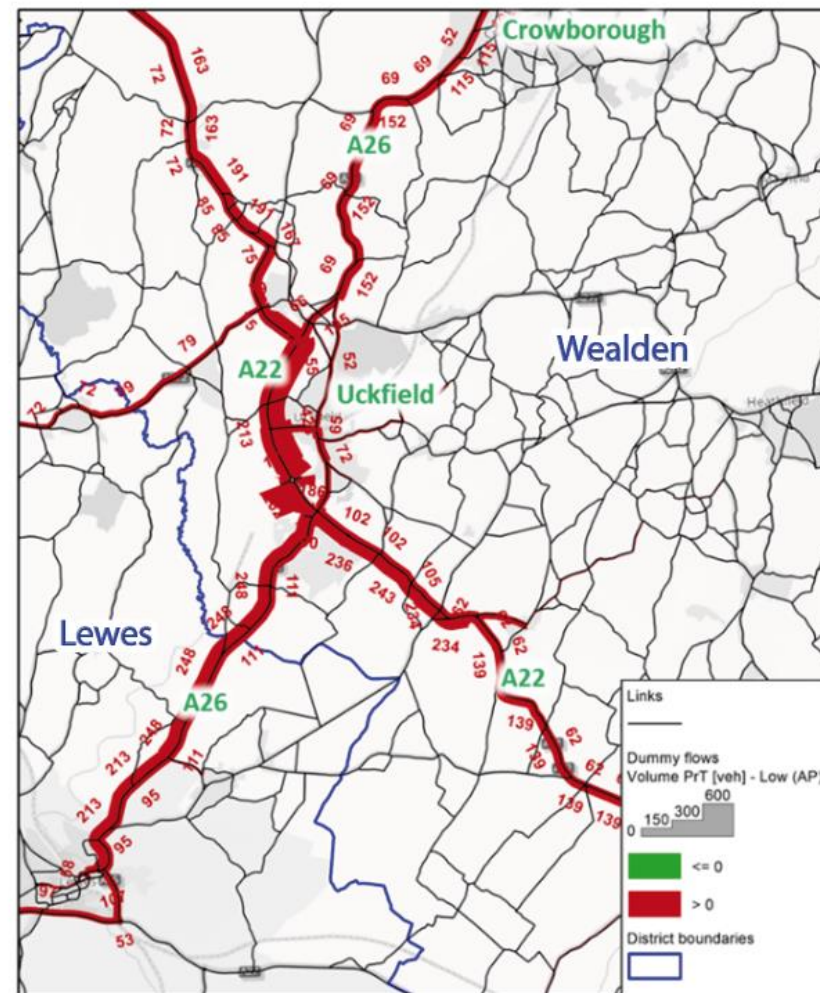


Figure 5-3 Wealden Local Plan High vs Low Growth Flow Difference Plot (© OpenStreetMap contributors)

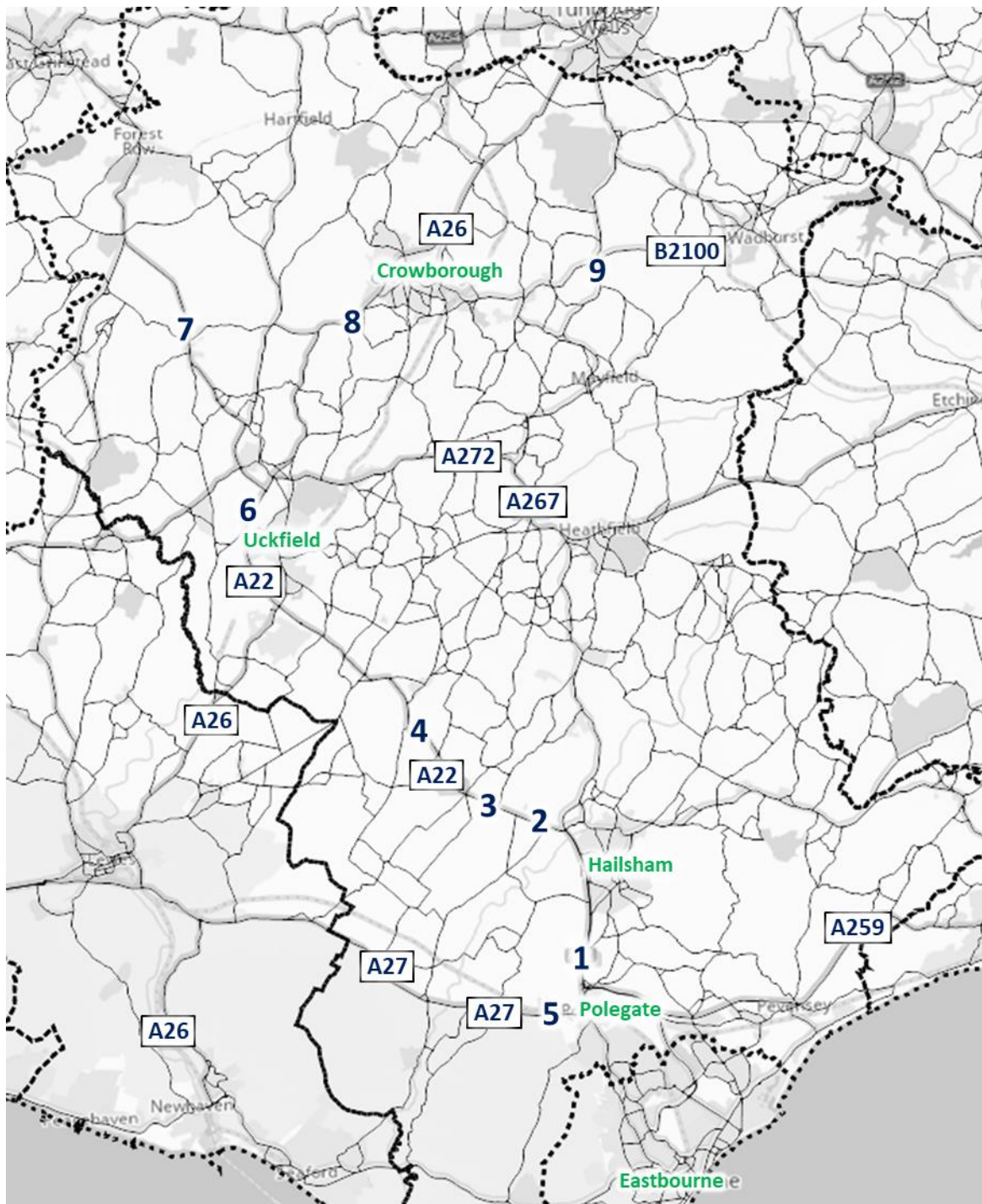


Figure 5-4 Corridor reference location

Table 5.4 2019, 2040 and Local Plan Low Growth Option peak hour link flows, capacities and volume over capacity (VOC %)

Ref	Count Location	Direction	One-way Link Capacity	AM Peak Hour Observed Flow (2019)	AM VoC ratio (2019)	AM Peak Hour Ref Case Flow (2040)	AM 'LOW' flow from STEB model	AM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1527	36%	1825	434	54%
		Southbound	4200	1599	38%	1911	471	57%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	804	60%	961	317	95%
		Westbound	1350	1261	93%	1507	646	159%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	703	52%	840	257	81%
		Westbound	1350	1206	89%	1441	412	137%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	738	55%	882	344	91%
		Southbound	1350	455	34%	544	189	54%
5	A27 Between A2270 and Station Rd	Eastbound	1350	979	73%	1170	102	94%
		Westbound	1350	1001	74%	1196	254	107%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1080	80%	1291	323	120%
		Southbound	1350	1040	77%	1243	190	106%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	365	27%	436	109	40%
		Northbound	1350	652	48%	779	236	75%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	690	51%	825	120	70%
		Westbound	1350	809	60%	967	132	81%
9	A267 Between B2100 and Lake Steet	Northbound	1350	742	55%	887	169	78%
		Southbound	1350	380	28%	454	86	40%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	761	56%	909	222	84%
		Southbound	1350	873	65%	1043	290	99%

Ref	Count Location	Direction	One-way Link Capacity	PM Peak Hour Observed Flow (2019)	PM VoC ratio (2019)	PM Peak Hour Ref Case Flow (2040)	PM 'LOW' flow from STEB model	PM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1298	31%	1547	370	46%
		Southbound	4200	2010	48%	2396	645	72%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	1324	98%	1578	710	170%
		Westbound	1350	771	57%	919	332	93%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	1054	78%	1257	430	125%
		Westbound	1350	664	49%	792	291	80%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	502	37%	598	219	61%
		Southbound	1350	684	51%	815	354	87%
5	A27 Between A2270 and Station Rd	Eastbound	1350	981	73%	1170	197	101%
		Westbound	1350	850	63%	1013	168	88%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1103	82%	1315	211	113%
		Southbound	1350	1126	83%	1342	342	125%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	738	55%	880	223	82%
		Northbound	1350	400	30%	477	132	45%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	819	61%	976	137	82%
		Westbound	1350	643	48%	767	134	67%
9	A267 Between B2100 and Lake Street	Northbound	1350	351	26%	418	97	38%
		Southbound	1350	713	53%	850	168	75%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	753	56%	898	331	91%
		Southbound	1350	1090	81%	1299	219	112%

Key:

>100%	Link is exceeding total design capacity (little or no reserve capacity)
>75%	Link is exceeding theoretical design capacity (allowing for fluctuations in traffic levels)
>50%	Link is approaching theoretical design capacity
>50%	Link is well within theoretical and total design capacity

Table 5.5 2019, 2040 and Local Plan Medium Growth Option peak hour link flows, capacities and volume over capacity (VOC %)

Ref	Count Location	Direction	One-way Link Capacity	AM Peak Hour Observed Flow (2019)	AM VoC ratio (2019)	AM Peak Hour Ref Case Flow (2040)	AM 'MEDIUM' flow from STEB model	AM Local Plan Option 'MEDIUM' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1527	36%	1825	438	54%
		Southbound	4200	1599	38%	1911	485	57%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	804	60%	961	344	97%
		Westbound	1350	1261	93%	1507	655	160%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	703	52%	840	289	84%
		Westbound	1350	1206	89%	1441	423	138%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	738	55%	882	355	92%
		Southbound	1350	455	34%	544	220	57%
5	A27 Between A2270 and Station Rd	Eastbound	1350	979	73%	1170	102	94%
		Westbound	1350	1001	74%	1196	254	107%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1080	80%	1291	373	123%
		Southbound	1350	1040	77%	1243	230	109%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	365	27%	436	129	42%
		Northbound	1350	652	48%	779	293	79%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	690	51%	825	180	74%
		Westbound	1350	809	60%	967	153	83%
9	A267 Between B2100 and Lake Steet	Northbound	1350	742	55%	887	169	78%
		Southbound	1350	380	28%	454	86	40%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	761	56%	909	226	84%
		Southbound	1350	873	65%	1043	299	99%

Ref	Count Location	Direction	One-way Link Capacity	PM Peak Hour Observed Flow (2019)	PM VoC ratio (2019)	PM Peak Hour Ref Case Flow (2040)	PM 'MEDIUM' flow from STEB model	PM Local Plan Option 'MEDIUM' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1298	31%	1547	382	46%
		Southbound	4200	2010	48%	2396	651	73%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	1324	98%	1578	720	170%
		Westbound	1350	771	57%	919	357	95%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	1054	78%	1257	443	126%
		Westbound	1350	664	49%	792	320	82%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	502	37%	598	248	63%
		Southbound	1350	684	51%	815	366	88%
5	A27 Between A2270 and Station Rd	Eastbound	1350	981	73%	1170	197	101%
		Westbound	1350	850	63%	1013	168	88%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1103	82%	1315	252	116%
		Southbound	1350	1126	83%	1342	390	128%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	738	55%	880	276	86%
		Northbound	1350	400	30%	477	155	47%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	819	61%	976	161	84%
		Westbound	1350	643	48%	767	189	71%
9	A267 Between B2100 and Lake Street	Northbound	1350	351	26%	418	97	38%
		Southbound	1350	713	53%	850	168	75%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	753	56%	898	341	92%
		Southbound	1350	1090	81%	1299	222	113%

Key:

>100%	Link is exceeding total design capacity (little or no reserve capacity)
>75%	Link is exceeding theoretical design capacity (allowing for fluctuations in traffic levels)
>50%	Link is approaching theoretical design capacity
>50%	Link is well within theoretical and total design capacity

Table 5.6 2019, 2040 and Local Plan High Growth Option peak hour link flows, capacities and volume over capacity (VOC %)

Ref	Count Location	Direction	One-way Link Capacity	AM Peak Hour Observed Flow (2019)	AM VoC ratio (2019)	AM Peak Hour Ref Case Flow (2040)	AM 'HIGH' flow from STEB model	AM Local Plan Option 'HIGH' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1527	36%	1825	455	54%
		Southbound	4200	1599	38%	1911	572	59%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	804	60%	961	422	102%
		Westbound	1350	1261	93%	1507	688	163%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	703	52%	840	387	91%
		Westbound	1350	1206	89%	1441	465	141%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	738	55%	882	397	95%
		Southbound	1350	455	34%	544	319	64%
5	A27 Between A2270 and Station Rd	Eastbound	1350	979	73%	1170	102	94%
		Westbound	1350	1001	74%	1196	254	107%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1080	80%	1291	638	143%
		Southbound	1350	1040	77%	1243	341	117%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	365	27%	436	170	45%
		Northbound	1350	652	48%	779	391	87%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	690	51%	825	296	83%
		Westbound	1350	809	60%	967	190	86%
9	A267 Between B2100 and Lake Steet	Northbound	1350	742	55%	887	169	78%
		Southbound	1350	380	28%	454	86	40%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	761	56%	909	240	85%
		Southbound	1350	873	65%	1043	328	102%

Ref	Count Location	Direction	One-way Link Capacity	PM Peak Hour Observed Flow (2019)	PM VoC ratio (2019)	PM Peak Hour Ref Case Flow (2040)	PM 'HIGH' flow from STEB model	PM Local Plan Option 'HIGH' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1298	31%	1547	425	47%
		Southbound	4200	2010	48%	2396	672	73%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	1324	98%	1578	760	173%
		Westbound	1350	771	57%	919	444	101%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	1054	78%	1257	492	130%
		Westbound	1350	664	49%	792	430	90%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	502	37%	598	358	71%
		Southbound	1350	684	51%	815	416	91%
5	A27 Between A2270 and Station Rd	Eastbound	1350	981	73%	1170	197	101%
		Westbound	1350	850	63%	1013	168	88%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1103	82%	1315	384	126%
		Southbound	1350	1126	83%	1342	683	150%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	738	55%	880	386	94%
		Northbound	1350	400	30%	477	204	50%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	819	61%	976	206	88%
		Westbound	1350	643	48%	767	286	78%
9	A267 Between B2100 and Lake Street	Northbound	1350	351	26%	418	97	38%
		Southbound	1350	713	53%	850	168	75%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	753	56%	898	378	94%
		Southbound	1350	1090	81%	1299	237	114%

Key:

>100%	Link is exceeding total design capacity (little or no reserve capacity)
>75%	Link is exceeding theoretical design capacity (allowing for fluctuations in traffic levels)
>50%	Link is approaching theoretical design capacity
>50%	Link is well within theoretical and total design capacity

5.4.3 Summary of link capacities and impacts

A review of the level of traffic impact on highway link capacity, for key parts of the network in the AM and PM peaks, is summarised in Table 5.7 for the 2019 current and the 2040 Reference Case and Low, Medium and High growth options. The analysis indicates that:

- Most parts of the network are operating within theoretical link capacity in the current peak hours and any delays and congestion are more likely to be caused by local junction capacity issues
- The A22 north of Hailsham and the A2270 corridor are close to exceeding theoretical capacity in the 2019 base year
- In the 2040 Reference Case, representing a 'without' Local Plan forecast scenario for benchmarking, parts of the A22 north of Hailsham will be over capacity and the A27 (Site Ref 5), A22 (Site Ref 6) and A2270 (Site Ref 10) will be approaching or reaching their theoretical capacity (80-100% VoC respectively)
- The level of growth in all the New Growth options will have the greatest impact on the A22, between Boship Roundabout and Coldharbour Road and between Copwood Roundabout and Black Down roundabout, where theoretical capacity will be exceeded in all three options
- In each of the New Growth options (2-4), the levels of impact do not differ significantly for most locations with the exception of the A22 between Copwood and Black Down roundabout where the high growth option has a notably higher impact due to the land at Owlsbury Farm development to the west of Uckfield.
- Without mitigation, the level of impact of the potential Local Plan New Growth Options tested is likely to be high on the links approaching 100% and on the A22 in particular
- Elsewhere, at a link level, the impacts are less severe, however, this will need further consideration at a junction capacity level, which can further constrain capacity on the network and lead to additional congestion and delay

Table 5.7 2019, 2040 Reference Case, Low, Medium and High Growth Options link volume over capacity (%)

Ref	Count Location	Direction	One-way Link Capacity	AM VoC ratio (2019)	AM VoC Ref. Case (2040)	AM Local Plan Option 'HIGH' VoC ratio (2040)	AM Local Plan Option 'MEDIUM' VoC ratio (2040)	AM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	36%	43%	54%	54%	54%
		Southbound	4200	38%	45%	59%	57%	57%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	60%	71%	102%	97%	95%
		Westbound	1350	93%	112%	163%	160%	159%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	52%	62%	91%	84%	81%
		Westbound	1350	89%	107%	141%	138%	137%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	55%	65%	95%	92%	91%
		Southbound	1350	34%	40%	64%	57%	54%
5	A27 Between A2270 and Station Rd	Eastbound	1350	73%	87%	94%	94%	94%
		Westbound	1350	74%	89%	107%	107%	107%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	80%	96%	143%	123%	120%
		Southbound	1350	77%	92%	117%	109%	106%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	27%	32%	45%	42%	40%
		Northbound	1350	48%	58%	87%	79%	75%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	51%	61%	83%	74%	70%
		Westbound	1350	60%	72%	86%	83%	81%
9	A267 Between B2100 and Lake Steet	Northbound	1350	55%	66%	78%	78%	78%
		Southbound	1350	28%	34%	40%	40%	40%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	56%	67%	85%	84%	84%
		Southbound	1350	65%	77%	102%	99%	99%

Ref	Count Location	Direction	One-way Link Capacity	PM VoC ratio (2019)	PM VoC Ref. Case (2040)	PM Local Plan Option 'HIGH' VoC ratio (2040)	PM Local Plan Option 'MEDIUM' VoC ratio (2040)	PM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	31%	37%	47%	46%	46%
		Southbound	4200	48%	57%	73%	73%	72%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	98%	117%	173%	170%	170%
		Westbound	1350	57%	68%	101%	95%	93%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	78%	93%	130%	126%	125%
		Westbound	1350	49%	59%	90%	82%	80%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	37%	44%	71%	63%	61%
		Southbound	1350	51%	60%	91%	88%	87%
5	A27 Between A2270 and Station Rd	Eastbound	1350	73%	87%	101%	101%	101%
		Westbound	1350	63%	75%	88%	88%	88%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	82%	97%	126%	116%	113%
		Southbound	1350	83%	99%	150%	128%	125%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	55%	65%	94%	86%	82%
		Northbound	1350	30%	35%	50%	47%	45%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	61%	72%	88%	84%	82%
		Westbound	1350	48%	57%	78%	71%	67%
9	A267 Between B2100 and Lake Street	Northbound	1350	26%	31%	38%	38%	38%
		Southbound	1350	53%	63%	75%	75%	75%
10	A2270 Between Wannock Rd and Huggetts Ln	Northbound	1350	56%	66%	94%	92%	91%
		Southbound	1350	81%	96%	114%	113%	112%

Key:

>100%	Link is exceeding total design capacity (little or no reserve capacity)
>75%	Link is exceeding theoretical design capacity (allowing for fluctuations in traffic levels)
>50%	Link is approaching theoretical design capacity
>50%	Link is well within theoretical and total design capacity

5.5 Potential cross-boundary impacts

5.5.1 Potential Local Plan growth in neighbouring authorities

The default TEMPro planning assumptions for the LPAs in East Sussex other than Wealden were sense checked against emerging Local Plan information from neighbouring authorities and added as a universal growth factor to the 2040 Reference Case.

The 2040 default assumptions for each of the districts are summarised in Table 5.8. It should be noted that these assumptions are all subject to change as the emerging spatial strategies evolve for each neighbouring authority as part of their Local Plan production.

While applying a universal growth factor is an acceptable methodology at this stage of assessment, it should also be noted that this approach does not account for specific new development locations in each neighbouring authority. As a result, there are likely to be some higher cross boundary impacts, particularly on key parts of the boundary network, where larger, or groups of, developments could have a greater impact. This will need further consideration in the countywide model.

Table 5.8 Default TEMPro Planning Assumptions (2019 – 2040)

District/Borough	Houses (units)	Jobs
Eastbourne	6,572	3,527
Wealden (completions and commitments only)	9,436	2,411
Lewes (2 options)	8,328	3,091
Rother	9,752	2,553
Hastings	5,909	2,962
Total	39,997	14,544

5.5.2 Potential cross-boundary impacts of Wealden growth

The key cross-boundary impacts of the New Growth options have been assessed at a high-level to provide an indication of where Wealden Local Plan traffic could have the greatest impact on neighbouring authorities. The two-way peak hour development only flows on key cross-boundary routes are summarised in Table 5.9 and indicate:

- All three options could generate over 1,000 two-way hourly trips towards Eastbourne via the A22/A2270. High flows on these routes are likely to impact the performance of Rodmill, Willingdon, Lottbridge and Seaside Roundabouts as well as key junctions in Eastbourne town centre.
- The high growth option (2) could generate over 1,000 two-way hourly trips towards Lewes, via the A26, A272 and A27, reducing to around 500-750 two-way trips in the low and medium options respectively. This traffic is likely to impact a number of key junctions on the A26 corridor in Lewes including Earwig Corner, 'Snail' / Cuilfail Roundabout and Southerham Roundabout.

- The impacts of each option towards West Sussex are around 400-600 two-way trips via the A22 and leading northwest through East Grinstead towards Crawley (via the A264).
- There could be approximately 500-700 two-way trips travelling between Tunbridge Wells via the A26 and A267 corridors that could impact several junctions on the approach to the town, such as the A26/A267 roundabout, and in the town centre.
- The impacts are lower towards Rother with around 200-250 two-way flows in each of the growth options.

Overall, the impacts are relatively similar across each of the New Growth options, with the exception of Lewes, where the high growth option (2) has a notably higher impact. This is largely due to the addition of the land at Owlsbury Farm site, to the west of Uckfield, included only in the High Growth option.

Table 5.9 WDC New Growth Option indicative development only cross-boundary two-way peak hour flow impacts

Border	Corridor	Low Growth	Medium Growth	High Growth
Eastbourne	A2270	755	770	820
	A22	280	280	285
Lewes	A26	185	270	545
	A272	235	285	380
	A27	205	205	205
West Sussex	A22	390	460	610
Tunbridge Wells	A26	250	295	380
	A267	320	320	320
Rother	A259	160	165	180
	A269	90	90	90

The cross-boundary impacts present the flows from WDC's growth options only. A full run of the WDC option in the countywide model will be needed to assess the impacts of both Wealden's LP developments, in combination with the most recent LP options from neighbouring authorities, to understand the specific impacts on the network resulting from each local authorities LP options.

5.6 Key Junction Impacts

The STEB analysis has identified the key corridor impacts of each of the Wealden New Growth options. An initial list of key junctions on these corridors has been identified (see Figure 5-5) to understand specific impacts at key nodes on the network, including junctions on the SRN and in the south of Wealden, which could be at risk in the future. The list has been determined based on existing Google[®] traffic data, previous studies and in consultation with key stakeholders. Subject to further modelling, additional junctions may also need consideration.

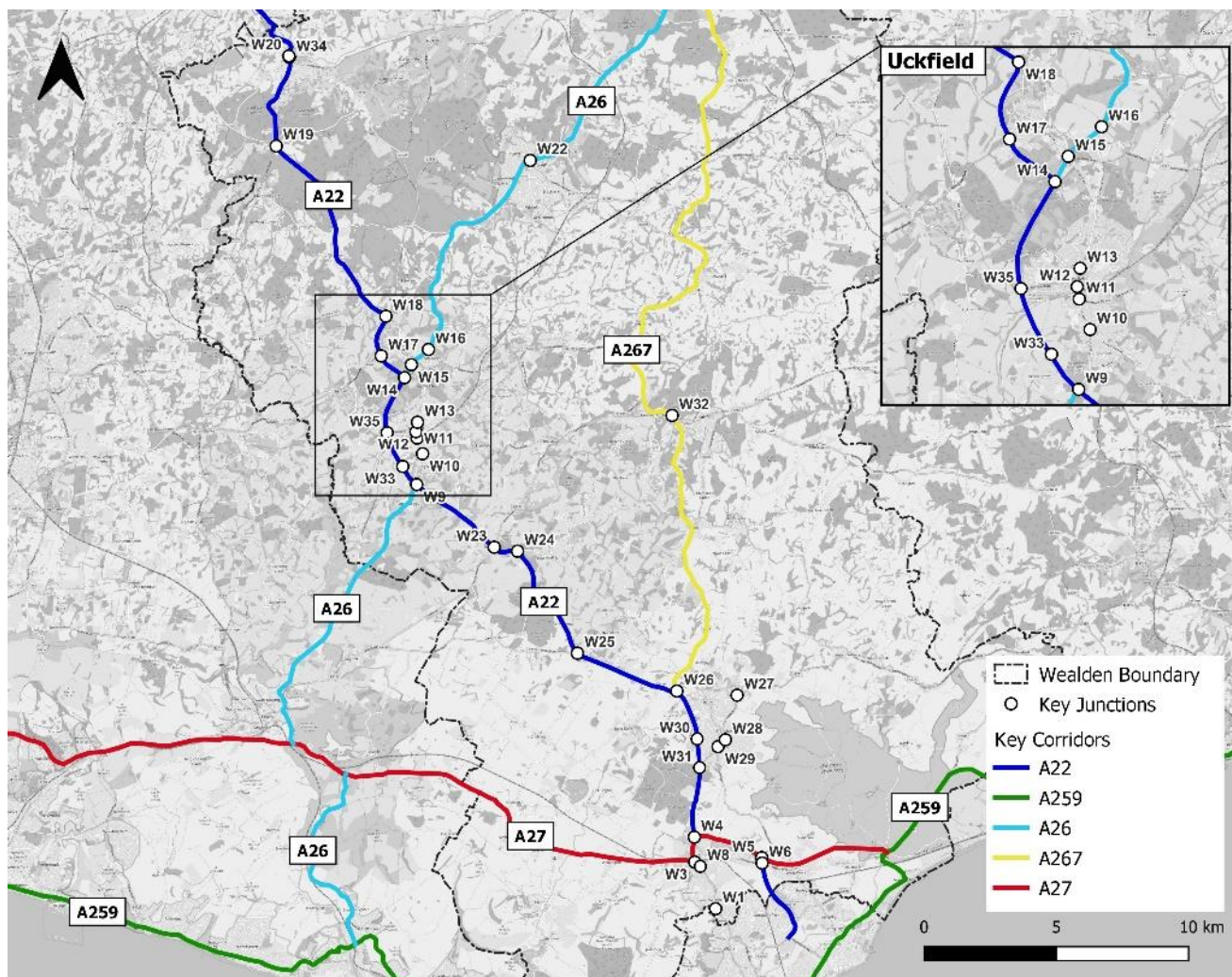


Figure 5-5 Map of key corridors and junctions (© OpenStreetMap contributors)

The isolated development only total vehicle flows (all junction arms) and percentage impacts at key junctions for each growth option, combined with Reference Case flows, are summarised in Table 5.10.

Table 5.10 Wealden Growth Option junction impacts against 2040 Reference Case (total veh. / % increase) – AM & PM peak hour (*“No Base” – observed / background data unavailable)

Junction	Ref	Growth Option					
		Low	Medium	High	Low	Medium	High
		AM			PM		
Huggetts Lane A2270	W1	No Base	No Base	No Base	No Base	No Base	No Base
A27 A2270	W3	12%	12%	13%	14%	14%	15%
Cophall Roundabout	W4	17%	17%	18%	18%	18%	19%
Golden Jubilee Roundabout	W5	5%	5%	5%	7%	7%	7%
B2247 A22 Roundabout	W6	9%	9%	9%	9%	10%	10%
A2270 Wannock Road	W8	25%	26%	27%	28%	28%	30%
Little Horsted Roundabout	W9	25%	32%	42%	26%	32%	44%
Eastbourne Rd Lewes Rd New Town	W10	12%	30%	30%	13%	31%	31%

Junction	Ref	Growth Option					
		Low	Medium	High	Low	Medium	High
		AM			PM		
B2102 Framfield	W11	16%	29%	32%	17%	28%	31%
High Street B2102 Bell Lane	W12	11%	20%	25%	9%	16%	19%
High Street Church Street	W13	5%	10%	10%	6%	13%	13%
Black Down Roundabout	W14	17%	20%	30%	20%	24%	36%
Budletts Roundabout	W15	12%	14%	19%	12%	16%	21%
A26 Five Ash Down	W16	10%	15%	22%	14%	19%	29%
Batts Bridge Roundabout	W17	22%	26%	35%	23%	26%	37%
Lampool Roundabout	W18	15%	19%	29%	18%	22%	33%
A22 A275	W19	18%	22%	29%	18%	22%	30%
A22 Priory Road Roundabout	W20	46%	54%	70%	59%	69%	90%
A22 B2110 Roundabout	W21	7%	8%	11%	13%	15%	20%
A26 London Road	W22	12%	15%	19%	14%	17%	21%
Halland Roundabout	W23	25%	27%	38%	25%	27%	39%
Shaw Roundabout	W24	35%	38%	53%	35%	38%	54%
B2124 A22	W25	29%	31%	37%	35%	37%	44%
Boship Roundabout	W26	33%	34%	37%	30%	31%	34%
A295 A271 Roundabout	W27	17%	18%	19%	16%	17%	19%
A295 Station Road	W28	31%	31%	32%	37%	38%	38%
A295 Ersham Road Roundabout	W29	28%	28%	28%	28%	29%	29%
A22 Diplocks Way Roundabout	W30	19%	19%	21%	21%	21%	24%
Eagles Roundabout	W31	21%	21%	23%	20%	21%	22%
A267 A265	W32	13%	14%	14%	18%	18%	18%
Ridgewood Farm Roundabout	W33	21%	24%	49%	22%	25%	58%
Copwood Roundabout	W34	14%	16%	29%	16%	19%	36%
South Rd Diplocks Way	W35	28%	28%	28%	32%	32%	32%
Average relative increase from 2040 Ref Case		18%	20%	25%	20%	22%	28%

The capacity, and potential need for mitigation, for key junctions are assessed in section 8 in more detail. The STEB modelling indicates that total flows will increase significantly at key junctions across the network, particularly in the High Growth option, including:

- A22 Corridor** – the analysis shows high increases in each growth option compared to the 2040 Reference Case. Flow increases in the High Growth option are particularly high on the northern section of the A22 in Wealden (up to 90% at Priory Road Roundabout), compared with 69% and 59% in the Medium and Low growth options respectively. High flow increases also occur at junctions between the Blackdown and Boship roundabouts on the A22 corridor, similarly these are more severe in the High Growth option. Further to the south of the district on the A22 the difference in flow increases between the growth options is reduced with Cophall roundabout showing just a 1% difference between the High and Low Growth option impacts. These flow uplifts will need to be considered alongside the separate A22 MRN corridor study and outline business case (OBC) submitted to Government in December 2022.

- **A26 Corridor** – the A26 provides the principal southwest-northeast route to the north of the district and with neighbouring Lewes. The A26 exhibits some high development flows, in particular, where the road meets the A22 at Little Horsted roundabout with traffic increases of 44% in the High Growth option, 32% in the Medium Growth and 25% in the Low Growth options compared with the 2040 reference case. The impacts further to the north on the A26 are also high in the High Growth option at the A26/London Road junction in Crowborough increasing by up to 21%.
- **A27 Corridor** – the A27 provides the key east-west route to the south of the district and is already congested at times. The largest flow increase on the A27 is found at the Cophall roundabout which exhibits flow increases of up to 19% compared to the Reference Case. The difference in flows between each growth option is marginal (up to 1%) on the A27 corridor.
- **A2270 Corridor** – the A2270 is likely to be constrained at a link level in the future and, given the proximity to neighbouring Eastbourne and future cross boundary growth, junctions on this corridor are likely to be impacted and need potential mitigation.
- **A259 Corridor** – the current assessment does not highlight any specific issues on this part of the network however, from the previous TN01 cross-boundary review, the impacts of the emerging LP's in the neighbouring districts will potentially need in combination consideration in the countywide model.
- **A267 Corridor** – the corridor provides a north-south alternative to the A22 and A26 for trips towards the east of the district. Flow increases are less than the A22 with an increase of 18% in all growth options compared with the Reference Case.
- Beyond the key corridors, on rural routes and in town centres such as Uckfield and Hailsham, junctions are likely to be impacted too and will need consideration going forward in the countywide model.

5.7 Assessment Summary

The STEB model provides a high-level assessment of future traffic impacts on the key road network in Wealden. The traffic data used is considered a robust case, without the reduction of modal shift, to stress test network capacity and highlight the potential risks to further congestion, constraints and where mitigation is most likely needed. The initial analysis at this stage indicates the following:

- The key A22, A27 SRN and A2770 corridors will sustain high impacts from all growth options and it is likely that highway link capacity will be significantly exceeded, as well as junction capacity, on these corridors and mitigation would be required.
- Similarly, the large strategic site at Owlsbury Farm, Uckfield, as well as the development sites near to Uckfield that are specific to the Medium and High growth options, would potentially attract significant levels of traffic along the A22 and A26 corridors in and around Uckfield. These corridors are likely to need mitigation for at least the medium to high options.
- The STEB model assigns much of the wider north-south development trips to the A22 corridor and it is feasible that a full assignment model will redistribute some of this traffic to the A267 / A26 corridors.

- The differences between the impacts of the High, Medium and Low New Growth options are less pronounced towards the south of Wealden district and have a relatively similar impact. These impacts are lower than the Initial Growth option (1), but could still be considered severe, particularly towards Eastbourne, and would most likely need mitigation. .
- Mitigation, to encourage sustainable modal shift and potential highway improvements is likely to be needed to address impacts on the road network and local congestion 'hotspots' at junctions.

The development trip information, including trip rates and journey purposes, will need to be refined through further scenario testing in the countywide model as more detailed development information becomes known.

6 Sustainable Transport



6.1 Overview

The STEB modelling indicates that the level of traffic growth from each of the new growth options tested, and from elsewhere in the region, could be significant with parts of the network severely constrained in the future if car dependency is left unchecked. The network is already constrained, and interventions are needed to encourage both entrenched and future car users to shift to other more sustainable modes of travel.

At this stage, an initial review of a long list of potential interventions, of the scale and type needed to encourage modal shift, has been considered. These will need to be developed further within the Wealden context and into a comprehensive and deliverable sustainable mitigation strategy across the Local Plan period.

This section summarises the long list of potential sustainable and future mobility opportunities that could encourage modal shift in Wealden and also the potential challenges to their delivery that need to be considered. Further details of specific opportunities and examples of best practice can be found in Section 6 of TN01 for information purposes.

6.2 Wider evidence

Wealden has a largely rural geography and accessibility to sustainable transport is varied, with greater opportunities for rail, bus and active mode travel in the south of the district, with neighbouring Eastbourne, rail connections from Uckfield to London and more limited opportunities in the wider rural areas. The TfSE Transport Strategy⁹ and Draft Strategic Investment Plan¹⁰ have developed a regional evidence base to provide a forecast, which combines economic aspirations with the positive aspects of 'sustainable' and 'digital' futures, to arrive at expected reductions in car use of around 9% in their preferred 'Sustainable Route to Growth' scenario.

The TfSE Future Mobility Strategy¹¹ also sets out a vision for the South East and provides a prioritised framework of future mobility 'place-based bundles' suited to different geographies. Figure 6-1 illustrates the range of interventions that could potentially be delivered across the range of settlement types in Wealden throughout the Local plan period to support.

⁹ [Transport Strategy for the South East – Scenario Forecasting Summary Report \(Steers 2019\)](#)

¹⁰ [Draft Strategic Investment Plan \(TfSE 022\)](#)

¹¹ [Future Mobility Strategy \(TfSE 2021\)](#)

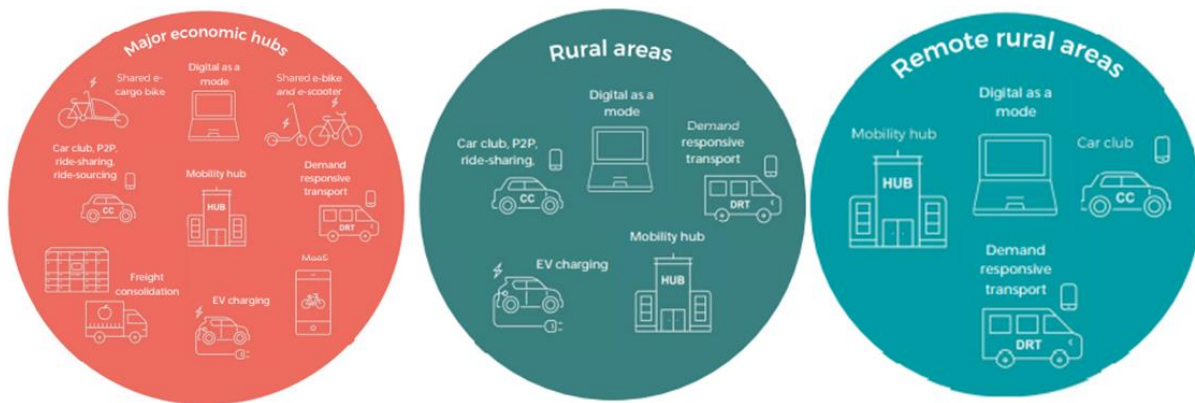


Figure 6-1 TfSE Future Mobility Strategy – Interventions for Urban, Rural and Remote Rural Areas by priority

The TfSE approach provides a framework for Wealden to start moving from an enhanced ‘business as usual’ short term future to a more sustainable and technology based longer term future, by applying the following measures to reduce car dependency and ownership:

- making active travel the first choice for short journeys
- Placing zero-emission, frequent and accessible public transit connections between homes, places of work and key destinations
- Improvements to interurban and rural public transport services to improve connectivity and reduce private vehicle dominance
- planning for and adapting to technology ‘place-based bundles’, reducing car dependency and ownership

Elsewhere, an evaluation¹² of the 2004 DfT Sustainable Travel Towns project identified that significant investment (approximately £100 per head of population in 2004 prices) in a Smarter Choices Programme can lead to a 7-10% reduction in the number of car driver trips and help reduce future traffic growth on the network.

6.3 Sustainable Access at Local Plan Sites

A key component of promoting accessibility to new development is a strategy for ‘door to door’ journeys which, should primarily be made by walking, cycling and/or public transport. A parallel Sustainable Transport Audit (STA) has been undertaken to understand the existing level of sustainable access to all potential development sites included in the initial and new growth options 1-4 as a strategic overview.

The separate STA report forms part of the overall evidence base and should be referred to for the detailed outcomes. In summary, analysis included an assessment of travel time and distance to key attractors (employment, education, retail and services) by active modes and public transport. An overall cross-modal average % score was allocated to each site on a sliding scale where the 60%-100% represents a high level of accessibility down to <20% representing very low levels of accessibility.

¹² [Sustainable travel towns: An evaluation of the longer-term impacts \(TRL 2016\)](#)

Figure 6-2 illustrates a strategic overview of the collective levels of accessibility by sustainable modes for all the sites included in the Local Plan growth options (1-4) considered to date. The analysis highlights:

- accessibility levels are generally low across much of Wealden with pockets of moderate to good accessibility in parts of Hailsham, Polegate, Uckfield, Crowborough and Heathfield
- larger strategic sites on the A22 corridor between Hailsham and Uckfield, considered across the different options, all have low to very low accessibility.
- accessibility along key transport corridors – A22, A27 and A259 – varies depending on the proximity to urban and local centres, such as Uckfield and Crowborough, the availability of rail connection and frequency of bus services
- developments located south of the A27, Polegate Bypass and A22 corridor have moderate to good accessibility due to the proximity to Polegate Railway Station and bus and active travel opportunities to nearby Eastbourne

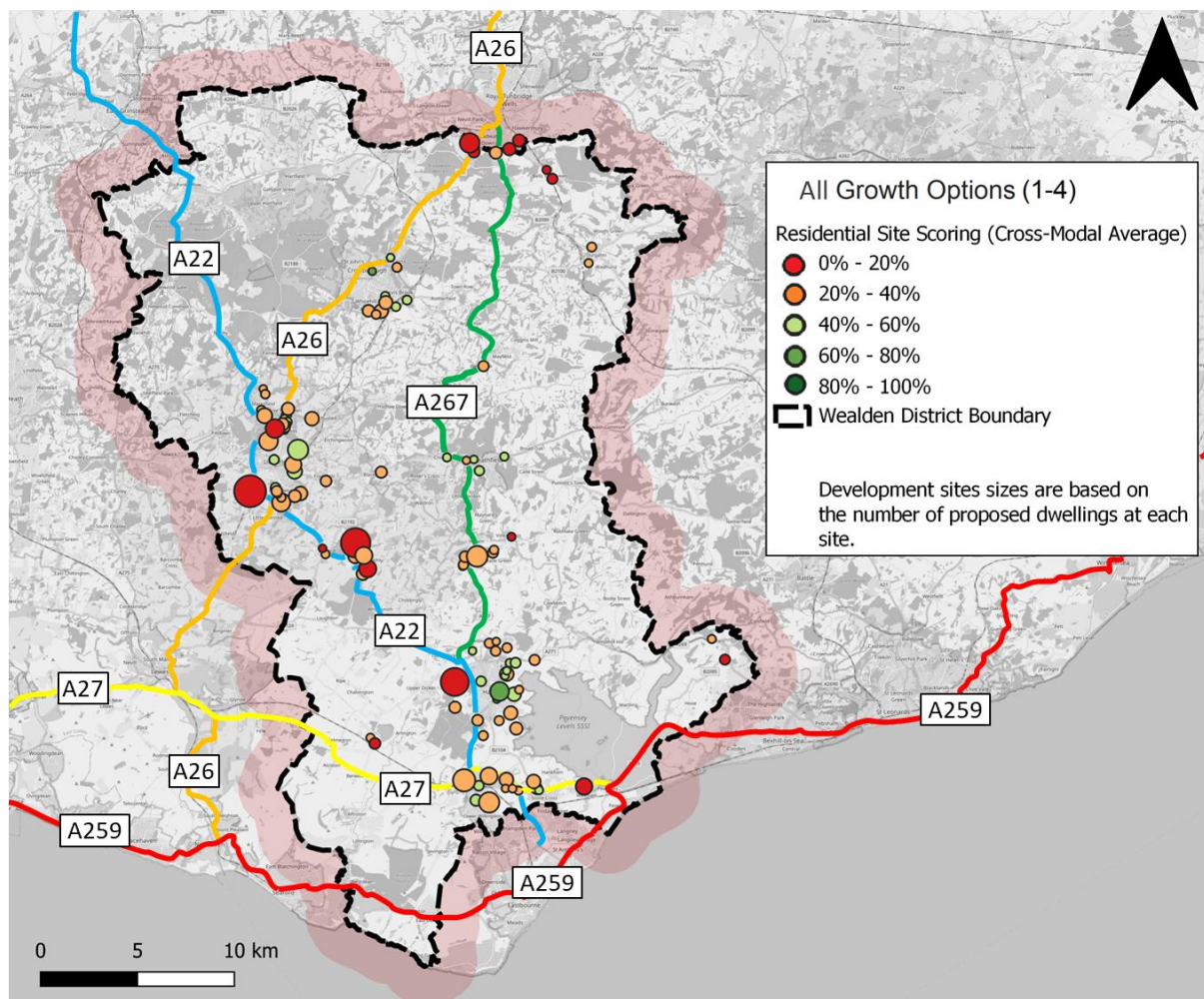


Figure 6-2 Levels of Accessibility of Initial and New Growth Options (1-4) sites in relation to key corridors

A second phase of STA work has also been undertaken to overlay the long list of Local Cycling and Walking Infrastructure Plan (LCWIP) routes (see Section 4) with the New Local Plan options. This provided a gap analysis of where routes could be prioritised

to help serve future development and improve the network. Future development, particularly larger sites, will need to consider how they can contribute to delivering improved sustainable access to key services. Larger developments will also have greater opportunities to include on-site provision of schools, healthcare centres and other local community / retail facilities, which will reduce the need to travel.

6.4 Sustainable transport and future mobility options

The emerging Local Plan process is an opportunity to integrate behaviour change and apply a single strategy approach across a range of different interventions to reduce car travel. This approach will need to integrate the infrastructure and technology requirements of physical interventions with the principles of urban design and placemaking to maximise the sum of the parts of each intervention and develop a coherent delivery strategy that encourages cross-modal shift to reduce car travel in the district through the following interventions:

- **Accessibility** – masterplan the right mix of development land uses and infrastructure from the start to plan for ‘20-minute’ neighbourhoods with easy access to near home teleworking hubs, key services, public transport and active travel networks
- **Behaviour change** – reduce the need to travel and level of car ownership in accessible town centre locations and support the switch to electric vehicles
- **Active travel** – move away from car dominated roads to create safe and connected corridors for pedestrians, cyclists and other micro-mobility options
- **Bus** – develop enhanced partnerships, prioritised zero-emission mass bus rapid transit (BRT) and digital demand responsive transport (DDRT) solutions to serve more remote rural areas
- **Rail** – continued improvement to level of service, introduction of High-Speed rail and better integration with bus, active and micro-mobility options
- **Future mobility** – explore the concept of Mobility as a Service (MaaS), potential for shared mobility hubs and alternatives to traditional car ownership
- **Last-Mile delivery** – innovative solutions to consolidate deliveries and reduce goods vehicles on network

The opportunities and challenges associated with delivering each of these interventions are summarised in Table 6.1.

Table 6.1 Sustainable Travel and Future Mobility Opportunities and Challenges

Measures	Mode	Opportunities	Challenges
Planning for accessibility and promoting behaviour change at new development	Public transport Active travel Digital & Future Mobility Reduced car ownership Electric Vehicles Remote working	- Develop design principles to ensure that active travel and public transport connectivity (c. 400m from most homes) is planned from the start of the planning process - Deliver attractive and healthy streets from day one and create '20-minute' neighbourhoods - Improve networks and connectivity to rural settlements and more remote rural areas e.g. potential for DDRT bus services - Secure effective Travel Plans to complement and deliver the overarching Wealden approach - Deliver high quality housing close to attractive employment opportunities and/or close to public transport links (for travel outside of the district e.g. to Hastings, Eastbourne or London) and key services - Developer delivered interventions and / or contributions for wider off-site improvements to active travel and future mobility initiatives - Provide services, live/work balance and 'first/last mile' travel options - Review parking standards and consider car free/reduced parking in accessible/town centre locations - Provide EV charging infrastructure - Deliver ultrafast / 5G digital connectivity in urban areas and improve existing 3G / 4G connectivity in rural or remote rural parts of the district to support work-from-home - Provide near home teleworking hubs within development	- Impact of COVID-19 on reducing public transport services within urban areas and/or frequency of services to remote rural areas of the district - Coordinating with developers, viability and level of contribution available leading to unpredictable and phased delivery of measures - Connecting development in rural or remote rural areas to the urban areas and reliable public transport links - Reliance on car travel and limited opportunity to promote reduced car ownership - EV strategy needed to define the technology and appropriate roll out of infrastructure - EVs not necessarily a universal solution to reducing car travel, congestion, overall particulate emissions or car ownership - Implementing widespread energy and digital networks to supply EV charging infrastructure and broadband

Measures	Mode	Opportunities	Challenges
Improve Active Travel	Cycling Walking	• Work with TfSE, ESCC and partners on active travel corridors in Wealden and towards Eastbourne, Rother, Lewes, West Sussex and Kent • Deliver LCWIPs to masterplan connectivity and deliver attractive and healthy streets from day one • Improve walking and cycling connectivity between rural and urban areas (as well as cross-boundary into Eastbourne, where over 6,500 of Wealden's residents travel for employment) • Filling in key missing links in the district's existing cycling and walking network • Reduce severance (e.g caused by railway lines) • Provide safe and convenient connections to the wider active travel network • Promote uptake of E-Bikes and potential for a significant increase in cycle modal share for trips in the district	• Limited cycling and walking networks on key corridors within the growth areas of South Wealden • Inconsistent provision for cycling and walking connecting residential areas and key local trip attractors • Topography and ageing demographic of Wealden (26.5% of population >65) could reduce propensity to use active modes • Lack of scope for fully segregated active travel on network due to land availability, building lines and on street parking • Severance and safety concerns associated with the level crossings, road quality on rural and key routes may discourage active travel
Public Transport	Bus / BRT DRT Rail Mobility Hubs	• Work with TfSE, ESCC and partners to explore the feasibility of Eastbourne / Wealden Mass Transit corridor and zero-emission BRT • Work with TfSE, ESCC and partners to explore the feasibility of high frequency rural bus services along A22 and north of district • Bus service and infrastructure improvements on the A259 corridor towards Brighton • Develop feasibility and roll out of flexible DRT to more remote rural locations • Work with TfSE, ESCC and Network Rail to explore options to improve rail provision, electrification of Uckfield line and the concept of reinstating the section of the line between Lewes and Uckfield line	• Lack of scope on network for fully segregated bus priority due to land availability, building lines and on street parking • Uncertainty, complexity and cost of delivering bus based mass rapid transit and required infrastructure • Delivering energy networks for cleaner buses e.g. EV or hydrogen fuelled • Traffic congestion and severance from level crossings leading to bus journey time delay and reliability issues • Lack of frequency of some services serving rural parts of the district and the cost of implementing more frequent services

Measures	Mode	Opportunities	Challenges
		Potential to implement mobility hubs at key interchanges to offer a range of first-last mile mobility alternatives to the car	- Developing successful DRT business models to minimise any public subsidy and provide a good level of service - Uncertainty, complexity and cost of delivering rail solutions and required infrastructure within the plan period - Integrating services and payment across all modes to optimise interchange and cost to the traveller
Future Mobility	Mobility as a Service (MaaS) Shared Mobility Travel Hubs Freight and last-mile deliveries	- Explore the potential for MaaS and integrated ticketing across a single digital platform for a range of modes - Create a MaaS network of shared mobility travel hubs in different settlements and interchanges to provide a blend of shared travel options (car clubs, e-scooters, e-bikes, bus / DRT, e-cargo bikes) - Develop a network of freight consolidation hubs outside of congested areas as staging posts to transfer goods to smaller more sustainable modes (e-cargo bikes, e-vans, drones) for last-mile delivery	- Inertia to change entrenched practices and uncertainties around appropriate business model and likely return for investors and partners - Management of pricing and revenue distribution due to the complexity of the different fare systems, number of partners involved and procurement barriers to the range of services - Unanticipated societal and environmental implications that could arise from a wholesale adoption of MaaS e.g. reduction in active travel, increased use of taxis to replace car trips - Achieving ‘critical mass’ of hubs and micro-hubs to deliver truly flexible and accessible options for all - Consumers are demanding ever-faster, more reliable and convenient delivery services - Impact of ‘free’ delivery options leading to low pricing models and restricting investment in more efficient infrastructure and cleaner carrier fleets - Physical, legal and regulatory barriers to autonomous airborne and land-based drone delivery technology

6.5 Potential for modal shift

The wider evidence, discussed above, indicates that a package of different mobility solutions has very good potential to reduce car use in parts of the district, such as Hailsham, Polegate, Uckfield, or Crowborough, and reasonable potential in some of the smaller and more rural locations.

The TfSE regional target of a 9% reduction in overall forecast car trips is a realistic ambition for a location similar to the Polegate or Hailsham area of the district. With a more joined up approach with the neighbouring larger urban area of Eastbourne, increased investment, delivery of frequent bus-based rapid transit on key corridors and by embracing a more ‘sustainable’ and ‘digital’ future, a greater reduction (>10%) could be achieved in the southern part of the district by the end of the Local Plan period.

At smaller settlements and at the rural level, a lower level of modal shift is more likely to be achieved, providing there is sufficient investment and improved connectivity at a wider scale. A reduction of 5% in overall forecast car trips is more likely to be achieved with some potential to exceed this if a more ‘sustainable’ and ‘digital’ future can be secured by the end of the Local Plan period.

These are **headline modal shift targets as a starting point at this stage** and equates to reducing the overall number of total forecast peak hour car trips by 10%+ in better connected areas and 5%+ in the smaller settlement / rural areas. The level of reduction will vary across the district network and further modelling will be needed in the countywide model to undertake more detailed mode shift analysis of specific measures, journey-purposes and corridors. It is recognised that this level of modal shift will only account for a portion of the additional growth applied through TEMPro (19%) and the addition of new Local Plan development.

Acknowledging that a package of measures will need to be delivered at intervals across the Local Plan period, with varying levels of complexity based on cost, deliverability and technological advancement, the following timescales (see Table 6.2) set out an indicative evolutionary timeline for a strategy in Wealden, by enhancing ‘business as usual’ through to a TfSE preferred ‘digital sustainable future’.

Table 6.2 Overarching mitigation timeline

Phase	Timescale	Geography	Reduction in car trips*	Rationale
‘Enhanced Business as Usual’	0-5 years	Larger towns and key corridors	0-5%	Continuation of current policies and interventions with increased funding, supporting behaviour change strategy and enhances bus partnerships and services
		Rural	(>)0%	
‘More Ambitious’	5-10 years	Larger towns and key corridors	5%-10%	Initial BRT services, improved rail, car-free development, electric vehicles, shared-mobility and early digital roll out
		Rural	2-5%	
‘Digital Sustainable Future’	10+ years	Larger towns and key corridors	(>)10%	Full segregated BRT, full digital roll out and reduced car ownership in urban areas
		Rural	(>)5%	

**Headline range % reduction in forecast modelled car trips across the network*

A suggested outline framework action plan to deliver the scope of sustainable measures, needed to achieve this headline reduction in forecast car trips across the Plan-period, is included in Appendix D. The action plan includes both the known scheme pipeline (from Section 4) and additional measures for key locations to deliver the range of sustainable options to support the Council's proposed vision and objectives.

6.6 Headline outcomes

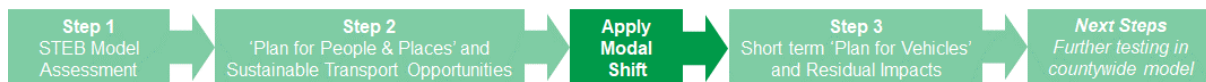
A set of suggested initial headline outcomes, which were based on the initial growth option (1) provided, which are also relevant to the approach discussed in this section, are listed in Table 6.3. It is important to note that these provide an initial framework as they are underpinned by an interim evidence base. The preferred growth outcomes that the eventual Local Plan spatial strategy will seek to deliver will need to be tailored with further transport assessment work and agreed with the Council and key stakeholders throughout the development of the Local Plan transport evidence base.

The Local Plan horizon year of 15+ years in the future and uncertainties, around external drivers of travel behaviour, emphasise the need for a more flexible, monitor and manage approach to delivering these outcomes. A monitoring and evaluation strategy would be an important component to develop evidence around the effectiveness and future delivery of different interventions and to measure the eventual agreed outcomes.

Table 6.3 Initial Strategy Headline Outcomes

Initial Headline Outcome	
1.	Headline reduction in forecast car trips of between 5% to 10% or more, of journeys to work made by sustainable modes across the district before the end of the Local Plan period
2.	Transport network is sustainable, easy to access, convenient and inclusive to all and connects housing and rural areas with key settlements, services and employment
3.	Strong culture of walking and cycling placing active modes as the default travel choice, where possible, for short trips across the district, and particularly cross-boundary South Wealden-Eastbourne
4.	High quality, segregated, frequent and rapid public transport is available that competes with car journey times, convenience and serves key destinations within and outside the district
5.	Resilient transport network which, where possible, can adapt and respond to changing technologies, trends and associated opportunities
6.	Transport system contributes to achieving the commitment for a carbon neutral Wealden

7 Application of Modal Shift



The headline districtwide modal shift targets of a range of 5% to 10% reduction in total forecast car trips, as discussed in section 6, has been applied to the end of Plan -period STEB modelling and network link capacities and VOC % assessed in section 5. Acknowledging that link capacity is only one part of the assessment narrative, this provides an indication of any likely residual traffic impacts on the network that will still need to be considered further through more detailed countywide modelling and / or additional mitigation.

The 5% to 10% reduction in car trips to the end of Plan total modelled flows has been applied as a crude assessment to the key link capacities and VOCs in Table 7.1 and Table 7.2 using the following key:

>100%	Link is exceeding total design capacity (little or no reserve capacity)
>75%	Link is exceeding theoretical design capacity (allowing for fluctuations in traffic levels)
>50%	Link is approaching theoretical design capacity
>50%	Link is well within theoretical and total design capacity

This provides an indicative range for the level of change in impact at a network level only. Actual modal shift is much more likely to have a wide range of % impacts across the network and at a specific corridor level. The scale and effectiveness of measures, such as bus rapid transit or new bus routes, will affect different trips and residents in different ways and a much more detailed, evidence led, assessment will be required in the countywide model.

Acknowledging that the modal shift reduction will only account for a portion of the modelled future background and development traffic growth, the analysis indicates that constrained A27 and A2270 corridors could operate closer to their theoretical capacity with modal shift. However, the A22 north of Boship Roundabout and towards the north of Uckfield could still be operating in excess of 100% (up to 160%) across each of the New Growth Options with only marginal changes in overall impact.

The application of the sustainable travel targets to the unmitigated STEB modelling outputs indicate that some severe Local Plan impacts could be reduced on parts of the network, at a link level at least, if the targets are achieved. The key exception is the single carriageway section of the A22 corridor around Uckfield. Further assessment will be needed using the countywide model to determine whether this level of impact and the likely level of severity is realistic on specific parts of the network.

Junction assessments on key parts of the network and potential mitigation solutions are discussed in the following section.

Table 7.1 Key link capacities VOC (%) – 5% total traffic reduction in Local Plan New Growth Options

Ref	Count Location	Direction	One-way Link Capacity	AM Peak Hour Observed Flow (2019)	AM VoC ratio (2019)	AM VoC Ref. Case (2040)	AM Local Plan Option 'HIGH' VoC ratio (2040)	AM Local Plan Option 'MEDIUM' VoC ratio (2040)	AM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1527	36%	39%	51%	51%	51%
		Southbound	4200	1599	38%	41%	56%	54%	54%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	804	60%	64%	97%	92%	90%
		Westbound	1350	1261	93%	100%	155%	152%	151%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	703	52%	56%	86%	80%	77%
		Westbound	1350	1206	89%	96%	134%	131%	130%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	738	55%	59%	90%	87%	86%
		Southbound	1350	455	34%	36%	61%	54%	51%
5	A27 Between A2270 and Station Rd	Eastbound	1350	979	73%	78%	89%	89%	89%
		Westbound	1350	1001	74%	80%	102%	102%	102%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1080	80%	86%	136%	117%	114%
		Southbound	1350	1040	77%	83%	111%	104%	101%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	365	27%	29%	43%	40%	38%
		Northbound	1350	652	48%	52%	83%	75%	71%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	690	51%	55%	79%	70%	67%
		Westbound	1350	809	60%	64%	82%	79%	77%
9	A267 Between B2100 and Lake Steet	Northbound	1350	742	55%	59%	74%	74%	74%
		Southbound	1350	380	28%	30%	38%	38%	38%
10	A2270 Between Wannock Rd and Huggets Ln	Northbound	1350	761	56%	61%	81%	80%	80%
		Southbound	1350	873	65%	70%	97%	94%	94%

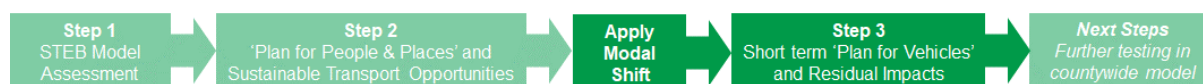
Ref	Count Location	Direction	One-way Link Capacity	PM Peak Hour Observed Flow (2019)	PM VoC ratio (2019)	PM VoC Ref. Case (2040)	PM Local Plan Option 'HIGH' VoC ratio (2040)	PM Local Plan Option 'MEDIUM' VoC ratio (2040)	PM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1298	31%	33%	45%	44%	44%
		Southbound	4200	2010	48%	51%	69%	69%	68%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	1324	98%	105%	164%	162%	162%
		Westbound	1350	771	57%	61%	96%	90%	88%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	1054	78%	84%	124%	120%	119%
		Westbound	1350	664	49%	53%	86%	78%	76%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	502	37%	40%	67%	60%	58%
		Southbound	1350	684	51%	54%	86%	84%	83%
5	A27 Between A2270 and Station Rd	Eastbound	1350	981	73%	78%	96%	96%	96%
		Westbound	1350	850	63%	68%	84%	84%	84%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1103	82%	88%	120%	110%	107%
		Southbound	1350	1126	83%	89%	143%	122%	119%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	738	55%	59%	89%	82%	78%
		Northbound	1350	400	30%	32%	48%	45%	43%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	819	61%	65%	84%	80%	78%
		Westbound	1350	643	48%	51%	74%	67%	64%
9	A267 Between B2100 and Lake Street	Northbound	1350	351	26%	28%	36%	36%	36%
		Southbound	1350	713	53%	57%	71%	71%	71%
10	A2270 Between Wannock Rd and Huggets Ln	Northbound	1350	753	56%	60%	89%	87%	86%
		Southbound	1350	1090	81%	87%	108%	107%	106%

Table 7.2 Key link capacities VOC (%) – 10% total traffic reduction in Local Plan New Growth Options

Ref	Count Location	Direction	One-way Link Capacity	AM Peak Hour Observed Flow (2019)	AM VoC ratio (2019)	AM VoC Ref. Case (2040)	AM Local Plan Option 'HIGH' VoC ratio (2040)	AM Local Plan Option 'MEDIUM' VoC ratio (2040)	AM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1527	36%	39%	49%	48%	48%
		Southbound	4200	1599	38%	41%	53%	51%	51%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	804	60%	64%	92%	87%	85%
		Westbound	1350	1261	93%	100%	146%	144%	144%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	703	52%	56%	82%	75%	73%
		Westbound	1350	1206	89%	96%	127%	124%	124%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	738	55%	59%	85%	82%	82%
		Southbound	1350	455	34%	36%	58%	51%	49%
5	A27 Between A2270 and Station Rd	Eastbound	1350	979	73%	78%	85%	85%	85%
		Westbound	1350	1001	74%	80%	97%	97%	97%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1080	80%	86%	129%	111%	108%
		Southbound	1350	1040	77%	83%	106%	98%	96%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	365	27%	29%	40%	38%	36%
		Northbound	1350	652	48%	52%	78%	71%	68%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	690	51%	55%	75%	67%	63%
		Westbound	1350	809	60%	64%	77%	75%	73%
9	A267 Between B2100 and Lake Steet	Northbound	1350	742	55%	59%	70%	70%	70%
		Southbound	1350	380	28%	30%	36%	36%	36%
10	A2270 Between Wannock Rd and Huggets Ln	Northbound	1350	761	56%	61%	77%	76%	75%
		Southbound	1350	873	65%	70%	91%	89%	89%

Ref	Count Location	Direction	One-way Link Capacity	PM Peak Hour Observed Flow (2019)	PM VoC ratio (2019)	PM VoC Ref. Case (2040)	PM Local Plan Option 'HIGH' VoC ratio (2040)	PM Local Plan Option 'MEDIUM' VoC ratio (2040)	PM Local Plan Option 'LOW' VoC ratio (2040)
1	A22 Between Cophall Roundabout and Eagles Roundabout	Northbound	4200	1298	31%	33%	42%	41%	41%
		Southbound	4200	2010	48%	51%	66%	65%	65%
2	A22 Between Boship Roundabout and Coldharbour Rd	Eastbound	1350	1324	98%	105%	156%	153%	153%
		Westbound	1350	771	57%	61%	91%	85%	83%
3	A22 Between Lewes Rd and Burgh Hill Rd	Eastbound	1350	1054	78%	84%	117%	113%	112%
		Westbound	1350	664	49%	53%	81%	74%	72%
4	A22 Between South Str and Shaw Roundabout	Northbound	1350	502	37%	40%	64%	56%	54%
		Southbound	1350	684	51%	54%	82%	79%	78%
5	A27 Between A2270 and Station Rd	Eastbound	1350	981	73%	78%	91%	91%	91%
		Westbound	1350	850	63%	68%	79%	79%	79%
6	A22 Between Copwood Roundabout and Black Down Roundabout	Northbound	1350	1103	82%	88%	113%	104%	102%
		Southbound	1350	1126	83%	89%	135%	115%	112%
7	A22 Between Bell Ln and Chelwood Gate Rd	Southbound	1350	738	55%	59%	84%	77%	74%
		Northbound	1350	400	30%	32%	45%	42%	41%
8	A26 Between Chillies Ln and Sheep Plain	Eastbound	1350	819	61%	65%	79%	76%	74%
		Westbound	1350	643	48%	51%	70%	64%	60%
9	A267 Between B2100 and Lake Street	Northbound	1350	351	26%	28%	34%	34%	34%
		Southbound	1350	713	53%	57%	68%	68%	68%
10	A2270 Between Wannock Rd and Huggets Ln	Northbound	1350	753	56%	60%	85%	83%	82%
		Southbound	1350	1090	81%	87%	102%	101%	101%

8 Local Junction Improvements



8.1 Overview

The Wealden highway network is approaching capacity in many key locations and several junctions are subject to proposed upgrades through ongoing programmes of ESCC or National Highways proposed improvements (as discussed in Section 4). Over and above the link capacity impacts, discussed in Section 5, the potential additional traffic growth from the new Local Plan growth options is likely to have additional impacts on the strategic transport network at key junction locations.

This section updates the previous junction concept design review, included in TN01, and summarises the results of detailed capacity assessments of local junctions on the key highway network, for the different future scenarios and makes early recommendations for physical mitigation using the following approach:

- Existing layouts have been tested with all flow scenarios to identify potential mitigation requirements
- Modal shift has been applied to 2040 New Growth Options (2-4) to confirm whether physical mitigation of the existing layout is still needed
- The 2040 Reference Case has been tested with any known 'committed' improvement (see Table 4.1 and Table 8.1)
- The 2040 'New Growth Options' (2-4) have been tested with any known 'planned' improvement (see Table 4.1 and Table 8.1) and / or any additional mitigation recommendations

A list of the key junctions assessed, and their current known scheme pipeline status, are referenced in Table 8.1 with locations shown in Figure 8-1. At this stage, the list of junctions focuses on key known and potential capacity 'hot spots' on the main corridors based on the previous TN01 assessment and advice from stakeholders. The list is not exhaustive and, as discussed in section 5, there are a number of locations on minor corridors and in town centres, such as Uckfield, where the impacts are likely to need further consideration in the countywide model and potential mitigation as the evidence base develops.

Table 8.1 Key junctions tested in baseline assessment

Junction	Ref	Corridor	Forward scheme pipeline status
A22 Boship Roundabout	W26	A22	Planned A22 / A27 Package
A22 Diplocks Way Roundabout	W30	A22	Planned A22 / A27 Package
A22 Eagles Roundabout	W31	A22	Planned A22 / A27 Package
A27 / A22 Cophall Roundabout	W4	A27/A22	Historic NH concept scheme
A27 / A2270 & A2270 / Wannock Road	W3/W8	A27/A2270	NH & ESCC Committed schemes
A27/ A22 Golden Jubilee	W5	A27/A2290	Planned A22 / A27 Package
A22 / B2247 Dittons Rbt	W6	A22	Planned A22 / A27 Package
A295 / A271 Roundabout	W27	A295/A271	Existing
A295 Ersham Road Roundabout	W29	A295	ESCC Committed Scheme
A22 / A26 Little Horsted RBT	W9	A22	Existing

Junction	Ref	Corridor	Forward scheme pipeline status
A22 / A26 Black Down Roundabout	W14	A22	Existing
A22 / B2110 Lewes Road roundabout	W21	A22	Existing
A26 / London Road	W22	A26	Existing
A22 / B2192 Halland Roundabout	W23	A22	Existing
A22 Shaw Roundabout	W24	A22	Existing
A22 / B2124 Lewes Rd	W25	A22	Existing
A22 / B2102 Copwood Roundabout	W34	A22	Existing (considers Gridserve 4 th arm)

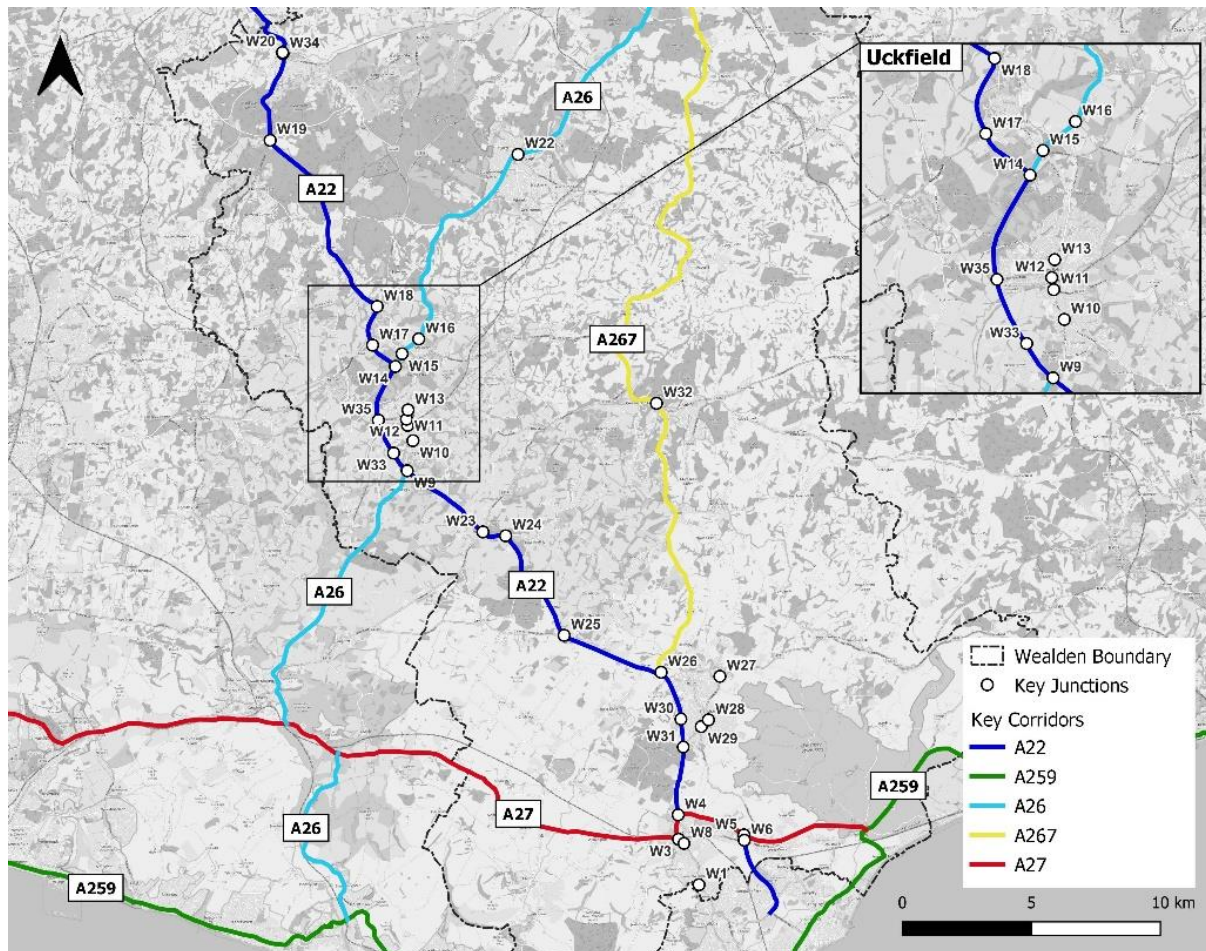


Figure 8-1 Reference map of key junction locations

8.2 Assessment scenarios

The analysis includes the following junction assessment scenarios to identify where mitigation is likely to be needed and make design recommendations. The higher headline 10% modal shift factor has also been applied to all locations, as a 'better case' scenario, to gauge where physical mitigation could potentially be avoided with investment in sustainable transport interventions. Noting that modal shift assumptions will need a much more detailed and evidence led assessment in the countywide model:

- Base Year¹³ flows with existing layouts

¹³ Base year includes a combination of 2017-2019 observed flows, where available, and data from countywide base.

- 2040 Reference Case baseline (existing / committed only) layouts
- 2040 Local Plan 'New Growth Options' 2-4 baseline (existing / committed) layouts
- 2040 Local Plan 'New Growth Options' 2-4 baseline (existing / committed) layouts + 10% modal shift reduction in total traffic
- 2040 Local Plan 'New Growth Options' 2-4 mitigated (planned / new) layouts (where applicable)

An early concept design has been included for each junction likely to need mitigation. This includes basic feasibility and consideration of the known highway boundary to identify solutions that are likely to be deliverable at a reasonable scale. At some locations, it is recommended that further consideration and testing in the countywide model is undertaken to fully understand the scale of impact and level of mitigation required. In all cases, designs are subject to more detailed feasibility and assessment in the countywide model to inform the evidence base going forward.

8.3 Existing layouts capacity assessments

The capacity of each junction has been assessed using local junction modelling software Junctions 10, for roundabouts or priority junctions, and LINSIG v3, for traffic signals. Both software tools assess the relationship, as a % ratio, of traffic demand to geometric capacity on each arm of the junction. A Red, Amber, Green (RAG) assessment (summarised in Table 8.2) has been undertaken to provide an initial indication of where a junction might be reaching or exceeding capacity for given scenarios on at least one of its arms.

Table 8.2 Junction capacity RAG key

Junction Capacity	
	Exceeds (>110%)
	At or Approaching (90-110%)
	Under (<90%)

Typically, a value of >100% would be considered exceeding, particularly when designing a scheme for the more immediate future, however for the longer-term Local Plan horizon (17+ years) a more pragmatic and proportionate approach has been adopted to identifying the potential need for solutions with 110% set as a threshold for exceeding capacity. This allows for flexibility around longer term uncertainties of future traffic growth, limitations of the STEB modelling methods used to date and the need for more detailed countywide modelling of the network to limit the deployment of costly highway capacity enhancements and further unconstrained car use. This approach will be reviewed and refined through engagement with ESCC and NH and in line with any future modelling and design process to inform the evidence base going forward.

The results of the junction capacity assessments for the existing layouts in each of the scenarios is summarised in Table 8.3, indicating that:

- The network is generally either operating at, or close, to capacity with the base year flows and existing layouts.
- In the 2040 Reference Case, without the introduction of Local Plan traffic growth, the majority of junctions tested will be exceeding capacity.

- The addition of the three 'New Growth Options' (2-4) demonstrate that the different options of 'low', 'medium' or 'high' growth are all likely to have similar levels of additional transport impact over and above the Reference Case, which will potentially require widespread mitigation to existing layouts.

Table 8.3 Junction capacity assessments existing layouts only

Junction	Ref	Base Year	2040 Ref	2040 High	2040 Med	2040 Low	Mitigate Y/N
A22 Boship Roundabout	W26						Y
A22 Diplocks Way Roundabout	W30						Y
A22 Eagles Roundabout	W31						Y
A27 / A22 Cophall Roundabout	W4						Y
A27 / A2270 & A2270 / Wannock Road Junctions	W3/W8						Y
A27/ A22 Golden Jubilee	W5						Y
A22 / B2247 Dittons Rbt	W6						Y
A295 / A271 Roundabout	W27						N
A295 Ersham Road Roundabout	W29						Y
A22 / A26 Little Horsted RBT	W9						Y
A22 / A26 Black Down Roundabout	W14						Y
A22 / B2110 Lewes Road roundabout	W21						N
A26 / London Road	W22						Y
A22 / B2192 Halland Roundabout	W23						Y
A22 Shaw Roundabout	W24						Y
A22 / B2124 Lewes Rd	W25						Y
A22 / B2102 Copwood Roundabout	W34						Y
Qty. junctions at or approaching capacity		13	1	1	1	1	
Qty. of junctions over capacity needing mitigation		0	13	15	15	15	15

8.4 Existing layouts with application of modal shift

The headline 10% modal shift (discussed in Section 6) has been applied as a network average to the background plus 'New Growth Options' (2-4) total forecast traffic levels in advance of considering physical mitigation. This provides an indication of whether physical mitigation could be avoided through reasonably ambitious sustainable transport interventions. It should be noted, and as previously stated, the Local Plan growth options will typically add an 18%-28% uplift in traffic to the 2040 Reference Case and the 10% modal shift reduction is only going to offset a proportion of this wider background growth with only a limited impact at specific locations.

The results of the junction capacity assessments with 10% modal shift in each of the with Local Plan scenarios is summarised in Table 8.4. The 2040 Reference Case, where no additional modal shift is anticipated in the absence of Local Plan interventions, has been included for comparison purposes. The impact of an average modal shift factor will remove some of the impact of traffic growth, however, the majority of junctions, with the possible exception of A22 Diplocks roundabout, are still likely to require some form of physical mitigation. This will need further consideration alongside the impact of specific mitigation measures, such as a BRT-based mass transit corridor on the A22 between Wealden and Eastbourne, where a greater degree of modal shift could potentially be achieved than the 10% applied.

Table 8.4 Junction capacity assessments existing layouts only (**10% modal shift**)

Junction	Ref	2040 Ref *	2040 High	2040 Med	2040 Low	Mitigate Y/N
A22 Boship Roundabout	W26	●	●	●	●	Y
A22 Diplocks Way Roundabout	W30	●	●	●	●	N
A22 Eagles Roundabout	W31	●	●	●	●	Y
A27 / A22 Cophall Roundabout	W4	●	●	●	●	Y
A27 / A2270 & A2270 / Wannock Road Junctions	W3/W8	●	●	●	●	Y
A27/ A22 Golden Jubilee	W5	●	●	●	●	Y
A22 / B2247 Dittons Rbt	W6	●	●	●	●	Y
A295 / A271 Roundabout	W27	●	●	●	●	N
A295 Ersham Road Roundabout	W29	●	●	●	●	Y
A22 / A26 Little Horsted RBT	W9	●	●	●	●	Y
A22 / A26 Black Down Roundabout	W14	●	●	●	●	Y
A22 / B2110 Lewes Road roundabout	W21	●	●	●	●	N
A26 / London Road	W22	●	●	●	●	Y
A22 / B2192 Halland Roundabout	W23	●	●	●	●	Y
A22 Shaw Roundabout	W24	●	●	●	●	Y
A22 / B2124 Lewes Rd	W25	●	●	●	●	Y
A22 / B2102 Copwood Roundabout	W34	●	●	●	●	Y
Qty. of junctions at or approaching capacity		1	1	1	1	
Qty. of junctions over capacity needing mitigation		13	14	14	14	14

*No modal shift applied to reference case

8.5 Proposed junction mitigation solutions

The committed and planned junction improvements have been combined with additional improvements for specific junctions requiring mitigation. Any additional improvements have been reviewed for basic feasibility and, where possible, deliverability within the highway boundary. Committed/planned scheme layouts considered are included in Appendix E and concept designs where additional mitigation is needed are included for each junction in Appendix F. Table 8.5 summarises the key design features considered. As previously stated, all design recommendations are concept only and subject to more detailed feasibility and modelling assessment. Furthermore, any junction design will need to be considered on a monitor and manage basis throughout the Local Plan period to ensure that mitigation is implemented where necessary and where future traffic flows reach the predicted levels.

Table 8.5 Potential junction mitigation solutions

Junction	Ref	Potential mitigation solution
A22 Boship Roundabout	W26	- A partial-signalised roundabout with additional approaches is proposed in the A22/A27 MRN OBC study. - The A271 eastern arm (retained as give-way approach) would experience delays in PM peak due to a relatively higher increase in traffic levels. - Further improvements to the A271 arm could be required if forecasted levels of traffic are realised in future could be mitigated further by sustainable transport provision. - EB flows on the A22 western arm could exceed overall link capacity and further modelling in the countywide model is recommended before considering additional link and junction capacity.
A22 Diplocks Way Roundabout	W30	- Existing roundabout layout would be marginally over capacity with all LP flows; primarily the A22 northern arm would experience delays. - Potential mitigation would be a partial signalised layout, including signalisation of the northern approach and circulatory.
A22 Eagles Roundabout	W31	- An improved roundabout with additional approaches is proposed in the A22/A27 MRN OBC study, including additional lanes on A22 approaches and a left turn segregated lane on the A295 South Road approach. - At this stage no further improvement to the proposed A22 study layout is likely to be required to cater LP flows.
A27 / A22 Cophall Roundabout	W4	- An improvement to the A27 (S) arm as a dual-carriageway is completed as a part of NH's A27 East of Lewes schemes. - Both the A27 approaches would experience delays in peak hours due to a relatively higher increase in traffic levels and would need mitigation. - Partial signalisation of the eastern and southern arms (both the A27 approaches) would be needed.
A27 / A2270 & A2270 / Wannock Road Junctions	W3 / W8	- Additional capacity envisaged to be provided by the HPE MAC proposal at the Wannock Road junction - The proposal potentially needs further capacity improvement, such as the provision of two SE bound lanes along A2270, changes to crossing arrangements and restricting the minor conflicting crossing movements. - A2270 link capacity would likely be exceeded, with queues from Wannock Rd blocking back to A27 / A2270 junction - Further modelling needed in countywide model to determine balance of demand between Wealden and Eastbourne via A2270 and A22 MRN corridors

Junction	Ref	Potential mitigation solution
A27/ A22 Golden Jubilee	W5	- An improved roundabout with additional approaches is proposed in the A22/A27 MRN OBC study, including an increase to Inscribed Circle Diameter, additional lanes on the A27 west and A22 south approaches and extension to existing flare lengths on A27 east arm. - This improvement is linked and complemented by the improvements suggested for the A22/B2247 Dittons Road Junction immediately to the south. - At this stage no further improvement to the proposed A22 study layout is likely to be required to cater LP flows.
A22 / B2247 Dittons Rbt	W6	- A signalised crossroads junction layout is proposed as a part of the A22/A27 MRN OBC study with provision for crossing facilities for active modes. - Proposed improved layout includes multi-lane approaches on A22 as well B2247 approaches. - At this stage no further improvement to the proposed A22 study layout is likely to be required to cater LP flows.
A295 / A271 Roundabout	W27	No capacity issues identified and no mitigation likely to be required at this stage.
A295 Ersham Road / South Road Diplocks Way Junctions	W29/ W35	- Existing roundabout layout would be significantly over capacity with LP flows - A separate junction improvement study proposes a roundabout layout combined with the Diplocks Way junction. - At this stage no further improvement is likely to be required to cater LP flows.
A22 / A26 Little Horsted RBT	W9	- Existing roundabout layout would be over capacity with LP flows and mitigation is likely to be needed. - Due to high turning movements, an improved and buildable roundabout layout unlikely to provide the required capacity and a signalised crossroads is proposed to meet the LP demand.
A22 / A26 Black Down Roundabout	W14	- Existing roundabout layout would be over capacity with LP flows - Further improvements to the roundabout layout would be required. - Two options with an improved roundabout and a signalised layout have been proposed to meet the LP demand.
A22 / B2110 Lewes Road roundabout	W21	No capacity issues identified and mitigation unlikely to be required at this stage.
A26 / London Road	W22	- Existing layout is already operating over it is capacity and continues to operate over capacity with LP flows - Existing layout is constrained by highway boundary availability and would need additional supporting measures in the surrounding road network to provide the required capacity - Solutions could include turn restrictions and traffic management measures in the adjacent network to reduce flows to suitable levels. These would need further exploration with ESCC and further consideration is needed

Junction	Ref	Potential mitigation solution
A22 / B2192 Halland Roundabout	W23	- Existing roundabout layout would be over its capacity with LP flows - Further improvements to the roundabout layout would be required. - A22 (N) arm link capacity would be exceeded, and further modelling needed in a strategic model - An improved layout is proposed to add two streams of traffic (along A22) and additional flare lengths to the SW arm.
A22 Shaw Roundabout	W24	- Existing A22 southern and western arms would be over capacity with LP flows and improvements to roundabout layout would be required. - Link capacity for A22 (W) arm would exceed link capacity threshold and further modelling is needed in the countywide model - An improved roundabout is proposed to add two-lanes of exit capacity on both A22 arms
A22 / B2124 Lewes Rd	W25	- Existing layout would operate over capacity with LP flows - A22 link capacity would be exceeded, - A signalised layout is proposed to meet the LP demand.
A22 / B2102 Copwood Roundabout	W34	- Existing layout would operate over capacity with LP flows - A22 link capacity would be exceeded, and further modelling is needed in the countywide model - An improved roundabout is proposed with additional lane capacity on the A22 approaches - A fourth arm (West side), can be incorporated to serve the planned Gridserve development

8.6 Mitigated layouts capacity assessments

The committed, planned and additional improvements have been reassessed as mitigated layouts in the appropriate local junction modelling software (Junctions 10 or LINSIG v3), using the 2040 'High New Growth Option' (2) flows as a worse case. Table 8.6 compares the mitigated 'with' Local Plan high growth (2) to the base year flows and 2040 'without' Local Plan Reference Case as an indication of whether the Local Plan traffic impacts can be mitigated to an acceptable level.

Table 8.6 Junction capacity assessments 2040 Reference Case existing / committed layouts v 2040 LP High Growth Option (2) committed / planned / mitigated layouts

Junction	Ref	Base Year	2040 Ref	2040 High	Comment
A22 Boship Roundabout*	W26	●	●	●	Additional mitigation required to planned A22/A27 Package + modal shift required to reduce RAG impact to <110%
A22 Diplocks Way Roundabout	W30	●	●	●	Further mitigation potentially not required
A22 Eagles Roundabout	W31	●	●	●	Planned A22 / A27 Package expected to mitigate growth options
A27 / A22 Cophall Roundabout	W4	●	●	●	Additional mitigation required to NH scheme to mitigate impacts
A27 / A2270 & A2270 / Wannock Road Junctions	W3/W8	●	●	●	Potential residual severe impacts needing further mitigation and assessment in countywide
A27/ A22 Golden Jubilee	W5	●	●	●	Planned A22 / A27 Package expected to mitigate growth options
A22 / B2247 Dittons Rbt	W6	●	●	●	Planned A22 / A27 Package expected to mitigate growth options
A295 / A271 Roundabout	W27	●	●	●	Mitigation potentially not required at this stage
A295 Ersham Road / Dipocks Way Junctions	W29	●	●	●	Committed scheme likely to mitigate impacts
A22 / A26 Little Horsted RBT*	W9	●	●	●	Mitigation scheme likely to be required
A22 / A26 Black Down Roundabout*	W14	●	●	●	Mitigation scheme likely to be required
A22 / B2110 Lewes Road roundabout	W21	●	●	●	Mitigation potentially not required at this stage
A26 / London Road	W22	●	●	●	Potential residual severe impacts needing further mitigation and assessment in countywide
A22 / B2192 Halland Roundabout*	W23	●	●	●	Mitigation scheme likely to be required
A22 Shaw Roundabout*	W24	●	●	●	Mitigation scheme likely to be required
A22 / B2124 Lewes Rd*	W25	●	●	●	Mitigation scheme likely to be required
A22 / B2102 Copwood Roundabout*	W34	●	●	●	Mitigation scheme likely to be required
Qty. of junctions at or approaching capacity		13	1	12	
Qty. of junctions over capacity needing further consideration		0	12	3	
*A22 corridor link capacity north of Boship requires further assessment in countywide					

The analysis indicates that, while much of the mitigated network is anticipated to be operating at / close to capacity with the 2040 Local Plan options, it would be operating with an improved level of performance to the 2040 Reference Case and at a similar level of performance to the base year. There are key exceptions, which will need particular consideration in the countywide model and potentially require further mitigation:

- A27 / A2270 & A2270 / Wannock Road Junctions (Polegate) – The A2270 / Wannock Road junction will be at risk of severe impact at peak times in the future, even without the addition of Local Plan growth, and queues will potentially block back into the adjacent A27 / A2270 SRN junction. The STEB model currently assumes almost all new development traffic will use the A27 / A2270 corridor between Wealden and Eastbourne.

The countywide model will be needed to assess more realistic future traffic levels that account for the balance of north-south flows using both the A27 / A2270 and A27 / A22 corridors. Subject to the outcomes of further modelling, it is still likely that furthermore substantial physical and sustainable mitigation is needed on this part of the network to remove any severe impact.

NH are in the early stages of considering an offline A27 realignment to the west of Polegate as part of their RIS3 longlist of schemes, which could provide a more comprehensive solution to a constrained part of the network. However, it is uncertain whether this scale of infrastructure could be delivered in the Plan period and further engagement with National Highways will be required.

- A26 / London Road (Crowborough) – The High Growth Option (2) is likely to have a lower impact on the A26 through Crowborough than other parts of the district, however, the A26 / London Road signals in the town centre is already at capacity and there is limited opportunity for physical improvement due to adjacent building lines on each arm.

The countywide model will need to be used, in the first instance, to understand a more realistic level of future demand and then further engagement with ESCC to explore potential solutions e.g. local traffic management measures to reduce traffic levels, turning restrictions and / or simplification of signals phases and staging.

- The overall A22 link capacity issues north of Boship roundabout towards the north of Uckfield (highlighted in section 5) will also have potential implications for overall network capacity. The countywide model will need to be used to fully understand the likely level of severity of these impacts on the links and the corresponding junction mitigation proposals. There will be a number of constraints to consider and overcome, including land availability, timescales, costs and viability, should more substantial mitigation, such as dualling be required.

Over and above the junction assessments undertaken in this study, there are a number of additional locations on minor corridors and in town centres, such as Uckfield, that will need more detailed consideration in the countywide and potential mitigation solutions.

8.7 Excluded wider network junctions

This report presents a high level and an initial assessment of likely future risks on the highway network associated with new growth. The detailed junction capacity assessment has focused on key junctions and corridors at this stage. As stated previously, a number of junctions on the wider network, especially in town centres and rural corridors, will require further consideration once options have been tested in the countywide model. An initial list of other wider network and town centre junctions, which are likely to require further consideration, is summarised with initial recommendations in Table 8.7. The list is not exhaustive and could be added to or reduced at a later stage.

Table 8.7 Initial list of excluded wider network junctions for further consideration

Junction	Ref	Corridor	Initial recommendations
A2270 / Huggetts Lane	W1	A2270	Countywide modelling is needed of A2270 to understand balance of reassignment on corridors between Wealden and Eastbourne
A27 Drusillas Roundabout	W2	SRN	TN01 considered NH's A27 East of Lewes Scheme improvement layout with higher flows in Initial Growth Option (1) and recommended further mitigation is unlikely to be needed – to be confirmed in countywide modelling
Eastbourne Rd/Lewes Rd/New Town	W10	Uckfield	Uckfield town centre junctions to be considered as part of more detailed countywide modelling
B2102 / Framfield Rd	W11	Uckfield	
High Street B2102 Bell Lane	W12	Uckfield	
High Street / Church Street	W13	Uckfield	
A26 / Budletts RBT	W15	A26	Wider network impacts need to be assessed in countywide and potential mitigation considered where applicable
A26 Five Ash Down	W16	A26	
A22 Batts Bridge RBT	W17	A22	
A22 Lampool RBT	W18	A22	TN01 considered existing layout with higher flows in Initial Growth Option (1) and indicated mitigation unlikely to be needed – to be confirmed in countywide modelling
A22 / A275	W19	A22	TN01 recommended mitigation option to signalise existing priority junction with the realignment of A275 arm to improve forward visibility
A22 Priory Road RBT	W20	A22	TN01 recommended mitigation option to signalise existing mini-roundabouts and make provision for active modes
A295 Station Road	W28	Hailsham	Town centre junctions to be considered as part of more detailed countywide modelling
A267 / A265	W32	A267	STEB predicted lower impacts on this part of the network and needs to be reviewed in countywide
A22 Ridgewood Farm RBT	W33	A22	Junction design will need to be considered further if Land at Owlsbury Farm is progressed
A27 Pevensey Roundabout	-	SRN	Consideration of cross boundary Local Plan impacts from neighbouring EBC, RDC and HBC LPs and potential need for mitigation

8.8 Junctions assessment summary

The junction mitigation concept review, undertaken in TN01 for the 'Initial Growth Option' (1), has been developed further using detailed junction assessments to assess the 'New Growth Options' (2-4) and identify the need for mitigation. The approach first considers the impact of modal shift and, where necessary, proposes potential mitigation solutions. All junction designs are concept only and subject to more detailed feasibility and assessment in the countywide model.

The analysis indicates that each of the 'New Growth Options' (2-4) will require a similar level of mitigation at key junctions. The traffic impact can generally be mitigated at most of the junctions assessed on the key network through the combination of reasonable physical mitigation solutions and the potential for sustainable modal shift. However, there are some key exceptions where the residual impact on the network is likely to be severe and further consideration will be needed of how specific sustainable

transport interventions, such as BRT between Wealden and Eastbourne, or larger scale physical mitigation can address these, including:

- The A27 / A2270 corridor around the SRN and Wannock Road junctions in Polegate
- The A26 London Road junction in Crowborough
- The impact of overall link capacity on parts of the A22 corridor and junctions between Boship roundabout and to the north of Uckfield
- Consideration will also need to be given to locations on the wider network, rural routes and in town centres, such as Uckfield

In all cases, the overall traffic impact will need to be tested further in the countywide model to fully understand the impacts of updated origin / destination information, traffic reassignment and overall network capacity before finalising the level of mitigation required.

9 Summary and Next Steps

9.1 Impacts of Local Plan Growth Options

Wealden District Council (WDC) is preparing a new Local Plan as a framework for future development up to 2039. The Council previously tested an 'Initial Growth Option' (1), in an earlier TN01 assessment, which would likely generate severe impacts on key parts of the network e.g. A27, A22 and A2270. The Council are now assessing three lower 'New Growth Options' (2-4) to:

- Understand the likely high-level transport impacts of the different growth options
- Further develop mitigation solutions to address transport challenges
- Identify potential residual risks to the transport network and the need for further assessment

The 'New Growth Options' (2-4) test a lower level of growth than the initial option (1) set out in the Transport Note (TN) 01 Report and subsequently results in less traffic generation. The modelling outputs at this early stage of testing indicate that on average the impact across the network could add between 18% and 28% peak hour vehicle trips, over and above the 2040 Reference Case, in the respective Low (4) to High (2) options. This compares to an approximate 40% average increase tested in the initial growth option (1). Despite a lower level of average growth, the level of impact in the New Growth options is still likely to be considered severe where highway link and / or junction capacity could be exceeded on key parts of the network and need mitigation, including:

- Parts of the single carriageway section of the A22 corridor and junctions north between Boship Roundabout up to the north of Uckfield
- The A27 SRN and A2770 corridors and key junctions around Polegate and south into Willingdon and Eastbourne
- Constrained parts of the A26 corridor in and around Crowborough

The STEB model is a static assignment model and does not fully account for traffic reassignment to less congested parts of the network. The model assigns much of the wider north-south development trips to the A22 and A27 / A2270 corridors. Subject to confirmation in the countywide model, the outputs from the STEB model are considered a robust case for stress testing the network for this stage of the Plan-making process.

Given the limitations of the STEB model, the countywide model will need to be used to understand reassignment for potential growth sites. However, at this stage and considering the level of growth tested so far (options 1-4), substantial mitigation is likely to be needed to both encourage sustainable modal shift as well as deliver potential highway improvements to address congestion on the highway network and at junctions. The key uncertainties at this stage are what level of growth can reasonably be mitigated to an acceptable level, in terms of transport impact, particularly on constrained key parts of the network, such as the A22 or A27/A2270.

9.2 Initial mitigation options

The assessment adopts a preferred approach of ‘planning for places and people’ exploring the potential for sustainable modal shift before opting for physical highway capacity enhancements. This will need to build on the existing scheme pipeline and emerging TfSE draft Strategic Investment Plan (SIP) to maximise modal shift and reduce car use within the context of the Wealden geography, including:

- Enhanced partnerships with operators and develop the evidence for zero emission bus-based rapid transit (BRT) on key corridors and connecting key destinations
- Developing the evidence for a network of public transport, active mode and micro-mobility solutions to provide alternative seamless travel routes to the key highway corridors and desire lines in urban areas
- Consideration of digital demand responsive transport (DDRT) options to complement fixed bus services and better connect rural areas with key towns and rail interchange
- Reduction in car ownership, parking demand and car use in the town centre and surrounding area, where supported by improved access to public transport and active travel networks
- Progressive adoption of innovative technologies.

At this early stage, a sustainable headline target of a 5% to 10% reduction in forecast peak hour car trips has been considered as part of this assessment to gain a high-level understanding of potential mitigation from improved sustainable access. While this will need refining as the Local Plan options and assessment evolves, and with more certainty of the package of measures to be delivered, there are still some severe residual impacts on the A22, A2270 and A26 local junction ‘hotspots’, which would require physical mitigation.

Junction capacity assessments and initial concept designs have been prepared for known ‘hotspots’ and on key corridors to demonstrate where an engineering solution could reasonably mitigate the Local Plan traffic impact. The analysis indicates that the traffic impact can be mitigated at many of the junctions on the key network through the combination of reasonable physical mitigation solutions and the potential for sustainable modal shift. However, even with modal shift and highway improvements, there are some key exceptions where the residual impact on the network is still likely to be severe and further consideration of mitigation may be required:

- The A27 / A2270 corridor between Wealden and Eastbourne
- The impact of overall link capacity on parts of the A22 corridor between Boship roundabout and to the north of Uckfield
- The A26 London Road junction in Crowborough
- Consideration will also need to be given to locations on the minor road network and in town centres such as Uckfield

All junction designs are concept only and will need to be subject to more detailed feasibility. The level of work is considered appropriate for this stage of the Plan-making process, however, in all cases, the overall traffic impact will need to be tested further in the countywide model to fully understand the impacts of updated origin / destination

information, traffic reassignment, modal shift and overall network capacity before finalising the level of mitigation required or identifying alternative solutions as required.

9.3 Next steps & recommendations

At this stage, the initial STEB spreadsheet-based modelling has shown that the Wealden growth options could generally be accommodated on parts of the key network with a combination of sustainable modal shift and local highway improvements. However, there are still likely to be residual severe impacts on sections of the A22, A26 and A27/A2270 corridors that will need further assessment and mitigation.

The countywide model will be used to refine the modelling methodology, assess impacts in more detail and further develop the transport evidence base as the Local Plan is developed further. The key analysis to be considered going forward is likely to include, but not be limited to, the following:

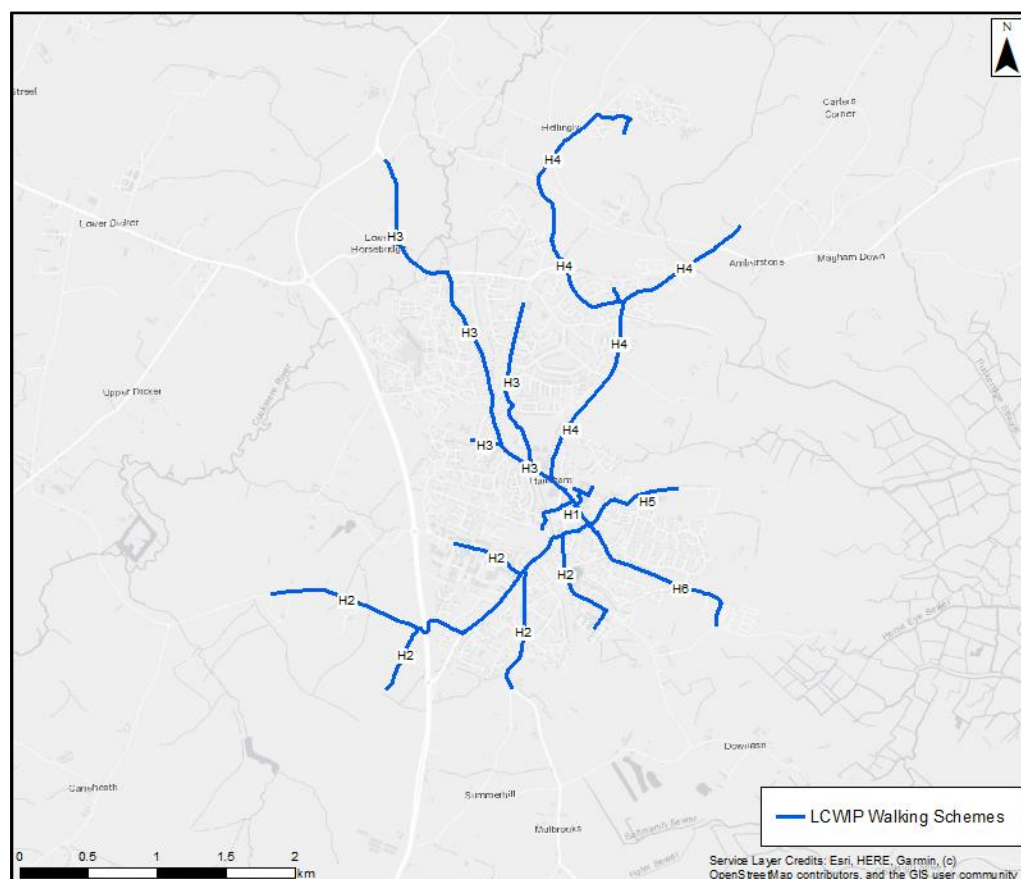
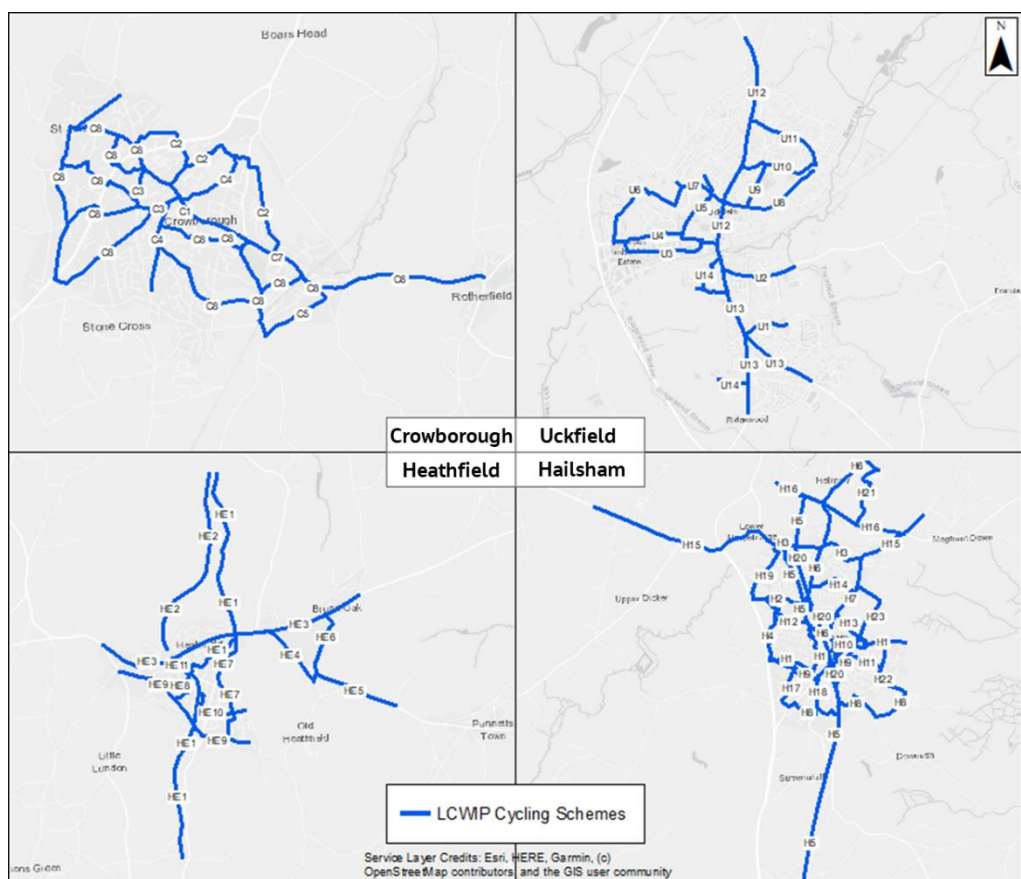
- Further option testing of different levels and distribution of development in locations with the greatest opportunity for sustainable access;
- Development of initial framework of sustainable options into an integrated delivery strategy across different interventions to drive behaviour change including, place-making, BRT, public transport, cycling, walking, electric vehicles and future mobility;
- More detailed assessment, using the countywide model, of the minor road network and town centres such as Uckfield;
- Updated origin and destination information using mobile phone data rather than historic Census 2011 data;
- Full dynamic reassignment to balance demand across a number of feasible routes based on available capacity, travel time, congestion and generalised cost variables;
- Consideration of a range of journey purposes, and not just travel to work, to refine trip distribution patterns and understand the impacts of both shorter and longer distance trips;
- Continue to develop evidence and assess corridor specific modal shift accounting for full range of sustainable options including BRT, bus, rail, walking, cycling and other transport options;
- Further testing of cumulative and cross boundary impacts of all Local Plan growth on the transport network within Wealden and in neighbouring districts/boroughs;
- Sensitivity testing and design of potential highway interventions and junction improvements; and
- Additional option testing of alternative spatial strategies and scales of development with a particular focus on development distributed along the A22 corridor.

A key consideration going forward is that the Local Plan is being assessed against forecast traffic patterns some 15+ years in the future and there are uncertainties around key external drivers of travel behaviour, including net-zero carbon, technological changes, fuel prices, new ways of working and global events, which could fundamentally change the predicted model outcomes. A proportionate, flexible,

monitor and manage approach to delivering specific measures and outcomes, is therefore needed, which can respond to these changes.

Appendix

Appendix A LCWIP Proposals



Scheme Proposal
Cycling Schemes
Hailsham
H1 - Diplocks Way (A22) - Phoenix Academy
H2 - Hempstead Lane
H3 - Cuckmere Close - Battle Road
H4 - Diplocks Way/A22 - Hempstead Lane
H5 - Polegate - Hellingly
H6 - High Street - Hellingly
H7 - London Road - Battle Road - Hawkswood Road
H8 - South Road - Mill Road
H9 - A22 - Vicarage Lane
H10 - Summerheath Road - High Street
H11 - Vicarage Road - Hamlins Park Close
H12 - Gleneagles Drive - London Road
H13 - Battle Road - White House School
H14 - Hawks Road - Harebeating Road
H15 - Lower Dicker - Park Gate Road
H16 - Hellingly - Park Gate
H17 - Arlington Road East - Upper Horsebridge Road
H18 - Ersham Road - South Road
H19 - Hempstead Lane - Upper Horsebridge Road
H20 - South Road Car Park - Upper Horsebridge Road
H21 - New Road - The Drive
H22 - Mill Lane - Marshfoot Lane
H23 - White House School Harebeating Lane
Uckfield
U1 - Mallard Drive
U2 - Framfield Road
U3 - Belfarm Road to Bell Lane
U4 - Belfarm Road Greenway
U5 - Belmont Road - Manor Way
U6 - Batchelor Way - Rocks Park
U7 - Church Street
U8 - Hempstead Lane
U9 - Lime Tree Avenue
U10 - Southview Drive/ Downsview Crescent
U11 - Browns Lane

U12 - B2102 Ringles Cross – Framfield Road

U13 - New Town – Ridgewood

U14 - New Town to Railway Station (via Victoria Pleasure Ground)

Heathfield

HE1 - NCN Route 21

HE2 - Cuckoo Trail Extension

HE3 - A265 Snatchells Farm – Broad Oak

HE4 - Battle Road West

HE5 - Battle Road East

HE6 - Halley Road

HE7 - A256 – Sandy Cross Lane

HE8 - Leeves Common

HE9 - Sheepsetting Lane – Sandy Cross Lane

HE10 - Cuckoo Drive – Green Lane

HE11 - Thorny Close Link

Crowborough

C1/C3/C7 - B21 from the A27 - junction Green Lane and the Croft Road/Church Road Triangle

C2 - Jarvis Brook – St Johns via Medway and Millbrook Road

C4 - North/South link via Queens Road and Poundfield

C5 - Jarvis Brook – Mount Pleasant – via Tubwell Lane

C6 - Jarvis Brook - Rotherfield C8 Area based improvements – residential areas

Hailsham Walking Schemes

H1 - Core Walking Zone

H2 - South Road to Arlington Road East

H3 - London Road to Church Road

H4 - Battle Road New Road

H5 - Marshfoot Lane

H6 - Mill Road

Appendix B STEB Limitations & Assumptions

Limitation	Assumption
Trip Distribution	Based on 2011 Census JTW at MSOA level and will potentially differ from the ESCWTM. JTW trips doesn't capture employer business/education/leisure/shopping, however for cumulative assessments NTS trip purpose proportions were applied to cross boundary trips only. Based on the NTS data, a discount of 34% and 10% was applied as a proxy for education trips in the AM and PM respectively. In addition, a discount of 2% and 12% was applied as a proxy for shopping trips in the AM and PM peak.
Zoning and network detail	Highway network includes a simplified road hierarchy structure with network imported from ITN 2019. Also, for LP assessments no future committed transport infrastructure was included. Junctions were not coded in detail therefore delay from junctions are not captured. For zones, up to three connectors were coded to provide access to the nearest highway network.
Traffic Assignment	Traffic assignment was based on a simplified road hierarchy structure with free flow speed taken into account. There is no capacity constraint in the model and therefore there is no impact on route choice.
Trip Pairing	Considers all LP employment trips as new i.e. does not factor in LP resi/emp trip pairing, nor displacement, erosion, relocation and conversion of existing employment sites (some of which will become new LP residential e.g. office to flats)
Secondary trips - retail uses	TRICS does not account for pass by/linked trips and trip characteristics require discounting at following uses in specific locations: Shopping Parade – nature of these shops serving local residential area and reasonably high level of pass-by trips. Town Centre –reflect very high linked trip to other town centre uses, pass by with station commuters and good sustainable access. Uses are very unlikely to be sole trip attractors and the new trips will predominantly be employees and deliveries rather than customers. Existing Retail Park – pass by / linked trip assumption with those already passing site entrance and diverting in or linking visit with other retail uses on site.
Car Free Residential Development	This has not been explicitly modelled at this stage, but will contribute towards overarching modal shift assumptions. Further assessments can be undertaken when specific sites are identified.
Windfall housing sites	Distribution and location based on historic trends and consolidated into geographical clusters with notional highway connections for modelling purposes.
Existing traffic data	Existing traffic data, where available was used, but new data was not collected due to COVID limitations. It is anticipated that the ESCWTM will fill the gaps once made available.

Appendix C Land Use Peak Hour Trip Rates and Trip Generation

Land use peak hour trip rates

Vehicle class	Type of development	Development location	AM Origin	AM Destination	PM Origin	PM Destination	Trip Rate Parameter
Total Veh.	Residential	Town Centre	0.20000	0.02500	0.07500	0.25000	per dwelling
Total Veh.	Residential	Neighbourhood Centre	0.32300	0.10400	0.12500	0.31100	per dwelling
Total Veh.	Residential	Suburban Area	0.40100	0.11800	0.18300	0.37000	per dwelling
Total Veh.	Residential	Edge of Town	0.36600	0.13500	0.15100	0.33300	per dwelling
Total Veh.	Residential	Edge of Town Centre	0.30400	0.14600	0.18500	0.24300	per dwelling
Total Veh.	Residential	Free Standing	0.36100	0.15300	0.18100	0.40300	per dwelling
Total Veh.	Retail	Town Centre	0.02539	0.03057	0.04286	0.04704	per 1sqm
Total Veh.	Retail	Neighbourhood Centre	0.01527	0.02134	0.04707	0.04728	per 1sqm
Total Veh.	Retail	Suburban Area	0.01445	0.02028	0.03539	0.02973	per 1sqm
Total Veh.	Retail	Edge of Town	0.01923	0.02279	0.03611	0.03233	per 1sqm
Total Veh.	Retail	Edge of Town Centre	0.02306	0.02569	0.06403	0.05736	per 1sqm
Total Veh.	Retail	Free Standing	0.00000	0.00000	0.00000	0.00000	per 1sqm
Total Veh.	Office	Town Centre	0.00117	0.01628	0.01351	0.00080	per 1sqm
Total Veh.	Office	Neighbourhood Centre	0.00091	0.01260	0.01340	0.00047	per 1sqm
Total Veh.	Office	Suburban Area	0.00185	0.01292	0.01041	0.00145	per 1sqm
Total Veh.	Office	Edge of Town	0.00091	0.01260	0.01340	0.00047	per 1sqm
Total Veh.	Office	Edge of Town Centre	0.00234	0.01810	0.01634	0.00220	per 1sqm
Total Veh.	Office	Free Standing	0.00091	0.01260	0.01340	0.00047	per 1sqm
Total Veh.	Industrial	Town Centre	0.00000	0.00000	0.00000	0.00000	per 1sqm
Total Veh.	Industrial	Neighbourhood Centre	0.00208	0.00634	0.00660	0.00184	per 1sqm
Total Veh.	Industrial	Suburban Area	0.00171	0.00403	0.00280	0.00105	per 1sqm
Total Veh.	Industrial	Edge of Town	0.00208	0.00634	0.00660	0.00184	per 1sqm
Total Veh.	Industrial	Edge of Town Centre	0.00071	0.00128	0.00185	0.00199	per 1sqm
Total Veh.	Industrial	Free Standing	0.00017	0.00217	0.00200	0.00025	per 1sqm
Total Veh.	Warehouse	Town Centre	0.00000	0.00000	0.00000	0.00000	per 1sqm
Total Veh.	Warehouse	Neighbourhood Centre	0.00061	0.00320	0.00244	0.00015	per 1sqm
Total Veh.	Warehouse	Suburban Area	0.00000	0.00000	0.00000	0.00000	per 1sqm
Total Veh.	Warehouse	Edge of Town	0.00061	0.00320	0.00244	0.00015	per 1sqm
Total Veh.	Warehouse	Edge of Town Centre	0.00000	0.00000	0.00000	0.00000	per 1sqm
Total Veh.	Warehouse	Free Standing	0.00044	0.00112	0.00070	0.00016	per 1sqm
Total Veh.	Leisure	Town Centre	0.00276	0.00310	0.01759	0.01310	per 1sqm
Total Veh.	Leisure	Neighbourhood Centre	0.00050	0.00075	0.00000	0.00000	per 1sqm
Total Veh.	Leisure	Suburban Area	0.00020	0.00030	0.00050	0.00076	per 1sqm
Total Veh.	Leisure	Edge of Town	0.00052	0.00076	0.00172	0.00187	per 1sqm
Total Veh.	Leisure	Edge of Town Centre	0.00077	0.00092	0.00240	0.00265	per 1sqm
Total Veh.	Leisure	Free Standing	0.00052	0.00076	0.00172	0.00187	per 1sqm

Source TRICS ® v7.8.1 - data extracted 2021

Development Site Peak Hour Trips

Potential Development Site	Land Use	No. of Dwellings tested	Employment Floorspace (sqm) tested	Vehicle Trip Generation	
				AM	PM
Land to the north of 3 and 4 Crossways Cottages, Camberlot Road, Upper Dicker	Res	15	-	6	7
Land to east of Robins Post Lane, Hailsham	Res	5	-	3	2
Land off Michelham Priory Road, Upper Dicker	Res	14	-	6	6
Land north of Recreation Ground, Berwick Station	Res	10	-	4	4
Land west of Station Road, Berwick Station	Res	27	-	12	12
Land to north east of Berwick Station, Station Road, Berwick Station	Res	33	-	14	14
Land east of Coopers Green Road, Ringles Cross	Res	20	-	9	9
Land opposite Roundwood, Coopers Green Road, Ringles Cross	Res	12	-	5	5
Lower Totease Farm, Framfield Road, Buxted	Res	10	-	5	5
Land south of Millwood Lane, Five Ash Down	Res	55	-	23	24
Land at Belfort House, Five Ash Down	Mixed	11	-	23	24
Land east of Great Totease Farm, Church Road, Buxted	Res	20	-	9	9
Pound Green Nurseries, Pound Green, Buxted	Res	9	-	5	4
Land at Coopers Row, Five Ash Down	Res	40	-	17	17
Land north of Pine Cottage, Coopers Green, Five Ash Down	Res	35	-	15	15
Land behind the Croft, Coopers Green Road, Ringles Cross	Res	15	-	6	7
Land at Holly Farm, Station Road	Res	20	-	9	9
Land opposite Roundwood, Coopers Green Road, Ringles Cross	Res	20	-	9	9
Land at Mockbeggar Farm, London Road, Uckfield	Res	60	-	26	26
Land to the north of the A272, west of Buxted	Res	60	-	31	35
Follengers Field, Church Lane, Ripe	Res	12	-	5	5
Deanland Wood Park, Deanland Road, Ripe	Res	105	-	54	61
The Golden Cross Inn and Caravan Park, Golden Cross, Lower Dicker	Res	29	-	12	13
Willetts Farm, Muddles Green, Chiddingly	Res	5	-	2	2
Kingswood, Luxford Lane, Crowborough	Res	6	-	3	3
Land at Little Warren Farm, Beacon Road, Crowborough	Res	18	-	9	9
Land at Coldrum and rear of Tyre Depot, London, Road, Crowborough	Res	9	-	5	4
Land east of Hadlow Down Road, Crowborough	Res	26	-	13	13
Land at Hodges, Steel Cross Road, Crowborough	Res	10	-	5	5
Land at Steel Cross Farm, Green Lane, Crowborough	Res	30	-	15	15
Millbrook Garden Centre, Tubwell Lane, Jarvis Brook, Crowborough	Res	27	-	14	13
Willetts House, Pilmer Road, Crowborough	Res	9	-	5	4
Land at Milbrook Road, Crowborough	Res	15	-	3	5
Collection of Hurtis Hill Site's	Res	15	-	8	8
Land at Pilmer House, London Road, Crowborough	Res	10	-	5	5
Land at Byeways, Palesgate Lane, Crowborough	Res	30	-	15	15
Land at Park Lane, Crowborough	Res	5	-	1	2
Land east of Southview Close, Crowborough	Res	8	-	4	4
Land off South Street, East Hoathly	Res	25	-	13	12

Potential Development Site	Land Use	No. of Dwellings tested	Employment Floorspace (sqm) tested	Vehicle Trip Generation	
				AM	PM
Broomy Lodge Field, London Road, East Hoathly	Res	30	-	15	18
Land at Hesmonds Stud, East Hoathly	Res	170	-	88	94
Land east of South Street (Site A), East Hoathly	Res	85	-	43	41
Harrison's, south of London Road, East Hoathly	Res	150	-	77	88
Land at Fletching Garage, Splaynes Green, Fletching	Res	6	-	3	4
Cysleys Farm, Eastbourne Road, Uckfield	Res	150	-	75	73
Land at Old Nursery House, Blackboys Road, Framfield	Res	58	-	29	28
Land off Old Eastbourne Road, Uckfield	Res	30	-	15	15
Blackboys Inn and Adjoining Land, Lewes Road, Blackboys	Res	9	-	5	5
Land at Benhall Mill Road, Tunbridge Wells	Res	60	-	26	26
The Glebe Land, Church Lane, Frant	Res	8	-	3	3
Land at Bayham Road, Tunbridge Wells	Mixed	30	-	65	63
Land between Court Lodge and Bells Yew Green Industrial Estate, B2169, Bells Yew Green	Res	20	-	9	9
Land at Whinlatter, St Mark's Road, Tunbridge Wells	Res	7	-	4	3
Pinewood Farm, Frant Road, Tunbridge Wells	Res	170	-	85	82
Land lying to the west side of Frant Road, Tunbridge Wells	Res	90	-	45	44
Wellfield, 154-156 Station Road, Hailsham	Res	12	-	6	6
Land east of Battle Road, south of Harebeating Lane, Hailsham	Res	400	-	180	171
Hamlins Mill, Mill Road, Hailsham	Res	6	-	3	3
Bolneys Farm, South Road, Hailsham	Res	60	-	30	29
152 Battle Road, Hailsham	Res	5	-	3	3
Grovelands Primary School, Gleneagles Drive, Hailsham	Res	40	-	21	22
Land south of Howard Close, Hailsham	Res	40	-	20	19
Amberstone Council Depot, Amberstone, Hailsham	Res	15	-	8	7
Fire Station, Victoria Road, Hailsham	Res	10	-	2	3
Land to the east of Battle Road, Hailsham	Res	100	-	51	58
Land at Harebeating Nursery, Harebeating Lane, Hailsham	Res	10	-	5	6
Land at Hailsham Delivery Office, 11 North Street, Hailsham	Res	8	-	4	3
Land at the Market, Market Street, Hailsham	Res	30	-	14	13
Land south of Hailsham, Land east of Ersham Road and Land west of Station Road, Hailsham	Res	200	-	100	97
Coldthorn Barn, Coldthorn Lane, Hailsham	Res	31	-	16	15
Harebeating Farm, Harebeating Lane, Hailsham	Res	20	-	10	10
Land at The Paddocks, South Road, Hailsham	Res	8	-	4	4
Land at Castle Farm, Withyham Road, Hartfield	Res	5	-	2	2
Land at Old Crown Farm, Edenbridge Road, Hartfield	Res	12	-	5	5
Field to the east of Burnetts Farm, Firgrove Road, Cross-in-Hand	Res	10	-	5	6
Land south-west of Ghyll Road, Tilsmore, Heathfield	Res	35	-	15	15
Land south of Burwash Road and east of Tower Street, Heathfield	Res	20	-	10	10
Land at Tilsmore Nurseries, off Nursery Way, Heathfield	Res	15	-	8	7

Potential Development Site	Land Use	No. of Dwellings tested	Employment Floorspace (sqm) tested	Vehicle Trip Generation	
				AM	PM
Land to rear of Brenton House (north), B2102, Cross in Hand	Res	15	-	6	7
Land to the rear of Rothershaw, High Street, Heathfield	Res	15	-	8	7
Rutherford, Cross in Hand Road, Heathfield	Res	5	-	2	2
Land at junction of Sandy Cross Lane and Park Road, Heathfield	Res	8	-	4	4
Rothershaw, Cross in Hand Road, Heathfield	Res	7	-	3	3
Land at Heathfield Police Station, High Street, Heathfield	Res	6	-	3	3
Land adjacent Street End Lane, Broad Oak	Res	8	-	4	4
Land at Snatchells Farm, A265, Heathfield	Res	24	-	12	13
Land adjoining Owlsbury, Chapel Cross Lane, Chapel Cross	Res	10	-	5	6
Land at Oast Lodge, Maynards Green Road, Maynards Green	Res	9	-	5	4
Land at Sunnyside, A267, Cross in Hand	Res	9	-	4	4
Land adjoining 13 Station Road, Hellingly	Res	10	-	5	5
Danecroft Nursery, Station Road, Hellingly	Res	80	-	40	39
Land at North Street, Lower Horsebridge	Res	55	-	23	24
Horselunges Business Park and Eastlea, Park Road, Hailsham	Res	8	-	4	4
Land at Lower Dicker Garden Centre, The Dicker, Lower Dicker	Res	45	-	19	20
Land at Park Farm, New Road, Hellingly	Res	360	-	180	174
Woods Corner, North Street, Lower Horsebridge	Res	15	-	8	7
Orchard View Park, Russett Way, Windmill Hill	Res	31	-	13	14
Land at Collins Honda, Hailsham Road, Herstmonceux	Res	9	-	5	5
Manor Farm Bungalow Site, Discovery Way, Horam	Res	10	-	5	6
Land adjacent to Funnell's Farm, Maynards Green Road, Maynards Green	Res	7	-	4	3
Land south side of Horebeech Lane, Horam	Res	38	-	19	18
Land at Linda House, Little London Road, Horam	Res	25	-	13	14
Land at Cauldavon, Horebeech Lane, Marle Green, Horam	Res	30	-	15	15
Land at Great Easterfields, Chiddingly Road, Horam	Res	8	-	4	4
Clearview Farm, Chiddingly Road, Horam	Res	35	-	18	17
Phase 2, Horeham Flat Farm, Chiddingly Road, Horam	Res	10	-	5	5
Land adjoining Discovery Way and Village Hall, Horam	Res	5	-	3	3
Two Oaks, Chiddingly Road, Horam	Res	25	-	13	12
Land east of Chiddingly Road, Horam	Res	20	-	10	10
Holly Gap Fram, Station Road, Isfield	Res	10	-	5	6
Land to rear of Sandpit Cottage. Station Road, Isfield	Res	10	-	5	6
Land at Tenacres, Straight Half Mile, Maresfield	Res	10	-	5	6
Land south of Maresfield, A22, Maresfield	Res	210	-	90	92
Land south west of Park Farm, A22, Maresfield	Res	25	-	11	11
Land adjacent to Ninfield Reservoir, High Street, Ninfield	Res	20	-	9	9
Land at Ingrams Farm, Bexhill Road, Ninfield	Res	9	-	4	4
Crouch Field, Bexhill Road, Ninfield	Res	65	-	33	38
Paddock to front of Ditton Park Industrial Estate, Dittons Road, Polegate	Res	24	-	12	12

Potential Development Site	Land Use	No. of Dwellings tested	Employment Floorspace (sqm) tested	Vehicle Trip Generation	
				AM	PM
Hindsland Fields (east), Eastbourne Road, Polegate	Res	30	-	16	17
Land bounded by A27 and Levett Road, Polegate	Res	180	-	93	100
Land at Shepham Lane, Polegate	Res	300	-	156	166
Hindsland Fields (west), Eastbourne Road, Polegate	Res	70	-	36	39
Former Waterhouse Coaches site, Dittons Road, Polegate	Res	10	-	5	5
Land at Royal Mail Delivery Office, 74 High Street, Polegate	Res	8	-	2	3
Phase 1&2 Commercial Site, Dittons Road, Polegate	Res	17	-	9	8
Polegate Station Car Park, High Street, Polegate	Res	20	-	5	7
Land at Station Road, Rotherfield	Res	10	-	4	4
Hideaway, Tubwell Lane, Crowborough	Res	5	-	3	2
Land at Thorncrest, Lewes Road, Uckfield	Res	30	-	15	15
Ridgewood House, Lewes Road, Uckfield	Res	25	-	13	12
Charlwood Manor, Snatts Road, Uckfield	Res	17	-	9	9
Sunview, 46 New Road, Ridgewood, Uckfield	Res	30	-	15	15
Land at Horstedpond Farm, Lewes Road, Uckfield	Res	450	-	225	218
Land at Springfield, Lewes Road, Ridgewood, Uckfield	Res	18	-	9	9
Land west of Uckfield, Ridgewood, Uckfield	Res	100	-	50	48
Land rear of Oakley Court, Selby Road, Uckfield	Res	6	-	3	3
The Timber Yard, Lewes Road, Ridgewood, Uckfield	Res	10	-	5	5
Cress Farm, 20 Lewes Road, Ridgewood, Uckfield	Res	10	-	5	5
Uckfield Police Station, New Town, High Street, Uckfield	Res	10	-	5	6
Land at White House Farm, London Road, Uckfield	Res	240	-	102	105
Land south-west of Ridgedown, Lewes Road, Uckfield	Res	55	-	28	27
Land adjacent to Jonas Drive, Wadhurst	Res	30	-	13	13
Land at Windmill House, Windmill Lane, Wadhurst	Res	20	-	9	9
Land adjacent to Little Home Farm, Forest Lane, Punnetts Town	Res	5	-	2	2
Scots Paddock, Forest Lane, Punnetts Town	Res	10	-	4	4
The Bull's Head and adjoining land, A271, Boreham Street	Res	10	-	4	4
Land adjacent to 5 Belle Vue, Hailsham Road, Stone Cross	Res	9	-	5	5
Land adjacent to 125 Rattle Road, Westham	Res	7	-	4	3
Dittons Nursery, Dittons Road, Stone Cross	Res	15	-	8	8
Land at Hazlebank, Rattle Road, Stone Cross	Res	8	-	4	4
Land to the west of the B2104, Hankham	Res	22	-	11	12
Kinketchem, Peelings Lane, Westham	Res	5	-	3	2
Land at Peelings Lane, Westham	Res	150	-	78	83
Sharnfold Farm, Hailsham Road, Stone Cross	Res	120	-	62	70
Land at and adjacent to The Downs View and Emberson, Hailsham Road, Stone Cross	Res	60	-	31	33
Hindsland Playing Fields, Eastbourne Road, Polegate	Res	180	-	93	100
Land south of Back Lane and to the west of railway line, Groombridge	Res	21	-	11	10

Potential Development Site	Land Use	No. of Dwellings tested	Employment Floorspace (sqm) tested	Vehicle Trip Generation	
				AM	PM
Land to the rear of Cooks Corner Farm and to the north of London Road, Crowborough	Res	15	-	8	7
Land at Royal Mires Nursery, London Road, Lye Green	Res	5	-	3	3
Ashdown Business Park, Michael Way, Maresfield	Emp	-	45,000	458	520
Knights Farm, Lower Dicker, Hailsham	Emp	-	40,000	376	413
Swallow Business Park/Hackhurst Lane Industrial Estate, Lower Dicker	Emp	-	12,000	103	100
Land East of A22, South Hailsham	Emp	-	20,000	73	66
Mornings Mill Farm, Lower Willingdon	Mixed	700	8,600	420	442
Land at Owlsbury Farm, Lewes Road, Uckfield	Res	2,000	-	1028	1168
Horam (south and east of existing village - mostly around Coxlow Farm)	Mixed	750	3,000	410	405
Hailsham Town Centre and Vicarage Lane	Emp	-	3,000	18	92
Alfriston Parish	Res	13	-	5	6
Arlington Parish	Mixed	7	3,000	21	20
Berwick Parish	Res	5	-	2	2
Buxted Parish	Mixed	43	1,000	24	25
Chalvington with Ripe Parish	Res	17	-	9	10
Chiddingly Parish	Mixed	12	8,500	22	19
Crowborough Town	Mixed	270	6,000	189	224
Cuckmere Valley Parish	Res	3	-	1	2
Danehill Parish	Res	24	-	12	13
East Dean & Friston Parish	Res	25	-	11	11
East Hoathly with Halland Parish	Mixed	20	750	11	13
Fletching Parish	Mixed	14	750	9	10
Forest Row Parish	Mixed	64	1,800	36	39
Framfield Parish	Mixed	25	1,500	16	17
Frant Parish	Mixed	21	1,000	15	15
Hadlow Down Parish	Res	10	-	4	4
Hailsham Town	Mixed	278	12,000	284	326
Hartfield Parish	Res	28	-	15	17
Heathfield and Waldron Parish	Mixed	159	4,500	111	79
Hellingly Parish	Mixed	22	11,000	30	27
Herstmonceux Parish	Mixed	36	500	17	17
Hooe Parish	Res	6	-	3	3
Horam Parish	Mixed	36	3,000	34	31
Isfield Parish	Res	7	-	4	4
Laughton Parish	Res	7	-	3	3
Little Horsted Parish	Res	2	-	1	1
Long Man Parish	Mixed	6	500	4	4
Maresfield Parish	Mixed	46	1,000	26	29
Mayfield and Five Ashes Parish	Mixed	51	500	53	60
Ninfield Parish	Mixed	21	500	12	12
Pevensey Parish	Mixed	51	1,000	28	32
Polegate Town	Mixed	116	1,300	77	82
Rotherfield Parish	Mixed	42	500	23	25
Selmeston Parish	Res	2	-	1	1

Potential Development Site	Land Use	No. of Dwellings tested	Employment Floorspace (sqm) tested	Vehicle Trip Generation	
				AM	PM
Uckfield Town	Mixed	194	5,000	147	180
Wadhurst Parish	Mixed	65	2,000	40	39
Warbleton Parish	Res	18	-	9	11
Wartling Parish	Res	5	-	3	3
Westham Parish	Mixed	80	2,000	50	47
Willingdon and Jevington Parish	Res	112	-	48	49
Withyham Parish	Res	36	-	19	21

Appendix D Outline Action Plan

Outline Action Plan: 0 to 5 years 'Enhanced Business as Usual' – target 0%-5% car trip reduction (Additional schemes to known scheme pipeline)

Scheme Location / Package	Mode	Measures
A27 Corridor	All	1. Shared-use path adjacent to A27, from Polegate to Firle Bostal and provision of toucan crossings 2. Berwick Roundabout improvements and upgrade of crossing to Pegasus 3. Wilmington Junction provision of Pegasus crossing, reduction of speed limit in village
Polegate	All Active	4. High street public realm improvements in favour of pedestrians, cyclists
Hailsham/Polegate/Eastbourne Movement & Access Corridor	All	5. Enhanced pedestrian and cyclist facilities 6. Bus lane and junction improvements
Hailsham/Polegate/Eastbourne Sustainable Transport Corridor	Car/Bus	7. Phase 3 Ersham Road roundabout, Hailsham: improving congestion and safety in the area 8. Phase 4 A2021 Kings Drive/Rodmill Roundabout 9. Phase 5 – Rodmill roundabout to town centre
A22 Corridor Improvements	All	10. Golden Cross highway capacity improvements 11. Golden Cross to Horsebridge via Boships Roundabout bus priority measures 12. Improved public transport provision at Eagles Roundabout, Golden Jubilee Roundabout and Dittons Road junction
Pevensey	Walk	13. Pedestrian crossing facility on Pevensey High Street
LCWIP & town centre cycle routes – All corridors and urban/local centres	All Active	14. Prioritisation and roll out of LCWIP schemes to all corridor, town centre and new development 15. Improved cycle parking in urban areas and at new developments
A259 Seaside Corridor (Eastbourne)	Bus	16. Replacement of A259/A2290 Seaside Roundabout with signals with bus priority, journey time and reliability improvements for cross boundary services between Wealden and Eastbourne
Develop Branded Travel Behaviour Change Strategy and Campaign	All	17. Develop districtwide branded strategy and campaign with public transport operators, ESCC, local groups and digital incubators & service providers
Public Transport – Districtwide	Bus/Rail	18. Enhance partnerships with existing operators and ESCC 19. Develop districtwide public transport strategy and action plan in partnership with ESCC, TfSE rail and bus operators 20. Explore TfSE opportunities for BRT and more flexible forms of public transport, e.g. DDRT, to support existing network
New Developments – Districtwide	All	21. Develop design principles to plan for sustainable movement in and around new development 22. Reduce parking, where feasible and supported, in urban areas and depending on proximity to key rail corridors
Mobility Hubs – Key destinations	Bus/Rail/First Mile Last Mile	23. Propose mobility hubs and improve interchange for bus, DRT, rail and 'first and last mile' travel modes at Polegate, Uckfield and Crowborough railway station. 24. Explore potential to create mobility hubs for key destinations without rail at Hailsham, Heathfield and new large residential developments in district
Electric Vehicles (EV) – Districtwide	Low Emission Vehicles	25. Develop district-wide EV strategy and action plan in partnership with ESCC 26. Increased roll out of EV charging infrastructure on-street and at key destinations 27. Greening of public transport fleet to low-emission vehicles and deliver associated energy networks e.g. hydrogen
Future Mobility / MaaS / Shared-Mobility	All	28. Develop districtwide Future Mobility strategy and action plan in partnership with ESCC, TfSE and digital incubators & service providers

		29. Engage with shared-mobility providers e.g. car clubs, e-scooters and explore potential for micro-mobility hubs
		30. Engage with infrastructure providers to deliver ultra-fast broadband and 5G coverage
'Sustainable Movement Corridors' – Districtwide	Bus/Active/ First Mile Last Mile	31. Develop a districtwide movement and access strategy and action plan to create seamless public transport and active mode movement corridors

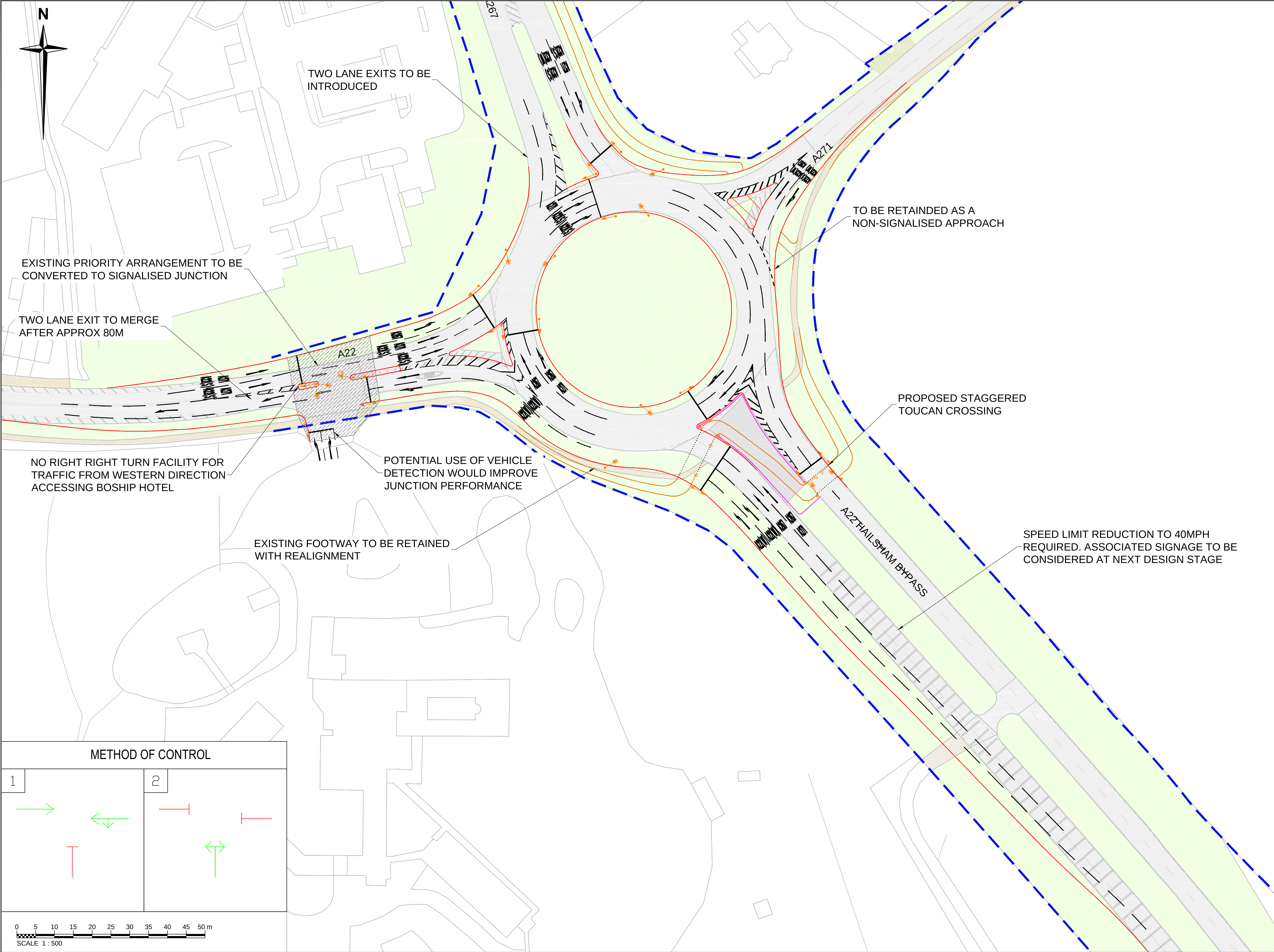
Outline Action Plan: 5 to 10 years 'More Ambitious' – target 5%-10% car trip reduction (Additional schemes to known scheme pipeline)

Scheme Location / Package	Mode	Measures
A27 Corridor	All	32. A27/A2270 signalised junction and link between A27/A22 Cophall Roundabout and A27/A2270 signalised junction 33. Potential off line A27 realignment scheme to the west of Polegate as part of RIS3
LCWIP & cycle routes – All corridors and urban centres	All Active	34. Continued roll out of LCWIP schemes and districtwide cycle schemes
A259 Brighton-Eastbourne-Pevensey (South Coast) MRN corridor	All	35. Introduce multi-modal transport measures to improve A259 corridor between Pevensey and Brighton for vehicles and buses
Uckfield	Rail	36. Network Rail have submitted case for electrification of the Uckfield railway branch to DfT and awaiting decision
TfSE Bus-based Rapid Transit – Districtwide and Cross-boundary	BRT	37. Phased roll out of core BRT and early infrastructure requirements – potential to combine with A259 & Eastbourne to Hailsham QBCs
TfSE Rural / Interurban Bus – Districtwide and Cross-boundary	Bus	38. Roll out district-wide public transport strategy and action plan 39. Enhance multiple rural / interurban routes to interface with BRT via traditional fixed services and DDRT
Branded Travel Behaviour Change Strategy and Campaign	All	40. Roll out districtwide branded strategy and campaign with established partners
Additional highway enhancements	All	41. Monitor local junction capacity, public transport and active mode improvements to support Local Plan mitigation if required
Reduced car ownership	All	42. Increased provision of car clubs, car sharing initiatives and priority parking for these measures in urban areas 43. Lower parking at developments in urban areas or close proximity to key rail corridors
Key Destination Mobility Hubs & Micro-mobility Hubs - Districtwide	Bus/Rail/ First Mile Last Mile	44. Create strategic and micro-mobility hubs at key destinations, including Polegate Stations and at wider and peripheral locations micro-mobility hubs located in urban and local centres (Uckfield, Crowborough)
Electric Vehicles (EV) – Districtwide	Low Emission Vehicles	45. Continued roll out of EV Strategy, energy networks and charging infrastructure 46. Low/Zero Emission public transport fleet
Future Mobility /MaaS / Shared-Mobility	All	47. Roll out MaaS consumer platform and digitally demand responsive shared-mobility options across network of mobility & micro-mobility hubs 48. Establish fully connected ultra-fast broadband and 5G coverage in urban areas and improve 4G connectivity in rural and remote rural areas
'Sustainable Movement Corridors' – Districtwide	Bus/Active/ First Mile Last Mile	49. Commence delivery of early infrastructure for 'sustainable movement corridors' including reduced traffic, segregated sustainable modes and on-street parking removal on core network 50. Explore opportunities for further 'sustainable movement corridors' on other parts of the network

Outline Action Plan: 10 to 15 years ‘Digital Sustainable Future’ – target >5% - >10% car trip reduction (Additional schemes to known scheme pipeline)

Scheme Location / Package	Mode	Measures Rationale
Increased rail services (Uckfield)	Rail	51. Make the case with Network Rail, TfSE and DfT for reinstating the Uckfield to Lewes Railway Line, improve rail connectivity in Wealden
TfSE Bus-based Rapid Transit – Districtwide and Cross-boundary	BRT	52. Full roll out of core BRT service and infrastructure requirements 53. Explore potential for bus related automated technology
TfSE Rural / Interurban Bus – Districtwide and Cross-boundary	Bus	54. Roll out enhance multiple rural / interurban routes to interface with BRT via traditional fixed services and DDRT
Electric Vehicles (EV) – Districtwide	Low Emission Vehicles	55. Comprehensive EV charging network and conversion of district car and fleet ownership in line with net-zero targets
Additional highway enhancements	All	56. Monitor local junction capacity, public transport reliability and active mode improvements to support Local Plan mitigation if required (see Section 7)
MaaS / Shared-Mobility	All	57. Roll out MaaS consumer platform and digitally demand responsive shared-mobility options across network of mobility & micro-mobility hubs 58. Update Future Mobility Strategy to explore and adapt to emerging technologies e.g. automation
‘Sustainable Movement Corridors’ – Districtwide	Bus/Active/ First Mile Last Mile	59. Complete core network of fully segregated ‘sustainable movement corridors’ 60. Explore potential for automation at a corridor level

Appendix E Committed / Planned Junction Layouts



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 6. DO NOT SCALE.

- KEY
- EXISTING ROAD
 - EXISTING FOOTWAY
 - EXISTING KERBED ISLAND
 - EXISTING TACTILE PAVING
 - EXISTING GRASS VERGE
 - EXISTING UNPAVED ACCESS
 - EXISTING ANTI-SKID SURFACING
 - HIGHWAY BOUNDARY
 - PROPOSED KERB
 - PROPOSED ROAD MARKINGS
 - PROPOSED FOOTWAY
 - PROPOSED GUARDRAIL
 - PRIMARY SIGNAL HEAD
 - SECONDARY SIGNAL HEAD
 - INTER-VISIBILITY ZONE

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METHOD OF CONTROL

1

2

0

5

10

15

20

25

30

35

40

45

50 m

SCALE 1 : 500

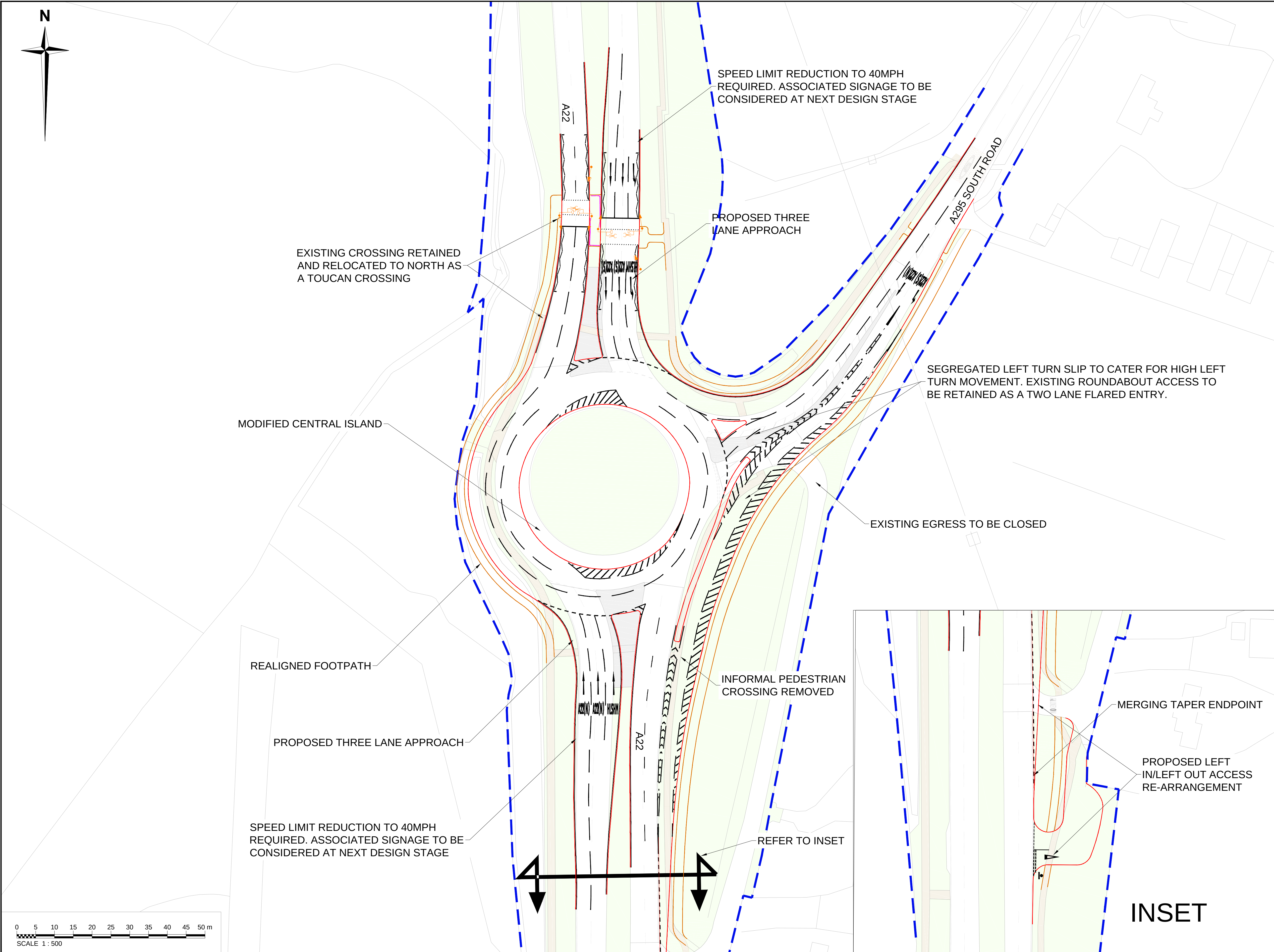
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P1	FEB 2019	MINOR REVISIONS	BS	AC	AC	
Rev	Status	Rev. Date	Purpose of revision	Drawn	Chck'd	Apprv'd



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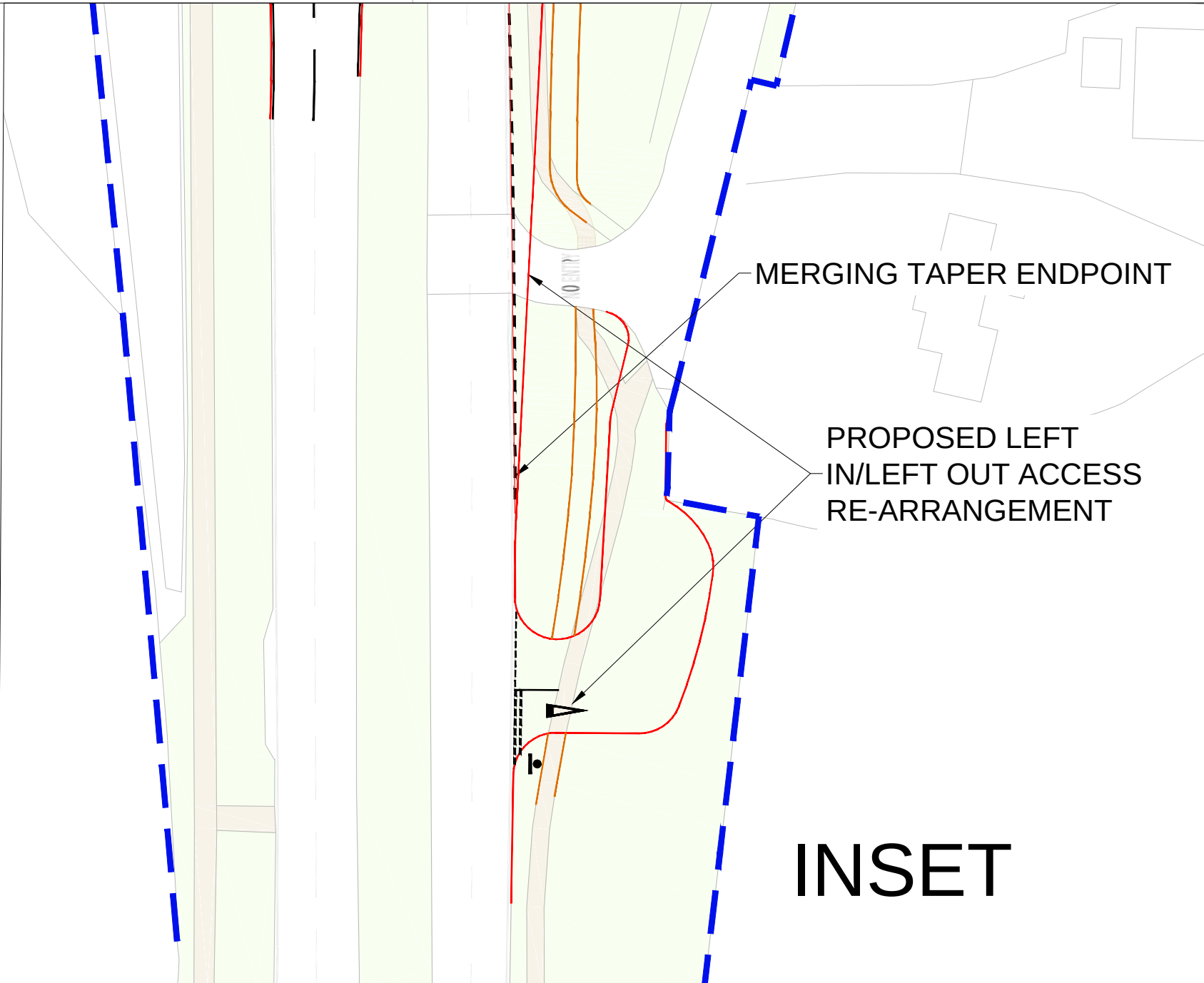
Project	SCH-113-WEALDEN A22 DESIGN
Drawing title	HIGHWAY IMPROVEMENT WORKS A22 BOSHIP ROUNDABOUT OPTION 1 - SIGNALISED ROUNDABOUT

Status	PROPOSED LAYOUT	Revision	P2
Scale	1:500@Size A1	Date	MAR 2019
Drawn By	B. STANDEN		
Checked By	A. CHATTERJEE		
Approved By			
Project No.	678223CH	I Originator	
Drawing number	678223-CH2-HMK-DR-CH-113001	Original Size	A1



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- KEY
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 - EXISTING FOOTWAY
 - EXISTING KERBED ISLAND
 - EXISTING TACTILE PAVING
 - EXISTING GRASS VERGE
 - EXISTING UNPAVED ACCESS
 - EXISTING ANTI-SKID SURFACING
 - EXISTING GUARD RAILS
 - HIGHWAY BOUNDARY
 - PROPOSED KERB
 - PROPOSED ROAD MARKINGS
 - PROPOSED FOOTWAY
 - PROPOSED GUARDRAIL
 - PRIMARY SIGNAL HEAD
 - SECONDARY SIGNAL HEAD



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P1	FEB 2019	MINOR REVISIONS	BS	AC	AC	
Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprv'd

KEY PLAN:

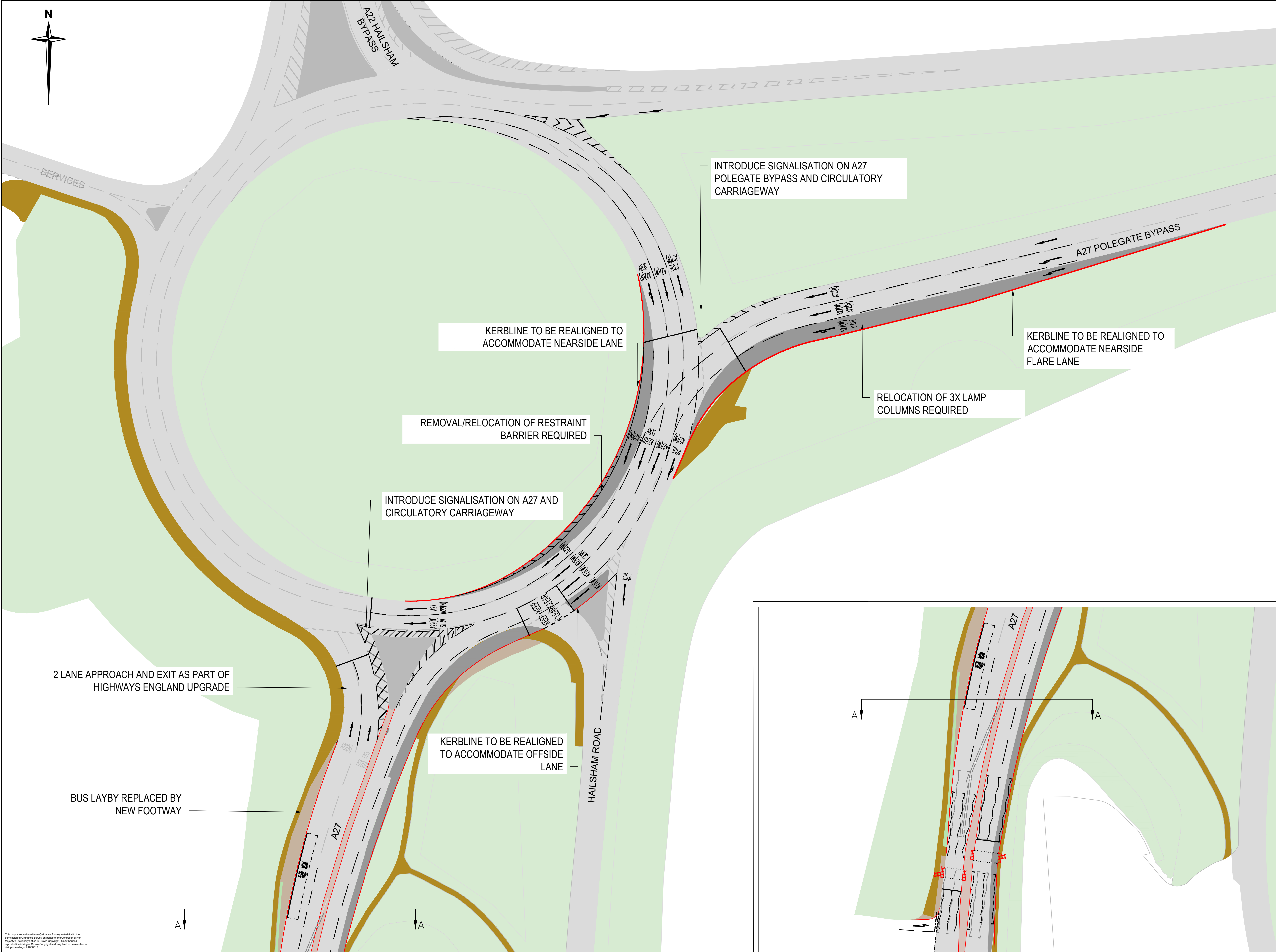
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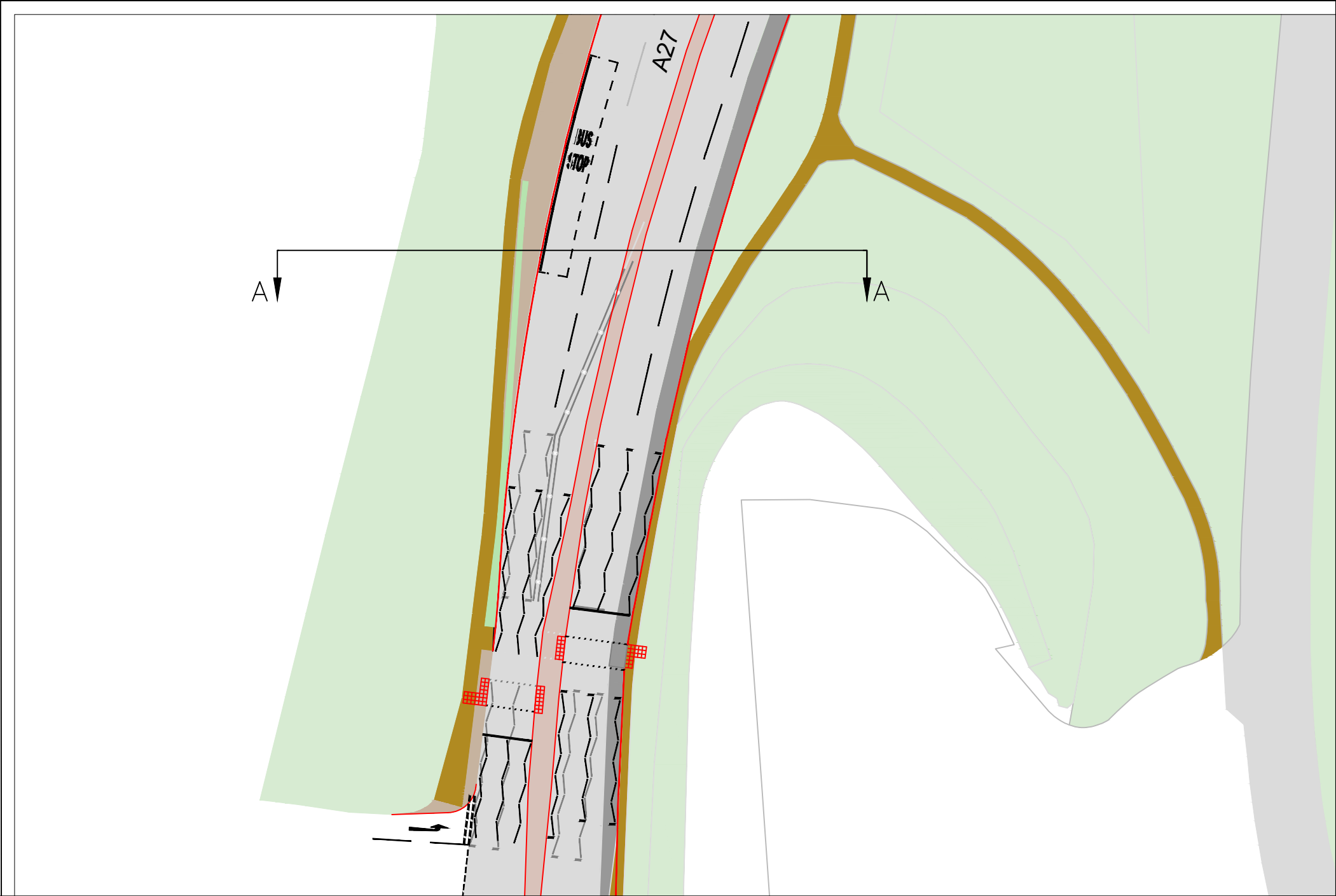
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Status	PROPOSED LAYOUT	Revision	P2
Scale	1:500@ Size A1	Date	MAR 2019
Drawn By	B. STANDEN		
Checked By	A. CHATTERJEE		
Approved By			
Project No.	678223CH	Originator	
Drawing number	Volume Design Alt. Type Role Number	Original Size	A1
	678223-CH2-HMK-DR-CH-113005		



- NOTES:
1. Do not scale.
 2. The existing details shown are based on Ordnance Survey information.
 3. Existing road markings are indicative only.

- KEY
- EXISTING CARRIAGEWAY
 - EXISTING FOOTWAY
 - EXISTING KERBED ISLAND
 - EXISTING GRASS VERGE
 - PROPOSED KERB ALIGNMENT
 - NEW CARRIAGEWAY
 - NEW FOOTWAY
 - NEW TACTILE PAVING



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Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Appr'd

KEY PLAN:

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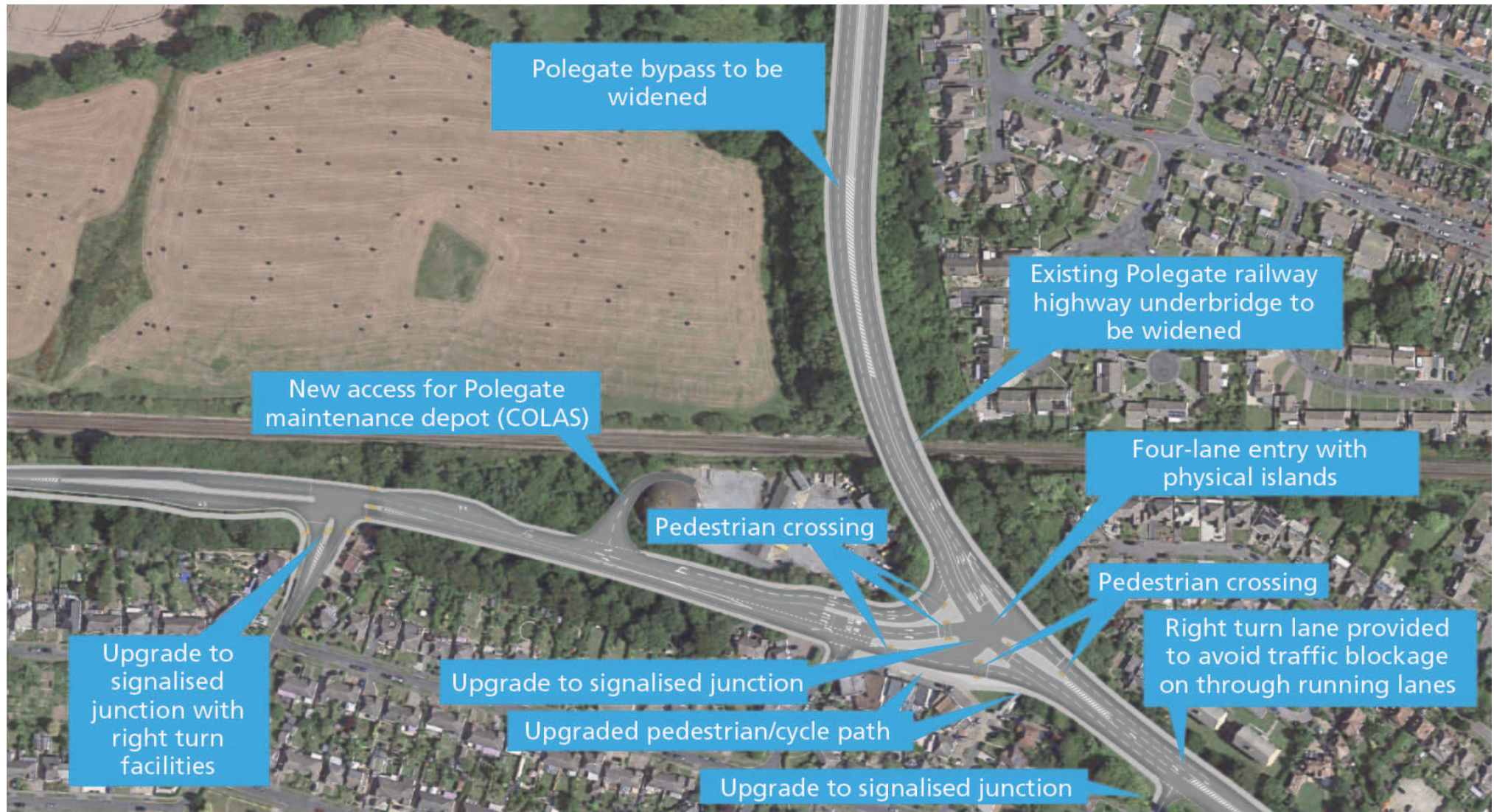
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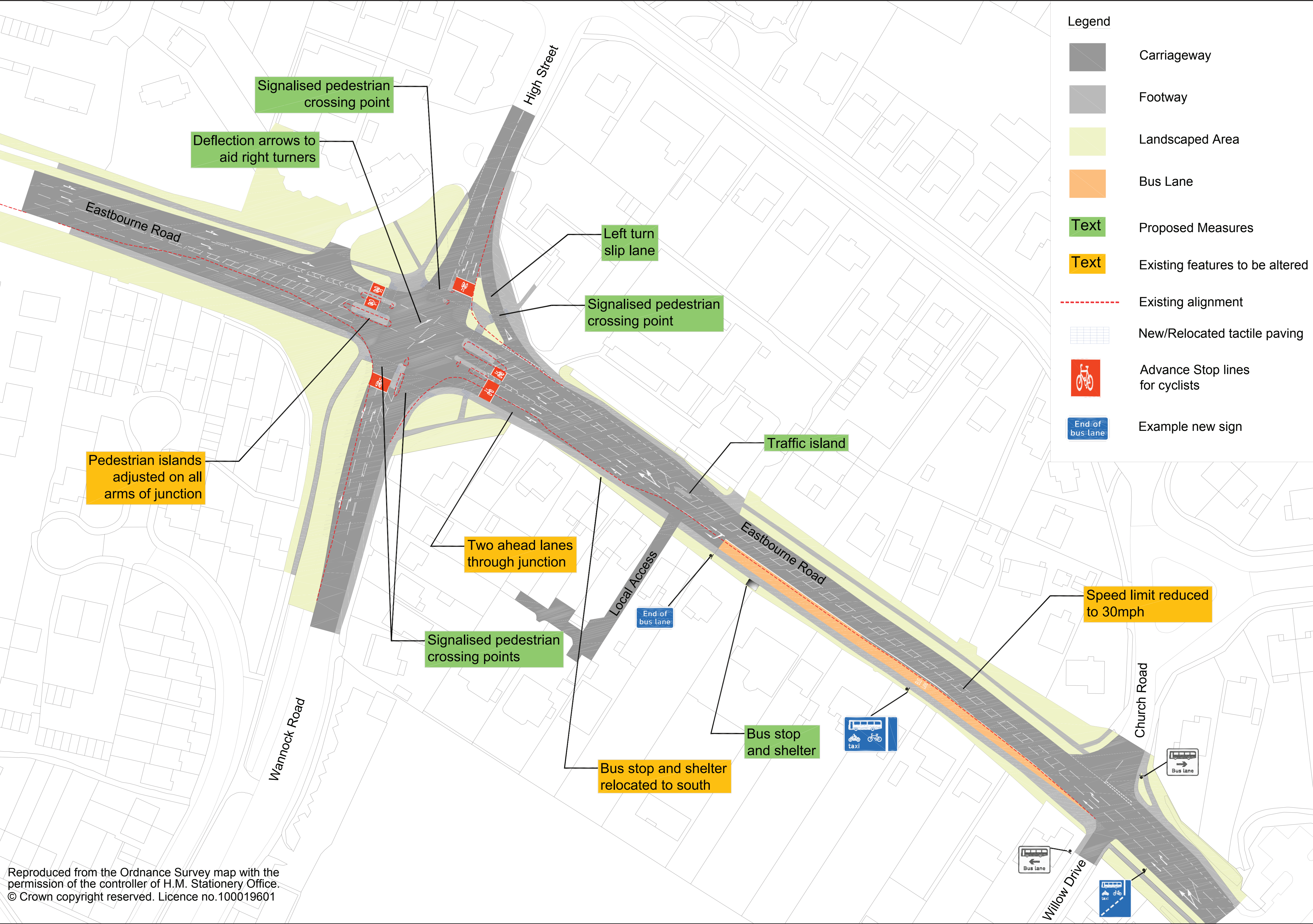
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Project	A22/A27 COPHALL ROUNDABOUT		
Drawing title	SIGNALISED OPTION 2E		

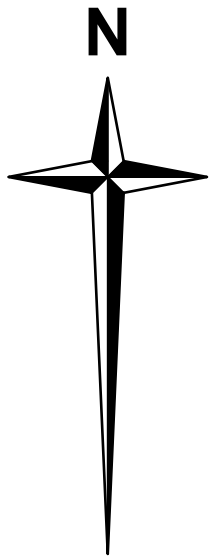
Status	PROPOSED LAYOUT		Revision
Scale	1:500@Size A1		Date JAN 2020
Drawn By	S.BANDHOO		
Checked By	P.LEONE-GANADO		
Approved By	A.BEN-EGHAN		
Project No.	678223CH	Originator	A1
Drawing number	678223-CH2-FEAS-DR-01		



Reference Number W7: Proposed layout extracted from A27 East of Lewes Improvement scheme's Preferred route announcement Consultation Material, dated autumn 2017.
<https://highwaysengland.citizenspace.com/he/a27-east-of-lewes/>



Reference Number W5



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KEY

- EXISTING ROAD
- EXISTING FOOTWAY
- EXISTING KERBED ISLAND
- EXISTING TACTILE PAVING
- EXISTING GRASS VERGE
- EXISTING UNPAVED ACCESS
- EXISTING ANTI-SKID SURFACING
- EXISTING GUARD RAILS
- HIGHWAY BOUNDARY
- PROPOSED KERB
- PROPOSED ROAD MARKINGS
- PROPOSED FOOTWAY

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Rev	Status	Rev. Date	Purpose of revision	Drawn	Check'd	Apprv'd
P3		FEB 2020	MINOR REVISIONS ON WESTERN ARM	BS	AC	AC
P2		MAR 2019	MINOR REVISIONS	BS	AC	AC
P1		FEB 2019	MINOR REVISIONS	BS	AC	AC



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Project	SCH-113-WEALDEN A22 DESIGN		
Drawing title	HIGHWAY IMPROVEMENT WORKS A22/A27 GOLDEN JUBLIEE ROUNDABOUT OPTION - IMPROVED ROUNDABOUT		

Status	PROPOSED LAYOUT	Revision	P3
Scale	1:500@Size A1	Date	FEB 20
Drawn By	B. STANDEN		
Checked By	A. CHATTERJEE		
Approved By			
Project No.	678223CH	Originator	A1
Drawing number	Volume 1 Design Alt. 1 Type 1 Role 1 Number 678223-CH2-HMK-DR-CH-113006		

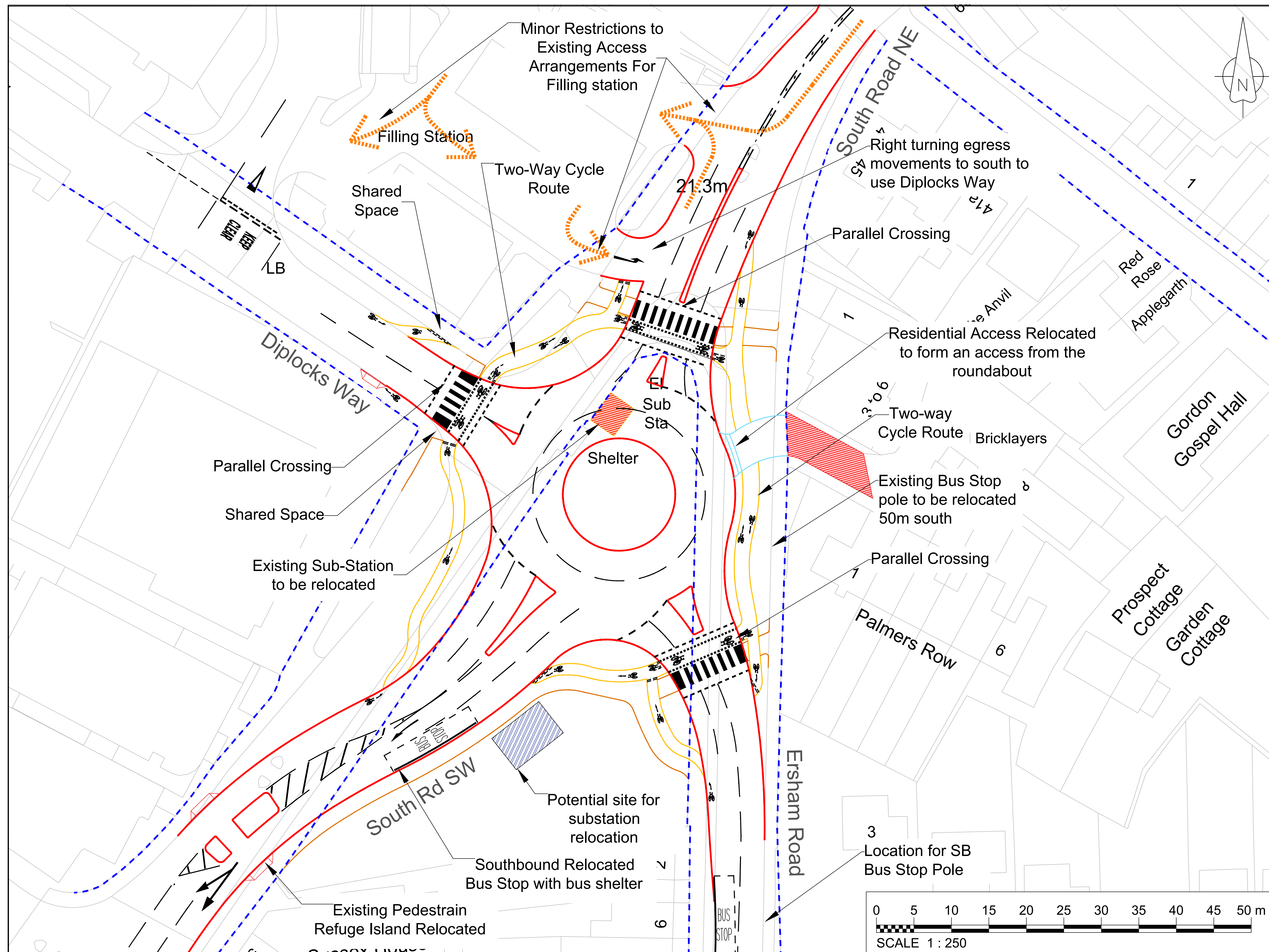


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	Status	Revision
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Scale	1:500@Site A1	Date OCTOBER 2022
Drawn By	B. STANDEN	
Checked By	A. CHATTERJEE	
Approved By		
Project No.	I Originator	Original Size
	678223CH	A1
Drawing number	Volume Design Alt. Type Role Number	
	678223-CH2-HMK-DR-CH-113007	



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KEY

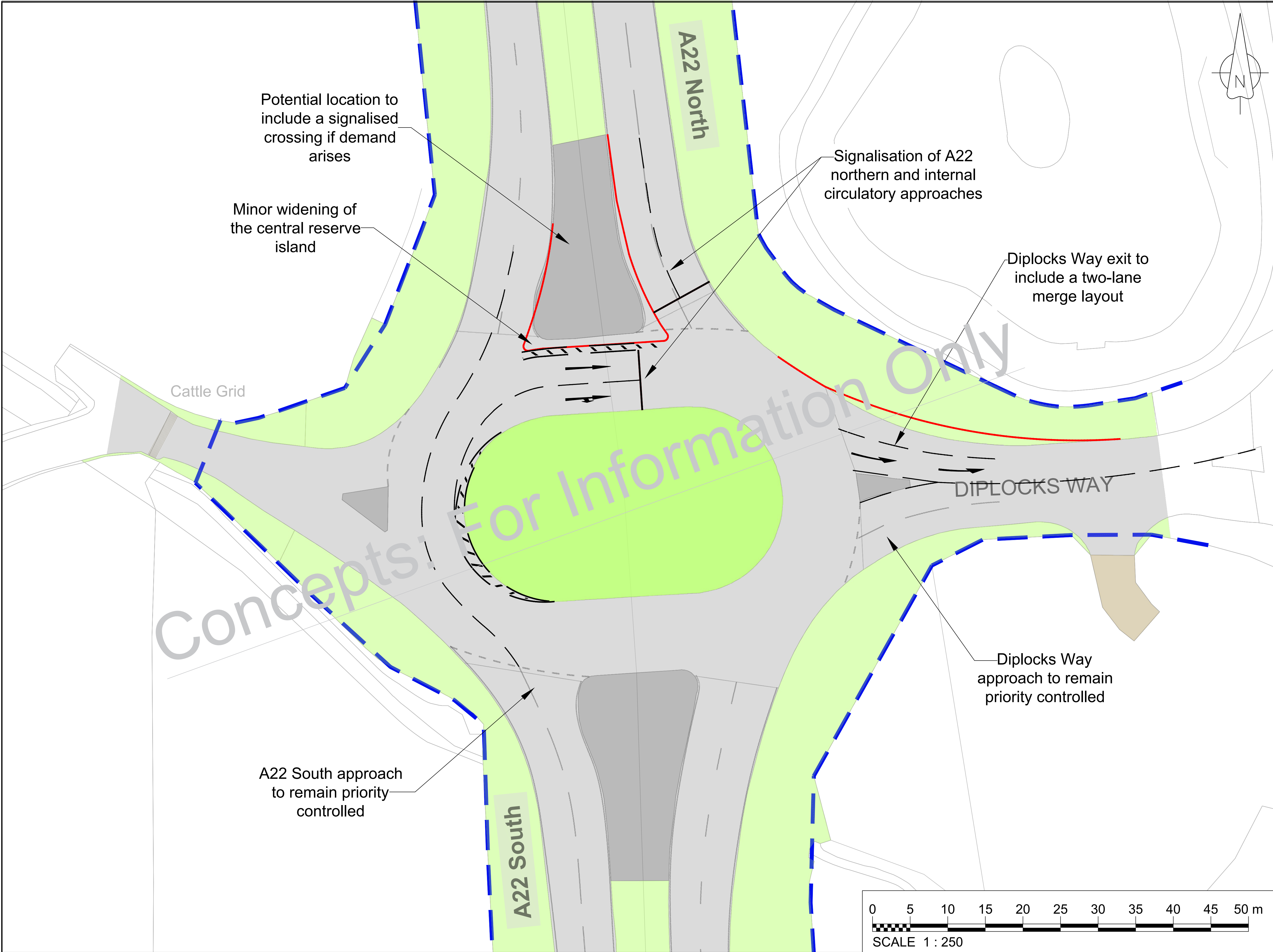
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-  PROPOSED KERB
-  PROPOSED ROAD MARKINGS
-  PROPOSED FOOTWAY
-  PROPOSED CYCLEWAY
-  RESIDENTIAL ACCESS POINT

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P1	DF	OCT 21	Incorporation of Stage1 RSA comments	SSK	BS	AC		
Rev	Status	Rev. Date	Purpose of revision	Drawn	Ckcd	Apprv		

	Status DRAFT FINAL	Revision P1
Scale	1:250	Date OCTOBER 2021
Drawn By	SSK/BS	
Checked By	BEN STANDEN	
Approved By	A.CHATTERJEE	
Project No.	I Originator B23738P1 ESH	Original Size A
Drawing number	Volume I Design Alt. I Type I Role I Number B23738PA-ESH-SCH 164-DR-0001	

Appendix F Additional Junction Mitigation Concepts



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- KEY**
- HIGHWAY BOUNDARY
 - PROPOSED KERB
 - PROPOSED ROAD MARKINGS

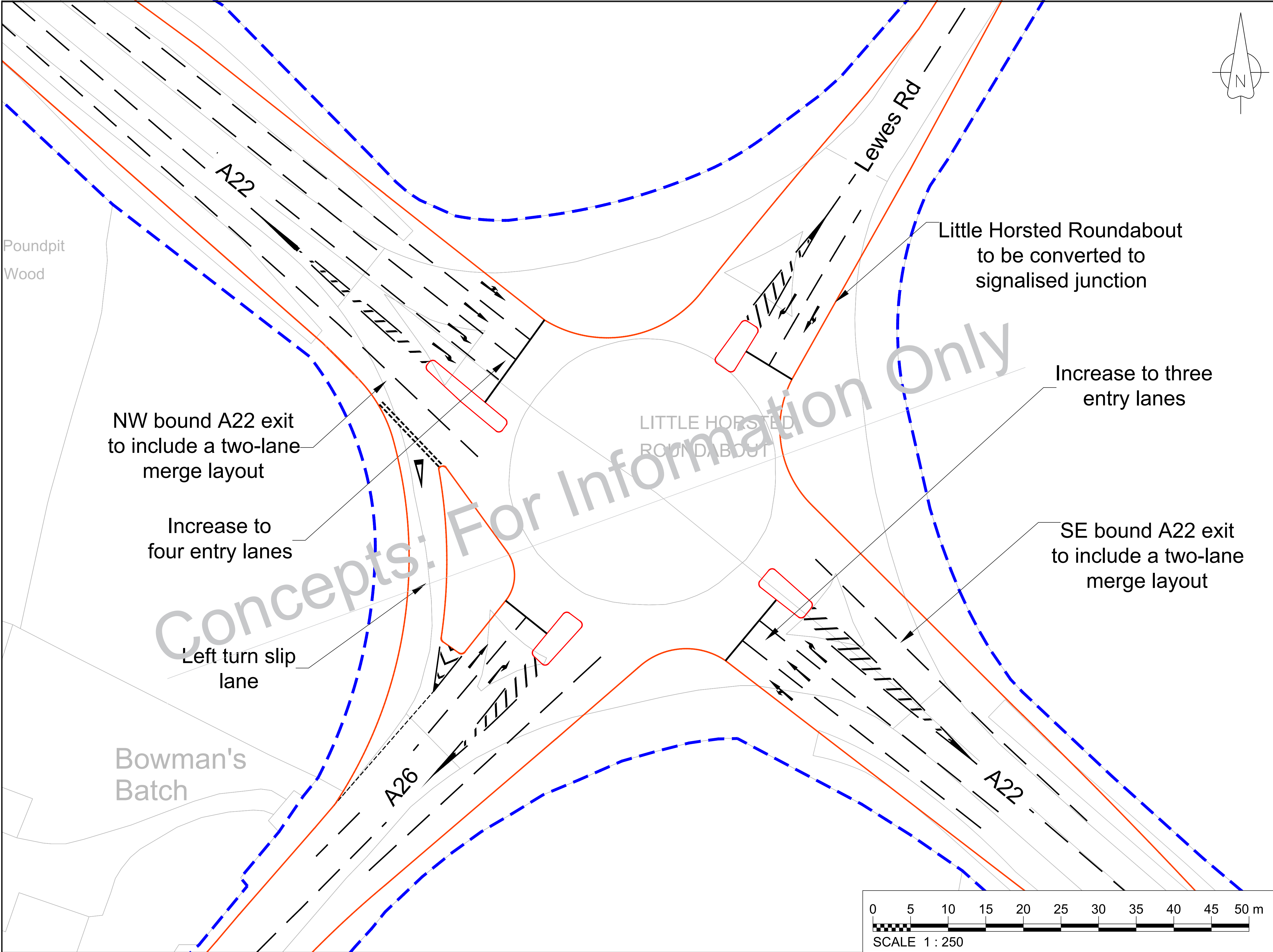
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Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Appr'd
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

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Project STEB - Wealden Local Plan Junction Improvements
Drawing title A22 Diplocks Way Roundabout
Proposed Junction Improvements
Conceptual Sketch
SHEET 1 OF 1

Status	DRAFT FINAL	Revision	P0
Scale	1:250	Date	12/10/2022
Drawn By	AC		
Checked By	BEN STANDEN		
Approved By	A.CHATTERJEE		
Project No.	B23738PJ	Originator	ESH
Drawing number	B23738PJ-ESH-PS082-WDC-0001	Original Size	A1



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 10. DO NOT SCALE.

- KEY
- HIGHWAY BOUNDARY
 - PROPOSED KERB
 - PROPOSED ROAD MARKINGS

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Project STEB - Wealden Local Plan Junction Improvements

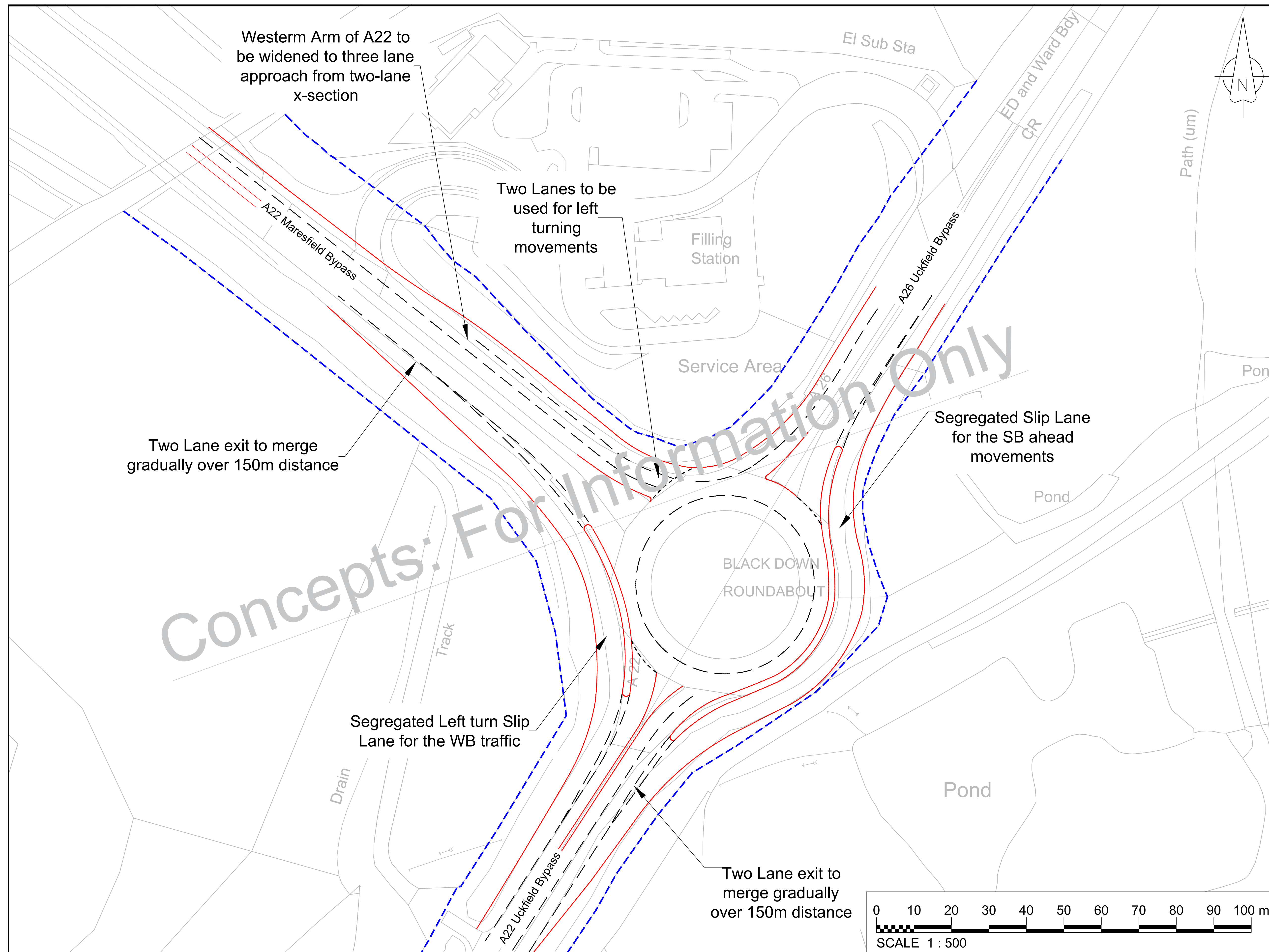
Drawing title A22 / A26 Little Horstead Roundabout

Proposed Junction Improvements

Conceptual Sketch

SHEET 1 OF 1

Status	DRAFT FINAL	Revision	P0
Scale	1:250	Date	24/10/2022
Drawn By	SSK		
Checked By	BEN STANDEN		
Approved By	A.CHATTERJEE		
Project No.	B23738PJ	Originator	ESH
		Original Size	A1
Drawing number	Volume Design Alt. Type Role Number		
	B23738PJ-ESH-PS082-WDC-0002		



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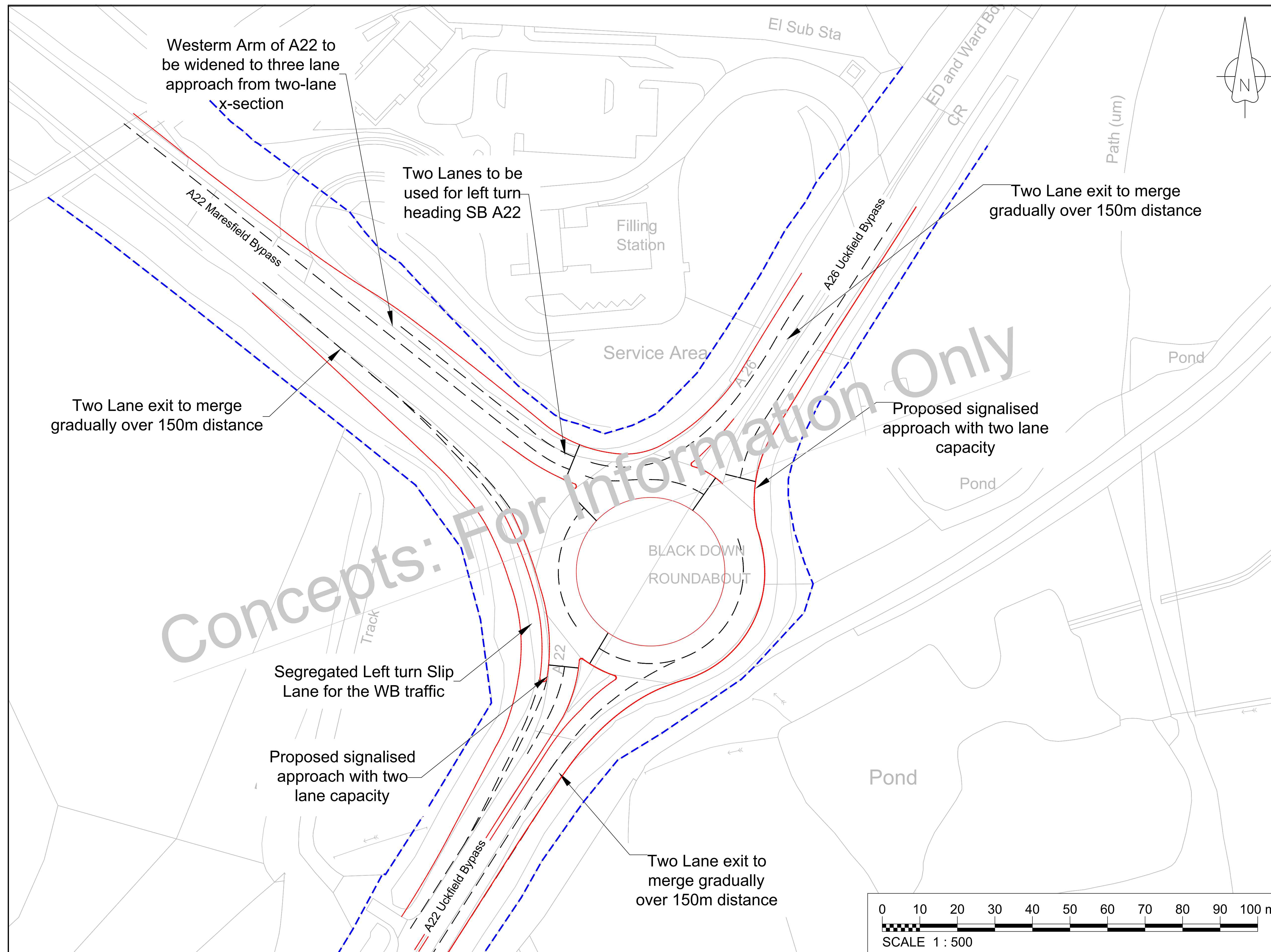
KEY

- HIGHWAY BOUNDARY
 PROPOSED KERB
 PROPOSED ROAD MARKINGS

DRAFT
FOR DISCUSSION ONLY

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Rev	Status	Rev. Date	Purpose of revision	Drawn	Chck'd	Apprv'd

	Status DRAFT FINAL	Revision P0
Scale	1:500	Date 12/10/2022
Drawn By	AC	
Checked By	BEN STANDEN	
Approved By	A.CHATTERJEE	
Project No.	B23738PJ	I Originator ESH Original Size A1
Drawing number	Volume I Design Alt. I Sheet I Role I Number B23738PJ-ESH-P0802-WDC-00003-OPT1	



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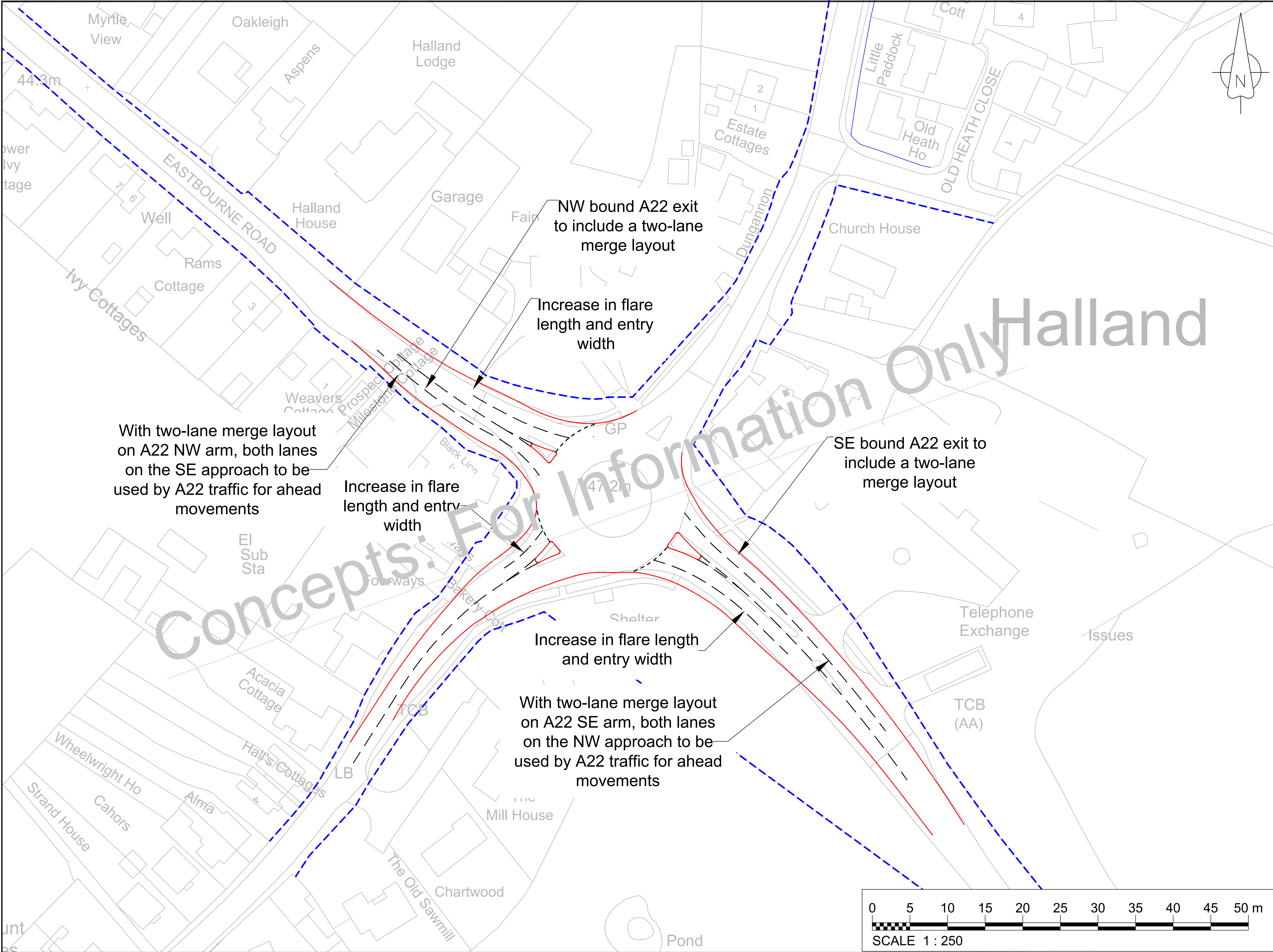
KEY

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 PROPOSED ROAD MARKINGS

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Rev.	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved		

	Status	Revision	
	DRAFT FINAL	Date	
Scale	1:500	10/12/2022	
Drawn By	AC		
Checked By	BEN STANDEN		
Approved By	A.CHATTERJEE		
Project No.	I Originator	Original Size	A
	B23738PJ	ESH	
Drawing number	Volume I Design Alt. Type Role Number		
	B23738PJ-ESH-PS082-WDC-0003-OPT2		



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Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Appr'd



A partnership between:
COSTAIN CH2M

EAST SUSSEX HIGHWAYS
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RINGMER, EAST SUSSEX, BN8 5NP
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Project STEB - Wealden Local Plan Junction Improvements

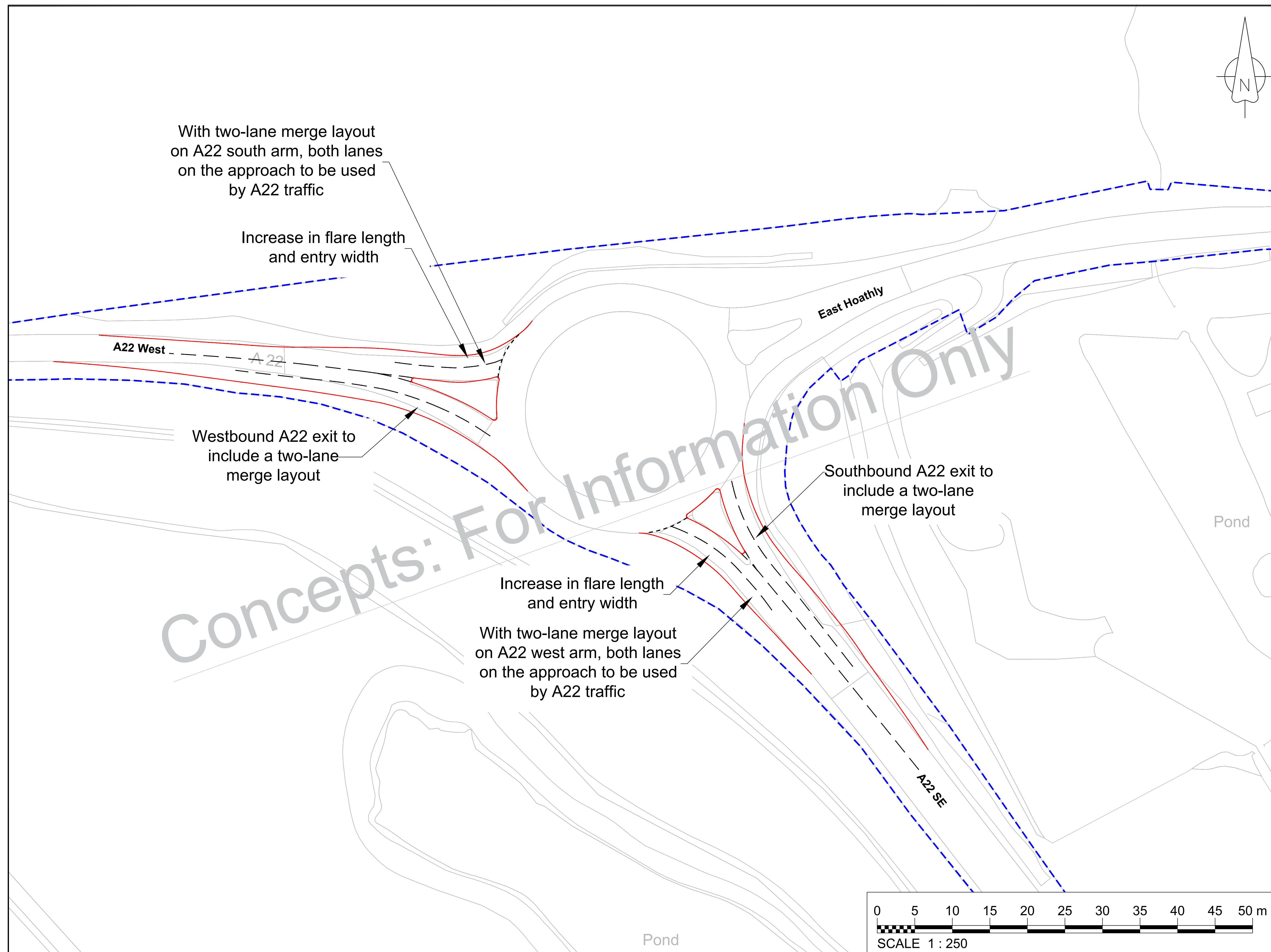
Drawing title A22 Halland Roundabout

Proposed Junction Improvements

Conceptual Sketch

SHEET 1 OF 1

Status	DRAFT FINAL	Revision	P0
Scale	1:250	Date	12/10/2022
Drawn By	AC		
Checked By	BEN STANDEN		
Approved By	A.CHATTERJEE		
Project No.	B23738PJ	Originator	ESH
		Original Size	A1
Drawing number	Volume Design Alt. Type Role Number		
	B23738PJ-ESH-PS082-WDC-0004		



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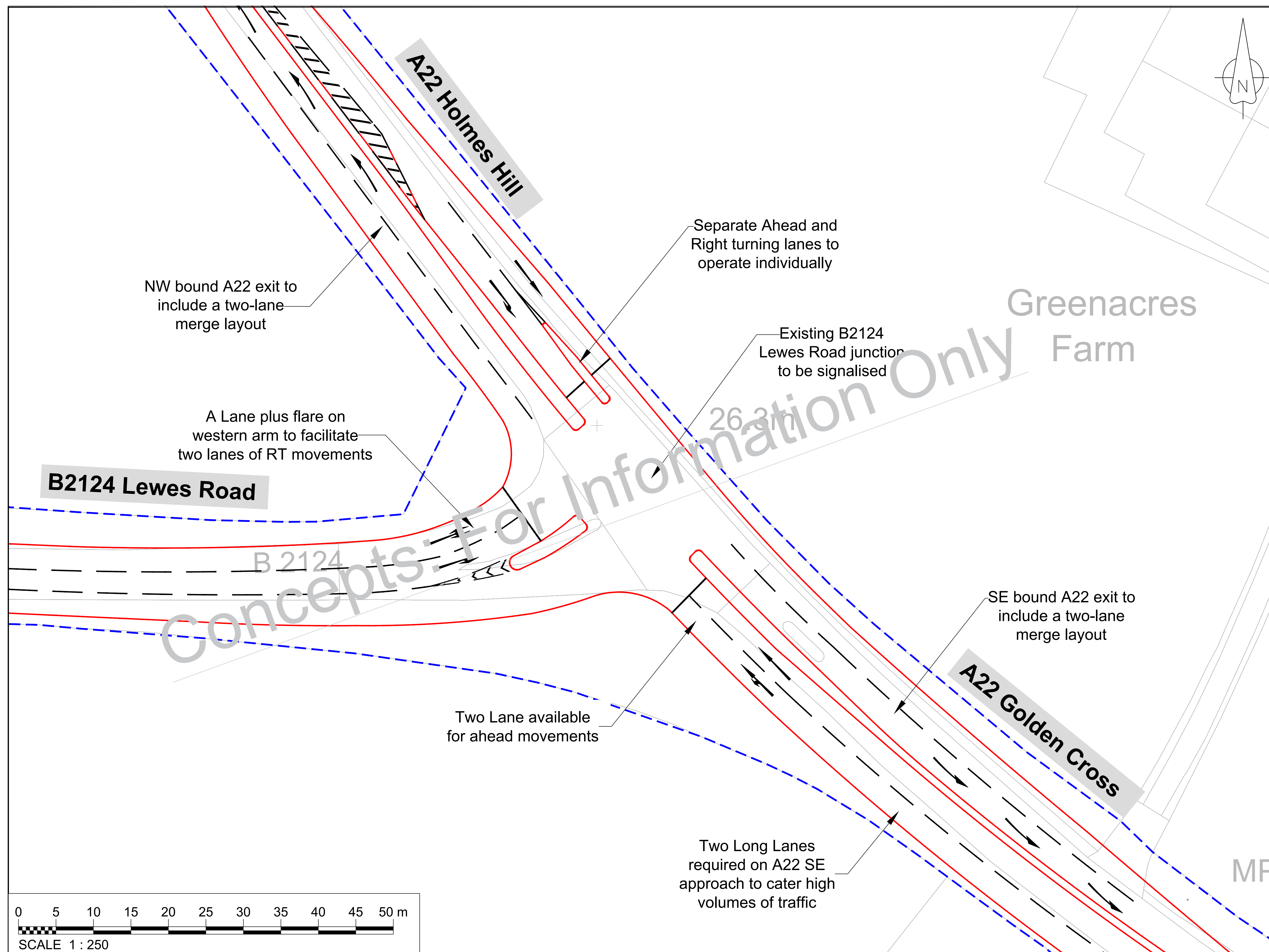
KEY

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Rev.	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved	

	Status	Revision	
	DRAFT FINAL	P0	
Scale	1:250	Date	12/10/2022
Drawn By	AC		
Checked By	BEN STANDEN		
Approved By	A.CHATTERJEE		
Project No.	I Originator	Original Size	A
	B23738PJ	ESH	
Draw number	Volume I Design Alt. I Type I Role I Number		
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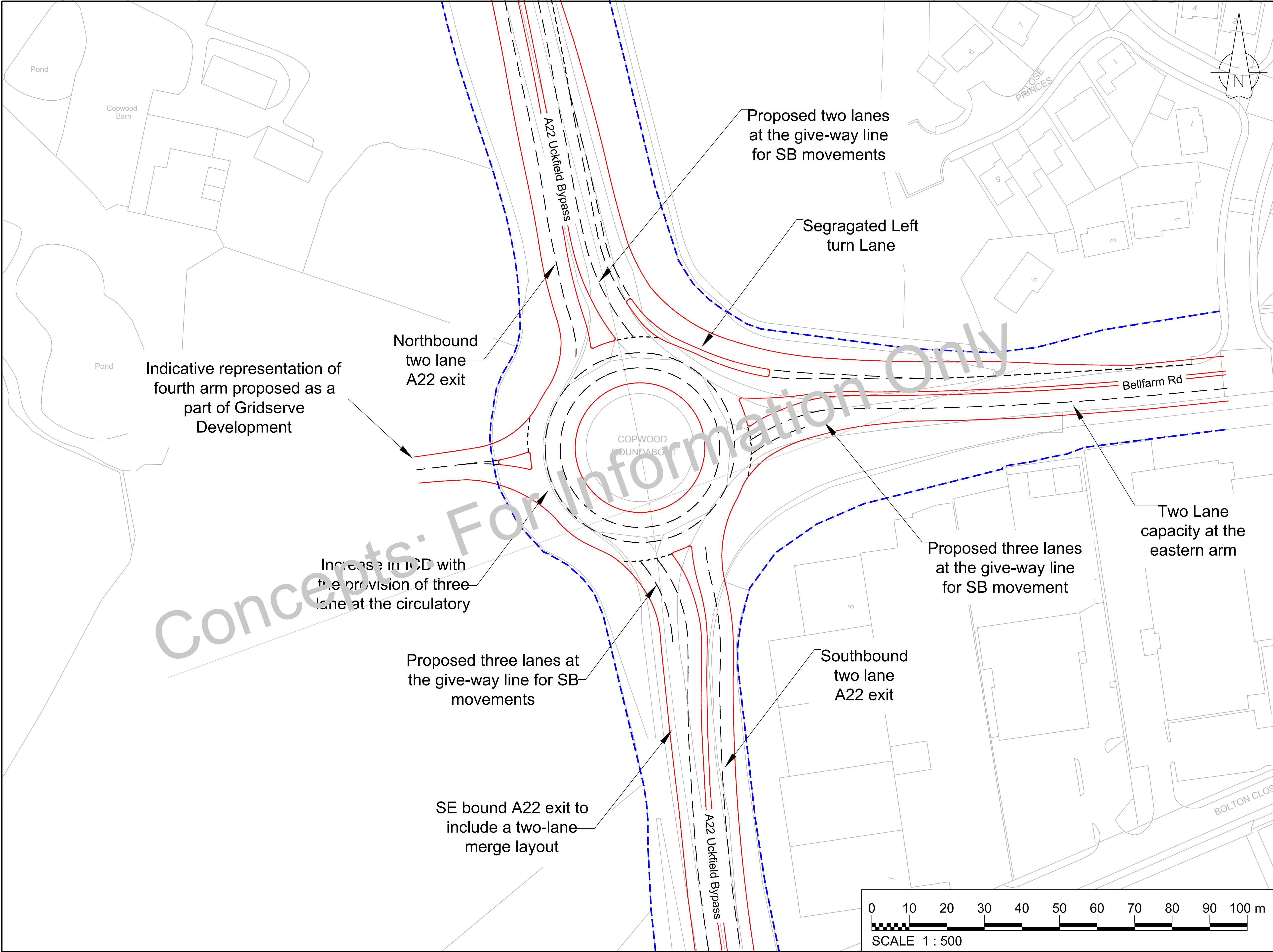
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EAST SUSSEX HIGHWAYS
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Tel. 0345 60 80 193 www.eastsussexhighways.com

Project STEB - Wealden Local Plan Junction Improvements
Drawing title Copwood Roundabout
Proposed Junction Improvements
Conceptual Sketch
SHEET 1 OF 1

Status	DRAFT FINAL	Revision	P0
Scale	1:500	Date	12/10/2022
Drawn By	AC	Checked By	BEN STANDEN
Approved By	A.CHATTERJEE	Project No.	B23738PJ
Originator	ESH	Original Size	A1
Drawing number	Volume Design Alt. Type Role Number	B23738PJ-ESH-PS082-WDC-0007	