Funded by
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Local Cycling & Walking
Infrastructure Plan (LCWIP)
for Dover District

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Kent County Council
kent.gov.uk

DOVER DISTRICT COUNCIL

About Sustrans

Sustrans is the charity making it easier for people to walk and cycle.

We are engineers and educators, experts and advocates. We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute.

Sustrans works in partnership, bringing people together to find the right solutions. We make the case for walking and cycling by using robust evidence and showing what can be done.

We are grounded in communities and believe that grassroots support combined with political leadership drives real change, fast.

Join us on our journey. www.sustrans.org.uk

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v1	Final issue	RF/CT/AS	AS	KW	12/12/24

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Contents

Foreword

To follow...

1. Introduction

Dover District Council (DDC) has secured funding from Active Travel England (ATE), in partnership with Kent County Council (KCC), to commission a Local Cycling and Walking Infrastructure Plan (LCWIP) for Dover District.

What is an LCWIP?

Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government's Cycling and Walking Investment Strategy, are a strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing local cycling and walking and cycling networks, ideally over a 10-year period, and form a vital part of the Government's strategy to increase the number of trips made on foot or by cycle.

The key outputs of LCWIPs are:

- A network plan for walking and cycling which identifies preferred cycling routes and walking zones for further development;
- A prioritised programme of infrastructure improvements for future investment; and
- A report which sets out the underlying analysis carried out and provides a narrative which supports the identified improvements and network.

By taking a strategic approach to improving conditions for cycling and walking, LCWIPs assist Local Authorities to:

- Identify cycling and walking infrastructure improvements for future investment in the short, medium and long term;
- Ensure that consideration is given to cycling and walking within both local planning and transport policies and strategies; and
- Make the case for future funding for walking and cycling infrastructure.[1]

LCWIPs are critical in delivering the interlinked priorities of:

- Accessibility & inclusivity;
- Health & wellbeing;
- Climate change & air quality;
- Mitigating development;
- Place shaping & place making; and
- Economic vitality.

1 https://assets.publishing.service.gov.uk/media/5f32aa668fa8f57ac88dc9dc/cycling-walking-infrastructure-technical-guidance-document.pdf

Project Scope

The scope of this LCWIP is the creation of a coherent plan that identifies cycling and walking infrastructure improvements for future investment across the entire district.

The LCWIP aims to improve safe active travel options for all residents and tourists between key trip origin and destination points including public transport networks and provides links to existing cycling routes such as the National Cycle Network and those proposed in the Kent Cycling and Walking Infrastructure Plan (KCWIP) .

The LCWIP builds upon Town Audits Reports commissioned in 2020 by DDC which recommended separate cycling and walking infrastructure improvements for Dover Town[2], Sandwich[3], Deal[4] and Aylesham[5] as well as a walking, cycling and wheeling route connecting the towns of Dover, Deal and Sandwich, summarised in "Three Towns Report"[6].

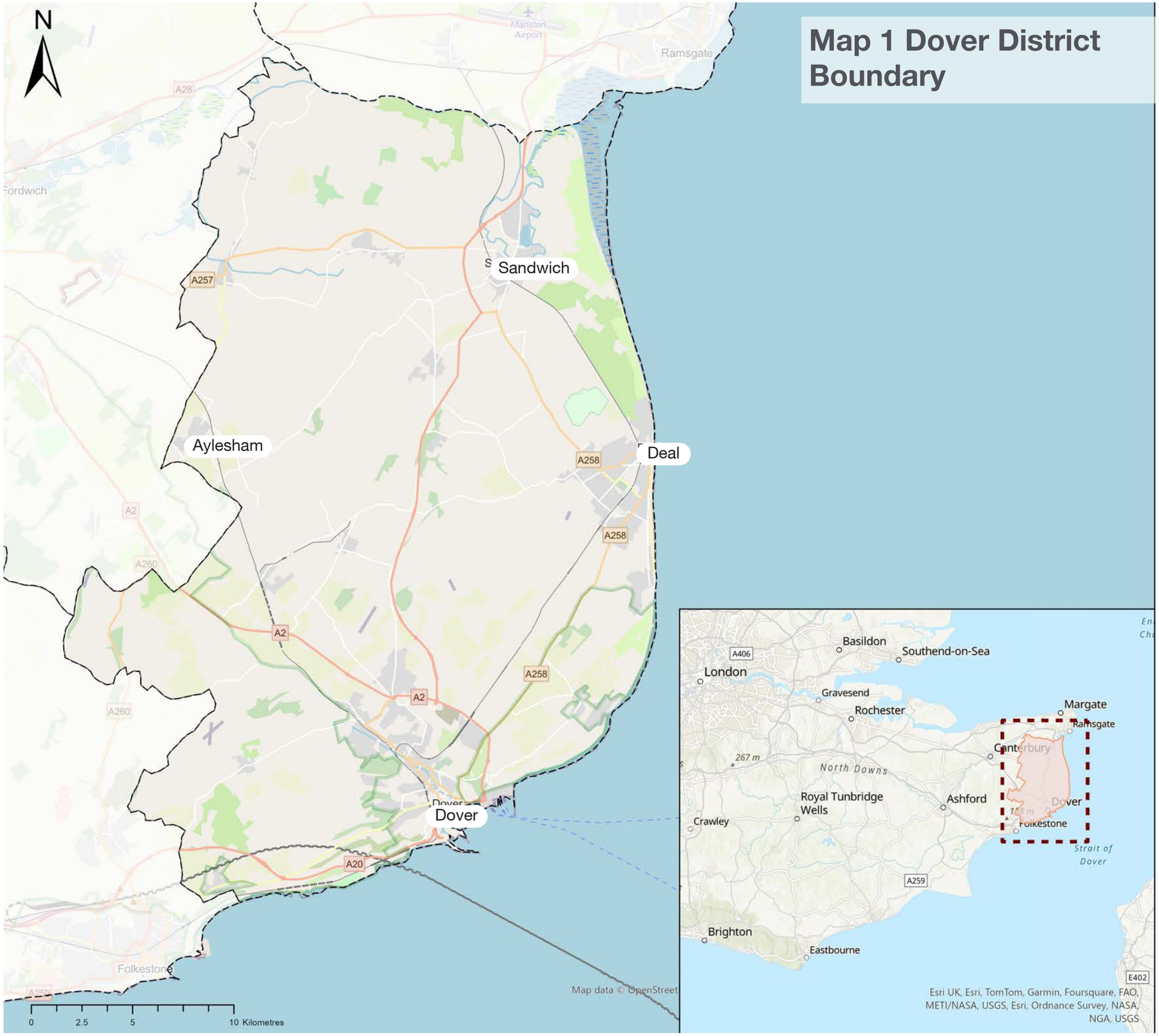
In consultation with DDC, it was decided not to revisit Sandwich, Deal, Dover Town and Aylesham for further audits but to include the previously proposed network interventions in engagement events with the public to gather feedback on the proposals.

The agreed project scope includes high-level auditing using desktop analysis tools and excludes on-the-ground investigations.

2 https://www.doverdistrictlocalplan.co.uk/uploads/pdfs/dover-town-walking-and-cycling-audit-2020.pdf
3 https://www.doverdistrictlocalplan.co.uk/uploads/pdfs/sandwich-town-walking-and-cycling-audit-2020.pdf
4 https://www.doverdistrictlocalplan.co.uk/uploads/Submission-Documents/TIEB08c-Deal-Town-Walking-and-Cycling-Audit.pdf
5 https://www.doverdistrictlocalplan.co.uk/uploads/Submission-Documents/TIEB08e-Aylesham-Walking-and-Cycling-Audit.pdf
6 https://www.doverdistrictlocalplan.co.uk/uploads/pdfs/walking-and-cycling-final-three-towns-report-2020.pdf

> " The scope of this LCWIP is the creation of a coherent plan that identifies cycling and walking infrastructure improvements for further investment across the entire district."

Map 1 Dover District Boundary



2. Methodology

The methodology for developing a walking and cycling network for Dover District is informed by the Department for Transport's LCWIP Technical Guidance for Local Authorities document. Text in italics below is from this document.

The LCWIP process includes six stages as set out below. Stage 1, Determining Scope, was provided by Dover District Council (DDC) in consultation with Kent County Council (KCC) whilst Sustrans has developed stages 2 - 5 which form the bulk of this report. Stage 6, Integration and Application will be led jointly by DDC and KCC.

1. Determining Scope

Establish the geographical extent of the LCWIP, and arrangements for governing and preparing the plan.

The geographical scope of this LCWIP includes all of Dover District.

The scope for the development of this LCWIP was agreed at the outset and is summarised in the introduction of this report.

The steering group for overseeing its development included officers from Dover District Council and Kent County Council.

2. Gathering Information

Identify existing patterns of walking and cycling and potential new journeys. Review existing conditions and identify barriers to cycling and walking. Review related transport and land use policies and programmes.

Desktop analysis was used to collate relevant data, including Kent and DDC transport and land use policies, the existing transport network, Port of Dover information, indices of multiple deprivation, pedestrian and cyclists collision data, topography, Propensity to Cycle Tool analysis, and trip generators and attractors. DDC provided input on key leisure destinations. Feedback gathered through public and stakeholder engagement was key to this stage of the LCWIP process.

Using the combined data gathered, a straight-line network plan for cycling and walking was developed which clusters key trip generators and attractors and summarised key desire lines across the district.

3. Network Planning for Cycling

Identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the type of improvements required.

The straight-line network plan developed in the previous stage of the LCWIP process was then used as a basis for developing a draft Network for Cycling which included several route options for consideration. This network plan was further refined before arriving at a consolidated Network for Cycling.

In discussion with DDC, several priority desire lines were identified and used to select five routes for auditing. High-level cycling and infrastructure improvements were identified for these routes.

4. Network Planning for Walking

Identify key trip generators, core walking zones and routes, audit existing provision and determine the type of improvements required.

Network Planning for Walking across Dover District is based on the same baseline analysis as the Network Planning for Cycling. Journeys between trip generators and attractors for county-wide destinations share the same desire lines.

Long distance walking routes therefore share most routes proposed in the Network for Cycling in the form of shared routes.

Within towns and settlements, the number of walking trip generators are typically located closer together and can be defined in walking zones for further investigation. Within the walking zones relevant walking routes where selected where most of the pedestrian activity was identified, to carry out audits.

In consultation with DDC, it was decided not to revisit Sandwich, Deal, Dover Town and Aylesham which received recommendations for walking in the Town Audits from 2020 but to audit walking zones at other key locations across the district instead.

Audits were carried out using desk-based tools and excluded detailed on-the-ground analysis. Based on these audits, a series of recommendations have been developed.

5. Prioritising Improvements

Prioritise improvements to develop a phased programme for future investment.

Each recommendation has been assessed in terms of deliverability and impact in order to differentiate the interventions from each other and help decision makers identify 'Quick Wins' as well as interventions that may require additional funding and/or more detailed feasibility studies.

6. Integration and Application

Integrate outputs into local planning and transport policies, strategies, and delivery plans.

The final stage of the LCWIP process considers how the LCWIP should be integrated into local policy, strategies and plans, as well as possible practical applications of the outputs from the LCWIP. This stage will be dealt with jointly by DDC and KCC.

Implementation

The inclusion of a walking or cycling route in the network plan is no guarantee that it will be implemented or that it is the most appropriate route to facilitate the identified desirelines. While efforts have been made to ensure that our proposals are practical, it should be recognised that there are competing demands for highway space, including cars, parking, buses, and taxis that need to be balanced.

Some sections of proposed routes may be on private land and discussions with landowners will be required. Proposed road space reallocation for walking and cycling will need to carefully consider implications across all modes, although the ultimate aim must be to enable transport choice through improved access to walking, cycling and public transport, whilst relieving congestion for those that do need to drive.

The recommendations in this report are not equivalent to the level of detail provided in a feasibility study, but a high level assessment. All recommendations will be subject to further feasibility work and detailed design. In some cases, this may mean that a route is moved to an alternative parallel alignment.

If schemes are to be progressed, they will need to be prioritised for inclusion in the scheme development programme with schemes subject to the appropriate level of business case development.

The LCWIP will also be used to inform developers of the level of ambition for the walking and cycling network and prompt their involvement.

Impressions from Dover District

3. Gathering Information and Engagement

Description of Dover District

Dover District is located on the east coast of Kent, covering an area of 320 square kilometres, with around 32 kilometres of coastline. The district is bounded by Thanet to the north, Canterbury to the north-west and Folkstone and Hythe to the south-west.

The district is home to a small number of urban areas and a large rural hinterland containing a wide range of small settlements. The two main urban areas are the towns of Dover and Deal. There are two further rural service centres, the medieval town of Sandwich and Aylesham, a garden community designed during the 1920s.

Dover District has a population of 118,500 (ONS 2020). It ranks in England's most deprived half of local authorities and continues to have deprivation 'hot spots' that are among some of the most deprived areas in the country.

The district enjoys spectacular landscapes and coastlines which encompass coastal chalk cliffs, salt marshes and mud flats, rolling chalk downs, ancient woodlands and expansive arable farmland. Dover's wealth of natural assets are valued and protected at local, regional, national and international level, and provide significant environmental, social and economic benefits for residents and visitors alike. The Kent Downs National Landscape covers much of the south-western area of Dover District as well as the coastal area surrounding St Margarets Bay. There are parts of the district which are at risk of tidal or fluvial flooding.

Transport

Dover District is accessible by rail, road and sea. It is home to the Port of Dover, which is an important gateway for the movement of trade and passengers and critical to the UK's international trade in goods.

The A20 and A2 both start in Dover and are part of the Strategic Road Network managed by National Highways connecting Dover District to Kent and the rest of the UK. Road links to the surrounding districts are provided by the A256 to Thanet and the A257 to Canterbury and the A258 connects Dover, Deal and Sandwich.

The district benefits from HS1 high-speed rail connections that connect London St Pancras to Ashford International and provide high-speed service routes that call at Dover, Martin Mill, Walmer, Deal and Sandwich. In addition, Southeastern service the route between Dover Priory to Faversham, stopping at Kersney, Shepherds Well, Snowdown and Aylesham along the way.

Planned public transport improvements include a purpose-built electric rapid bus transit system connecting Whitfield with Dover town and Dover Priory railway station.

Walking and Cycling across the District

The district benefits from National Cycle Network (NCN) routes 1, 2, 15 and 16 which provide strategic shared-use routes through the district, connecting towns and villages along the way, as well as providing key links with Canterbury, Folkstone and Ramsgate.

There are two National (walking) Trails, the North Downs Way and the England Cost path.

In addition to the National routes and trails, there are some local cycling and walking routes which are promoted by the district, the towns, KCC and interest groups.

" Dover benefits from National Cycle Network (NCN) routes 1, 2, 15, 16 and 17 which provide strategic shared-use routes through the district, connecting towns and villages along the way, as well as providing key links with Canterbury, Folkstone and Ramsgate. "

Transport and Land Use Policies

This LCWIP is supported by policies developed by Kent County Council (KCC) and Dover District Council (DDC). Key strategies from relevant documents are summarised on the following pages.

Kent and Medway Energy and Low Emissions Strategy

The strategy sets out how KCC, in partnership with Medway Council and the Kent district councils, will respond to the UK climate emergency and drive clean, resilient economic recovery across the county. The strategy focuses on transport, biodiversity, housing and supporting local businesses and includes amongst others the ambition to provide an increased number of higher quality footpaths and cycle routes across the county and investment in public transport.

Kent Local Transport Plan 4: Delivering Growth without Gridlock (2016 – 2031)

This report details KCC's key transport priorities and longer-term transport objectives.

It highlights KCC's ambition 'to deliver safe and effective transport, ensuring that all Kent's communities and businesses benefit, the environment is enhanced and economic growth is supported'.

The ambition will be realised through five overarching policies that are targeted at delivering specific outcomes:

Outcome 1: Economic growth and minimised congestion

Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.

Outcome 2: Affordable and accessible door-to-door journeys

Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other services.

Outcome 3: Safer travel

Provide a safer road, footway and cycleway network to reduce the likelihood of casualties and encourage other transport providers to improve safety on their networks.

Outcome 4: Enhanced environment

Deliver schemes to reduce the environmental footprint of transport and enhance the historic and natural environment.

Outcome 5: Better health and wellbeing

Provide and promote active travel choices for all members of the community to encourage good health and wellbeing and implement measures to improve local air quality.

Kent County Council's transport priorities are described as being either strategic, county-wide or local.

The following are a selection of county-wide priorities with relevance to walking and cycling:

- Road safety Improvements: Promote road safety and act to reduce the likelihood of road casualties.
- Highway Maintenance and Asset Management: Maintain the structural integrity of the public highway.
- Active Travel: Make active travel an attractive and realistic choice for short journeys across Kent.
- Public Rights of Way: Priorities for walking, cycling, equestrians, including access by disabled users and minority groups.

KCC's local transport priorities for Dover District with relevance to walking and cycling and interconnection with public transport include:

- Dover waterfront link to town centre, including a bridge over the A2.
- Improvement of Sandwich rail station.
- A2/A258 Duke of York roundabout improvements.

KCC is currently consulting on a new LTP (5) called 'Striking the Balance' which will replace LTP4 once completed.

Dover District Economic Growth Strategy (2021)

The Economic Growth strategy describes DDC's vision to grow the local economy. As stated in the report, by 2040, 'Dover District will have a diverse, resilient and highly productive economy that maximises our location's strategic geographical advantage, connections, continental climate and globally-renowned name.'

The report highlights five themes for realising this vision, including a thriving rural economy where DDC will support diversification, sustainable development and growth of the rural economy. Target activities include collaborating with the local tourism industry to develop outdoor activities and experiences relating to nature, heritage, and walking and cycling. Furthermore, the report notes that Dover District is keen to build relationships and welcomes investments in many areas such as sustainable industry, open spaces, and walking and cycling improvements.

Dover District Local Plan to 2040 (adopted October 2024)

The Local Plan (adopted October 2024)[1] describes the objectives and strategy for growth in Dover District up to 2040. The Local Plan, has replaced the Core Strategy 2010, the Land Allocations Plan 2015 and saved policies from the Local Plan 2002.

Key issues that the Local Plan will address include:

Supporting the delivery of attractive, high-quality, design-led developments and the creation of healthy, inclusive and safe communities, that are well served by good quality services and facilities to support people's lives.

Promoting sustainable transport initiatives to encourage modal shift to more sustainable forms of transport like walking and cycling.

Managing flood risk and coastal change.

One of the strategic objectives listed in the Local Plan is to "improve connectivity and movement through significantly enhancing the provision of walking and cycling routes and other sustainable modes of transport, as well as delivering improvements to the local and strategic road network."

Sustainable Transport and Travel Policy TI1 states a requirement for new developments to 'contribute to sustainable transport proposals including off-site improvements to cycling and walking'... , and to proposals within the Dover Infrastructure Delivery Plan.'

1 https://www.doverdistrictlocalplan.co.uk/

Dover District Infrastructure Delivery Plan Infrastructure Delivery Schedule 2023

The documents list all key infrastructure planned within the district up to 2040, linked to the Local Plan policies and other infrastructure plans. Projects and planned highway works with relevance to walking and cycling are listed below:

- The Whitfield Roundabout (A2/A256) and Duke of York Roundabout (A2/A258) on the A2 corridor require upgrading to enable growth to come forward in the district set out in the Local Plan. The Council, working with National Highways and Kent County Council has identified improvement schemes for these junctions with delivery expected between 2029 and 2031. The Whitfield roundabout proposals include changes to pedestrian crossing points and cycle lane relocation on Whitfield Hill. The Duke of York roundabout design does not include changes in relation to cycling and walking.
- Dover Fastrack will be a new rapid bus transit system connecting Whitfield with Dover town centre and Dover Priory railway station. This includes a new bus, cycle and pedestrian-only bridge across the A2 at Whitfield, and a new link road with ANPR controlled junction from the B&Q roundabout in Whitfield to Dover Road. Due to open in Autumn 2024.

Other examples of walking and cycling projects identified in the Local Plan and/or listed in the Infrastructure Delivery Schedule are listed below:

Dover:

- Local Plan Policies NE6 and SP8 - Extension and improvement to River Dour Riverside Walk and Cycleway is identified as a need in Dover Town centre.
- SAP10 (Buckland Paper Mill) Policy - Provide a riverside walk and a cycleway that are accessible to the general public through site, in addition to PROW improvements and lighting agreed as part of previous consent.
- SAP2 (White Cliffs Business Park) Policy – Byway ER55A is enhanced, and pedestrian and cycle connections provided to connect PROW through the site with the business park, leisure centre and surrounding area.
- HRS1 (Dover Western Heights) - Improve connectivity between the fortifications and the town, including links with the town centre, Dover Priory railway station and the Dover Waterfront. This includes utilising the Grand Shaft as an important connector between the waterfront and Western Heights.
- SAP3 - The proposals for Dover Waterfront must strengthen pedestrian and cycle access to the Town Centre and the seafront.
- A number of the sites in Dover town also include PROW improvements, new connections to pedestrian/cycleways and protection of the integrity and setting of the England Coast Path South East National Trail.
- Sites in Coombe Valley (SAP8, SAP9 and SAP13) must give consideration to improved pedestrian and cycle connectivity in this area.

Deal:

- Cross Road and Station Road area – Improvements to footway provision are already agreed through existing planning consents, and the development sites SAP14 and SAP16 will both be required to provide new footways and connections to planned footways to enable provision of a direct off-carriageway pedestrian route to Walmer Station and other connections.
- SAP15 (Land at Ray's Bottom) policy will be required to provide a new footway provision on Liverpool Road and Gram's Road and new crossing points.

Sandwich:

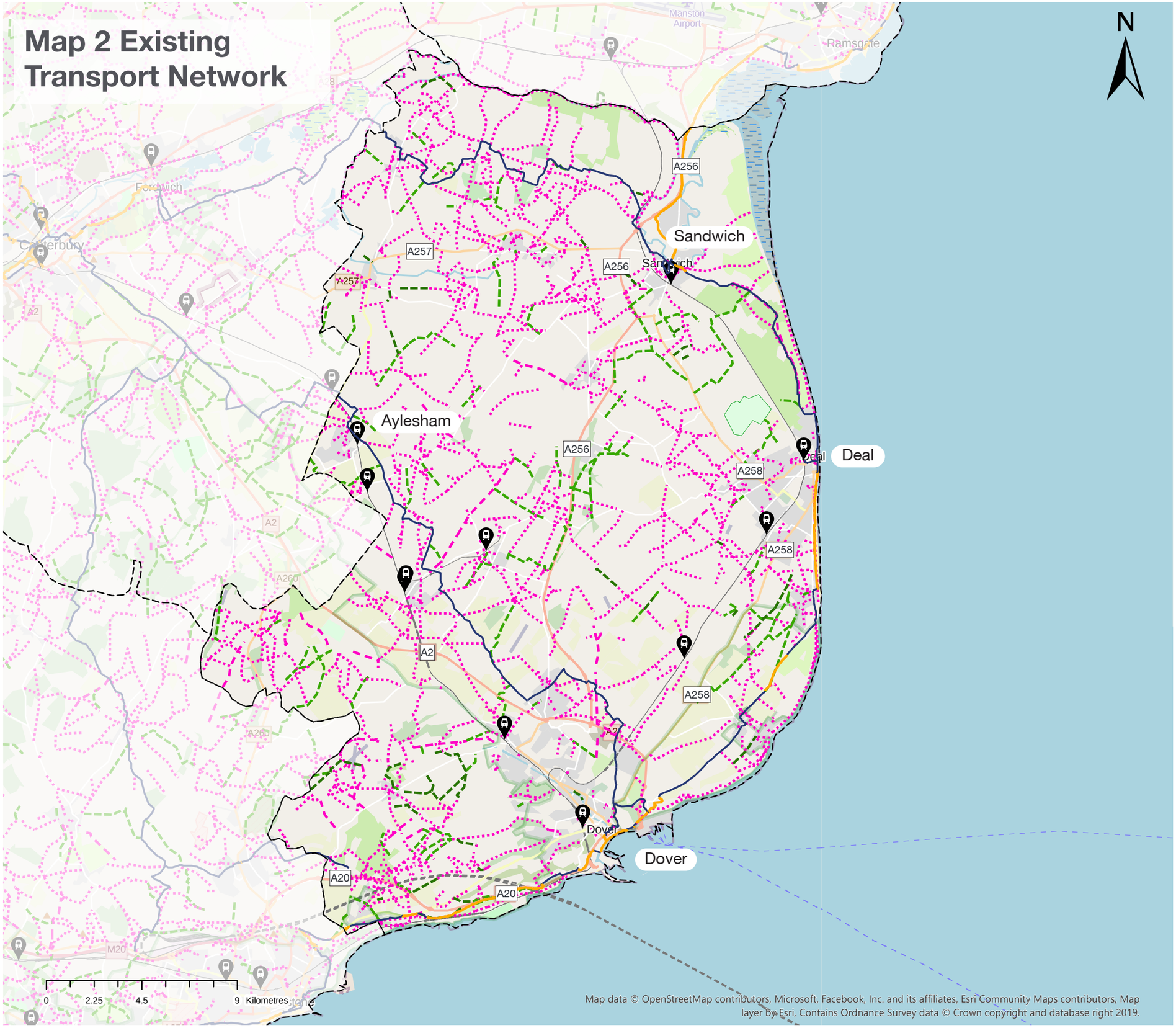
- SAP19 (Land at Poplar Meadow) requires Pedestrian and cycle accessibility upgrades from the northern boundary of the site to Sandwich rail station.
- SAP21 (adjacent to Technology School) requires footpath and cycleway connections to both Deal Road and Dover Road.

Aylesham:

- SAP24 (south of Aylesham) requires new and improved pedestrian and cycle links to connect to the train stations and settlement, in addition to connections to the PROW network.
- SAP25 (Aylesham employment development area) requires new pedestrian and cycle links to Aylesham Station.

Many Local Plan site allocations across the district include requirements for connections and/or enhancements to the PROW network.

Map 2 Existing Transport Network



Legend

- Dover District Boundary

National Cycle Network

- Traffic Free
- On Road

Public Rights of Way

- Footpath
- Bridleway
- Restricted Byway
- Byway
- Railway Stations

Dover District is accessible by rail, road and sea. It is home to the Port of Dover and is strategically positioned at the start of the A2 and A20 providing strategic road network links to the rest of Kent, London and other parts of the UK.

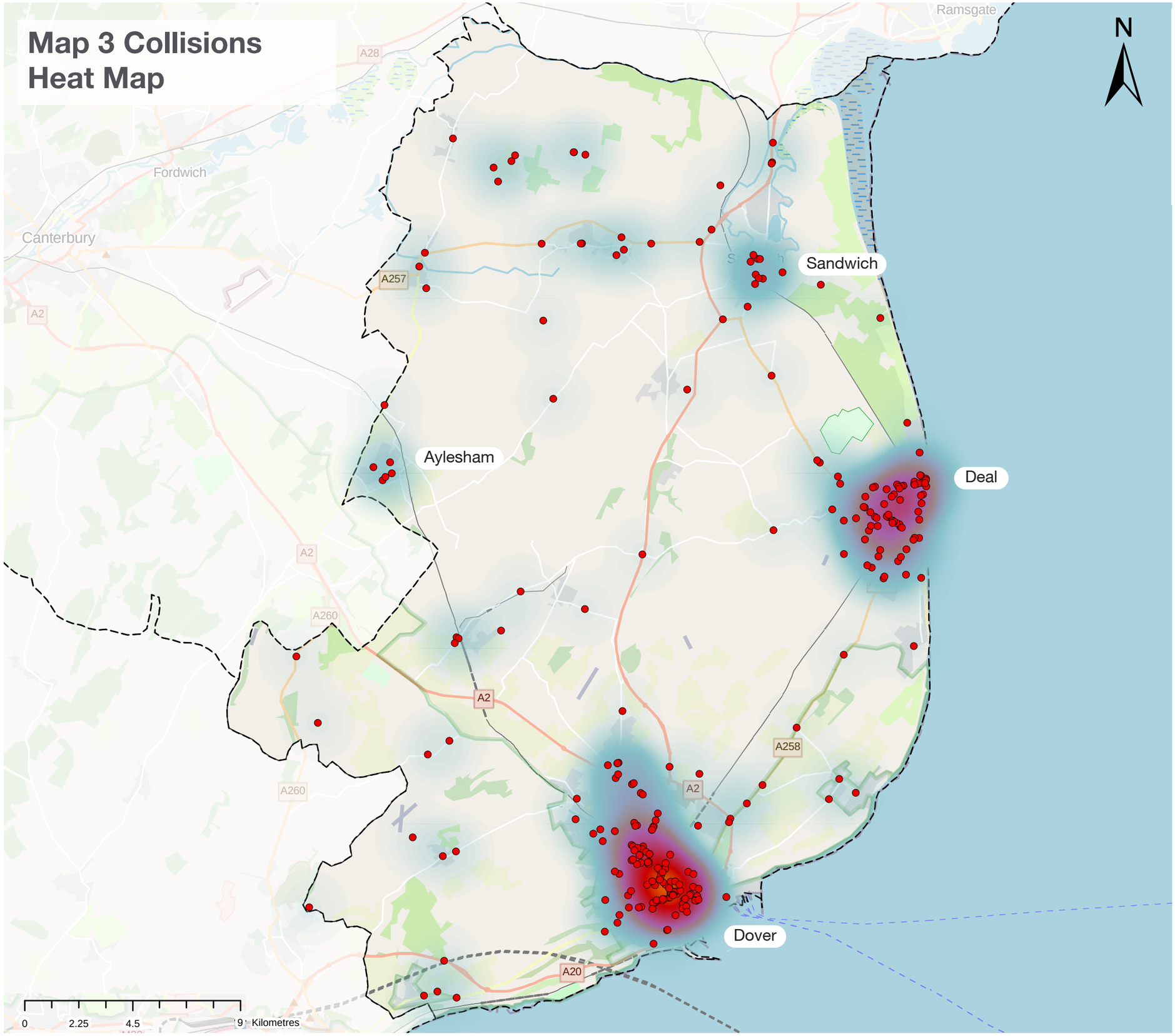
Road connections to surrounding districts are provided by the A256 to Thanet and the A2/A257 to Canterbury. The A258 connects Dover, Deal and Sandwich.

The district has rail connections from Dover to Canterbury and onward travel to Faversham, Dover via Deal, Sandwich to Thanet and Dover to Folkstone and onward travel to Ashford International. There are high speed rail connections to London via HS1 from Dover, Martin Mill, Walmer, Deal and Sandwich.

National cycle routes 1, 2, 15, 16 and 17 go through the district and the England Coast Path and North Downs Way National Trails.

There is a network of public rights of way although this is frequently disjointed.

Map 3 Collisions Heat Map

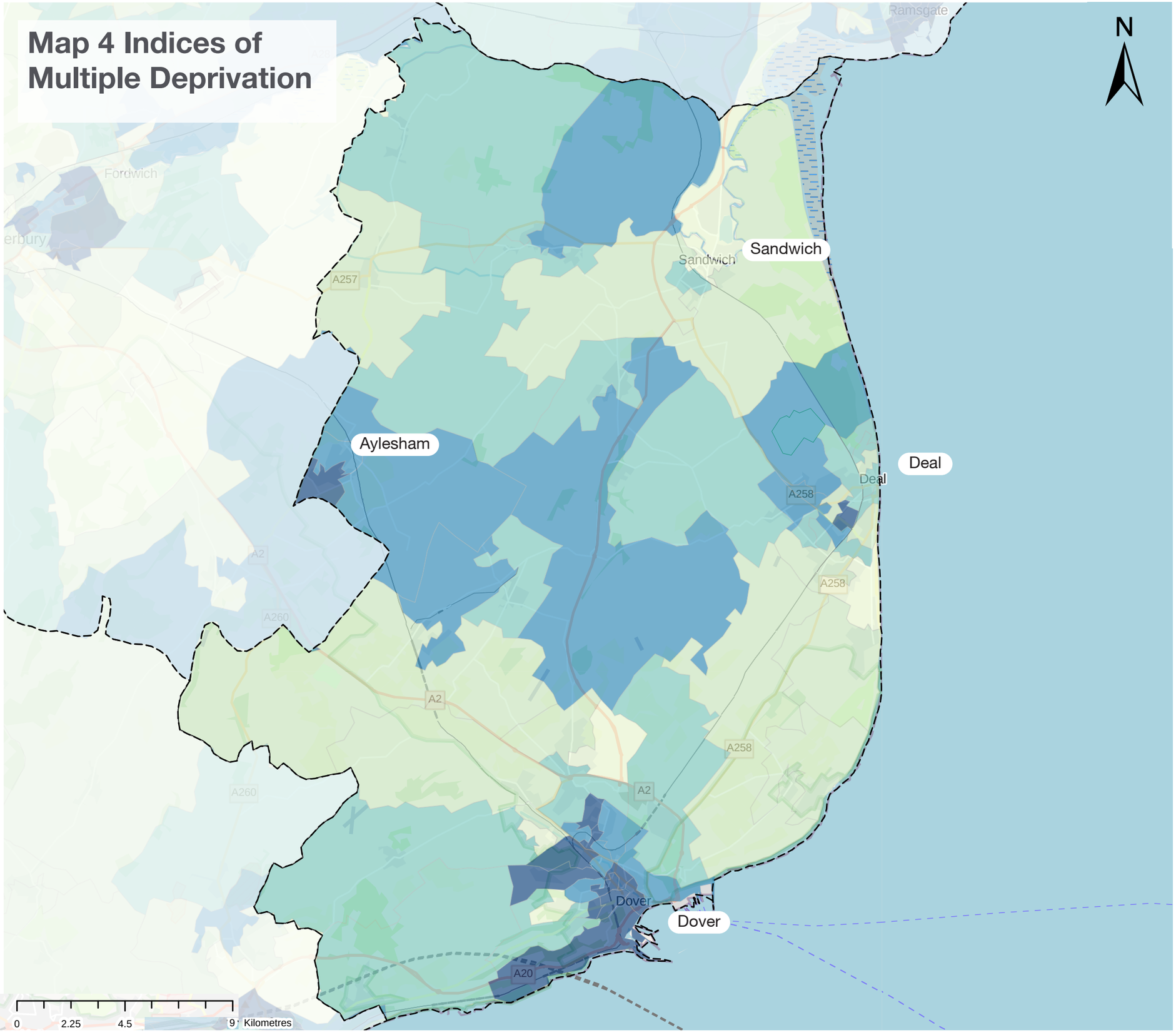


This map personal injury collision data involving cyclists and pedestrians for the 5-year period 2018 - 2023. Crash hotspots are shown in red.

Collisions were most dense in the urban areas of Dover and Deal, suggesting the need for improvement in this area to allow for safer cyclist and pedestrian movements

Other collision hotspots in towns Aylesham, and Sandwich and along the A257 road near Ash, A256, A258.

Map 4 Indices of Multiple Deprivation

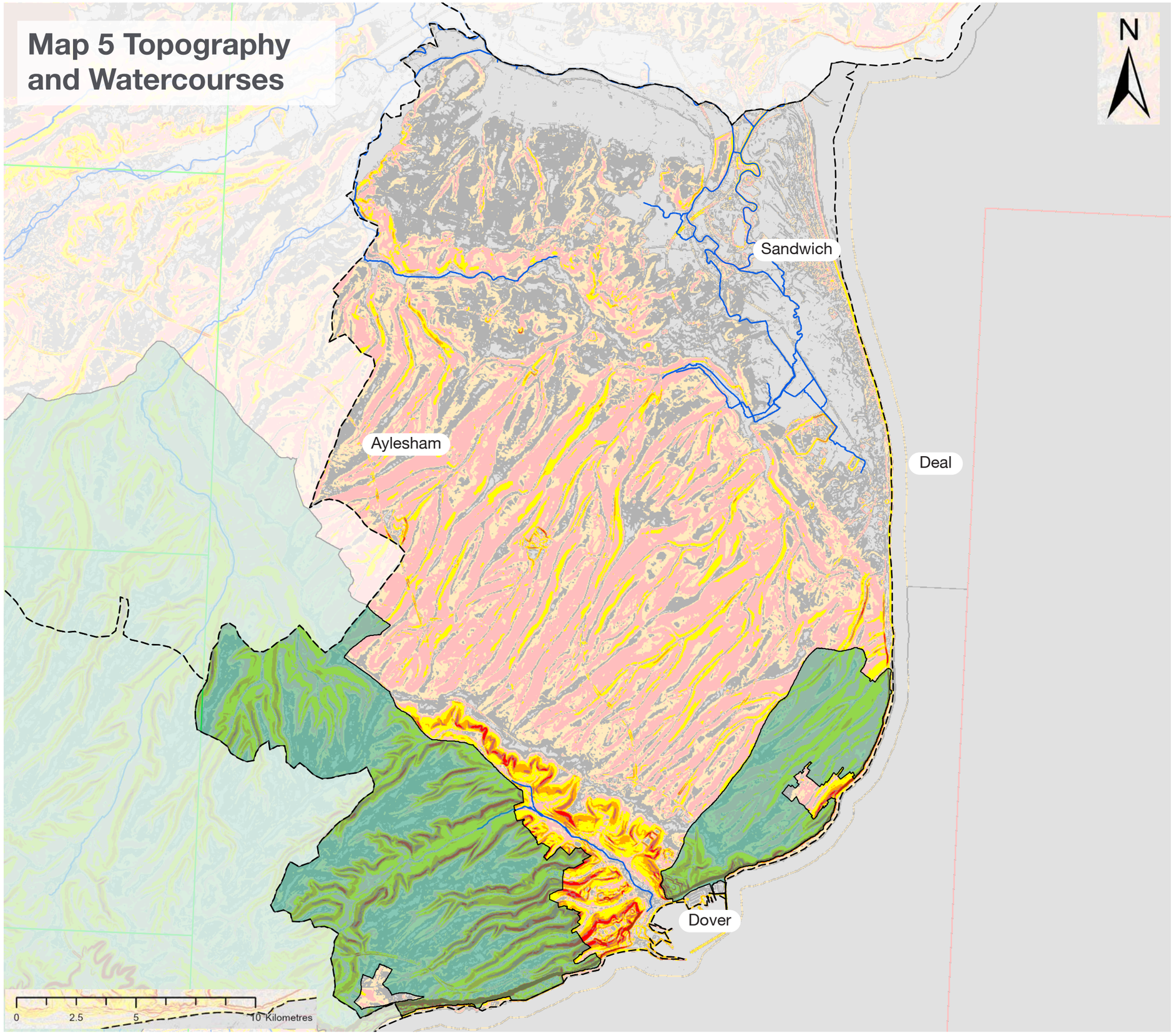


When compared with other local authority districts in Kent and England, Dover District is in England's most deprived half of local authorities.

The district has 'hot spots' of deprivation that are amongst some of the most deprived small areas in the country yet are geographically close to some of the least deprived areas in the country.

The map shows indices of multiple deprivation across the district. Areas of Dover Town and pockets within Aylesham and Deal are some of the most deprived in the district.

Map 5 Topography and Watercourses



Legend

- Dover District Boundary
- Kent Downs National Landscape
- Watercourse

Terrain Slope

- Flat (0°)
- Nearly level (1°)
- Gently level (2°)
- Gently sloping (3° - 5°)
- Strongly sloping (6° - 10°)
- Gently steep (11° - 15°)
- Moderately steep (16° - 20°)
- Steep (21° - 30°)
- Very steep (31° - 90°)

The landform of Dover District rises gradually from north to south and is drained by two main rivers, the River Stour in the north and the River Dour in the south.

The marshland and wetlands of the flat open landform in the north have an intricate pattern of drainage ditches and dykes which drain into the River Stour.

The low-lying shingle beaches along the coast are backed by sand dunes but rise to chalk cliffs to the south of Deal.

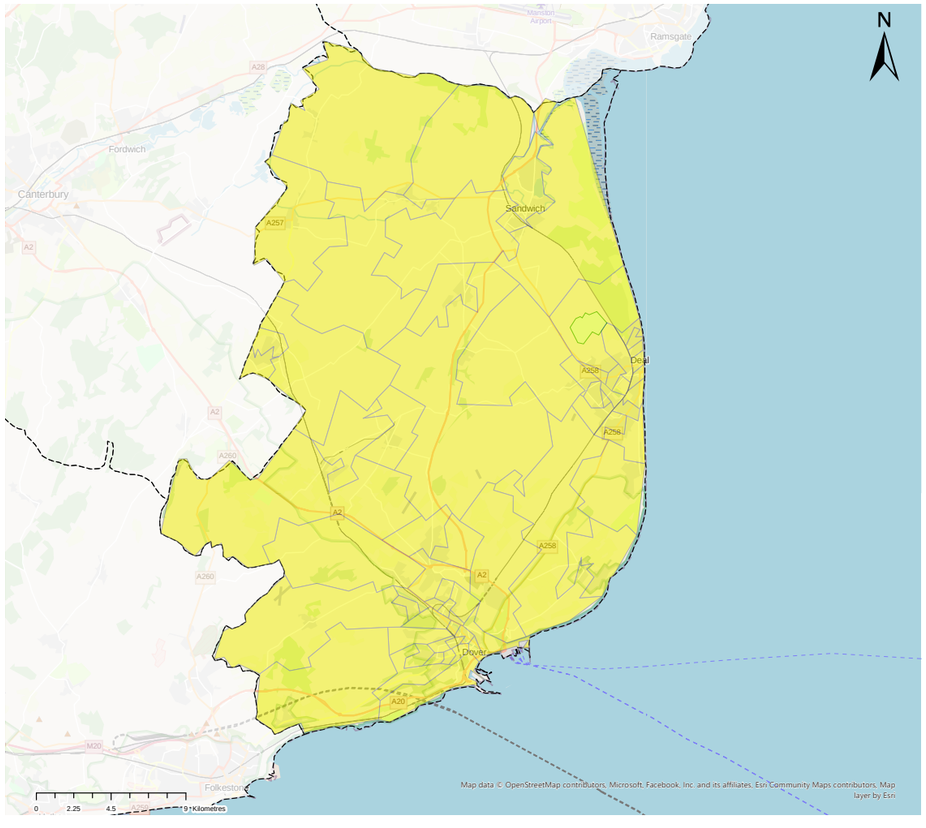
West of Sandwich the landform is characterised by flat to gently undulating landscapes.

At the centre and south of the district, the topography is characterised by a regular pattern of rolling ridges and valleys running in a north west direction, which gets more defined towards to the south.

To the south of the district the landform rises sharply along the edge of the escarpment slope of the North Downs. The dry chalk valleys in this area are drained by the River Dour which runs to the coast through Dover.[1]

The topography within the Kent Downs Natural Landscapes to the south of the district comprises several valleys with steep slopes in east-west direction

1 https://www.doverdistrictlocalplan.co.uk/uploads/pdfs/landscape-character-assessment-2020.pdf



Map 6 Bicycle Commuting Trips

Bicycle Commuting Trips Census 2011 Data

Propensity to Cycle Tool (PCT) Analysis

The Propensity to Cycle Tool (PCT) was designed to assist transport planners and policy makers to prioritise investments and interventions to promote cycling. It is a modelling tool which shows different visions of the future under various scenarios of change. The PCT answers the question: *'where is cycling currently common and where does cycling have the greatest potential to grow?'* The following presents a brief description of each scenario that has been modelled for commuting and school travel.

Note: All PCT data is modelled based on Census 2011 data, which is now 12 years out of date. However, comparable Census 2021 data is not yet available.

Bicycle Commute Zone Data

Census 2011 (map 6): Baseline data.

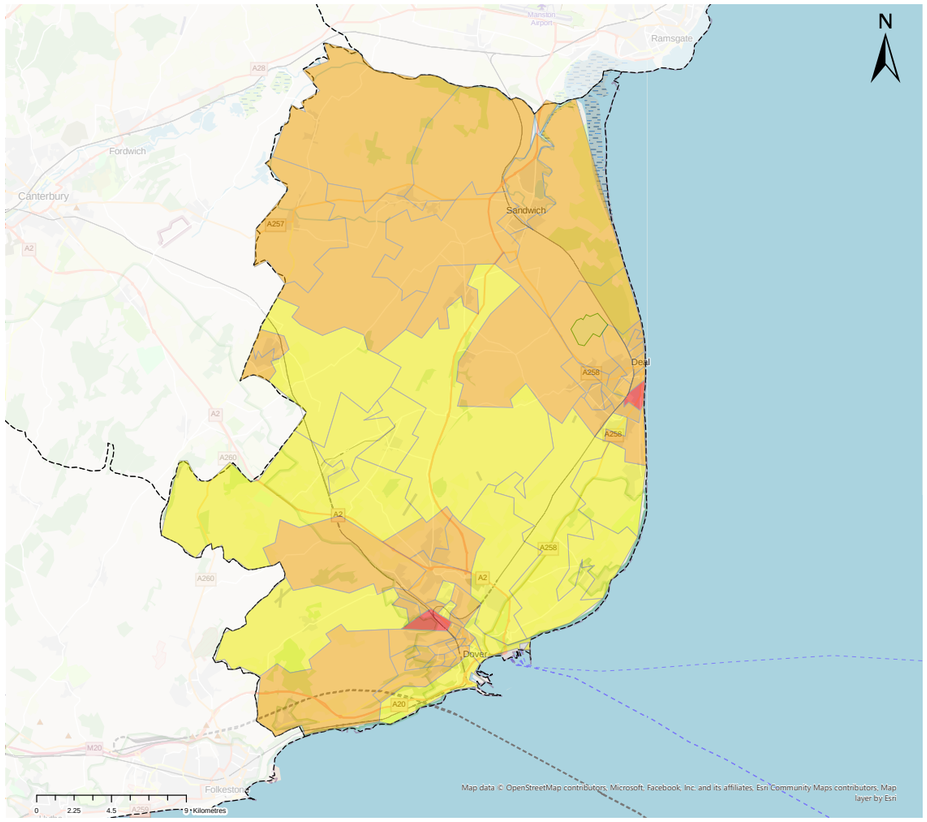
Go Dutch (map 7): What would happen if areas had investment bringing the same infrastructure as the Netherlands.

E-bike (map 8): Models the additional increase in cycling that would be achieved through the widespread update of electric bikes.

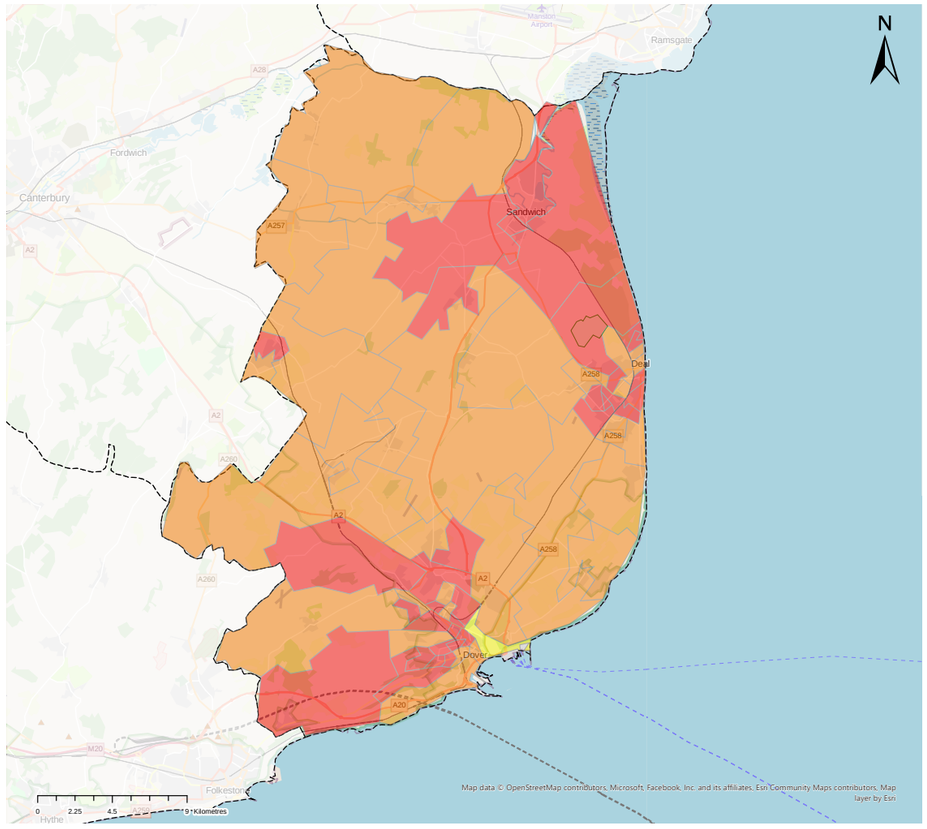
According to the Census 2011 data, few commuting trips were made by bicycle.

In the Go-Dutch Scenario, there would be a moderate increase of commuting by bicycle to the north of Dover District, to the north-west of Dover Town and from Dover Town towards Folkestone.

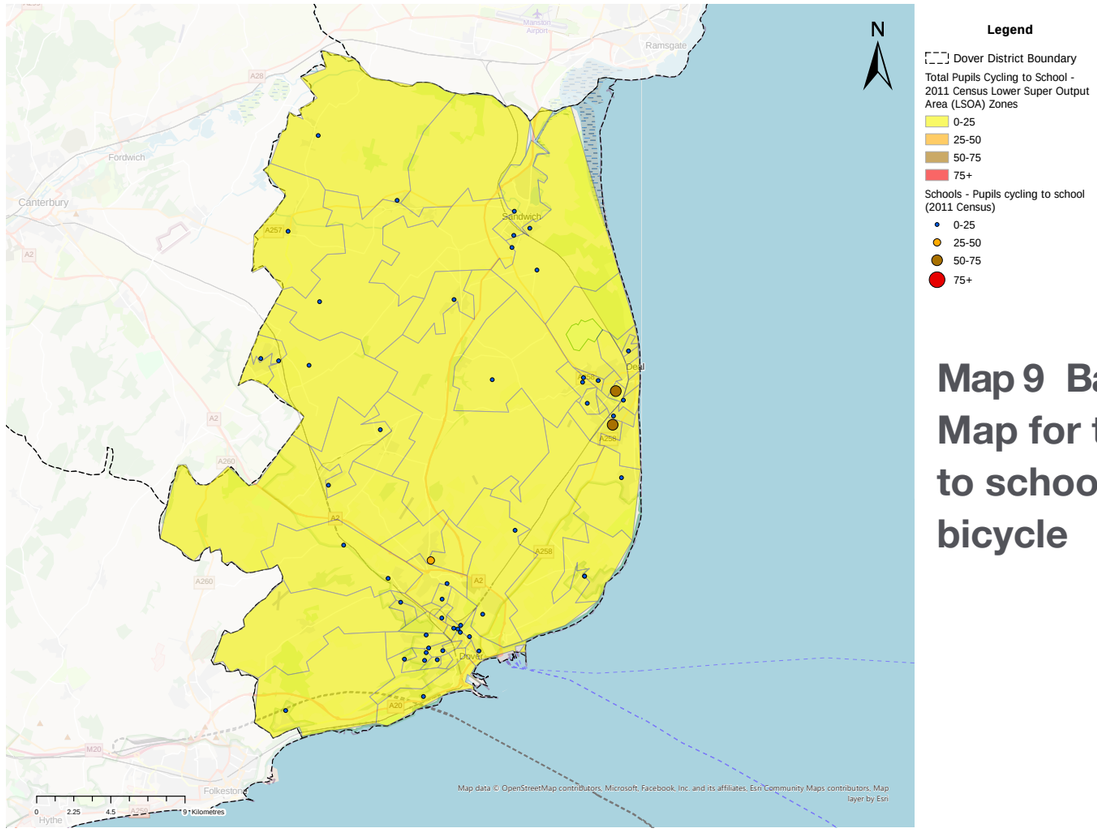
In the E-bike Scenario there would be a significant increase in commuting by bicycle across the entire district.



Map 7 Go Dutch Scenario



Map 8 E-bike Scenario



Map 9 Baseline Map for travel to school by bicycle

PCT School travel

Census 2011 (map 9): Baseline data.

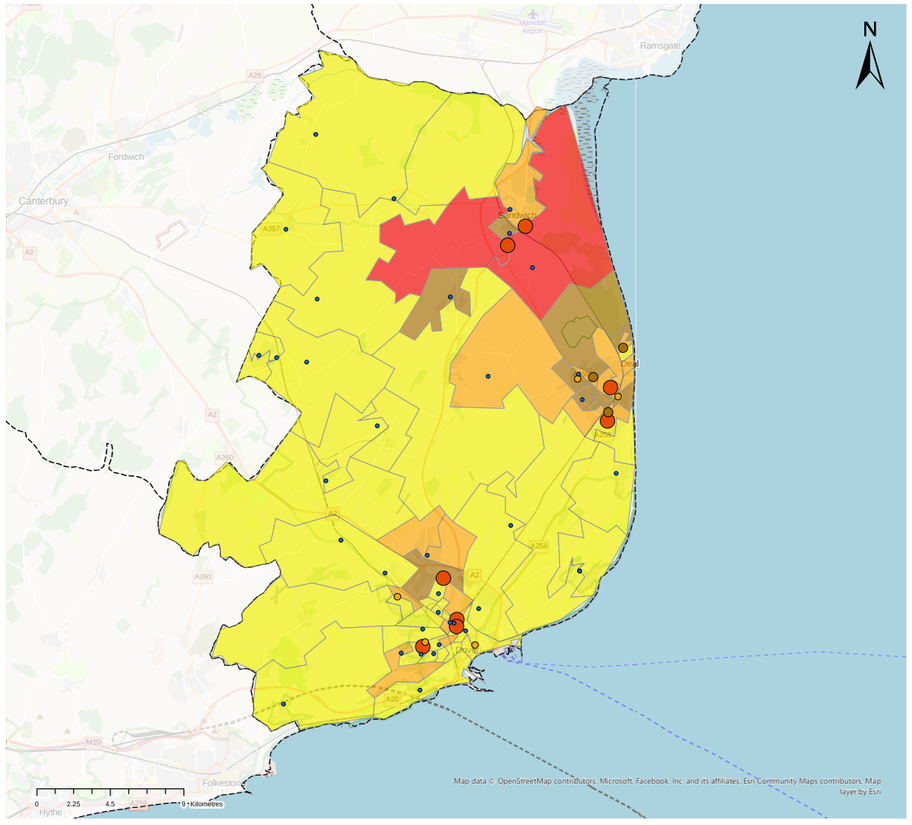
Go Cambridge scenario for school trips (map 10): Models the level of cycling if English school children cycled to school as much as children in the local authority of Cambridge, taking into account differences in the distribution of hilliness and trip distances.

Go Dutch (map 11): What would happen if areas had investment bringing the same infrastructure as the Netherlands.

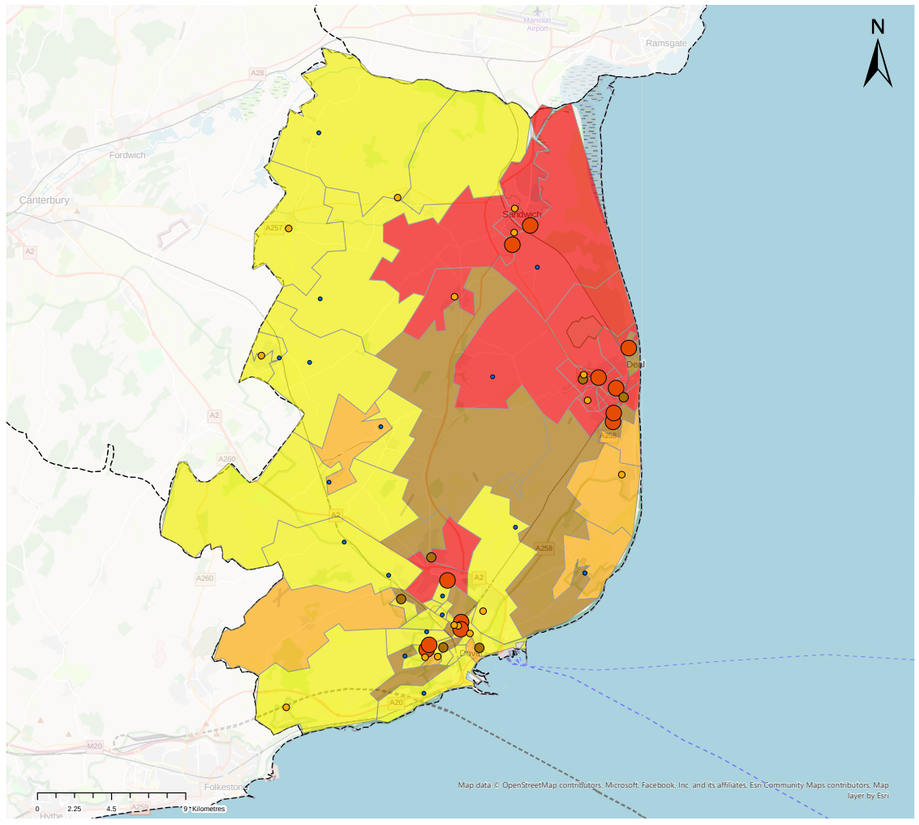
The PCT School Zones Data shows that in 2011, cycling made up a very small share of school trips across the district.

In the Go Cambridge scenario, there would be a significant increase in bicycle trips to school around the wider areas surrounding Sandwich and Deal and limited increase to the north of Dover town.

In the Go Dutch scenario, most of the district would see a general uplift in bicycle school trips. Very similar to the Go Cambridge scenario but with an increase of cyclists in Kingsdown, St. Margaret's at Cliffe, Shepherdswell and Eythorne .



Map 10 Go Cambridge Scenario for travel to school by bicycle



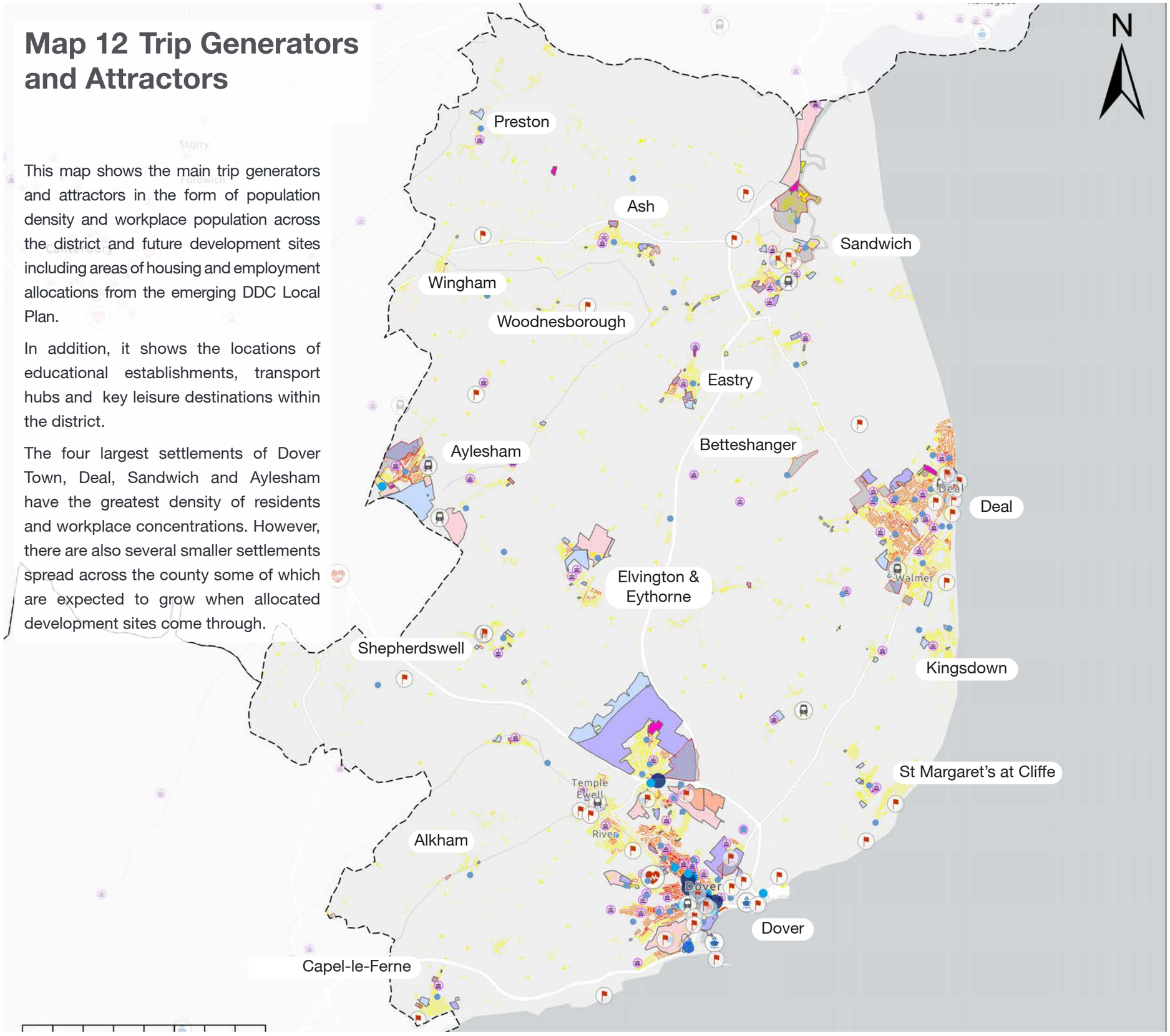
Map 11 Go Dutch Scenario for travel to school by bicycle

Map 12 Trip Generators and Attractors

This map shows the main trip generators and attractors in the form of population density and workplace population across the district and future development sites including areas of housing and employment allocations from the emerging DDC Local Plan.

In addition, it shows the locations of educational establishments, transport hubs and key leisure destinations within the district.

The four largest settlements of Dover Town, Deal, Sandwich and Aylesham have the greatest density of residents and workplace concentrations. However, there are also several smaller settlements spread across the county some of which are expected to grow when allocated development sites come through.

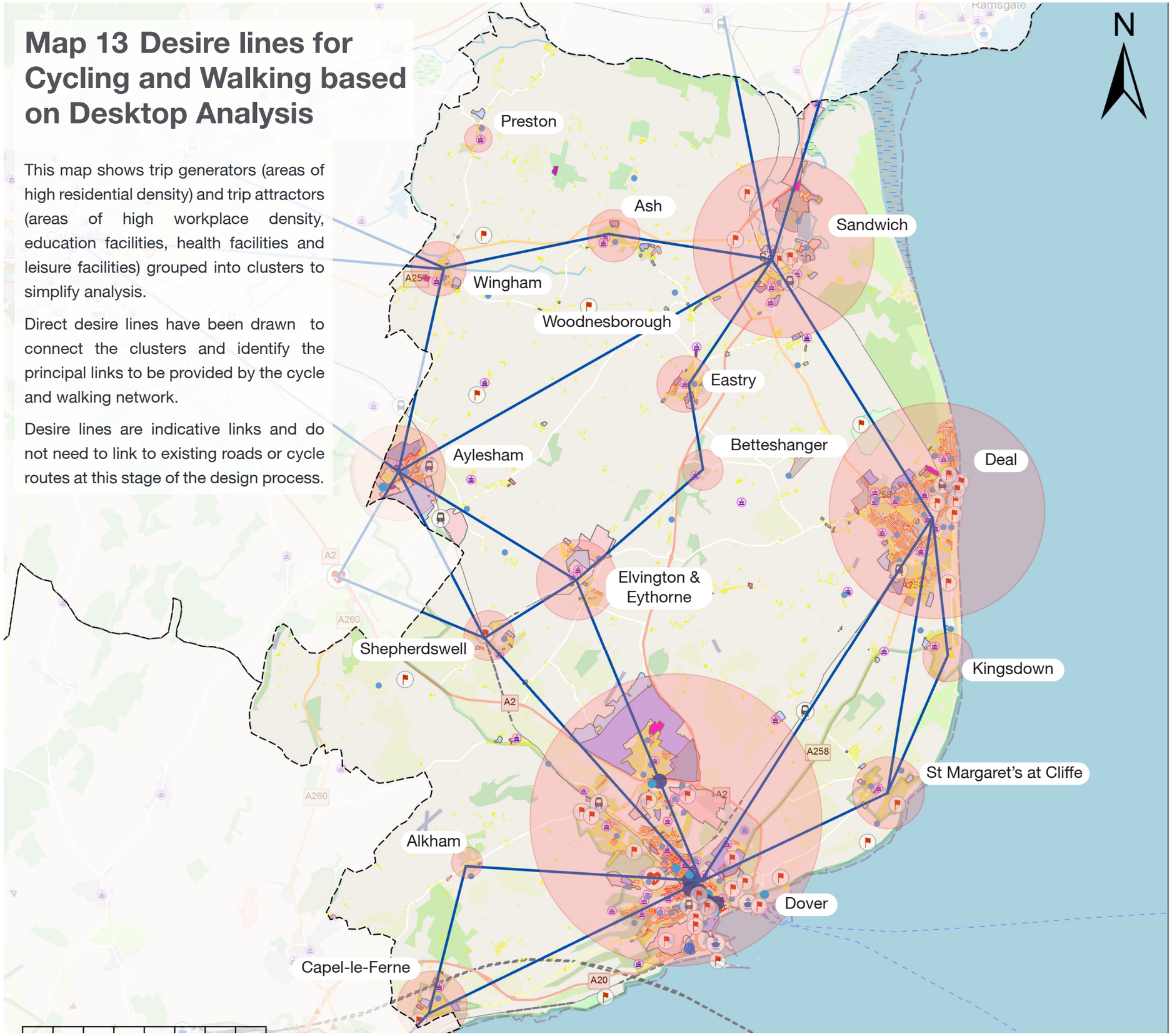


Map 13 Desire lines for Cycling and Walking based on Desktop Analysis

This map shows trip generators (areas of high residential density) and trip attractors (areas of high workplace density, education facilities, health facilities and leisure facilities) grouped into clusters to simplify analysis.

Direct desire lines have been drawn to connect the clusters and identify the principal links to be provided by the cycle and walking network.

Desire lines are indicative links and do not need to link to existing roads or cycle routes at this stage of the design process.



Legend

- Dover District Boundary
- Desire lines
- Origin and destination clusters
- Ferries
- Railway Stations
- Schools
- Hospitals
- Key DDC attractions
- Housing Allocations (Existing Development Plan)
- Proposed Housing Allocations (Emerging Development Plan)
- Proposed Employment Allocations (Emerging Development Plan)
- Employment Major Extants
- Housing Major Extants

Population Density (residents per square kilometre) 2021 Census

- 0-4000
- 4000-8000
- 8000+

2011 Census Workplace Population (jobs per hectare)

- 0-20
- 20-40
- 40-60
- 60+

Engagement

Local residents and stakeholders were invited to provide feedback on existing barriers to walking and cycling across Dover District and suggest walking zones and desire lines between settlements at two in-person events and two online workshops which were held during May 2024.

In addition, an online consultation tool was made available for four weeks where local residents were asked to answer a few questions regarding their prioritisation of the 2020 town audit routes for Dover town, Deal, Sandwich and Aylesham and provide suggestions for new cycling and walking interventions.

The key aims were to understand who is currently cycling and where they want to go, but also importantly, who is not currently cycling, what their barriers are and where they would like to go.

Whilst existing facilities and routes were considered, local residents were presented with a blank map to give them the opportunity to identify the routes and zones which would be the most beneficial to future users.

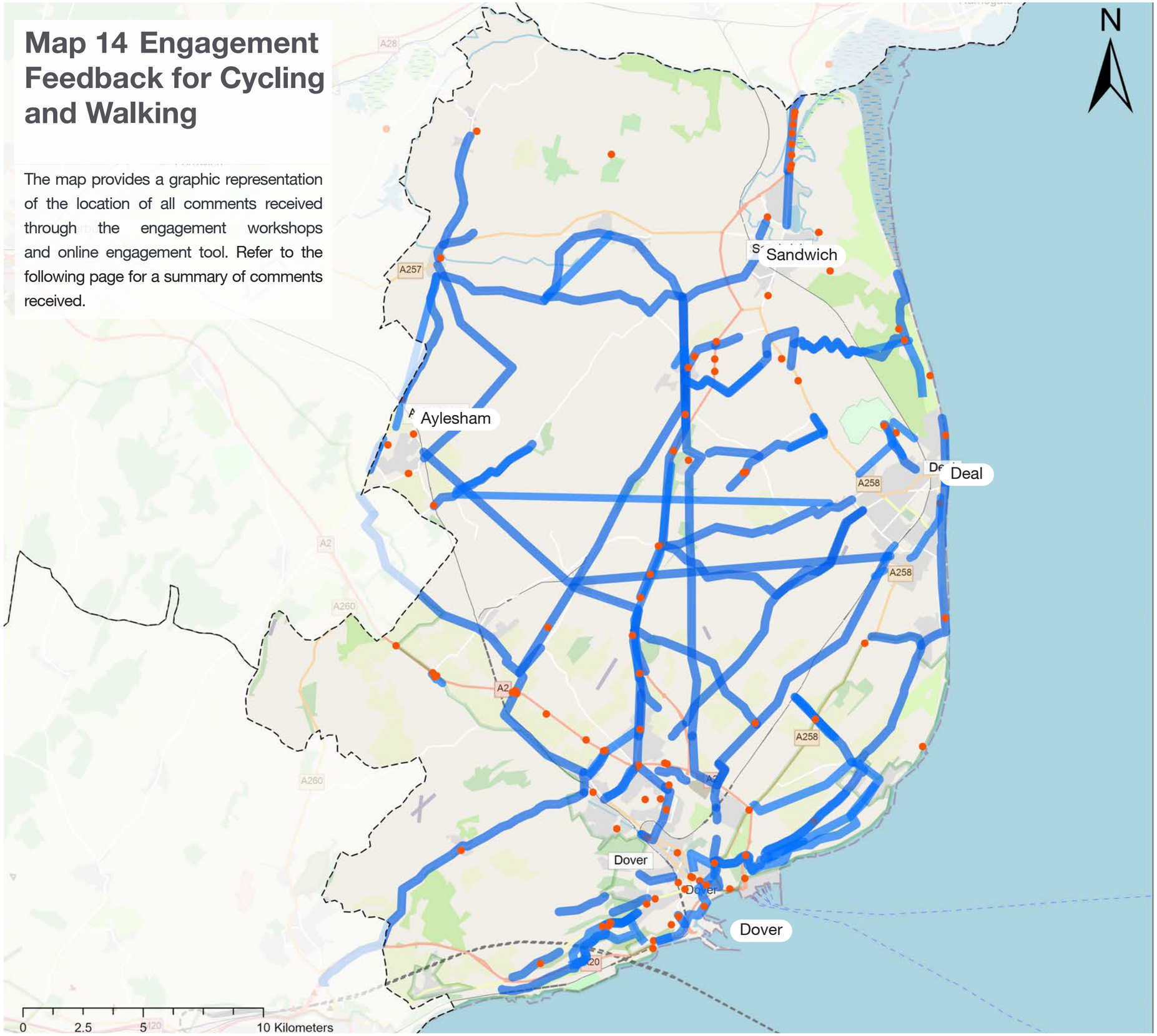
The feedback collated from all events was separated into linear comments and point comments and is graphically represented on **Map 14:** Engagement Feedback for Cycling and Walking. For a summary of comments received through the engagement events, refer to the following pages.

Feedback on the prioritisation of the 2020 town audit routes was analysed separately and is represented graphically on **Map 16:** Engagement Feedback on the 2020 Town Audit Routes.

Two-day in-person engagement in Dover, May 2024

Map 14 Engagement Feedback for Cycling and Walking

The map provides a graphic representation of the location of all comments received through the engagement workshops and online engagement tool. Refer to the following page for a summary of comments received.



Legend

- Dover District Boundary

2024 Engagement Output

- Linear Comments
- Point Comments

Summary of Public and Stakeholder Comments

Below is a consolidated summary of key comments received as part of the in-person and online workshops and comments gathered through the online consultation tool.

Comments for Cycling

- Lower Road to Green Road: Not good for on road active travel, suggestion for shared path.
- London Road and A256 junction to Whitfield Avenue, Green Lane Road and Melbourne Avenue on the east: Suggestion to make shared path.
- B2011, Rugby Road: Not very walkable, steep, congestion due to on road parking.
- Old Folkestone Road towards A20 to Farthingloe Farm: this section is often used by cyclists.
- Dover Road near Dover castle parking and Fort Burgoyne: visibility issues due to buildings but important section for cyclists.
- Upper Road (partly taking the Dover cliff castle entry path around the parking zone): This route is a combination of NCN, PROW and 2020 proposed routes and popular among existing cyclists for connection from Dover to Deal.
- Part of Dover Road until the rail track (starting from Old Charlton Road): this section has no footpath.
- Dover Road to the Pineham Road (end of the street): this section needs resurfacing.
- Castle Hill Road (A258) towards north: This section is very popular by users.
- Honeywood Parkway: No proper cycle route and very unsafe.
- B2011 Folkstone Road near A20 Junction: Users don't prefer to walk here.
- Sandwich Road near Whitfield: High speed road, unsafe.
- Church Whitfield Road towards Easting Down Farm: Better route for cycling than the nearby proposed 102 route.
- Archers Court Road near A256: Possible connection to NCN 16.
- Elms Vale Road: Possible connection to the PROW.
- Alkham Valley Road: Possible connection to Wolverton, Alkham and towns in the Southwest.
- Waldershare Lane & R7: Possible connection to A256 from R7.
- Part of A256 road near Haddling Wood: Unsafe and high speed along on road section.
- Sutton Road to Forge lane to Ripple to Deal: Pleasant Quietway.
- A256 road (From Kennnel Hill to Barville Road): No shared-use path, which would be preferred to provide better access for all users.
- A256 Road (Tilmanstone Bypass, Dover Road) to Eastry Post office: Connection with A256 and Eastry.
- Sandwich Road (from Eastry post office A256 junction): High speed street, traffic measures required.
- Felderland Lane (From A256 junction): Nice walkway because of the orchard.
- Gazen Saltz reserve: Requirement for a bridge to cross.
- Ramsgate Road inside the Discovery park: Required active travel facilities due to the popular usage of the road.
- A256 road (from Ramsgate junction to Ebbsfleet roundabout): Required connection and safe on road route connecting NCN 15 and roundabouts.
- Adisham Road (Cooling Road to Dorman Avenue): Less connectivity.
- Pond Lane: Rough vehicle movement.
- Church Road to Coldred Road to Westcourt Lane to Wick Lane to Womenswold to The street to Pond lane: Possible connection with existing sections of active travel routes.
- (A256 Junction) Boys Hill to Strakers Hill to Downs Road to Church Hill To Vale Road to Sutton Road till St Richard's Road: Possible connection with existing sections of active travel routes.
- Boys Hill to Willow Woods Road to Mogeham Road: Very unsafe road, not cycle friendly but useful connection.
- Aylesham train station to Eythorne to Upper Walmer: Possible connection via train station.
- Aylesham train station to Buckland Lane to Cave Lane to Goodnestone Road to A257 junction in Wingham: Connection to Wingham.
- A20 highway junction to South Military Road: Requirements to link with A20 highway.
- Astor Avenue to Noah's Ark Road: Tower hamlet connection with 108.
- Station Road to Martin Mill: Link between the Martin Mill train station and St Margaret.
- Whitfield Hill to A256 junction: Suggested one way cycle route.
- London Road to Bosney Banks to Coldred Hill to Church Road to Pike Road connecting to Eythorne and Sandwich Town: Suggested cycle route if the traffic speed is minimised.
- North Downs way to East Langdon Road to Ringwould Road to Upper Walmer: Used by cyclist.
- A2 junction near Honeywood to Woodnesborough area, a straight route towards north: Possible connection from Dover to Sandwich, knows as North down valley.
- Middle deal route to Betteshanger Park: Suggested connection to the Betteshanger Park.
- Betteshanger: Route linking Betteshanger and Deal.
- Aylesham: Linking South Aylesham, a school and residential area.
- Wingham & Sandwich: Wingham to Sandwich.
- Kingsdown: Ringwould towards Kingsdown/ the coast.
- Wingham & Preston: Wingham to Preston.
- Dover: Suggested back route from Eythorne to Buckland.

Comments for Walking

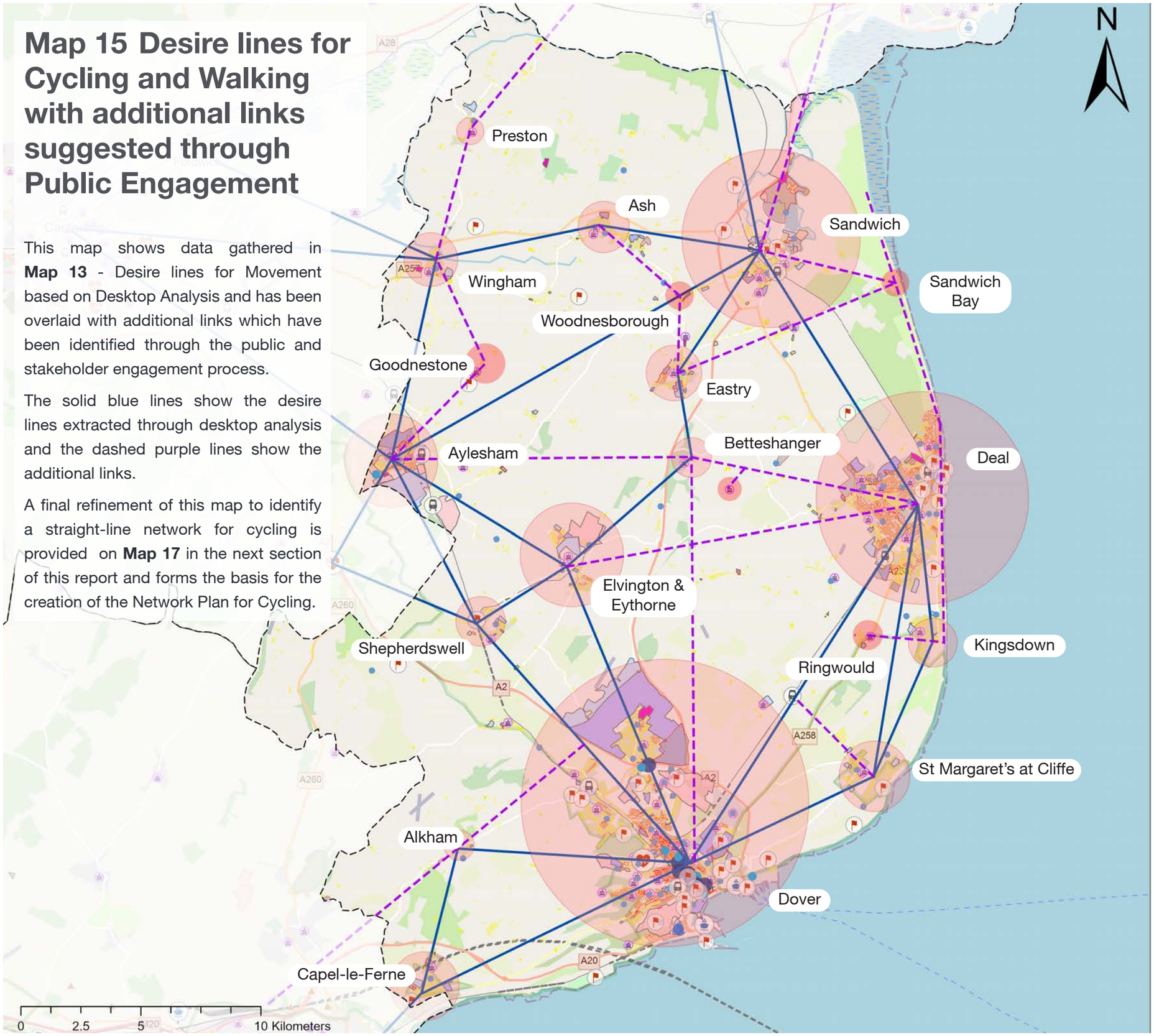
- Suggested circular walking path: Farthingloe Farm area connecting to Old Folkestone Road.
- Suggested walking route: A258 Roundabout St. Margaret's at Cliffe.
- Most used walking route: St Mary's Church School to St. Margarat's at Cliffe.
- Most used walking route: Park Avenue to Connaught Road.
- Most used walking route: Kings Lear's Way via A20 to Union street and Dover Marina to Castle street to A256 highway section.
- Suggested shared path, School street: Temple Ewell to Sandwich Road.

Map 15 Desire lines for Cycling and Walking with additional links suggested through Public Engagement

This map shows data gathered in **Map 13** - Desire lines for Movement based on Desktop Analysis and has been overlaid with additional links which have been identified through the public and stakeholder engagement process.

The solid blue lines show the desire lines extracted through desktop analysis and the dashed purple lines show the additional links.

A final refinement of this map to identify a straight-line network for cycling is provided on **Map 17** in the next section of this report and forms the basis for the creation of the Network Plan for Cycling.



Legend

- Dover District Boundary
- Desire lines
- Additional Links suggested from Public Consultation
- Origin and destination clusters
- Ferries
- Railway Stations
- Schools
- Hospitals
- Key DDC attractions
- Housing Allocations (Existing Development Plan)
- Proposed Housing Allocations (Emerging Development Plan)
- Proposed Employment Allocations (Emerging Development Plan)
- Employment Major Extants
- Housing Major Extants

Population Density (residents per square kilometre) 2021 Census

- 0-4000
- 4000-8000
- 8000+

2011 Census Workplace Population (jobs per hectare)

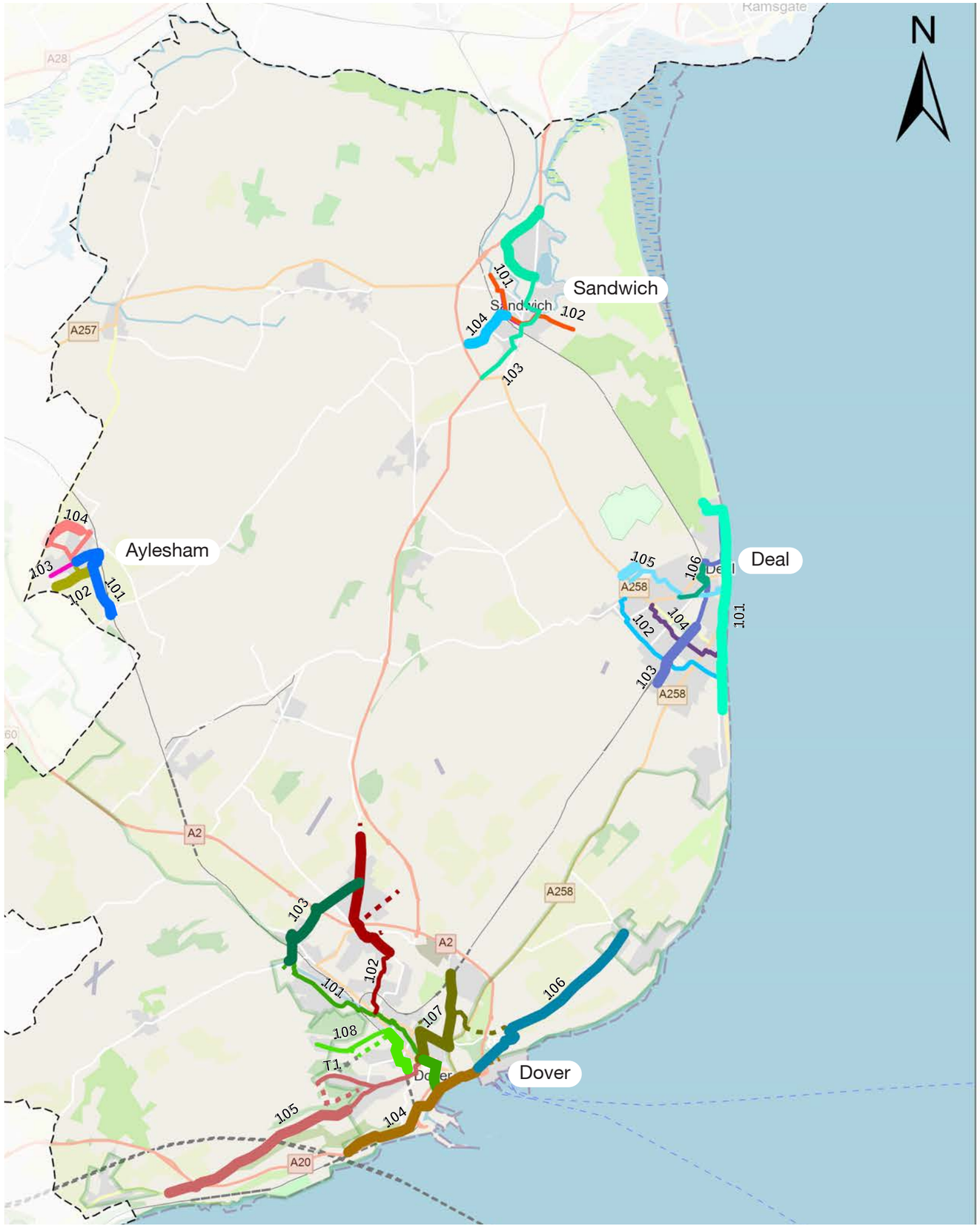
- 0-20
- 20-40
- 40-60
- 60+

Map 16 Engagement Feedback on the 2020 Town Audit Routes

This map shows all routes which were proposed as part of the town audits carried out in 2020 for the four main settlement areas of Dover Town, Sandwich, Deal and Aylesham.

Engagement feedback provided during the in-person events, online workshops and the online consultation tool during May 2024 confirmed a number of these routes as priority routes, either through selection or as a result of receiving several comments.

A summary of the comments received on the 2020 town audit routes is provided on the following page.



Legend

Dover District Boundary

Aylesham Walking and Cycling Routes 2020
- **101**
- **102**
- 103
- **104**

Deal Walking and Cycling Routes 2020
- **101**
- 102
- **103**
- 104
- **105**
- 106

Sandwich Walking and Cycling Routes 2020
- 101
- 102
- **103**
- **104**

Dover Walking and Cycling Routes 2020
- **101**
- **102**
- **103**
- **104**
- **105**
- **106**
- **107**
- **108**
- T1

Routes shown in dashed line are indicative route links provided in the 2020 town audits.

Summary of Comments on the 2020 Town Audit Routes

Below is a consolidated summary of key comments received on the 2020 Town Audit Routes as part of the in-person and online workshops and comments gathered through the online consultation tool.

Dover

- Route 101- From Castle Street to A256 is identified as the most used walking route.
- Route 102 - Sandwich Road near Whitfield section needs speed calming measures as it is unsafe for the cyclist.
- Route 103 - Informal, sub-standard crossing over the A2 is a barrier to walking and cycling and is part of the access routes to nearby schools. The Lower Road to Green Road section on this route has been identified as not good for on-road active travel and a shared-use path has therefore been suggested.
- Route 104 - Kings Lear's Way via A20 to Union Street and Dover Marina: Western Heights needs improved access from this route.
- Route 105 - A link from the Elms Vale Road section on this route can be a good connection to the nearest PRoW. The footpath is narrow and unsuitable for families walking to Farthingloe Farm. The existing cycle route is frequently blocked by parked vehicles and is steep. Old Folkestone Road towards the A20 to Farthingloe Farm - this section is often used by cyclist A better and safer route between Dover and Folkstone is needed. Suggested circular walking path from Farthingloe Farm Area connecting to Old Folkestone Road.
- Route 106 - This route is a combination of NCN, PRoW and 2020 proposed routes and popular among the cyclist for journeys between Dover and Deal. Protection from wind e.g. hedge is required. Traffic speeds, volume and a narrow highway corridor make Upper Road unsuitable for cycling by users of all ages and abilities. Consider segregated cycle route on other side of the field boundary. It is parallel to the KCWIP route R7 which offers an alternative to this route. An off-highway route on the east side of this route, between White Cliffs cycle path and the footpath to the lighthouse and on to cliff-top trail all the way to St Margarets would benefit locals and tourists.
- Route 107 - The section from Park Avenue to Connaught Road has been identified as most used walking route.
- Route 108 - Maxton and Priory Hill sections of pavement are blocked by cars and cycling feels dangerous. Possible connection with Tower Hamlet.

Deal

- Route 101 - This route is a combination of NCN, PRoW and 2020 proposed routes and is popular among cyclist for the connection between Dover and Deal. The shared-use path is unsuitable for cycling due to the high number of pedestrian users.
- Route 103 - Possible connection to A256 from R7. Sydney road from St. Richard Road section would be a better alternative route.
- Route 105 - Suggested connection to the Betteshanger Park.

Sandwich

- Route 103 - A256 (from Ramsgate junction to Ebbsfleet roundabout) requires connection and safe on-road route connecting NCN 15 and roundabouts. The entire cycle path needs resurfacing and is not fit for use with modern road bikes. Rider s are forced to use road. Ramsgate Road is an alternative option for active travel facilities as it is popular with cyclists.
- Route 104 - This route can connect to Woodnesborough.

Aylesham

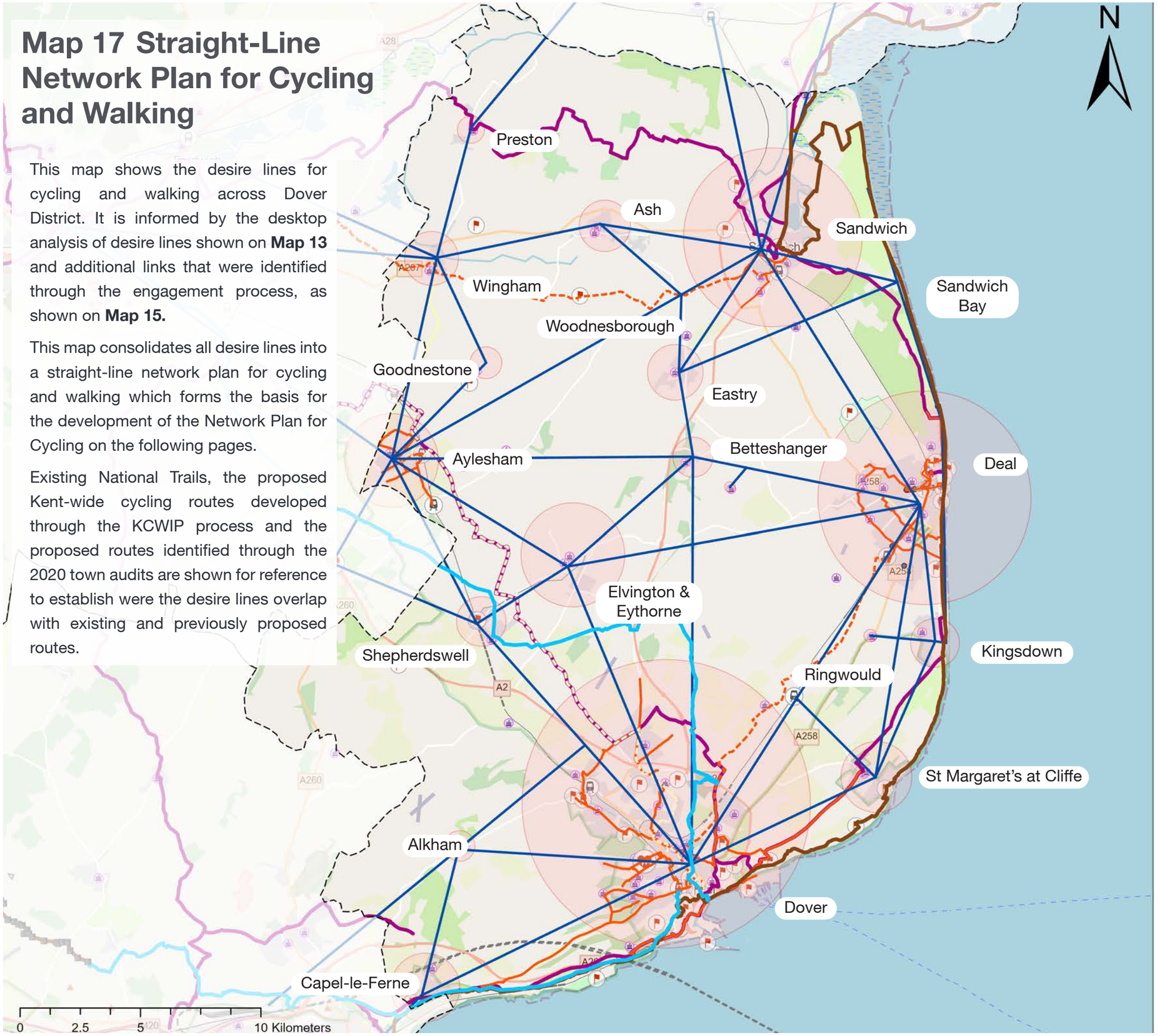
- Route 101 - Snowdown rail station - proposed extension of the route and possible development and connecting to the Dover.
- Route 102 - Network of PRoW between new development south of Spinney Lane into Aylesham centre and primary school to be considered.
- Route 104 - Improve maintenance of crossover points on PRoW.

Map 17 Straight-Line Network Plan for Cycling and Walking

This map shows the desire lines for cycling and walking across Dover District. It is informed by the desktop analysis of desire lines shown on **Map 13** and additional links that were identified through the engagement process, as shown on **Map 15.**

This map consolidates all desire lines into a straight-line network plan for cycling and walking which forms the basis for the development of the Network Plan for Cycling on the following pages.

Existing National Trails, the proposed Kent-wide cycling routes developed through the KCWIP process and the proposed routes identified through the 2020 town audits are shown for reference to establish were the desire lines overlap with existing and previously proposed routes.



Legend

- Dover District Boundary
- Combined Desire Lines
- Key DDC attractions
- Hospitals
- Schools
- Origin and destination clusters
- Railway Stations

Existing National Trails

- National Cycle Network
- North Downs Way
- England Coast Path

KCWIP Proposed Cycling Routes

- R3 Canterbury to Dover
- R9 Canterbury to Sandwich
- R7 Dover to Deal
- All Routes from 2020 Audit

4. Network Planning for Cycling

Network Planning for Cycling

The Network for Cycling and High-Level Proposed Infrastructure Improvements on the following pages are both strategic planning documents.

The Network for Cycling provides a high-level overview of the preferred routes for further investigation and development, while the High-Level Proposed Infrastructure Improvements summarise the improvements that are required in order for routes within the network to be brought up to a suitable standard.

The process of converting desire lines into preferred routes is informed by the design principles set out in the Department for Transport (DfT) Cycle Infrastructure Design guidance document LTN 1/20 and should achieve the core design outcomes of being coherent, direct, safe, comfortable and attractive. Refer to the Appendix of this report for more information.

Route Selection Process

Using the straight-line network plan for cycling and walking (**Map 17**) as a basis, several route alignment options were plotted in the draft network for cycling (**Map 18).** The Draft Network was then further refined into the Network for Cycling **(Map 19).**

The route selection process is an iterative process that includes consideration for directness as well as access to key destination points including schools and rail stations.

The network was assessed against the Propensity to Cycle Tool (PCT) to review which routes have the highest potential for an increase in cycling under various scenarios for change, and with reference to the feedback received through engagement and collision data involving cyclists.

Preferred routes were assessed against the core design outcomes and their ability to cater for the anticipated levels of cycling. Preliminary audits were undertaken to identify what measures would be required to improve it and whether there are physical constraints or operational requirements which would not make it possible to improve to an acceptable level. In such as case, the next most direct route was selected. The preferred routes for cycling are summarised in the Network for Cycling (Map 19).

“ The Network for Cycling provides a high-level overview of the preferred routes for further investigation and development.”[1]

1 https://assets.publishing.service.gov.uk/media/5f32aa668fa8f57ac88dc9dc/cycling-walking-infrastructure-technical-guidance-document.pdf

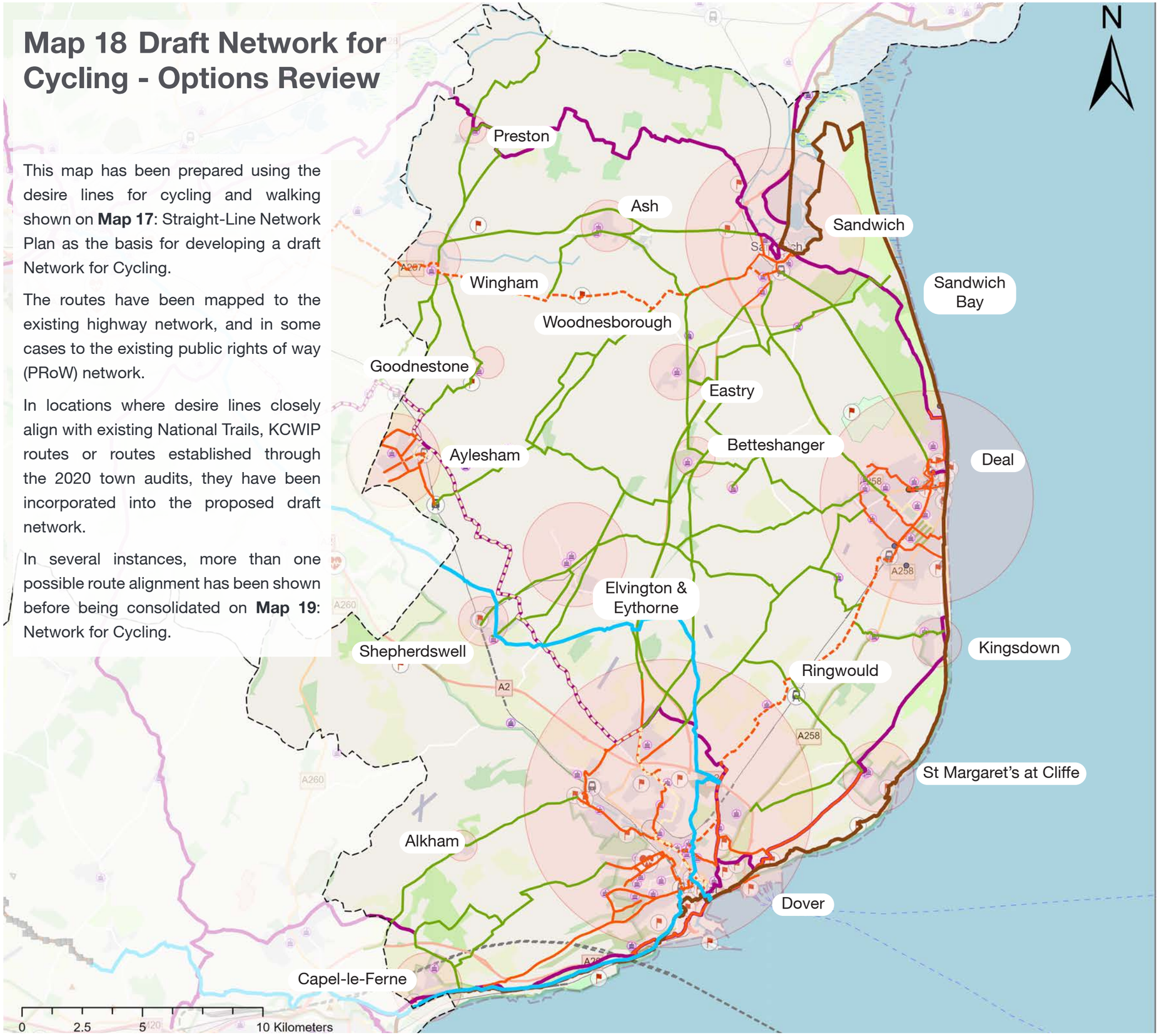
Map 18 Draft Network for Cycling - Options Review

This map has been prepared using the desire lines for cycling and walking shown on **Map 17**: Straight-Line Network Plan as the basis for developing a draft Network for Cycling.

The routes have been mapped to the existing highway network, and in some cases to the existing public rights of way (PRoW) network.

In locations where desire lines closely align with existing National Trails, KCWIP routes or routes established through the 2020 town audits, they have been incorporated into the proposed draft network.

In several instances, more than one possible route alignment has been shown before being consolidated on **Map 19**: Network for Cycling.



Legend

- Dover District Boundary
- Key DDC attractions
- Hospitals
- Schools
- Origin and destination clusters
- Railway Stations
- Proposed Cycling Route

Existing National Trails

- National Cycle Network
- North Downs Way
- England Coast Path

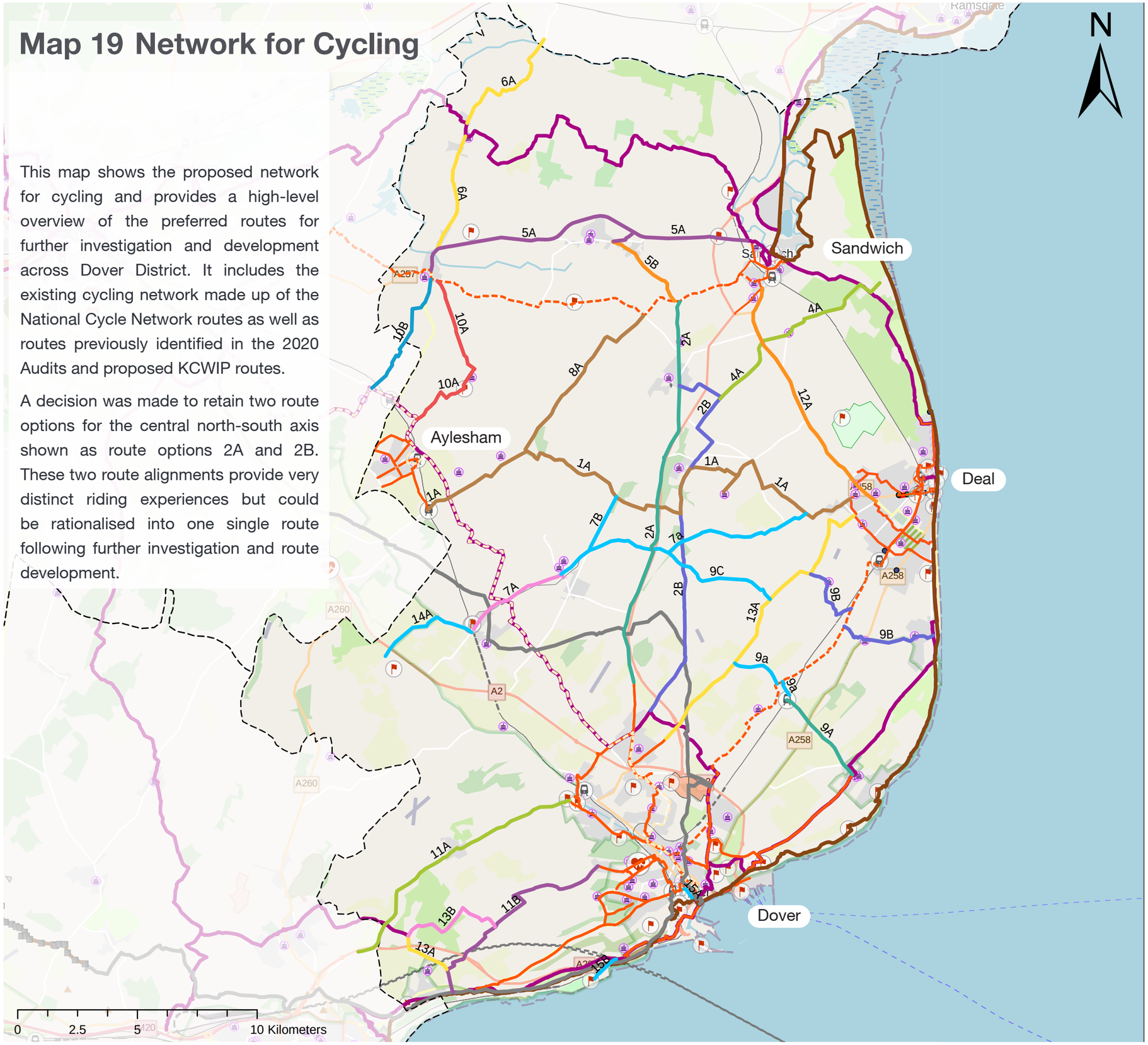
KCWIP Proposed Cycling Routes

- R3 Canterbury to Dover
- R9 Canterbury to Sandwich
- R7 Dover to Deal
- All Routes from 2020 Audit

Map 19 Network for Cycling

This map shows the proposed network for cycling and provides a high-level overview of the preferred routes for further investigation and development across Dover District. It includes the existing cycling network made up of the National Cycle Network routes as well as routes previously identified in the 2020 Audits and proposed KCWIP routes.

A decision was made to retain two route options for the central north-south axis shown as route options 2A and 2B. These two route alignments provide very distinct riding experiences but could be rationalised into one single route following further investigation and route development.



Legend

- Dover District Boundary
- Key DDC attractions
- Hospitals
- Schools
- Railway Stations

Existing National Trails

- National Cycle Network
- Land Allocated for Employment in the LALP 2015
- North Downs Way (Off Road Cycling and Walking)
- England Coast Path (Pedestrains Only)

Proposed Cycle Routes

- 1A
- 2A
- 2B
- 2C
- 3A
- 4A
- 5A
- 5B
- 6A
- 7A
- 8A
- 9A
- 9B
- 10A
- 10B
- 11A
- 11B
- 12A
- 13A
- 13B
- Other values
- Routes from 2020 Audit

KCWIP Proposed Cycling Routes

- R3 Canterbury to Dover
- R9 Canterbury to Sandwich
- R7 Dover to Deal

High-Level Cycling Infrastructure Improvements

The high-level proposed infrastructure improvements summarise the improvements that are required in order for selected routes within the network to be brought up to a suitable standard.

In accordance with the project scope agreed at the outset of this report, high-level auditing has been carried out using desktop analysis only and excludes on-the-ground investigations.

The audits have not taken into account detailed considerations of ecological constrains, existing surface conditions or requirements for lighting.

Selection of Routes for Auditing

The agreed project scope limited the number of routes to be audited. The document provides an audit of prioritised routes that can be developed in the next five to ten years. Further audits are then recommended once these prioritised routes have been developed. In agreement with DDC, several strategic route corridors between the major settlements and key destination points were selected (Map 20). The prioritsed routes provide missing links between the core settlements while linking with a number of smaller settlements and primary destinations along the way.

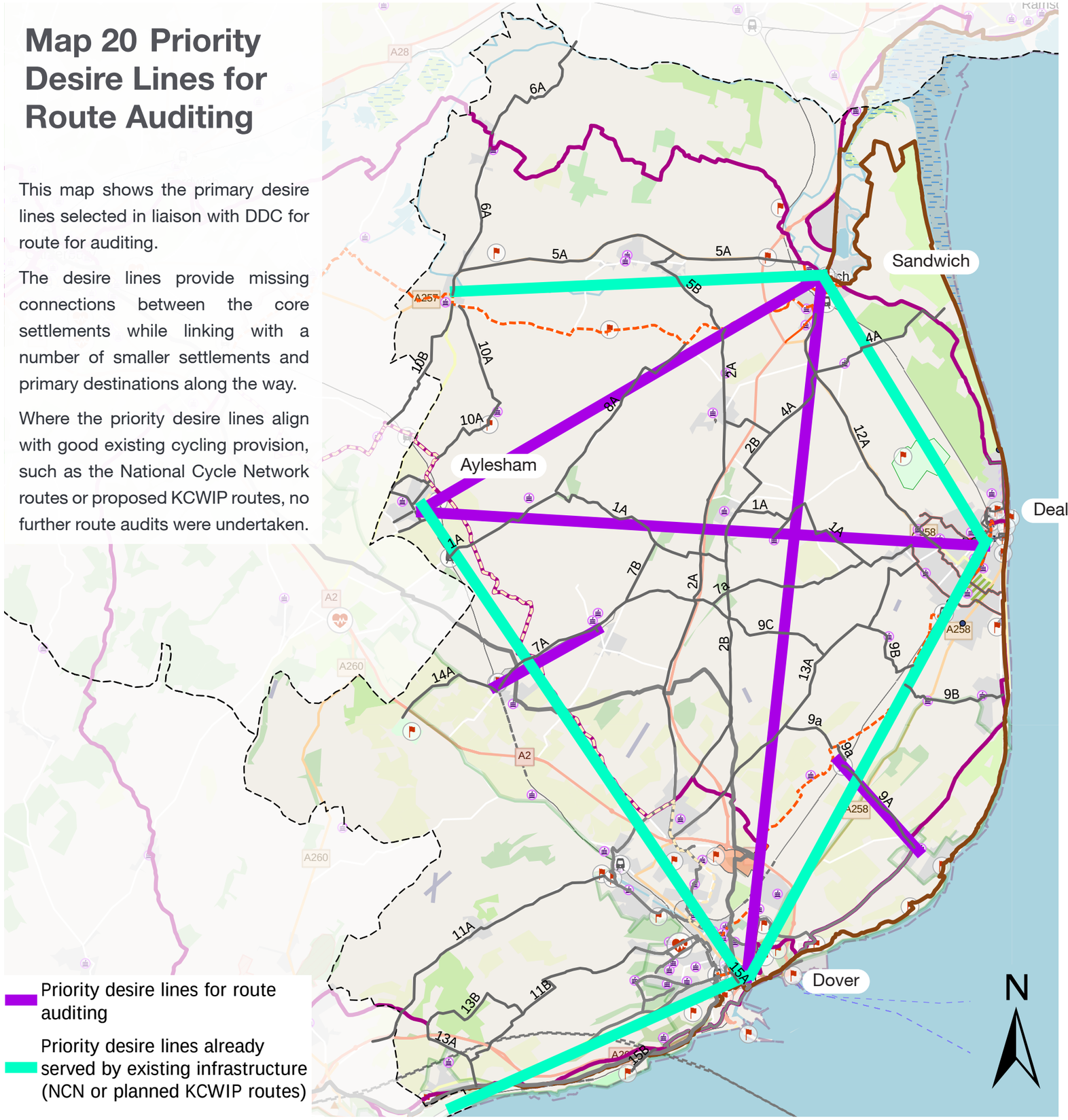
Where the priority route corridors align with good existing cycling provision, such as the National Cycle Network routes or proposed KCWIP routes, no further route audits were undertaken.

Map 20 Priority Desire Lines for Route Auditing

This map shows the primary desire lines selected in liaison with DDC for route for auditing.

The desire lines provide missing connections between the core settlements while linking with a number of smaller settlements and primary destinations along the way.

Where the priority desire lines align with good existing cycling provision, such as the National Cycle Network routes or proposed KCWIP routes, no further route audits were undertaken.



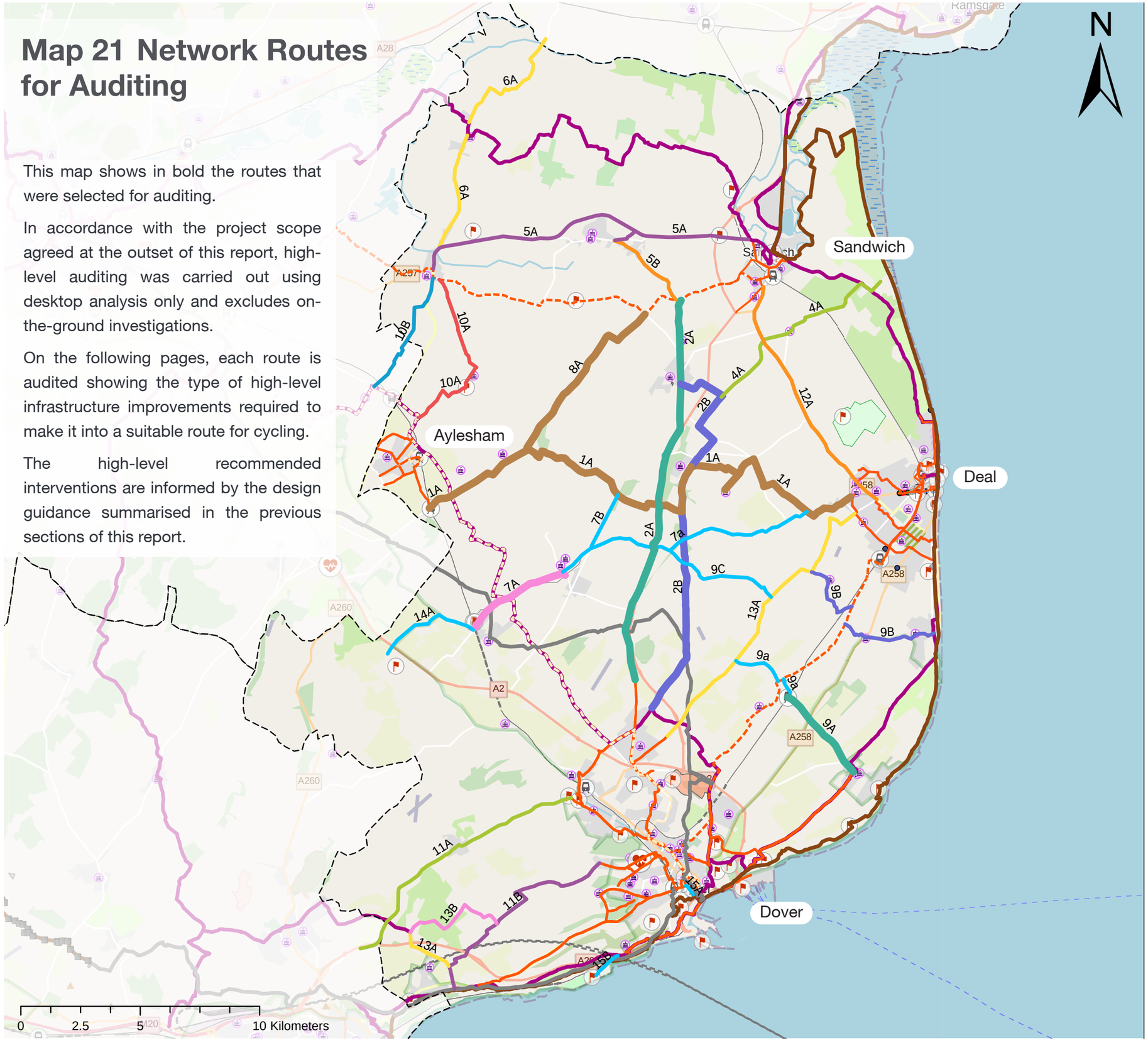
Map 21 Network Routes for Auditing

This map shows in bold the routes that were selected for auditing.

In accordance with the project scope agreed at the outset of this report, high-level auditing was carried out using desktop analysis only and excludes on-the-ground investigations.

On the following pages, each route is audited showing the type of high-level infrastructure improvements required to make it into a suitable route for cycling.

The high-level recommended interventions are informed by the design guidance summarised in the previous sections of this report.



Legend

- Dover District Boundary
- Key DDC attractions
- Hospitals
- Schools
- Railway Stations

Existing National Trails

- National Cycle Network
- Land Allocated for Employment in the LALP 2015
- North Downs Way (Off Road Cycling and Walking)
- England Coast Path (Pedestrains Only)

Proposed Cycle and Walking Routes

- 1A
- 2A
- 2B
- 2C
- 3A
- 4A
- 5A
- 5B
- 6A
- 7A
- 8A
- 9A
- 9B
- 10A
- 10B
- 11A
- 11B
- 12A
- 13A
- 13B
- Other values
- Routes from 2020 Audit

KCWIP Proposed Cycling Routes

- R3 Canterbury to Dover
- R9 Canterbury to Sandwich
- R7 Dover to Deal

Route Auditing

On the following pages, each route is audited showing the type of high-level infrastructure improvements required to make it into a suitable route for cycling.

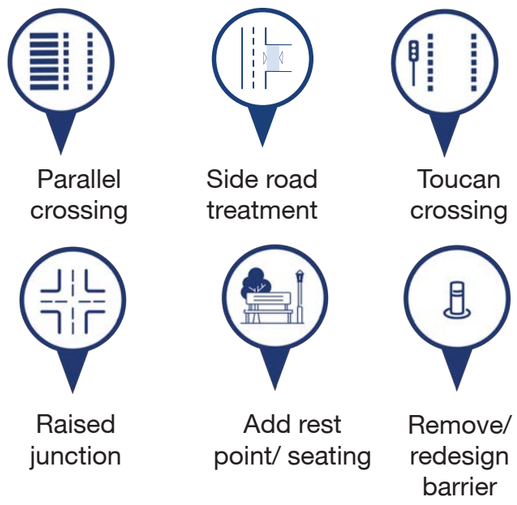
The high-level recommended interventions are informed by the design guidance summarised in the Appendix of this report.

Proposed Interventions

The proposed interventions consist of linear route interventions including:

- Mixed traffic - cyclists sharing the carriageway with vehicles (quietway treatment where necessary)
- Shared-use route within the highway - separated from the carriageway by horizontal separation
- Segregated cycle track and footway within the highway - fully kerbed, stepped or light segregation
- Greenway - motor traffic-free, shared route away from the highway
- Cycle Lane – flush with the carriageway (avoid if possible)
- 20mph speed limit
- 30mph speed limit

and proposed spot interventions, including:



Any highway interventions will require traffic surveys for detailed design development; the design of suitable interventions is closely linked to traffic volume and speed data. If traffic volumes and speeds are high and quiet way treatment is not viable, areas recommended for 'mixed traffic' may need to be considered for segregation or provision of shared-use path. Shared use paths may require land negotiation if there is insufficient horizontal space within highway boundary.

In instances where cycle routes pass through core walking zones, interventions should be reviewed holistically to explore opportunities for improving cycling and walking interventions at the same time.

The interventions toolkit on the following page provides an overview of the types of interventions and their definitions that are proposed as part of the route audits in order for routes to be brought up to a suitable standard.

Cycling Interventions Toolkit

The interventions toolkit provides an overview of the types of interventions and their definitions that are proposed as part of the route audits in order for routes to be brought up to a suitable standard. Some additional possible interventions are included which may be proposed after further detailed investigation.

Off-carriageway shared use path

Cycle facility separated from motor traffic typically through green space.

Quiet Lane/Quiet Way

Lane that is likely to be used by pedestrians, equestrians and cyclists as well as motorised traffic. Motor traffic volumes need to be less than 1,000 per day and speed under 30mph.

Fully kerbed segregated cycle track

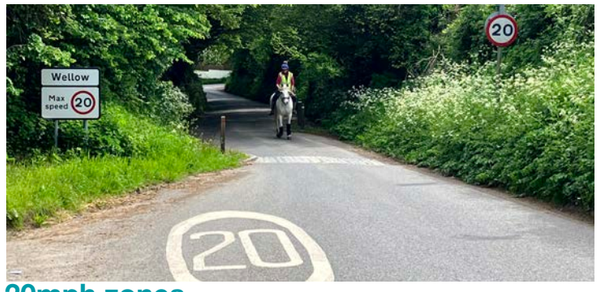
Cycle facility protected from motor traffic by a full-height kerb, with some buffer space between the cycle track and carriageway.

Modal filter

A bollard or planter in the carriageway which enables people to walk, wheel or cycle, but prevents motorised through-traffic.

Toucan Crossing

Signal-controlled crossing shared between pedestrians and cyclists with no separation between the two types of user.



20mph zones

Lower speed zones create safer environments for all, may need to be combined with infrastructure and enforcement changes to ensure compliance.

Stepped segregated cycle track

Cycle track is set below footway level, typically protected from the carriageway by a lower height kerb and usually directly next to it.

Contraflow cycle lane

Mandatory cycle lane that allows cyclists to travel opposite the flow of vehicle traffic, allowing for greater permeability of the cycle network.

Parallel Crossing

The parallel crossing is similar in form and application to a zebra crossing, but with a separate parallel cycle crossing alongside the zebra crossing.

Drivers must give way to pedestrians and cyclists using the crossing. It provides a lower cost solution compared to signalised facilities.

Rationalising or reallocating car parking

In areas where pavement parking and parking that has negative impact on pedestrians occurs, parking can be rationalised or reallocated to remove barriers to movement and increase attractiveness of area.

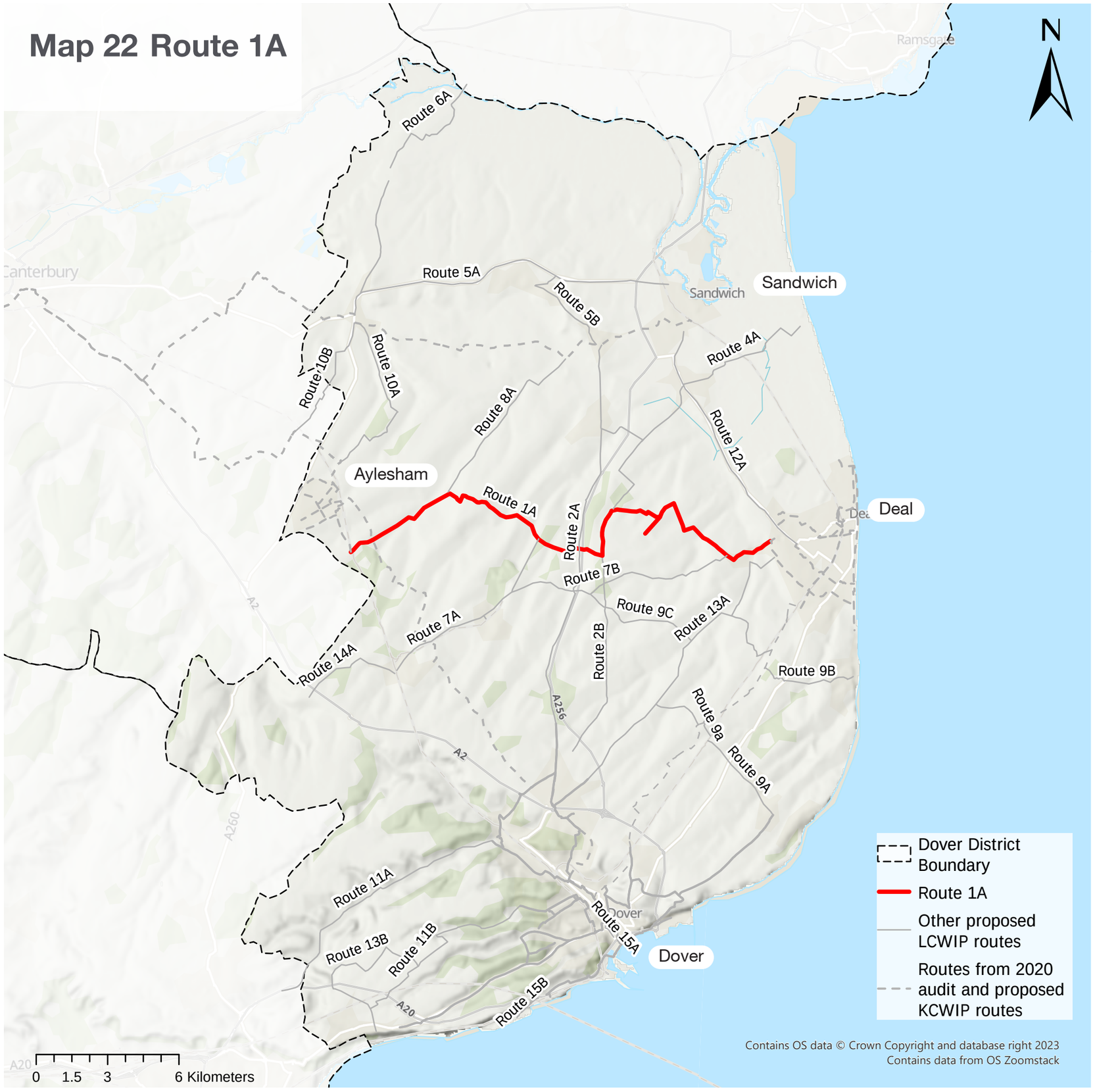
Mandatory cycle lane w/ light segregation

Cycle lane with the use of intermittent physical features placed along the inside edge of a mandatory cycle lane to provide additional protection from motor-vehicles.

Pedestrian/cyclist priority street

Street design that prioritises pedestrian and cyclist travel. Characterised by lower traffic speeds, restricted motor vehicle access, and coloured paving materials.

Map 22 Route 1A



Route 1A

Route overview: Route 1A connects Aylesham to Deal. The route starts south of Aylesham at Snowdown Station. It follows Holt Street, passing through Nonington and then joining Sandwich Road for 1.7km. At this point the route turns right onto a lane before shortly following Thornton Road and then joining an existing bridleway and smaller roads. The route uses an existing bridge across the A256, continuing along a bridleway until Betteshanger where the route joins a road again. The route ends in the north area of Deal (Upper Deal).

The route links to the following key destinations:

- Aylesham
- Snowdown Station
- Nonington Primary School (500m off route) and Beech Grove School
- Betteshanger
- Northbourne Park School and Northbourne Park Pre-prep School
- Deal
- Hornbeam Primary School

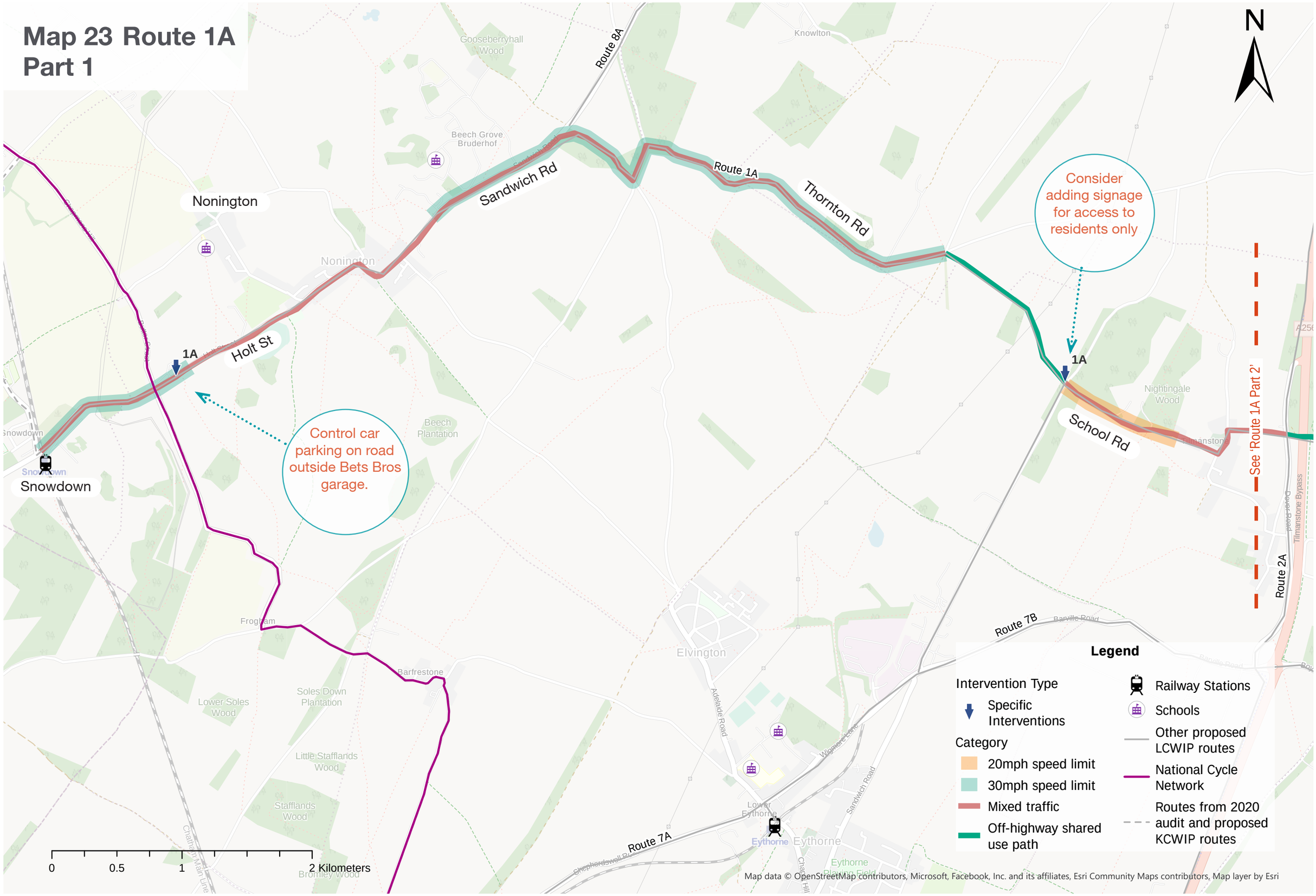
Existing surface finishes: Primarily on-highway; the two sections along existing bridleway will require new surfacing.

Connections to existing cycling infrastructure and KCWIP routes: The route connects to NCN and KCWIP Canterbury to Dover to the West of the route. To the east of route in Deal the route connects to 2020 routes.

Constraints and opportunities:

The route has the potential to provide improved access to several education facilities.

Map 23 Route 1A Part 1



Map 24 Route 1A Part 2

Route utilises existing bridleway for traffic free sections

Existing bridge over A256

Route to be diverted off the PROW onto adjoining field boundary to avoid mature woodland for approx. 400m

Vehicles parked observed in google street view. Consider preventing car parking to avoid narrowing carriageway.

Connects to Deal via 2020 routes

See 'Route 1A Part 1'

Betteshanger

Northbourne Rd

Route 1A

Route 2A

Route 2B

Route 7B

Route 9C

Route 12A

Mongeham Rd

1A

Updown Farm

Straight Mile

Betteshanger Substation

Intercrop

Broad Lane

Northbourne Park School

Northbourne Park School Nursery & Pre-Prep

Dover Road

A256

A258

Sandwich Road

Sholden

Upper Deal

Great Mongeham

Little Mongeham

Deal Road

Tilmanstone Bypass

Willow Woods Road

Banville Road

Boys Hill

East Studdal

Ripple

Mill Hill

Walmer

0 0.5 1 2 Kilometers

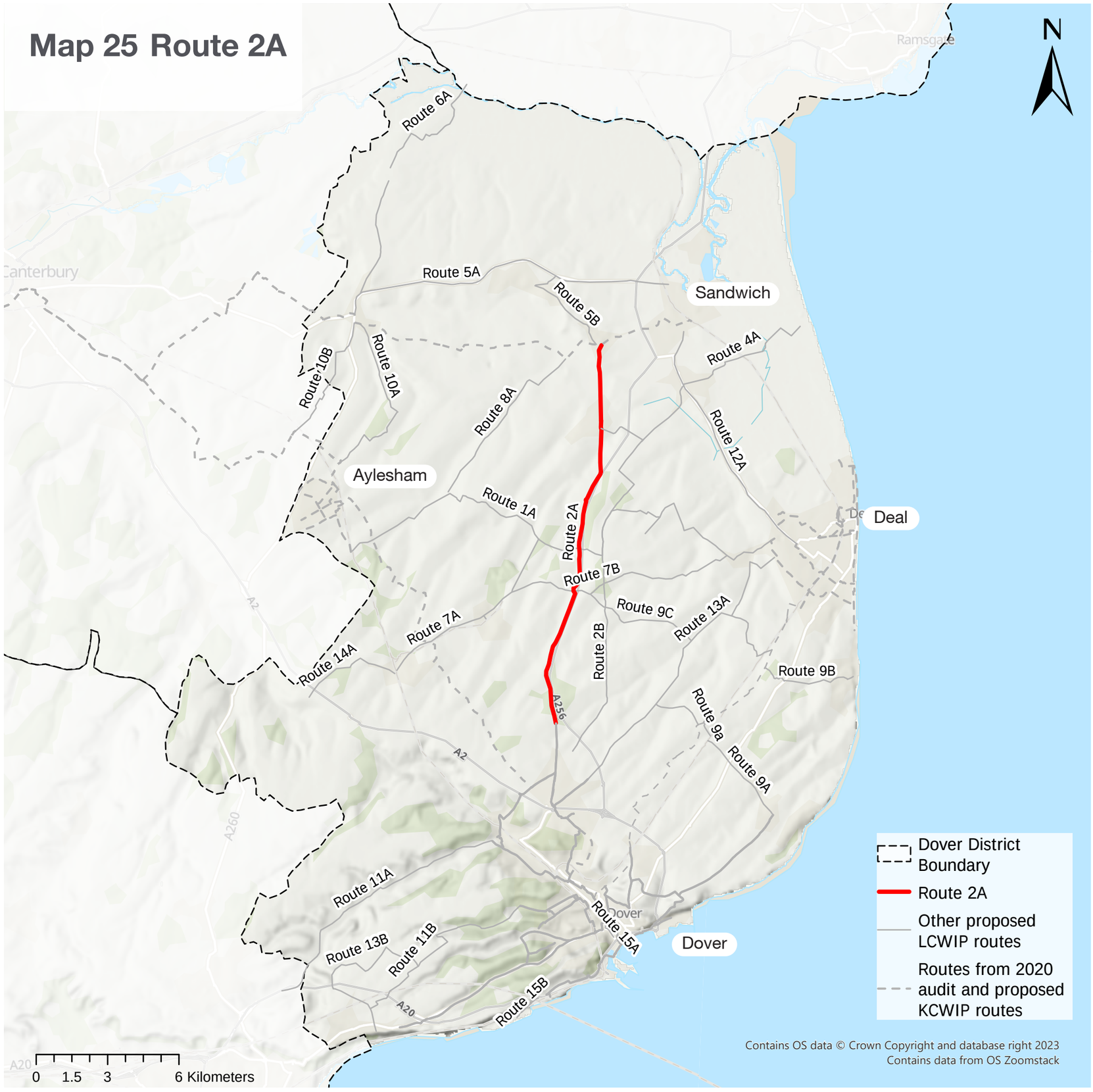
Legend

Intervention Type

- Specific Interventions

Category

- 20mph speed limit
- 30mph speed limit
- Mixed traffic
- Off-highway shared use path
- Railway Stations
- Schools
- Other proposed LCWIP routes
- National Cycle Network
- Routes from 2020 audit and proposed KCWIP routes



Route 2A

Route overview: Route 2A connects Woodnesborough to Dover via Eastry. Ultimately, the route links Sandwich and Dover when combined with KCWIP and the 2020 routes. Starting in Woodnesborough, the route passes through Eastry, following the A256 for the majority of the route till it reaches Dover.

The route links to the following key destinations:

- Woodnesborough
- Eastry
- Eastry Church of England Primary School and Woodnesborough Football Club
- Tilmanstone
- Dover & Sandwich (subject to KCWIP and 2020 routes being built)

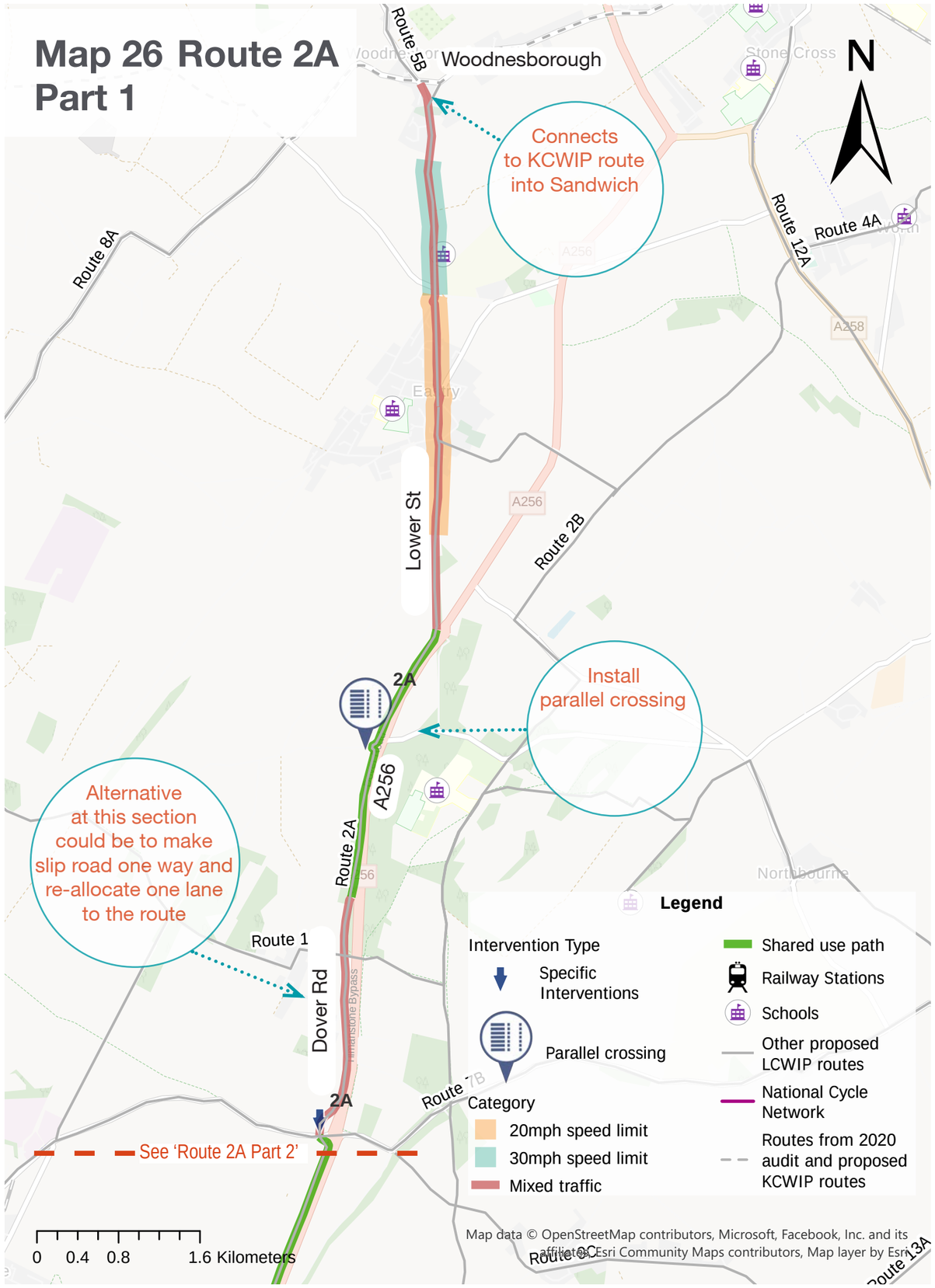
Existing surface finishes: Sections of on-highway and off-highway shared use path. The sections of off-highway shared use path may require new surfacing.

Connections to existing cycling infrastructure and KCWIP routes: The route connects to KCWIP Canterbury to Sandwich to the North of the route, which provides the link to Sandwich. A 2020 route connects to the south providing the link to Dover.

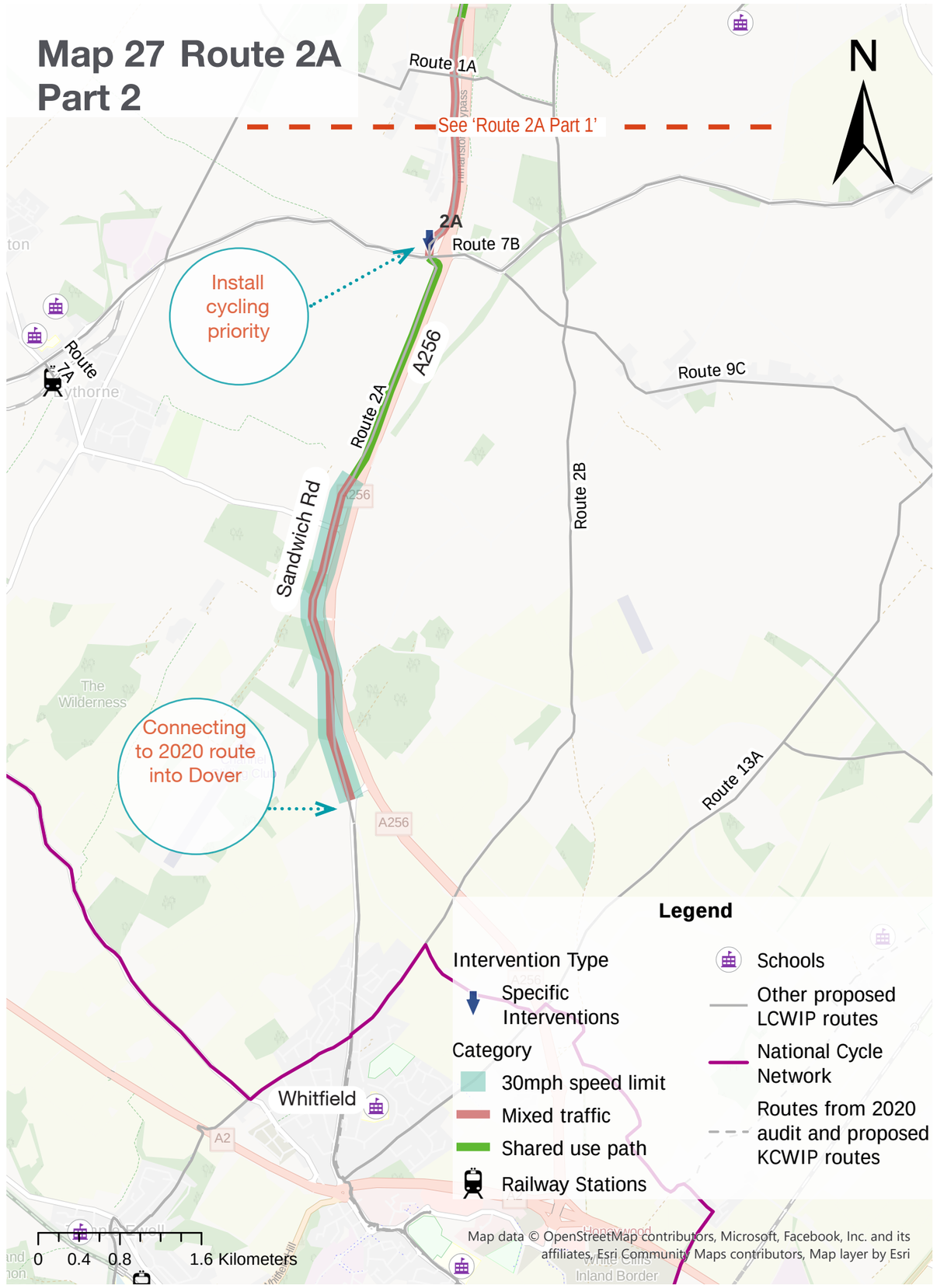
Constraints and opportunities: At the Dover Road/ Barville Road junction adjacent to the A256 roundabout currently hostile to cycling and walking. Would need to provide safe and comfortable provision potentially via upgrading the path that runs parallel and providing safe crossings. Another alternative that could be investigated is to make the slip road one way and re-allocate one lane to the route.

Sections of this route have existing shared-use path which can be upgraded and utilised to make this a safe and coherent route.

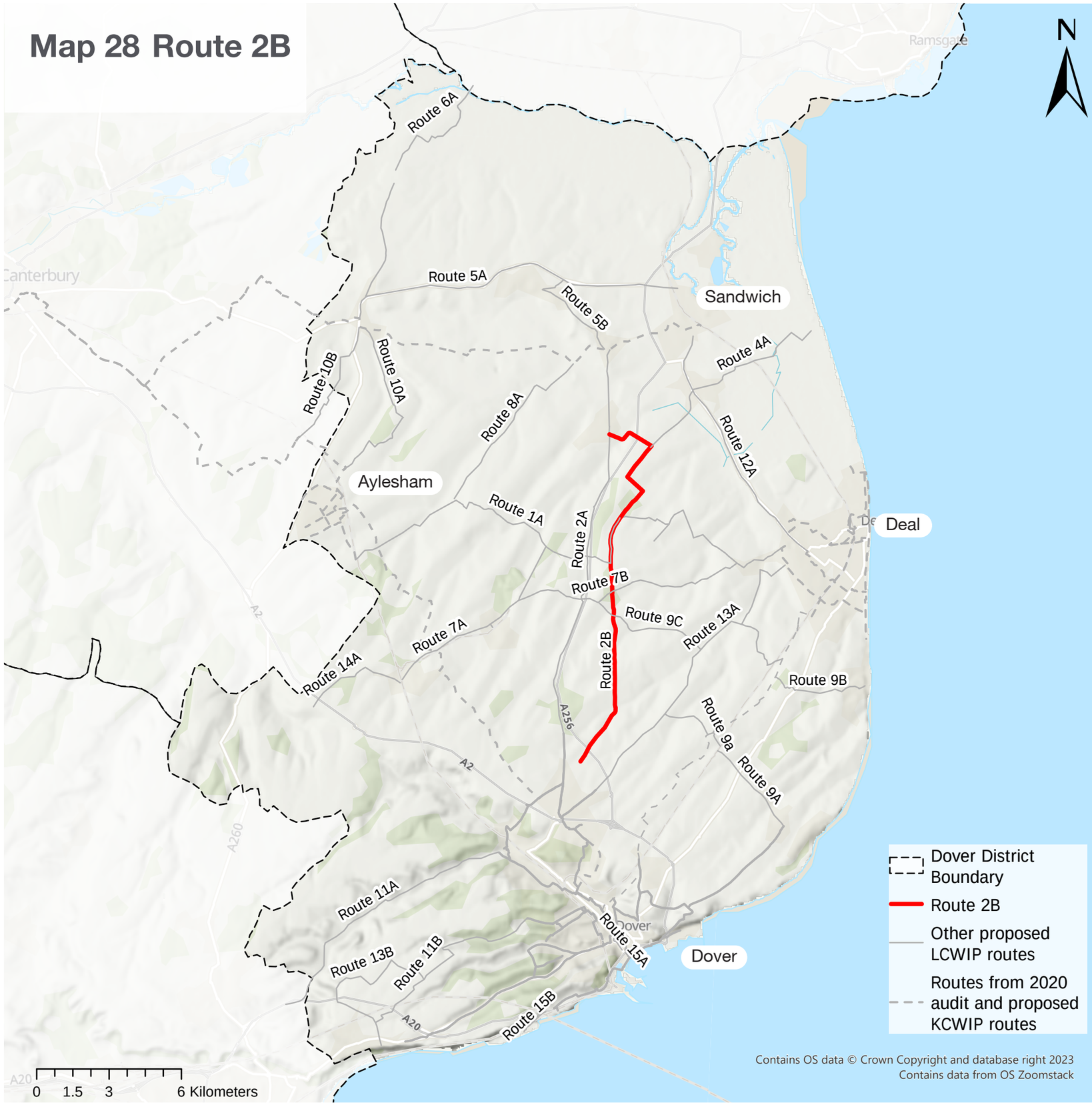
Map 26 Route 2A Part 1



Map 27 Route 2A Part 2



Map 28 Route 2B



Route 2B

Route overview: Route 2B is an alternative alignment to route 2A linking Sandwich and Dover, following sections of Roman Road.

The route links to the following key destinations:

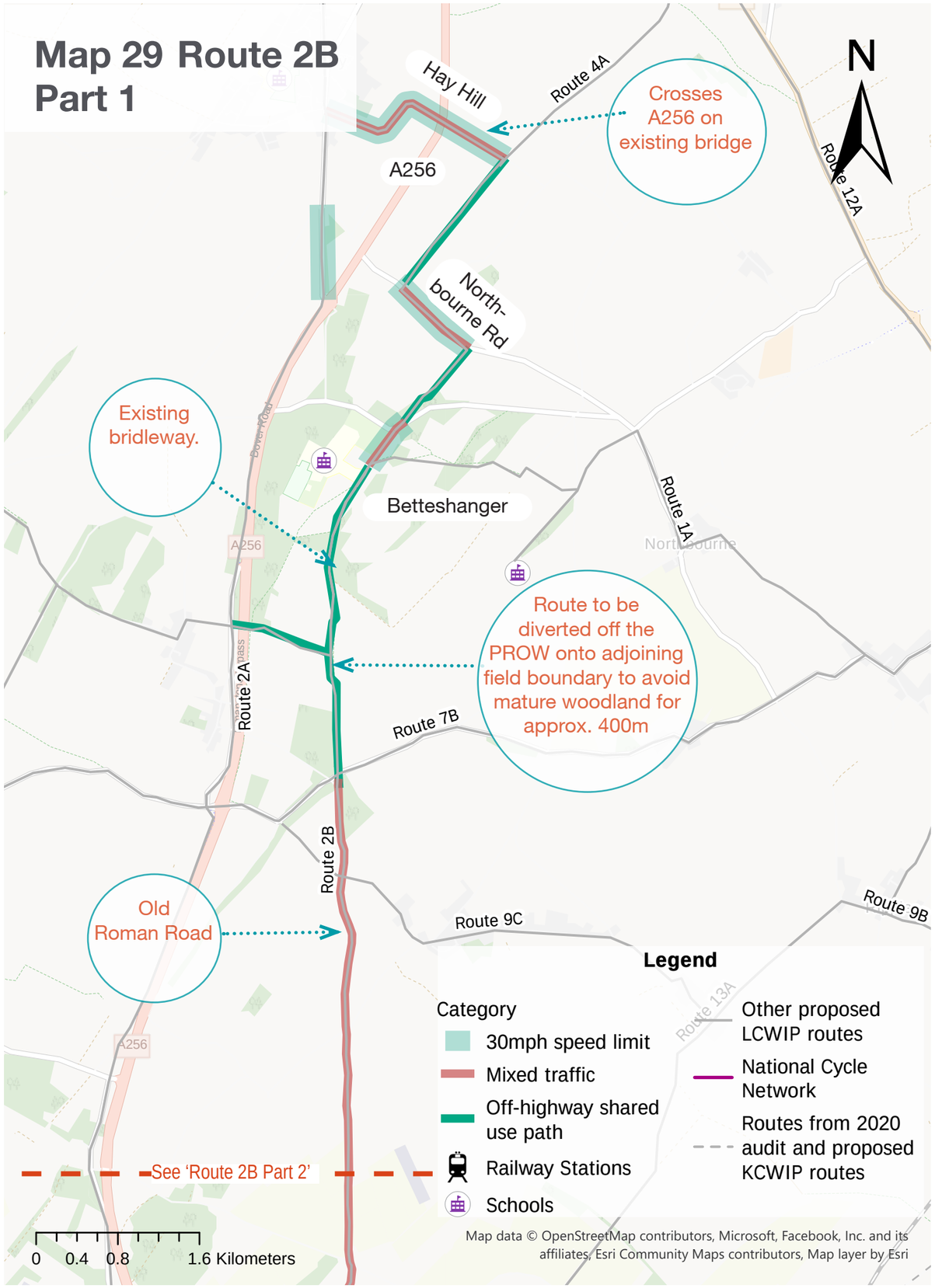
- Eastry
- Eastry Church of England Primary School
- Betteshanger
- Northbourne Park School
- Dover
- Dover & Sandwich (providing KCWIP and 2020 routes are built)

Existing surface finishes: Sections on existing bridleway and on highway. The sections along the existing bridleway will require new surfacing.

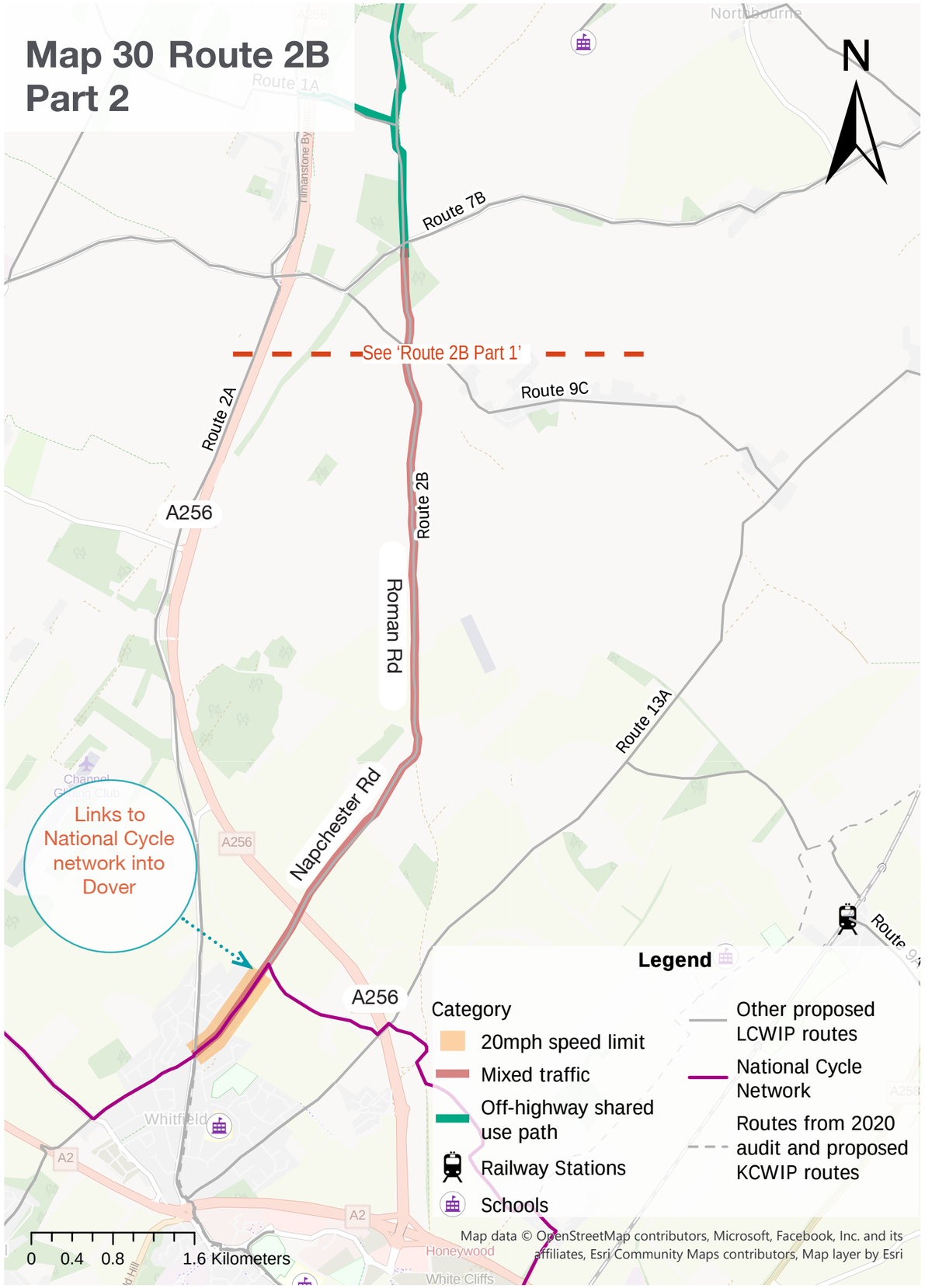
Connections to existing cycling infrastructure and KCWIP routes: The route connects to 2020 route in the south.

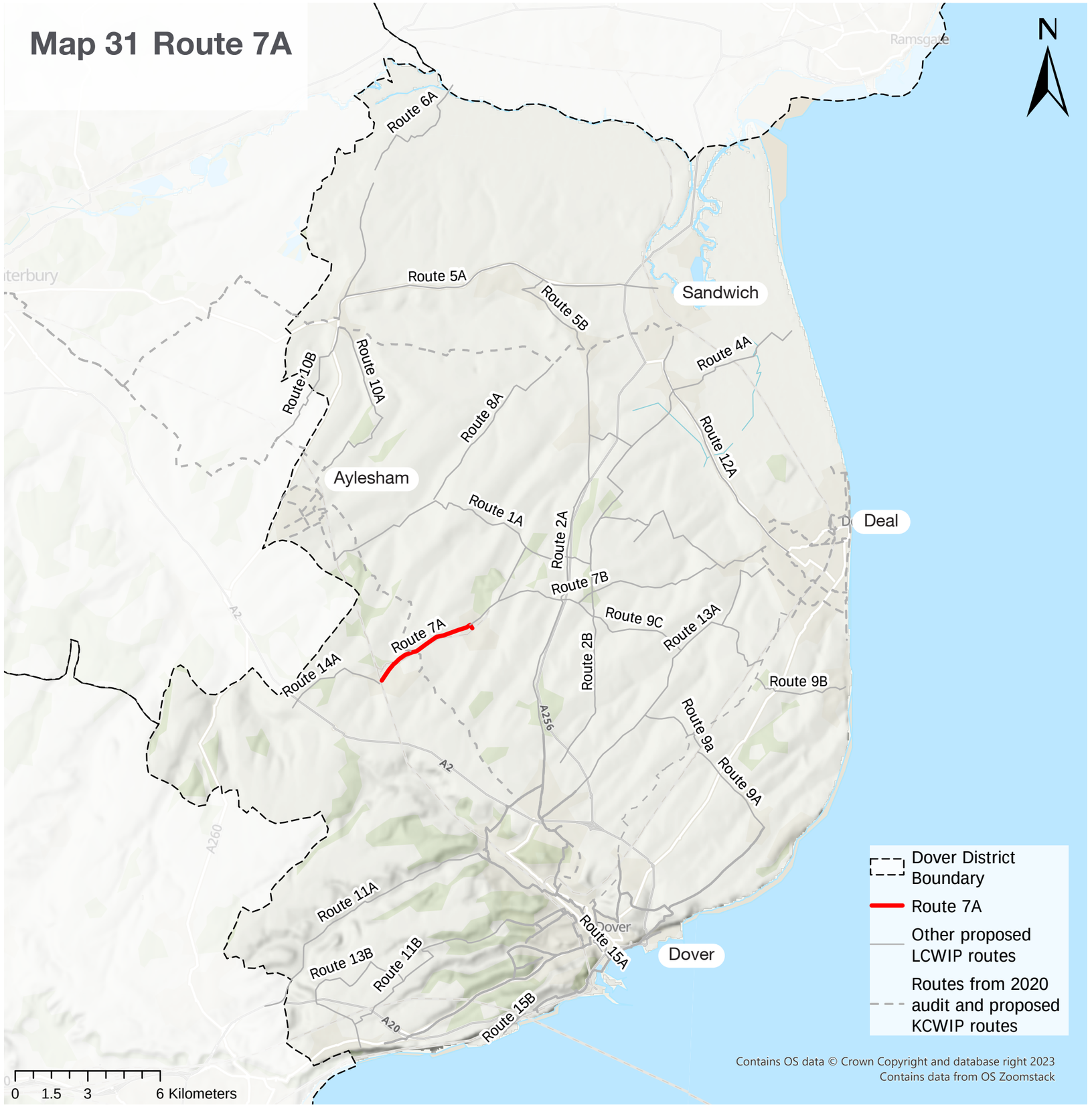
Constraints and opportunities: If route 2A is a chosen alignment the section through Eastry from 2B may want to be considered in addition to connect the route in the North.

Map 29 Route 2B Part 1



Map 30 Route 2B Part 2





Route 7A

Route overview: Route 7A connects Shepherdswell and Eythorne. The alignment follows Shepherdswell Road.

The route links to the following key destinations:

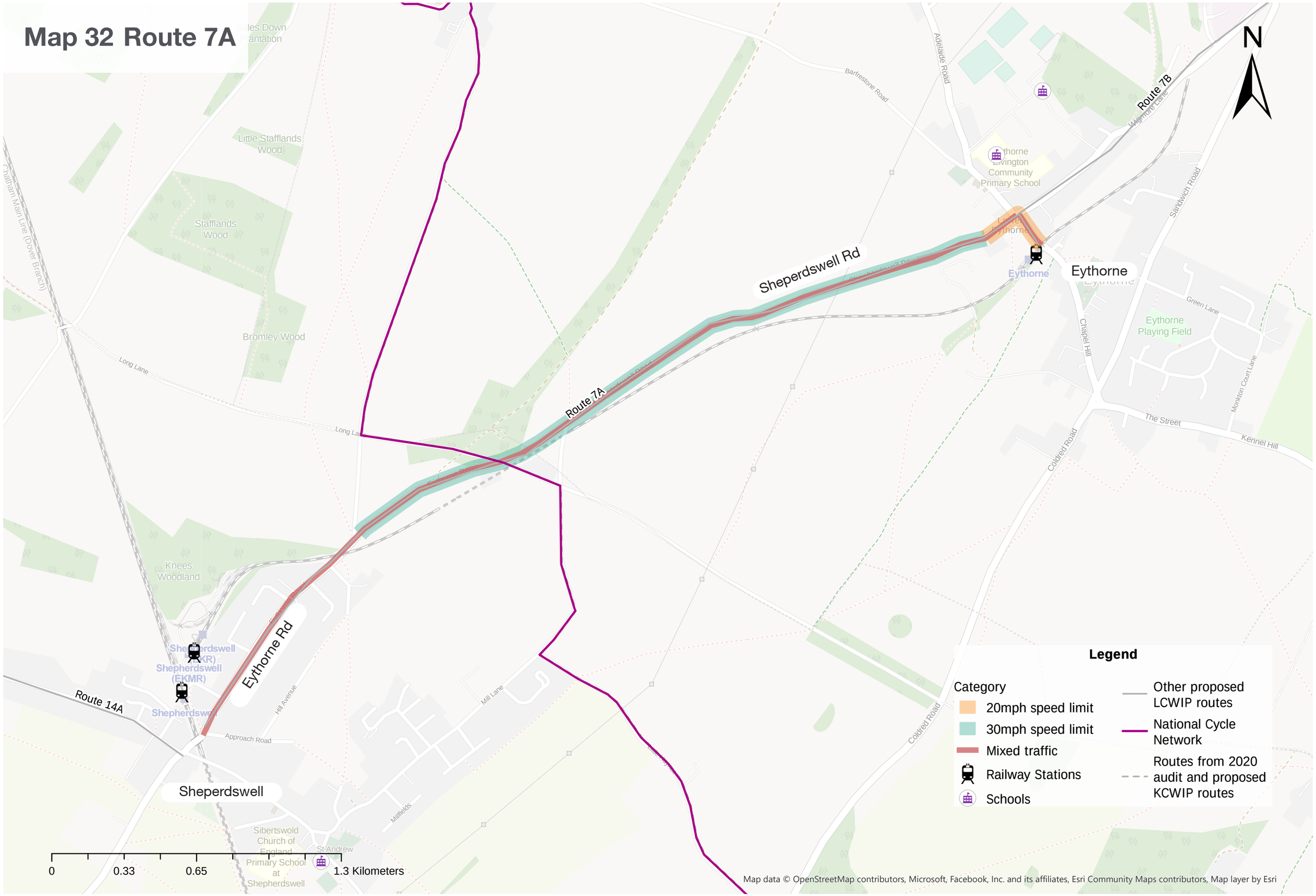
- Shepherdswell
- Shepherdswell Station
- Eythorne
- Eythorne Elvington Community Primary School and Woodpecker Court
- New allocated development in Eythorne
- Shepherdswell C Of E Primary School 500m from the route

Existing surface finishes: On-highway.

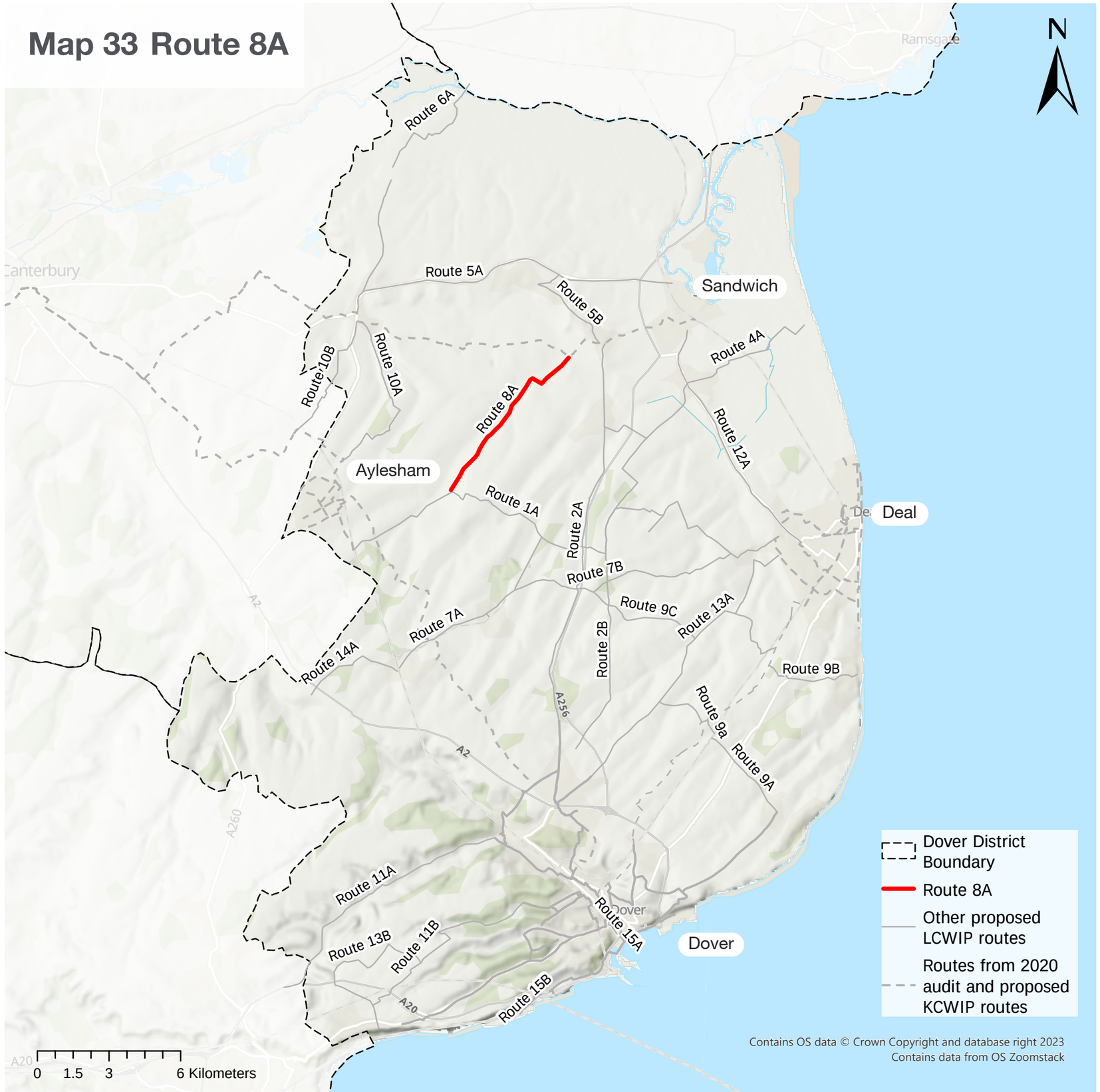
Connections to existing cycling infrastructure and KCWIP routes: The route connects to National Cycle Network and KCWIP route Canterbury to Dover.

Constraints and opportunities: Provides improved links between Shepherdswell and Eythorne and onward travel to surrounding settlements and towards Deal and Sandwich. Provides improved access to local schools.

Map 32 Route 7A



Map 33 Route 8A



Route 8A

Route overview: Route 8A connects Aylesham to Sandwich in conjunction with Route 1A and KCWIP route Canterbury to Sandwich.

The route links to the following key destinations:

- Aylesham
- Woodnesborough
- Sandwich

Existing surface finishes: On-highway.

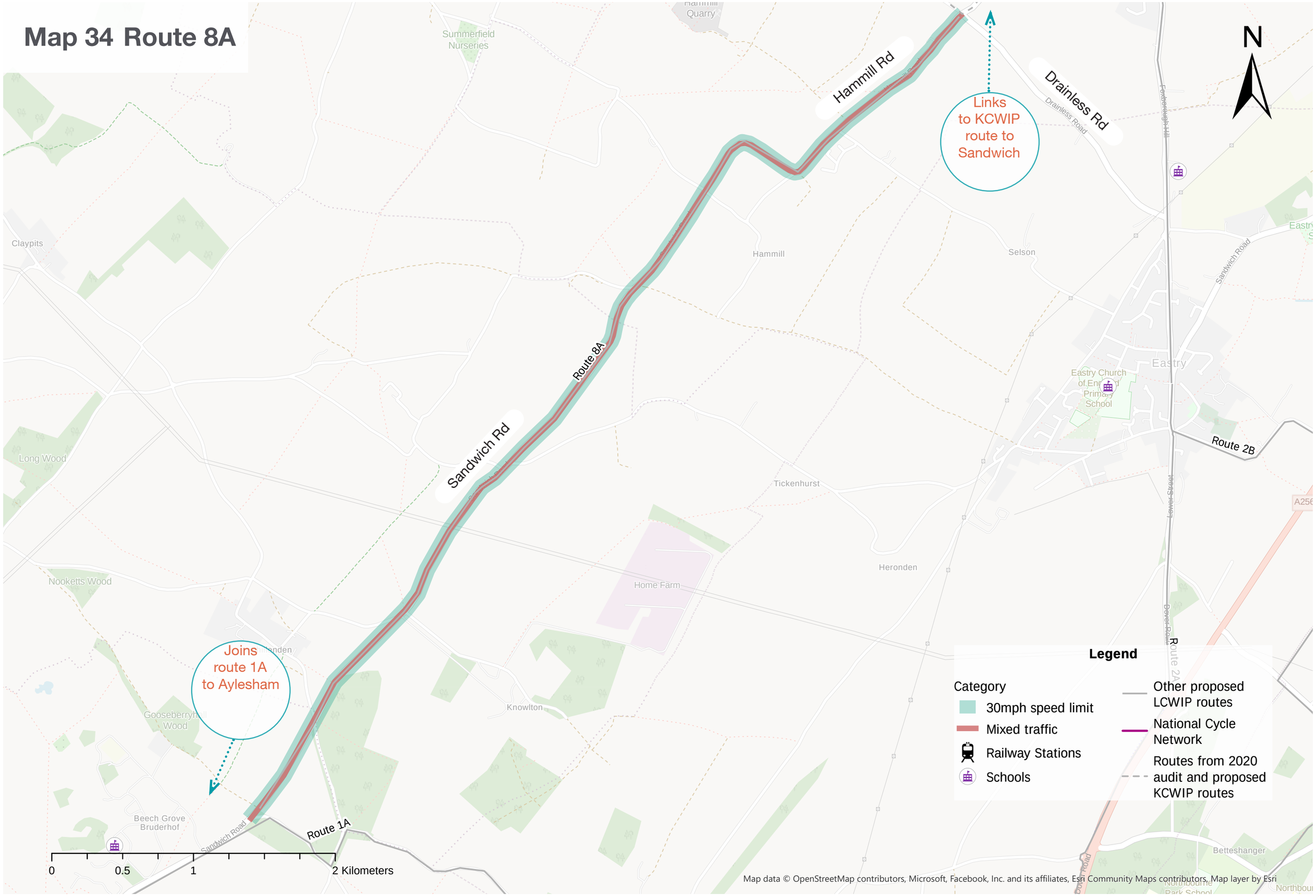
Connections to existing cycling infrastructure and KCWIP routes: The route connects to KCWIP route Canterbury to Sandwich to the North.

Constraints and opportunities:

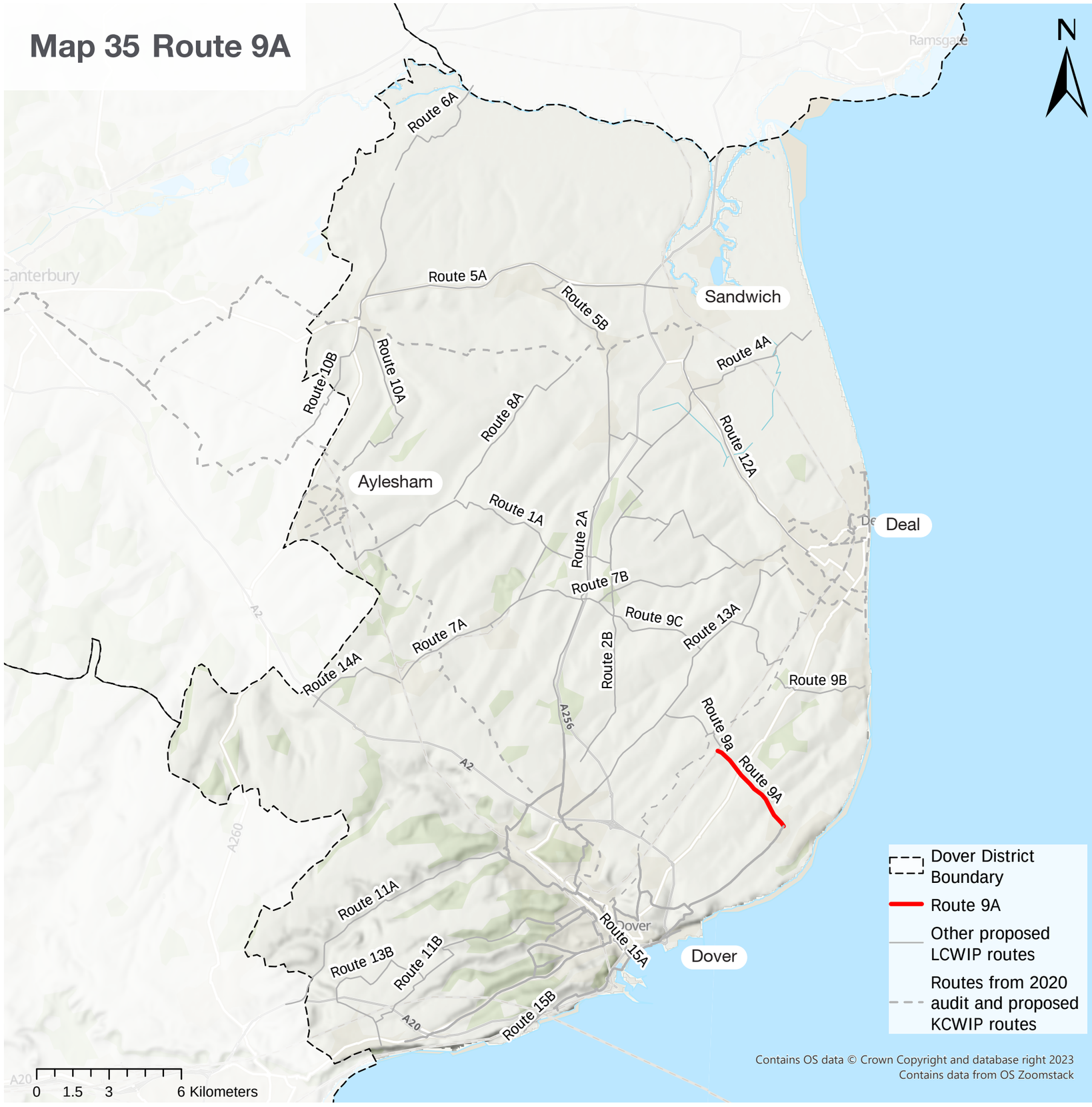
Flat topography.

Opportunity to consider options for a shared-use route behind hedge boundary or within the highway but separated from the carriageway by horizontal separation.

Map 34 Route 8A



Map 35 Route 9A



Route 9A

Route overview: This route connects St Margarets at Cliffe and Martin Mill station.

The route links to the following key destinations:

- St Margarets Bay
- St Margarets at Cliffe
- Martin Mill
- Martin Mill Station
- St Margarets at Cliffe Primary School and Portal House School
- St Margarets Bay Holiday Park
- Langdon Primary School

Existing surface finishes: Primarily on-highway with sections on shared use path and segregated cycle paths.

Connections to existing cycling infrastructure and KCWIP routes: The route connects to NCN and KCWIP route Dover to Deal.

Constraints and opportunities: engagement feedback indicated that this route is regularly used by school pupils and visitors to the area. It would be worth investigating whether traffic free provision can be provided for the entirety of the route.

Map 36 Route 9A

5. Network Planning for Walking

Network Planning for Walking across Dover District is based on the same baseline analysis as the Network Planning for Cycling. Journeys between trip generators and attractors for county-wide destinations share the same desire lines.

Long distance walking routes therefore share most routes proposed in the Network for Cycling in the form of shared routes and the needs of pedestrians should be taken into consideration when undertaking further development and investigation into the infrastructure improvements for these routes.

Within towns and settlements, the number of walking trip generators are typically located closer together and can be defined in Core Walking Zones for further investigation. Within Core Walking Zones relevant walking routes were selected where most of the pedestrian activity was identified, to carry out audits.

Walking trip attractors include common journey destinations such as transport interchange facilities, town and village centres, schools, higher education, workplaces, retail areas, medical facilities, and key tourist/leisure destinations.

In most places a comprehensive network which accommodates most pedestrian trips already exists, however some people may be deterred from using them due to severance issues, such poor crossings, narrow footways, or because facilities are poorly designed or maintained.

Selection of Walking Routes for Auditing

In consultation with DDC, it was decided not to revisit Sandwich, Deal, Dover Town and Aylesham which received recommendations for walking in the Town Audits from 2020 but to identify and audit Walking Routes at other key locations across the district instead.

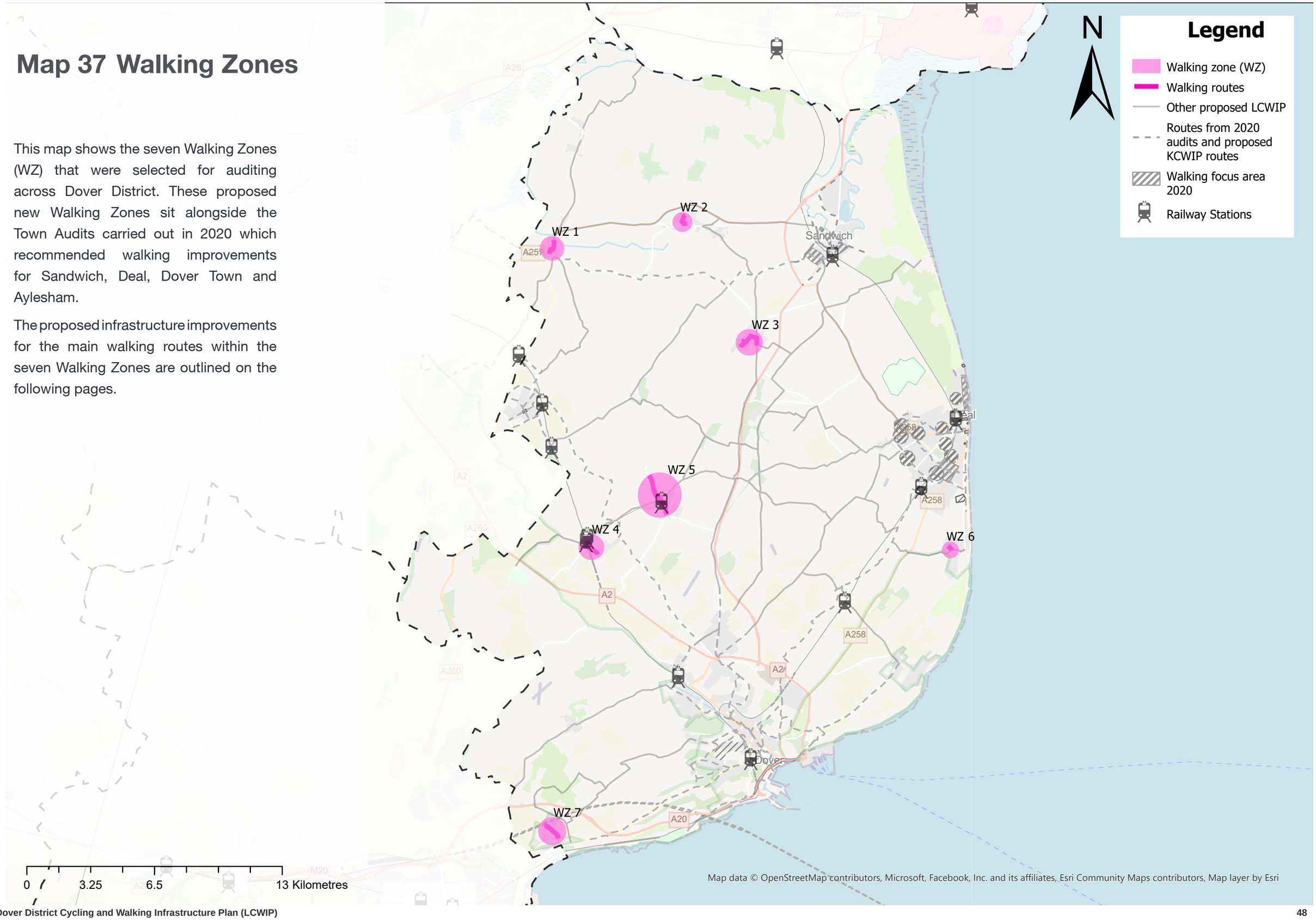
The Walking Routes for auditing were selected based on the following criteria:

- Desk-based analysis
- Presence of walking trip attractors
- Links to future development sites such as emerging housing and employment facilities
- Links to public rights of way, existing long-distance routes and planned KCWIP routes
- Engagement feedback
- Agreement with Dover District Council

Map 37 Walking Zones

This map shows the seven Walking Zones (WZ) that were selected for auditing across Dover District. These proposed new Walking Zones sit alongside the Town Audits carried out in 2020 which recommended walking improvements for Sandwich, Deal, Dover Town and Aylesham.

The proposed infrastructure improvements for the main walking routes within the seven Walking Zones are outlined on the following pages.



High-Level Walking Infrastructure Improvements

The high-level Walking Zone audits presented on the following pages summarises the infrastructure improvements that are required for walking routes within the Walking Zones to be brought up to a suitable standard.

The proposed interventions have been informed by the design guidance presented in the previous chapters of this report and incorporates improvements described in the 'Walking Interventions Toolkit' on the next page.

In accordance with the project scope agreed at the outset of this report, high-level auditing has been carried out using desktop analysis tools and excludes detailed on-the-ground analysis and considerations of existing surface conditions or requirements for lighting.

Each Walking Zone was reviewed to identify the most relevant walking routes within the zone and to prioritise infrastructure improvements along these.

Most of the walking routes identified within the Walking Zones are links between train stations, schools and residential areas.

Common themes across all seven CWZ include: narrow or non-existing footways, junctions with limited or no pedestrian crossing provision and bus stops without shelter or bench.

Further investigation and development will be required to develop detailed location-specific designs. They should include site visits, surveys of traffic volumes and speeds, ecology, topography, highway boundaries revision, private land negotiations and further public consultation.

" High-level walking infrastructure audits presented on the following pages summarise the interventions required to bring the most relevant walking routes within the selected Walking Zones up to a suitable standard."

Walking Interventions Toolkit

The interventions toolkit provides an overview of the types of interventions and their definitions that are proposed as part of the core walking zone audits in order for walking routes to be brought up to a suitable standard.

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Quiet Lane/Quiet Way

Lane that is likely to be used by pedestrians, equestrians and cyclists as well as motorised traffic. Motor traffic volumes need to be less than 1,000 per day and speed under 30mp.

20mph speed zones

Lower speed limits and lower speed zones create safer environments for all, may need to be combined with infrastructure and enforcement changes to ensure compliance.

Zebra crossing

Pedestrian priority crossing requiring motorists to give way to pedestrians.

Signalised crossing

Signal-controlled crossings comprising either a Pelican/Puffin for pedestrians or a Toucan which can be shared between pedestrians and cyclists.

Dropped kerbs with tactile paving

Necessary to create inclusive, accessible crossing points for pedestrians. It needs to be included in any type of crossing.

Raised table

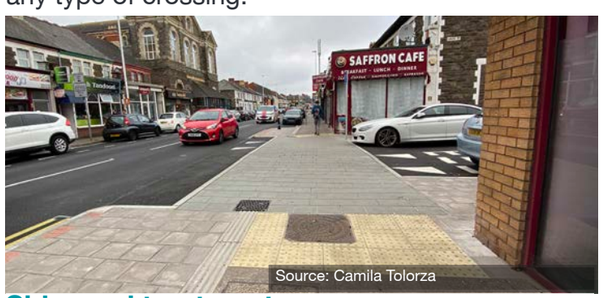
Raised tables at junctions reduce speeds of turning vehicles at side roads or across the entire junction.

Bus stop shelter

Bench and roof at bus stops to provide comfort for people waiting.

Wayfinding

Providing signage with key destinations helps improve the legibility of the pedestrian network.



Source: Camila Tolorza

Side road treatment

Interventions across side roads where pedestrians have priority over motor vehicles, such as continuous footways and/or use coloured paving materials.

Public realm improvements

Adding green infrastructure such as planters, rest areas, cycle parking and other placemaking interventions creates a more welcoming environment for pedestrians.

Modal filter

A bollard or planter in the carriageway allows people to pass by walking or cycling. It helps create a low-traffic environment by restricting access to motorised through-traffic. Modal filters need to be at least 2 meters apart.

Redesign road layout

Reallocating space from the carriageway to support wider footways, cycle facilities, and vehicle parking. The creation of a one-way system is an example of this approach.

Walking Route 1

Wingham

Overview

The Walking Zone covers the area with the greatest pedestrian activity in Wingham village centre, which requires safe walking facilities for the people and nearby schools and utilities. Specifically, it focuses on the link between Wingham Primary School and the residential area. This includes a section of A257 Canterbury Road and B2046 High Street, intersecting with Harris's Alley, St. Mary's Meadow, and North Court Road.

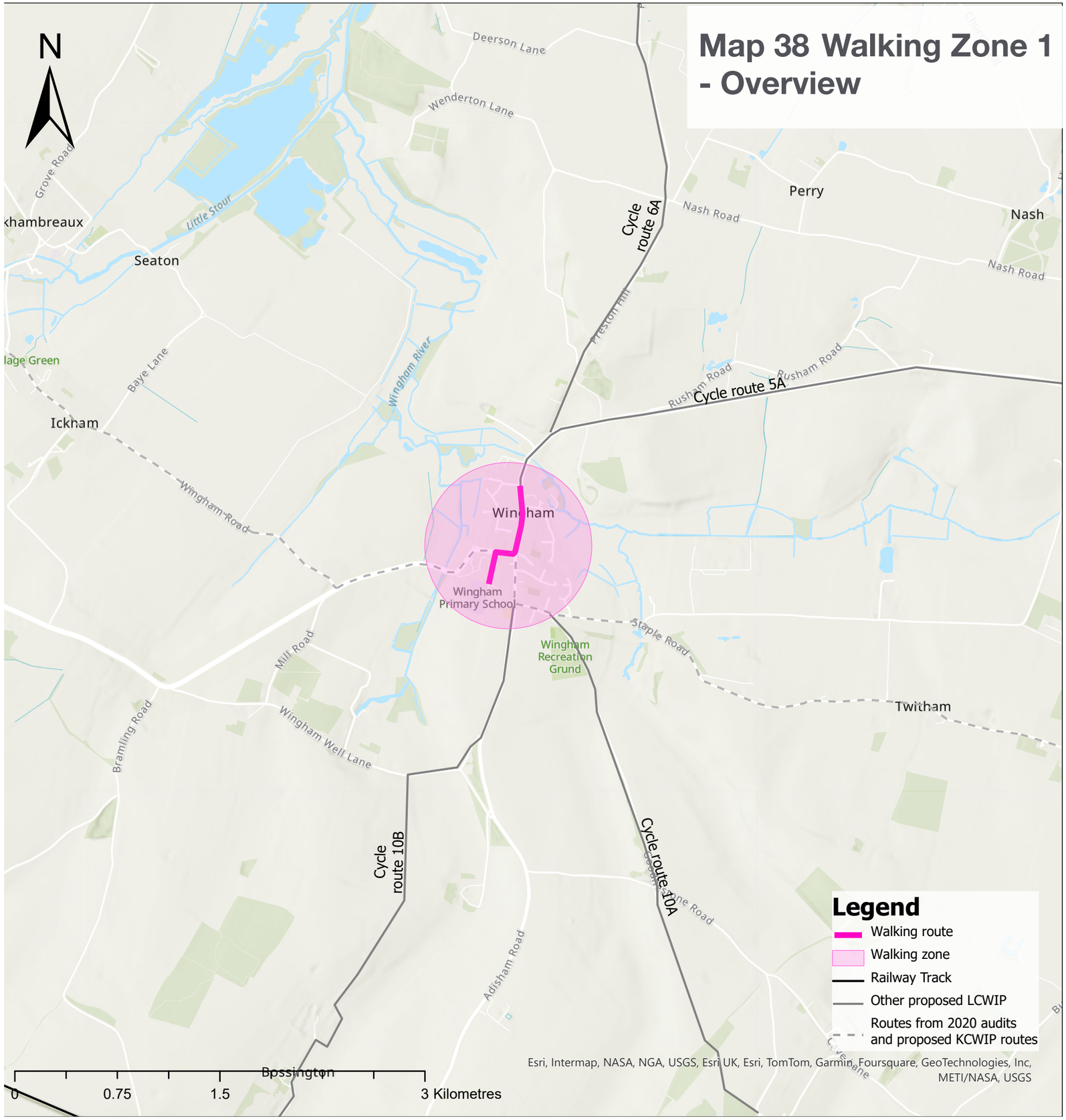
The Walking Zone 1 links with KCWIP Route Canterbury to Sandwich and Cycle route 5A, 6A and 10B from this report.

Opportunities

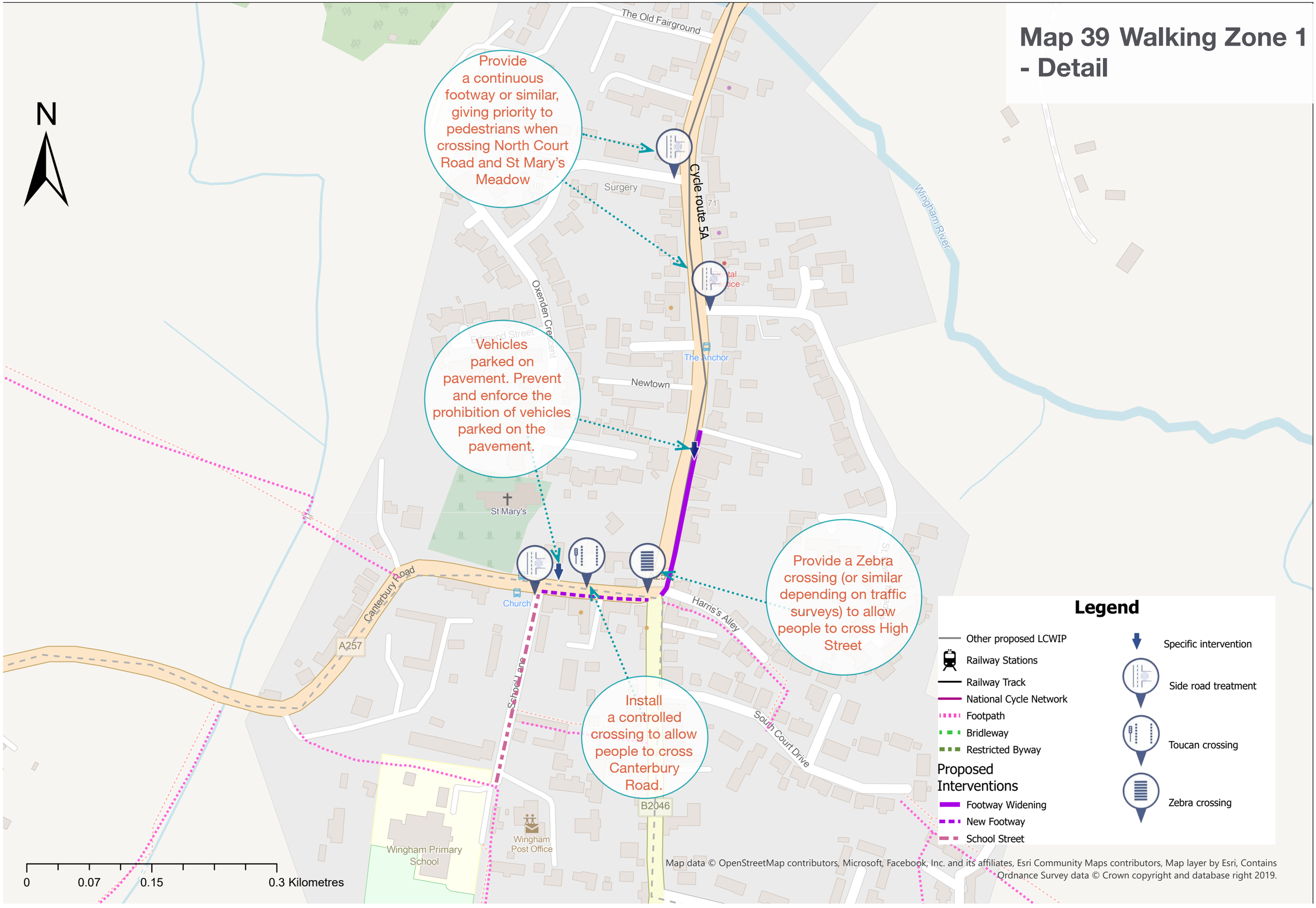
- High Street already a 20mph speed limit
- Greenery available along High Street with benches to rest
- The village spans less than 2 kilometres, a walkable distance for pedestrian movement

Constraints

- Narrow pavements along the first section of the high street
- No pavement on the south side of Canterbury Road
- Cars parked on pavement in high Street



Map 39 Walking Zone 1 - Detail



Walking Zone 2

Ash

Overview

The Walking Zone covers the area between the two schools in the town, which require safe walking facilities for the people. The area includes the paths around Ash, Cartwright & Kelsey Church of England Primary School and The Street in front of St Faith's at Ash School

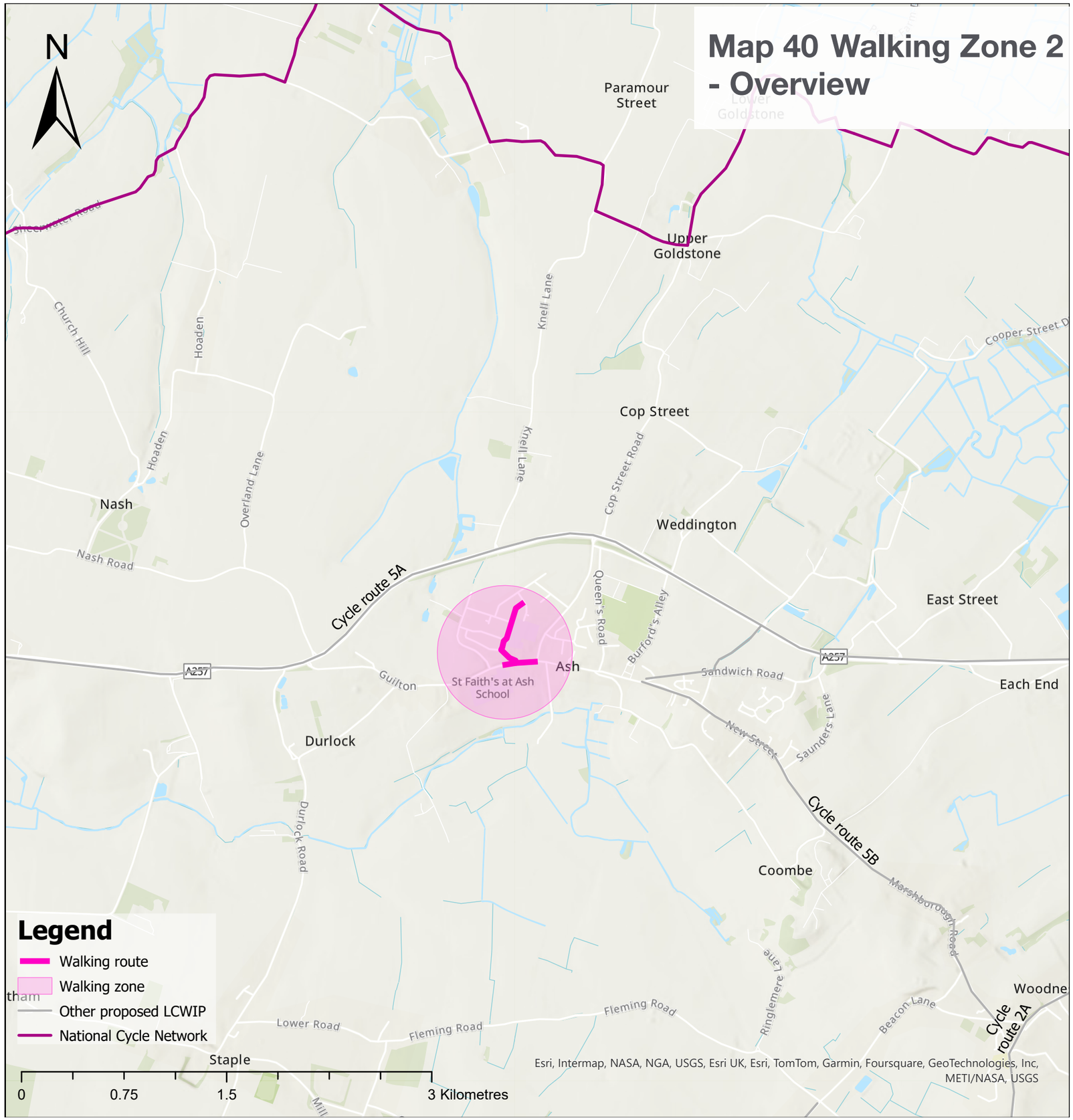
The Walking Zone 2 is close to the Cycle route 5A from this report.

Opportunities

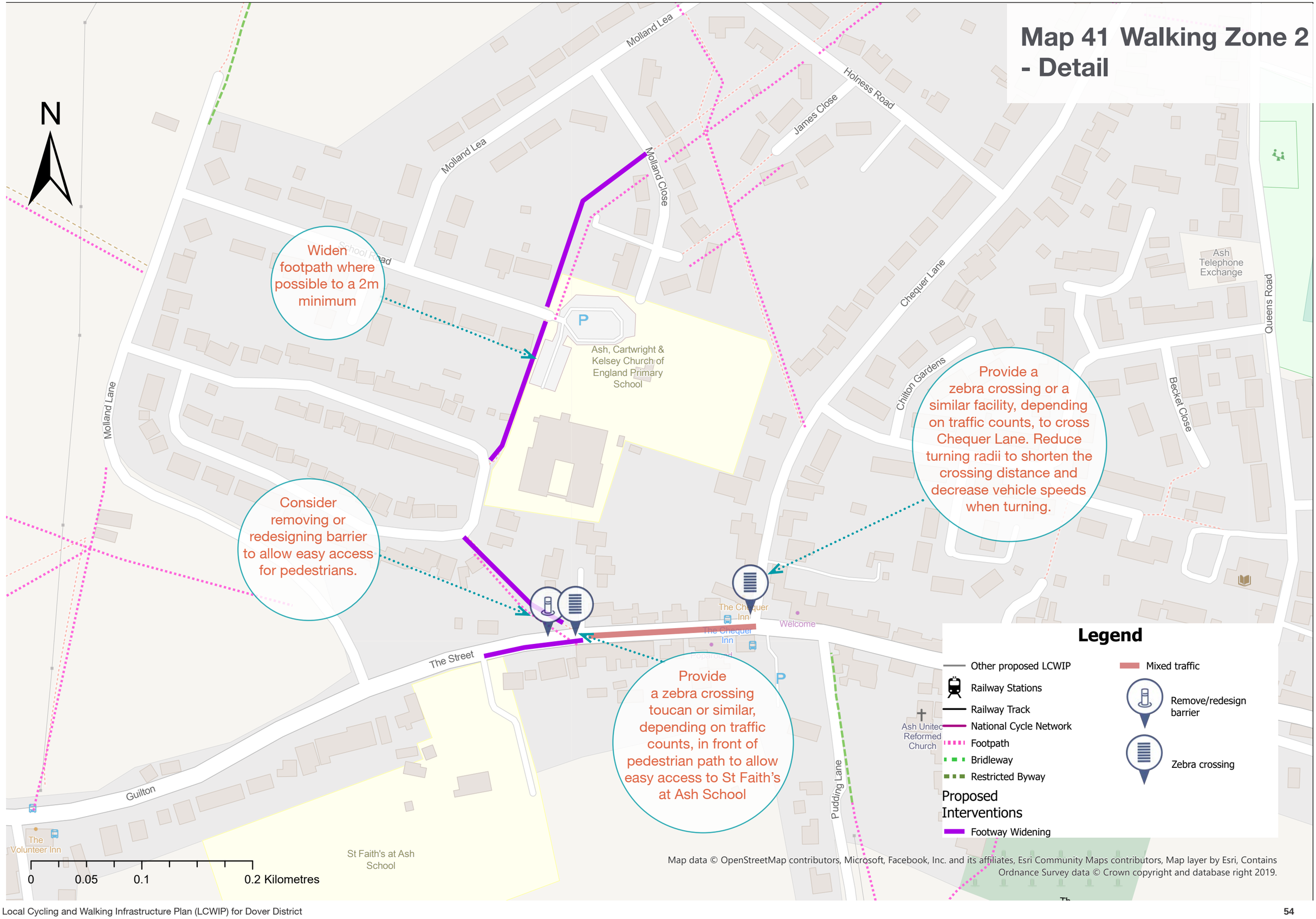
- Good connectivity from residential areas to Ash Cartwright & Kelsey Church of England Primary School
- Existing traffic free paths
- The village spans less than 2 kilometres, a walkable distance for pedestrian movement
- Green and attractive environment

Constraints

- Existing traffic free path are narrow in some sections with no possibility to widen as are in between houses
- Narrow pavement on The Street



Map 41 Walking Zone 2 - Detail



Walking Zone 3

Eastry

Overview

The Walking Zone covers the area between the school and the residential area around it. Specifically, the route includes traffic free paths, Eastry Church of England Primary School, and the section of High Street between Brook Street and St Mary Close.

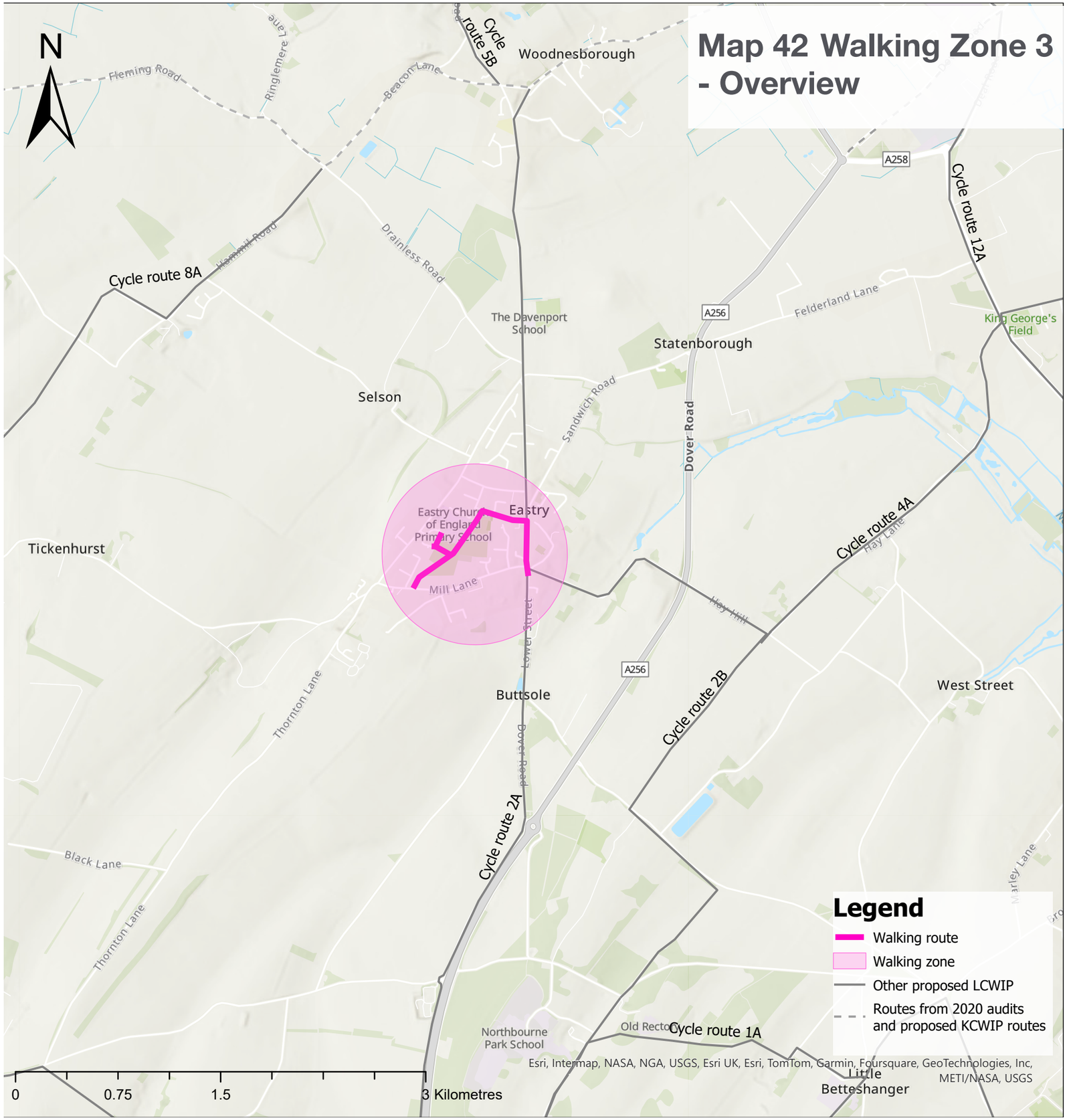
The Walking Zone 3 links with cycle route 2A and 2B from this report.

Opportunities

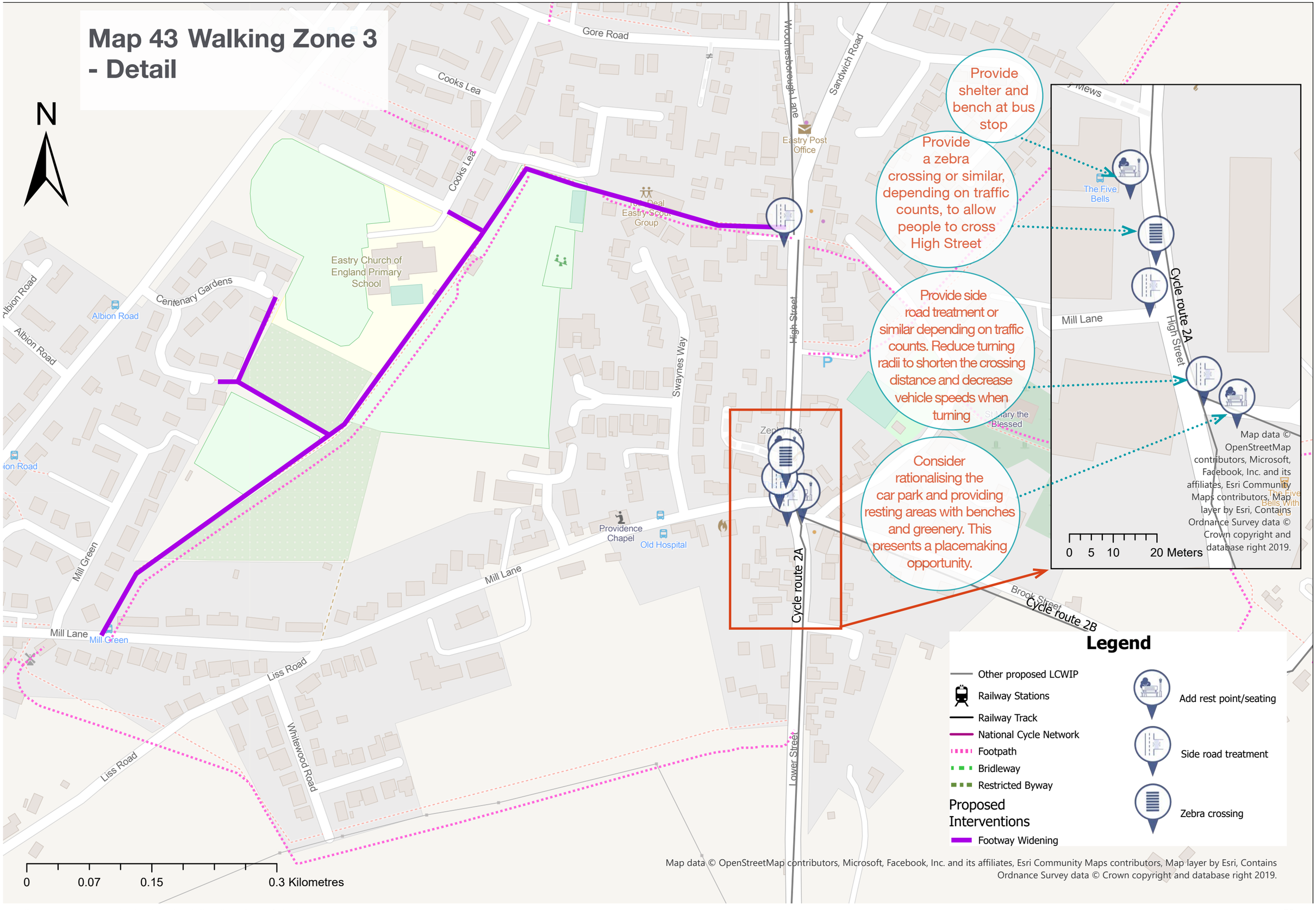
- Good connectivity from residential areas to school through existing traffic free paths
- Most of the traffic free paths are located on wide space allowing easy movement and the installation of resting areas.
- The village spans less than 2 kilometres, a walkable distance for pedestrian movement
- Green and attractive environment

Constraints

- Existing traffic free path are narrow in sections near High Street and Mill Lane
- Narrow pavement on High Street with little space to be widen due to road constraints



Map 43 Walking Zone 3 - Detail



Walking Zone 4

Shepherdswell

Overview

The Walking Zone covers the area with the greatest pedestrian activity in Shepherdswell Village, which requires safe walking facilities for the people and nearby schools. Specifically, it focuses on the link between Shepherdswell Church of England Primary School and the Shepherdswell train station. This includes traffic free paths, from the train station to Church Hill and a section of Eythorne Road and Church Hill.

The Walking Zone 1 links with cycle route 7A from this report.

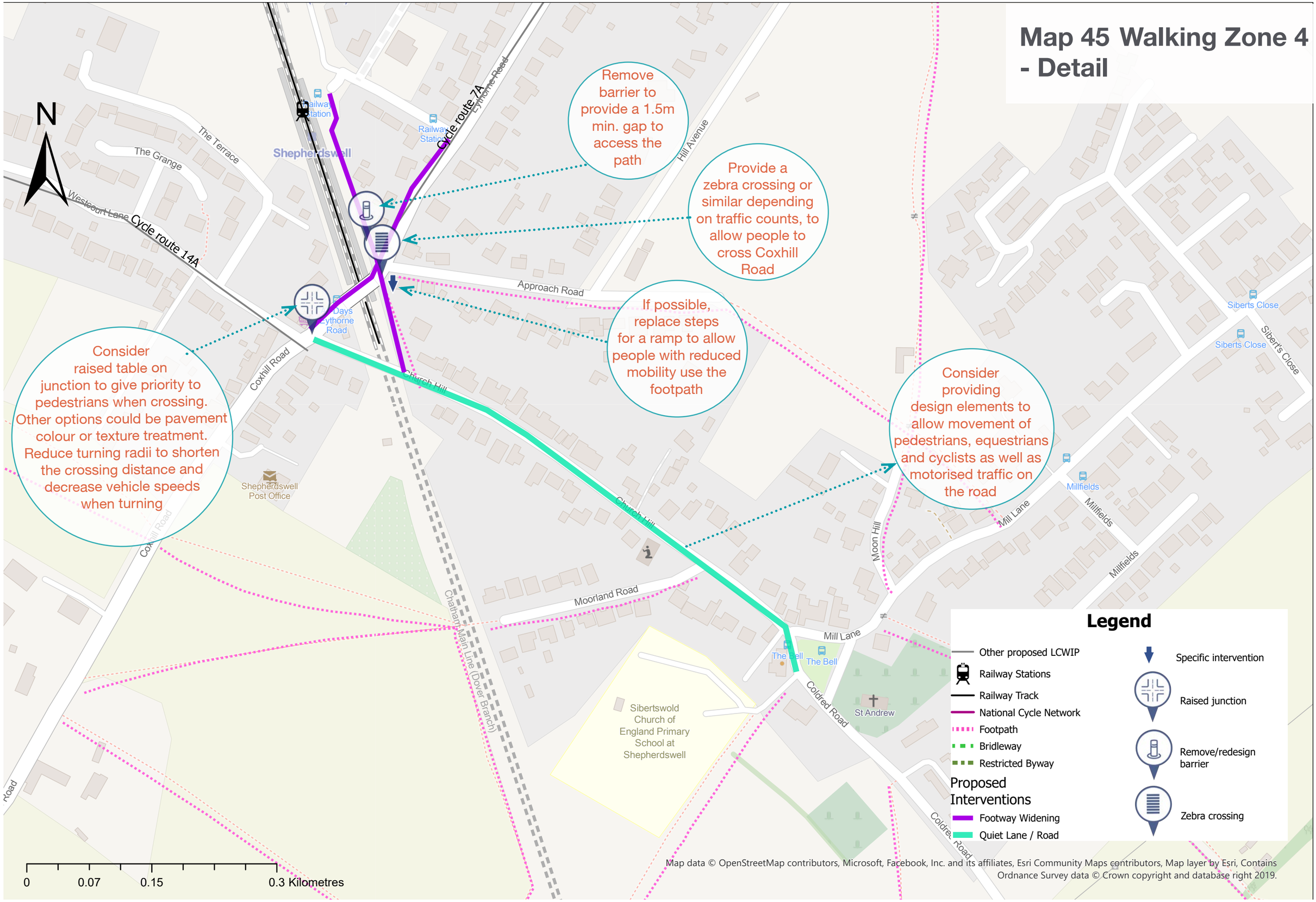
Opportunities

- Existing traffic free path
- Green and attractive environment
- The village spans less than 2 kilometres, a walkable distance for pedestrian movement

Constraints

- Existing traffic free path is narrow in some sections
- Currently there are a few steps on existing traffic free path making more difficult the access for people with reduced mobility
- No footway in Church Hill and no space available to build them

Map 45 Walking Zone 4 - Detail



Walking Zone 5

Lower Eythorne

Overview

The Walking Zone covers the area with the greatest potential pedestrian activity in Lower Eythorne. Specifically, it focuses on the link between Eythorne Elvington Community Primary School and the residential area in Elvington at the north and Eythorne. This includes Adelaide Road, Church Hill, Shooters Hill and Chapel Hill.

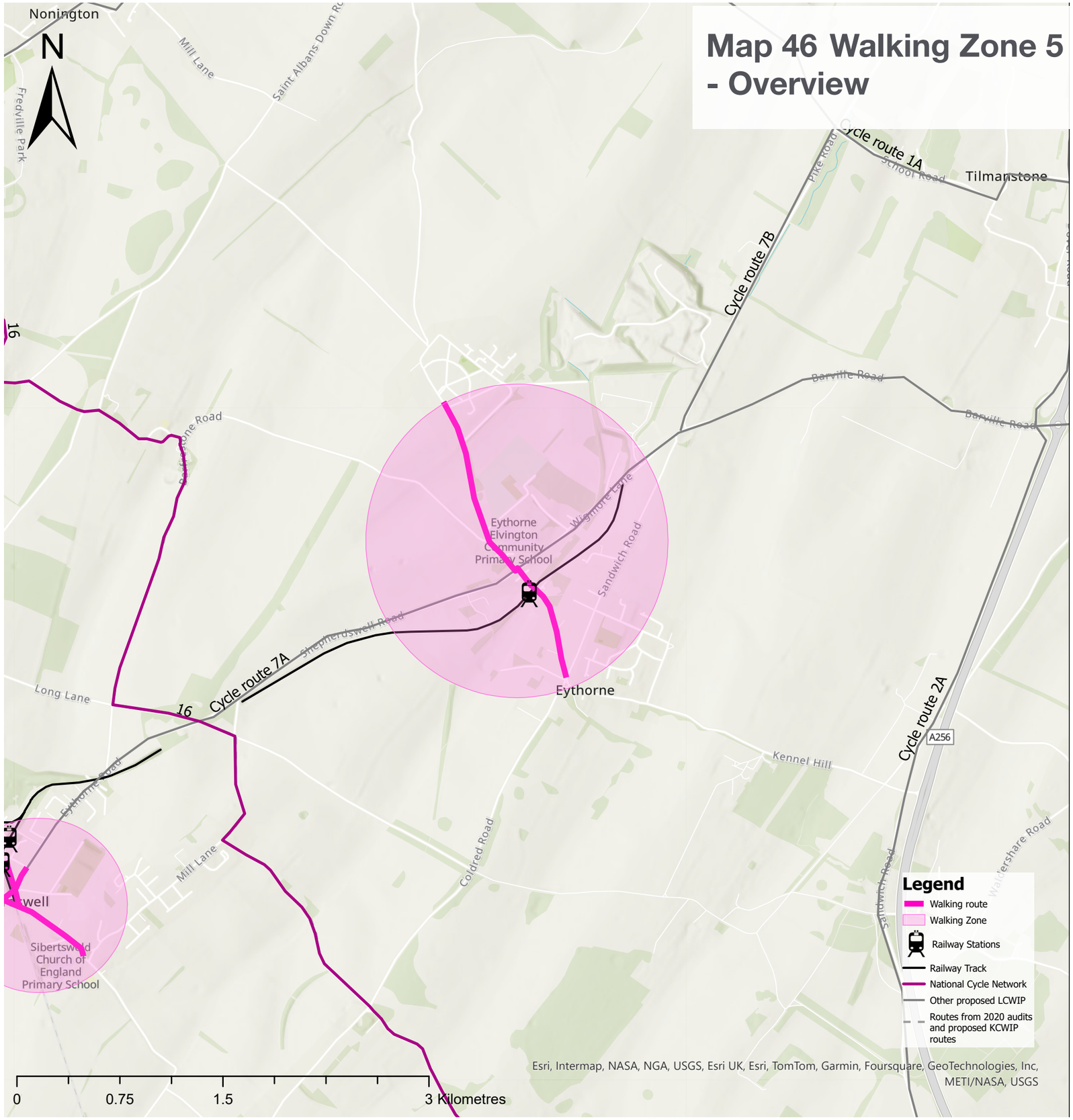
The Walking Zone 5 links with Cycle route 7A from this report.

Opportunities

- Church Hill already a 20mph zone
- Green environment
- The route spans less than 2 kilometres, a walkable distance for pedestrian movement

Constraints

- Narrow pavements along Chapel Hill
- Moderate gradient on Shooter Hill and Chapel Hill
- Narrow pavement along the route



Map 47 Walking Zone 5 - Detail

N

Provide a shelter and bench at two bus stops on each side of the road

Provide a zebra crossing or similar depending on traffic counts to allow people crossing Adelaide Road

Extend footway to allow pedestrian crossing the railway. If there is not enough space for two cars to cross at the same time, provide signage to give priority to one vehicle at the time

Reduce turning radii to shorten the crossing distance and decrease vehicle speeds when turning

Provide a crossing to give priority to pedestrian and cyclists when crossing Shooters Hill

Elvington
Terrace Road
Barfrestone Road
Adelaide Road
Eythorne Elvington Community Primary School
Wigmore Lane
Millyard Way
Elmtorr Lane
Sandwich Road
Lower Eythorne
Eythorne
Shepherdswell Road
Chapel Hill
Willow Way
Cherry Waye
Flax Court Lane
The Crown Inn
Barville Road

Legend

- Footpath
- Bridleway
- Restricted Byway
- Other proposed LCWIP Routes from 2020 audits and proposed KCWIP routes
- Railway Track
- Railway Stations

Proposed Interventions

- Footway Widening
- 20mph speed limit
- Add rest point/seating
- Specific intervention
- Parallel crossing
- Raised junction
- Zebra crossing

0 0.15 0.3 0.6 Kilometres

Walking Zone 6

Kingsdown

Overview

The Walking Zone covers the area around the Kingsdown and Ringwould Church of England Primary School. Particularly it focuses on the walking route linking the school with the residential area. The route includes Glen Road intersection with The Rise, King's Close, Sea Road and Carlton Road.

The Walking Zone 2 links with Cycle route 9B from this report.

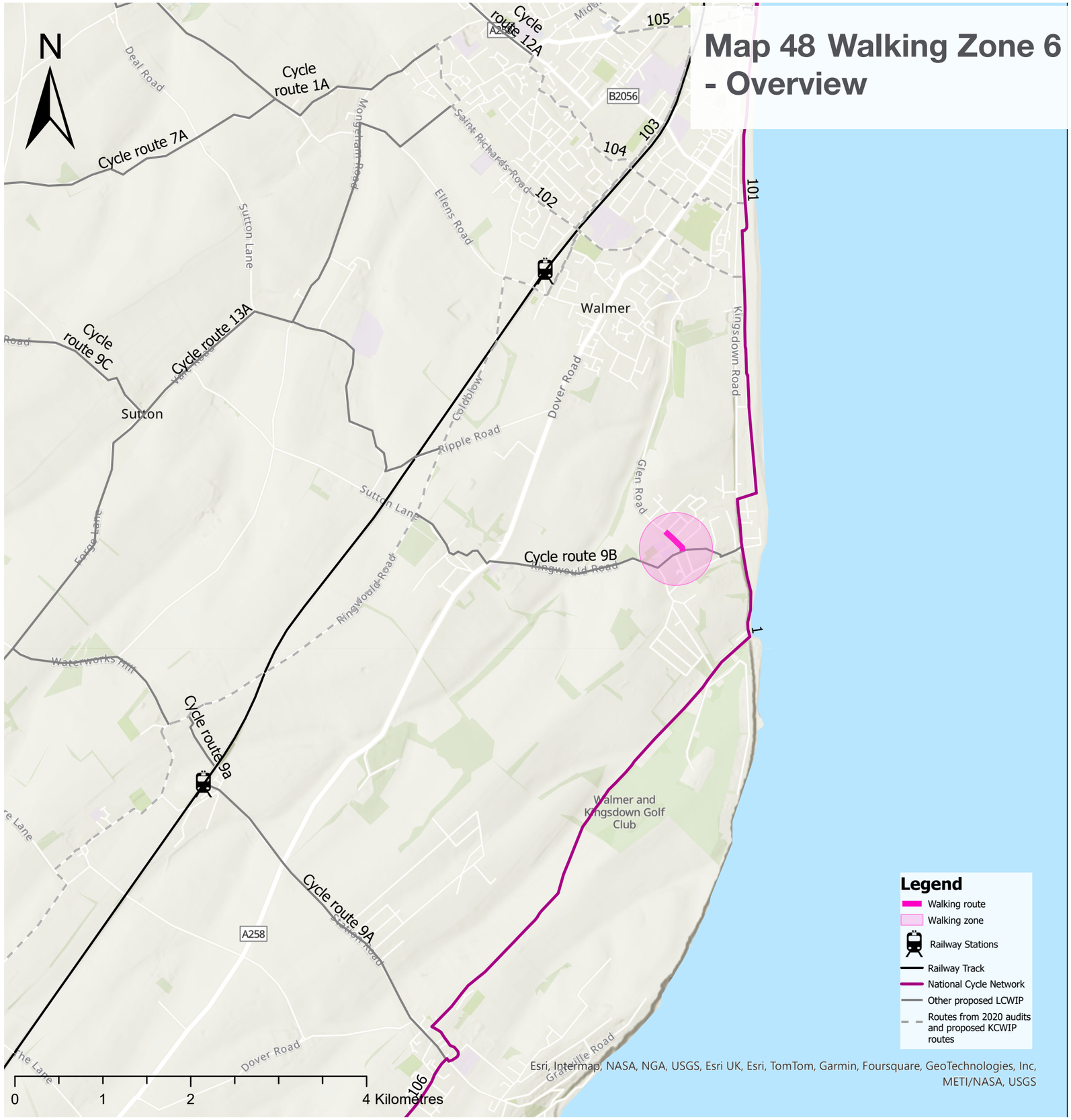
Opportunities

- Existing traffic free paths
- The village spans less than 2 kilometres, a walkable distance for pedestrian movement
- Green and attractive environment

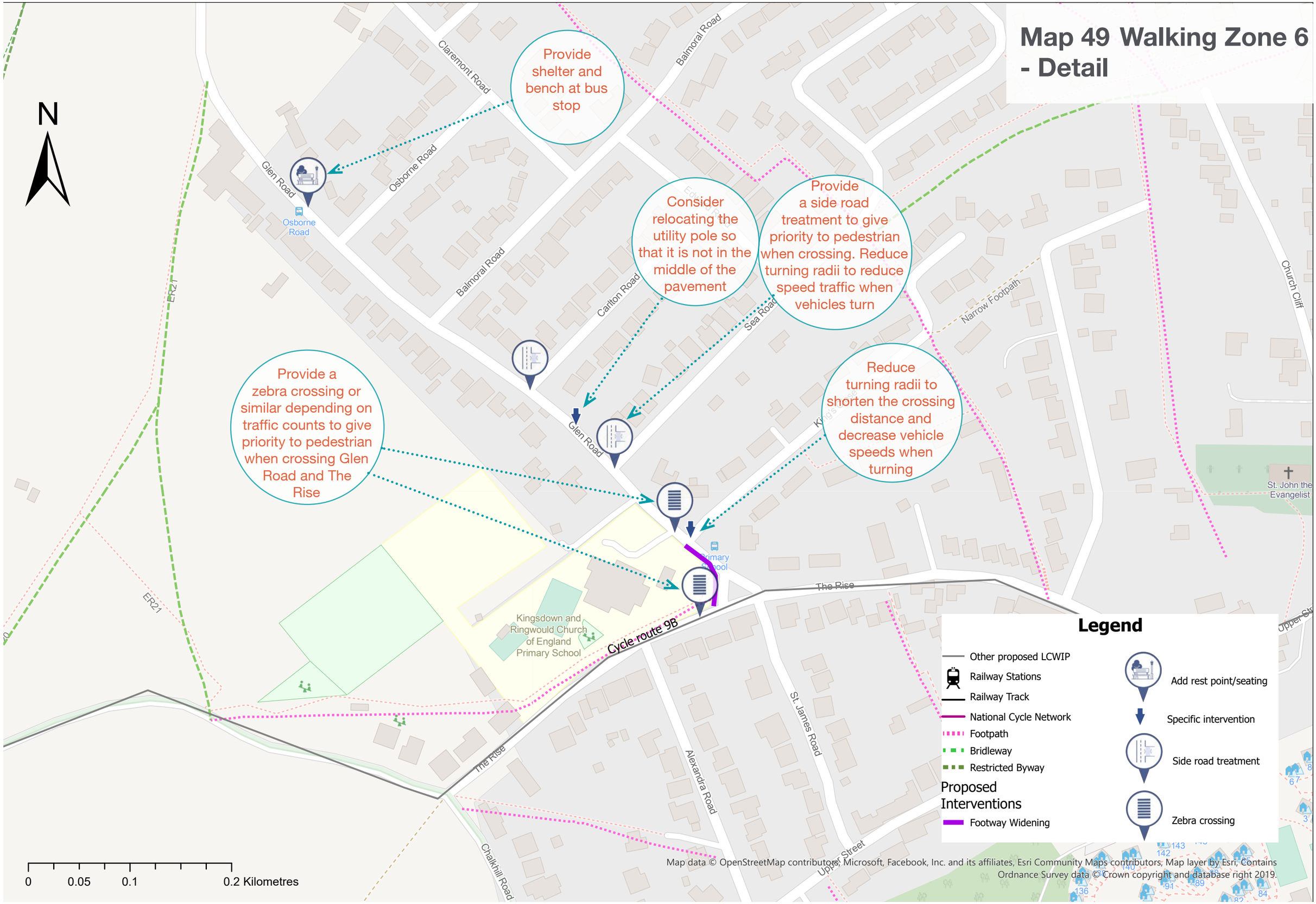
Constraints

- Narrow pavement on Glen Road

Map 48 Walking Zone 6 - Overview



Map 49 Walking Zone 6 - Detail



Walking Zone 7

Capel-le-Ferne

Overview

The Walking Zone covers the north area of Capel-le-Ferne town. Specifically, it focuses on the link between Capel-le-Ferne Primary School, the residential area and New Dover Road B2011. This includes a traffic free path, from Capel Street to New Dover Road .

The Walking Zone 7 is close to Cycle route 11B from this report.

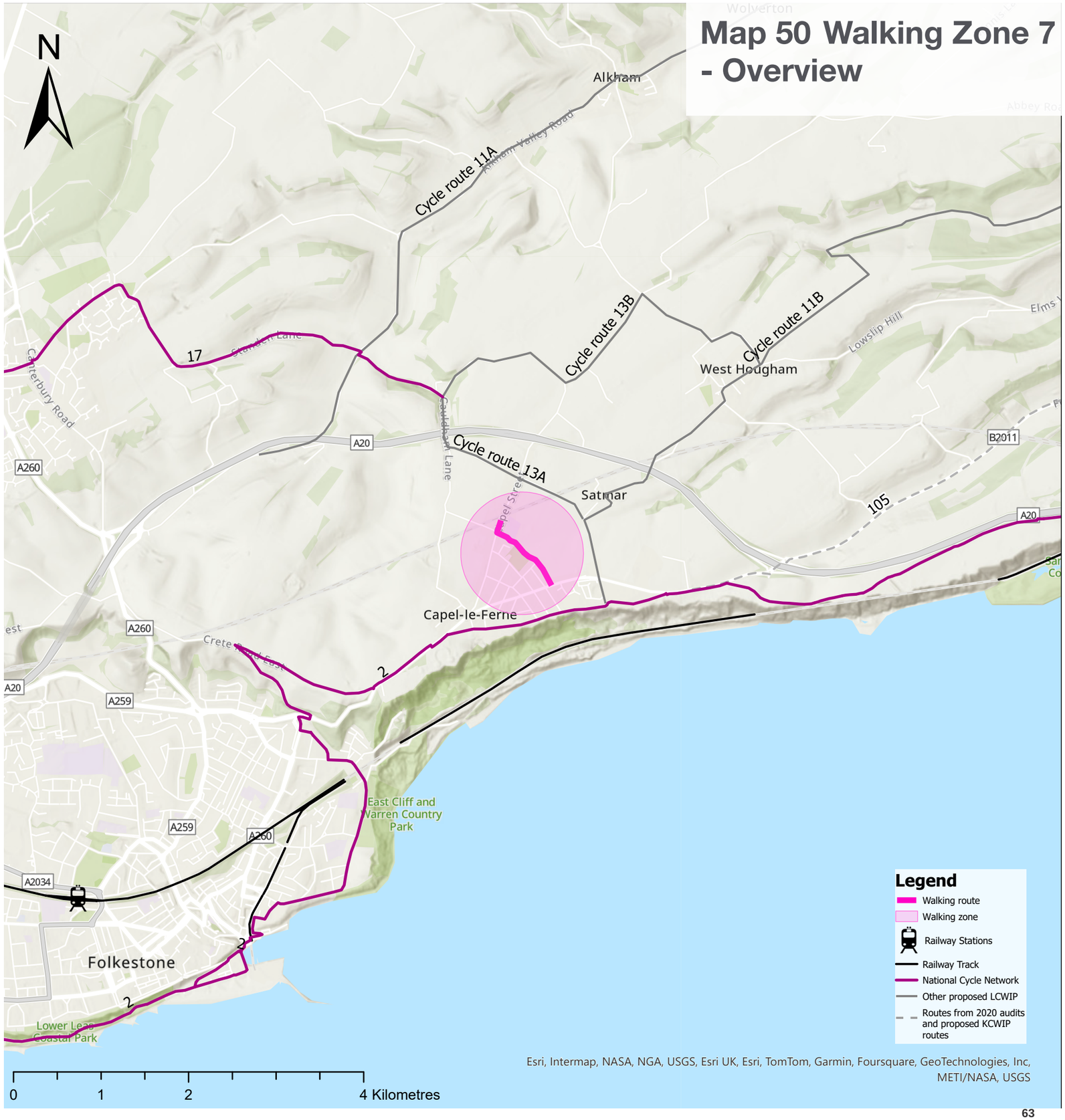
Opportunities

- Existing traffic free path
- Green and attractive environment
- The village spans less than 2 kilometres, a walkable distance for pedestrian movement

Constraints

- Existing traffic free path is narrow in some sections
- New Dover Road has 40mph speed limit

Map 50 Walking Zone 7 - Overview



Map 51 Walking Zone 7 - Detail

Provide side road treatment to allow people to cross in front of vehicles access to school.

Provide a sealed surface and ensure that the footpath is at least 2 meters wide

Provide a parallel crossing or toucan, depending on traffic surveys, to cross New Dover Road.

N

Tunnel sous la Manche / Channel Tunnel – Tunnel Ferroviaire Nord / Running Tunnel North

Tunnel sous la Manche / Channel Tunnel – Tunnel Ferroviaire Sud / Running Tunnel South

Cauldham Lane

Green Lane

Capel Street

Capel-le-Ferne Primary School

Green Lane

Lancaster Avenue

Victoria Road

Beatrice Road

Alexandra Road

Helena Road

Avondale Road

Albert Road

Capel-le-Ferne

Capel Street

Winehouse Lane

Cycle route 11B

Legend

- Other poposed LCWIP
- Railway Stations
- Railway Track
- National Cycle Network
- Footpath
- Bridleway
- Restricted Byway

Proposed Interventions

- Resurfacing
- Parallel crossing
- Side road treatment

0 0.07 0.15 0.3 Kilometres

6. Prioritisation and High-Level Costing

Deliverability and Impact of Recommendations

The following chapter assesses the proposed cycle route interventions and walking zone (WZ) interventions based on their deliverability and impact to guide the prioritisation of future investment.

Decision makers will be able to identify 'Quick Wins' (interventions that are easy to deliver and high impact) as well as interventions that offer high impact but may require additional funding and/or more detailed feasibility studies.

Each intervention has been ranked from hard – easy against deliverability and from low – high against impact. Ranking is visually represented in the colours red, amber and green. A final score is provided for each cycling route and walking zone which allows interventions to be ranked against each other.

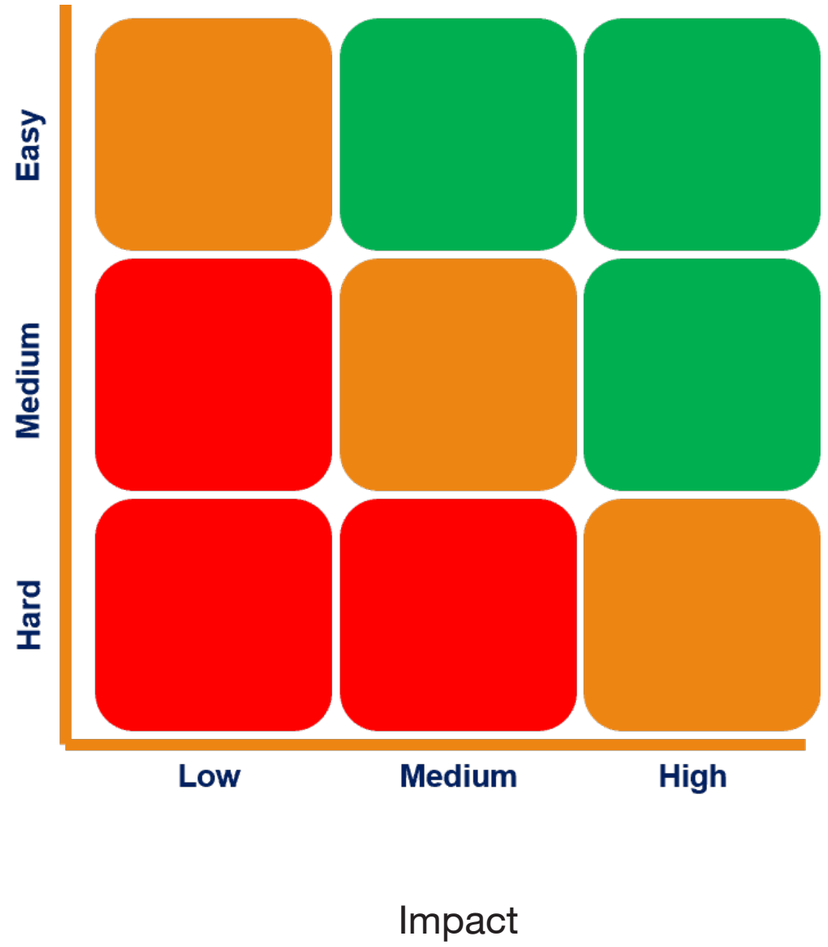
Assessments have been made according to Sustrans Design Principles, however, it is recognised that an amount of subjectivity is inherent within the process, especially as the recommendations are high-level and based on desktop analysis tools and excludes on-the-ground investigations.

The deliverability status has been assigned according to ease of collaboration with stakeholders and other potential barriers. The impact status has been assigned according to the increase in level of service as a result of the improvements and practitioners' experience of delivering impactful walking and cycling infrastructure.

In addition, high-level cost estimates have been provided for the cycle routes and walking zones to inform the cost of the recommendations. The costs estimates have not been taken into consideration when analysing impact and deliverability.

The cost estimates have been carried out using Sustrans in-house tool and do not consider contingencies such as ecological surveys, land negotiation, planning applications. They assume construction within the current financial year (2024/25) and inflation would need to be added for development in any subsequent year.s

The results of the prioritisation assessment are presented in the following pages.



Cycle Route Prioritisation of Autidted Routes

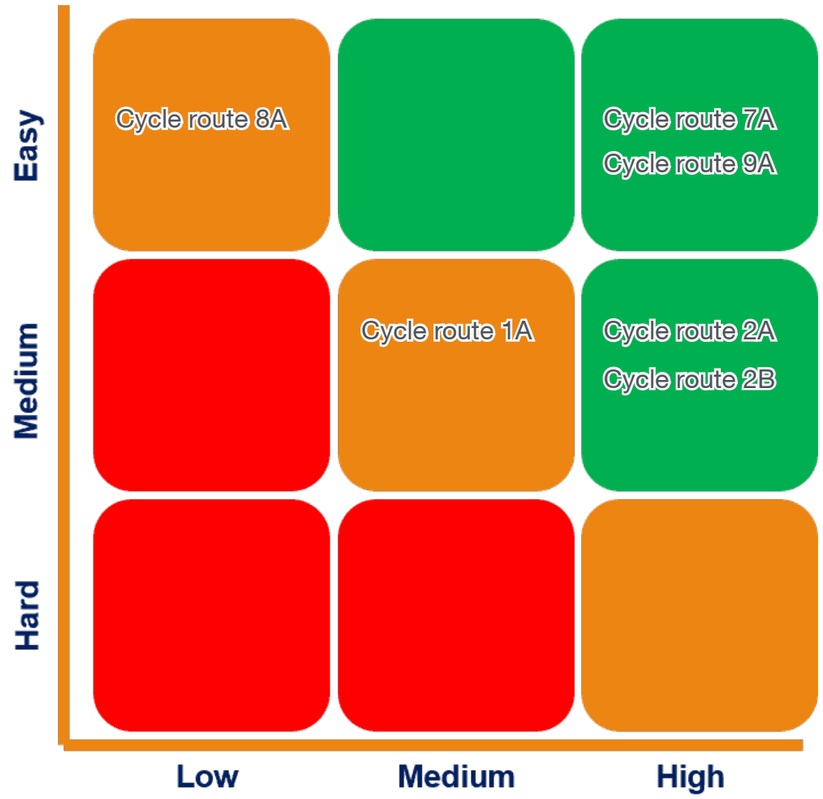
Route name	Deliverability score (Easy/ Medium/Hard)	Comments	Impact score (Low/Medium/ High)	Comments	High level cost estimates	Comment	Score
Cycle route 1A	Medium	It requires minimum intervention as sealing the surface on shared paths. Measures to reduce motor vehicle flows could be more complex to install due to public and political support. As it is a long route (11 km) it may be complex to deliver in one phase.	Medium	Links Deal (populated area) with Snowdown train station (near Aylesham) and the west side of the district.	£6,167,444.62	Most of the budget goes to implementing mixed traffic environment measures and the construction of shared use path.	
Cycle route 2A	Medium	Majority of route is an established shared path. Measures to reduce motor vehicle flows could be more complex to install due to public and political support. As it is a long route (10 km) it may be complex to deliver in one phase.	High	Links Sandwich with Dover, two populated areas.	£4,089,488.56	Most of the budget goes to implementing mixed traffic environment measures.	
Cycle route 2B	Medium	It requires minimum intervention on the mixed traffic sections and shared path appears to have enough space for required interventions. Measures to reduce motor vehicle flows could be more complex to install due to public and political support.	High	As route 2A Links Sandwich with Dover, two populated areas. If 2A is built, 2B will has less impact and vice-versa.	£4,064,234.37	Most of the budget goes to implementing mixed traffic environment measures and the construction of shared use path.	
Cycle route 7A	Easy	It requires minimum intervention. Measures to reduce motor vehicle flows could be more complex to install due to public and political support.	High	Links Eythorne to Shepherds Well Train Station. Short distance route (2 km).	£1,649,131.48	Most of the budget goes to implementing mixed traffic environment measures.	
Cycle route 8A	Easy	It requires minimum intervention. Measures to reduce motor vehicle flows could be more complex to install due to public and political support.	Low	Links Snowdown train station on the west side of the district with Sandwich and Ash on the north east side of the district. It would increase its impact if cycle route 1A is built.	£721,562.01	Most of the budget goes to implementing mixed traffic environment measures.	
Cycle route 9A	Easy	It requires minimum intervention on the mixed traffic sections and there is enough space to provide shared path and a segregated cycle route. Measures to reduce motor vehicle flows could be more complex to install due to public and political support.	High	Links St Margarets at Cliffe to the Martin Mill train station. Short distance route (2km).	£1,695,700.62	Most of the budget goes to implementing mixed traffic environment measures.	

Cycle Route Prioritisation of Audited Routes

The graph on the right presents the results of the cycle route prioritisation process, with the final scores for deliverability and impact and their final ranking based on both criteria.

The prioritisation process suggests that cycle route 9A and 7A would represent “quick wins” as they scored higher overall. Both routes link settlements with the nearest train station in a short distance.

Cycle routes 2A and 2B also scored as “quick wins”. These routes scored medium on deliverability as both routes are long routes that may need to be implemented in several stages. If one of these routes is implemented, the other route will reduce in impact to medium, as both cycle routes serve similar desire lines but through different route alignments.



Walking Zone Prioritisation of Audited Zones

Route name	Deliverability score (Easy/ Medium/Hard)	Comments	Impact score (Low/Medium/ High)	Comments	High level cost estimates	Comment	Score
Walking Zone 1	Easy	Provision of footway on Canterbury Rd is possible due to wide carriageway.	High	Improvements will benefit users' safety on the link between Wingham Primary School and residential areas.	£432,341.89	Most of the budget goes to implementing or widening footways.	
Walking Zone 2	Easy	Resurfacing existing paths, barrier removal and zebra crossings are easy to achieve.	Medium	Much of the paths to the primary school already exist. Crossings will improve pedestrian safety.	£235,462.93	Most of the budget goes to implementing mixed traffic Environment measures.	
Walking Zone 3	Easy	Widening, resurfacing, side road treatment and shelter provision at bus stop are easy to achieve. Measures to rationalise car park could be more complex due to public and political support.	Medium	Much of the paths to the primary school already exist. Crossings will improve pedestrian safety.	£434,927.89	Most of the budget goes to the implementation of bus shelters.	
Walking Zone 4	Medium	Raised table, barrier removal and quietway treatment are easy to achieve. Footway widening and steps removal may be more complex due to width constraints.	High	Path to the train station already exists, but improvements will make it accessible for most users.	£454,931.38	Most of the budget goes to implementing mixed traffic environment measures.	
Walking Zone 5	Medium	Zebra crossings and shelter provision at bus stop are easy to achieve. Widening may be challenging in some locations like when crossing the railway and measures to reduce motor vehicle flows could be more complex to install due to public and political support.	High	Footways and crossing improvements will make the route accessible for most users.	£439,243.26	Most of the budget goes to implementing or widening footways.	
Walking Zone 6	Easy	Side road treatments, zebra crossings and shelter provision at bus stops are easy to achieve.	Medium	Route to school already counts with footways, but improvements will increase people's safety and comfort.	£201,181.47	Most of the budget goes to implementing or widening footways and provision of bus shelter.	
Walking Zone 7	Easy	Most of the route already exists. Needs minor improvements.	Medium	Path to Primary school already there but crossing provision at New Dover Road will increase people's safety when crossing.	£165,938.42	Most of the budget goes to resurfacing existing path (if needed).	

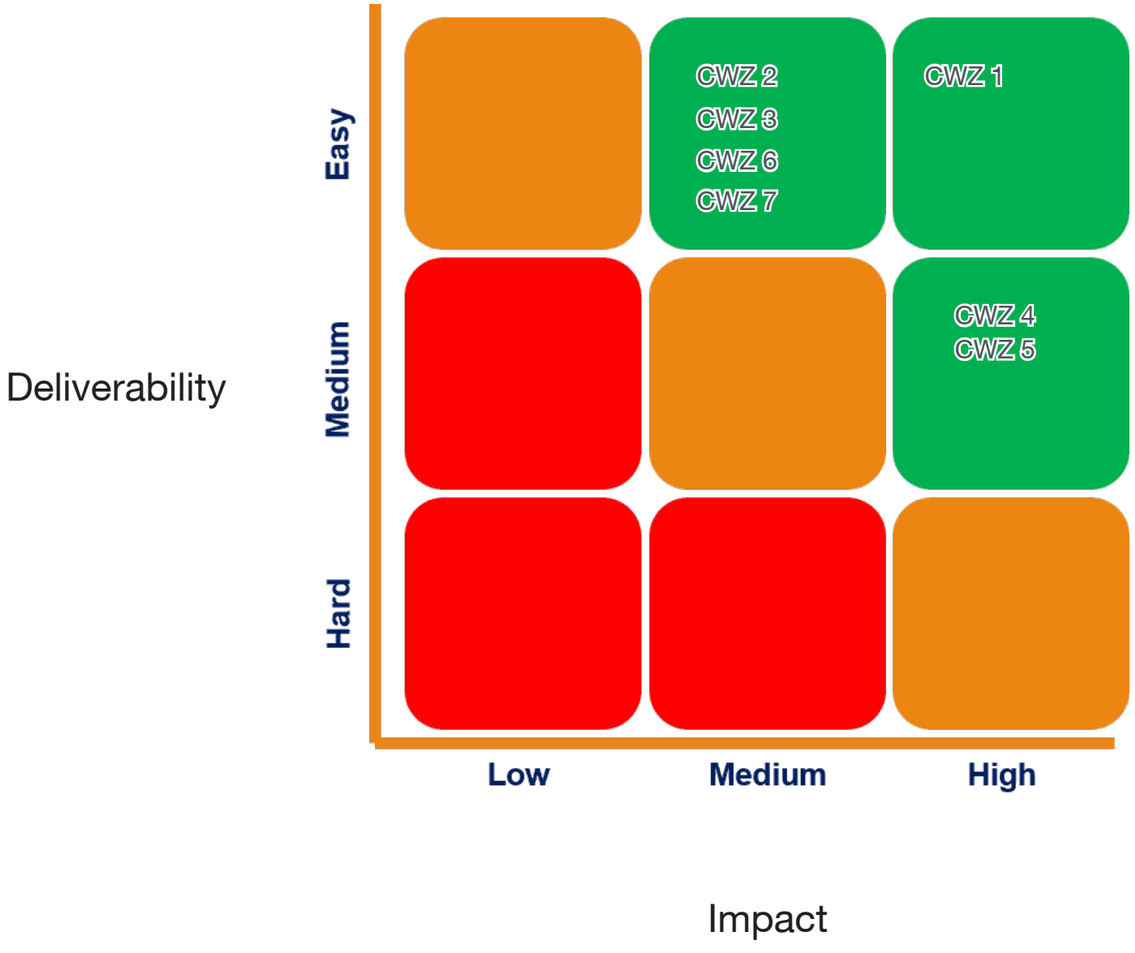
Walking Zone Prioritisation of Audited Zones

The graph on the right presents the results of the core walking zone prioritisation process, with the final scores for deliverability and impact and their final ranking based on both criteria.

The prioritisation process suggests that Walking Zone 1 would represent a “quick win” as it scored higher overall. The recommendations will make the route to the primary school more accessible.

Walking Zones 2, 3, 6 and 7 scored medium on impact as these areas already count towards traffic free paths to schools. However, improvements will increase people’s safety and comfort.

Walking Zones 4 and 5 scored high on impact as both routes would be highly beneficial for walkability improvements but they scored medium on deliverability as there may be physical constraints to implement the recommendations.



7. Next Steps

In-depth Auditing of Proposed Interventions

This LCWIP has identified high-level cycling and walking infrastructure interventions for selected routes and walking zones.

Additional audits of the remaining network for cycling and walking zones should be considered to identify recommended infrastructure improvements required for the remainder of the network.

Where possible, on-the-ground audits should be considered as part of further investigations and development as this would enable a refinement of the prioritisation analysis and costing of each route and walking zone proposal to identify which schemes should be taken forward.

Further stakeholder and community engagement

The agreed project scope for the development of this LCWIP included one round of public and stakeholder engagement at the early stages of the LCWIP development, before a draft Network Plan had been prepared.

A further round of engagement would invite feedback on the proposals made in this report and allow refinement as required.

Identify sources of funding

Potential sources include:

- DfT LCWIP funding stream
- DfT Capability Fund
- Kent County Council Highways
- Local economic regeneration funding
- s106 from developments

Further studies

Consider further studies needed for scheme development such as:

- Traffic surveys
- Topographic surveys
- Outline designs
- Ecological surveys

Making the Case

Schemes that involve significant change to the existing infrastructure to improve cycling and walking access can be difficult in a car centric context. The political, economic and policy element is often pivotal; therefore, ensuring any schemes are underpinned by strong and robust arguments that join up with the local political and community context is key.

LCWIPs should be reviewed and updated periodically, particularly if there are any significant changes in local circumstances, such as the publication of new policies or strategies, major new development sites, and as walking an cycling networks mature and expand.

Appendix

Government Vision for Walking and Cycling

Design Principles

Design Standards

Government Vision for Walking and Cycling

In 2020, the government published "Gear Change: A bold vision for cycling and walking." The Plan recognises the need for significant changes to active travel infrastructure in the coming years, whilst acknowledging the associated challenges. It recognises that there is a unique opportunity to transform the role cycling and walking can play in the transport system. It states that:

'England will be a great walking and cycling nation. Places will be truly walkable. A travel revolution in our streets, towns and communities will have made cycling a mass form of transit. Cycling and walking will be the natural first choice for many journeys with half of all journeys in towns and cities being cycled or walked by 2030.'

It also states that investment in active travel is key to providing inclusive access and delivering economic and health benefits to a wider segment of the population:

'Safer streets: Nobody is afraid to cycle; every child is confident and safe walking or cycling to school; all road users treat each other with mutual respect'; and
'Convenient and accessible travel: Cycling and walking are recognised as the most convenient, desirable and affordable way to travel in our local areas; more women and disadvantaged groups enjoy walking and cycling as part of their daily journeys; everybody has opportunities to take up walking and cycling'.

Gear Change: A Bold Vision for Cycling and Walking also identified the health and well-being benefits and aims to achieve:

'Healthier, happier and greener communities: Peoples' health and quality of life is improved by more people walking and cycling; the number of short journeys made by car is vastly reduced, meaning people from all parts of our communities around the country can enjoy the benefits of cleaner, healthier, safer and quieter streets'.

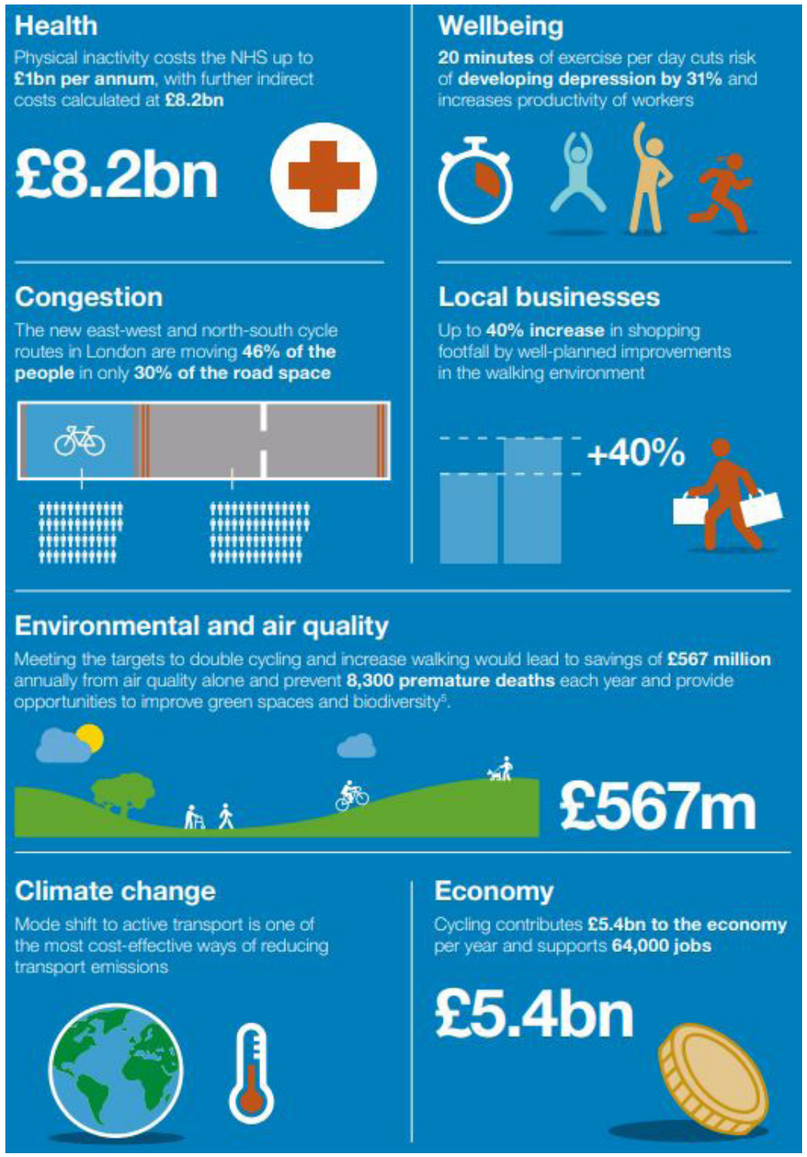
The government's Decarbonising Transport (2021) document states that ***'we will deliver a world class cycling and walking network in England by 2040,'*** and the Net Zero Strategy (2021) adds that ***'this will include comprehensive cycling and walking networks in all large towns and cities.'***

To help deliver this vision, the government:

- Has developed new guidance on cycle design (Local Transport Note 1/20 – see below);
- Recently established Active Travel England to act as an inspectorate and funding body, and to support local authorities to deliver the vision;
- Will be publishing new guidance on walking (and update to Manual for Streets).

The key principles that underpin LTN 1/20 are:

- Cyclists must be separated from volume traffic, both at junctions and on the stretches of road between them;
- Cyclists must be separated from pedestrians;
- Cyclists must be treated as vehicles, not pedestrians;
- Routes must join together; isolated stretches of good provision are of little value;
- Routes must be direct, logical and be intuitively understandable by all road users;
- Routes and schemes must take account of how users actually behave;
- Purely cosmetic alterations should be avoided;
- Barriers, such as chicane barriers and dismount signs, should be avoided; and
- Routes should be designed only by those who have experienced the road on a cycle.



Summary taken from DfT's Gear Change. A bold vision for cycling and walking.

For the full information on these documents please see:

- DfT's Gear change: a bold vision for cycling and walking: Cycling and walking plan for England

- DfT's Cycle infrastructure design (LTN 1/20) guidance

The publication of the LTN 1/20 in July 2020 followed the Government's announcement for new investment provided towards cycle improvements, across the country. Local Authorities and developers are now expected to use LTN 1/20 in the design of their schemes.

Design Principles

The options outlined in this study have been based on the standards presented in the Department for Transport (DfT) Cycle Infrastructure Design guidance document Local Transport Note (LTN) 1/20, Inclusive Mobility and Manual for Streets.

All new scheme designs should meet the current highway infrastructure design guidance as identified by the Department for Transport and its new executive agency, Active Travel England.

Some of the most relevant principles considered for walking and cycling design are presented as follows:

Local Transport Note 1/20

This national guidance provides a basis for design based on five core principles and 22 summary principles, as follows:

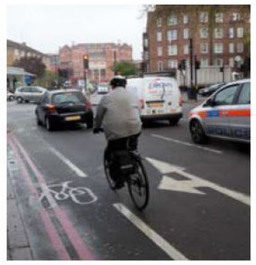
Core design principles

The five core design principles represent the essential requirements to achieve more people travelling by cycle, based on best practice both internationally and across the UK.

There are five core design outcomes for cycle routes:

- Coherent
- Direct
- Safe
- Comfortable
- Attractive

While not explicitly listed as a core design outcome in LTN 1/20, Sustrans asserts the importance of incorporating accessibility as a sixth outcome for all networks and routes.

Accessibility for all				
Coherent	**Direct**	**Safe**	**Comfortable**	**Attractive**
				
DO Cycle networks should be planned and designed to allow people to reach their day to day destinations easily, along routes that connect, are simple to navigate and are of a consistently high quality.	**DO** Cycle routes should be at least as direct – and preferably more direct – than those available for private motor vehicles.	**DO** Not only must cycle infrastructure be safe, it should also be perceived to be safe so that more people feel able to cycle.	**DO** Comfortable conditions for cycling require routes with good quality, well-maintained smooth surfaces, adequate width for the volume of users, minimal stopping and starting and avoiding steep gradients.	**DO** Cycle infrastructure should help to deliver public spaces that are well designed and finished in attractive materials and be places that people want to spend time using.
				
DON'T Neither cyclists or pedestrians benefit from unintuitive arrangements that put cyclists in unexpected places away from the carriageway.	**DON'T** This track requires cyclists to give way at each side road. Routes involving extra distance or lots of stopping and starting will result in some cyclists choosing to ride on the main carriageway instead because it is faster and more direct, even if less safe.	**DON'T** Space for cycling is important but a narrow advisory cycle lane next to a narrow general traffic lane and guard rail at a busy junction is not an acceptable offer for cyclists.	**DON'T** Uncomfortable transitions between on-and off carriageway facilities are best avoided, particularly at locations where conflict with other road users is more likely.	**DON'T** Sometimes well-intentioned signs and markings for cycling are not only difficult and uncomfortable to use, but are also unattractive additions to the street scape.

Summary Principles

The following summary principles form an integral part of the DfT's Cycle Infrastructure Design Guidance.

1. Cycle infrastructure should be accessible to everyone from 8 to 80 and beyond: it should be planned and designed for everyone. The opportunity to cycle in our towns and cities should be universal.
2. Cycles must be treated as vehicles and not as pedestrians. On urban streets, cyclists must be physically separated from pedestrians and should not share space with pedestrians. Where cycle routes cross pavements, a physically segregated track should always be provided. At crossings and junctions, cyclists should not share the space used by pedestrians but should be provided with a separate parallel route.
3. Cyclists must be physically separated and protected from high volume motor traffic, both at junctions and on the stretches of road between them.
4. Side street routes, if closed to through traffic to avoid rat-running, can be an alternative to segregated facilities or closures on main roads – but only if they are truly direct.
5. Cycle infrastructure should be designed for significant numbers of cyclists, and for non-standard cycles. Our aim is that thousands of cyclists a day will use many of these schemes.
6. Consideration of the opportunities to improve provision for cycling will be an expectation of any future local highway schemes funded by Government.
7. Largely cosmetic interventions which bring few or no benefits for cycling or walking will not be funded from any cycling or walking budget.
8. Cycle infrastructure must join together, or join other facilities together by taking a holistic, connected network approach which recognises the importance of nodes, links and areas that are good for cycling.
9. Cycle parking must be included in substantial schemes, particularly in city centres, trip generators and (securely) in areas with flats where people cannot store their bikes at home. Parking should be provided in sufficient amounts at the places where people actually want to go.
10. Schemes must be legible and understandable.
11. Schemes must be clearly and comprehensively signposted and labelled.
12. Major 'iconic' items, such as overbridges must form part of wider, properly thought-through schemes.
13. As important as building a route itself is maintaining it properly afterwards.
14. Surfaces must be hard, smooth, level, durable, permeable and safe in all weathers.
15. Trials can help achieve change and ensure a permanent scheme is right first time. This will avoid spending time, money and effort modifying a scheme that does not perform as anticipated.
16. Access control measures, such as chicane barriers and dismount signs, should not be used.
17. The simplest, cheapest interventions can be the most effective.
18. Cycle routes must flow, feeling direct and logical.
19. Schemes must be easy and comfortable to ride.
20. All designers of cycle schemes must experience the roads as a cyclist.
21. Schemes must be consistent.
22. When to break these principles.

Inclusive Mobility

The key principles of inclusive mobility are:

- Inclusive Design - requires that the needs of all disabled people are considered from the outset of any transport and pedestrian infrastructure, including maintenance so that, for example, tactile paving surfaces provided for vision impaired people do not create trip hazards or cause undue discomfort to people with conditions such as arthritis.
- The Equality Act and public sector Equality Duty - people are legally protected from discrimination in the workplace and in wider society, and public authorities are required to carry out their functions having due regard to the objectives set out under S149 of the Equality Act 2010 to:
  - Eliminate discrimination, harassment, victimisation and any other conduct prohibited by the Act
  - Advance equality of opportunity between persons who share a protected characteristic and persons who do not share it
  - Foster good relations between persons who share a relevant protected characteristic and persons who do not share it

Manual for Streets (MfS)

MfS aims to assist in the creation of streets that:

- Help to build and strengthen the communities they serve;
- Meet the needs of all users, by embodying the principles of inclusive design (see box);
- Form part of a well-connected network;
- Are attractive and have their own distinctive identity;
- Are cost-effective to construct and maintain; and
- Are safe.

MfS discourages the building of streets that are:

- Primarily designed to meet the needs of motor traffic;
- Bland and unattractive;
- Unwelcoming to pedestrians and cyclists;
- Difficult to serve by public transport; and
- Poorly designed and constructed.

Design Standards

Relevant extracts from LTN 1/20 used as a basis for potential options in this report:

Speed Limit[1]	Motor Traffic Flow (pcu/24 hour)[2]	Protected Space for Cycling			Cycle Lane (mandatory/ advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph[3]	0					
	2000					
	4000					
	6000+					
30 mph	0					
	2000					
	4000					
	6000+					
40 mph	Any					
50+ mph	Any					

Figure 4.1: Appropriate protection from motor traffic on highways

Provision suitable for most people

Provision not suitable for all people and will exclude some potential users and/or have safety concerns

Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:

1. If the 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
3. In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

Table 6-1: Minimum recommended horizontal separation between carriageway and cycle tracks*

Speed limit (mph)	Desirable minimum horizontal separation (m)	Absolute minimum horizontal separation (m)
30	0.5	0
40	1.0	0.5
50	2.0	1.5
60	2.5	2.0
70	3.5	3.0

*Separation strip should be at least 0.5m alongside kerbside parking and 1.5m where wheelchair access is required.

Table 5-2: Cycle lane and track widths

Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)
Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5
		200-800	2.2	2.0
		>800	2.5	2.0
	2 way	<300	3.0	2.0
		>300-1000	3.0	2.5
		>1000	4.0	3.0
Cycle lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

*based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable.

Table 6-3: Recommended minimum widths for shared use routes carrying up to 300 pedestrians per hour

Cycle flows	Minimum width
Up to 300 cyclists per hour	3.0m
Over 300 cyclists per hour	4.5m

Table 7-2: Minimum acceptable lane widths*

Feature	Desirable minimum	Absolute minimum	Notes
Traffic lane (cars only, speed limit 20/30mph)	3.0m	2.75m	2.5m only at offside queuing lanes where there is an adjacent flared lane
Traffic lane (bus route or >8% HGVs, or speed limit 40mph)	3.2m	3.0m	Lane widths of between 3.2m and 3.9m are not acceptable for cycling in mixed traffic.
2-way traffic lane (no centre line) between advisory cycle lanes	5.5m	4.0m	4.0m width only where AADT flow <4000 vehicles** and/or peak hour <500 vehicles with minimal HGV/Bus traffic.

* these lane widths assume traffic is free to cross the centre line, see 7.2.9 for details on critical widths at pinch points

** While centre line removal is still feasible with higher flows, the frequency at which oncoming vehicles must enter the cycle lane to pass one another can make the facility uncomfortable for cycling.

Table 10-2: Crossing design suitability

Speed Limit	Total traffic flow to be crossed (pcu)	Maximum number of lanes to be crossed in one movement	Uncontrolled	Cycle Priority	Parallel	Signal	Grade separated
≥ 60mph	Any	Any					
40 mph and 50 mph	> 10000	Any					
	6000 to 10000	2 or more					
	0-6000	2					
	0-10000	1					
≤ 30mph	> 8000	> 2					
	> 8000	2					
	4000-8000	2					
	0-4000	2					
	0-4000	1					

Provision suitable for most people

Provision not suitable for all people and will exclude some potential users and/or have safety concerns

Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:

1. If the actual 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow

Figure 10.39: Carriageway-level cycle track used with 'hold the left' traffic staging

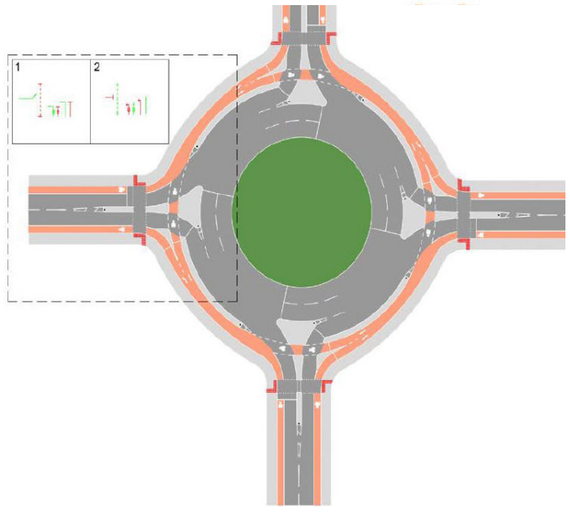


Table 11-1: Suggested minimum cycle parking capacity for different types of land use

Land use type	Sub-category	Short stay requirement (obvious, easily accessed and close to destination)	Long stay requirement (secure and ideally covered)
All	Parking for adapted cycles for disabled people	5% of total capacity co-located with disabled car parking.	5% of total capacity co-located with disabled car parking.
Retail	Small (<200m²)	1 per 100m²	1 per 100m²
	Medium (200-1,000m²)	1 per 200m²	1 per 200m²
	>1,000m²	1 per 250m²	1 per 500m²
Employment	Office/Finance (A2/B1)	1 per 1000m²	1 per 200m²
	Industrial/Warehousing (B2/B8)	1 per 1,000m²	1 per 500m²
Leisure and Institutions	Leisure centres, assembly halls, hospitals and healthcare	Greatest of: 1 per 50m² or 1 per 30 seats/ capacity	1 per 5 employees
	Educational Institutions	–	Separate provision for staff and students. Based on Travel Plan mode share targets, minimum: Staff: 1 per 20 staff Students; 1 per 10 students
Residential	All except sheltered/elderly housing or nursing homes	–	1 per bedroom
	Sheltered/elderly housing/ nursing homes	0.05 per residential unit	0.05 per bedroom
Public Transport Interchange	Standard stop	Upon own merit	–
	Major interchange	1 per 200 daily users	–

Cycle Dimensions and Cycle Design Vehicle: Figure 5.2 shows the range of dimensions for cycles typically in use. It is important that infrastructure can accommodate the full range of cycles to ensure routes are accessible to all cyclists. The cycle design vehicle referred to in this document represents a composite of the maximum dimensions shown in Figure 5.2 is assumed as 2.8m long and 1.2m wide. Table 5-1 shows the minimum turning radii suitable only for low speed manoeuvres such as access to cycle parking.

Figure 5.2: Typical dimensions of cycles

Table 5-1: Size and minimum turning circles of cycles

Type of Cycle	Typical length (m)	Typical width (m)	Minimum turning circle (m)	
			Outer radius	Inner radius
Cycle design vehicle	2.8 (max)	1.2 (max)	3.4 (max)	0.1 (min)* 2.5m (3 and 4 wheel cycles)
Solo upright cycle	1.8	0.65	1.65	0.85
Cycle plus 850mm wide trailer	2.7	0.85	2.65	1.5
Tandem	2.4	0.65	3.15	2.25

*applies only to some cycles that can pivot at very low speeds

Gradients: Table 5-8 shows the desirable maximum length for gradients. People can cycle steep gradients that are fairly short but typically cannot maintain high levels of effort for long distances. Cycle routes along existing roads and paths will usually have to follow the existing gradient, but there may be opportunities to divert onto alternative routes for short sections or reducing gradients through earthworks where space is available.

Speed of travel is also important to consider. Steep gradients can lead to high speeds for descending cyclists and low speeds for climbing cyclists, which can create hazards for all users on the route. Stopping sight distances increase on down gradients greater than 3%.

Table 5-8: Maximum length for gradients

Gradient %	Desirable maximum length of gradient (m)
2.0	150
2.5	100
3.0	80
3.5	60
4.0	50
4.5	40
5.0	30