

Swale Local Cycling and Walking Infrastructure Plan

Swale Borough Council

May 2025

Quality information

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01

Introduction

Introduction



Active travel is becoming increasingly important as challenges around climate change become more pressing and the demand for active travel solutions grows. Investment in cycling and walking can have wider positive impacts on people and places, making roads quieter and safer, improving air quality, improving physical and mental wellbeing and creating attractive places for people to travel within and between.

In 2017, the Department for Transport (DfT) published their first Cycling and Walking Investment Strategy (CWIS). The aim of this was to encourage cycling and walking to become a key mode of travel for shorter journeys or as a stage of a longer journey by delivering better safety, mobility and streets.

Alongside the CWIS, the DfT published practical, strategic guidance on developing Local Cycling and Walking Infrastructure Plans (LCWIPs) for local bodies.

LCWIPs outline a “strategic approach to identifying cycling and walking improvements required at a local level” in order to both encourage and facilitate the modal shift away from motorised vehicles to more active modes, transforming areas in ways which support active travel, reduce congestion, support local economies and improve physical and mental health in line with sustainable visions at a local to a national level.

The stages of the LCWIP process are:

Stage 1 – Determining Scope: define the geographic scope of the LCWIP and establish governance and preparation arrangements.

Stage 2 – Gathering Information: collect data on current cycling and walking patterns, identify potential new routes, assess existing conditions, and identify barriers. Review relevant transportation and land use policies.

Stage 3 – Network Planning for Cycling: identify starting and ending points for cycling journeys, create a network of routes based on these points, and determine the necessary improvements for cycling infrastructure.

Stage 4 – Network Planning for Walking: identify key destinations, core walking areas, assess existing pedestrian infrastructure, and determine required improvements for walking.

Stage 5 – Prioritising Improvements: prioritize the identified improvements to create a phased program for future investments in cycling and walking infrastructure.

Stage 6 – Integration and Application: integrate the LCWIP outputs into local planning, transportation policies, strategies, and implementation plans to ensure that cycling and walking

considerations are incorporated into broader urban and transportation planning efforts.

This report covers Stages 2, 3 and 4 of the LCWIP process described above.

The study area covers the district of Swale, building on a number of active travel schemes and stakeholder and public engagement undertaken to date, such as the Faversham LCWIP (issued January 2022) and the Kent Cycling and Walking Infrastructure Plan (KCWIP).

Kent County Council (KCC) has undertaken a county-wide LCWIP, (the KCWIP) which aims to identify a strategic network of walking and cycling routes across the county and is expected to be published in 2025.

There are three proposed KCWIP cycle routes which begin/ end in Swale: between Sheerness and Leysdown, Sittingbourne and Faversham and one route from Maidstone to Sittingbourne. These routes were identified as priority routes through the KCWIP assessment.

Alongside this Swale LCWIP, a Sheppey Towns LCWIP was developed, which identified active travel routes and proposed improvements. Prior to public consultation, the Sheppey Towns LCWIP was merged into the Swale LCWIP in order to streamline these two documents and put forward a coherent network of active travel routes

across the Borough. Therefore, Chapters 2 - 4 of this report focus on the Swale LCWIP development and Chapter 5 discusses the inclusion of the Sheppey Towns LCWIP into the Swale LCWIP.

This report is structured as follows:

- Introduction
- Data Collection
- Network Planning for Cycling
- Network Planning for Walking
- Sheppey Towns LCWIP
- Summary

This LCWIP is designed to enable a long-term approach to developing local cycling, walking and wheeling networks over a 10-year period. It is envisaged that the LCWIP will be reviewed and updated to reflect progress made towards implementation or to reflect changes in local policies or strategies, for instance.

02

Stage 2: Data Collection

Stage 2: Data Collection

Study Area

Swale is one of 12 districts in Kent, it is bounded by Medway, Canterbury, Ashford and Maidstone. The LCWIP study area is covering the whole of Swale.

Given the importance of encompassing both rural and urban areas as well as connections between key settlement clusters, additional smaller-scale study areas have been identified within Swale (see Figure 2-1): Sittingbourne, Faversham, Sheppey towns and rural Swale. These four key areas will be represented in subsequent stages to draw out the baseline conditions alongside the district-wide scale.

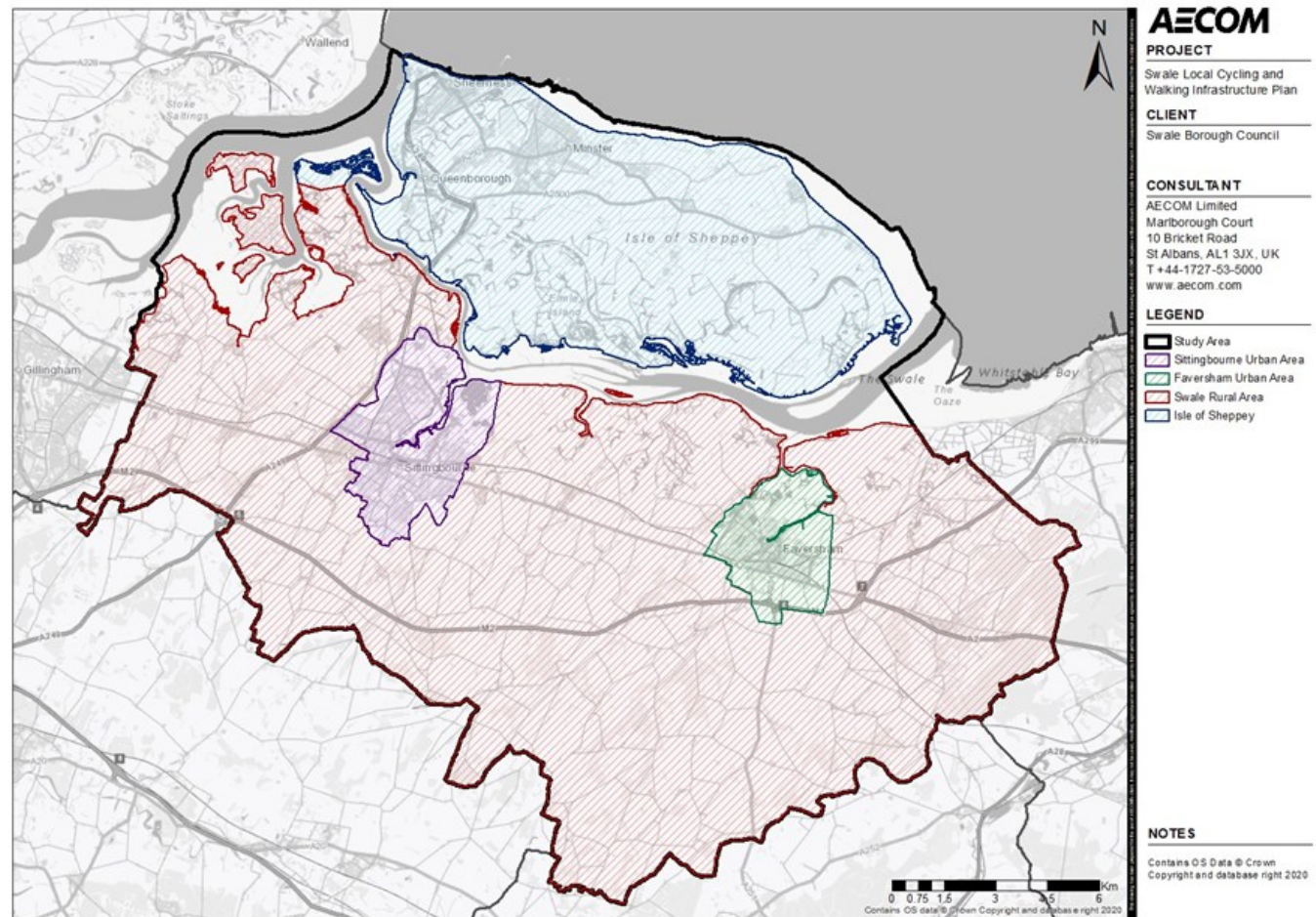


Figure 2-1: Swale LCWIP Study Area

Demographics

According to 2021 Census, the population in Swale is around 151,700. Whilst the population in Swale is growing (11.7% growth between the 2011 and 2021 Censuses) by a greater percentage than the overall population of the South-East (7.5%) and England (6.6%), it is among the lowest 40% for population density across all local authorities in England [1]. According to the 2020 mid-year population estimates, 30% of Swale's population resided in rural areas, which is the 6th highest percentage in Kent [2].

Swale is comprised of 24 wards, the populations of which are displayed in Table 2-1 below by area and urban-rural classification [3].

Table 2-1: 2020 Mid-year Ward Level Population Estimates (MYPE)

Area	Ward	2020 MYPE*	2020 MYPE Density	Urban-Rural Classification
Faversham Urban Area	Abbey	5,360	27.95	Urban city and town
	Priory	2,900	7.95	Urban city and town
	St Ann's	5,630	49.88	Urban city and town
	Watling	6,320	14.20	Urban city and town
Sittingbourne Urban Area	Chalkwell	3,450	36.02	Urban city and town
	Homewood	6,390	46.37	Urban city and town
	Kemsley	7,140	18.40	Urban city and town
	Milton Regis	6,290	34.08	Urban city and town
	Murston	7,040	17.36	Urban city and town
	Roman	6,880	51.29	Urban city and town
	The Meads	4,120	39.59	Urban city and town
	Woodstock	6,130	29.03	Urban city and town
	Minster Cliffs	7,770	15.15	Urban city and town
Isle of Sheppey	Queenborough and Halfway	8,170	7.66	Urban city and town
	Sheerness	13,480	24.54	Urban city and town
	Sheppey Central	9,120	3.78	Urban city and town
	Sheppey East	7,250	1.59	Rural village and dispersed
Swale Rural Area	Bobbing, Iwade and Lower Halstow	6,220	2.58	Rural town and fringe
	Borden and Grove Park	6,450	7.79	Rural village and dispersed
	Boughton and Courtenay	6,720	1.05	Rural village and dispersed
	East Downs	2,720	0.45	Rural village and dispersed
	Hartlip, Newington and Upchurch	6,290	2.47	Rural town and fringe
	Teynham and Lynstead	6,330	1.32	Rural town and fringe
	West Downs	2,880	1.16	Rural village and dispersed

*Ward estimates have been individually rounded to the nearest 10.

Source: Kent County Council, 2021

[1] Census 2021, <https://www.ons.gov.uk/visualisations/censusareachanges/E07000113/>

[2] Kent County Council, 2021, https://www.kent.gov.uk/_data/assets/pdf_file/0018/8145/Mid-year-population-estimates-ward-level-population.pdf

[3] Ibid

Population Density

Figure 2-2 to Figure 2-6 illustrate the population density across all of Swale, as well as in the four core areas across Swale.

The population density in Swale almost exclusively agglomerates in Faversham, Sittingbourne, Minster-on-Sea and Sheerness. Population density across Swale reaches 17,896 people per km. The Lower layer Super Output Areas (LSOA) with the highest population is in Sheerness. Except for pockets of higher density in Sittingbourne, Faversham and the Isle of Sheppey, the maximum population density in rural Swale is 3,112 people per km.

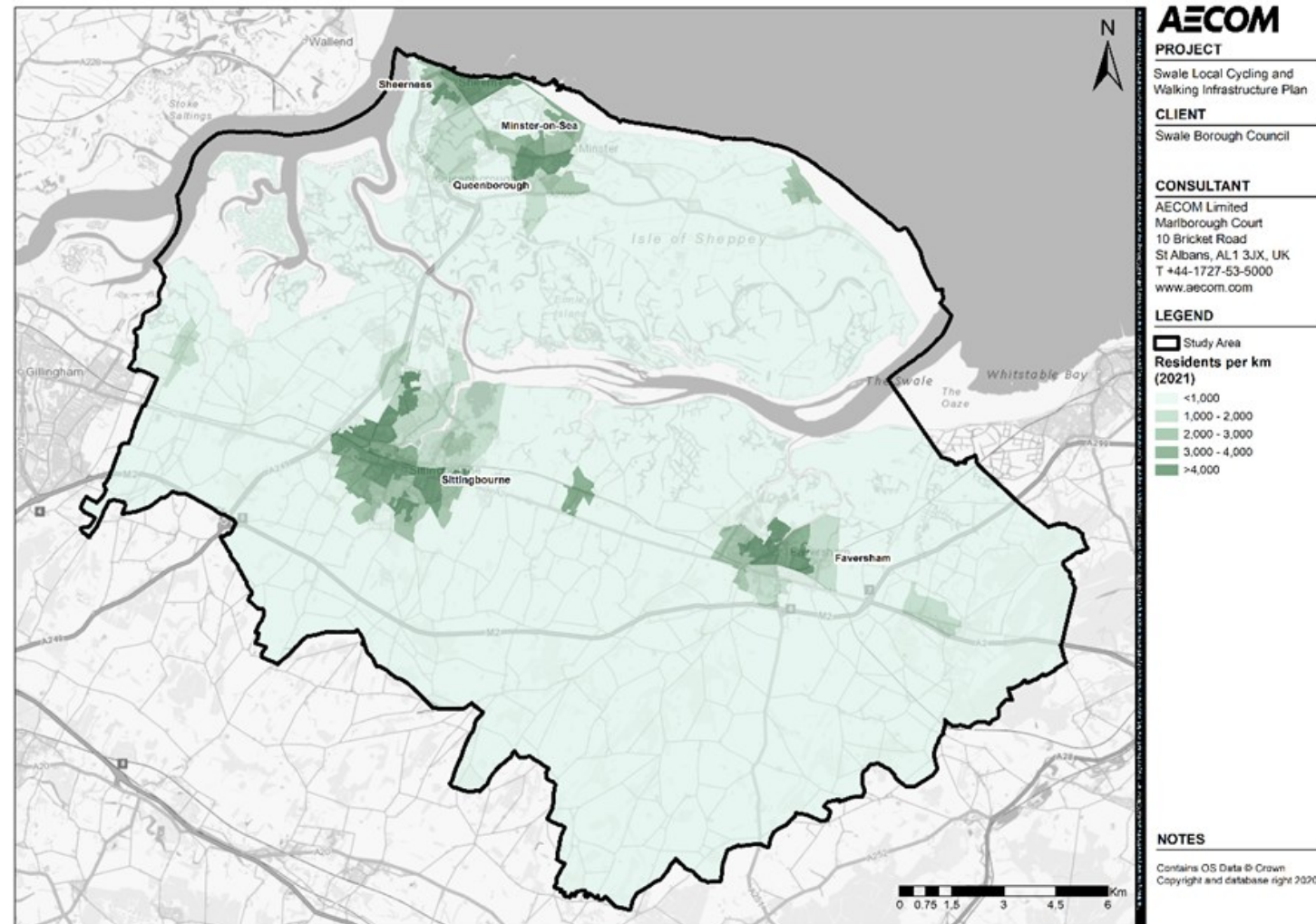


Figure 2-2: Population Density Across Swale (2021)

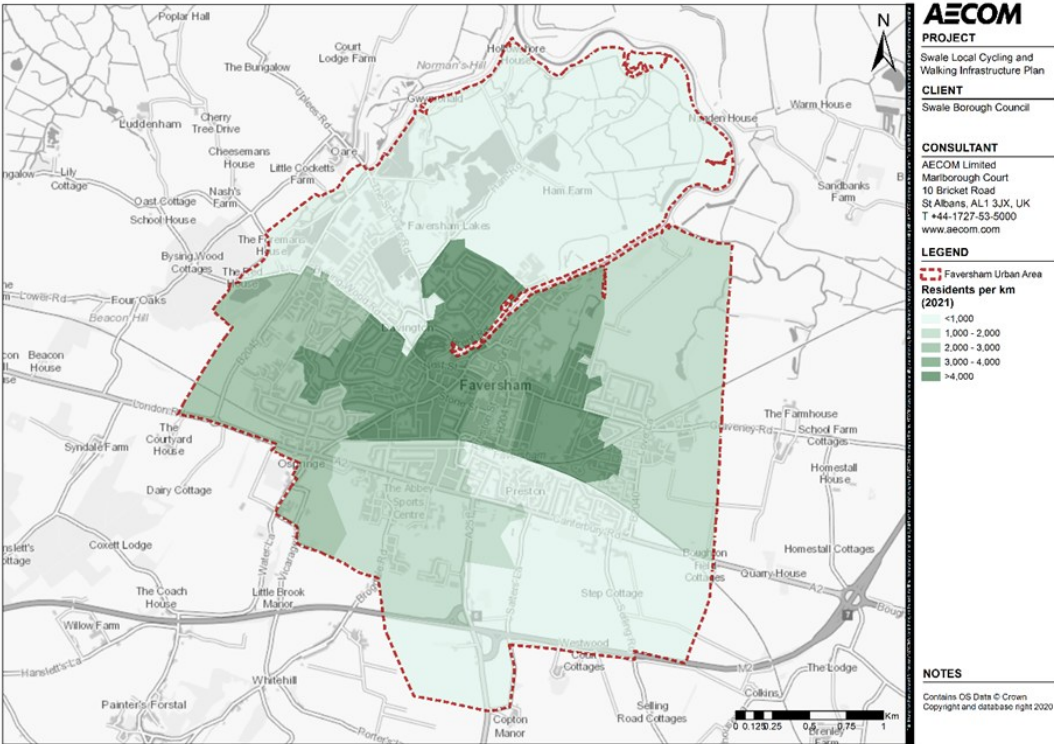


Figure 2-3: Population Density- Faversham

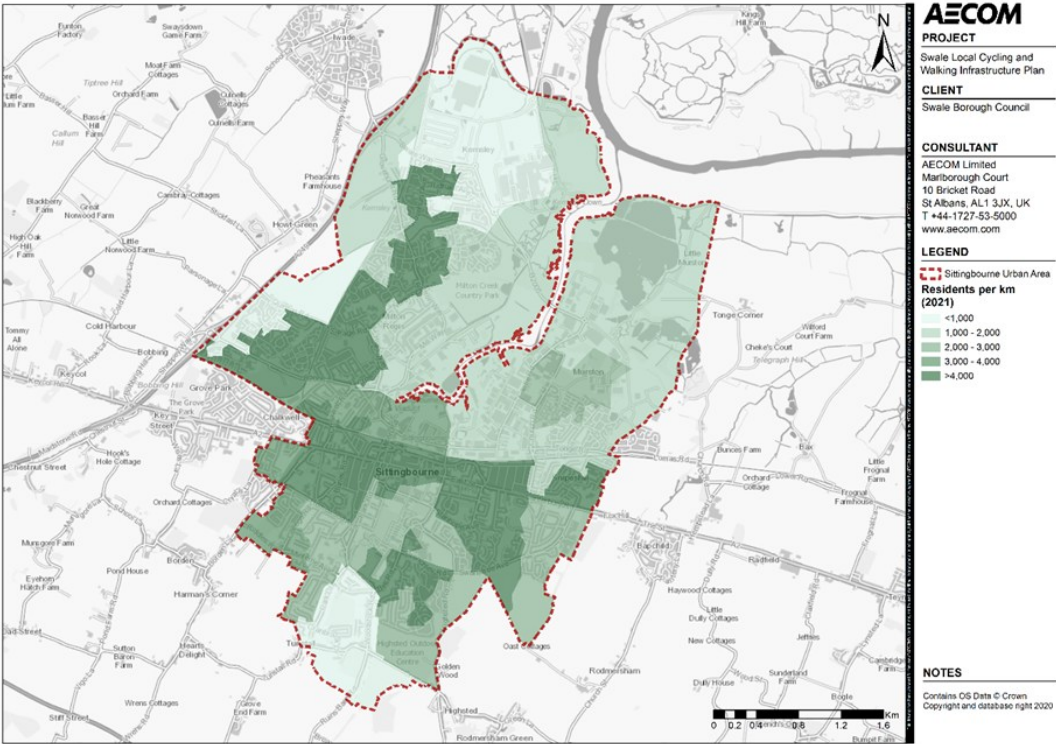


Figure 2-4: Population Density- Sittingbourne

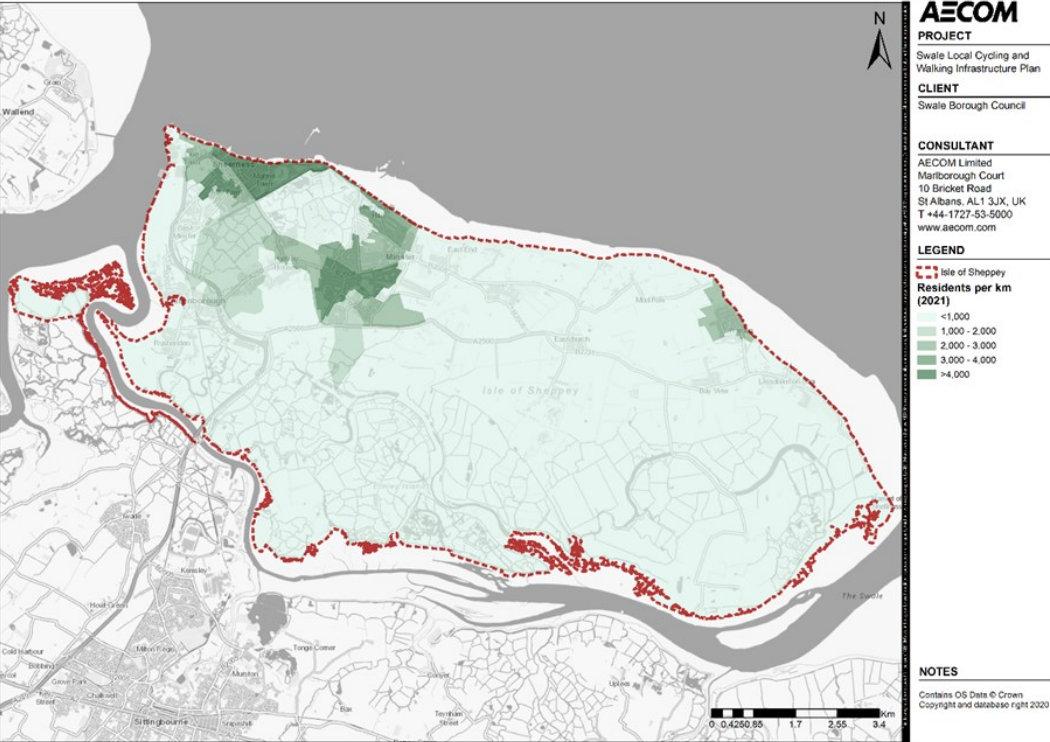


Figure 2-5: Population Density- Isle of Sheppey

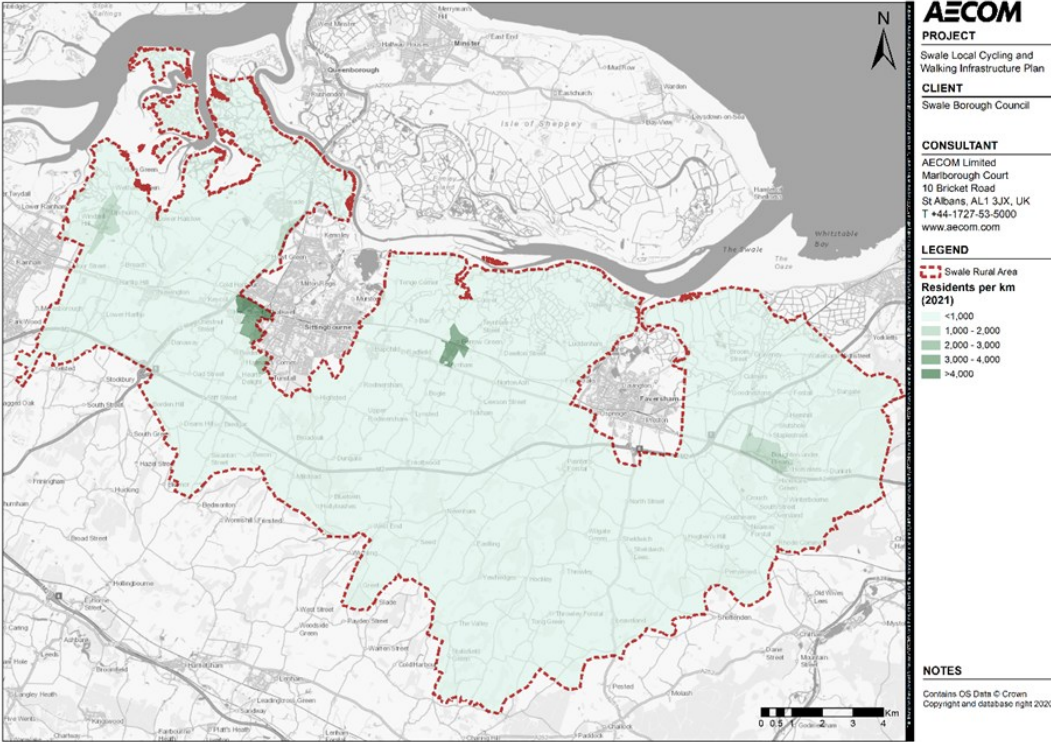


Figure 2-6: Population Density- Rural Swale

Employment Density

Employment density in Swale is based on the Business Register and Employment Survey (2021) and is illustrated in Figure 2-7. It can be seen that among Sittingbourne, Faversham and Sheerness, Sittingbourne has the highest employment density – between 51 and 101 employees per hectare. Just outside of Sittingbourne, employment density is largely between 8 and 20 employees per hectare. The vast majority of Swale outside key towns has fewer than 7 employees per hectare. There are clusters of higher employment density to the east and west of Swale in Whitstable and Gillingham.

Figure 2-8 to Figure 2-11 illustrate the employment density in the settlement areas of Sittingbourne, Faversham, Isle of Sheppey and rural Swale in more detail. Similar to population density, rural Swale and the Isle of Sheppey have extremely low numbers of employees per hectare given the majority of the area is comprised of rural settlements.

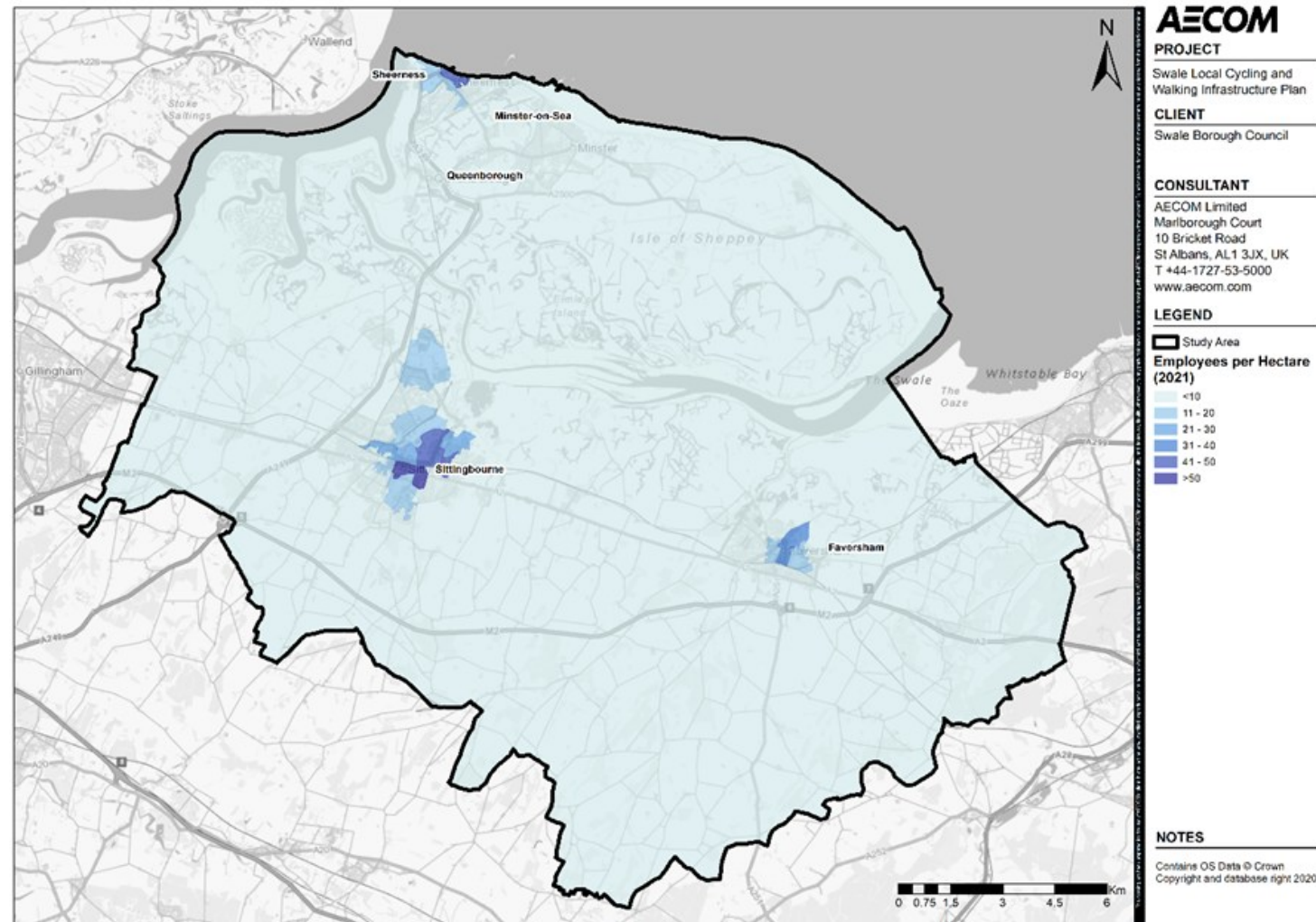


Figure 2-7: Employment Density Across Swale (2021)

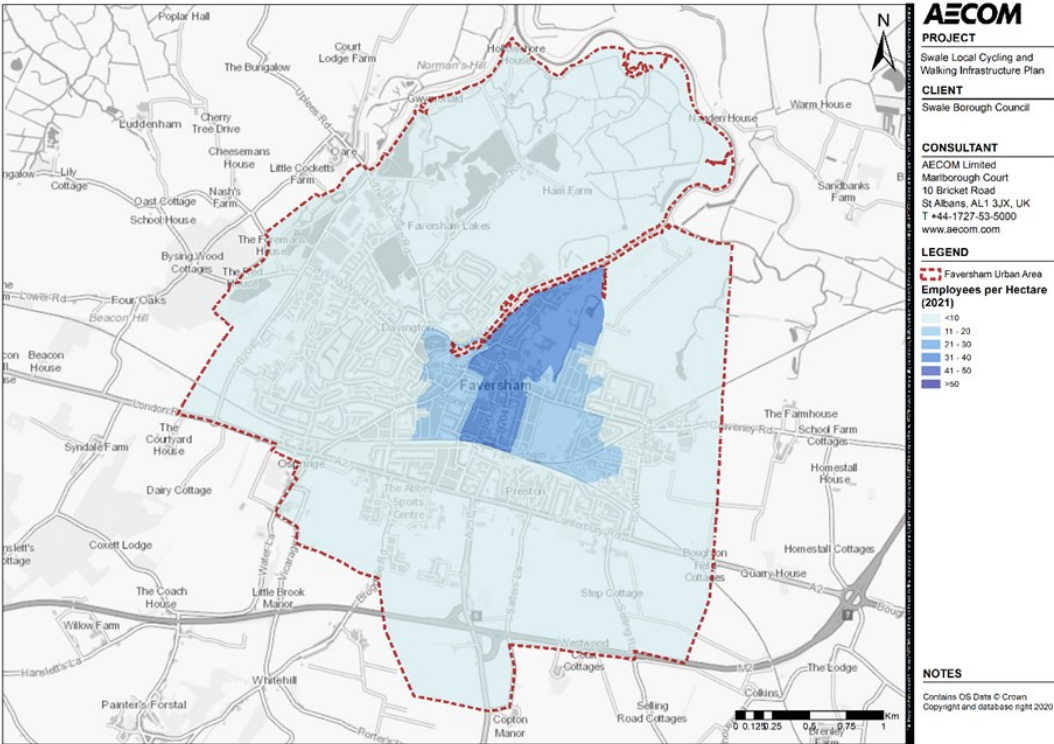


Figure 2-8: Employment Density- Faversham

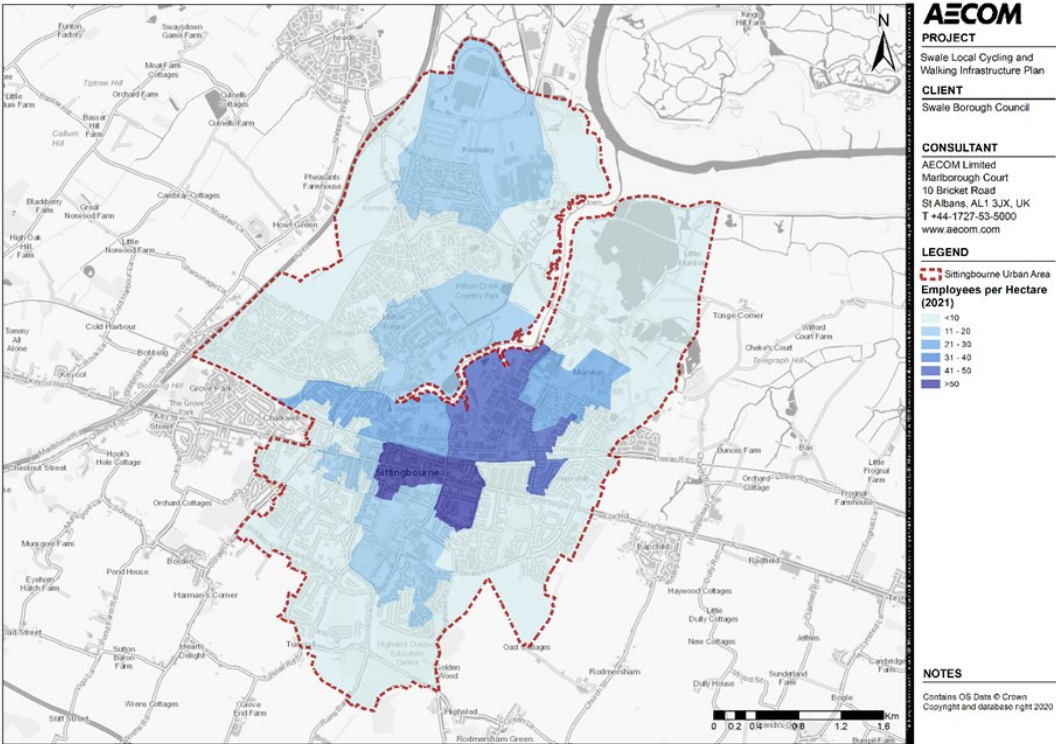


Figure 2-9 Employment Density- Sittingbourne

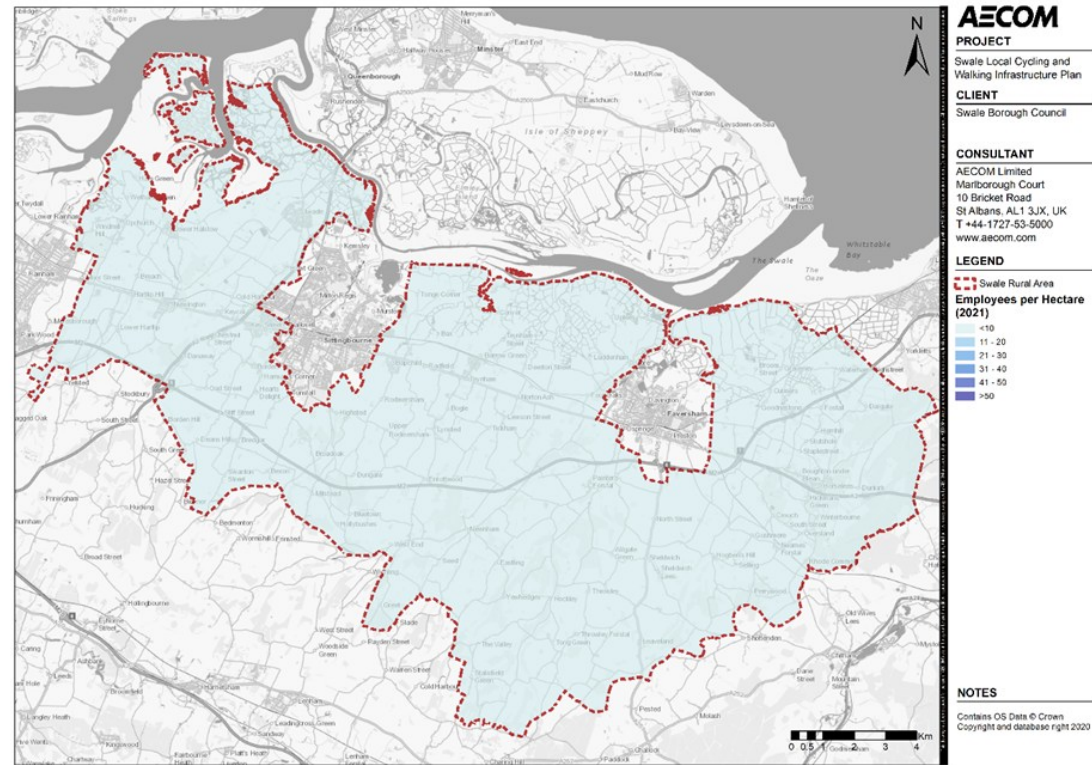


Figure 2-11: Employment Density - Rural Swale

Car Availability

Figure 2-12 illustrates the car or van availability across Swale. Across rural Swale, the average number of cars or vans per household is above 1.5 whereas within urban areas, in Sheerness, Sittingbourne and Faversham, the car or van availability is less than 1. Across Swale, the car or van availability is consistently higher than the average for the South East England (0.6 cars or vans per household [4]).

Figure 2-13 to Figure 2-16 illustrate the car or van availability across the four study areas in Swale. When comparing the car or van availability of Sittingbourne and Faversham to rural Swale and the Isle of Sheppey, it becomes clear that the spatial redistribution of people towards urban areas results in pockets of low car dependency in towns and higher car dependency in rural areas. In more urban areas, there is typically more mode choice in terms of active travel infrastructure and public transport, whereas rural areas typically present a greater challenge in encouraging mode shift away from private vehicles.

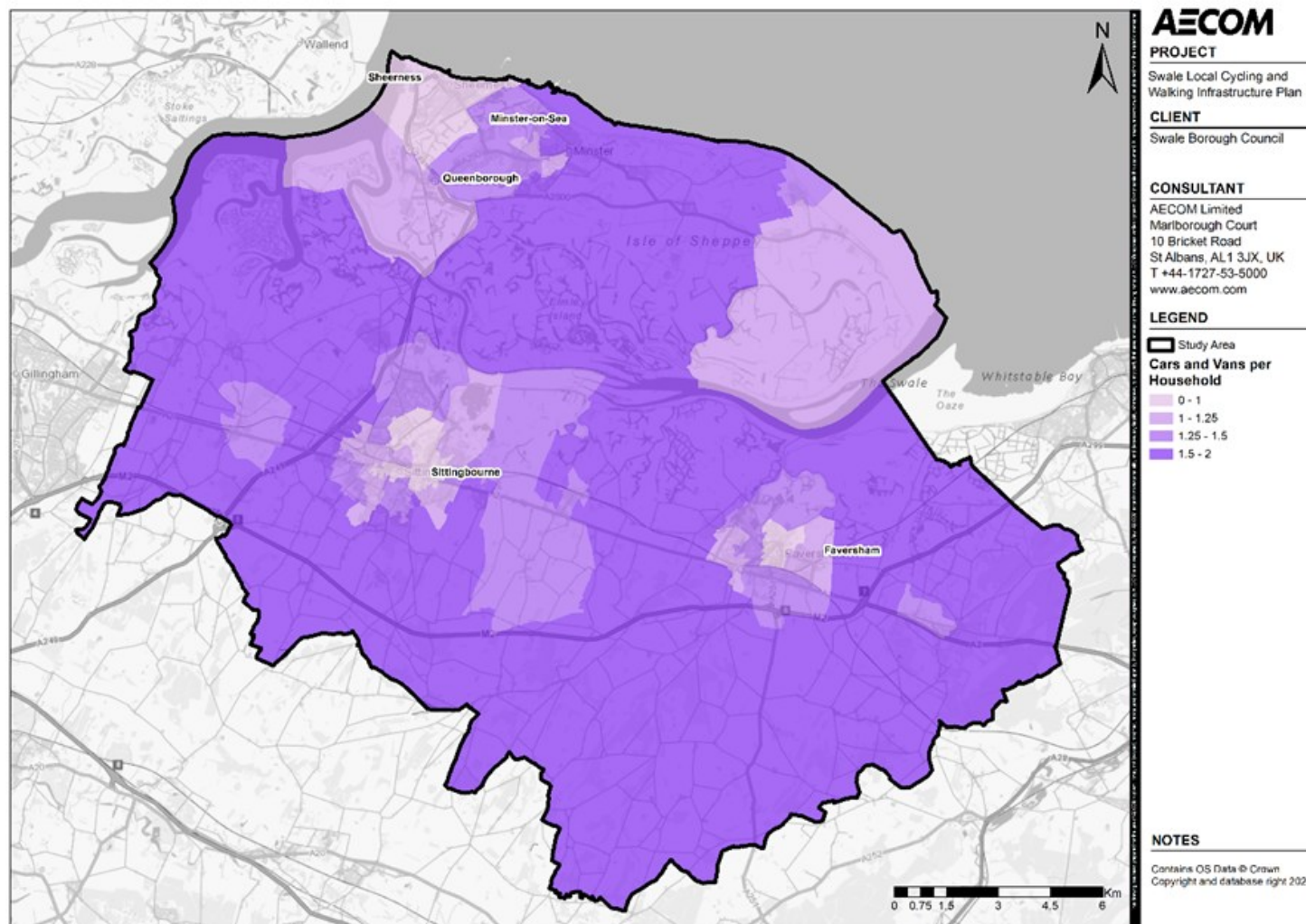


Figure 2-12 Car or Van Availability Across Swale

[4] <https://www.gov.uk/government/statistics/national-travel-survey-2019>

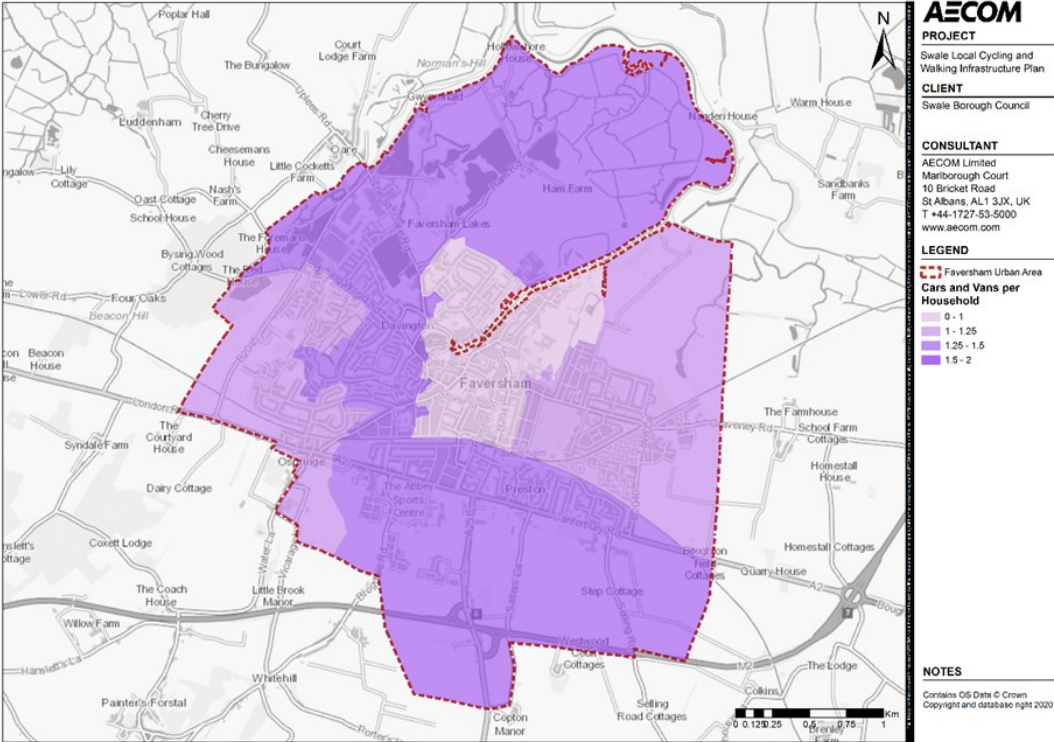


Figure 2-13: Car or Van Availability- Faversham

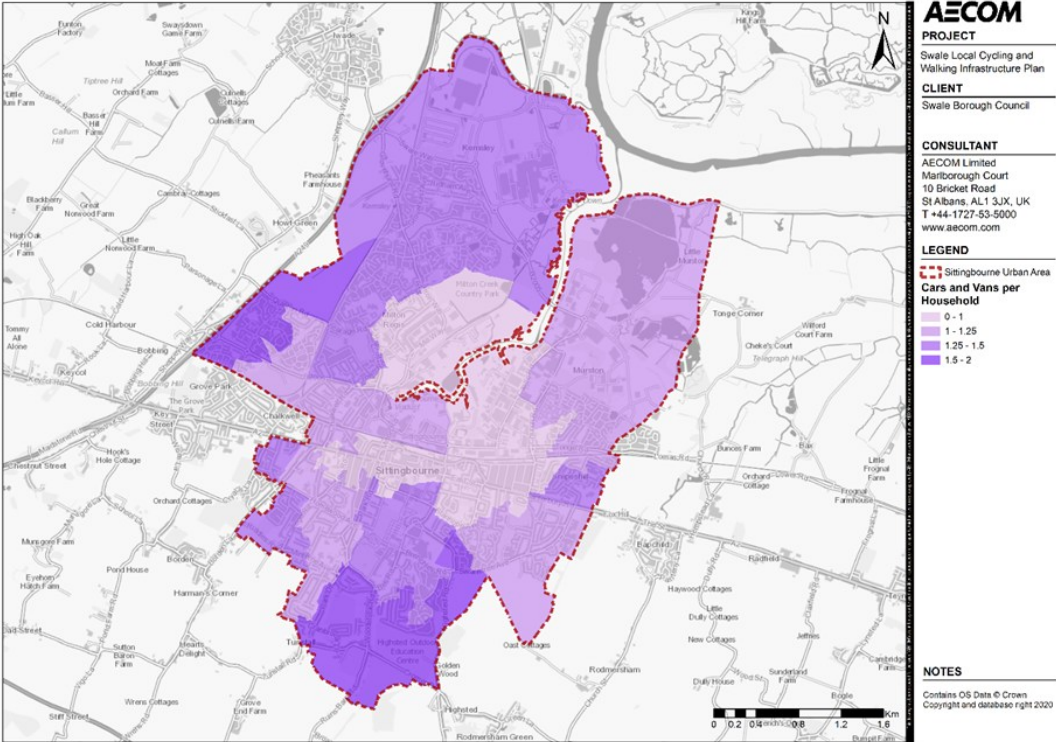


Figure 2-14: Car or Van Availability - Sittingbourne

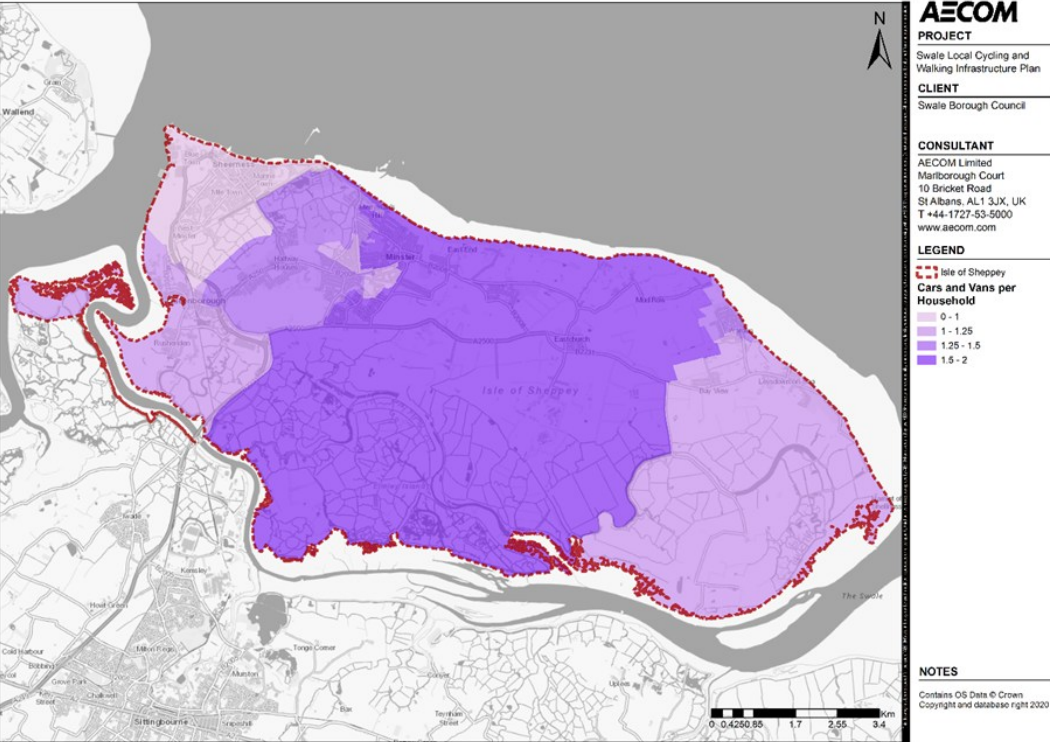


Figure 2-15 Car or Van Availability- Isle of Sheppey

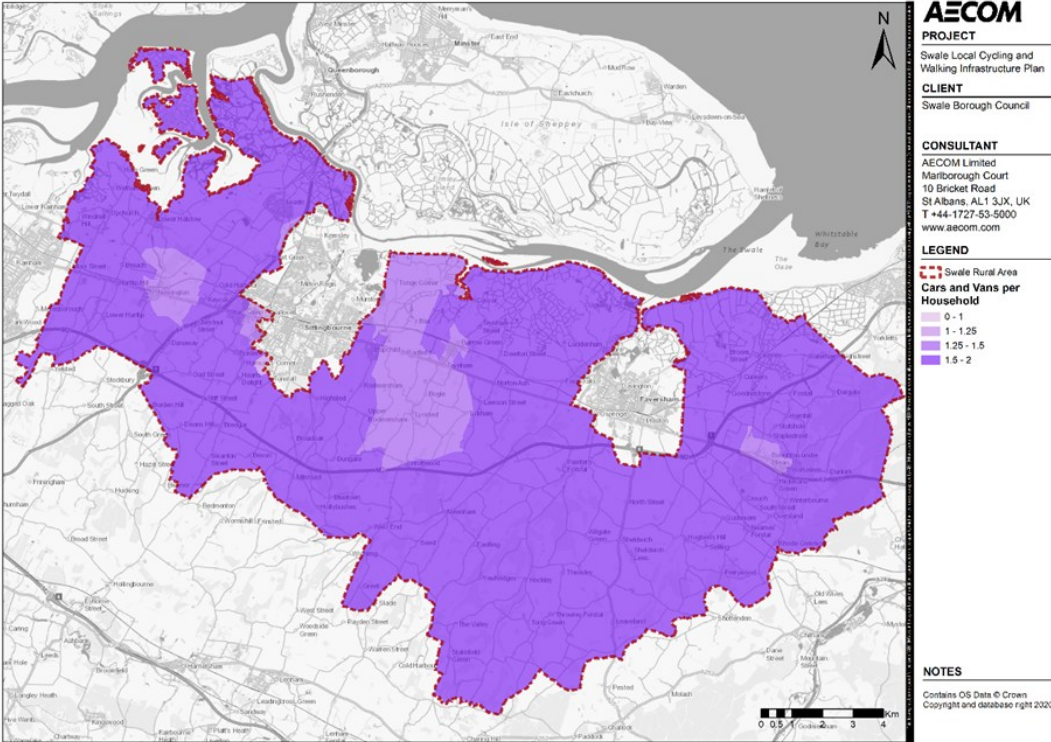


Figure 2-16 Car or Van Availability- Rural Swale

Deprivation

There are large disparities in levels of deprivation across Swale, from prosperous parts of Faversham to pockets of deprivation on the Isle of Sheppey such as Sheerness and Queenborough, which are some of the most deprived wards in England.

Figure 2-17 represents the Indices of Multiple Deprivation (IMD) in 2019 across Swale. IMD considers factors such as income, employment, education, skills and training, health and disability, crime, barriers to housing and services and the living environment. There is a large variation in the IMD deciles across the borough, with areas to the south-west of the borough experiencing lower IMD deciles, and the Isle of Sheppey being scored the most deprived decile. The IMD in the four study areas can be seen in more detail in Figure 2-18 to Figure 2-22

As Figure 2-22 illustrates, there are pockets of further intensive social and economic inequality in the isolated communities of coastal areas in Swale. Left Behind Neighbourhoods (LBNs) are a metric developed by the Local Trust and Oxford Consultants for Social Inclusion (OCSI) to define places that rank highly in terms of IMD, but also lack social infrastructure. There are ten LBNs in Kent, two of which are located in Swale, specifically on the Isle of Sheppey.

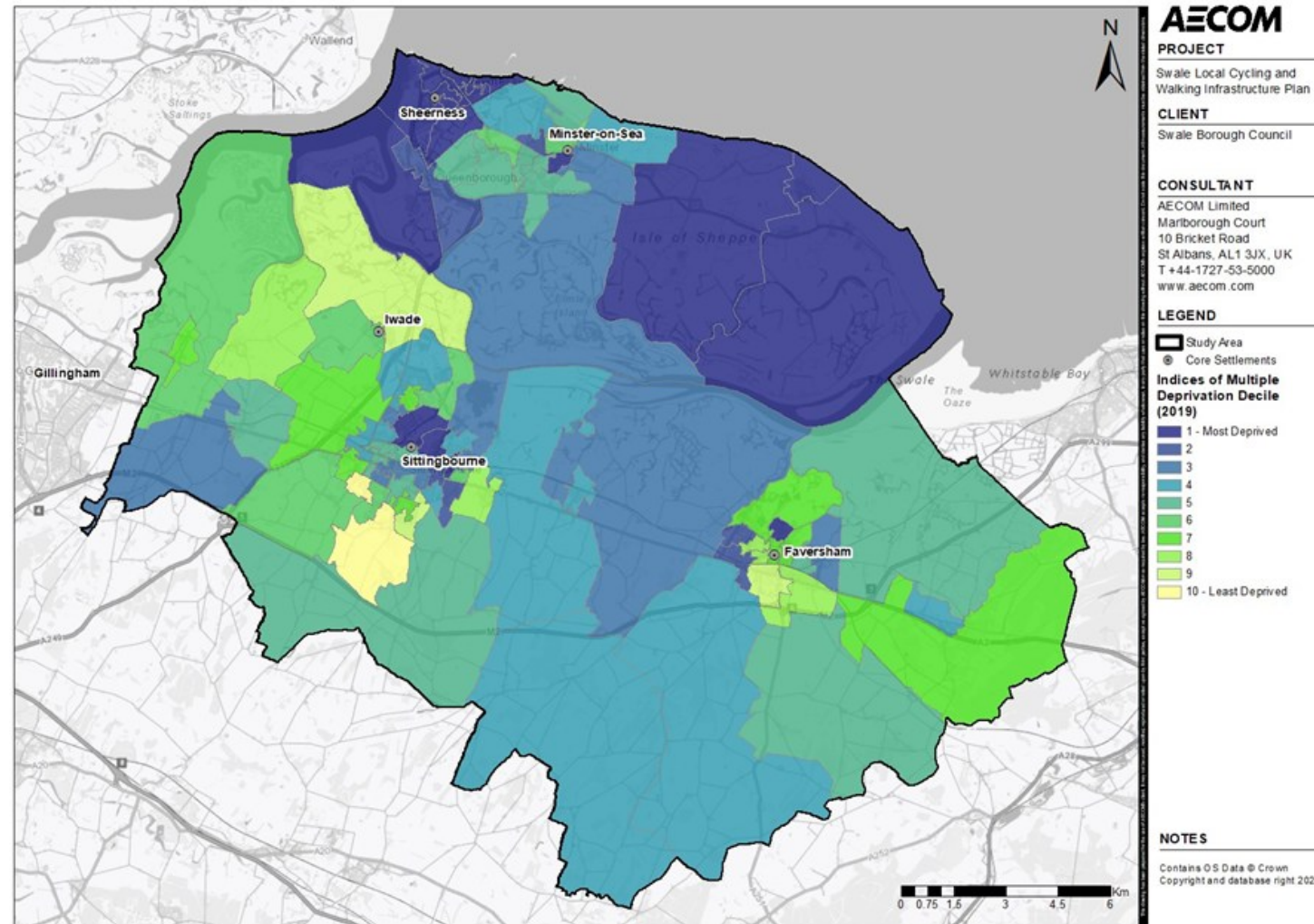


Figure 2-17 IMD Across Swale

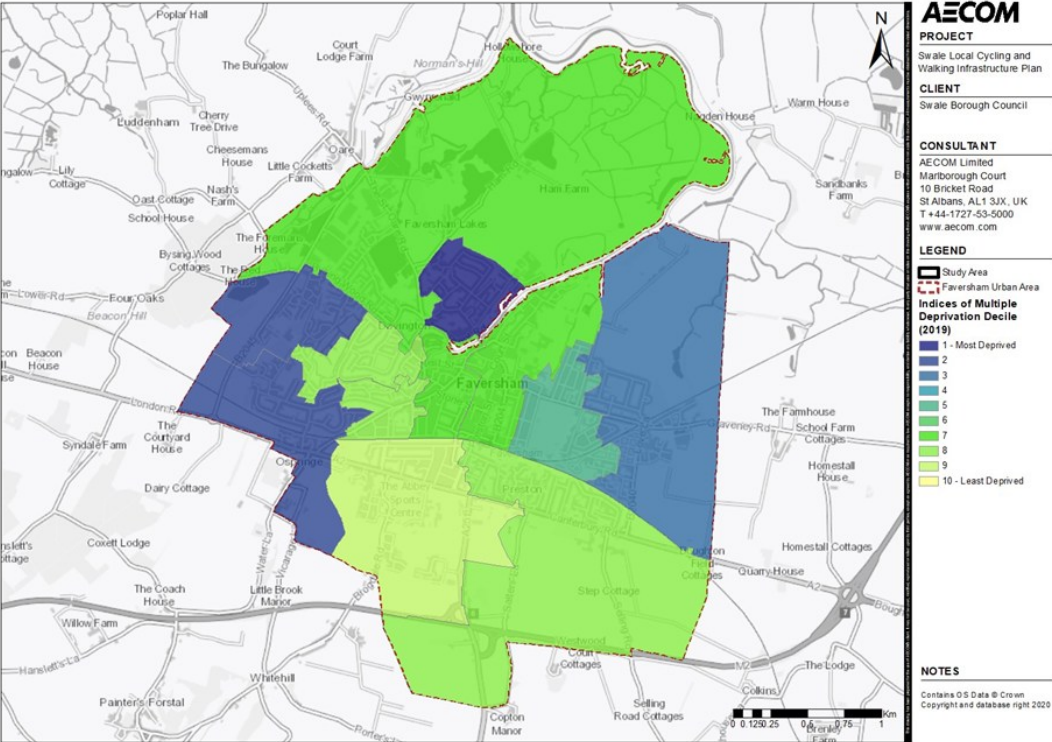


Figure 2-18 IMD- Faversham

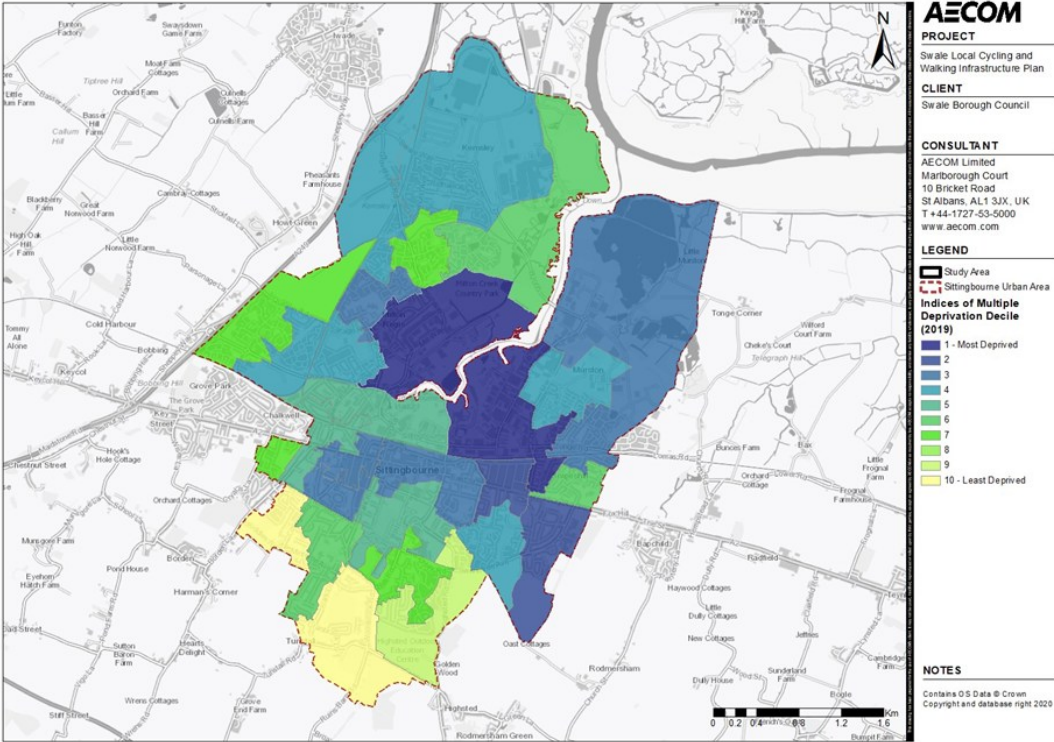


Figure 2-19 IMD- Sittingbourne

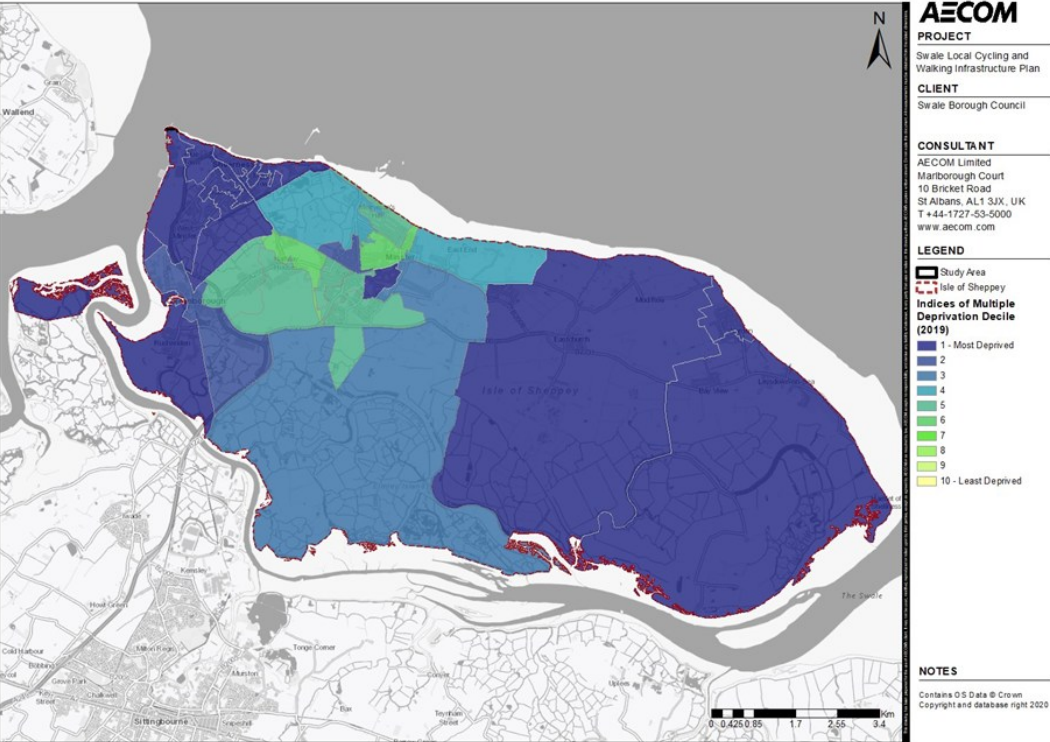


Figure 2-20 IMD- Isle of Sheppey

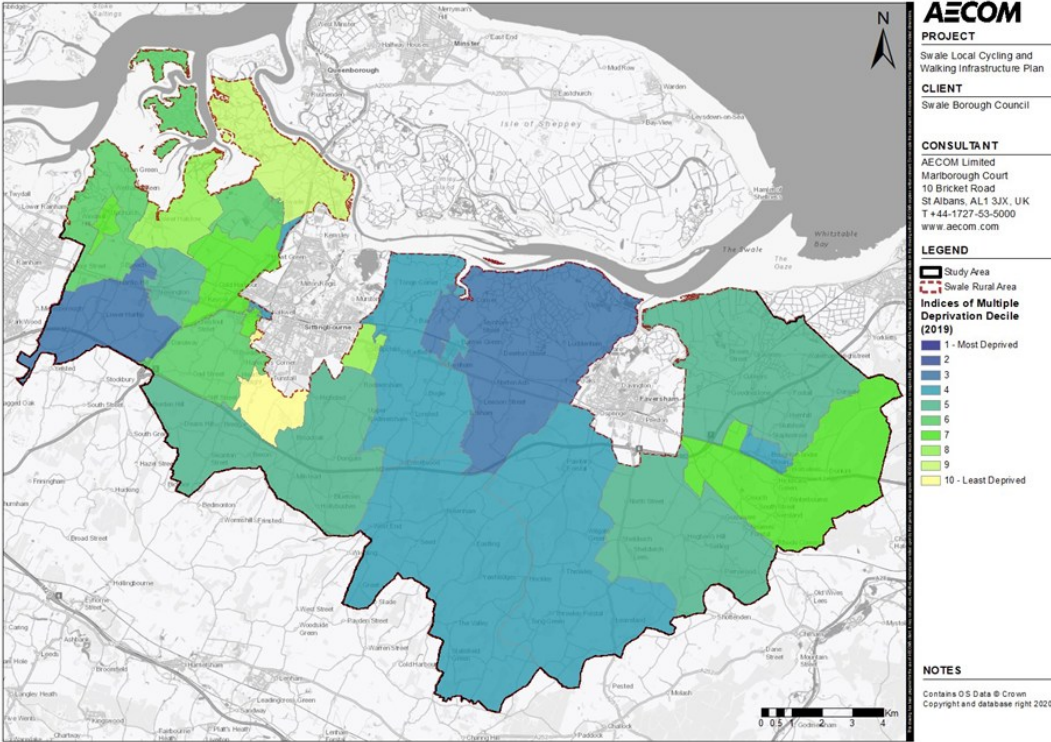


Figure 2-21 IMD- Rural Swale



Figure 2-22 Left Behind Neighbourhoods Across Swale

Trip Generators and Attractors

Trip generators and attractors have been identified to establish key trip origin and destination points across Swale, which are used in subsequent stages of the LCWIP to undertake network planning for cycling and walking. Identification of trip generators and attractors is crucial to identify desire lines across Swale to ascertain where active travel infrastructure could be a valuable tool in encouraging mode shift and uncovering suppressed demand.

Figure 2-23 illustrates the trip attractors and generators across Swale. It can be seen that there are agglomerations of trip attractors in Faversham, Sittingbourne and the north-west of the Isle of Sheppey, whereas rural Swale has much fewer key trip attractors and generators.

As shown in Figure 2-24 to Figure 2-27, Sittingbourne, Faversham and the Isle of Sheppey have a high number of key trip generators and attractors, with a number of major employment sites, such as the Eurolink in Sittingbourne and the HMP Sheppey Cluster on the Isle of Sheppey. Whilst rural Swale has fewer trip generators and attractors, there are rail stations, a number of bus stops as well as a number of education and leisure sites.

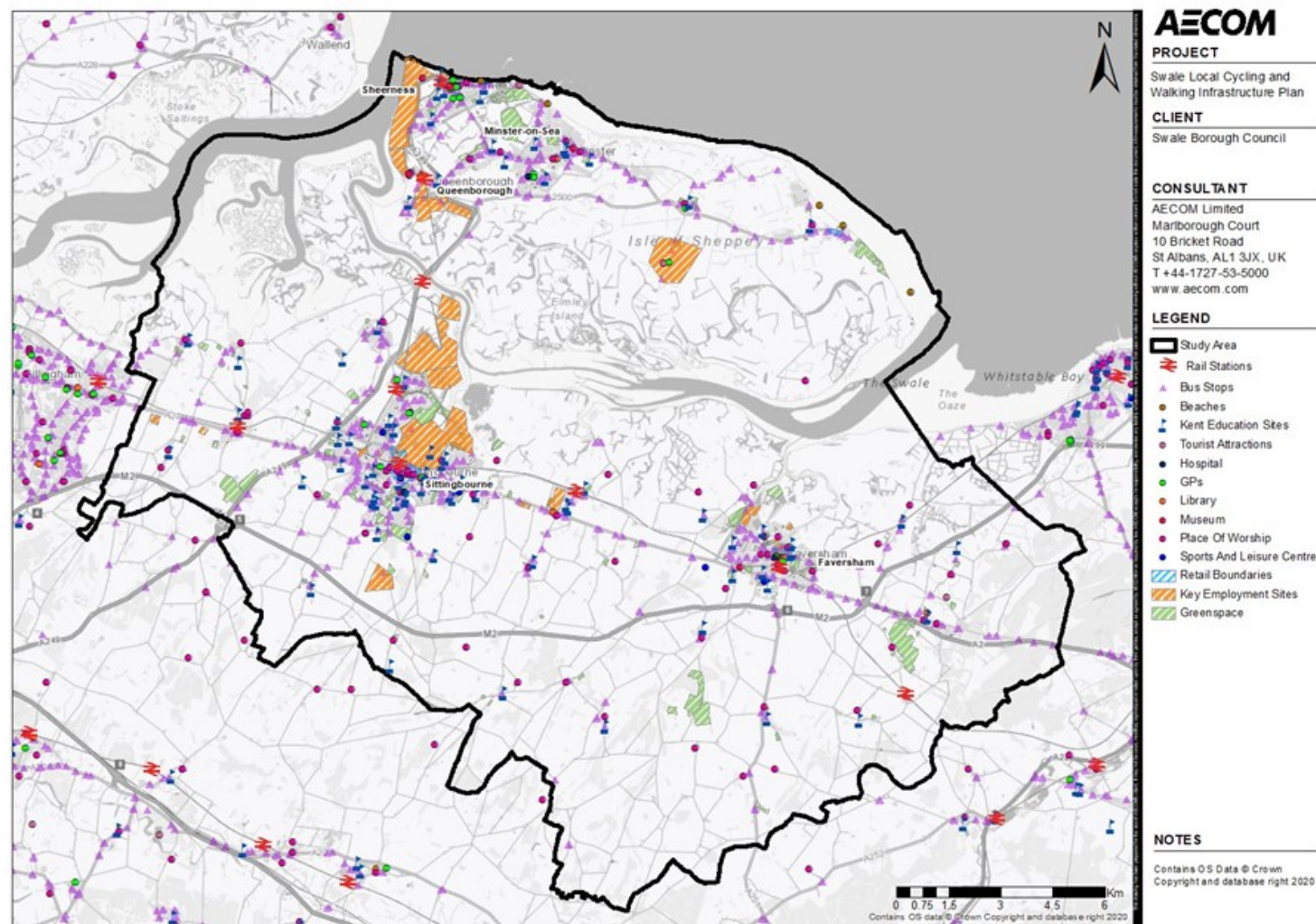


Figure 2-23 Trip Generators and Attractors Across Swale

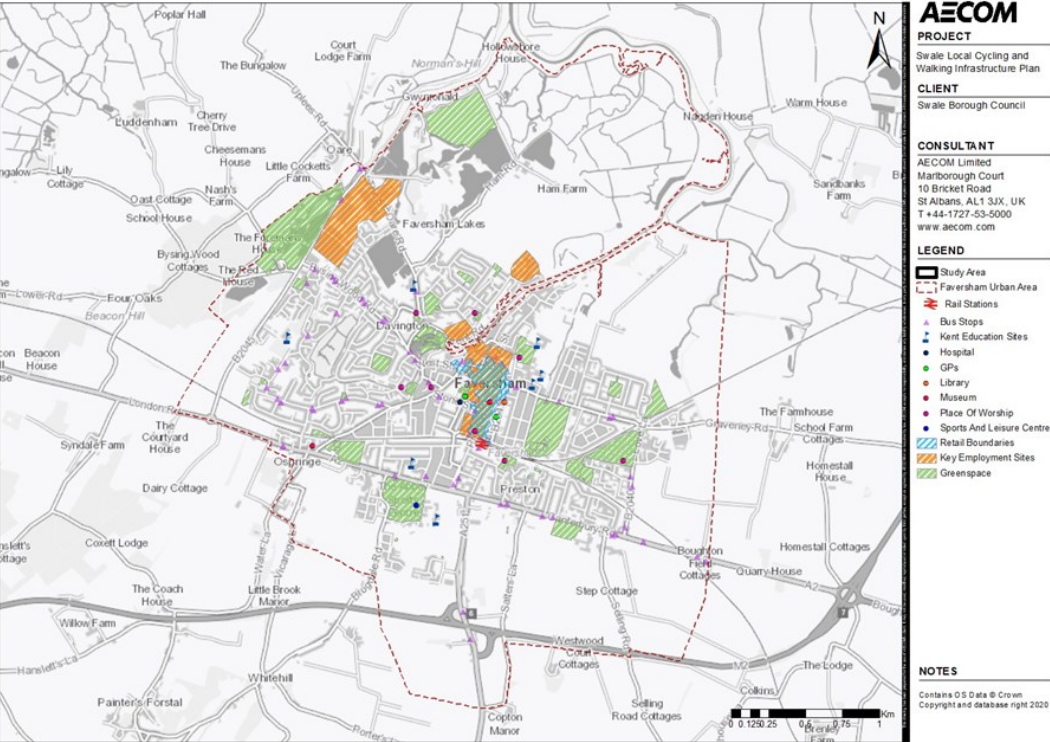


Figure 2-24 Trip Generators and Attractors- Faversham

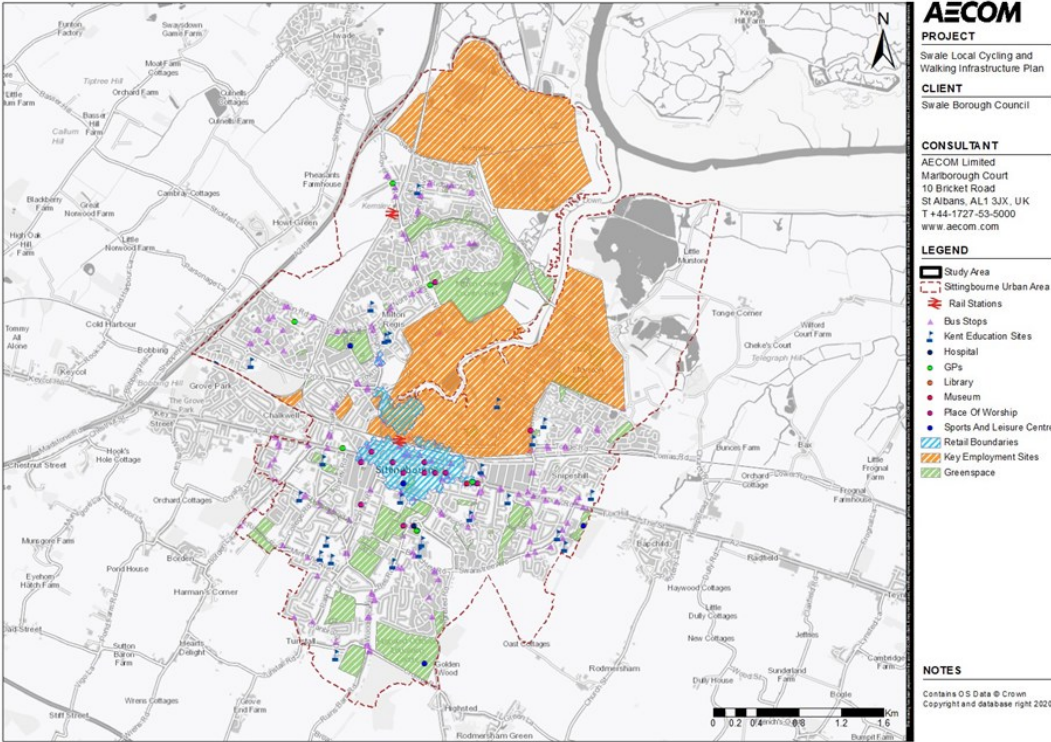


Figure 2-25 Trip Generators and Attractors- Sittingbourne

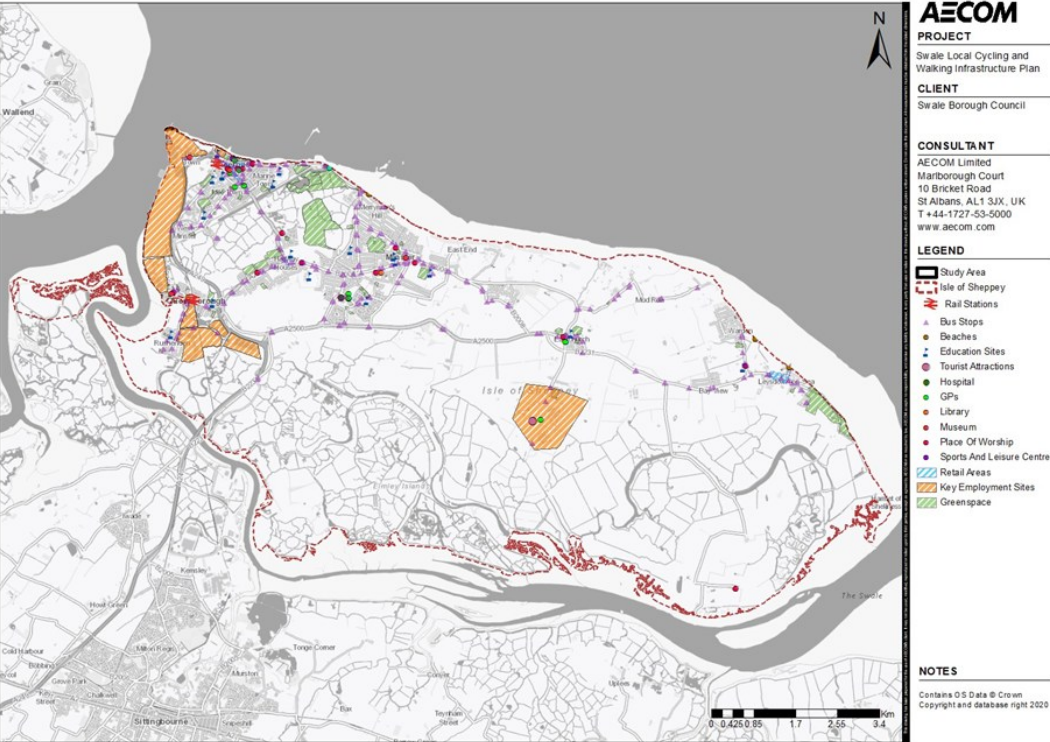


Figure 2-26 Trip Generators and Attractors- Isle of Sheppey

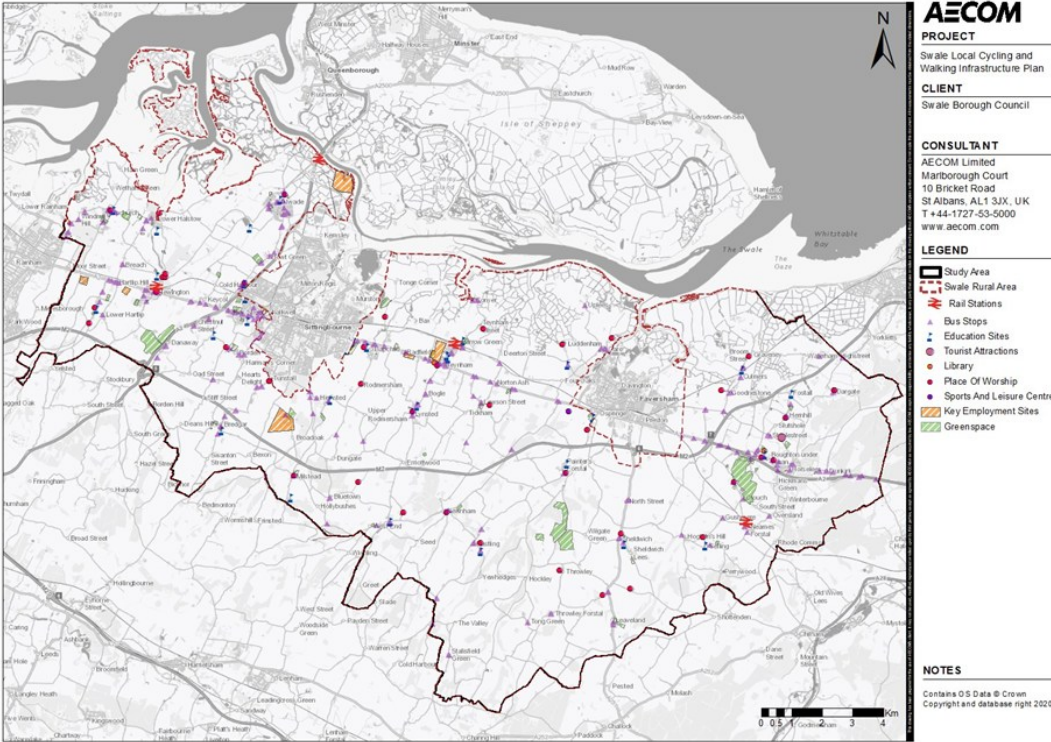


Figure 2-27 Trip Generators and Attractors- Rural Swale

Future Trip Generators and Attractors: Committed Developments

There are a number of committed housing, employment and mixed-use developments across Swale. It is important to consider both existing and future trip generators/ attractors in order to ensure any proposed active travel infrastructure serves existing demand but also meets and encourages future demand.

As Figure 2-28 illustrates, there are a number of committed developments across Swale, largely located on the urban peripheries of Sittingbourne and Faversham and the Isle of Sheppey. Overall, there are 38 committed developments in the district, which is the fourth highest number of committed developments across the borough.

Figure 2-29 to Figure 2-32 highlight in more detail the committed developments across the study areas.

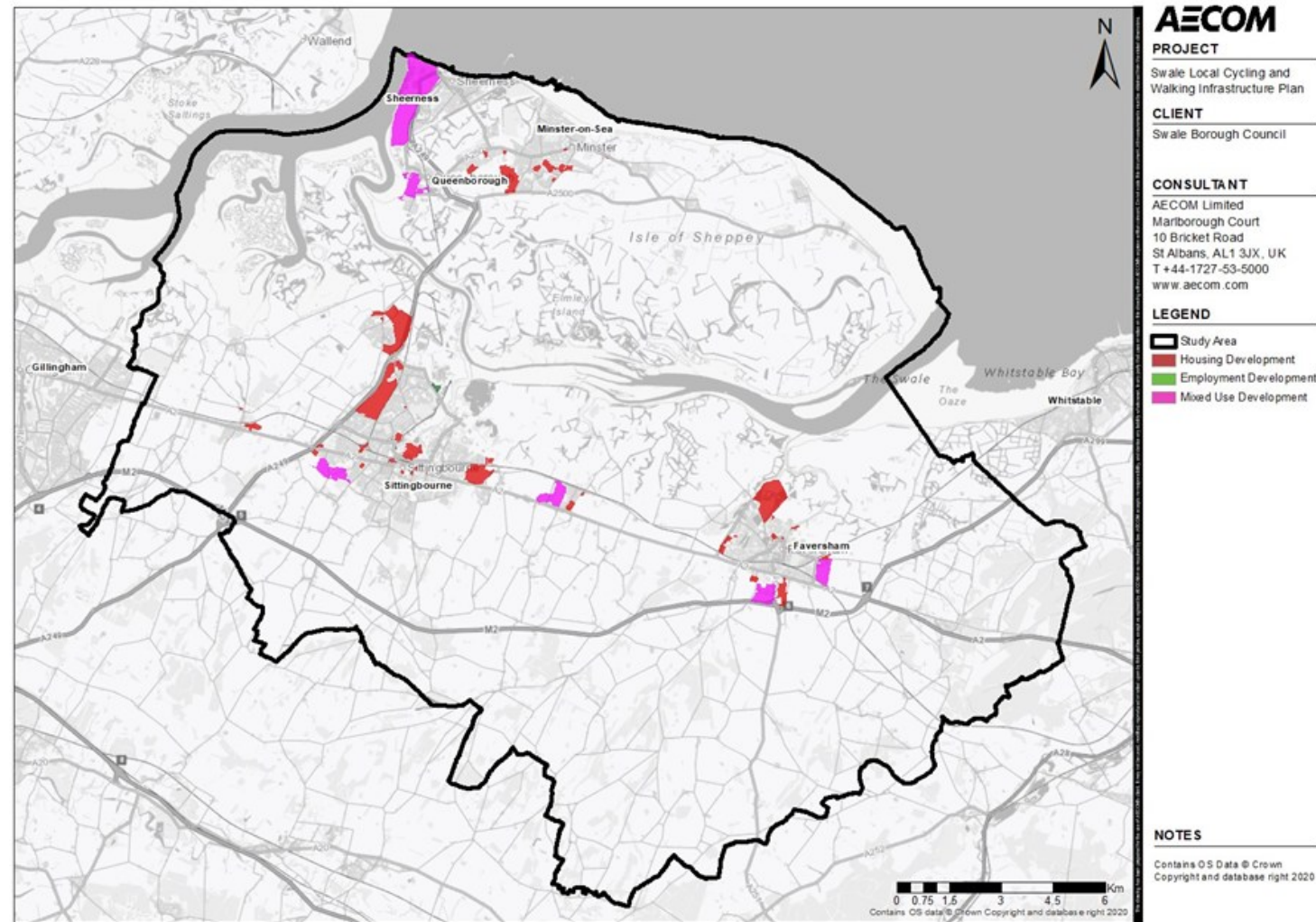


Figure 2-28 Committed Developments Across Swale

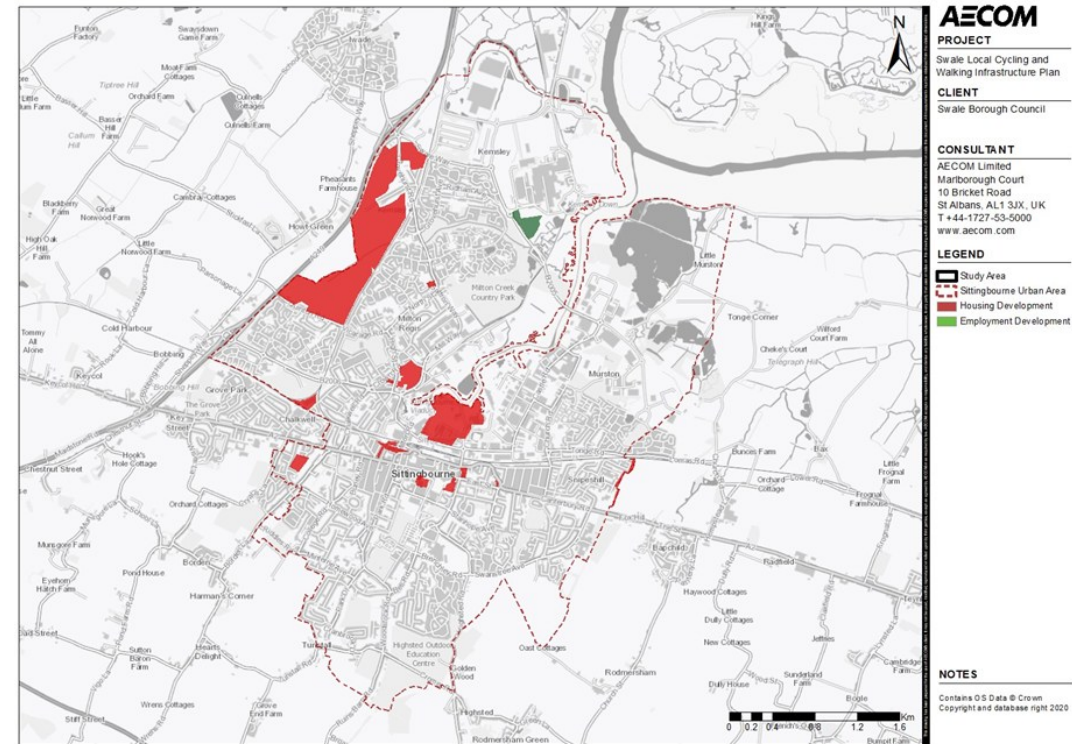


Figure 2-30 Committed Developments – Sittingbourne

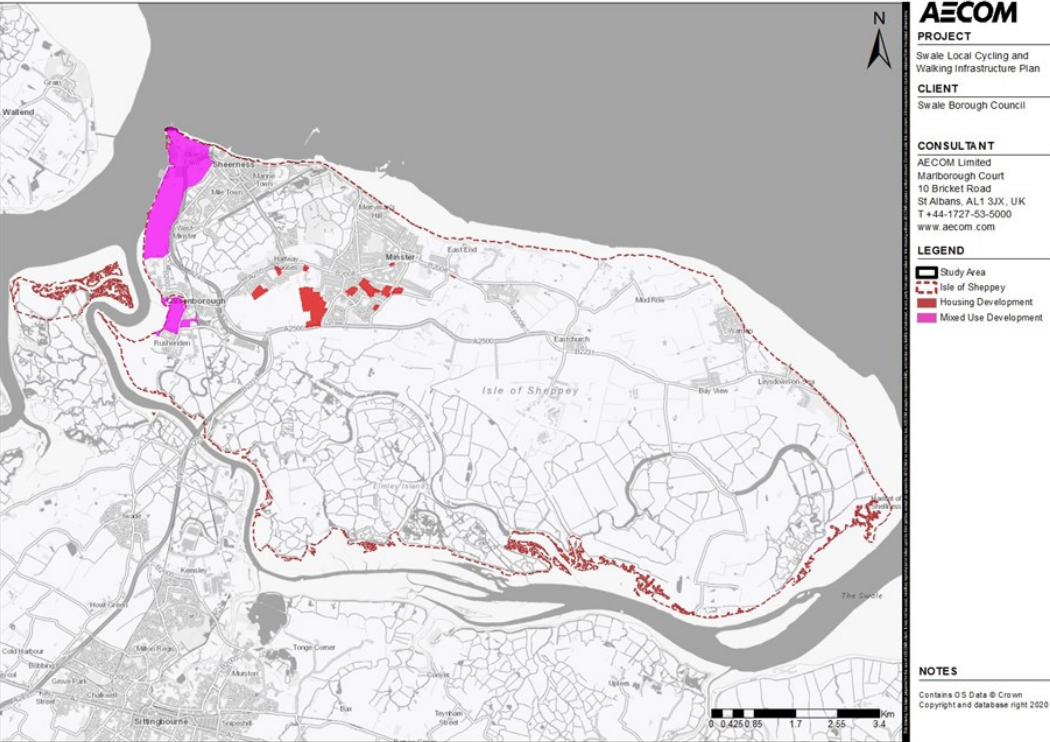


Figure 2-31 Committed Developments – Isle of Sheppey

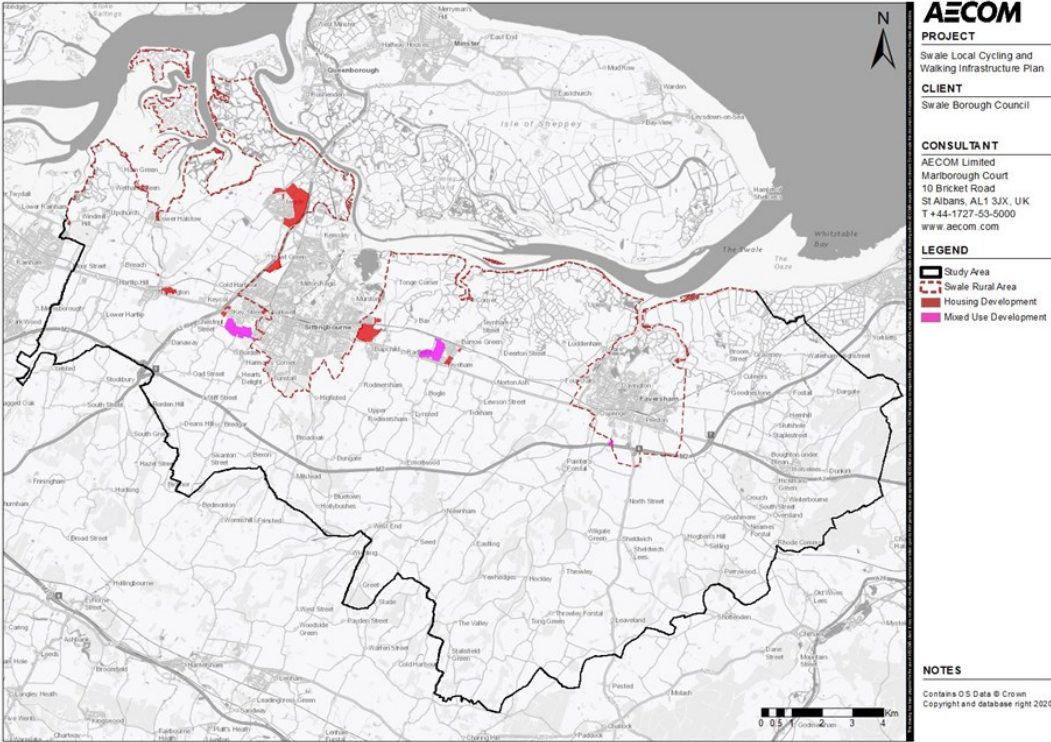


Figure 2-32 Committed Developments – Rural Swale

Transport Network

The following section outlines the transport network across Swale, including existing active travel network and any future planned cycling and walking schemes. It also covers public transport and highways in Swale. Understanding the transport network is crucial in identifying gaps, and more broadly, building a picture of the network as a whole.

Active Travel Network

The active travel network across Swale is comprised of routes which can be used for non-motorised modes, such as walking, wheeling and cycling. This LCWIP considers both the existing active travel network and future active travel network in its analysis.

Existing Active Travel Network

Figure 2-33 illustrates the National Cycle Network (NCN), existing cycle routes and lanes and Public Rights of Way (PRoW) across Swale. Additionally, Figure 2-34 to Figure 2-37 illustrate the active travel network across the four study areas.

The NCN is largely comprised of off-road and on-road routes, typically making use of quieter roads and shared-use paths. NCN Route 1 (North Sea Cycle Route) runs between Dover and John O'Groats, within Kent, it runs east-west from Dover to Dartford, connecting Whitstable to Gillingham via Faversham and Sittingbourne. NCN Route 174 (Sheerness Way)

connects into NCN Route 1, running north from the north-west of Sittingbourne to the Isle of Sheppey. Notably, whilst the east-west cycling provision across Swale is coherent and relatively direct, the north-south movements are limited and fragmented.

There is an additional network of cycle routes and lanes across Swale. These are comprised of on-road and off-road cycle provision. The existing network of cycle routes and lanes is sparse and does not form a connected network, it is primarily located within Sittingbourne with notable gaps in rural Swale, east Swale and the Isle of Sheppey. It is worth noting that the standard of cycling provision varies significantly across the network, with lengths of the routes being substandard and in need of upgrading.

With regards to the PRoW network, Kent County Council manages the longest public rights of way network of any county in England and Wales. Although footpaths make up 83% of the PRoW network in Kent, the percentage of other rights of way paths including byways, restricted byways and bridleways is below the national average [5]. Network coverage generally aligns with areas of high population and employment density, while the Isle of Sheppey has a relatively sparse network.

The network priority status of the PRoW network is as follows:

- Category A
 - ◇ North Downs Way National Trail
 - ◇ Routes to local facilities such as bus stops, churches, schools, parks, tourist attractions
 - ◇ Paths used for daily leisure walking
 - ◇ Multi-use paths with a clear public benefit, such as allowing horse riding or cycling in addition to walking
 - ◇ Paths with potential for improvement
 - ◇ Paths promoted by Explore Kent.
- Category B
 - ◇ any paths not under category A
 - ◇ paths on access land
 - ◇ coastal access paths
 - ◇ permissive paths managed by KCC.

There are also many well-established and signposted leisure walking routes in Swale such as long distance trails: North Downs Way and the Saxon Shore Way. There are also a number of shorter trails such as A Land of all Seasons Nature Trail.

The active travel network across Swale is

[5] https://www.kent.gov.uk/__data/assets/pdf_file/0004/90571/The_Current_Network__Use_and_Provision.pdf

diverse in terms of the network density, with significant variance between the Isle of Sheppey and Sittingbourne. Overall, there are extensive network gaps on the Isle of Sheppey and across rural Swale, whereas there is more dedicated walking and cycling facilities in the urban areas of Sittingbourne and Faversham. Additionally, the suitability of the active travel network for walking, wheeling and cycling varies, with opportunities to upgrade the standard of such routes. For instance, the development of more accessible trails is an ongoing process that recently saw the National Cycle Network Route 2 improved to enable greater numbers of users with a diverse range of mobility needs [6].

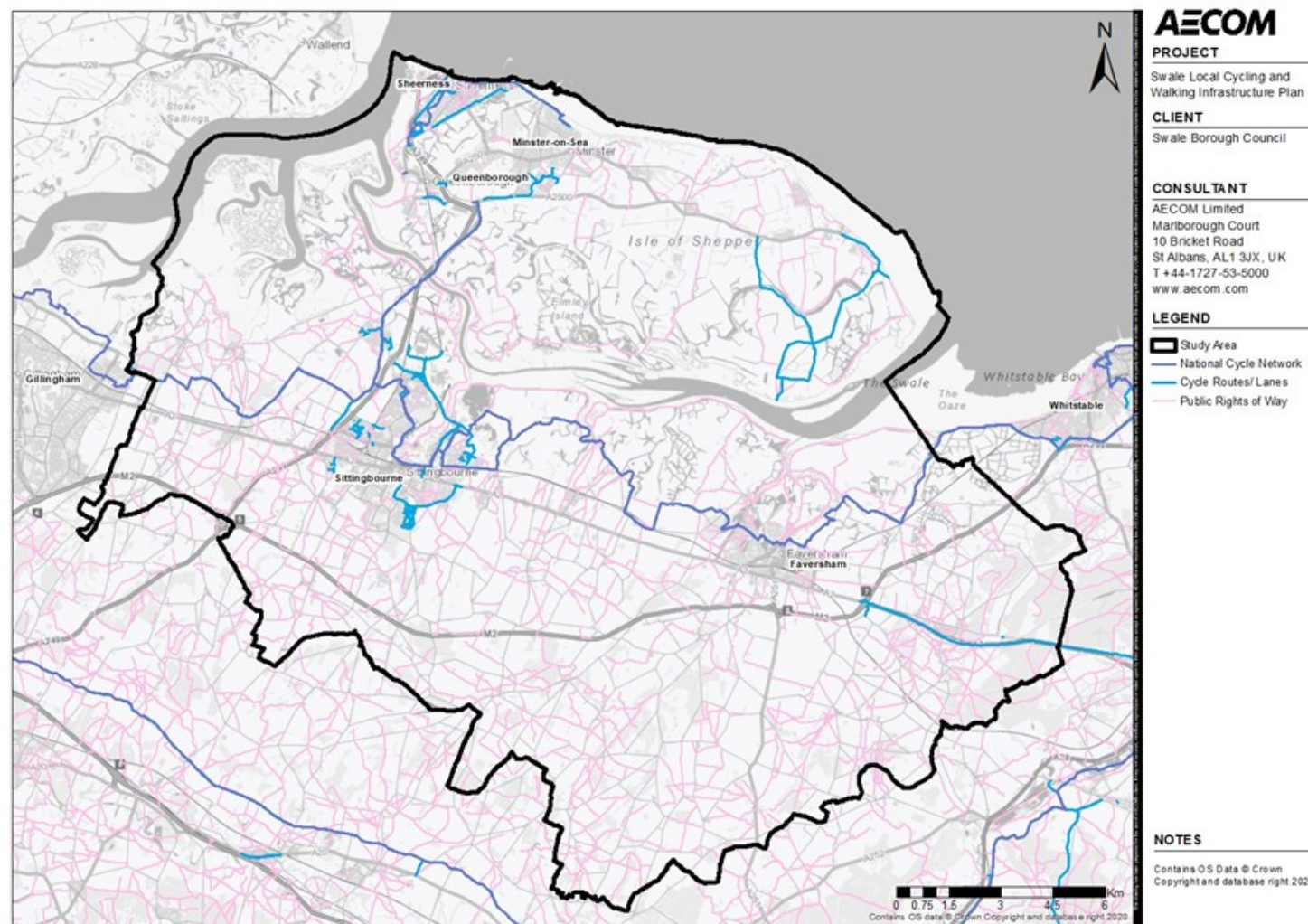


Figure 2-33 Existing Active Travel Network Across Swale

[6] <https://www.sustrans.org.uk/our-blog/news/2022/june/newly-improved-walking-wheeling-and-cycling-route-in-east-sussex-reopens-for-use>

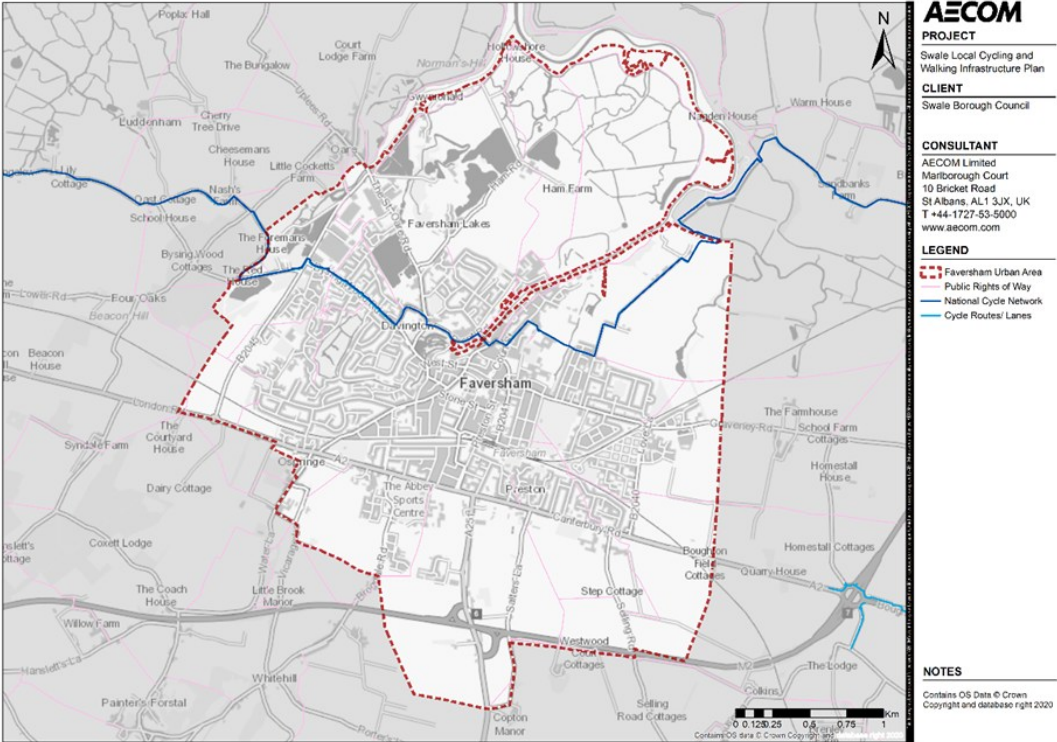


Figure 2-34 Active Travel Network- Faversham

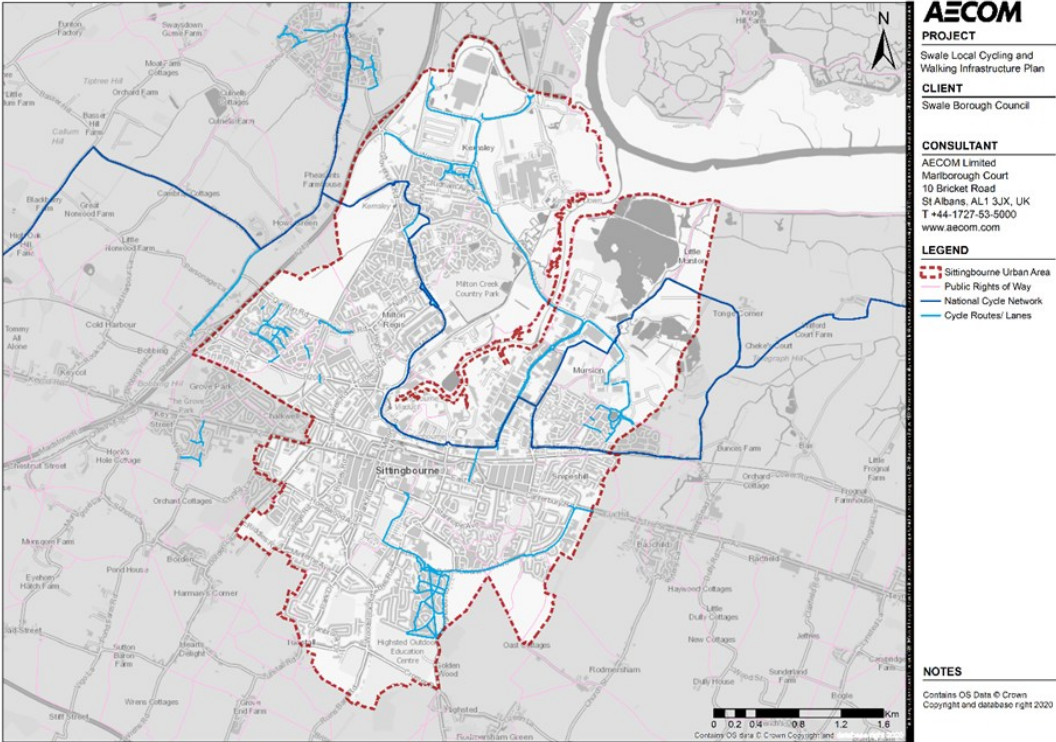


Figure 2-35 Active Travel Network- Sittingbourne

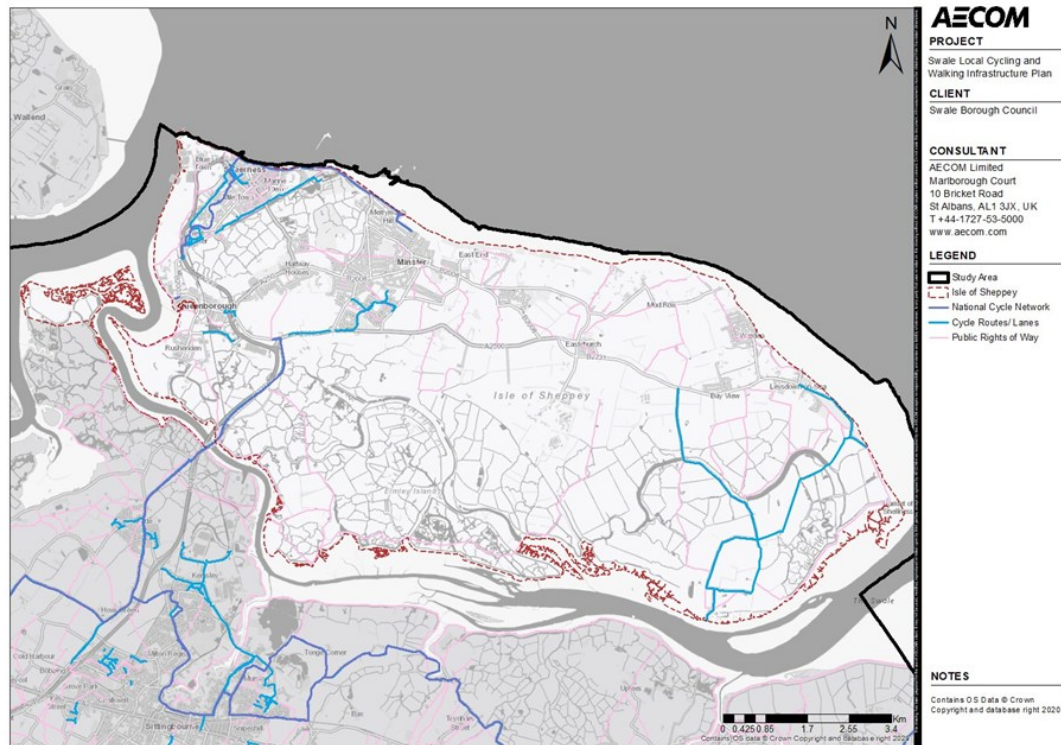


Figure 2-36 Active Travel Network- Isle of Sheppey

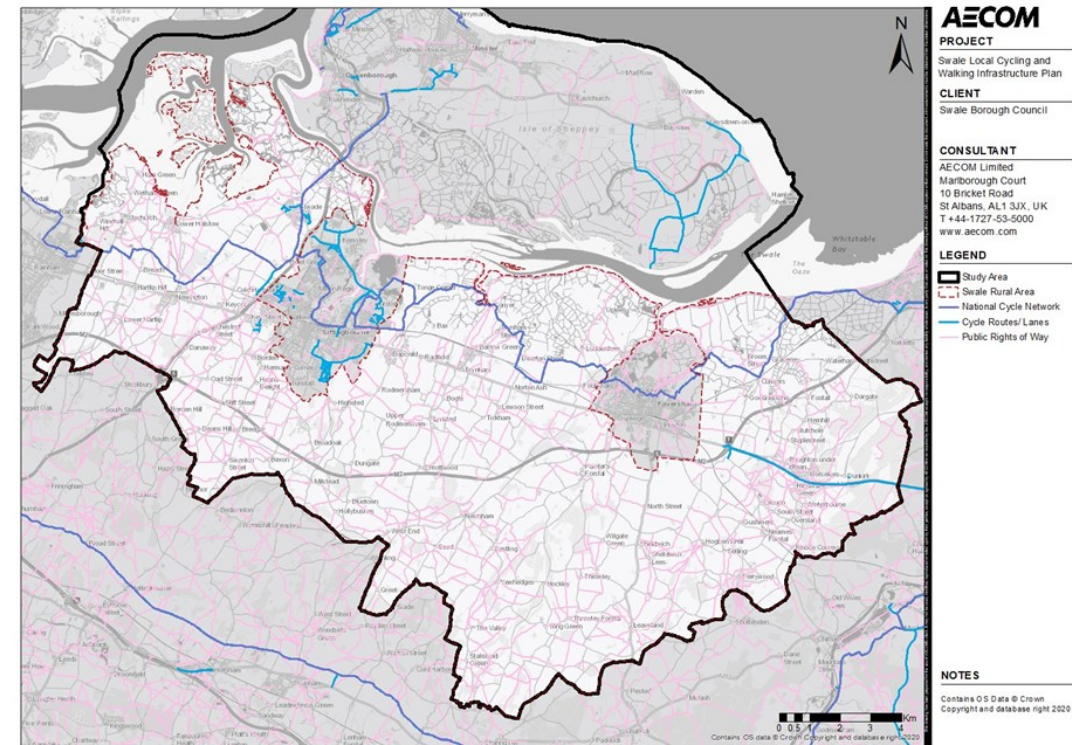


Figure 2-37 Active Travel Network- Rural Swale

Future Active Travel Network

Across Swale there are a number of active travel schemes which are proposed or committed. These schemes are considered within the LCWIP analysis as they will contribute to the wider active travel network.

The proposed active travel schemes, studies or audits which have been undertaken across Swale are as follows (also illustrated in Figure 2-38 to Figure 2-42):

- Sustrans Sheppey Audit (June 2020) – proposals for 8 new route recommendations with complementary improvement measures and two town centre studies: Minster and Sheerness
- Faversham Town Audit (June 2020) – proposals for 6 new cycle routes and a town centre study on pedestrian and cycle improvements and traffic reduction in Faversham
- Swale Cycling and Walking Framework Consultation (2018 – 2022)
- Active Travel 4 Proposals
- Kent Local Walking and Cycling Infrastructure Plan (in process)
- Faversham Local Walking and Cycling Infrastructure Plan (2022)
- Faversham to Teynham Quietway (Feasibility stage) – recommendations for a Quietway between Faversham and Teynham along NCN Route 1.

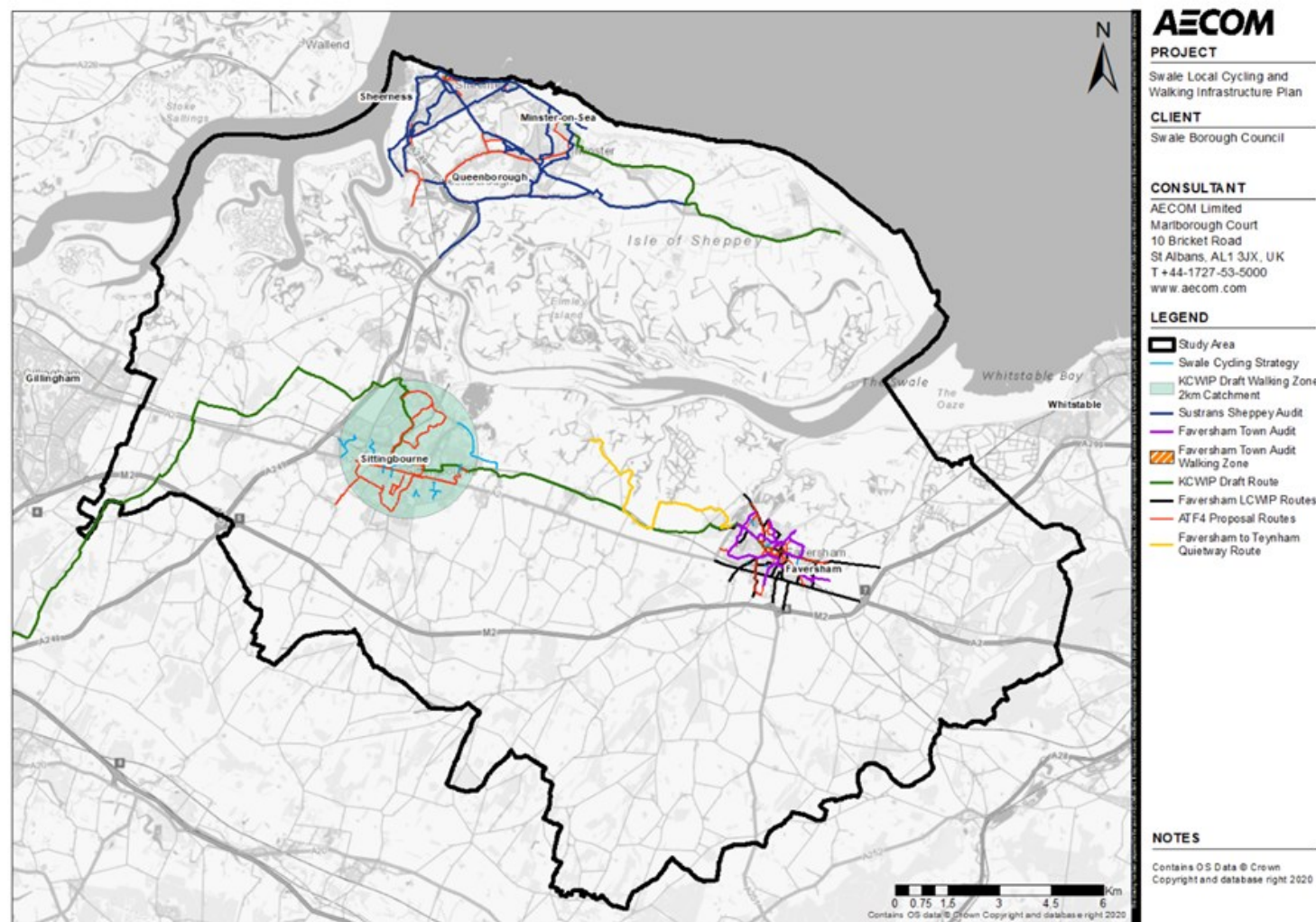


Figure 2-38 Proposed Active Travel Schemes Across Swale

The proposed active travel schemes are located within and around Faversham, Sittingbourne and the Isle of Sheppey. The KCWIP is focused on proposing inter-urban

routes, which form crucial east-west connections in Swale, and a north-south route to Maidstone.

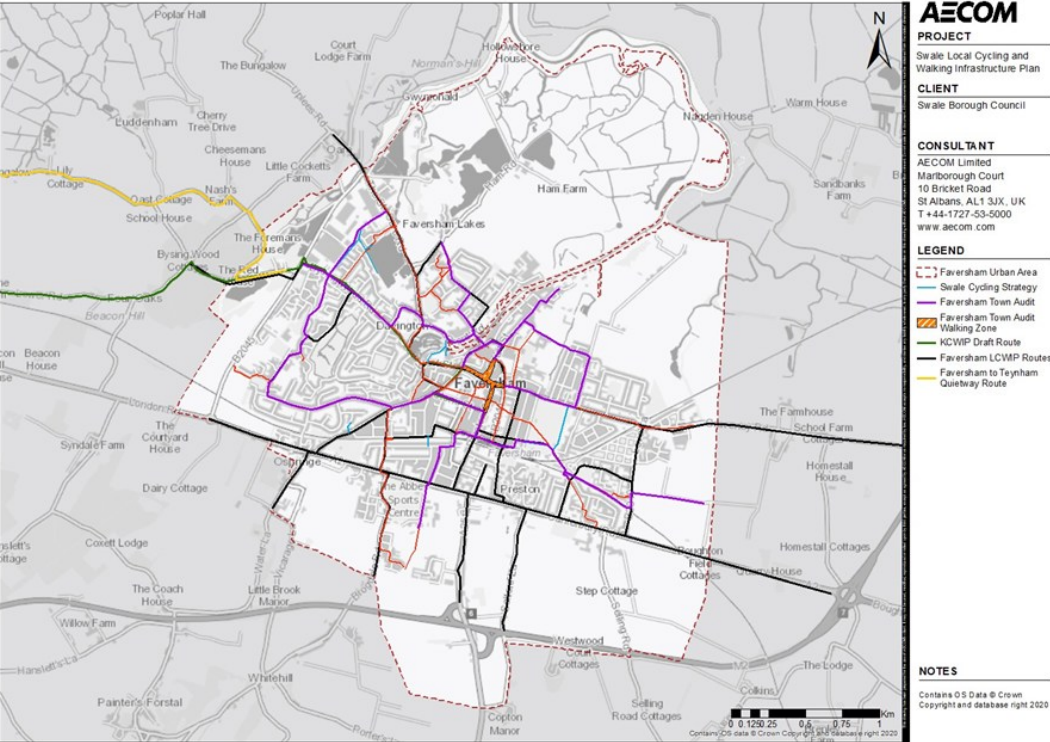


Figure 2-39 Future Active Travel Network- Faversham

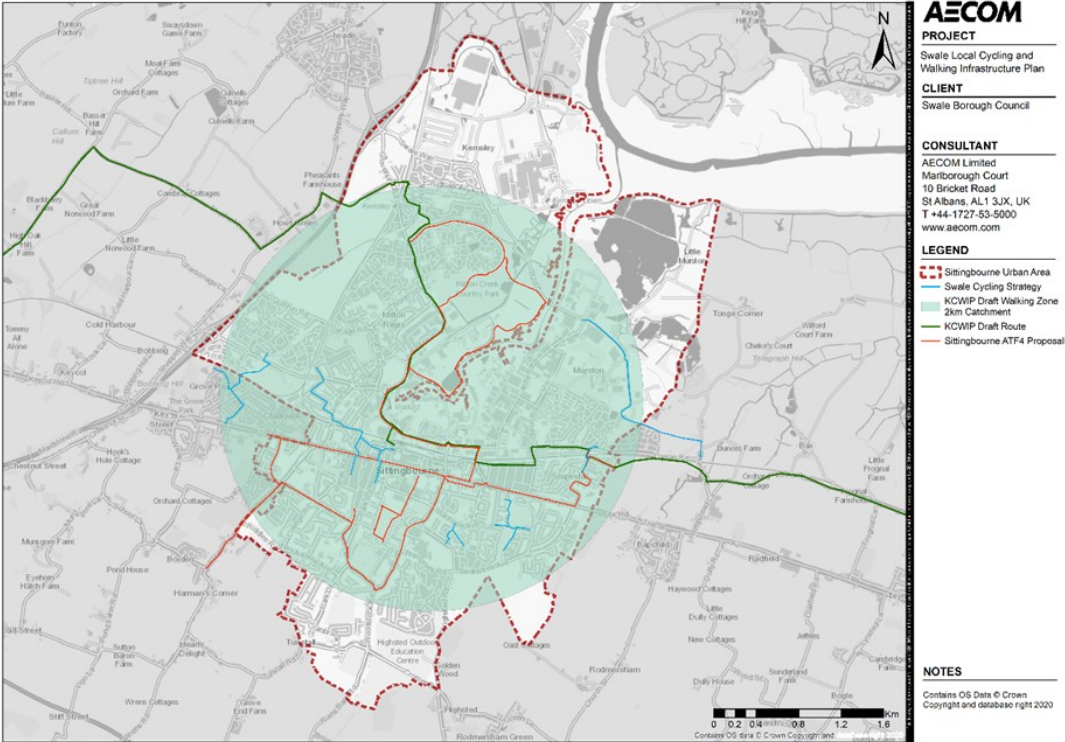


Figure 2-40 Future Active Travel Network- Sittingbourne

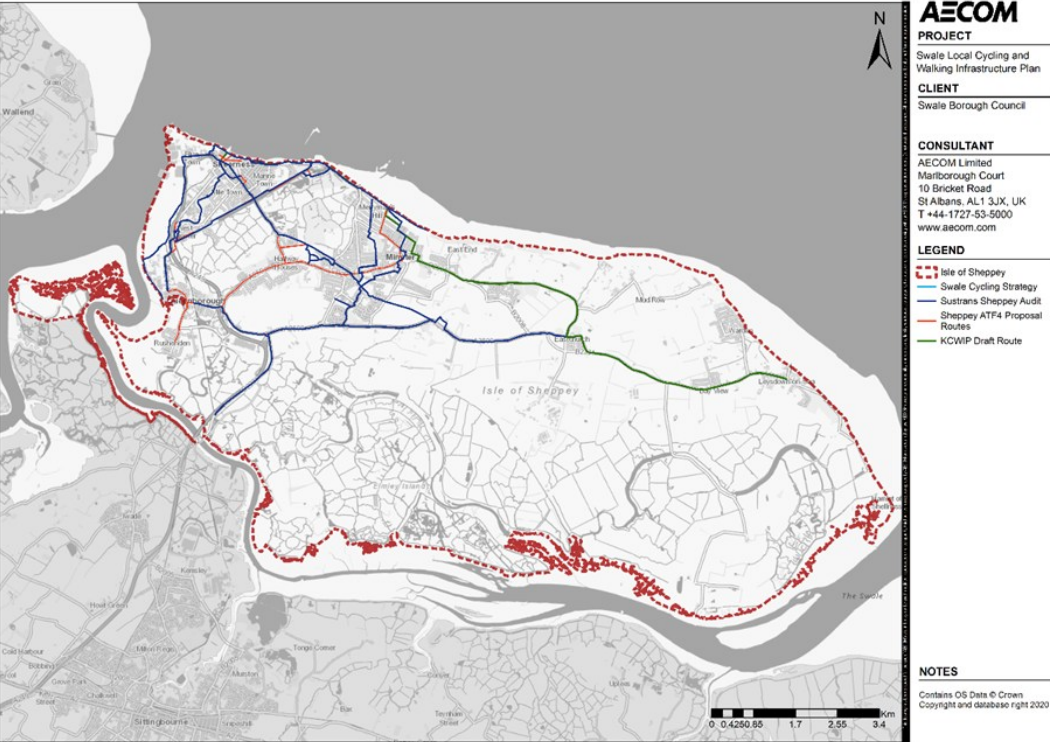


Figure 2-41 Future Active Travel Network- Isle of Sheppey

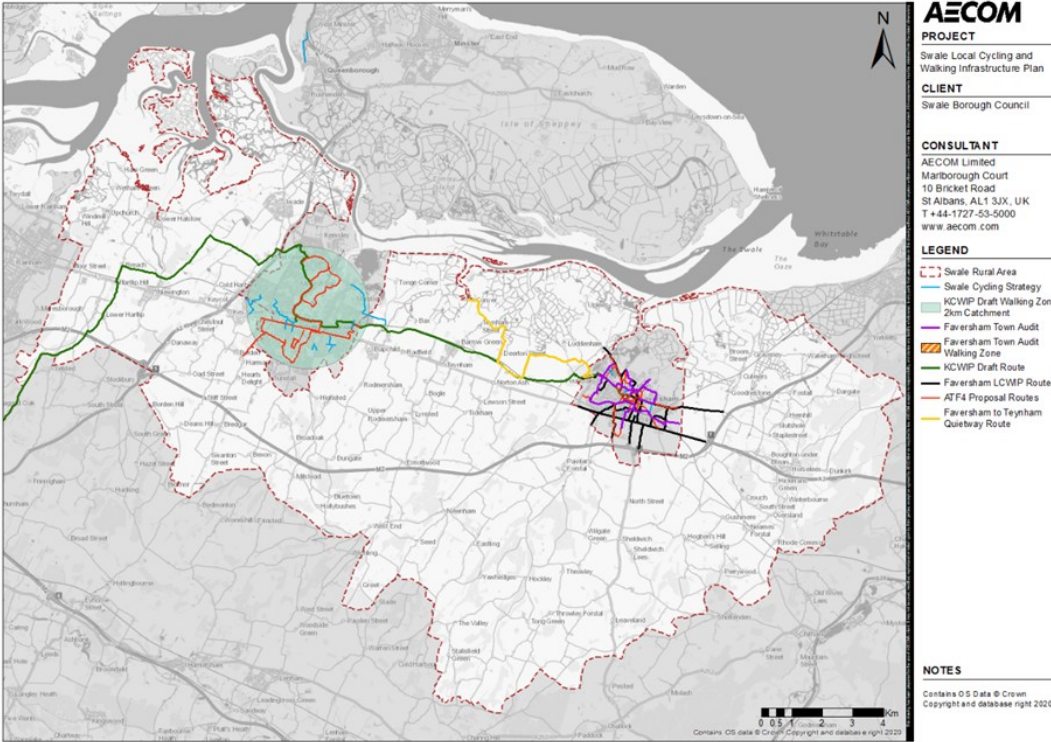


Figure 2-42 Future Active Travel Network- Rural Swale

Public Transport Network

The rail network across Swale is illustrated in Figure 2-43. The bus network, which forms key public transport infrastructure across rural areas is operated by a number of providers. Typically, bus stops are concentrated around urban areas, which generate more demand, and in rural areas the bus network is often more unreliable and infrequent. Kent's Bus Service Improvement Plan (BSIP) found that the frequency of bus services in rural areas was essentially non-existent after the evening peak commuting period.

Additional on-demand services exist in Swale which are directed at improving accessibility of the bus network. The Kent Karrier service operates across Kent, serving users who have a medical condition which makes travelling on public transport difficult, are aged over 85 or live in a rural area more than 500m from a bus route or railway station.

In 2021, Stagecoach announced a new bus route link for Swale, operating between Canterbury, Faversham, Sittingbourne and Maidstone. Buses run every 30 minutes and provide crucial inter-urban connections between Sittingbourne or Faversham to Maidstone and Canterbury in the absence of a direct train service.

Southeastern Railway and Thameslink operate the majority of passenger services across Swale, offering direct links from Sittingbourne

Table 2-2 Passenger Numbers for Stations across Swale

Rank	Station	Total Station Entries and Exits (2021- 2022)	Cycle Storage Facilities
1	Sittingbourne	1,659,200	98 sheltered stands without CCTV
2	Faversham	1,119,620	33 sheltered stands without CCTV
3	Sheerness-on-Sea	332,398	40 sheltered stands without CCTV
4	Kemsley	151,724	No cycle storage
5	Queenborough	149,976	12 sheltered stands without CCTV
6	Teynham	119,432	10 sheltered stands without CCTV
7	Newington	102,046	6 sheltered stands without CCTV
8	Selling	63,386	No cycle storage
9	Swale	10,154	No cycle storage

and Faversham to St Pancras, Victoria and Charing Cross with 4 services per hour in the peak. The network runs east-west and north-south, connecting the Isle of Sheppey with the rest of Kent.

There are nine operational passenger rail stations in Swale, ranked in terms of their passenger numbers between April 2021 and March 2022 in Table 2-2. Across Kent, Sittingbourne is the 8th busiest station, while Swale station is the second least busiest.

At seven of the nine stations in Swale, there are cycle storage facilities (see Figure 2-44).

The station with the highest number of cycle storage spaces is Sittingbourne, which has 98 spaces, while Newington has the fewest cycle parking spaces (6). Swale station and Kemsley station do not have cycle storage facilities.

Figure 2-45 shows public transport accessibility in Swale, visually representing walking distances from rail stations and bus stops across Swale. Areas located 1 minute from the nearest rail station or bus stop are coloured red, those located between 1-5 minutes from the nearest station are coloured yellow, and those located 5-10

minutes away are coloured green. The map highlights that the areas with the highest public transport connectivity are in major urban centres, with Sittingbourne being the most significant. In Sittingbourne, Faversham, and Sheerness, there is a rail station or bus stop within a 5-minute walking distance throughout the majority of the urban areas. Additionally, good connectivity is observed along the A2 corridor, with frequent bus stops between Faversham and Sittingbourne.

Figure 2-46 illustrates the density of 10-minute walking isochrones (distances) from rail stations and bus stops. Sittingbourne stands out as having the most significant agglomeration of these 10-minute walking isochrones, indicating high levels of connectivity to public transport stops (overlapping isochrones mean that there are 2 or more bus or rail stops in the vicinity, therefore there are likely to be different bus/rail services and better public transport choice available).

In more rural areas of the district, there are still public transport stops, but there are fewer which have overlapping 10-minute walking isochrones. This indicates that although there are public transport stops across rural Swale, these are often isolated, which indicates an overall lower level of public transport accessibility in rural Swale. While there are other concentrations of 10-minute walking isochrones in the district, the density of stops is lower compared to Sittingbourne.

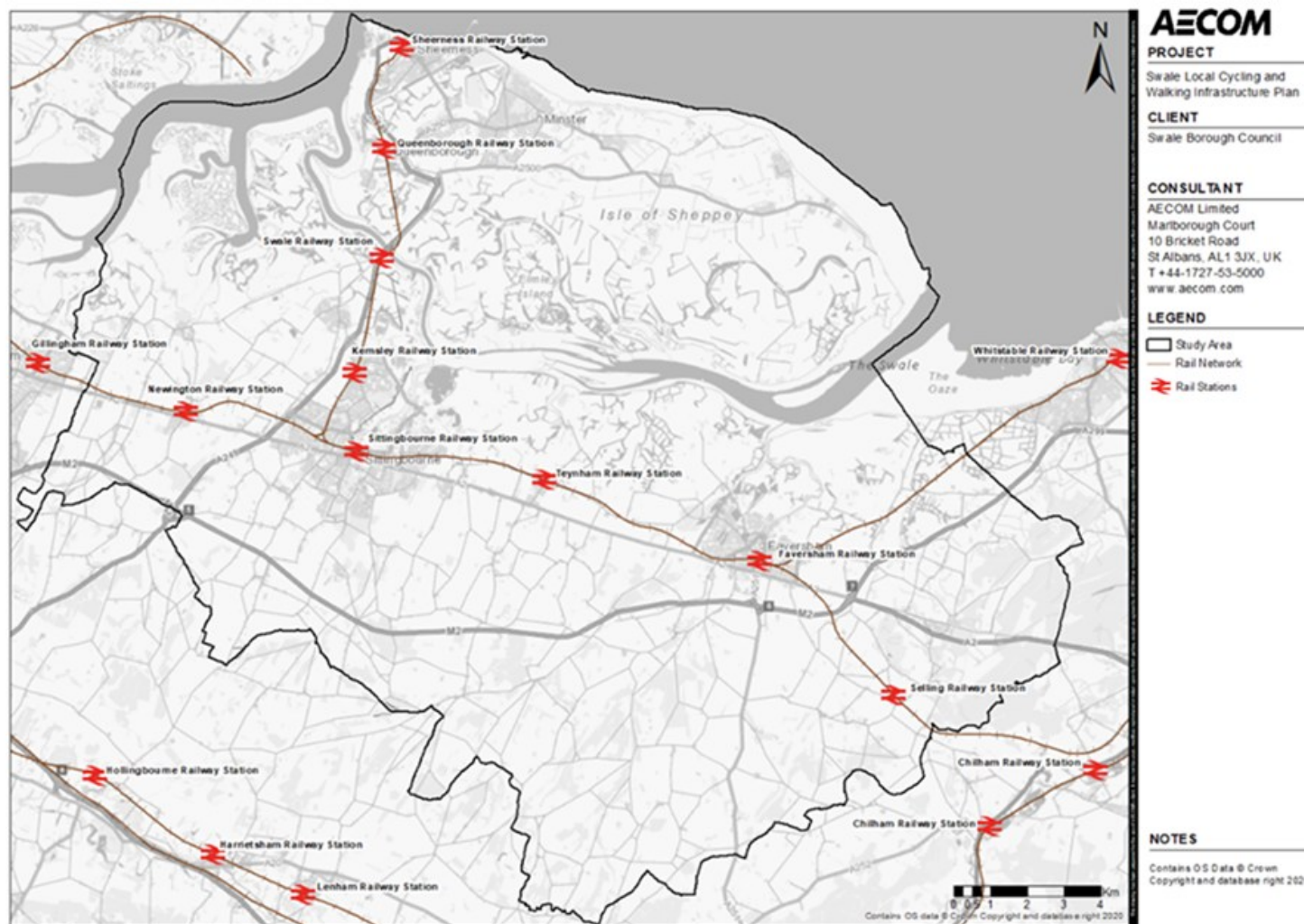


Figure 2-43 Rail Network Across Kent

These figures provide a visual representation of public transport accessibility in Swale, emphasising stronger connectivity in major urban centres like Sittingbourne and highlighting gaps in connectivity across rural areas.

Developing active travel infrastructure in such areas is crucial in improving first/last mile connectivity to public transport, providing better mode choice and reducing car dependency.

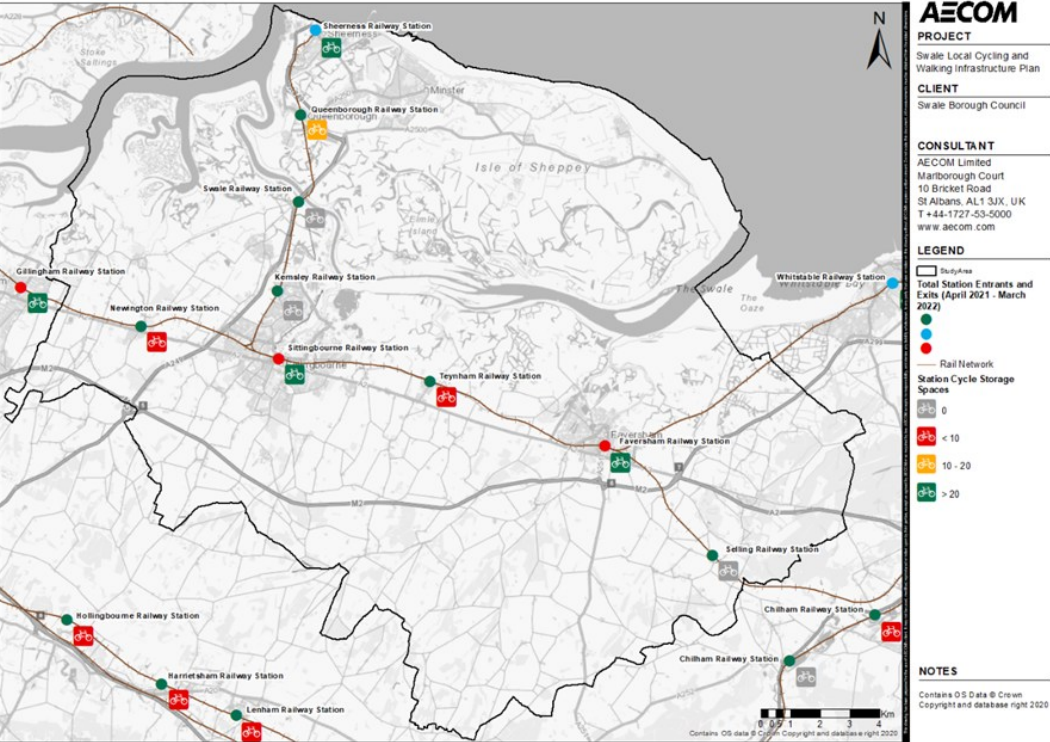


Figure 2-44 Cycle Storage Facilities and Station Entries and Exits Across Swale

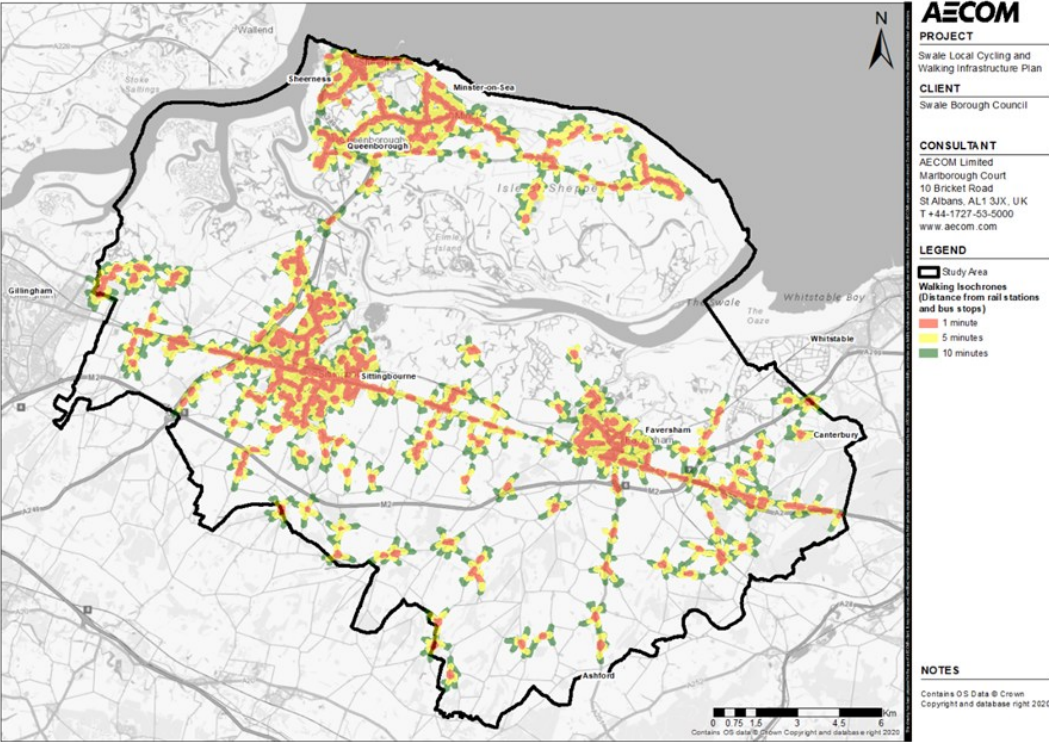


Figure 2-45: Walking Distance from Rail Stations and Bus Stops

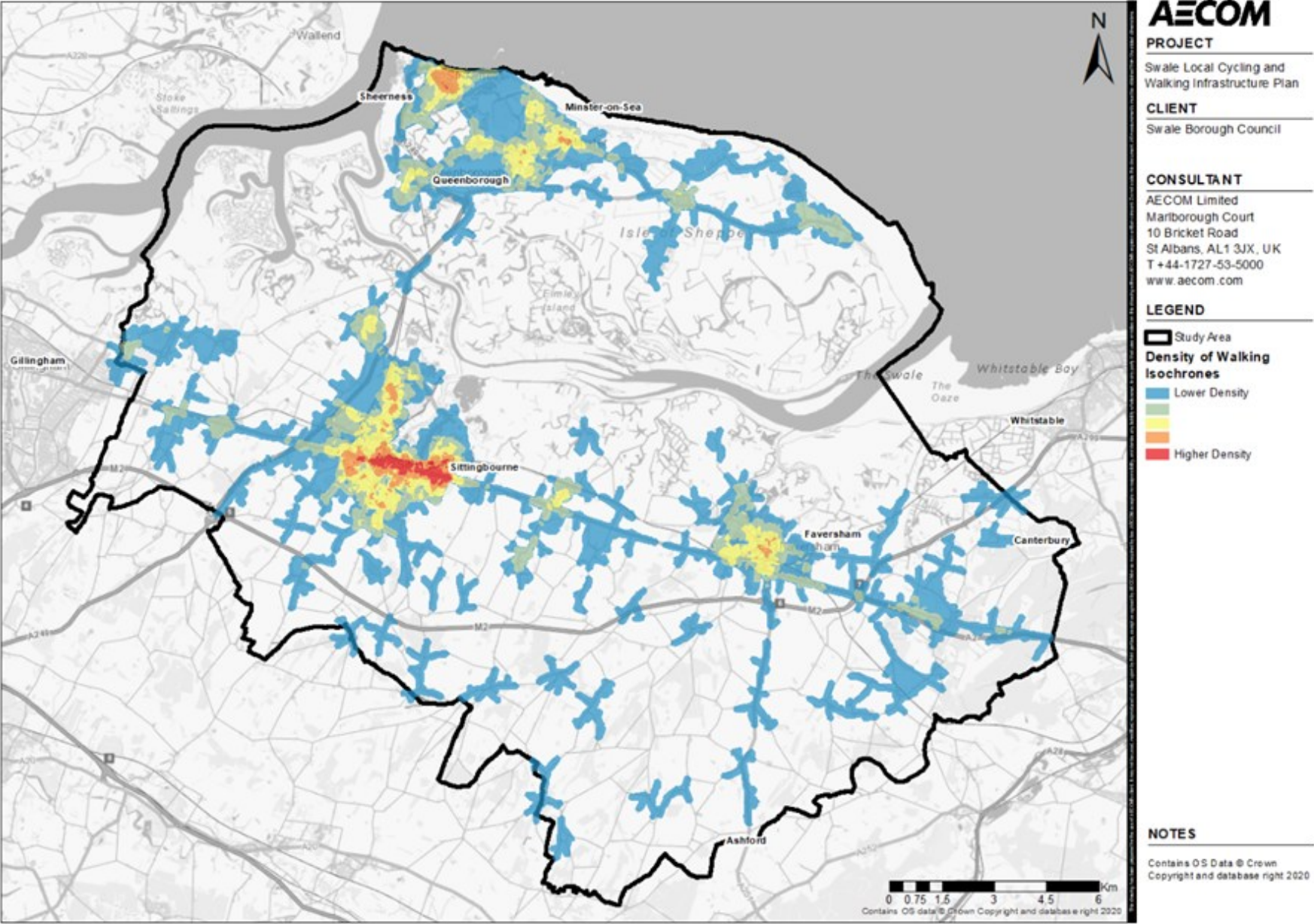


Figure 2-46: Public Transport Accessibility (Walking Distance from Rail Stations and Bus Stops)

Highway Network

Kent is a major confluence of road traffic, with connections into London and to continental Europe. Swale geographic location means it is situated in between several strategic routes. As Figure 2-47 illustrates, the M2, which connects Kent into London is situated to the South of Swale. Additionally, the A2 connects London with Dover, and connects Faversham with Sittingbourne.

A study carried out by The AA Charitable Trust [7] found that 71% of fatal crashes involving young drivers occurred on rural roads. Of the top 10 most dangerous rural roads for young drivers, three of these were located in Kent, two of which were the A2 (ranked second) and the A249 (ranked ninth). This indicates that Swale is bounded north-south and east-west by some of the most dangerous rural roads, which are key indicators of community severance.

The collision data was collected during the period November 2019 to October 2022 and can be seen in Figure 2-49 to Figure 2-52. These figures illustrate collisions with vulnerable road users (VRUs) – which are classified as pedestrians and cyclists. As expected, there are significant incident hotspots on the A2 and A249. Whilst the incidents largely follow major roads, there is also a number of incidents on rural roads (which are not classified in the below Figures). Notably, accident hotspots do not tend to occur in urban centres, but rather

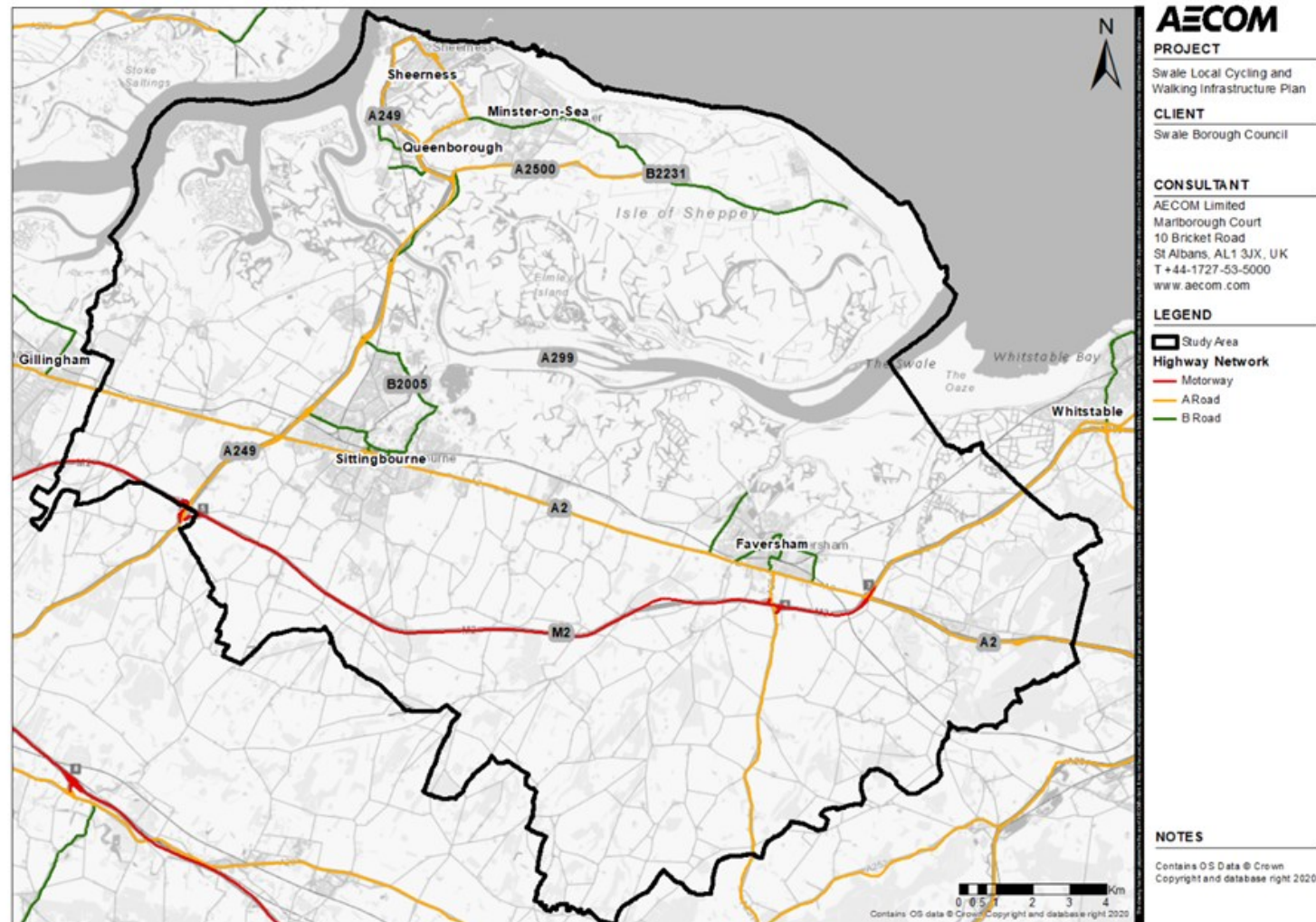


Figure 2-47 Highway Network Across Swale

along major roads or junctions with major roads.

During the period assessed, there were 144 incidents involving VRUs, of these, two were fatal, 37 were serious and 105 were slight.

[7] <https://www.theaa.com/about-us/newsroom/rural-roads>

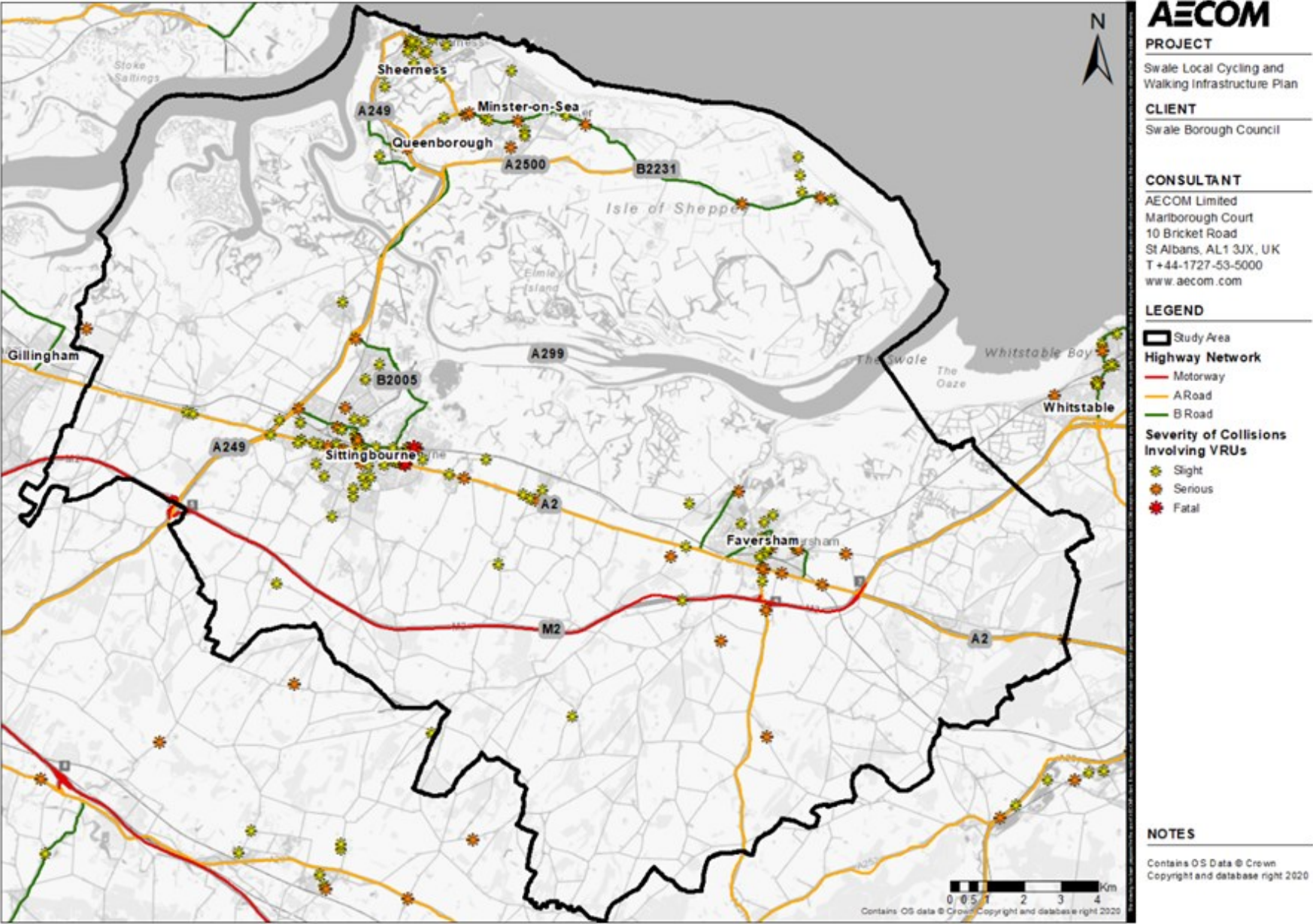


Figure 2-48 Highway Network and Collisions Involving Vulnerable Road Users Across Swale

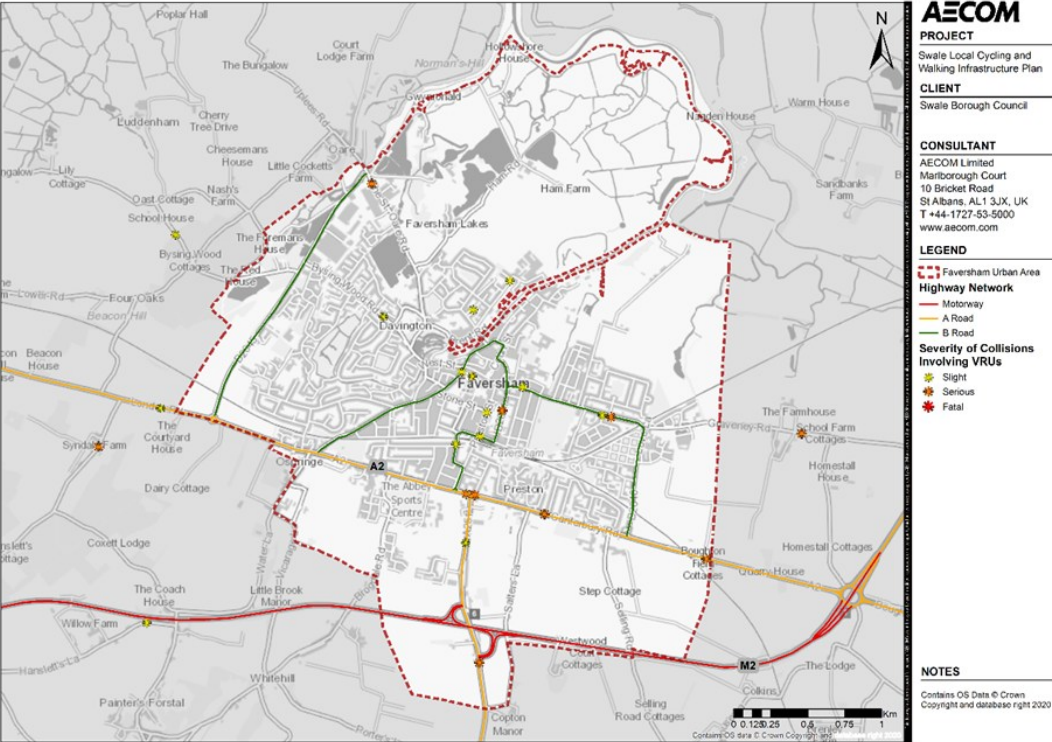


Figure 2-49 Collisions with Vulnerable Road Users - Faversham

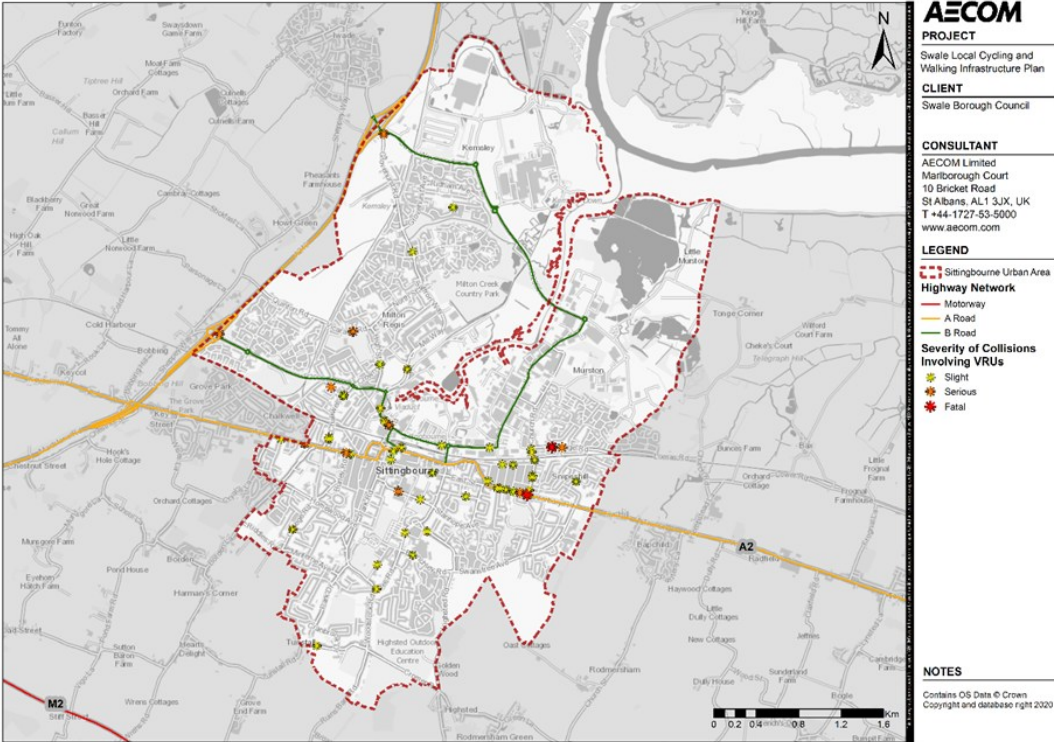


Figure 2-50 Collisions with Vulnerable Road Users - Sittingbourne

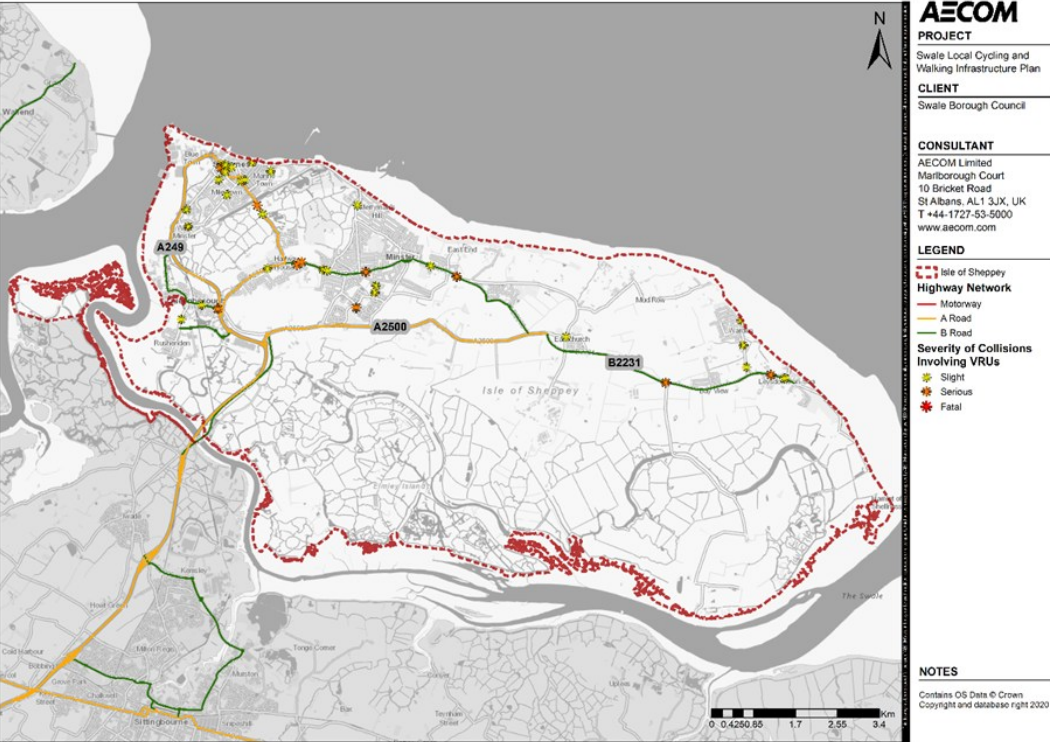


Figure 2-51 Collisions with Vulnerable Road Users - Isle of Sheppey

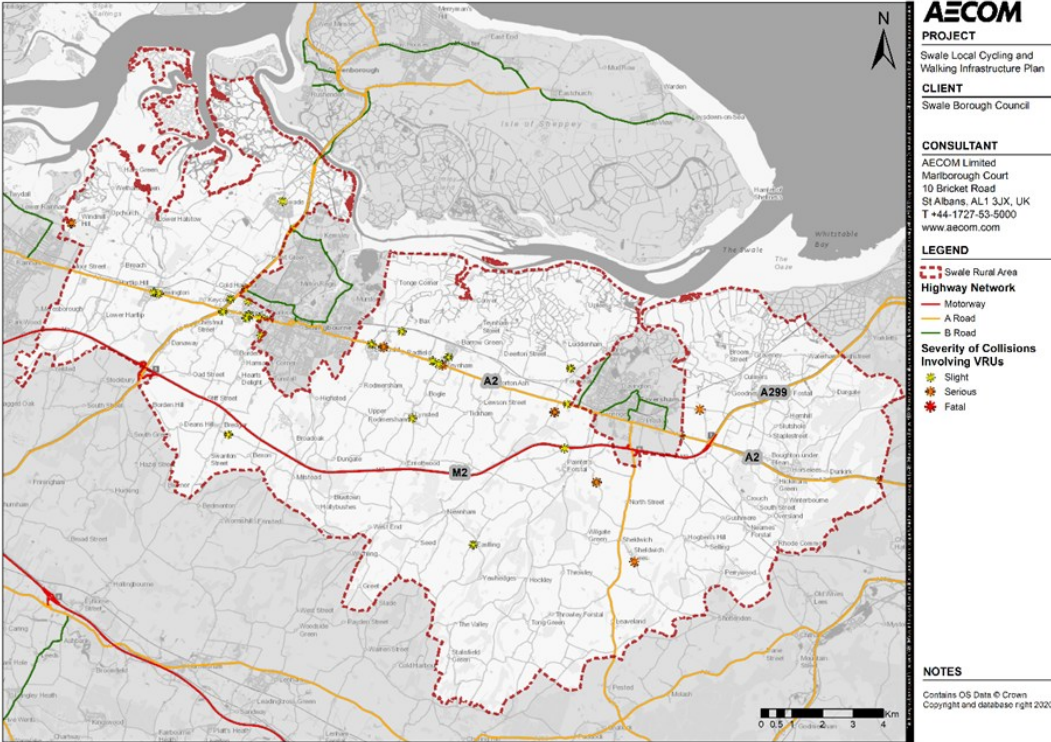


Figure 2-52 Collisions with Vulnerable Road Users - Rural Swale

Travel Patterns

Travel to Work

Data on the mode of travel to work, between the place of residence (origin) and the place of work (destination) of people across the UK, was collected as part of the 2011 and 2021 Censuses. This provides the most detailed journey pattern data currently available in the study area. These datasets were used to assess both mode split for travel to work and commuting travel patterns between an origin and destination across Kent.

The coronavirus (COVID-19) pandemic has led to major changes in commuter travel patterns across the UK and the latest (2021) Census was undertaken during the pandemic. The commuter travel pattern changes that occurred during COVID-19 restrictions have had long lasting effects and therefore 2021 Census has been included in this analysis with a caveat that commuting trips were heavily affected by travel restrictions during the time of survey.

Mode Split (Travel to Work)

Across Kent and nationally, 62.6% of employees travel to work in a car or a van. Across Kent, Swale has the highest proportion of employees who travel to work in a car or van. (66.7%). A full breakdown of the journey to work mode split data can be seen in Table 2-3. When comparing the method of travel to

Table 2-3 Method of Travel to Work in Swale

Mode	Swale - 2011	Kent - 2011	Swale - 2021	Kent - 2021
Work mainly at or from home	10.8%	11.2%	25.4%	31.1%
Rail	6.9%	9.2%	3.3%	3.7%
Bus	1.9%	3.7%	0.7%	2.1%
Private vehicle	67.9%	62.6%	60.0%	53.2%
Cycle	2.1%	1.7%	1.4%	1.2%
Walk	10.1%	10.0%	8.3%	7.8%
Other	0.4%	0.2%	1.0%	1.0%

work in Swale to Kent overall, the percentage share of cycling is higher, and those walking to work is approximately the same percentage share.

Figure 2-53 illustrates the commuting flows between districts in Kent. There are a lot of cross-district flows from Swale to Medway, with slightly fewer flows from Swale to Maidstone and to Canterbury, indicating cross-border desire lines from Swale. It is worth noting that this Figure does not include internal commuting flows, which on average across Kent make up 64.4% of all commuting flows.

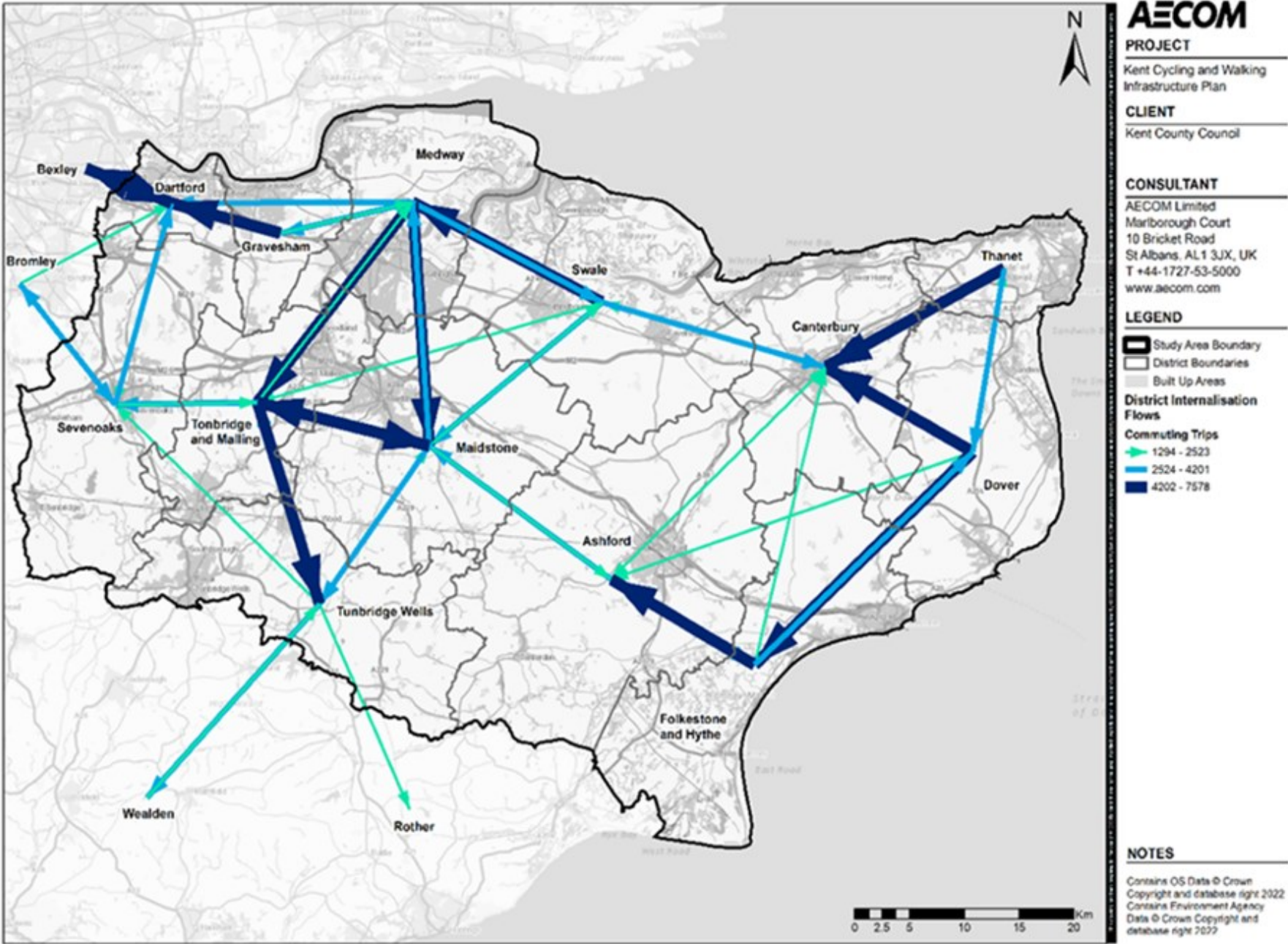


Figure 2-53 Origin and Destination Travel Patterns

Travel to School

It is crucial that well-connected, safe and accessible active travel routes to schools are considered where possible in order to encourage mode shift to and from schools. The location of schools and the pupils' numbers of each school can be seen in Figure 2-54.

Figure 2-55 also illustrates walking distances from schools and the existing cycle network to indicate the limited cycling provision in and around the schools in Swale.

The urban areas of the Sheppey Towns, Sittingbourne, and Faversham have the highest number of pupils. The large schools in Sheppey have limited cycle connectivity with some local cycle routes and lanes connecting smaller schools in Sheerness.

Sittingbourne has the greatest number of pupils, with some schools near the National Cycle Network (NCN) route 1. There is extremely limited cycle provision south of the A2 where the majority of pupils attend schools in Sittingbourne.

There are two large schools in Faversham, one of which lies on the NCN 1 route 1, providing pupils with an east-west route through Faversham. There are also two large schools on the Isle of Sheppey: Leigh in Minster (1,150 pupils) and EKC in Sheerness (750 pupils).

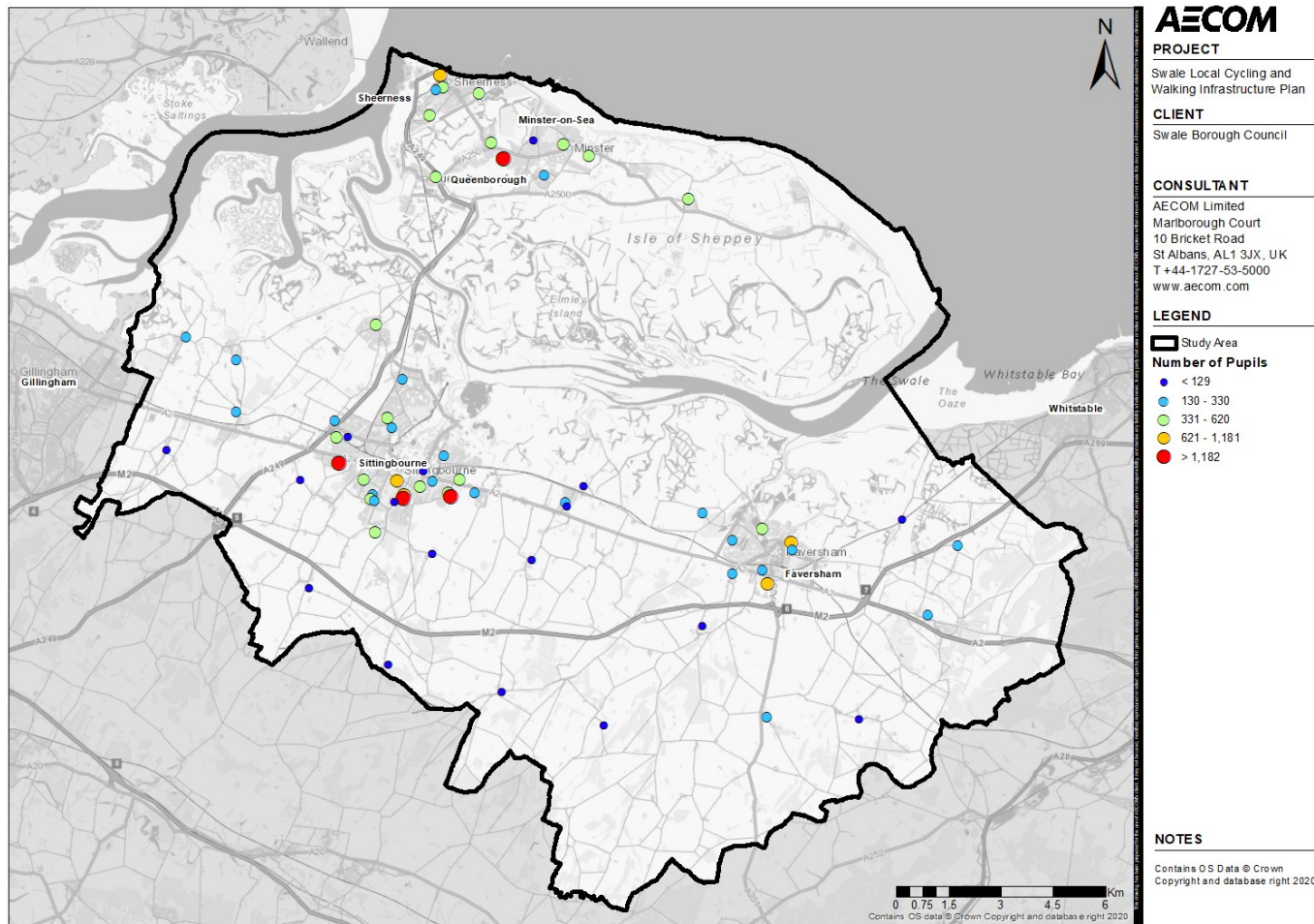


Figure 2-54 Education Sites Across Swale

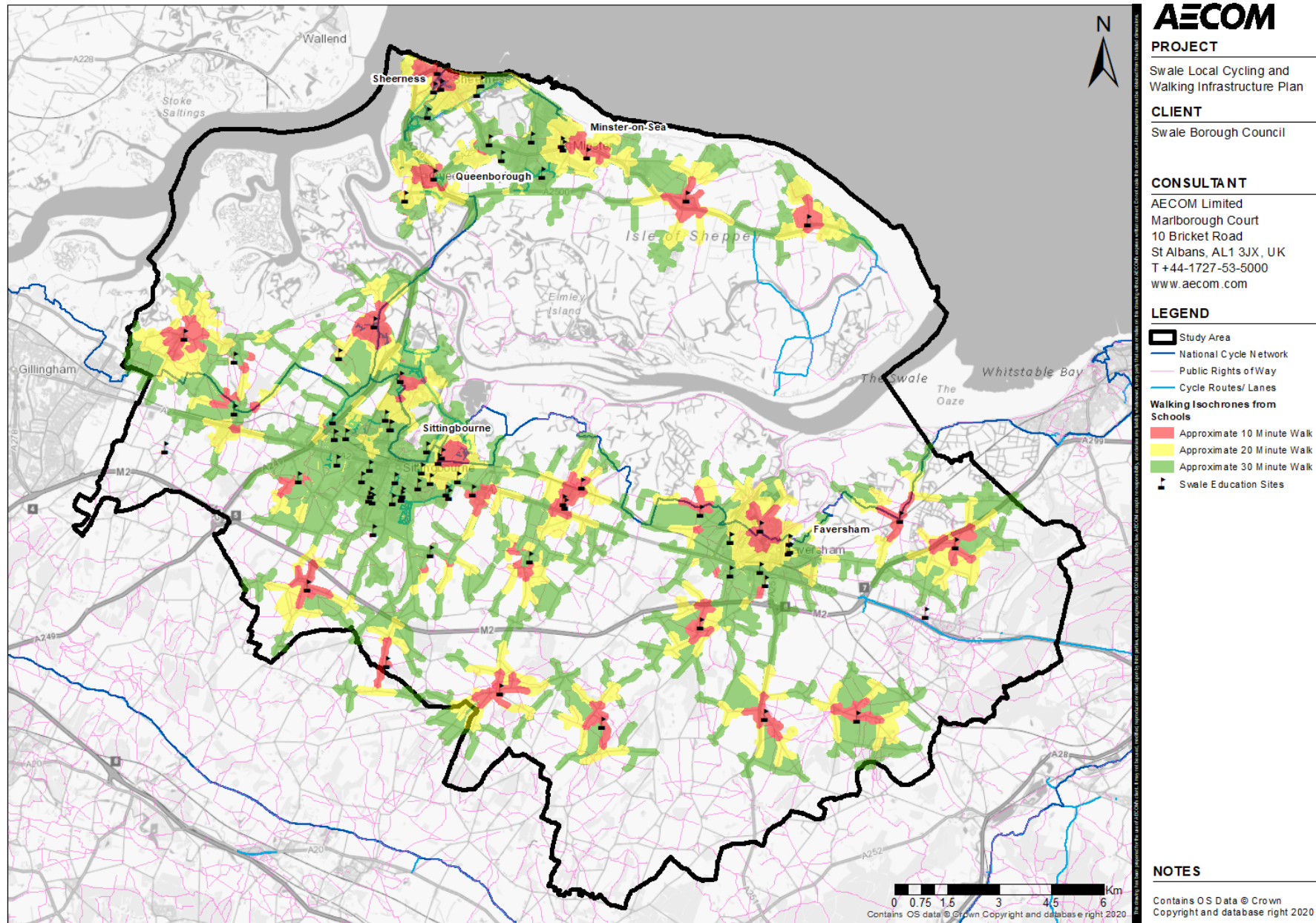


Figure 2-55: Walking Distances from Swale Education Sites

Tourism

Tourism is an increasingly important facet of Swale's economy, with the visitor economy value estimated to be £173,481,000, and tourism-related employment accounting for 8% of all employment in Swale [8]. Table 2-4 illustrates the total tourism numbers by trip type. It can be seen that holidays comprise the majority of tourism trips to Swale, followed by visits to friends and relatives.

Table 2-4 Volume of Tourism by Trip Type Across Swale

Trip Purpose	Trips		Nights		Spend	
	Total	% Share	Total	% Share	Total	% Share
Holiday	139,400	54%	642,200	61%	29,452,600	75%
Visits to Friends and Relatives	110,800	43%	374,000	36%	6,701,300	17%
Other	6,000	2%	28,100	3%	2,378,000	6%
Business	2,000	1%	6,700	1%	744,100	2%
Total	258,200	100%	1,051,000	100%	39,276,000	100%

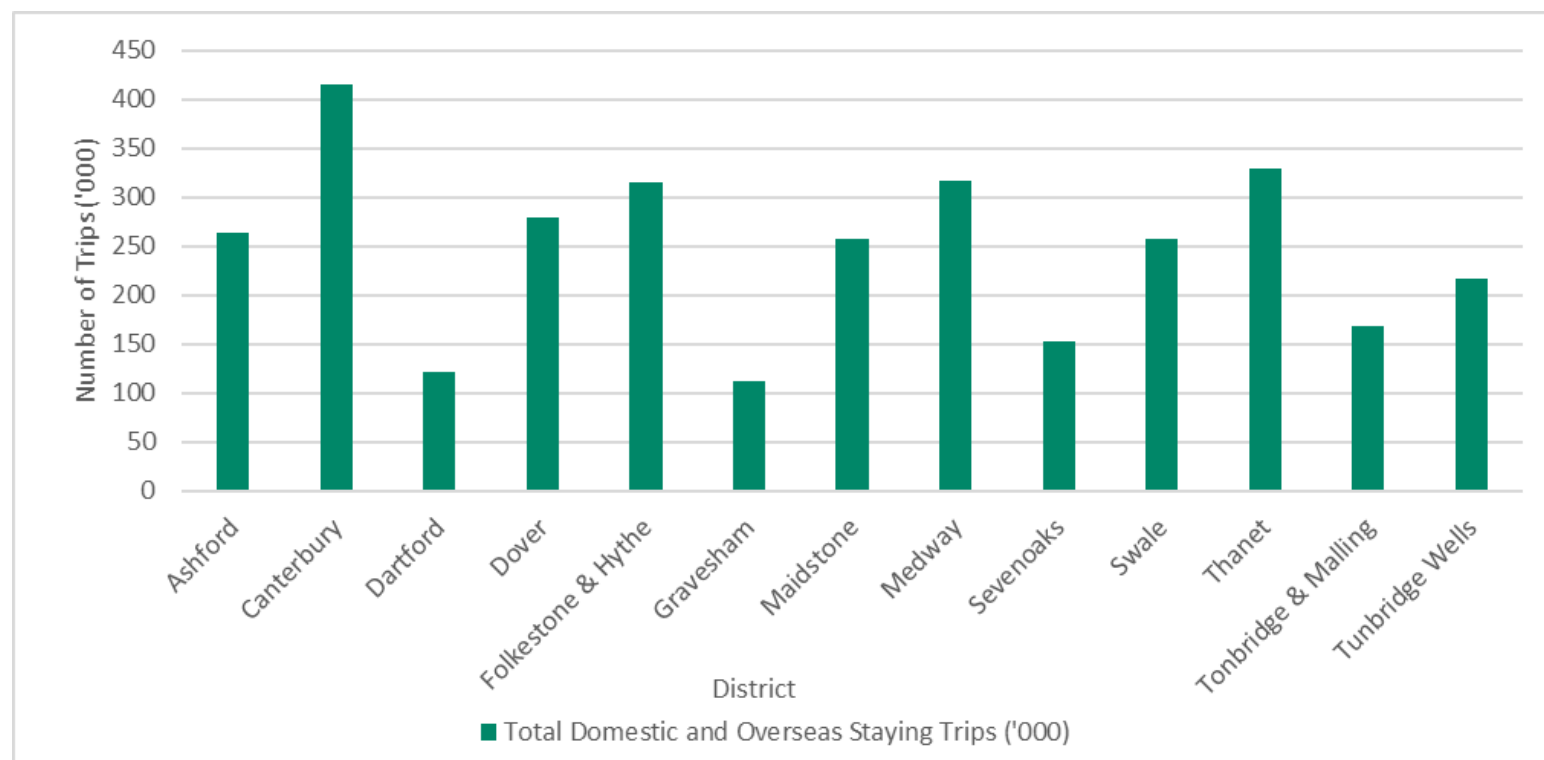


Figure 2-56 Total Domestic and Overseas Trips per District

[8] https://www.swalemeansbusiness.co.uk/__data/assets/pdf_file/0008/437264/Economic-Impact-of-Tourism-Swale-Report-2021.pdf

Perceptions of Existing Facilities

There were two key sources of information gathered to understand the perception of walking and cycling facilities across Swale: 'Widen my Path' and 'Your Everyday Trips'. These two sources of information are assessed in more detail below. 'Widen my Path' is an online open data portal through which one can leave feedback on the walking and cycling infrastructure. The 'Your Everyday Trips' survey was undertaken in summer 2022 by Visit Swale to better understand active travel patterns and barriers to walking or cycling.

As Figure 2-57 illustrates, there is a large number of 'Widen my Path' comments across Swale, largely concentrated in and around Faversham and Sittingbourne and to the north-west of the Isle of Sheppey. In total, 314 comments were received (as of 11/10/2023) and comments were classified into three categories: track, closure and cycleways. 115 comments were received in relation to tracks (wider footpaths and pavements), 52 in relation to closures (traffic filters to prevent things such as rat-running) and 147 in relation to cycleways (creating space on roads and junctions, segregated from vehicles). These can be seen in more detail in Figure 2-60. These comments have been considered at the stage of developing the interventions for the proposed routes.

The 'Your Everyday Trips' survey was another

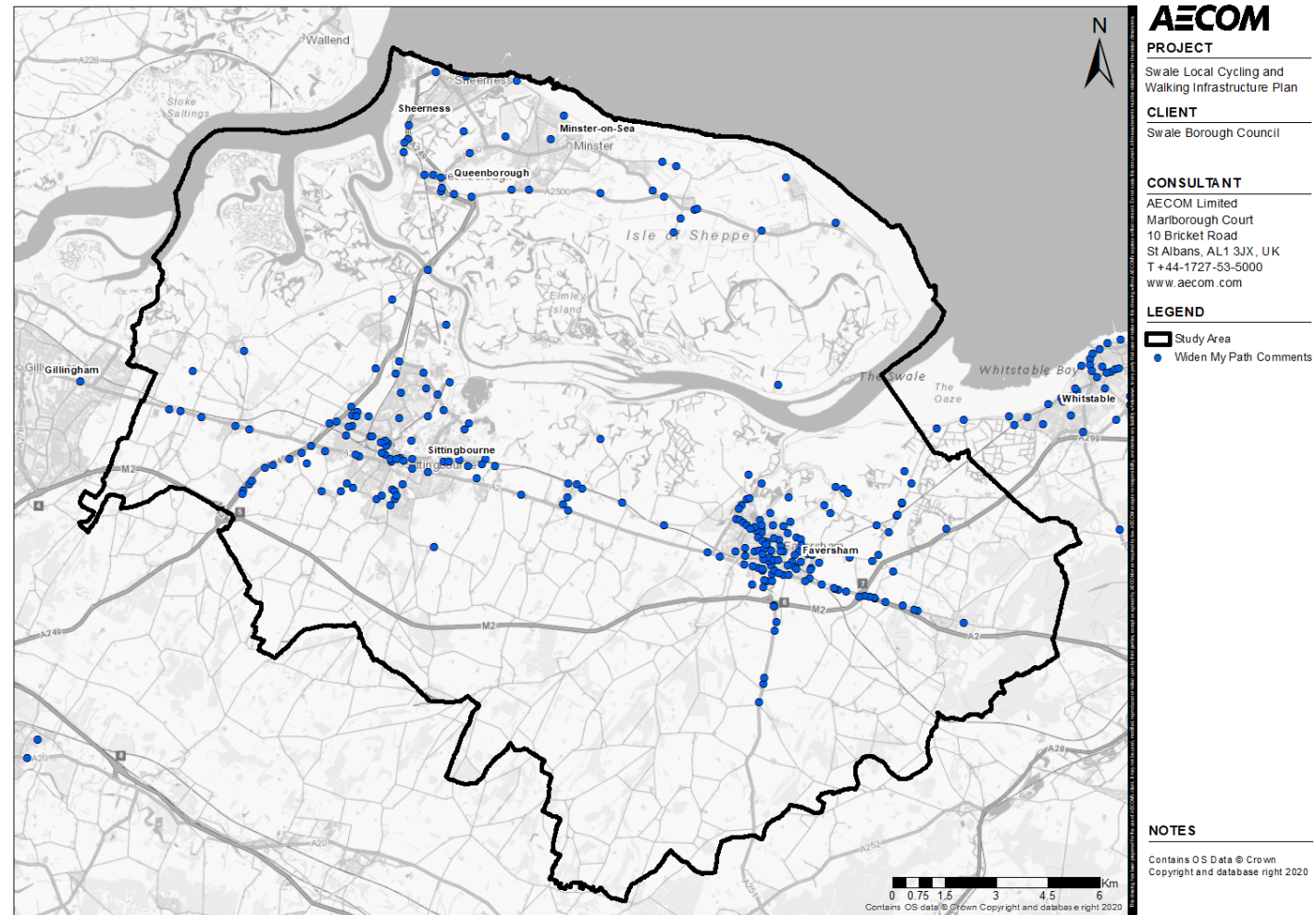


Figure 2-57 Location of 'Widen my Path' Comments Across Swale

source of information to better understand perceptions of existing facilities across Swale. Respondents were asked about their access to various travel modes, whether they use a car for their typical everyday trips,

and if so, whether they would consider making this trip using active modes. Respondents were also asked what they consider barriers to carrying out their everyday trips by walking, cycling or wheeling.

Figure 2-58 to Figure 2-60 illustrate the responses received to the survey in more detail. Notably, the vast majority of respondents primarily had access to a car or van, which suggests private car users are over-represented in this survey, and only 16% of respondents reported that they would use active modes for their everyday journey. The reasons for this are provided in Figure 2-60, which includes reasons such as their trips being too far to walking or cycle, or safety concerns.

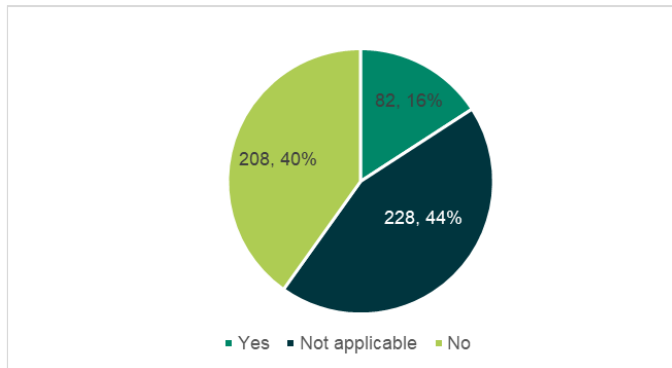


Figure 2-59 'Your Everyday Trips': Number of respondents who use a car for their everyday trip, and would consider doing it by walking, wheeling or cycling

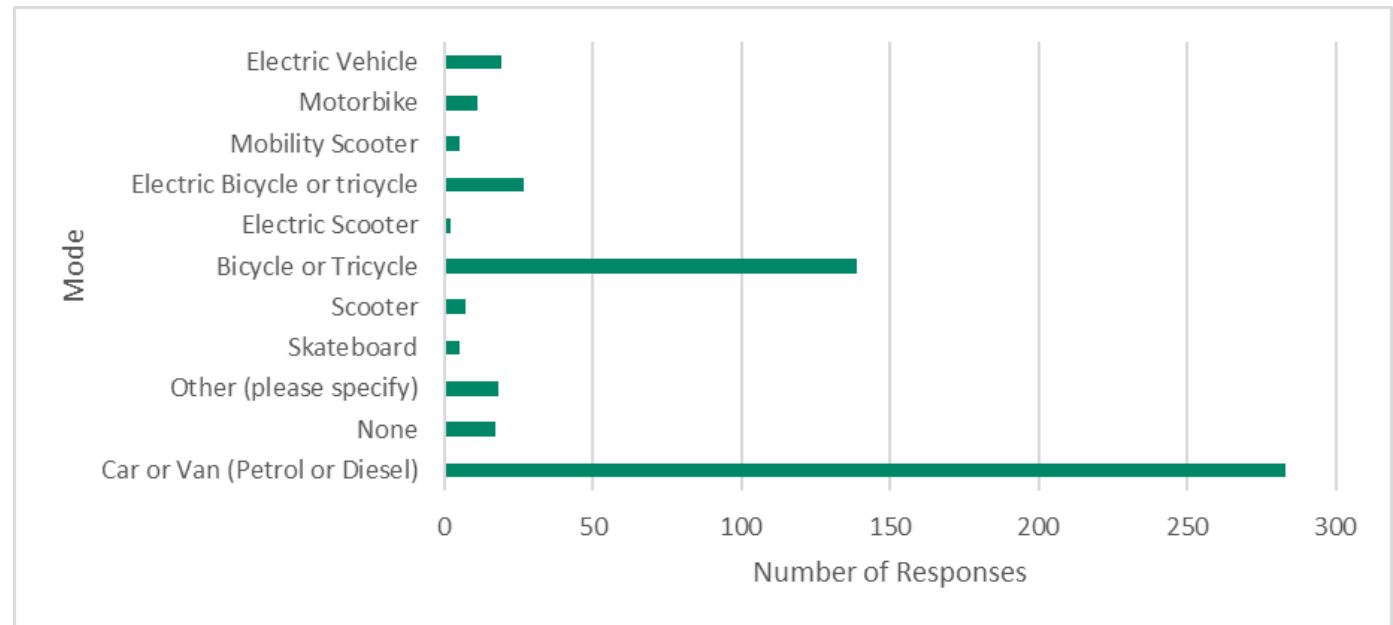


Figure 2-58 'Your Everyday Trips': Respondents' Access to Travel Modes

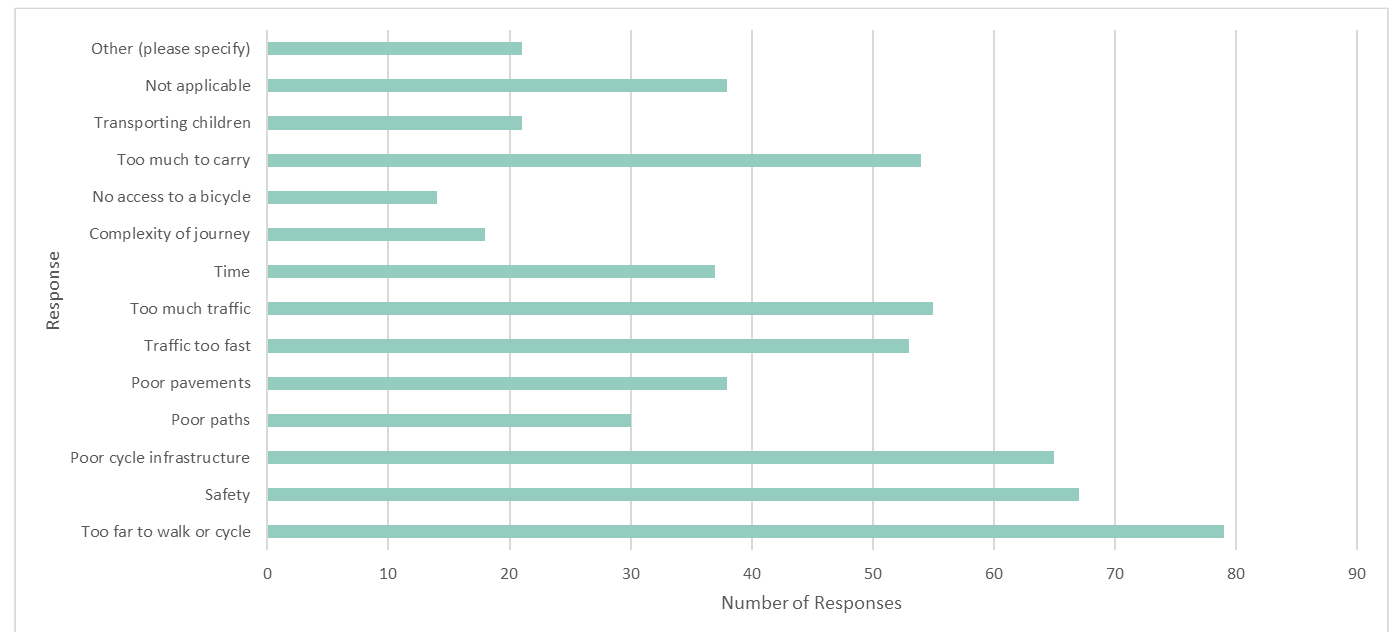


Figure 2-60 'Your Everyday Trips': Barriers to carrying out walking, cycling and wheeling

Active Travel Flows and Demand

Strava Metro Data

Strava Metro data has been obtained to identify key origin and destination patterns for active travel across Swale. The data is from GPS information that is available when users track their physical activity on Strava application. It is then aggregated and displayed as origins and destinations.

It is worth noting that this sample size is potentially relatively small. Exercise trips or longer distance commuting journeys are more likely to be recorded on Strava than general utility and day-to-day journeys, therefore this analysis should be used in conjunction with other active travel demand data as an indication of flows across Swale.

Data has been obtained for walking and cycling origins and destinations (as shown in Figure 2-61 to Figure 2-64). It can be seen that for both walking and cycling, key origins and destinations concentrate around Sittingbourne, Faversham and the villages of Minster-on-Sea, Sheerness and Queenborough on the Isle of Sheppey. Across all figures, the cycling destinations indicate the most variance in spatial location, with a number of trips being located across rural Swale.

Figure 2-61 highlights the most frequent routings of cyclists across Swale. STRAVA Heatmap does not provide actual user counts and should therefore only be used as an indic-

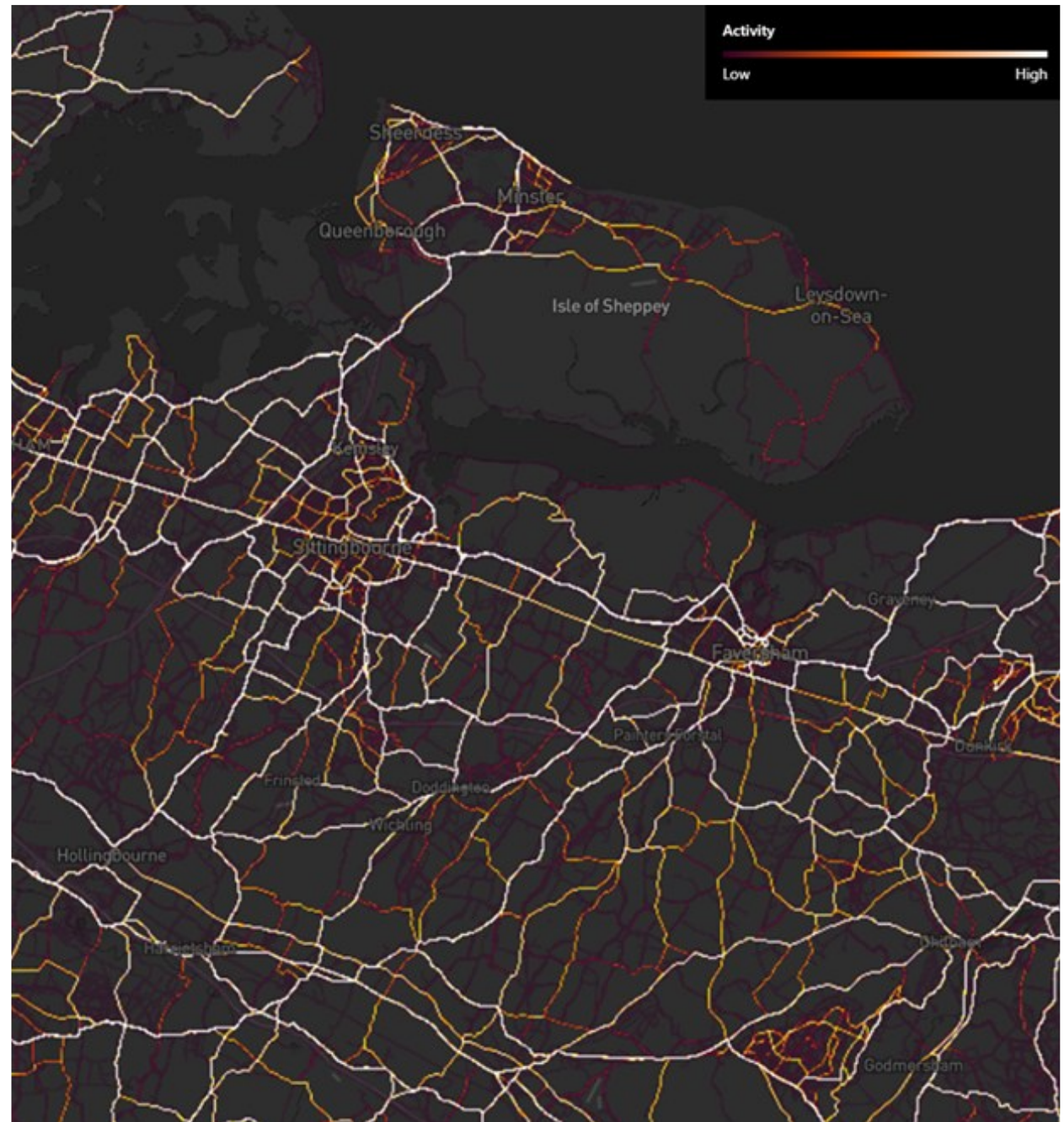


Figure 2-61 Strava Global Heatmap Rides (Cycle Flows) in Swale

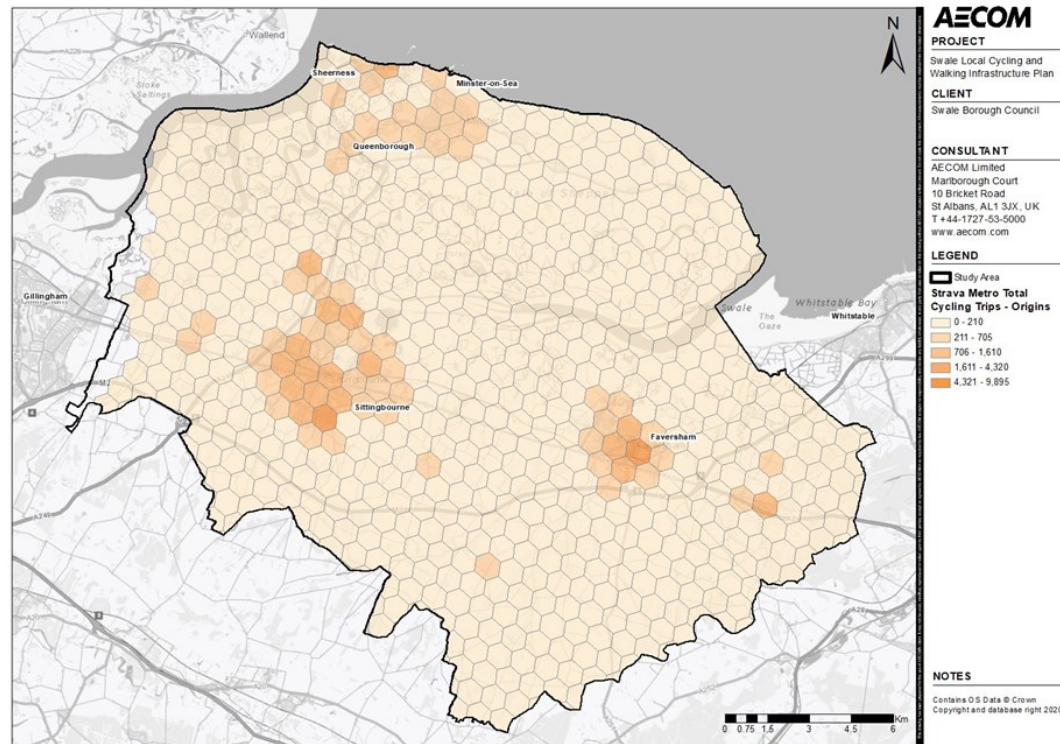


Figure 2-62 Strava Metro Cycling Origins Across Swale

ative visual tool. It shows 'heat', built by the number of active travel journeys which have been recorded on different routes. The flows demonstrate that while there is significant cycle activity within urban areas, there are also significant flows along inter-urban routes.

ings. There are high flows of cycle trips recorded between Faversham, Sittingbourne and the Isle of Sheppey. It should be noted that STRAVA users typically record journeys for leisure purposes and therefore more regular commuting trips may be underrepresent-

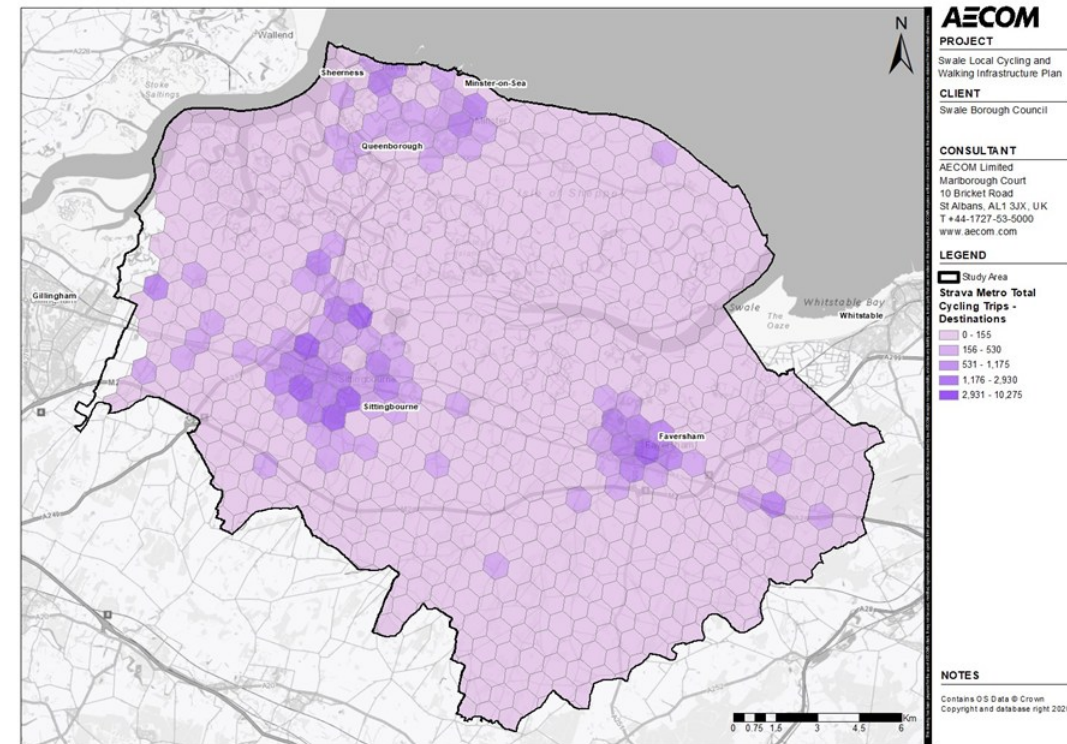


Figure 2-63 Strava Metro Cycling Destinations Across Swale

ed. Cyclist flows generally follow the highway network in the District but avoid busier stretches of the network. For example, between Faversham and Sittingbourne there are higher flows along Lower Road than the A2 (London Road).

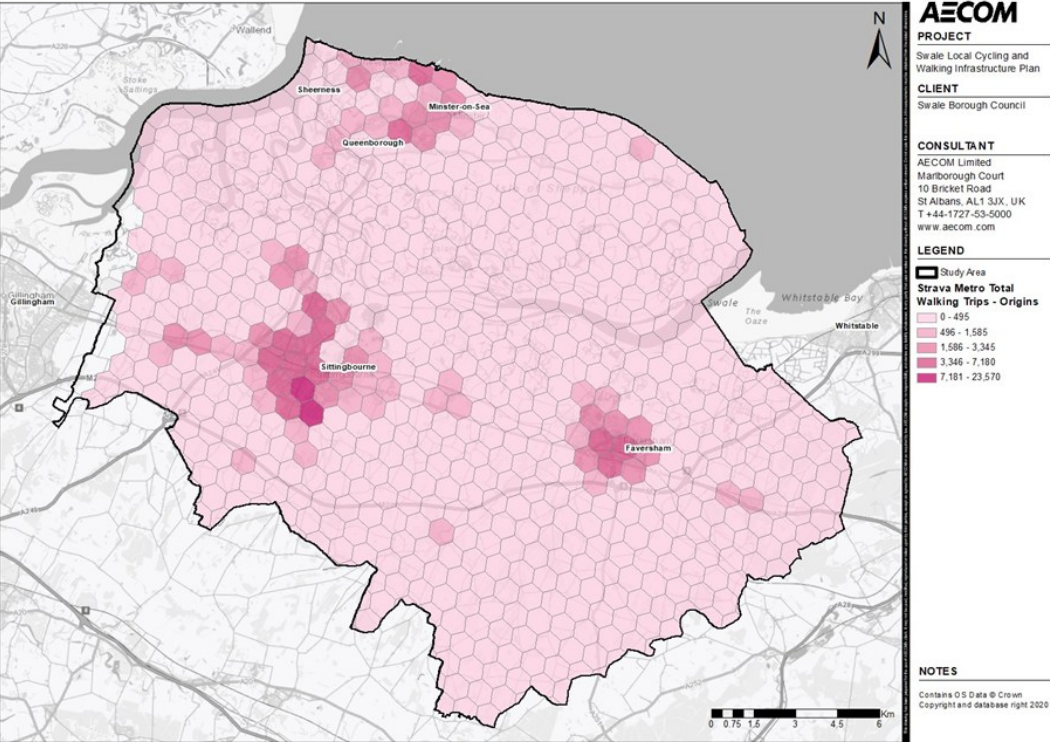


Figure 2-64 Strava Metro Walking Origins Across Swale

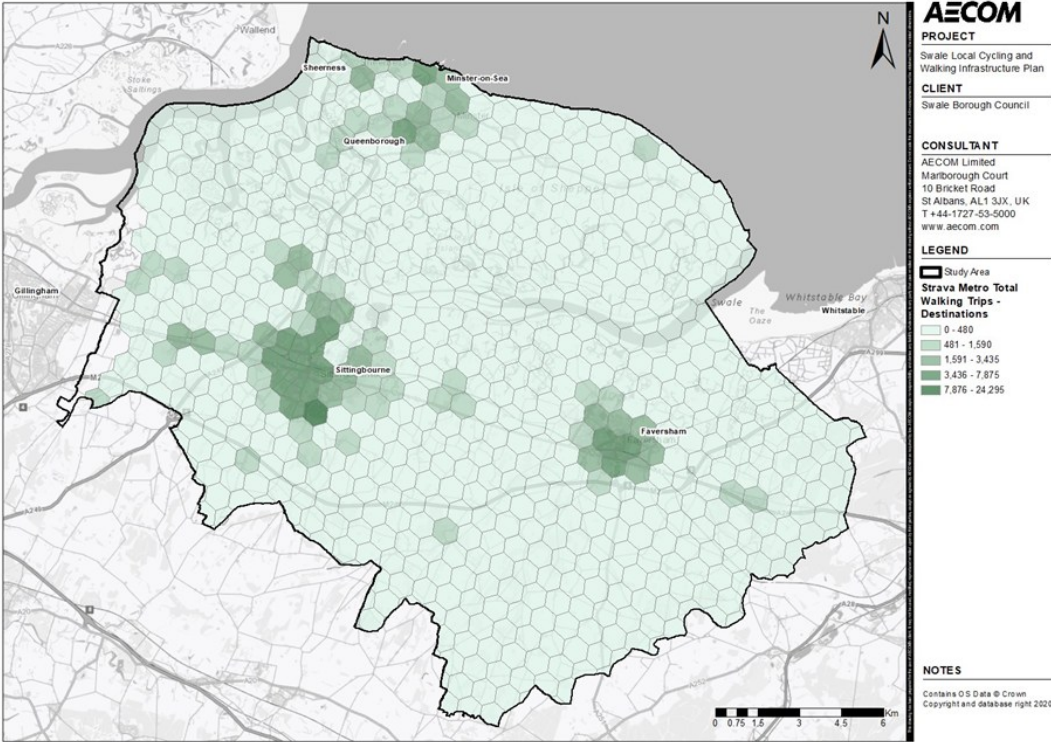


Figure 2-65 Strava Metro Walking Destinations Across Swale

Propensity to Cycle Tool

The Propensity to Cycle Tool (PCT) [9] is a Department for Transport funded tool which uses origin-destination data to explore and map cycling levels of both existing and potential future commuters based on a number of scenarios. The two scenarios used within this analysis are the following:

- The Census 2011 scenario: demonstrates the baseline cycle flows based on the 2011 Census
- The 'Go-Dutch' scenario: demonstrates what could happen if areas had investment to build the same infrastructure and cycling culture equivalent to the Netherlands.

The PCT results are person-based, rather than trip-based and therefore represent the numbers of people commuting, based on their typical main mode of travel.

Figure 2-66 to Figure 2-67 illustrate the cycle flows based on the three above-mentioned scenarios.

The Census 2011 scenario shows relatively low levels of cycling between towns on the Isle of Sheppey and also between Sittingbourne and Faversham, typically with fewer than 6 users. There are several routes within Sittingbourne and Faversham which experienced 6 – 13 users, with only one road between Sheerness and Queenborough experiencing more than 13 users.

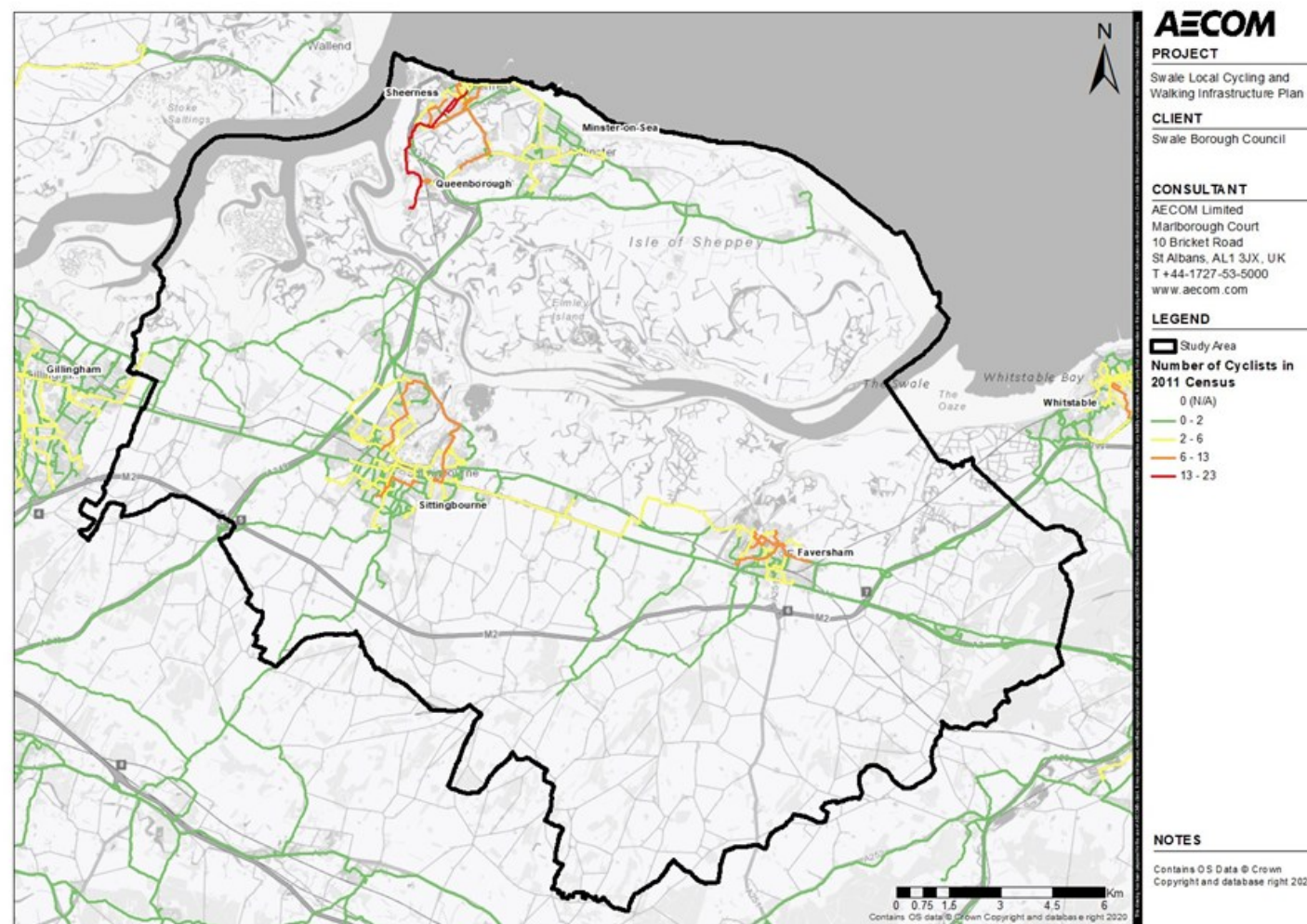


Figure 2-66 PCT Tool: Census 2011 Scenario

[9] <https://www.pct.bike/m/?r=kent>

In the Go Dutch scenario, there are rural and urban areas which would be expected to experience significant uplift in cycle flows, notably, Sittingbourne, Faversham and Sheerness would experience flows of up to 80 cyclists. There is also expected to be significant increase in cyclists travelling east-west on the Isle of Sheppey, as well as more rural flows (albeit relatively low flows).

A limitation of the PCT is its focus on commuting and school trips, therefore the existing and future routes are concentrated around key employment and education sites. The PCT results were used alongside an analysis of non-commuting and leisure trips to enable the development of a cycle network that also includes leisure and recreation trips.

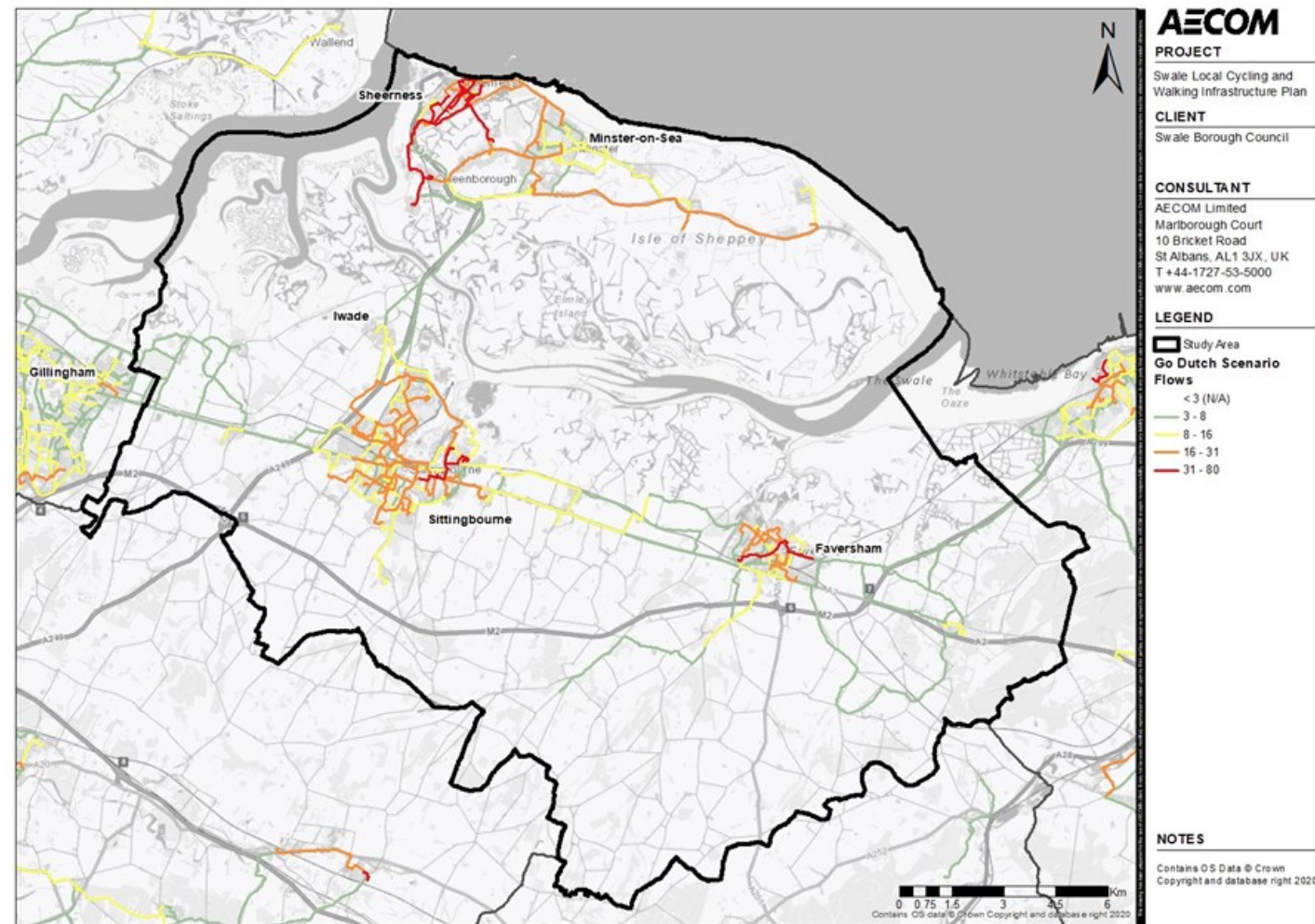


Figure 2-67 PCT Tool: Go Dutch Scenario

VISUM Flows

VISUM is a transport modelling software which was used to build the Kent Transport Model. Flows of all transportation user classes have been exported from the Kent Transport Model in base year (2019) and future year (2037) scenarios.

Comparing the base year and future year scenario flows provides an indication of how travel demand patterns are likely to change in the Swale based on the background population growth, the completion of new developments, and all other growth factors considered in the transport model.

Given that the transport model considers all user classes, only flows <10km were considered as part of this study. These are the trips that are within a typically cyclable distance and are either cycled presently or are significant desire lines which have a high potential for achieving modal shift.

Figure 2-68 and Figure 2-69 shows the PM peak in the 2019 base year and 2037 future year. The highest volume of flows is located in Faversham, Sittingbourne and between the towns of Minster-on-Sea, Queensborough and Sheerness on the Isle of Sheppey. It can be noticed that there is significant amount of relatively short car trips around Sittingbourne, including between Newington and Borden.

Flows are expected to increase significantly in the future year scenario. Sittingbourne is a lo-

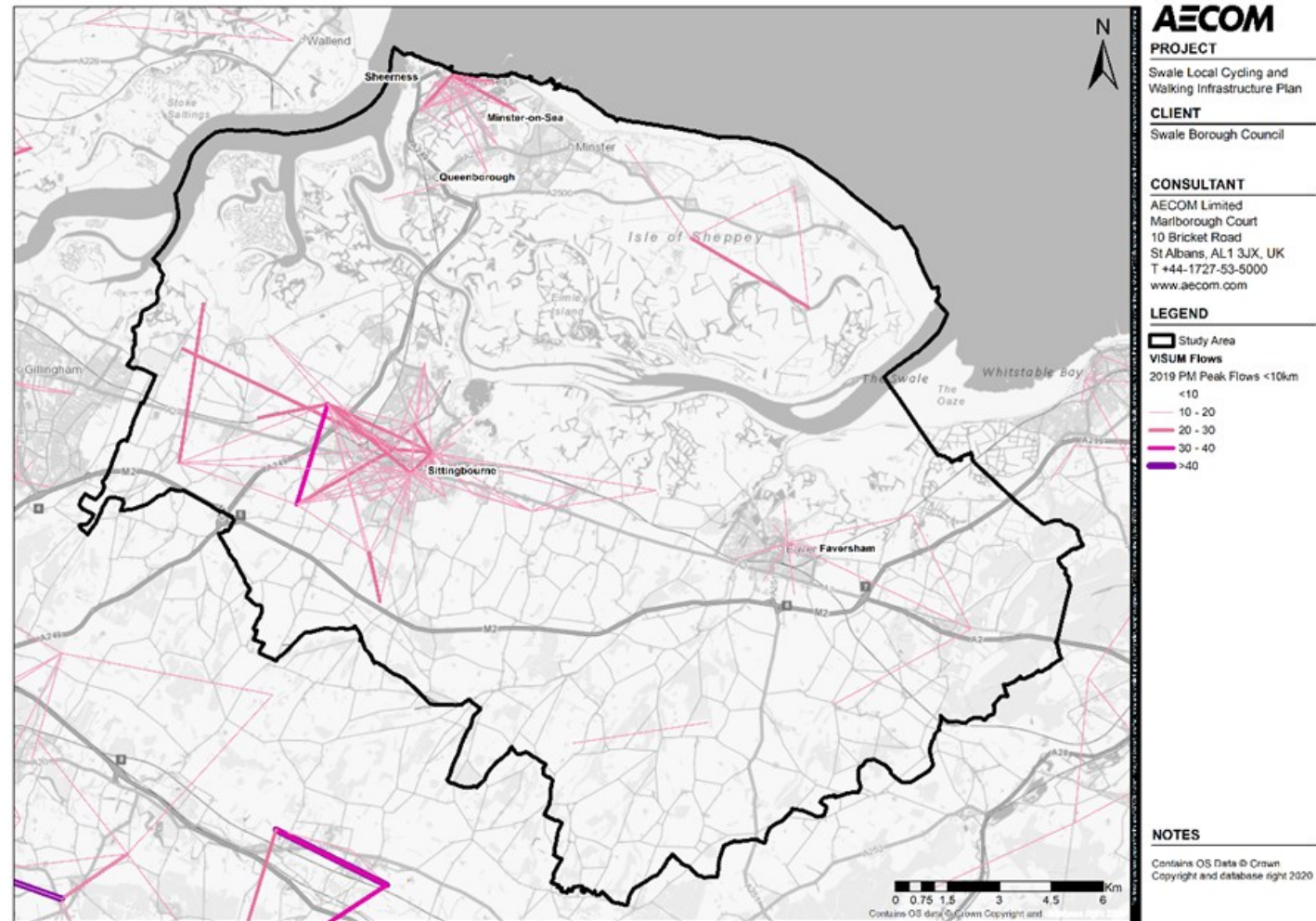


Figure 2-68 VISUM 2019 PM Peak Flows - All User Classes

cation with notable increases in flow and with in the future scenario there are multiple flows modelled with >40 users. Although the flows remain low in comparison to the intra-urban flows, there are increases modelled on many inter-urban flows in Swale in the 2037 future year scenario and also flows to and within more rural areas. Demand is predicted to increase on both the Isle of Sheppey and in rural Swale. This indicates potential future demand for cycling in these locations.

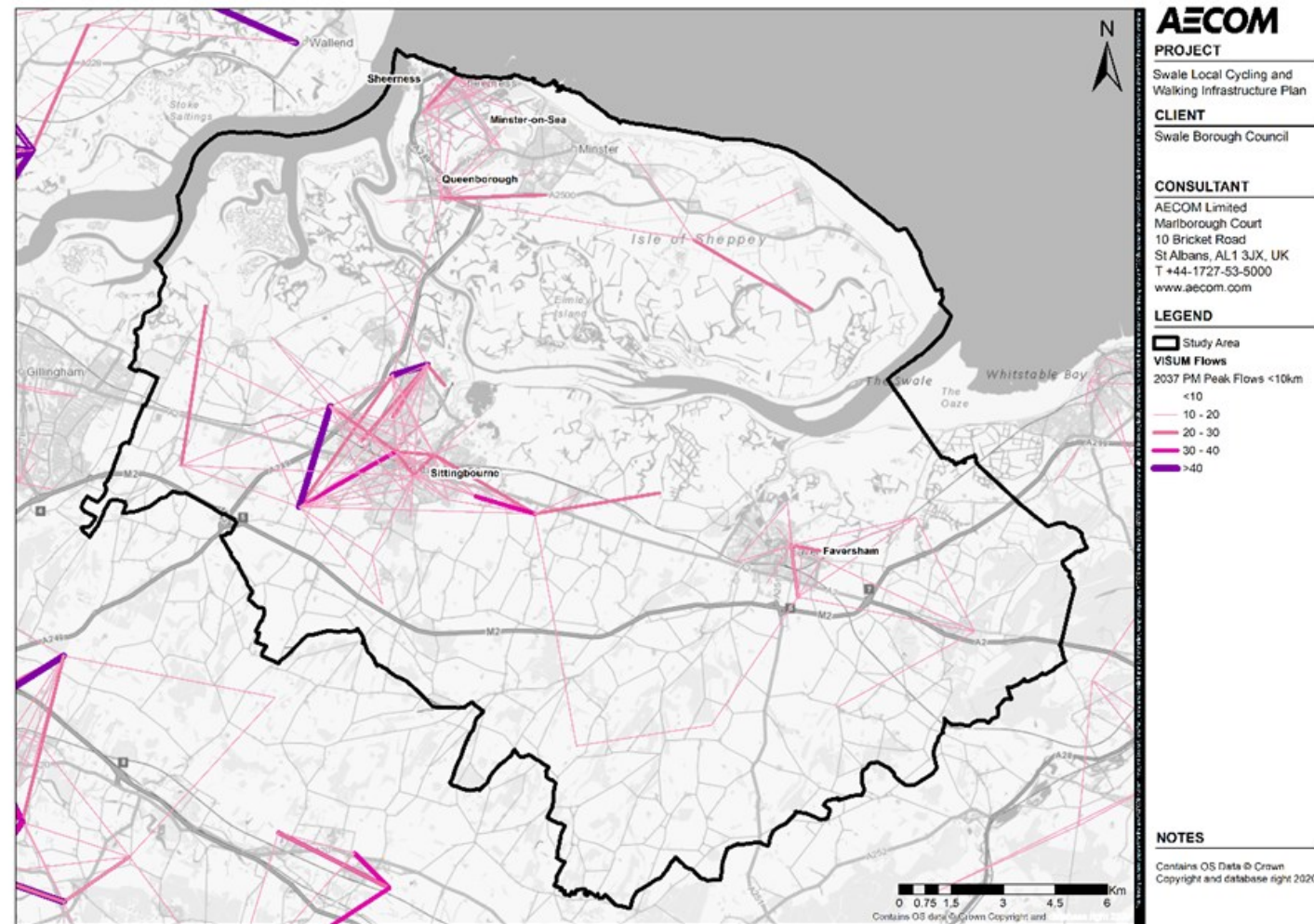


Figure 2-69 VISUM 2037 PM Peak Flows - All User Classes

Physical Constraints and Severance Features

Topography

The topography (illustrated as elevation) in Swale can be seen in Figure 2-70. Flood zones are also depicted on the map. Flood Zone 2 represents areas with a medium probability of flooding, while Flood Zone 3 represents areas with a high probability of flooding.

The topography across Swale is extremely diverse, with high east-west elevation south of Swale which forms part of the North Downs. The Isle of Sheppey, in contrast is characterised by low-lying land, covered by Flood Zone 2.

Topography, or the physical landscape of an area, can significantly affect people's propensity to cycle and walk. Additionally physical constraints and severance can impact the feasibility of constructing new infrastructure.

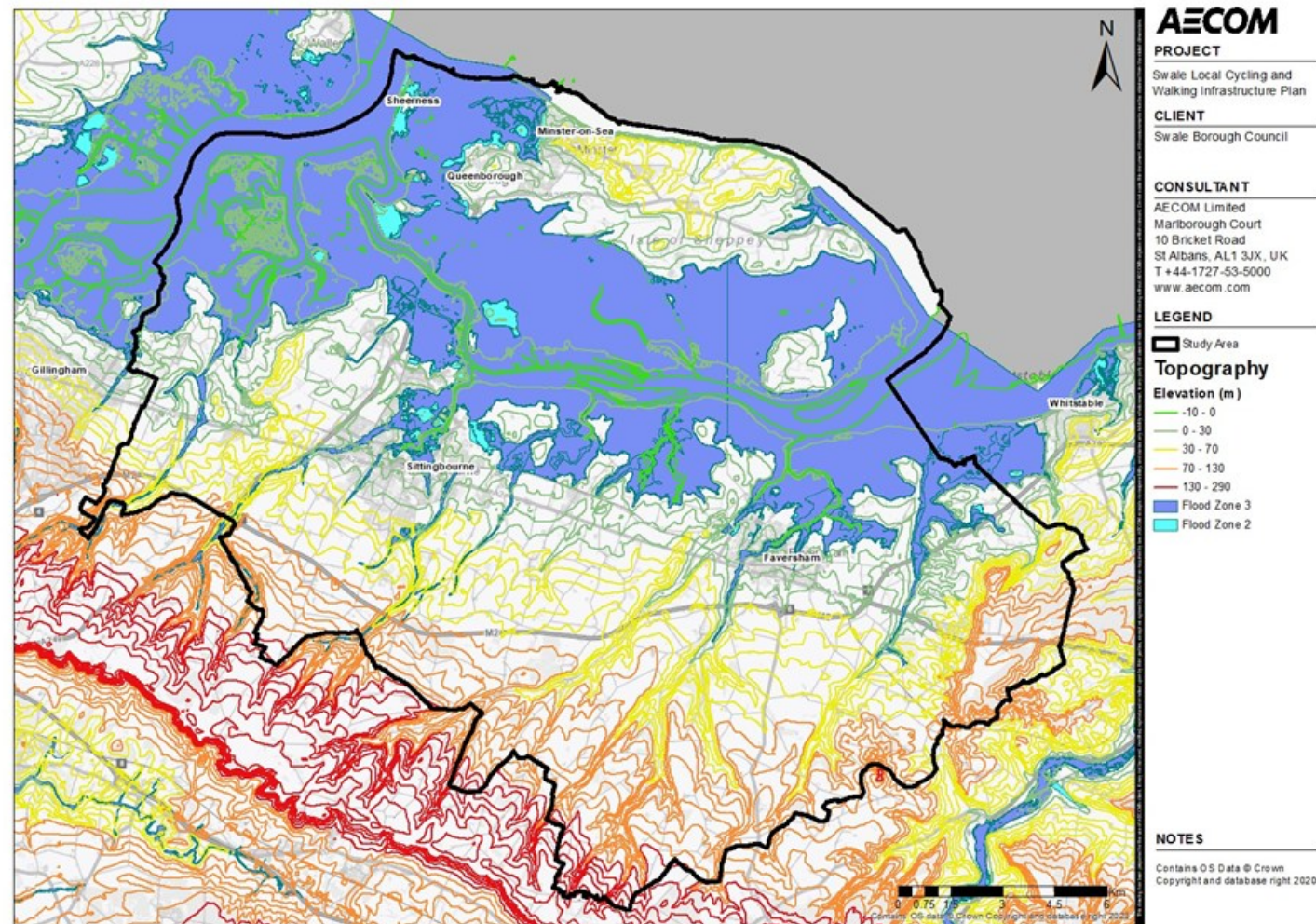


Figure 2-70 Topography Across Swale

Air Quality

The below data discusses concentrations of nitrogen dioxide at various monitoring sites across Swale from the 2023 Air Quality Annual Status Report (ASR) [10]. The average annual concentration of nitrogen dioxide (NO₂) in the air is measured in micrograms per cubic meter (µg/m³). Concentrations above 40 µg/m³ are considered an exceedance of the annual mean NO₂ as set out in the objectives of the National Air Quality Strategy [11]. In response to this, local authorities have identified Air Quality Management Areas (AQMAs). These are areas for which the local authority is developing an Air Quality Action Plan to improve air quality and reduce pollution levels within a designated area. The AQMAs across Swale can be seen in Figure 2-71.

Swale Borough Council has declared six AQMAs at the following locations [12]:

- AQMA 1: Newington, (A2 / High St) - declared in 2009
- AQMA 2: Ospringe Street, Faversham (A2/Ospringe) declared in June 2011 and revised (as AQMA 6) to the Mount in May 2016. AQMA 2 has now been revoked and renamed and consolidated into one as AQMA 6
- AQMA 3: East Street, Sittingbourne (A2 / Canterbury Road) - declared January 2013;
- AQMA 4: St Paul's Street, Milton, Sit-

Table 2-5 NO₂ concentrations at AQMAs across Swale (December 2023)

AQMA	Compliance with Air Quality Objective	Recommendation from 2023 ASR
AQMA 1 - Newington	Yes (3 years)	Ongoing monitoring
AQMA 2 – East Street	Yes (4 years)	Revoke AQMA
AQMA 3 – St Paul's Street	Yes (3 years)	Ongoing monitoring
AQMA 4 – Teynham	Yes (5 years)	Revoke AQMA
AQMA 5 – Ospringe Street	Yes (3 years)	Ongoing monitoring
AQMA 6 – Keycol Hill	No	Ongoing monitoring

tingbourne (B2006) - declared January 2013 – October 2020 an amendment was made to include PM₁₀ exceedances (24 hr mean) in addition to the NO₂ exceedance (annual mean)

- AQMA 5: Teynham (A2 / London Rd) - declared December 2015
- AQMA 6: Ospringe Street, Faversham (A2/Ospringe) (revised from AQMA 2) to the Mount in May 2016
- AQMA 7: Keycol Hill – declared October 2020

Swale Borough Council has undertaken monitoring of these AQMAs to assess NO₂ and PM₁₀ levels at the 6 AQMAs. Results published in December 2023 indicate an overall improvement in NO₂ at all sites. The only exceedance reported was at Keycol Hill,

and all other sites were reported as compliant with the required objective NO₂ level of 40 µg/m³. The results of the monitoring undertaken and the associated recommendation for each AQMA can be seen in Table 2-5.

[10] https://swale.gov.uk/__data/assets/pdf_file/0005/457835/ASR-2023_Final_24_10_2023_updated-PDF-AA.pdf

[11] <https://www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1>

[12] <https://swale.gov.uk/bins-littering-and-the-environment/air-quality/monitoring>

As NO₂ monitoring has been undertaken using diffusion tubes, to account for the associated uncertainty with this monitoring method, it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO₂ concentrations being lower than 36 µg/m³ – within 10% of the annual mean NO₂ objective.

According to DEFRA guidance, the AQMAs on East Street and Teynham qualify for revocation, whereas monitoring for the other AQMAs is required as they have not seen three consecutive years of annual mean NO₂ concentrations being lower than 36 µg/m³.

Swale Borough Council has an extensive network of air quality monitoring sites across the district, comprised of 86 NO₂ diffusion tubes deployed at 76 locations. In 2022, one diffusion tube picked up an annual mean NO₂ exceedance, compared to 13 in 2019.

Across Swale, areas of air quality exceedances in Swale are in town centres near busy roads. Encouraging modal shift to cycling and walking has the potential to reduce NO₂ emissions by reducing vehicle traffic and congestion.



Figure 2-71 AQMAs Across Swale

03

Stage 3: Network Planning for Cycling

Stage 3: Network Planning for Cycling

Introduction

The evidence presented in the previous sections informed the identification of potential cycling infrastructure improvements and key cycle routes.

Technical guidance on the identification of cycling routes is published by the DfT. Figure 3-1 shows an overview of the process, as shown in the LCWIP Guidance. Route selection was an iterative process, which built on an evidence base of current and future trip generators, cycling travel patterns and the existing and planned active travel network.

This section presents the identification of the initial routes and the outcome of the stakeholder engagement that contributed to considering and accommodating local daily travel needs, as well as defining the final network.

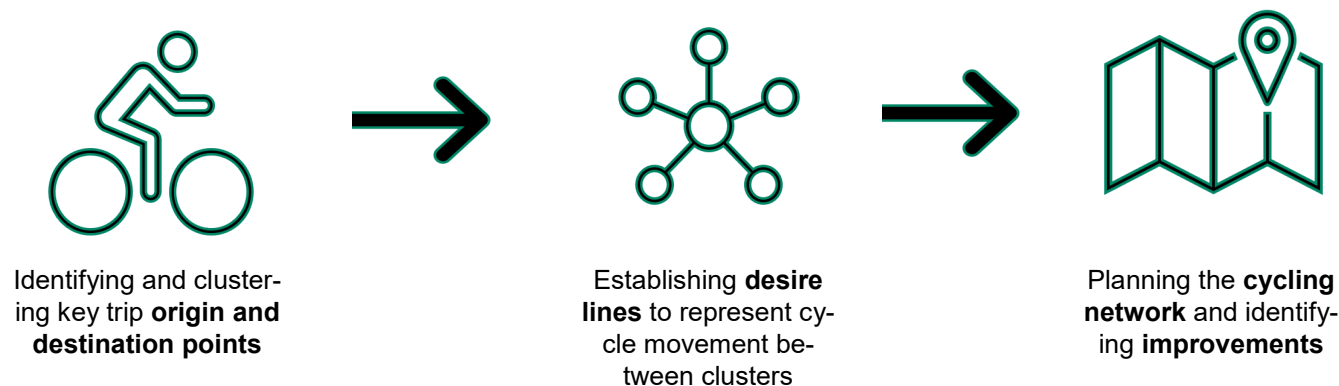


Figure 3-1: Summary of Cycling Network Generation Stages

Key Origins and Destinations

To identify the potential demand across the proposed cycling network, key origin and destination points across Swale were mapped. This was based on the data that was collected during the Information Gathering stage (Stage 2), specifically utilising the location of key trip generators and population and employment densities. Some examples of significant trip generators can be found in Table 3-1.

Concentrations of origin and destination points in locations of high population and employment density were grouped as clusters. Key settlements outside the Swale border were also considered in the analysis to recognise the significance of cross-border trips.

It is important to highlight that trip origins and destinations that were not considered large enough to generate or attract significant cycling flows were not included in the origin and destination clusters. Trip origins and destinations which were excluded were those which were isolated and comparatively small in terms of their population and employment density.

For the purpose of this report origin clusters are defined as areas where the majority of trips would originate, while destination clusters are those areas where the majority of trips would terminate. Where there was a combina-

Table 3-1: Key Examples of Significant Trip Generators

Trip Generators	
Rail Stations	Education Facilities (Nursery, Primary, Secondary, College, University)
Bus Stops	Healthcare Sites (Hospital, Medical Care Accommodation)
Population Centre	Cultural Facility (Museum, Library)
Residential Development Site	Sports or Exercise Facility
Employment Development Site	Religious Building
Mixed-Use Development Site	Retail Site
Tourist Attraction	

tion of origin and destination purpose, the cluster was categorised according to the highest proportion of either origin or destination points within the cluster.

It was taken into consideration that points such as train stations could be considered as both an origin and a destination, however, for the purposes of this analysis they were categorised as destinations.

Figure 3-2 below illustrates the identified origin and destination clusters within Swale and the cross-border clusters outside Swale which were identified as part of the KCWIP.

A list of the identified origin and destination clusters can be seen in Appendix A.

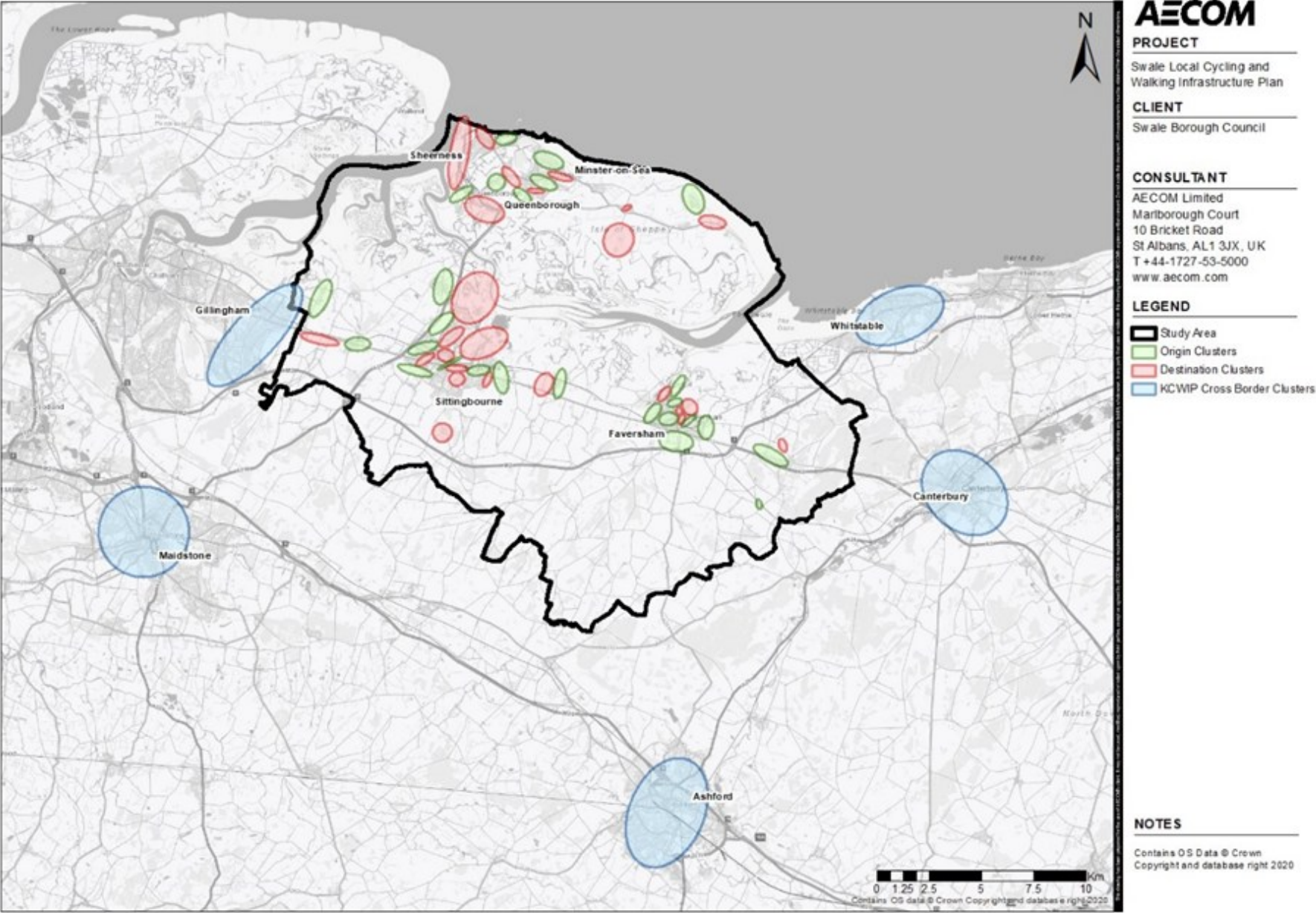


Figure 3-2: Trip Origin and Destination Clusters

Desire Lines

Desire lines in this context are indicative links between origin and destination clusters that reflect the level of demand to travel between two locations. The indicated desire lines do not link to existing infrastructure, nor do they reflect the proposed routes. The process of identifying and classifying desire lines, following the clustering of key origin and destination points, is described in this section.

Identification

The identification of desire lines was an iterative process using the Propensity to Cycle Tool (PCT), analysis of origin and destination points, existing LCWIP routes and information collected in Stage 2 of the LCWIP.

Additional cross-border desire lines which were identified as significant to the borough-wide network as part of the analysis were also included in the desire line identification. This is because there are a number of significant settlements which either represent significant current demand or potential future demand.

It was considered important to include these cross-border desire lines in this analysis to firstly uncover potential suppressed demand as a consequence of poor cross-border connectivity and secondly to ensure there is a balance of longer and shorter routes. The longer routes would be able to connect smaller, rural towns which alone are not significant trip at-

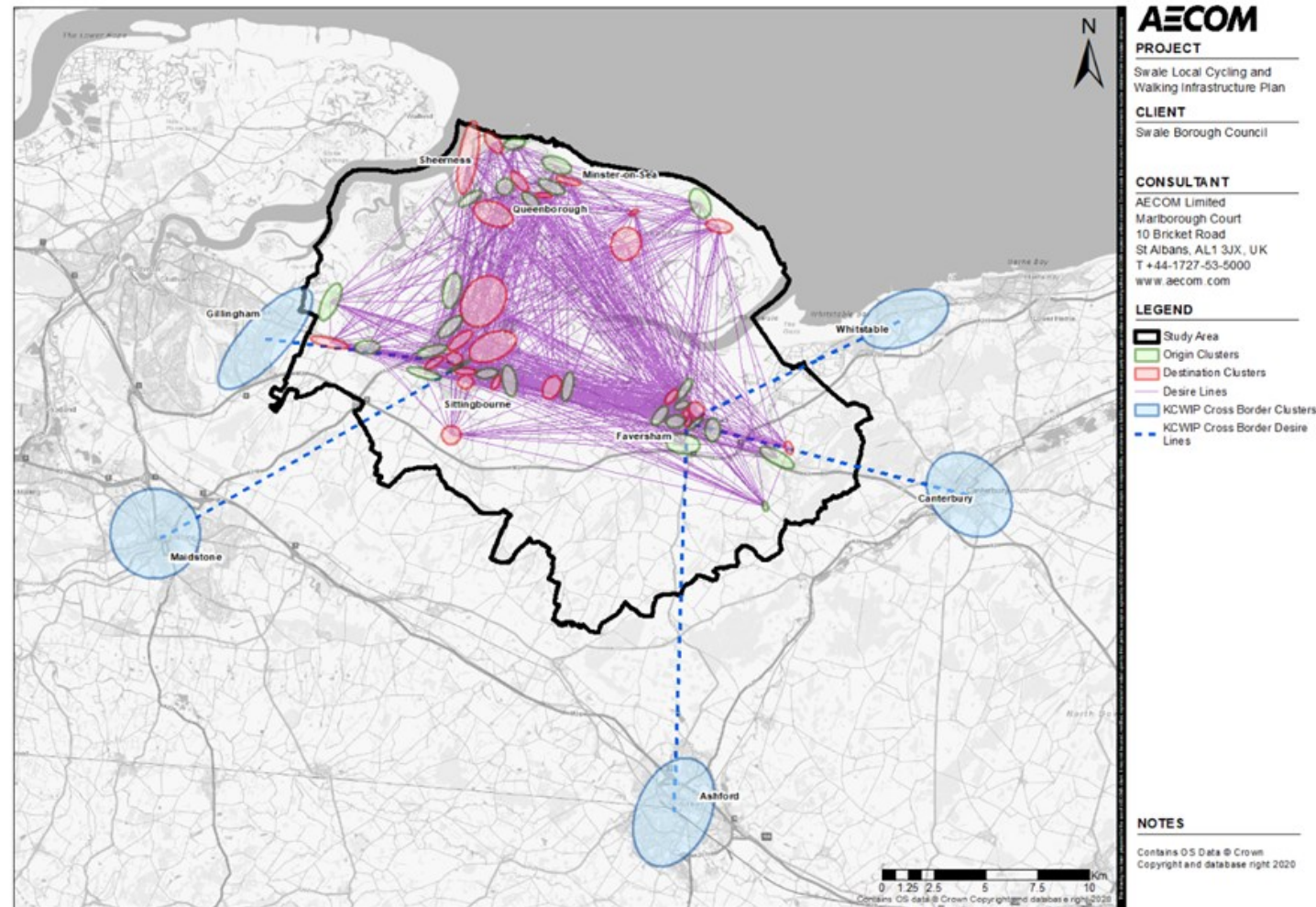


Figure 3-3: Identified Desire Lines

tractors to the settlements which the desire lines connect.

The identified desire lines can be seen in Figure 3-3.

Classification

The relative importance of each desire line to the wider network needs to be understood in order to assess the number of cyclists they will serve in the future if taken forward. As per the DfT guidance, desire lines were classified as ‘primary’, ‘secondary’ and ‘local’, based on the following characteristics:

- **Primary:** High flows of cyclists are forecast along desire lines that link large residential areas to trip attractors such as a town or city centre.
- **Secondary:** Medium flows of cyclists are forecast along desire lines that link to trip attractors such as schools, colleges, and employment sites.
- **Local:** Lower flows of cyclists are forecast along desire lines that cater for local cycle trips, often providing links to primary or secondary desire lines.

As can be seen from the above desire line classifications from the DfT LCWIP guidance, the process of classifying desire lines is deeply rooted in demand. Whilst demand is an important facet of desire lines, the geographic scope and objectives of this LCWIP required the consideration of other factors to ensure an even balance between urban and rural areas as well as focusing on connecting smaller towns into larger settlements.

Initially, 650 desire lines were identified. How-

Table 3-2: Desire Lines for Consideration

Swale LCWIP			KCWIP	SBC Recommendations
Primary	Secondary	Local		
31	84	221	5	9
Total Desire Lines				350

ever, it was not feasible to classify all of these lines, so those greater than 10 km and less than 1.5 km were excluded. Desire lines over 10 km were excluded because the focus of this LCWIP is primarily on connecting rural towns to larger settlements and improving overall connectivity within rural Swale. These longer desire lines typically represented inter-urban routes.

Desire lines shorter than 1.5 km were excluded due to the extensive coverage of planned and proposed active travel schemes in urban areas, where these shorter lines were generally located. As expected, these shorter, urban desire lines scored high in the classification due to high PCT demand, population density, and employment density. Therefore, excluding them was important to ensure a balance of urban and rural routes and to create an LCWIP approach based on more than just demand.

In addition to the desire lines identified in this analysis, the KCWIP cross-border desire lines were also considered along with suggestions from Swale Borough Council (SBC).

Table 3-2 shows the number of desire lines which were taken forward for classification.

Classification example

Table 3-4 provides examples of two desire lines classified as primary and local: the Selling to Central Faversham Business Area desire line and the Kemsley Developments to Sheerness Industrial Areas desire line.

Each desire line was evaluated against specific criteria, receiving a score between 0 and 3 for each criterion. For instance, the following method was used to assign the overall score to the Selling to Central Faversham Business Area desire line (classified as local), as detailed in Table 3-4.

For the anticipated flows criterion, the highest PCT value along this desire line was greater than 22, scoring it ‘High’. The mean PCT flow along this desire line was less than 7, scoring it ‘Low’. Both the highest and mean PCT scores were used to ensure that desire lines passing through urban areas did not exclusively score higher than more rural desire lines.

Additionally, a network gap criterion was included to assess whether this desire line fills a network gap, which is crucial for ensuring an urban/rural balance and a cohesive proposed cycling network. This desire line scored 3 for filling a network gap. The PCT and network gap scores were averaged to provide an overall flow score.

Next, the origin cluster was assessed based on its population density and whether there is a planned or committed development. The origin cluster of this desire line had a population density of less than 2,084, scoring 'Low'. It did not have a planned or committed development, so it also scored 'Low' on this criterion. An overall origin cluster score of 1 was assigned to this desire line's origin cluster.

The same approach was used to assign a destination cluster score of 2 to this desire line by assessing the destination cluster against employment density and the presence of a site allocation.

Based on these scores for demand, origin, and destination clusters, an overall classification score of 2.3 was assigned to this desire line, making it a Local desire line as it scored in the lowest third of overall scores.

Table 3-3: Desire Line Classification Criteria

Criteria	Description	Score
1	Anticipated Flows	PCT Value (Go-Dutch scenario) - Highest Value Min.100m: High: Flows >22 Medium: Flows 7-22 Low: Flows <7
		No Flows
		High: 3
		Medium: 2
2	Origin Size	No Flows
		Low: 1
		Network Gaps: Desire line passes within 300m of the NCN: High: <17% within 300m of the NCN Medium: 17% - 34% within 300m of the NCN Low: 34% - 50% within 300m of the NCN None: >50% within 300m of the NCN
		No Flows: 0
3	Destination Size	Overall demand score assigned using matrix
		Population Density: People Per KM (PPKM) High: >8020 Medium: 3534 - 8020 Low: <3534
		Classifications based on Natural Jenks
		High: 3
4	Origin Size	Medium: 2
		Low: 1
		Site Allocation: the size of committed residential developments (sqm) relative to one another. High: >66% Medium: 33% - 66% Low: <33%
		Overall origin score assigned using matrix
5	Destination Size	Employment Density: People Per KM (PPKM) High: >33 Medium: 11 - 33 Low: <33
		Classifications based on Natural Jenks
		High: 3
		Medium: 2
6	Origin Size	Low: 1
		Site Allocation: the size of committed employment developments (sqm) relative to one another. High: >66% Medium: 33% - 66% Low: <33%
		Overall destination score assigned using matrix

Table 3-4: Desire Line Classification Examples

Desire Lines			Anticipated Flows (Go-Dutch Scenario)							OD Size												Classification	
			Highest Value		Mode Value		Flow score	Network gap	Overall score	Origin						Destination							
Origin	Dest.	Length (km)	PCT Value	PCT Demand	PCT Value	PCT Demand	Score (0-3)	Score (0-3)	Score (0-3)	People per KM (PpKm)	Size (PpKm)	Site allocation (size)	Score of allocation	Origin size	Origin score	Employees per Ha (EpH)	Size (EpH)	Site allocation (size)	Score of allocation	Dest. score	OD overall score	Overall Score	Classification
Selling	Central Faversham Business Areas	5.89	>22	High	<7	Low	2.0	3.0	2.5	<2,084	Low	-	Small	Small	1	1,167 - 3,460	Med.	-	Small	2	2	2.3	Local
		8.24	>22	High	<7	Low	2.0	2.0	2.0	<2,084	Low	726,615	Large	Large	3	<1,167	Low	1,652,667	Large	3	9	5.5	Primary

As shown in Figure 3-4, the outputs of the desire line classification process include clear primary desire lines between Sittingbourne and Faversham and connecting to the Isle of Sheppey.

There are also several Primary desire lines connecting the towns on Sheppey, as well as rural towns outside of Sittingbourne. The local desire lines, in turn, represent longer routes that connect to the primary desire lines.

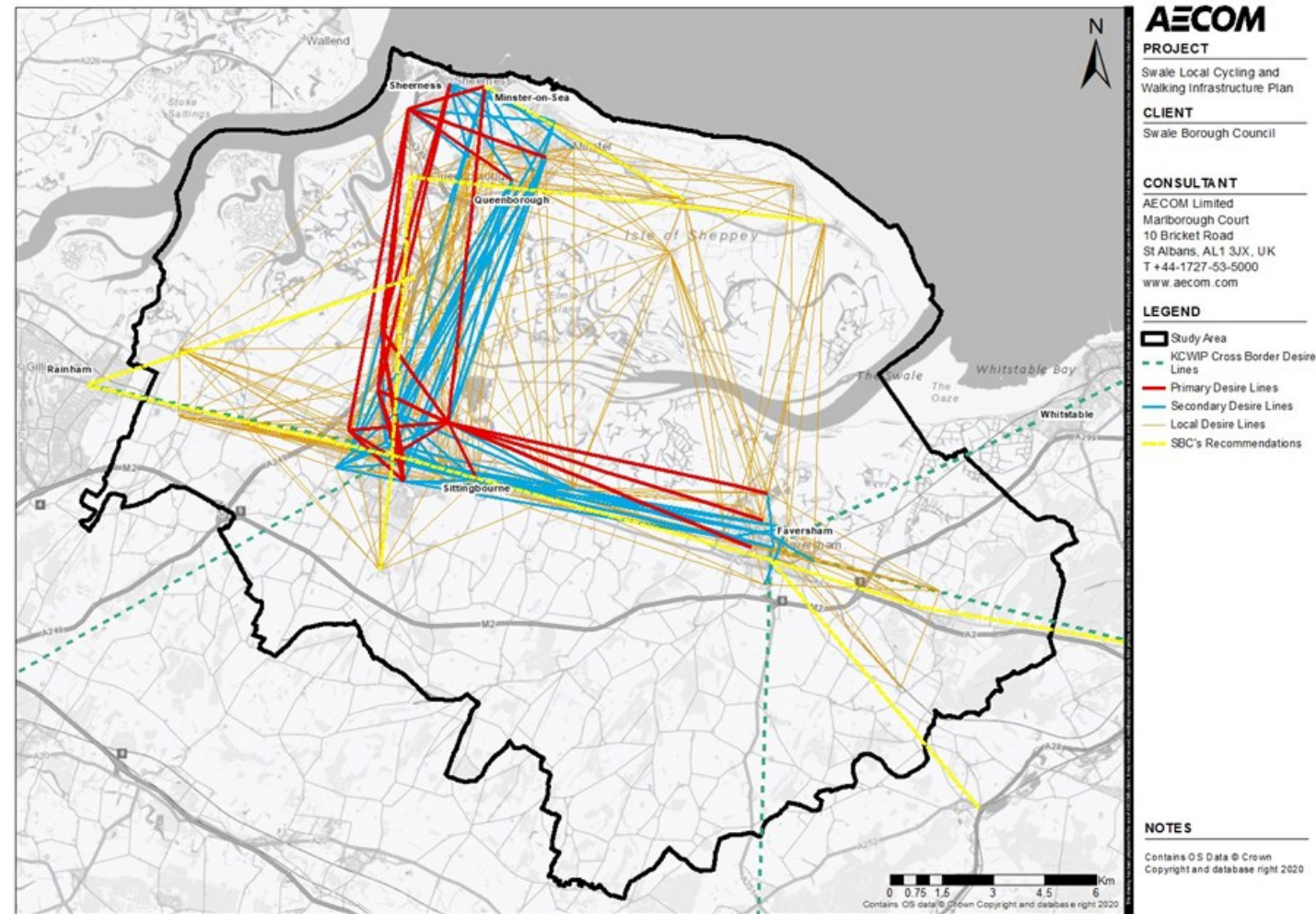


Figure 3-4: Classified Desire Lines

Figure 3-5 demonstrates the desire lines taken forward for route selection. As shown, cross-border KCWIP desire lines were included, along with the highest scoring desire lines.

Secondly, overlapping desire lines or those with similar origins and destinations were merged to ensure comprehensive coverage across Swale.

Thirdly, the next highest scoring desire lines were identified, such as those connecting the Sheppey Towns and Bapchild. No desire lines in Faversham were taken forward due to an existing LCWIP already covering the town. Additionally, no desire lines were taken forward on the Isle of Sheppey because the Sheppey Towns LCWIP was being produced alongside the Swale LCWIP. This meant that at this stage, the focus of this LCWIP was on Sittingbourne. Chapter 5 of this report provides more information on how the Swale LCWIP and Sheppey Towns LCWIP were merged after the route networks were identified and before public consultation. Therefore, the focus of the proposed cycling network was on Sittingbourne and the east-west and north-south movements connecting the town. This is because of the large number of primary desire lines in this area, representing significant current and future cycling demand, as well as a notable gap in planned/proposed schemes.

The desire lines taken forward for route

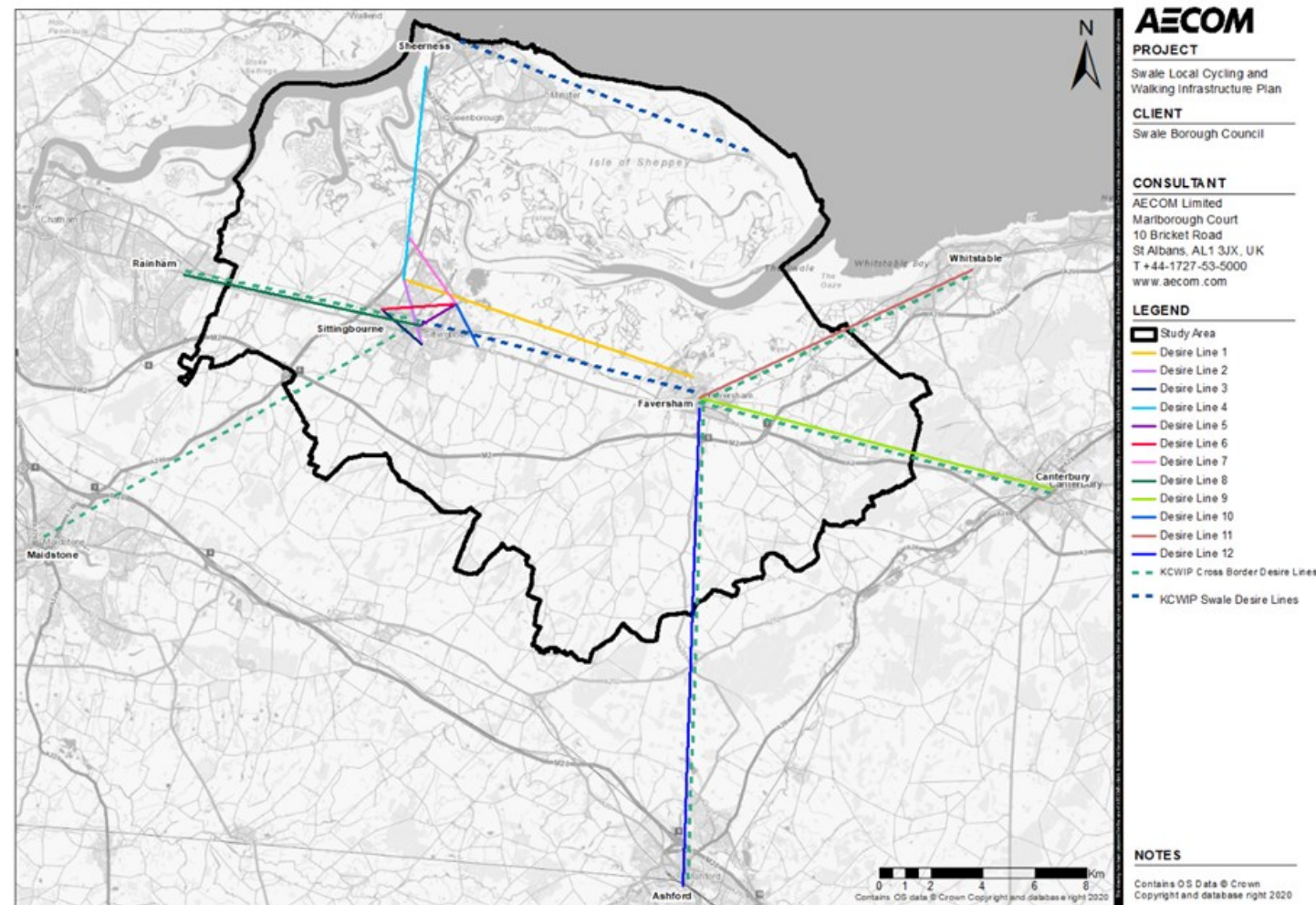


Figure 3-5: Desire Lines for Route Selection

selection represent current priorities for SBC. Other desire lines are not discarded for future analysis but have not been identified as primary at this stage. This prioritisation is subject to further updates based on changes

Identified Network

The identified network is shown in Figure 3-6 and the alignment of each route is described below.

CR1- Kemsley to Faversham: This route provides an east-west corridor connecting Faversham and Sittingbourne from Kemsley rail station. It follows the proposed KCWIP alignment after going through Murston, running parallel to the A2 and south of the NCN before heading towards Faversham through Four Oaks where it connects into a route proposed in the Faversham LCWIP.

CR2 – Kemsley to South Sittingbourne: This route connects Kemsley station to south Sittingbourne. It follows the B2005 which is part of the NCN from just south of the B2005/Sandstone Drive/Grovehurst Avenue roundabout. The route then crosses the A2 connecting to Memorial Hospital in Sittingbourne and Sittingbourne Recreation Ground and finishes by Fulston Manor school, which has approximately 1,300 pupils.

CR3 – Grove Park to Eurolink Business Park: This route connects the Grove Park/Grove Park Primary School with south Sittingbourne, up to the A2. The priority route crosses the A2, connecting Westlands Primary School, Fulston Manor School and the Sittingbourne school. This provides a crucial east-west connection across south Sittingbourne. The alternative route routes north through Mil-

ton Regis Recreation Ground and Sittingbourne Station before crossing the A2 and rejoining the priority route at the junction of Swanstree Avenue and Highstead Road. This route provides a vital connection between the station and large schools to the south of Sittingbourne.

CR4 – Sittingbourne to Sheerness: Routes north along Senora Way in Sittingbourne to Quinton Road via Iwade and Swale Station along the NCN. The route connects to the A2500, providing a valuable north-south connection from the Isle of Sheppey to Sittingborough.

CR5 - Sittingbourne to Eurolink Business Park: This route connects Sittingbourne Station to Eurolink Business Park through Milton Creek Country Park. It routes north along the B2006 via the NCN before heading along Gas Road before turning right into Milton Creek Country Park, utilising PRowS to route towards Swale Way. This provides an off-road routing option through Sittingbourne.

CR6 - Grove Park to Eurolink Business Park: This route connects Grove Park and Eurolink Business Park. The priority connects Sittingbourne station as well as a number of planned developments in the town centre. The priority route then routes along the A2 and provides a crucial connection under the railway to connect to Eurolink Way. The route then follows Castle Road (using the NCN) before connecting to the rounda-

bout with Swale Way. The alternative route connects through Milton Regis/ Milton Regis Primary School. It then goes through Milton Creek Country Park before utilising PRowS to connect to Swale Way.

CR7 – Iwade to Bapchild: This route connects Iwade to Bapchild via Sheppey Way before heading east on a cycle path on Bramblefield Lane. It then routes along the B2005, utilising the existing cycle lane up to the roundabout with Castle Road. The route then utilises Church Road, following the NCN to Murston Road before turning onto the A2, past the planned housing development and into Bapchild.

CR8 – Sittingbourne to Rainham: This route provides a crucial cross-border connection between Sittingbourne and Rainham. The route travels north from Sittingbourne rail station through Milton Regis and joins the NCN on Stickfast Lane. and then north, at which point it joins the NCN into Rainham rail station. The alternative route travels along the A2 for its entirety between Sittingbourne and Rainham.

CR9 – Faversham to Canterbury: This route provides a cross-border connection between Faversham and Canterbury. The priority route goes through Faversham Recreation Ground, following PRowS to Chalkey Road. It then routes via a short cycle lane parallel to the A2 then leaves the A2 via Boughton-under-Blean and Dunkirk. This road has a 30mph speed limit for its entirety before joining the A2 again.

At this point there is a shared pavement for pedestrians and cyclists. It then crosses the A2050, following Church Hill and into Canterbury East Station. This route crosses the A2050, at which point it follows the proposed KCWIP routes into Canterbury East Station. The alternative route is a more rural alignment, going through Selling Station and to Chartham Station. This route follows NCN Route 18, until it connects to the priority route at Todder's Cove.

CR10 – Ashford to Faversham: This route connects Ashford to Faversham via Potter's Corner, Throwley Forstal and Potter's Corner before connecting into Faversham Station.

CR11 – Faversham to Whitstable:
This route connects Faversham to Whitstable. It begins at Faversham Station, going via Faversham Recreation Ground, connecting to NCN Route 1, routing through the proposed Solar Farm before joining the NCN Route 1 again along the coast.

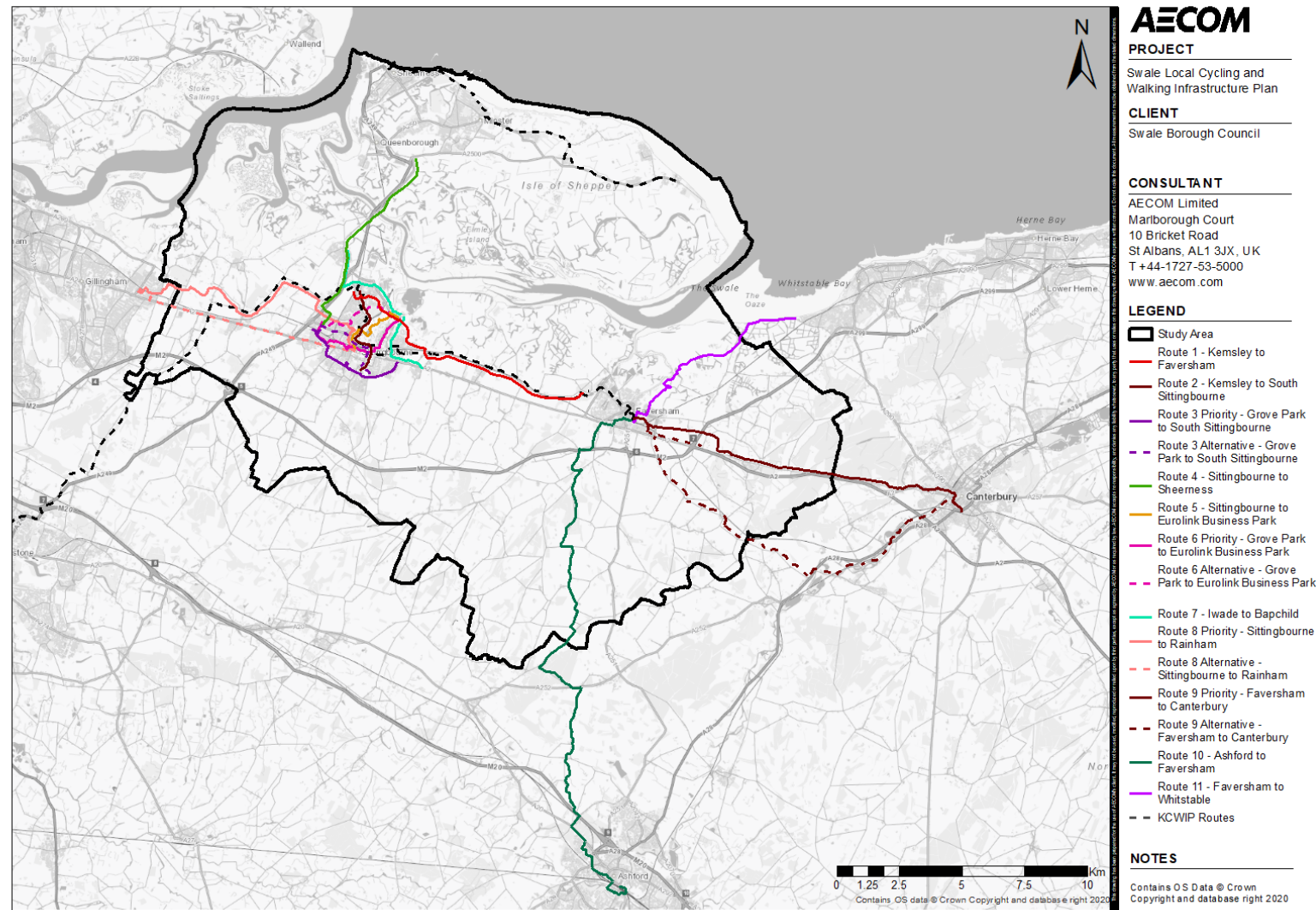


Figure 3-6 Identified Cycling Network

Stakeholder Engagement

The identified cycling network, shown in Figure 3-7, was presented to local stakeholders. The meeting provided a platform to gather their opinions on the proposed network.

Overall, the stakeholders welcomed the identified cycling routes and used their local knowledge to make suggestions, such as altering the alignment of proposed routes to make them more attractive to local residents and ensure longer-term support. The key outcome of this meeting was to ensure the routes are direct, where possible avoiding car-dominated or fast roads. The comments received from stakeholders are summarised in Table 3-5.

Figure 3-7 illustrates the updated proposed cycling network, incorporating feedback from the stakeholder engagement workshop. Following the decision to merge the Swale LCWIP and Sheppey Towns LCWIP (see Chapter 5), only the 'primary' routes will be taken forward to public consultation to manage the routes we are seeking feedback on.

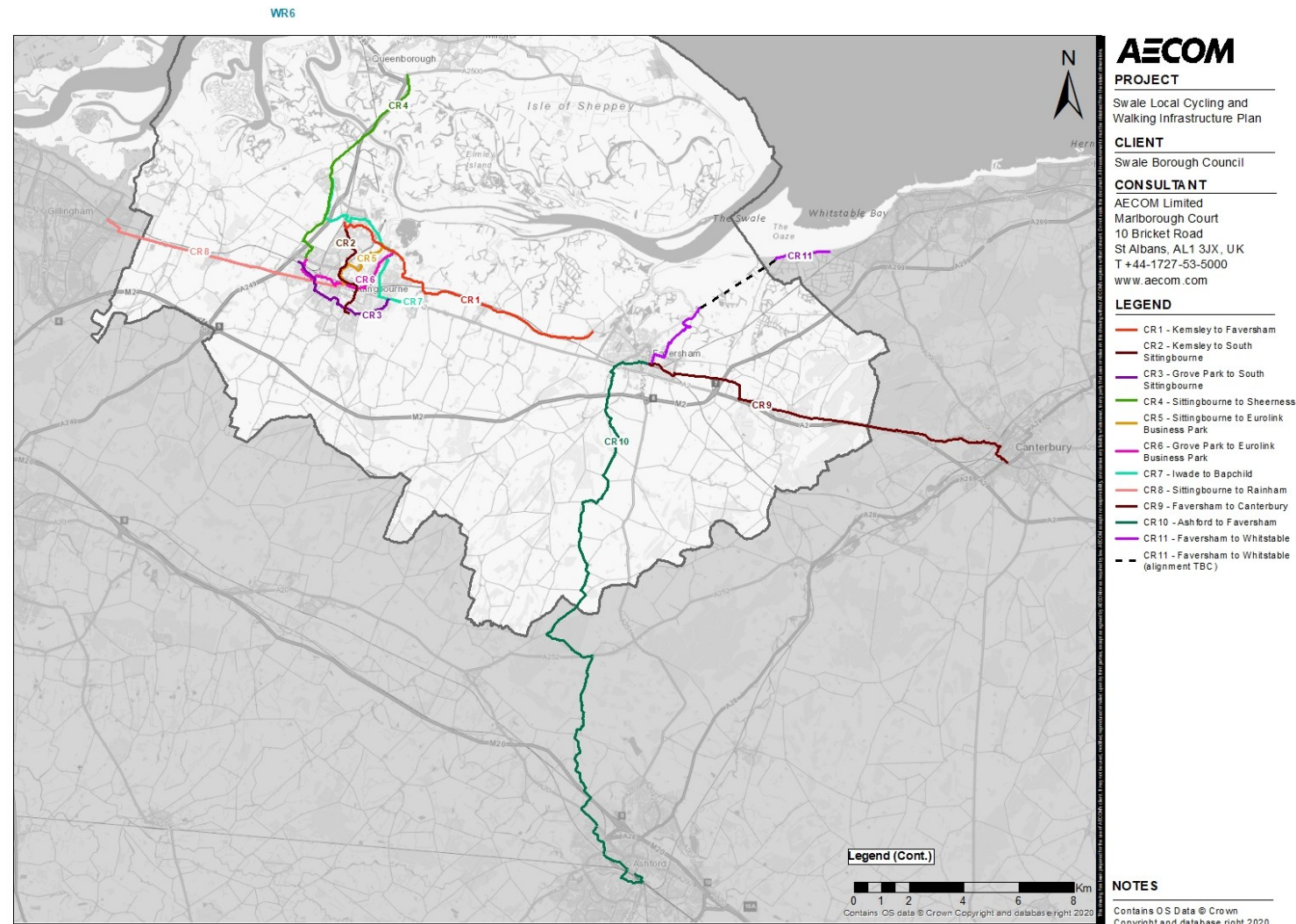


Figure 3-7 Proposed Cycling Network Following Stakeholder Engagement

Table 3-5: Summary of Stakeholder Feedback

Cycling Route	Stakeholder Comment
CR1	Lower Road is very fast- a safer alternative would be suggested.
	Speed limits could be amended on this route.
CR2	Currently, people who go to work between these areas use the pavement on the A2.
	Using Bell Rd is very steep - potential to include stop boxes at traffic lights to make cycling easier.
CR3	Agreement with the primary connections to other routes.
	The crossing with Bell Rd doesn't recognise cyclists.
	Through the housing estate would need updated lighting.
CR4	There's still challenges around crossing the A2 and Park Rd can be quite wide. Suggestion to use Sydney Avenue to avoid the currently proposed junction on the A2 which is busy and hard to navigate.
	Sections of this route are dangerous – especially from Iwade to Swale Station.
	There's width restrictions along sections of this route which could be useful to increase cycling.
	Need better access into Swale Station.
CR5	Cowstead Corner needs to have cyclist priority as it's very dangerous with lorries and congestion. Generally, the roundabouts along this route are a challenge with speeds and traffic flows.
	Agreed with the focus on improving the Creek park. Access to the station could be a challenge to tackle severance.
CR6	Challenge around segregating cyclists and industrial traffic.
CR7	Challenge along the A2 because segregated cycle lanes would be needed. It's possible to use the shared path around the development instead of the A2.
	Using Snipeshill is wide and there's speed cameras which could be valuable.
CR8	Need enough width for people with adapted cycles - shared use paths aren't the ideal standard as it could put peds off
	A difficult route to tackle - preference is direct route but this isn't an ideal option.
CR9	The alternative route has a lot of potholes between Faversham and Boughton Leeds.
	The priority route is preferred here.
	Potential to consider northern access into Canterbury
CR10	Alternative routeing suggested which goes via Oversland and Lower Endsden
	Northern section of the route works, but Painters Forstall section of the route can be fast, downhill and with sharp turns. Potential to use Western Road south of Painters Forstal and approach Throwley from the west.
	Alternative suggested between Faversham and Throwley via Whitehill
CR11	Adjust the route to go via Solar Cycleway.

Establishing Infrastructure Improvements

Proposed interventions were identified through a comprehensive desktop analysis, that also considered other schemes currently at the planning stage.

A total of 204 cycling interventions were identified, which included:

- Improving route continuity, overcoming barriers and severance
- Installation of new and improved crossings for cyclists
- Provision of segregated cycle lanes (or introduction of segregation to existing facilities)
- Introduction of speed limit reductions, traffic calming and other measures to reduce motor traffic speed and dominance and promote a more comfortable cycling environment, and
- The installation of improve wayfinding signage and enhanced street lighting.

Figure 3-8 shows the location of all the interventions required to deliver a safe cycling network, while **Appendix B - Appendix D** provides more detail on location and description of interventions for each route.

It is important to note that these are high-level interventions and further study and a greater level of investigation and assessment is re-

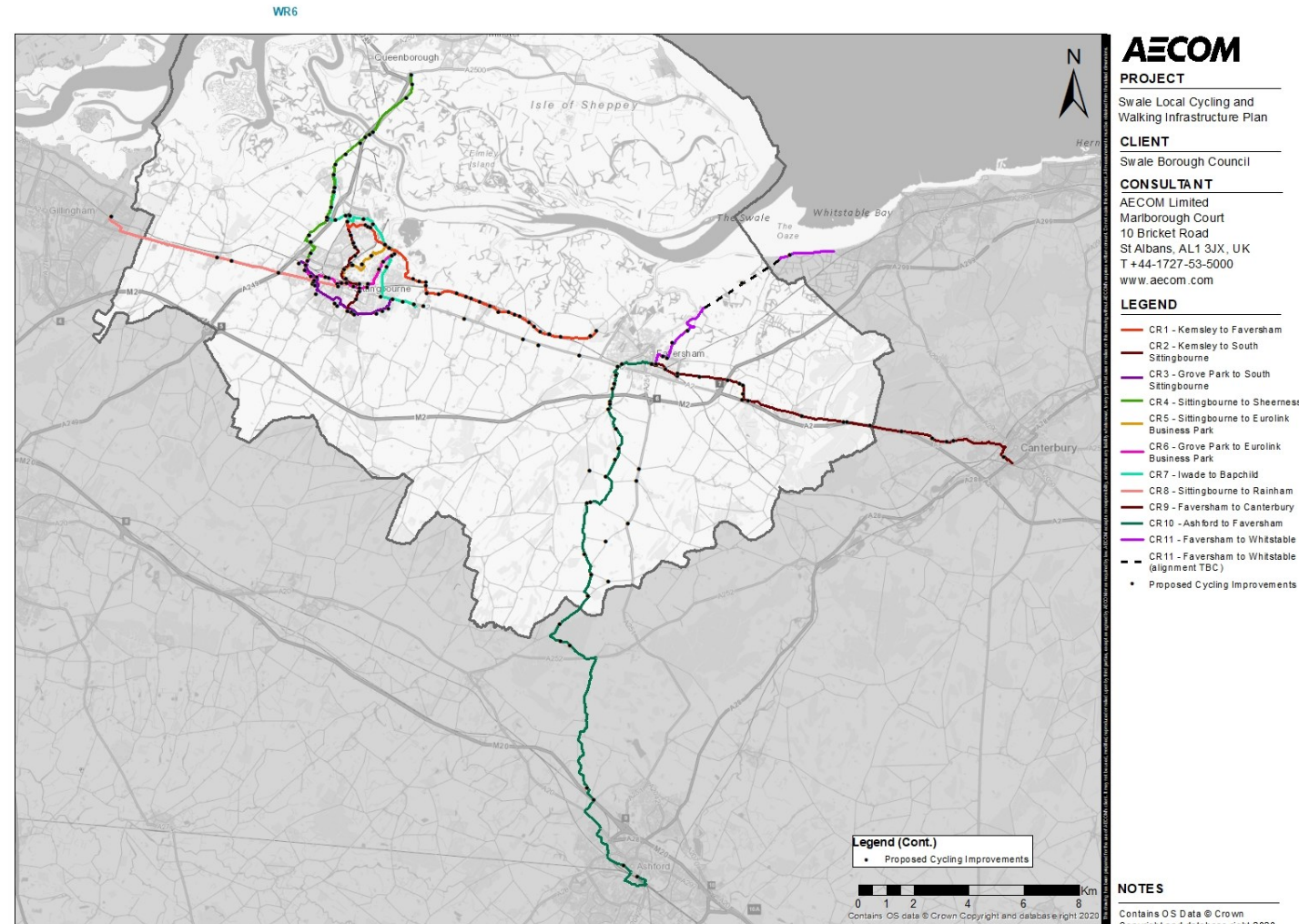


Figure 3-8 Identified Cycling Infrastructure Improvements

quired prior to design, consultation and implementation. The deliverability in terms of constraints, risks and costs for multiple options are all important considerations alongside the relative benefits and detriments.

Incorporating the Sheppey Towns LCWIP

Two LCWIPs were undertaken simultaneously across Swale in 2023 and 2024. One was the Swale borough-wide LCWIP (detailed in this report), while the other focused on the Isle of Sheppey. The Swale LCWIP identified distinct walking, wheeling, and cycling routes and improvements, whereas the Sheppey Towns LCWIP proposed combined active travel routes for walking and cycling.

Prior to public consultation, the Sheppey Towns LCWIP was merged into the Swale LCWIP to streamline the documents and present a coherent active travel network across the borough. As a result, the cycling network and interventions being consulted on by the public now reflect this combined approach.

The active travel routes identified as part of the Sheppey Towns LCWIP can be seen in **Appendix C and Appendix F**.

04

Stage 4: Network Planning for Walking

Stage 4: Network Planning for Walking

Introduction

This section outlines the steps followed to map the future walking network, as defined by the DfT Local Cycling and Walking Infrastructure Plans guidance, and shown in Figure 4-1. This iterative process incorporated current and future trip generators, walking patterns, the existing and planned active travel network, and feedback from key stakeholders.

This section details the identification of the initial routes for further development, aiming to encourage short trips to be made on foot rather than by car. Stakeholder engagement helped address local daily travel needs and define the final network. High-level interventions along the final walking routes are presented at the end of this section.

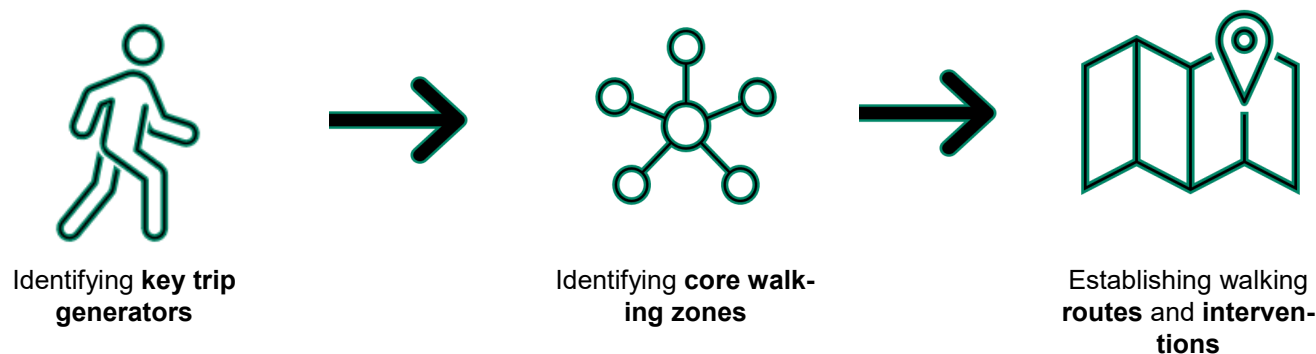


Figure 4-1: Summary of Walking Network Generation Stages

Key Trip Generators

Developing the walking network involved mapping the key walking trip generators to allow the identification of origin and destination points. This stage focuses on the key sites which generate significant pedestrian demand among the high number of destinations across Swale. The key trip generators can be seen in Figure 4-2. These included:

- Education sites with over 500 pupils
- Town centres
- Healthcare sites
- Retail sites
- Employment sites
- Community/ Leisure sites
- Key transport interchanges
- Planned/ committed developments

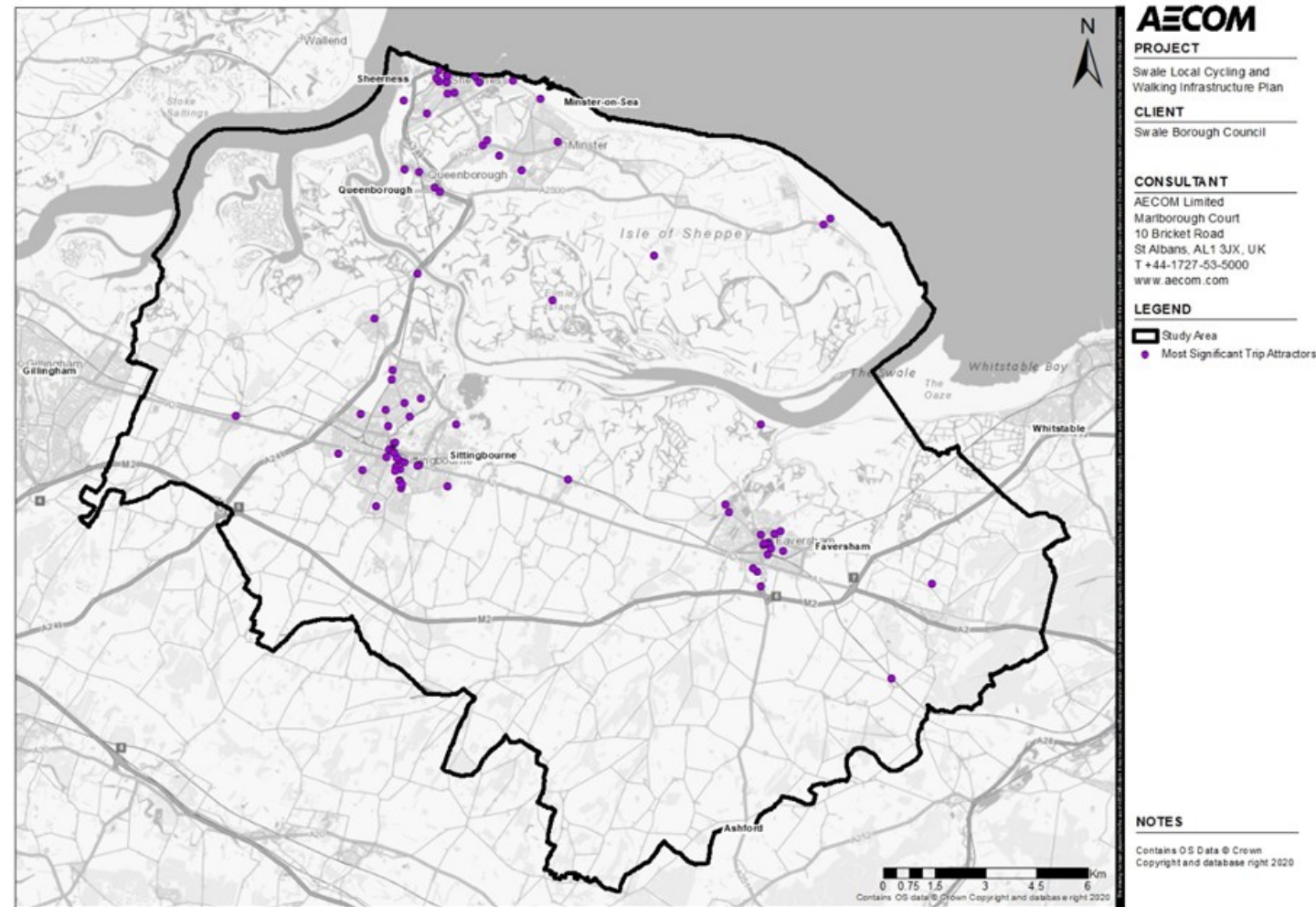


Figure 4-2 Significant Trip Attractors Across Swale

Walking Zones

After identifying and mapping the key trip generators, walking isochrones representing an approximate 15-minute walk were drawn around each destination. The number of overlapping isochrones was then analysed to determine the areas with the highest density of key destinations. Core walking zones (CWZ) (400m buffers) and walking zones (2km buffers) were established around areas with multiple overlapping key destinations. The outcome of this analysis is shown in Figure 4-3.

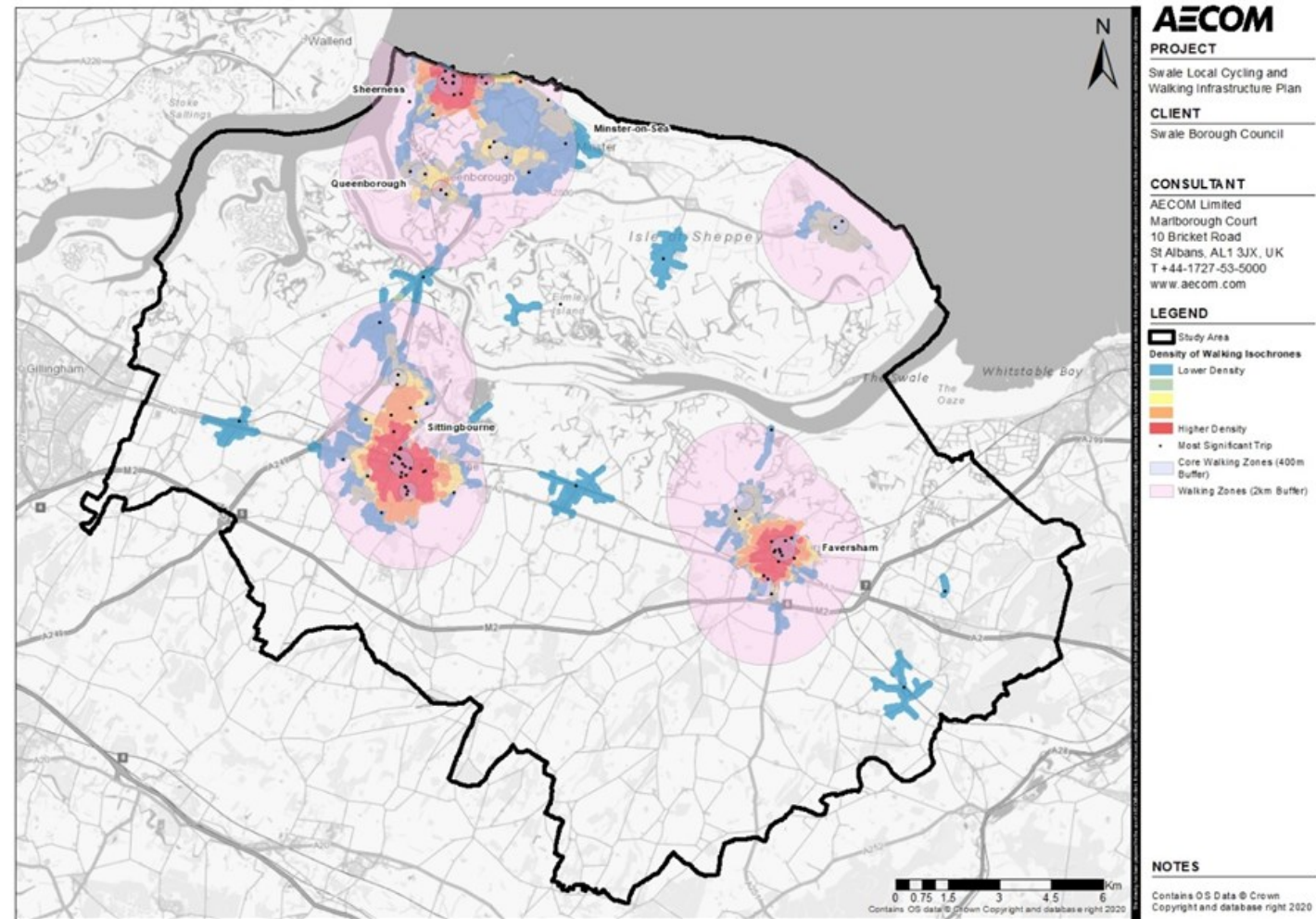


Figure 4-3 Density of Key Trip Attractors in Walking Distance (Isochrones) in Swale

As Figure 4-4 illustrates, walking zones were identified in Faversham, Sittingbourne, and on the Isle of Sheppey. The walking zones in Sittingbourne and Leysdown were taken forward to the route selection process because there is an existing LCWIP in Faversham, and there are several planned or ongoing active travel schemes aimed at connecting the Sheppey Towns and improving active travel infrastructure in this study area. This Swale LCWIP will complement the already proposed schemes in Faversham and the Sheppey Towns.

Route Selection

Converting the CWZs into routes for inclusion in LCWIPs is an iterative process and, along with the route selection for cycling routes, is one of the most important elements of the LCWIP process. The key aim was to identify walking routes that meet core design outcomes to create a coherent, direct, safe, comfortable, and attractive walking network. These routes should link to the existing walking network and connect the key destinations identified in the previous stage.

The identified CWZs, along with the existing walking infrastructure serving them within the 2km buffer zones, were taken into consideration to identify walking routes that would bridge gaps in the existing network and create a continuous and seamless walking network.

The routes were developed from data analysis conducted up to this point, informed by vari-

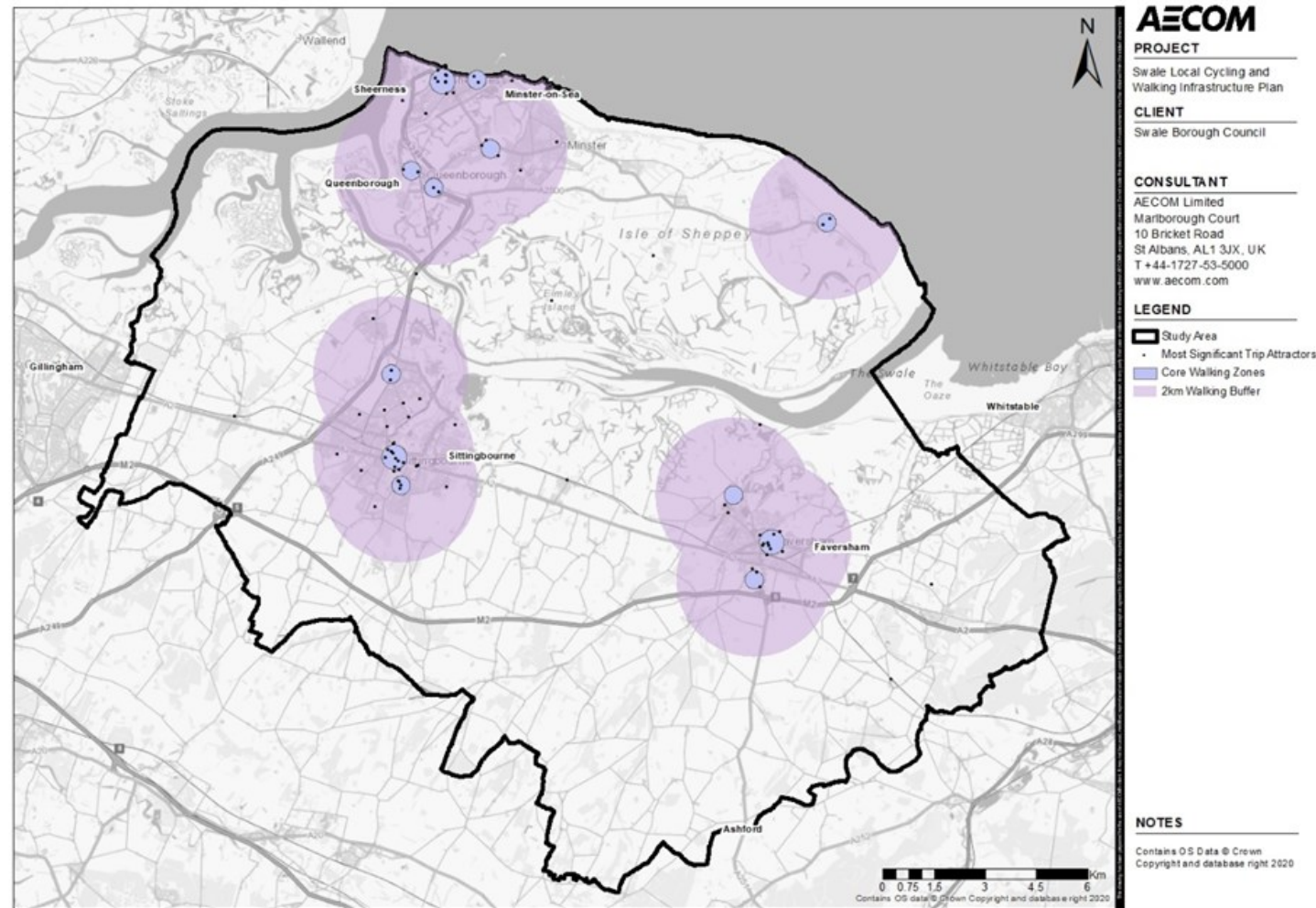


Figure 4-4 Walking Zones Across Swale

ous data sources, such as the existing active travel network and Google Maps data. They also aligned with Kent County Council's Public Rights of Way (PRoW) Improvement Plan [13].

[13] https://www.kent.gov.uk/__data/assets/pdf_file/0005/90491/Rights-of-Way-Improvement-Plan-2018-2028.pdf

Identified Network

The identified network is shown in Figure 4-5 and the alignment of each route is described below.

WR1 – Shellness to Warden: This route connects Shellness to Warden via Leysdown-on-Sea. It utilises PRowS north from Shellness, largely following the coastal path before connecting into Leysdown-on-Sea where it utilises on-road routes.

WR2 – Sittingbourne Station to SW Sittingbourne Developments: This route connects Sittingbourne station with the significant planned development in south-west Sittingbourne via Westlands Primary school. This route provides a crucial connection across the A2 for pedestrians

WR3 –Sittingbourne Station to East Sittingbourne: This route connects Sittingbourne station to the planned development to the east of Sittingbourne. It routes via the A2 from the station, continuing along Shortlands Road, making use of the PRowS which connect to Peel Drive to provide a lower-traffic alternative to using the A2. An additional arm of this route was added to provide a valuable north-south connection across the A2 and south through Rectory Playing Field.

WR4 –Sittingbourne Station to Eurolink Business Park: This route connects the station with the Eurolink Business Park, which is

a major employment site. This route follows the A2 before going north under railway, then utilising the B2005 at which point it follows connects to Swale Way at the Castle Road roundabout where it connects into a PRow between East Hall Wood and Murston. This route provides a direct route for pedestrian exiting the station and accessing Eurolink Business Park as well as connecting to PRowS north of Sittingbourne, creating an overall more connected network.

WR5 – Central Sittingbourne to East Sittingbourne: This route connects Sittingbourne station witheast Sittingbourne. Its core aim is to be direct and coherent to encourage mode shift. It connects the station with Borden Grammar School and South Avenue Primary School runs just north of the Sittingbourne School and Meadowfield School. Crucially, this route connects to Route 3 and Route 6 to contribute to creating a more connected network across Sittingbourne.

WR6 – SW Sittingbourne Developments to East Sittingbourne: This route connects the significant planned development in SW Sittingbourne with east Sittingbourne using a direct east-west alignment. This route connects five schools: Meadowfield School, Westlands Primary School, Highstead Grammar School, Fulston Manor School and The Sittingbourne School. Additionally, this route connects to Route 2, Route 7 and Route 5.

WR7 – South Sittingbourne to Milton Creek Country Park: Connecting south Sittingbourne to Milton Creek Country Park, creating a valuable north-south walking route across Sittingbourne. The route connects Fulston Manor School, Highsted Grammar School and Regis Manor Primary School to Sittingbourne Station, as well as providing an additional pedestrian connection across the A2. The Primary alignment follows Hawthorn Road and the Alternative alignment utilises PRowS to connect Dover Street with Jubilee Street.

WR8 – Kemsley to Eurolink Business Park: This route connects Kemsley Station to Eurolink Business Park via Milton Creek Country Park. This will create a valuable, mostly off-road, direct connection between the station and the significant employment site of Milton Creek Country Park.

WR9 – NW Sittingbourne Development to Sittingbourne Sittingbourne Station: This route connects the planned development in NW Sittingbourne to Sittingbourne Station providing a valuable, direction connection between the origin and destination points. It connects Milton Coury Primary Academy/ Children's Centre as well as smaller developments in the centre of Sittingbourne.

WR10 - Kemsley to Iwade: This route connects Kemsley Station through two significant planned developments. It routes over the A249 junction (which will be upgraded in line

with the Swale Improvement Plan [14]), connecting to the south of Iwade via a PRow. Lastly, it routes through Iwade, ending at the PRow on School Lane.

WR11 – Kemsley to Sittingbourne Station: This route connects Kemsley to Sittingbourne Station via Mill Way. It is a crucial north-south, direct connection between Kemsley and central Sittingbourne which also connects to smaller planned developments. This route forms a crucial part of the wider network, removing barriers to walking along this car-dominated stretch of road.

WR12 – North to South Murston: This route provides a walking connection from north Murston to South Murston, which is a significant growth site in Sittingbourne. This route connects to Route 4 to the north and Route 3 to the south.

WR13 - West Sittingbourne to Sittingbourne Station: This route connects west Sittingbourne with Sittingbourne Station via a number of smaller developments in central Sittingbourne and Chalkwell. It provides a valuable crossing across the railway line, connects to Aspire School and the Meads Community Woodland. Whilst this route is not the most direct alignment between the origin and destination points, it passes through a number of populated areas within Sittingbourne, connects to other routes which form the network and its length means that it can be picked up at a number of different points.

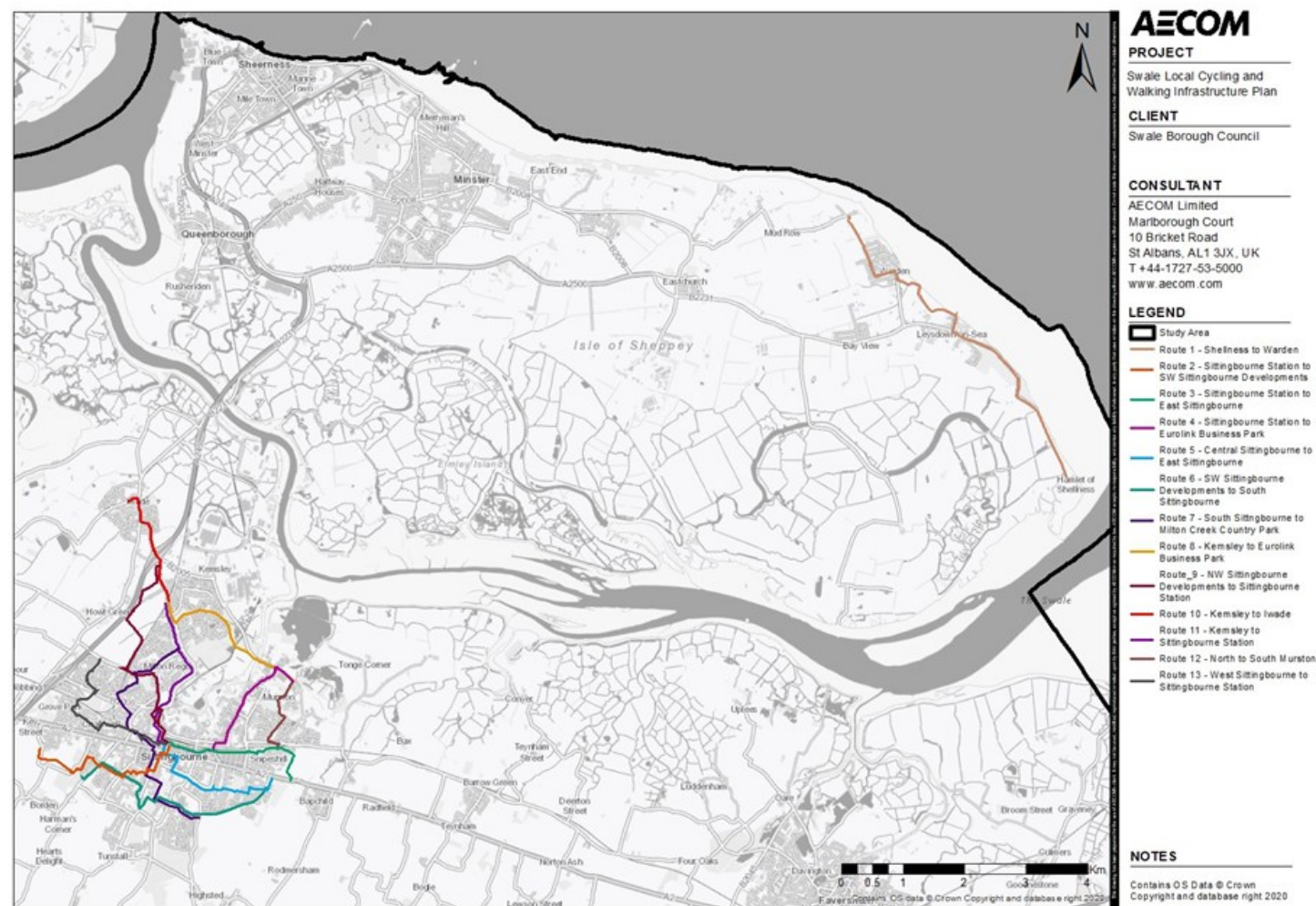


Figure 4-5 Identified Walking Network

WR14 - Iwade to Swale Station: This route connects WR10 in Iwade to the Sheppey Towns LCWIP network at Swale station. It makes use of PRows running adjacent to Sheppey Way, providing a crucial off-road walking connection with the Isle of Sheppey.

[14] https://www.kent.gov.uk/__data/assets/pdf_file/0005/90491/Rights-of-Way-Improvement-Plan-2018-2028.pdf

Stakeholder Engagement

The identified walking network, shown in Figure 4-5, was presented to local stakeholders. The meeting provided a platform to gather the stakeholders’ opinion on the identified network.

Overall, the stakeholders welcomed the identified walking routes and used their local knowledge to make some suggestions such as altering the alignment of proposed routes or ensuring the proposed improvements contribute to creating safer, more direct walking routes. The comments received from stakeholders are summarised in Table 4-1.

Figure 4-6 illustrates the updated proposed walking network, incorporating feedback from the stakeholder engagement workshop.

Following the decision to merge the Swale LCWIP and Sheppey Towns LCWIP (see Chapter 5), only the ‘primary’ routes will be taken forward to public consultation to manage the number of routes for feedback.

Table 4-1: Summary of Stakeholder Feedback

Walking Route	Stakeholder Comment
WR3	Consideration of lighting and air pollution along this route as lots of children going to school would use this. Add additional arm south across the A2 to facilitate the number of school children using this route.
WR6	This route goes through a more affluent area - ensure the network covers less affluent areas too. Proposed alternative alignment between Homewood Avenue and Capel Road via Connught Road.
WR7	Improvement to underpass needed. Alternative alignment suggested to avoid the underpass – uses Hawthorn Road between the A2 and Chalkwell Road.
WR9	This is primarily a car route - if an alternative route is available, this would be favoured. Proposed a small amendment to the route at St Pauls.
WR10	Proposed alternative route through Iwade which links the new development to Grovehurst roundabout.
WR12	Proposed an additional ending to the route which extends to Gas Road.

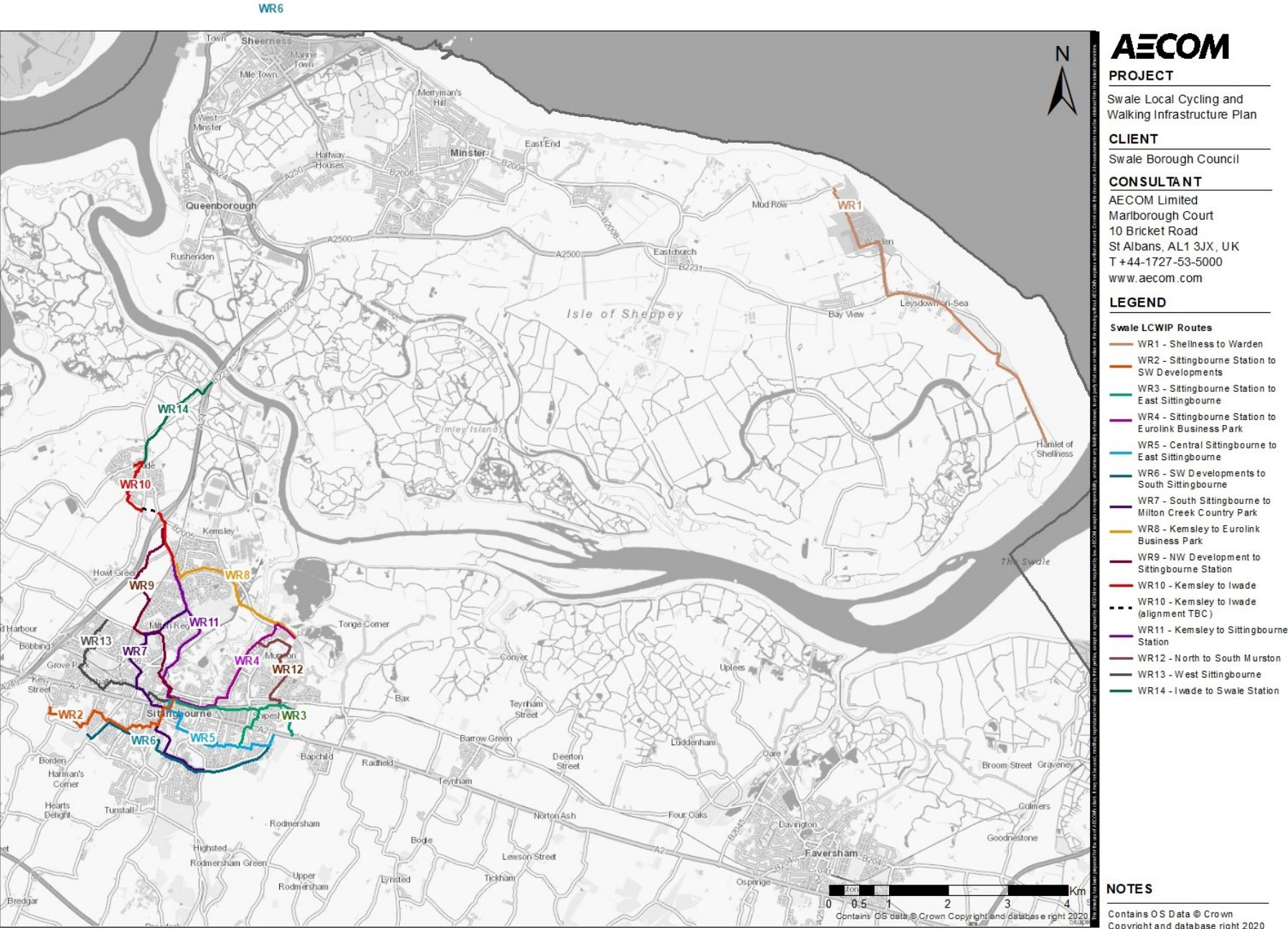


Figure 4-6 Proposed Walking Network Following Stakeholder Engagement

Establishing Infrastructure Improvements

Proposed interventions were identified through a comprehensive desktop analysis, that also considered other schemes currently at the planning stage.

A total of 200 walking interventions were identified, which included:

- Improving route continuity and level of provision, including overcoming barriers and severance to pedestrian movement along the identified routes
- Installation of new and improved pedestrian crossings, including upgrading uncontrolled crossings to controlled crossings and introducing pedestrian priority at key locations, and
- Implementation of an appropriate way-finding system.

Figure 4-7 shows the overview of the location of all the interventions required to deliver a safe walking network, while **Appendix E** and **Appendix F** provides more detail on location and description of interventions for each route.

It is important to note that these are high-level interventions and further study and a greater level of investigation and assessment is required prior to design, consultation and implementation. The deliverability in terms of con-

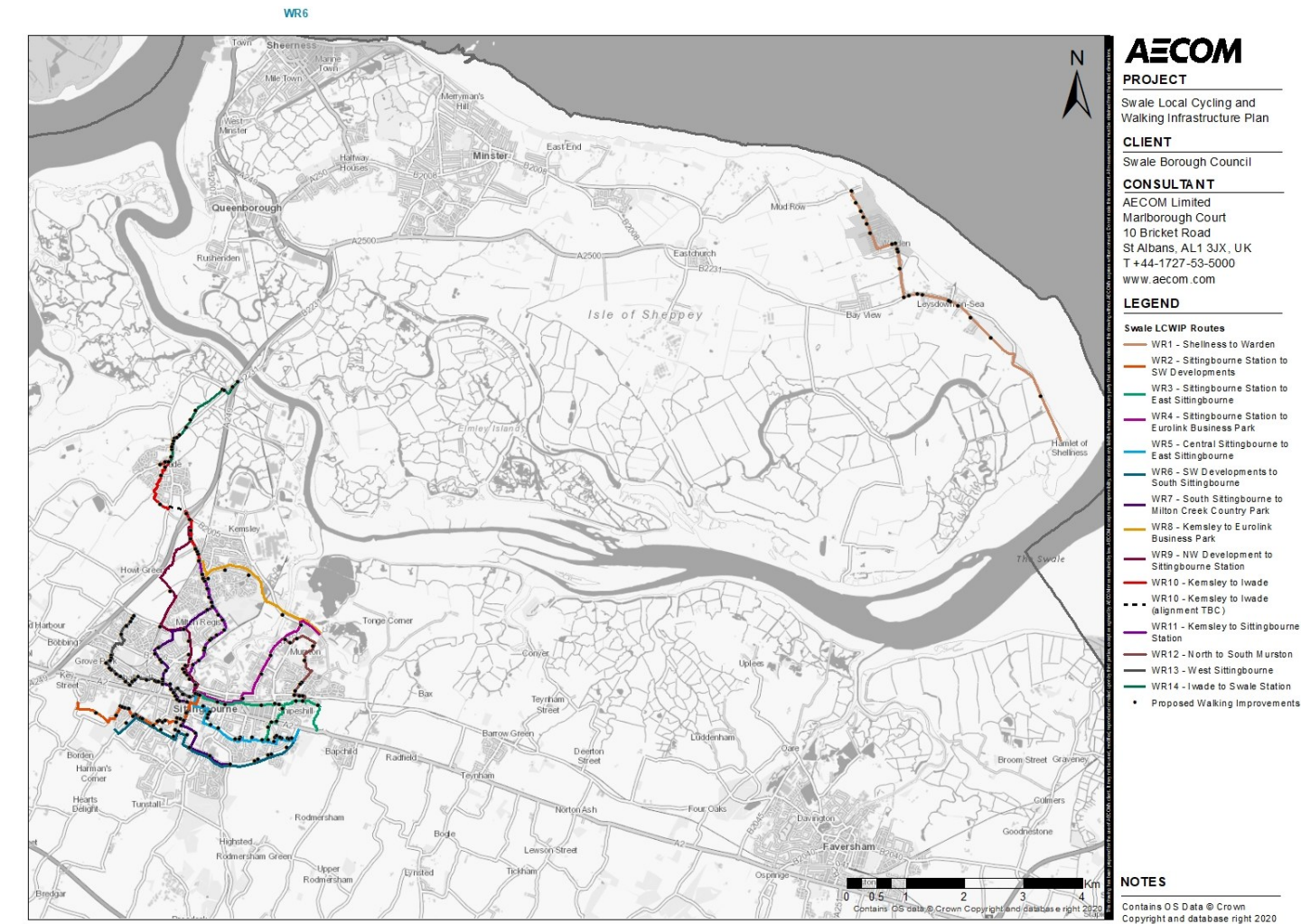


Figure 4-7 Identified Walking Infrastructure Improvements

straints, risks and costs for multiple options are all important considerations alongside the relative benefits and detriments.

Incorporating the Sheppey Towns LCWIP

Two LCWIPs were undertaken simultaneously across Swale in 2023 and 2024. One LCWIP was the Swale Borough-wide LCWIP (which has been detailed in this report) and the other focused on the Isle of Sheppey. The Swale LCWIP identified distinct walking and wheeling routes/ improvements and cycling routes/ improvements whereas the Sheppey Towns LCWIP identified combined walking and cycling active travel routes and improvements.

Similar to cycling routes, the active travel routes from Sheppey Towns LCWIP have been incorporated into the Swale LCWIP in order to streamline these two documents and put forward a coherent network of active travel routes across the Borough. The walking network and interventions which will be consulted on by the public therefore combine these two LCWIPs.

The identified active travel routes identified as part of the Sheppey Towns LCWIP can be seen in **Appendix C and Appendix F**.

05

Sheppey Towns LCWIP

Sheppey Towns LCWIP Active Travel Routes

As per the Swale LCWIP, the Sheppey Towns LCWIP was developed in line with DfT's LCWIP guidance.

The identified network can be seen in Figure 5 -1. This network, together with the identified cycling and walking networks identified through the Sheppey LCWIP will be consulted on as a Borough-wide LCWIP.

Establishing Infrastructure Improvements

Proposed interventions were identified through a comprehensive desktop analysis and route audits. Some of the identified interventions included:

- Mini-roundabout improvements;
- Major junction improvements;
- Crossing improvements; and
- Infrastructure improvements.

Appendix C and Appendix F shows the detailed routes and interventions.

Figure 5-2 and 5-3 show the LCWIP cycling and walking networks identified as part of the LCWIPs alongside the proposed active travel network across Swale. This demonstrates the interdependencies between the forthcoming active travel schemes as well as their coverage across the Borough.

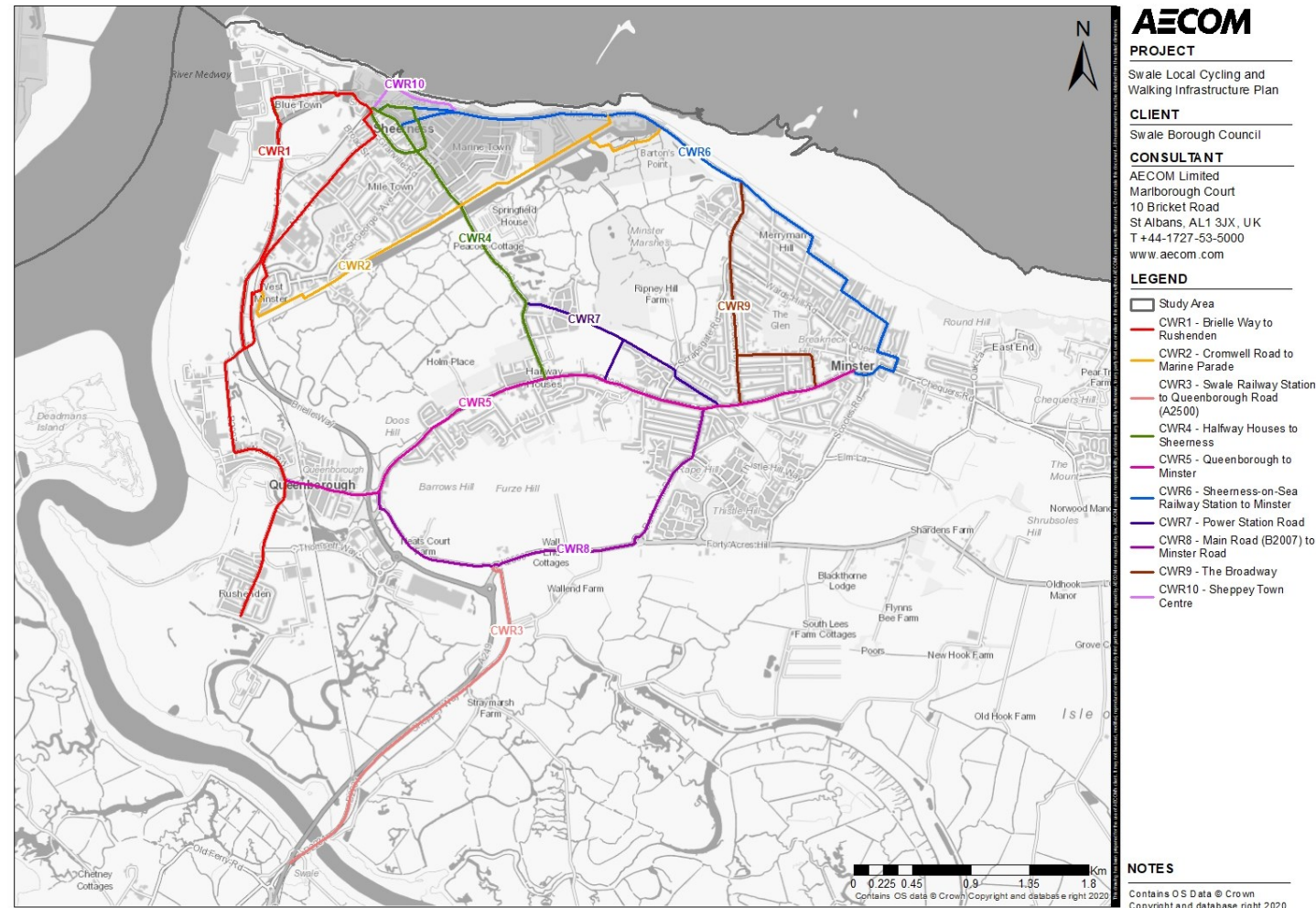


Figure 5-1 Sheppey Towns LCWIP Active Travel Routes

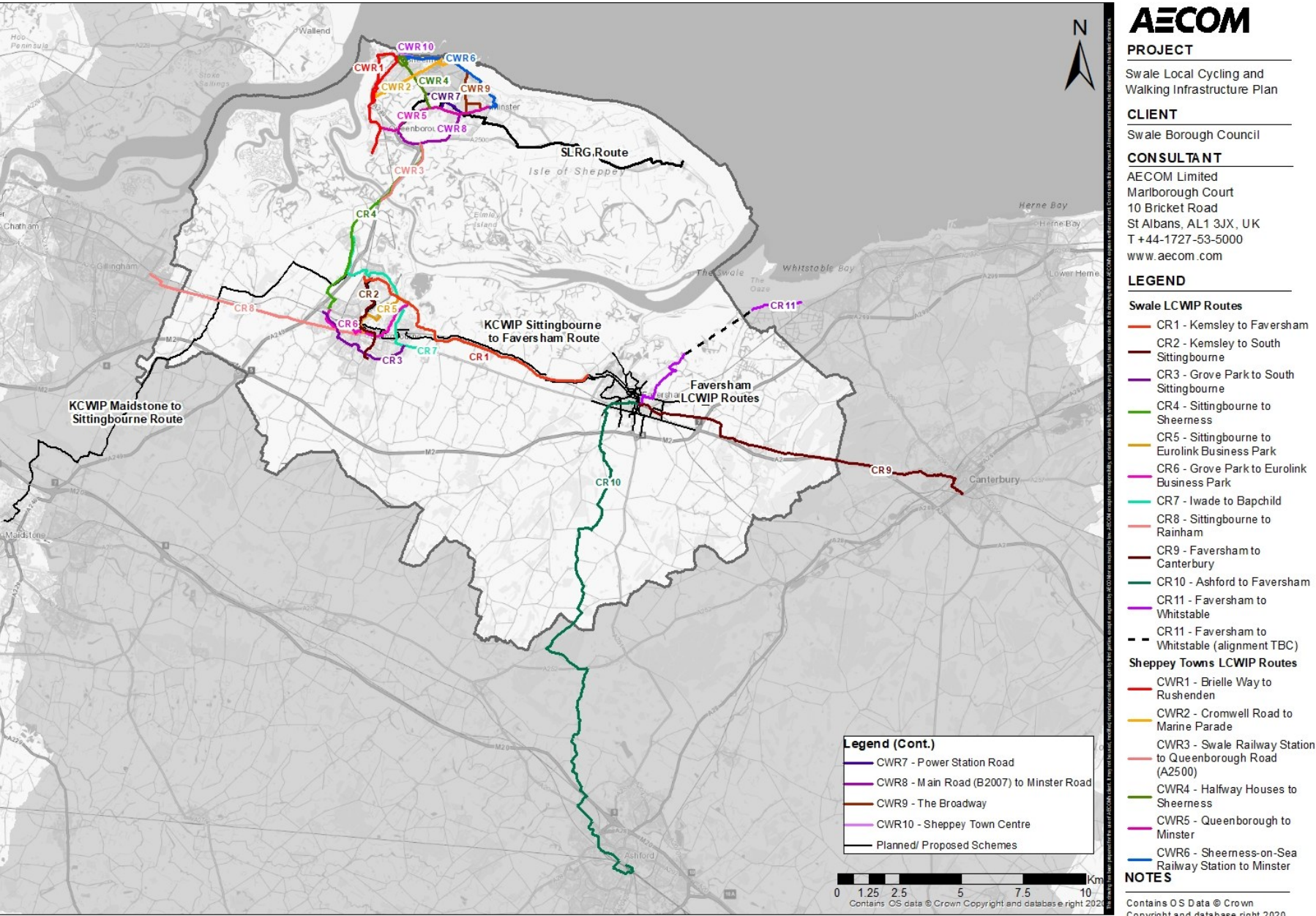


Figure 5-2 Proposed Cycling Network Across Swale

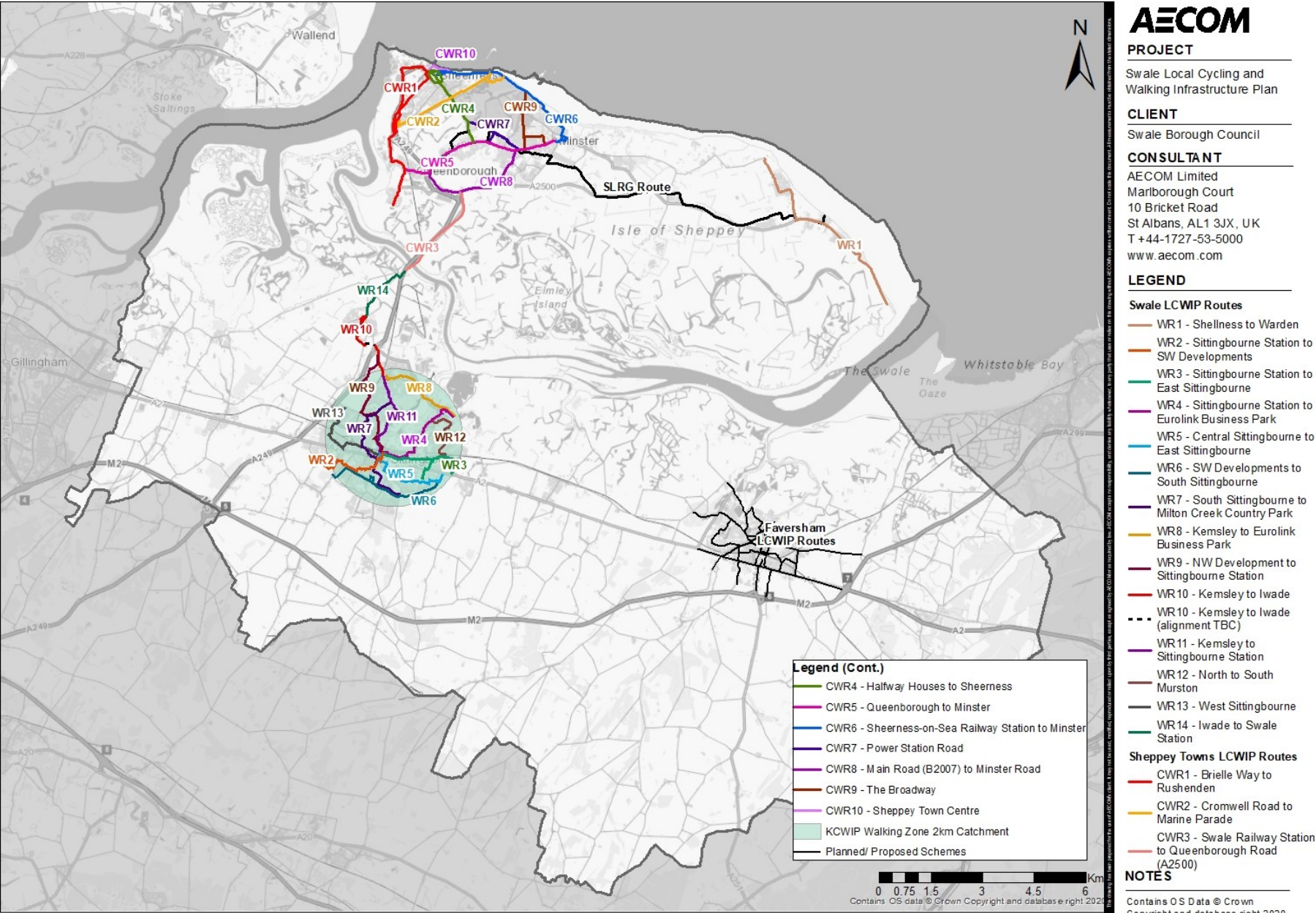


Figure 5-3 Proposed Walking Network Across Swale

06

Summary

Summary

In **Stage 2** of this report the area context was outlined in terms of its demographics, existing and future transport network, collisions, trip generators and trip patterns.

Swale is a largely rural district but has significant concentrations of population and employment in the main urban areas of Faversham, Sittingbourne as well as the towns of Minster-on-Sea, Queensborough and Sheerness on the Isle of Sheppey.

Car ownership is generally high in the more rural areas of the district, but there are relatively low levels in the urban areas.

Towards the easternmost point of the Isle of Sheppey there are also low levels of car ownership, despite its more rural composition. This area of Swale has some of the highest levels of deprivation in the country, scoring in the lowest decile on the Index of Multiple Deprivation (IMD) alongside areas of Sheerness, Faversham and Sittingbourne. As a result of the deprivation levels on the Isle of Sheppey there are two areas which are classified as 'Left-Behind Neighbourhoods'.

There are education facilities, tourist attractions, and medical care sites located across the district, but shopping, leisure and health facilities are concentrated within the urban areas.

Future housing, employment and mixed-use

developments, the largest of which is located in Sheerness, will generate considerable future traffic movements.

The current active travel and public transport network is limited outside of Faversham and Sittingbourne.

In regard to the rail network, Faversham and Sittingbourne are served by regular services into London. The Isle of Sheppey is served by a regular branch line service to Sittingbourne, but interchange is required for onward travel.

The PRoW network coverage largely aligns with areas of high population and employment density, while the Isle of Sheppey has a relatively sparse network.

The cycle network consists of the long-distance National Cycle Network routes and more local cycle routes and lanes. The local network, although more developed in urban areas, is generally limited and fragmented and the quality of provision varies significantly.

The NCN follows runs between Faversham and Sittingbourne, and north to Queensborough from Sittingbourne. This is the only significant north-south cycle connection linking the Isle of Sheppey to the rest of the district. The area of rural Swale has very limited cycling infrastructure.

Swale is relatively well-connected in terms of its Highway Network with the A2 and the M2

linking the district to the rest of Kent and London.

Collision data shows that incidents involving cyclists and pedestrians are more frequent on the strategic roads in the district, most notably the A2 and the A249, and that there are only limited incidents of collisions involving cyclists and pedestrians in urban centres.

Active travel patterns in Swale have been ascertained using the PCT tool, VISUM data, and STRAVA data. There are significant flows of walking and cycling within urban areas in the district but PCT data suggests that there are presently limited numbers of inter-urban cycle trips for commuting purposes.

STRAVA data points to greater levels of cycling on inter-urban routes for leisure purposes. Future year PCT and VISUM scenarios indicate that there is potential for modal shift to occur for commuting trips of all lengths.

Cycling (Stage 4) and Walking (Stage 5) networks were developed, through an iterative process that considered current and future trip generators, future development and planned active travel schemes, as well as the local knowledge of key stakeholders. Interventions were identified along the proposed to create a safe, accessible and attractive environment for walking and cycling in Swale.

At this stage, the Sheppey Towns LCWIP active travel network and interventions were

incorporated into the Swale LCWIP to ensure these two schemes were aligned and the forthcoming network was coherent. Subsequent stages of the Swale LCWIP such as public engagement and integration and application will refer to the Swale LCWIP, which incorporates the Sheppey Towns LCWIP.

progress made with its implementation and to apply any necessary adjustments.

Next Steps

At the next stage, public consultation will be conducted to ensure the proposed networks address the needs and concerns of local residents, the future users.

For the realistic and practical implementation of the plan, the walking and cycling routes will be assessed and prioritised based on policy, strategy, deliverability and financial priorities. The result of this process will suggest which routes should be prioritised in order to achieve the most benefits.

Once the proposed routes and interventions have been sorted into short, medium and long term priorities, the schemes will undergo additional assessments such as concept design or feasibility design to better understand how these schemes might look on the ground.

The LCWIP is a live, 10-year document and to ensure it remains relevant and aligned with future policies and strategies, it is important that it is reviewed and updated frequently. Frequent reviews will help to reflect on the





Appendix A - Origin and Destination Clusters

Origin and Destination Clusters

Origin	
Cluster Name	Comment
Bapchild	Large strategic growth site
Borden	High population density, strategic growth site
Boughton	High population density
Bysing Wood	High population density, strategic growth site
Central Sittingbourne	High population density, strategic growth site, rail station
Davington	High population density
Faversham East	High population density, Faversham rail station
Faversham North	High population density, strategic growth site
Faversham South	High population density, strategic growth site
Faversham West	High population density
Grove Park	High population density
Halfway Houses	Strategic growth site
Iwade	Large strategic growth site
Kemsley Developments	High population density, strategic growth site, rail station
Marine Town	High population density
Merryman's Town	High population density
Minster on Sea	High population density, development site
Newington	Strategic growth site, rail station
Preston Developments	High population density, strategic growth site
Queenborough	Strategic growth site, rail station
Selling	Rail station, local village
Snipeshill	High population density
South-West Minster	High population density, development site
Teynham	High population density, Teynham rail station
Upchurch	High population density
Warden	High population density

Destination	
Cluster Name	Comment
Central Faversham Business Areas	High employment density area including BMM Weston and Shepherd Neame
Chalkwell/Westlands School	High employment density, Major school, key employment hub
Eastchurch	Local centre with GP, key school etc.
Eurolink Business Park	High employment density, key employment hubs.
Faversham Town Centre	Town centre, employment density, hospital and other attractors including Faversham Cottage Hospital
GIST SN Distribution GX0 Plus	Key employment hub
Halfway Houses	Major schools, Local Centre
HMP Swaleside and Eastchurch Aviation	Key employment hub and tourist attraction
Kemsley Industrial Areas	High employment density, key employment hubs, strategic growth site
Kent Science Park	Key employment hub
Leysdown	Leysdown high-street, local centre, beach, school
London Road Industrial Parks	Two proximate key employment hubs
Milton Regis	Key schools, GPs, other trip attractors, high employment density
Minster	Minster abbey, key schools
Mount Ephraim	Key tourist site
North Faversham	High employment density, Brents Industrial Estate, Education sites inc major school
Queensborough Industrial Areas	Key employment hubs
Sheerness Industrial Areas	Key employment hubs
Sheerness Town Centre	Key local centre, schools, GPs, other trip attractors, Sheppey College
Sittingbourne Retail Park	Key employment hubs, major retail park
Sittingbourne South	Major schools, high employment density, key retail sites, hospital
Sittingbourne Town Centre	High employment density, key retail site, major local centre
Snipeshill	Key education area with several large schools
Teynham	Key employment hub and education sites
Thistle Hill	GP, hospital, schools



Appendix B - Sittingbourne Cycling Routes and Interventions

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Swale Local Cycling and Walking Infrastructure Plan

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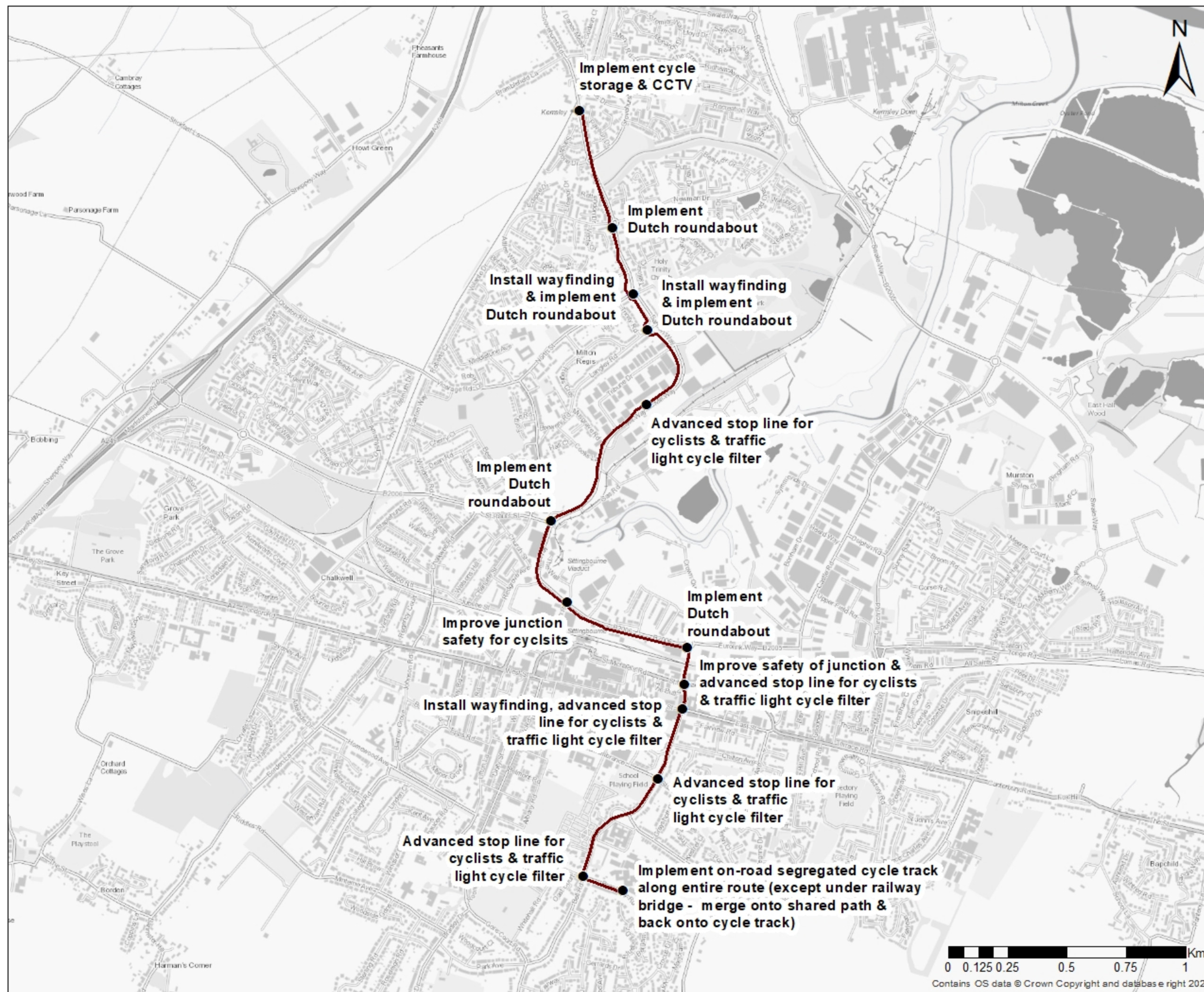
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LEGEND

- Study Area
- Route 2 - Kemsley to South Sittingbourne
- Cycling Interventions



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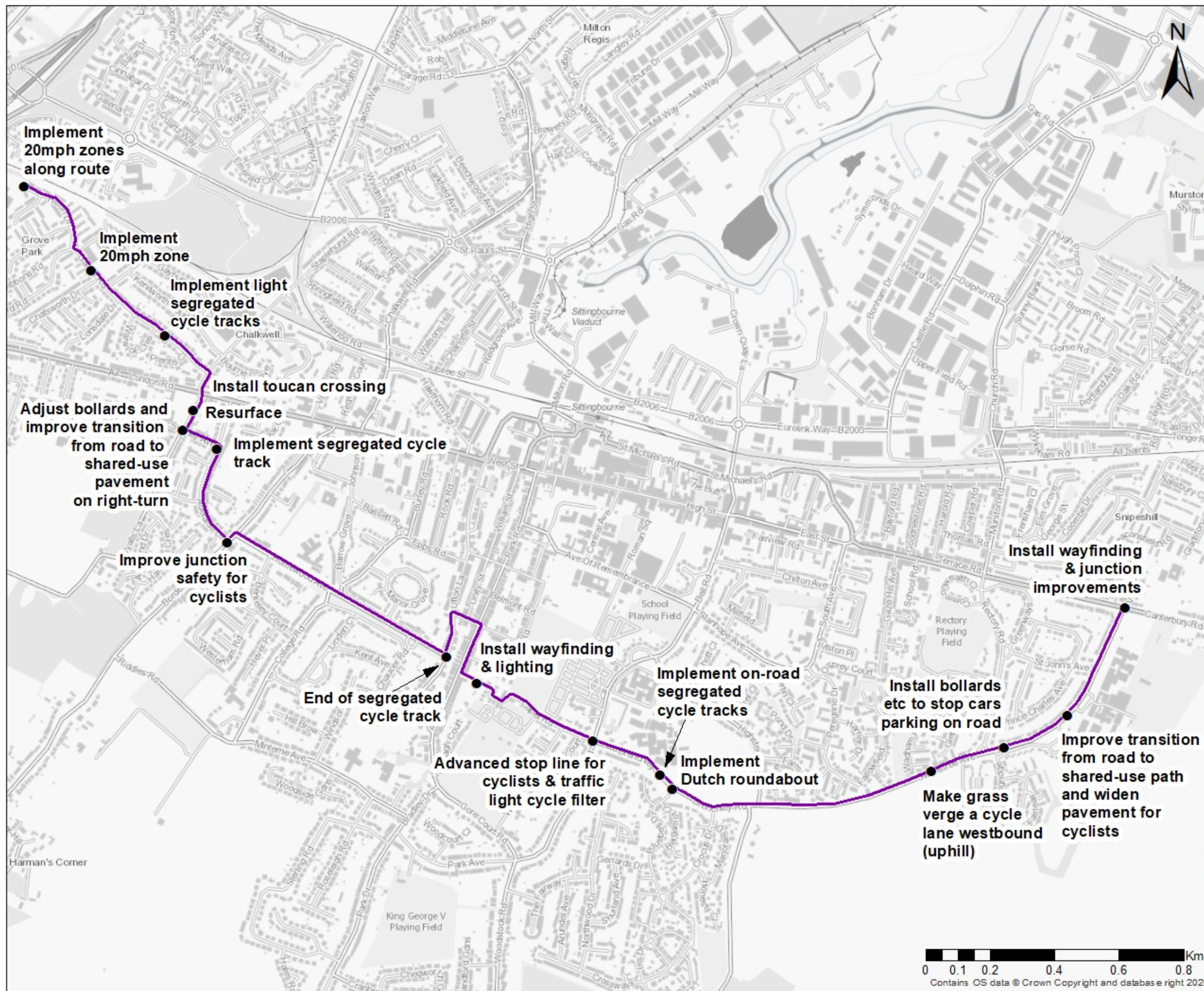
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-  Route 3 - Grove Park to South Sittingbourne
-  Cycling Interventions






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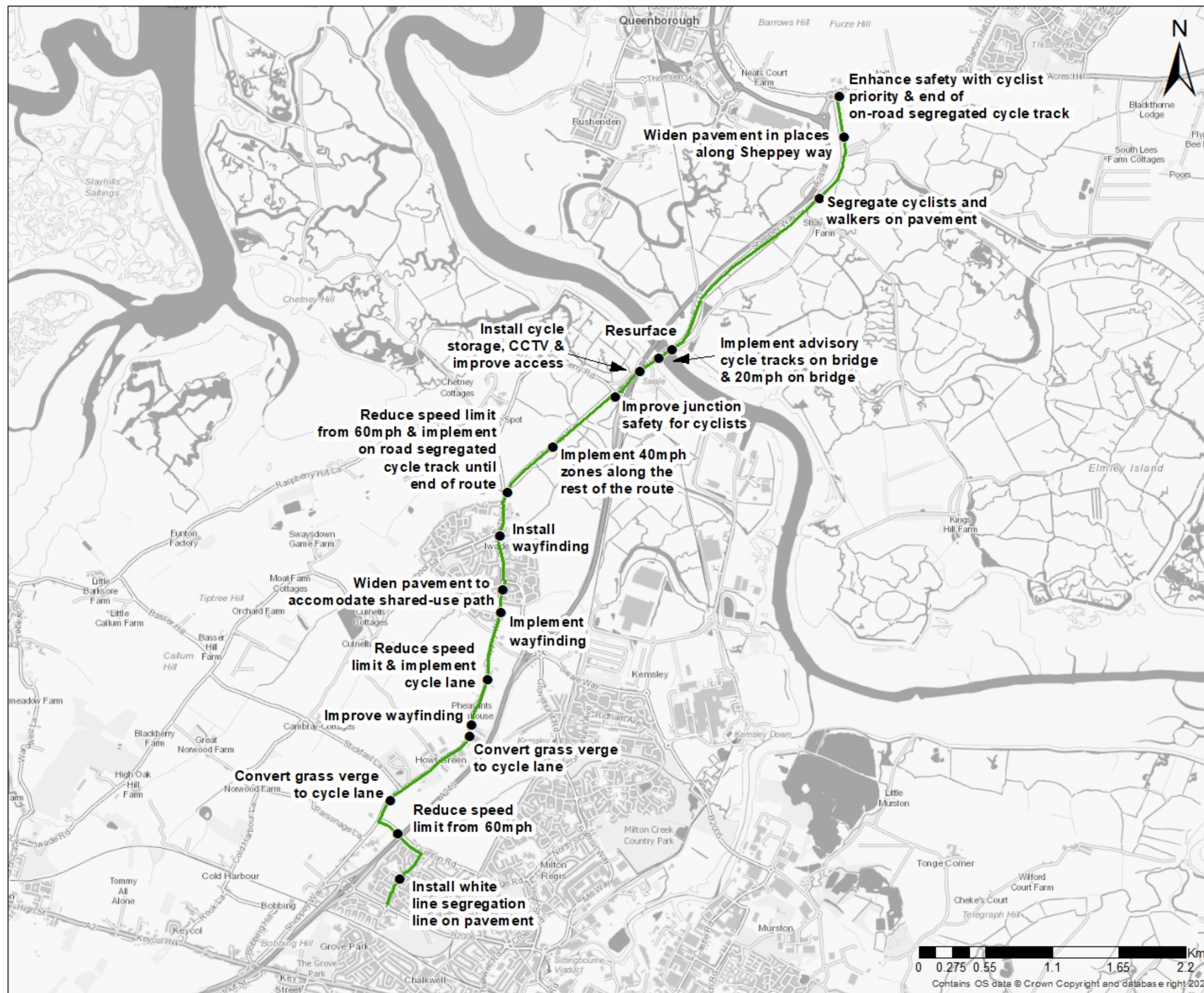
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-  Study Area
-  Route 4 - Sittingbourne to Sheerness
-  Cycling Interventions

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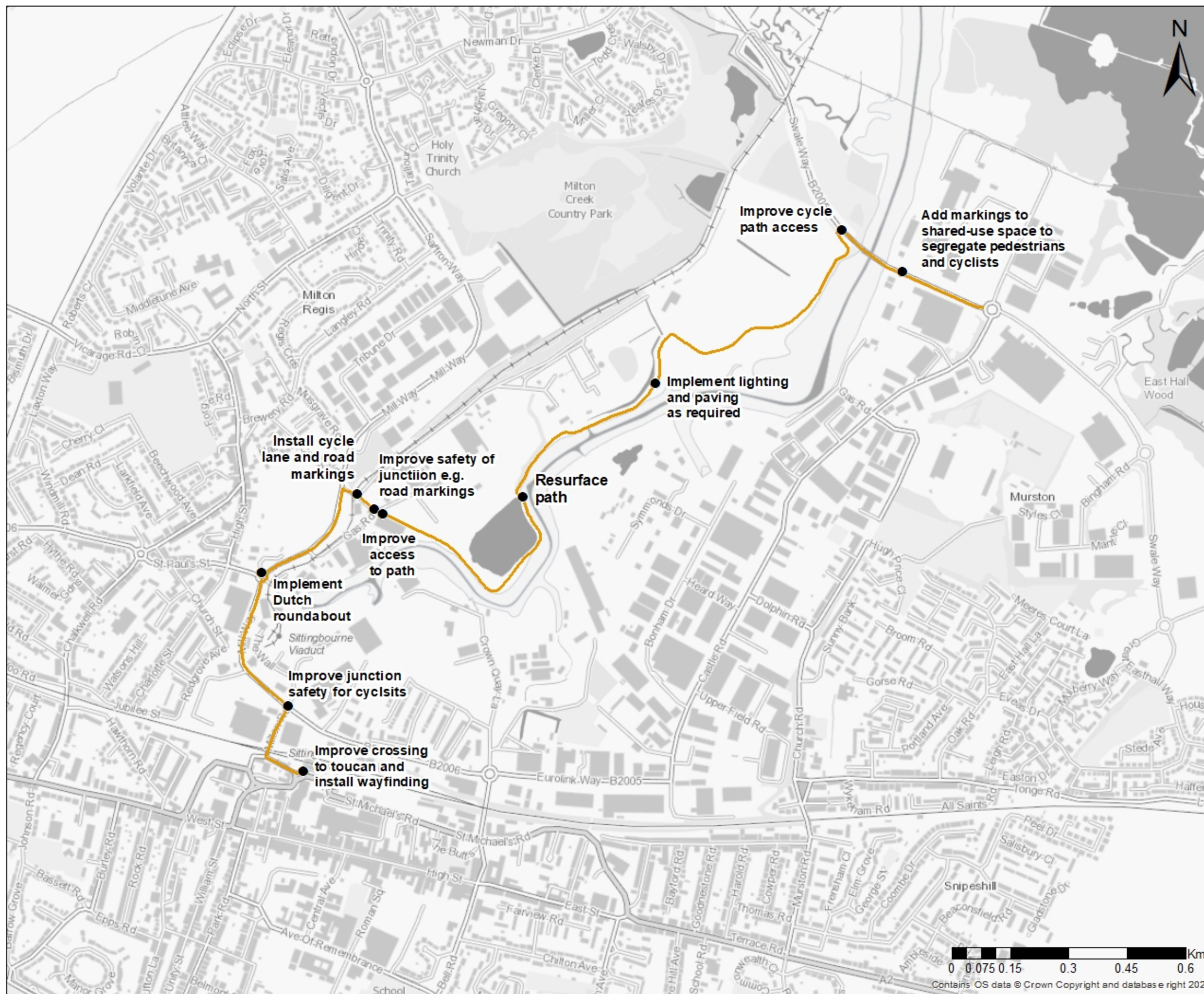
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-  Study Area
-  Route 5 - Sittingbourne to Eurolink Business Park
-  Cycling Interventions



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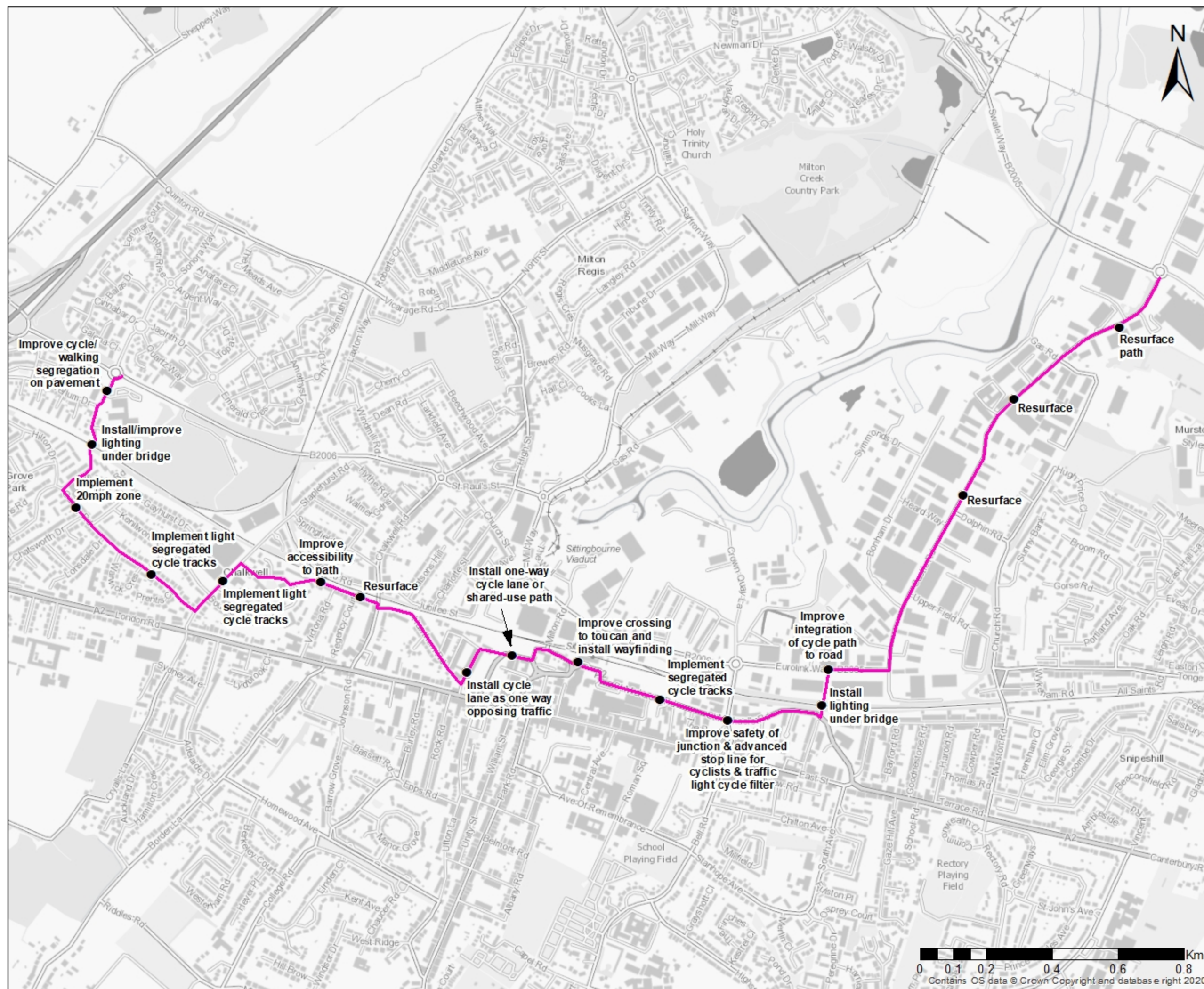
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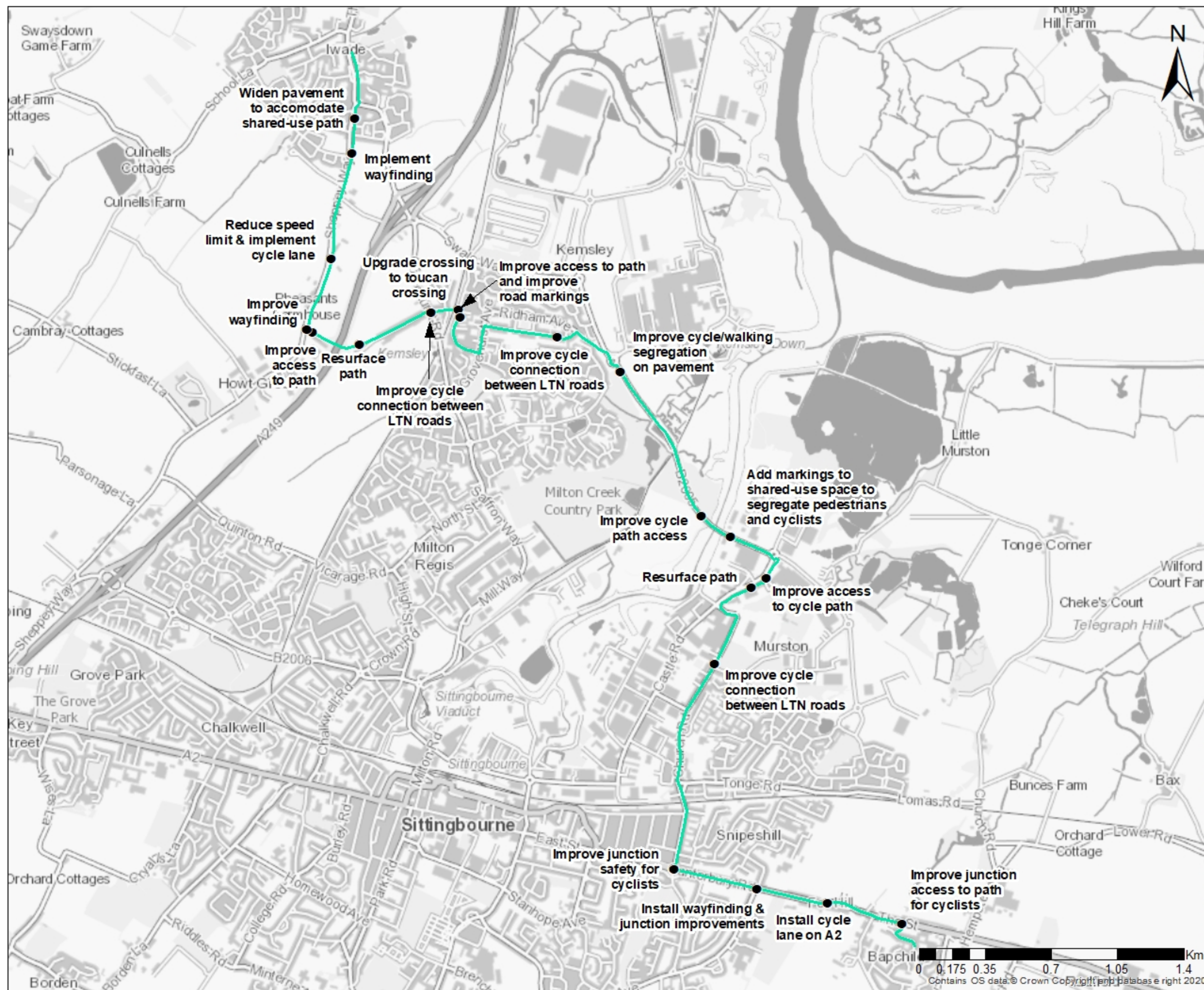
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- Route 6 - Grove Park to Eurolink Business Park
- Cycling Interventions



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LEGEND

- Route 7 - Iwade to Bapchild
- Cycling Interventions

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Appendix C - Isle of Sheppey Cycling Active Travel Routes and Interventions

The Broadway

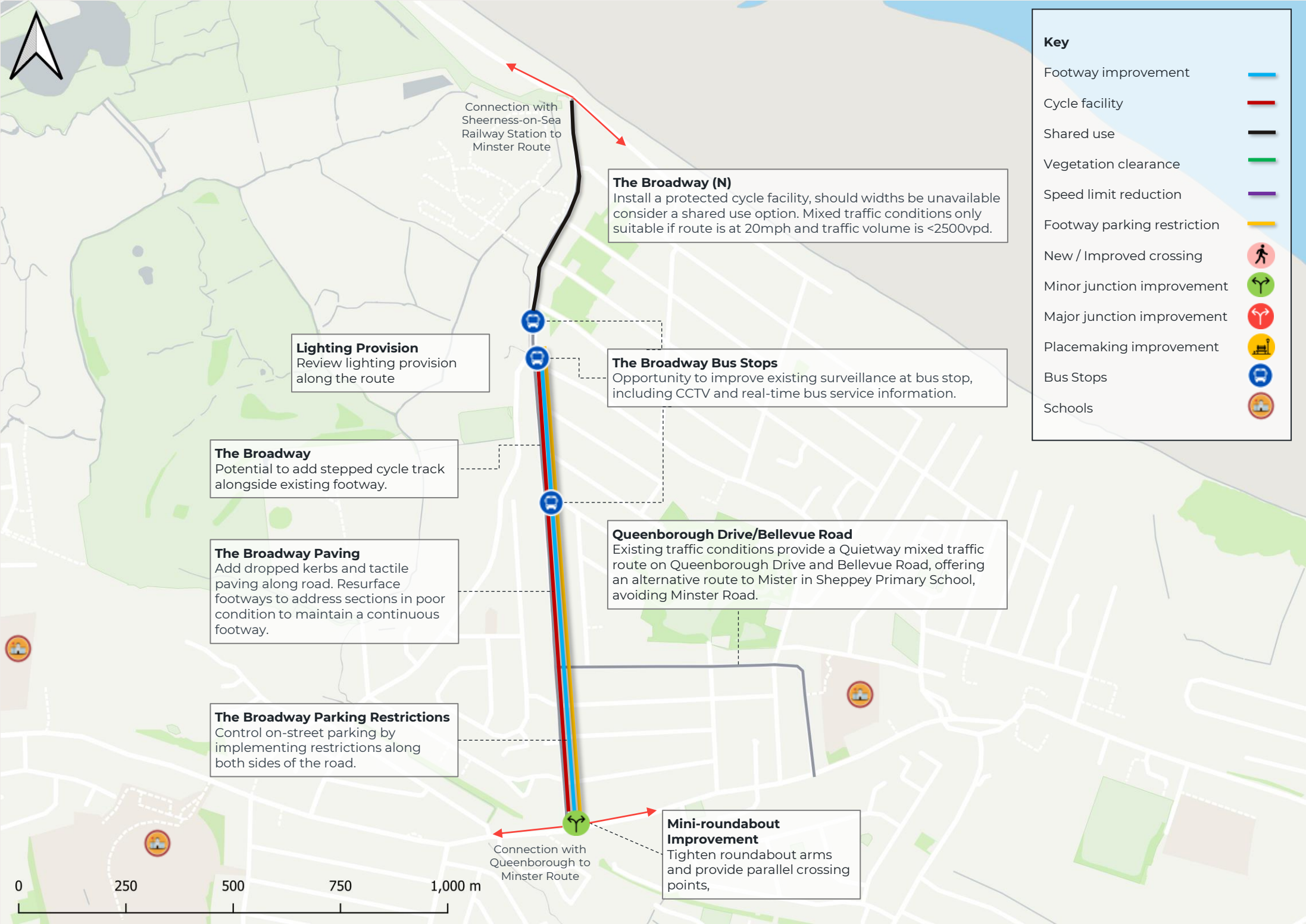


Figure 50 : The Broadway

Main Road (B2007) to Minster Road

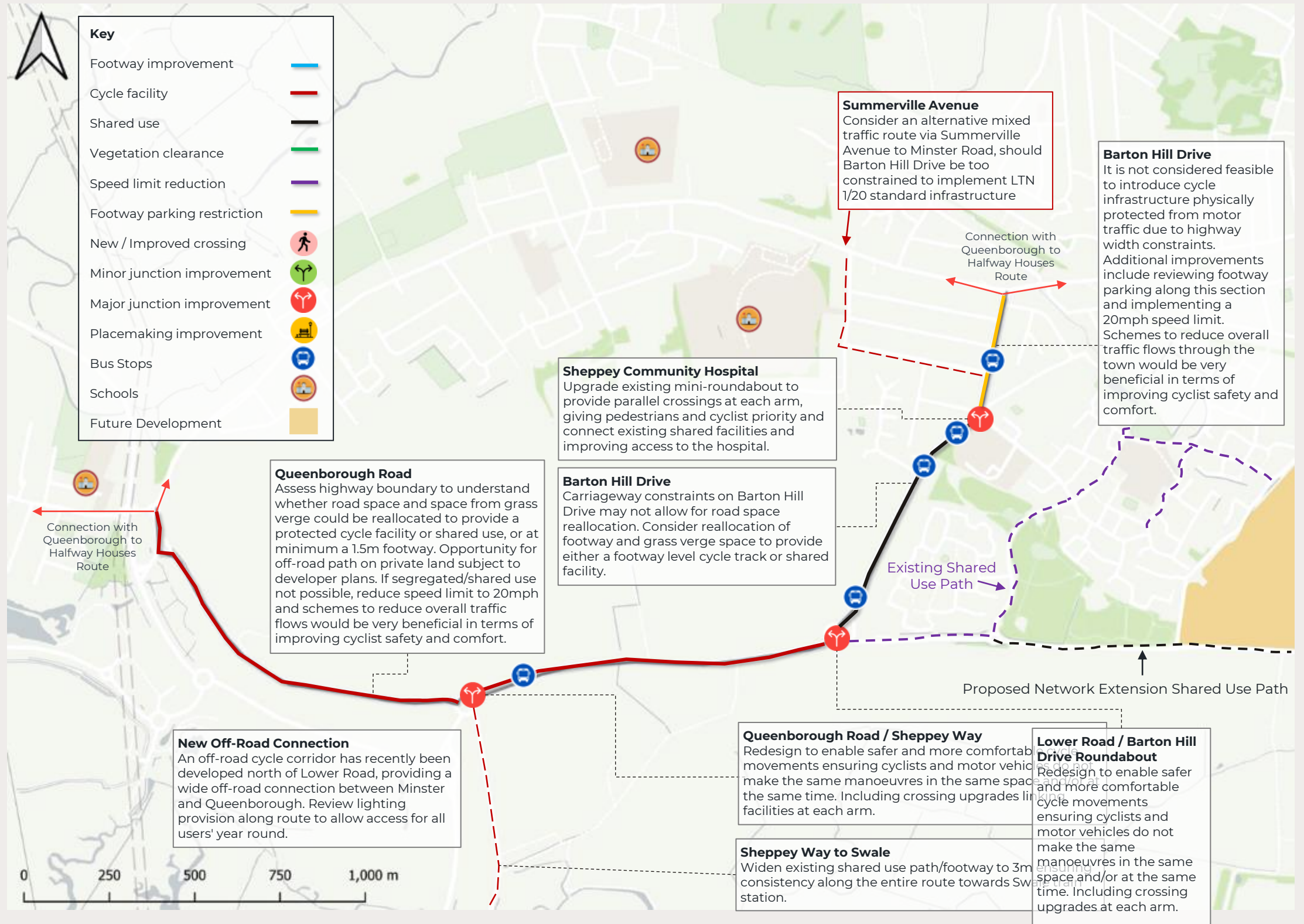


Figure 51 : Main Road (B2007) to Minster Road

Power Station Road

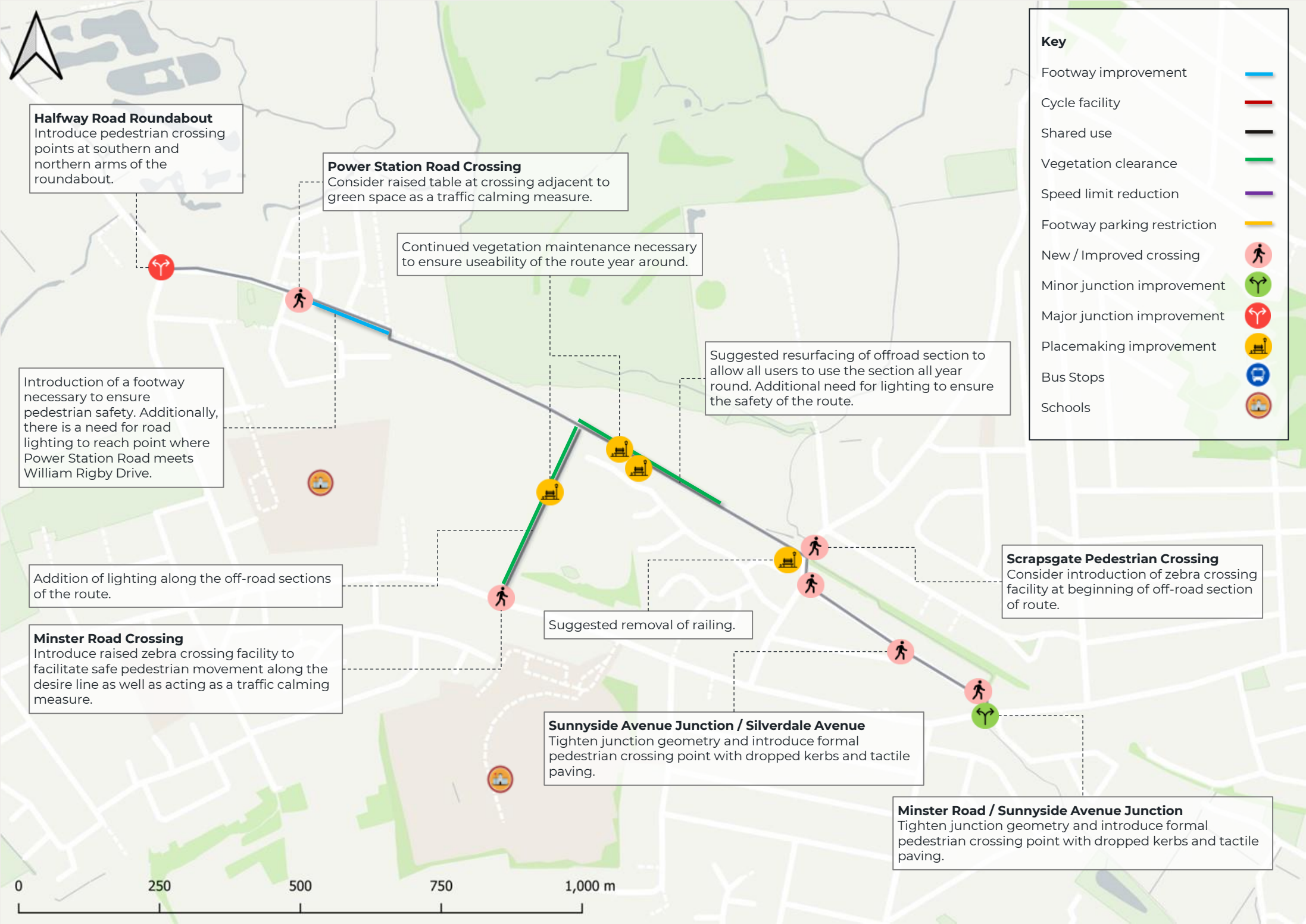


Figure 52 : Power Station Road

Brielle Way to Rushenden Road



Figure 53 : Brille Way to Rushenden Road

Sheerness-on-Sea Railway Station to Minster

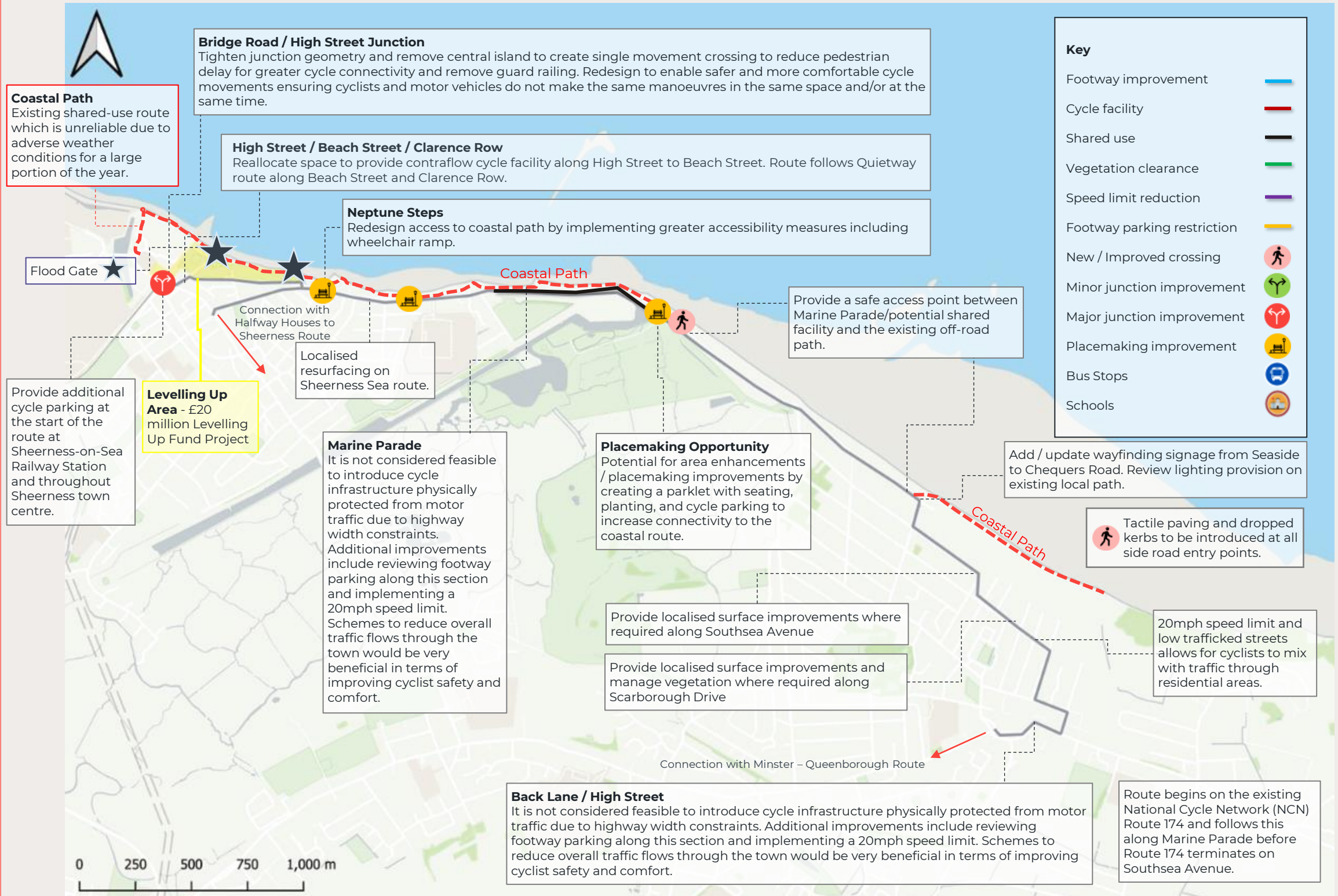


Figure 54 : Sheerness-on-Sea Railway Station to Minster

Queenborough to Minster



Figure 55: Queenborough to Minster

Halfway Houses to Sheerness

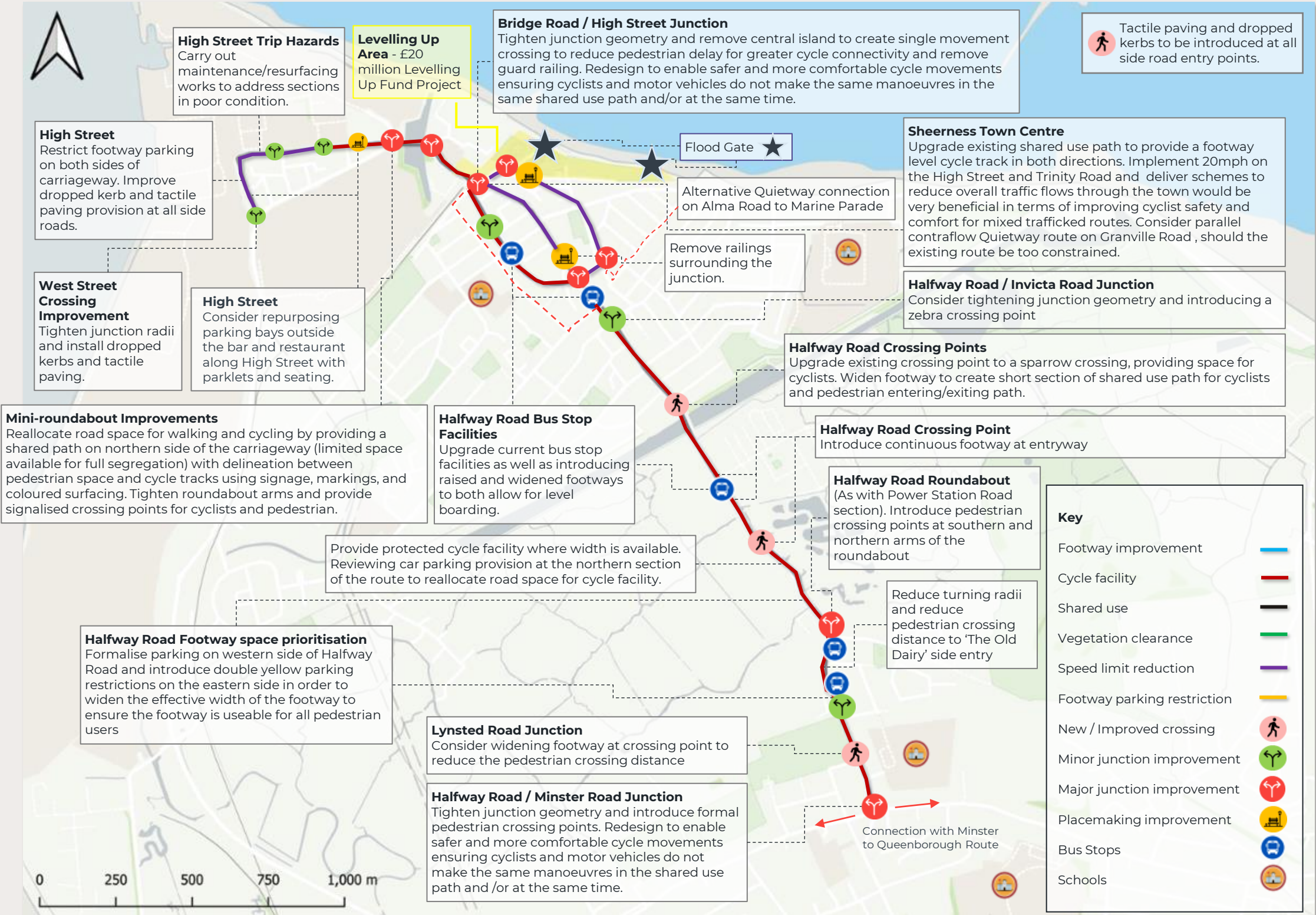


Figure 56 : Halfway Houses to Sheerness

Cromwell Road to Marine Parade

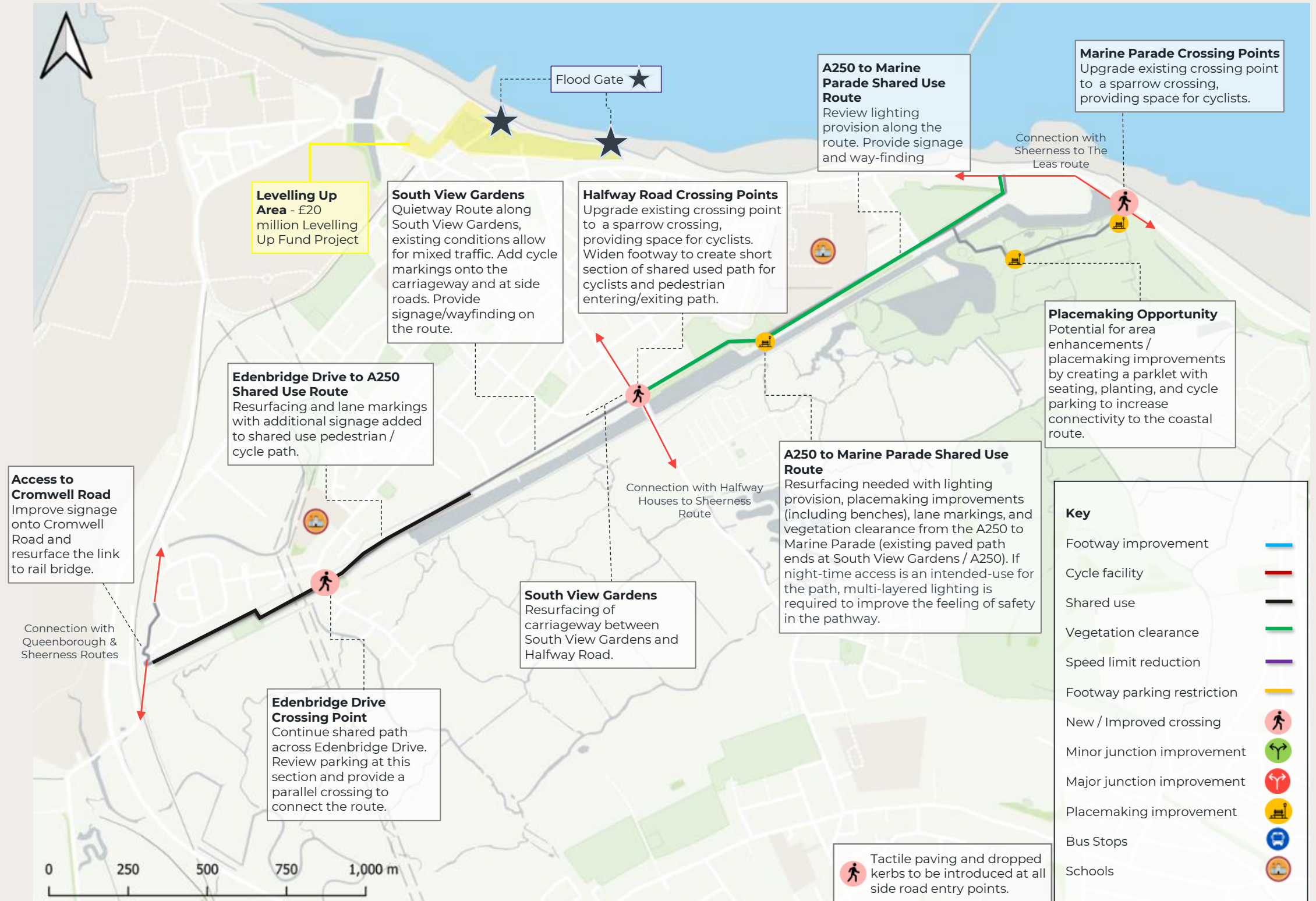


Figure 57 : Cromwell Road to Marine Parade

Swale Railway Station to Queenborough Road (A2500)

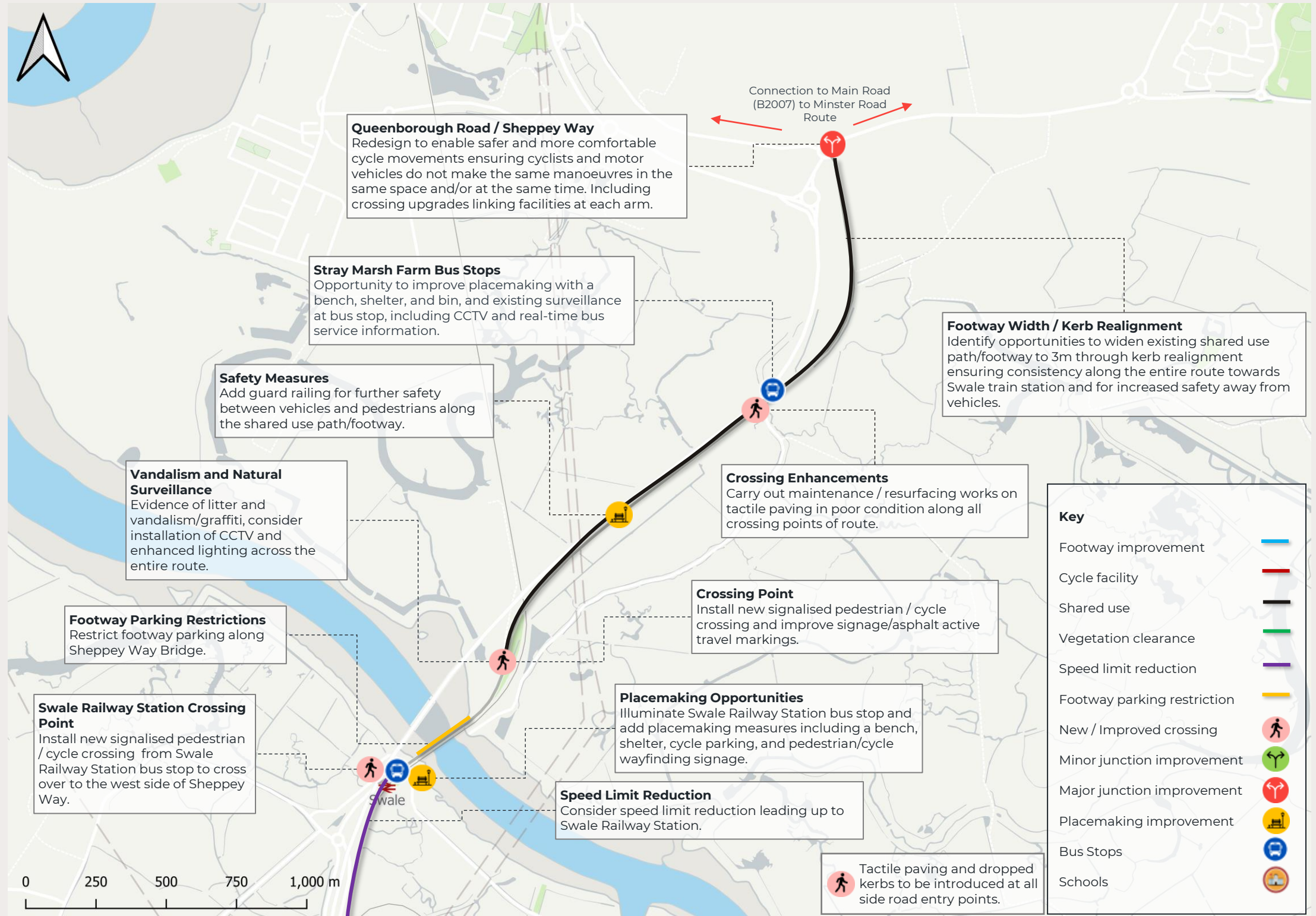


Figure 58 : Swale Railway Station to Queenborough Road (A2500)

Sheerness Town Centre

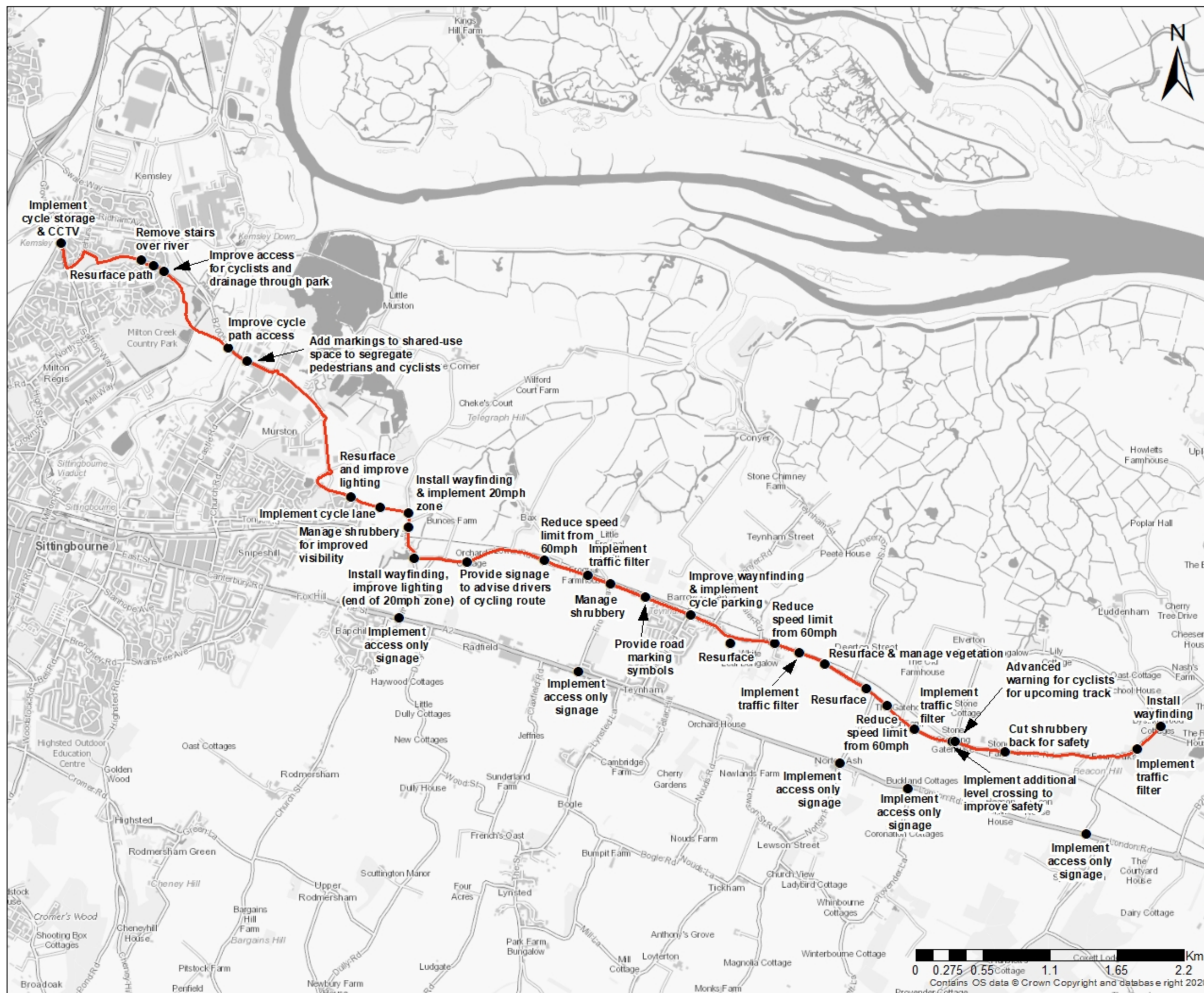






Appendix D - Rural Swale Cycling Routes and Interventions

- Study Area
- Route 1 - Kemsley to Faversham
- Cycling Interventions



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Swale Local Cycling and Walking Infrastructure Plan

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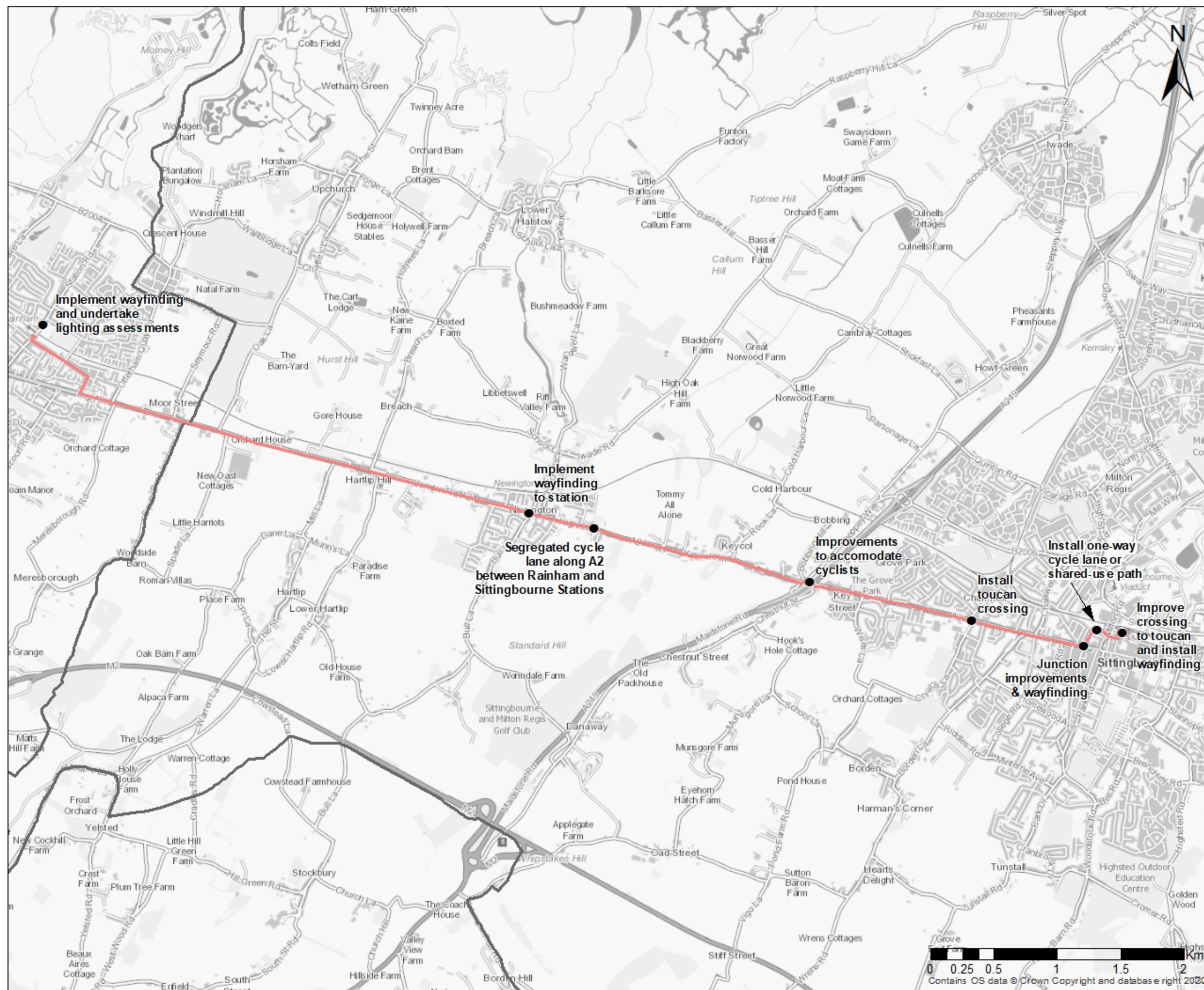
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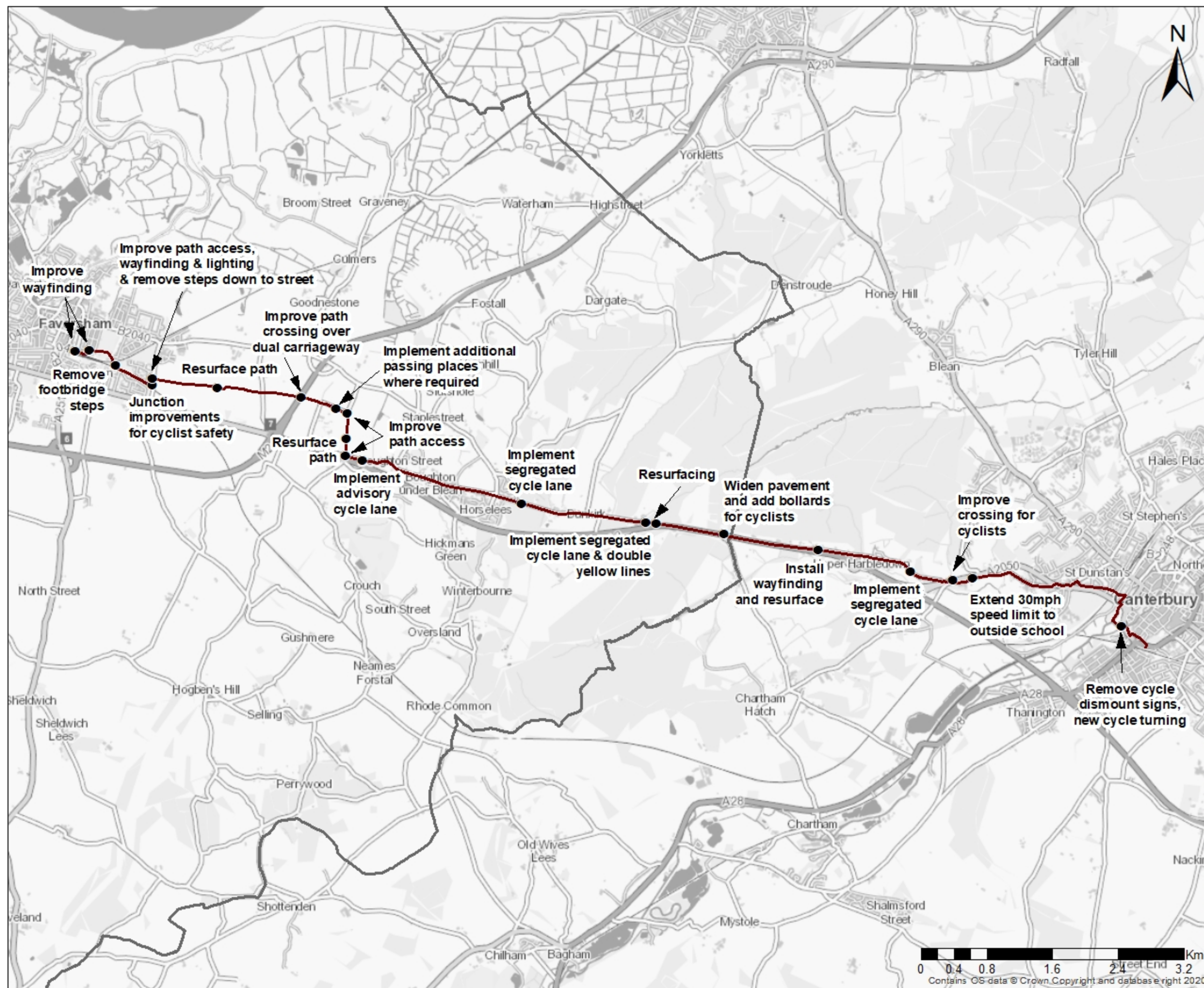
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- Route 8 - Sittingbourne to Rainham
- Cycling Interventions



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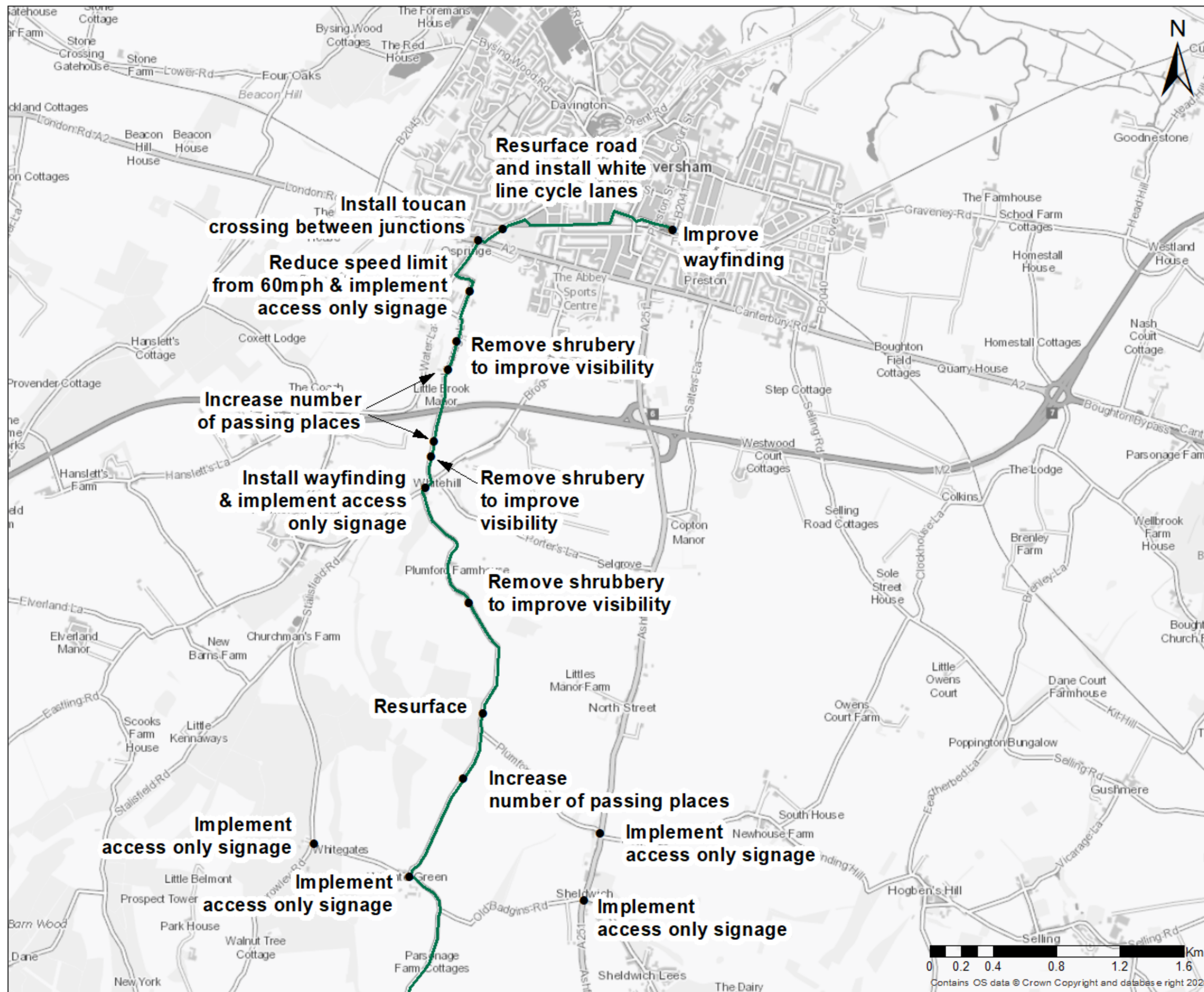
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LEGEND

- Study Area
- Route 10 - Ashford to Faversham
- Cycling Interventions

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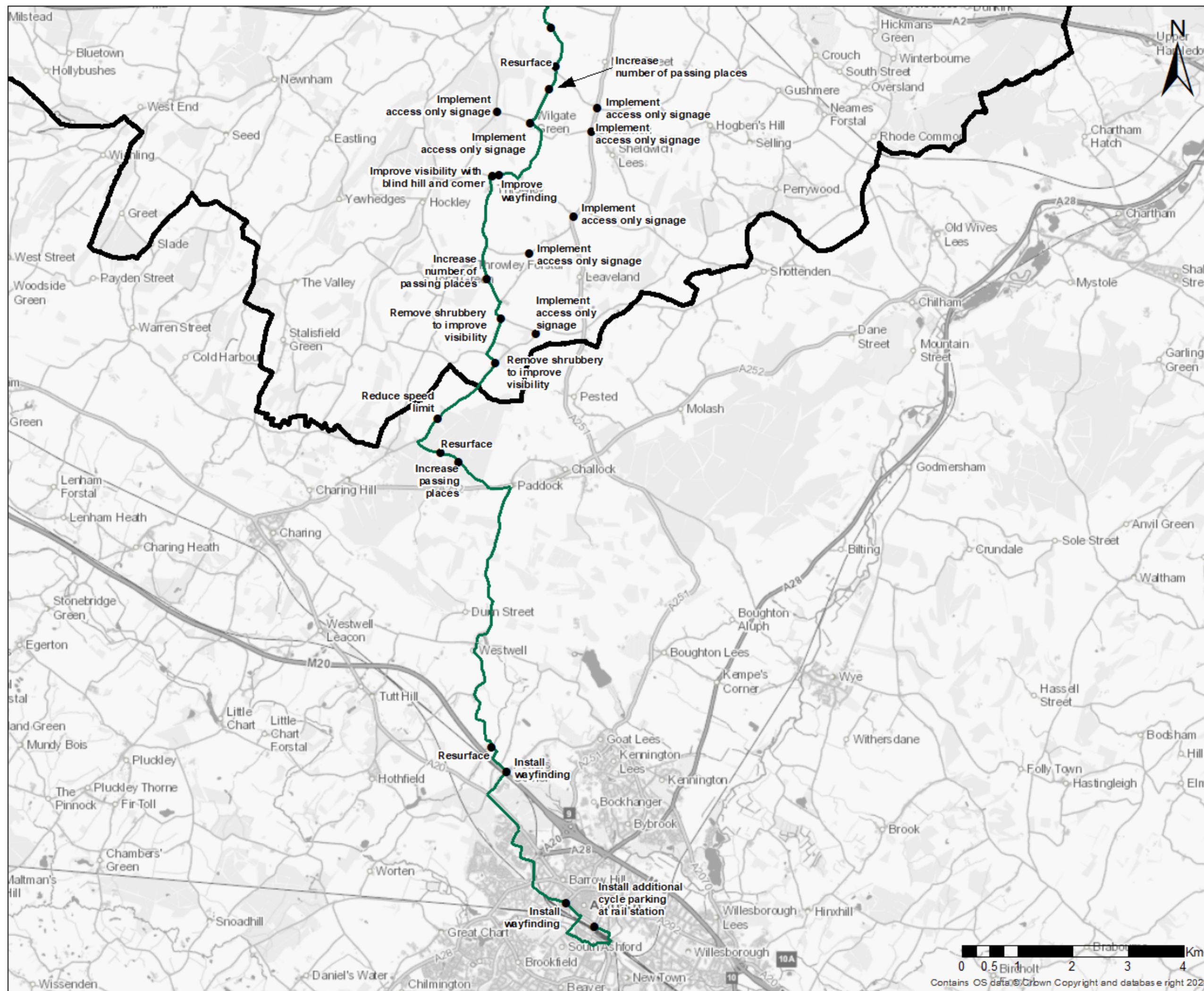
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LEGEND

- Study Area
- Route 10 - Ashford to Faversham
- Cycling Interventions

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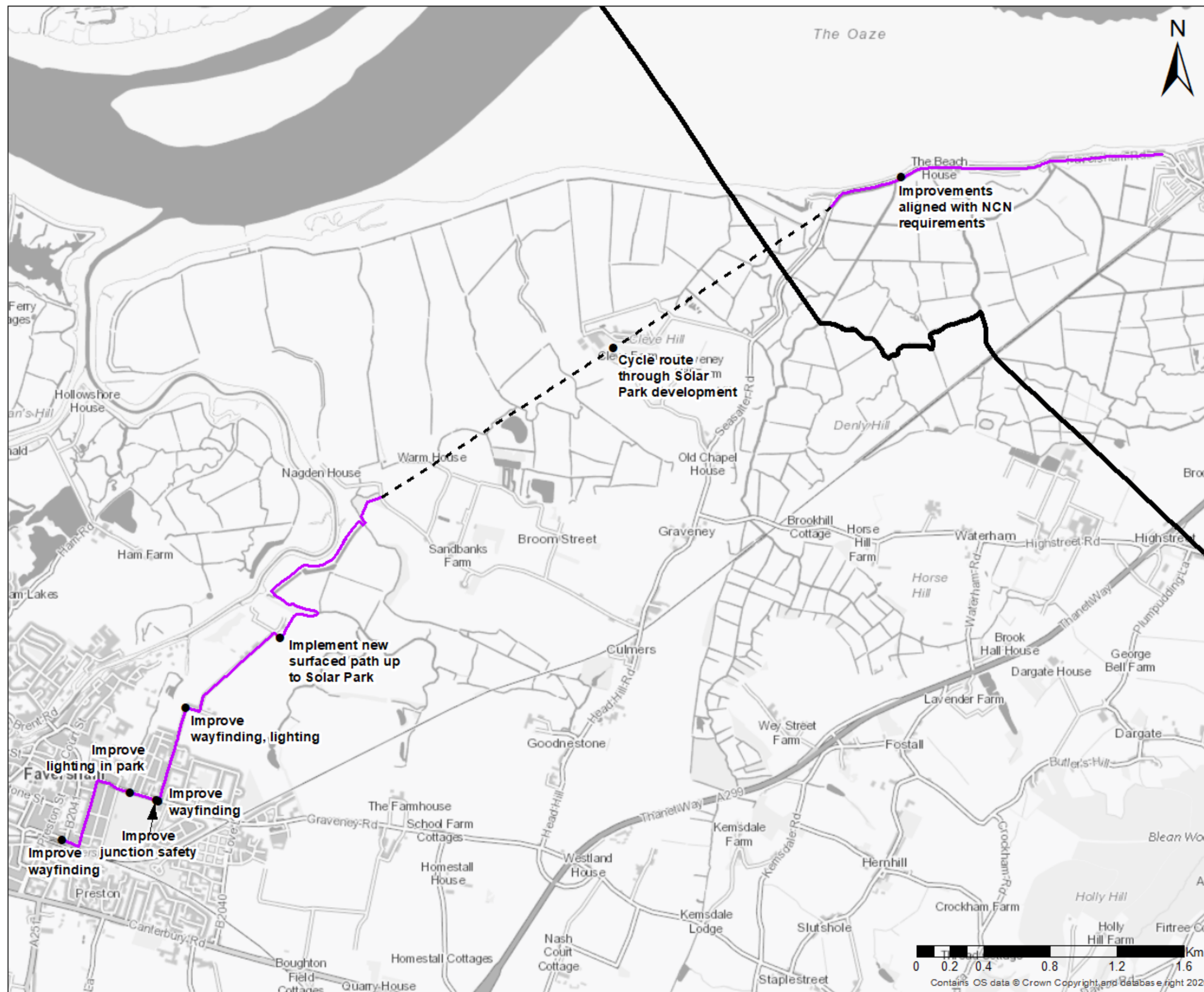
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LEGEND

- Study Area
- Route 11 - Faversham to Whitstable
- Route 11 - Faversham to Whitstable (alignment TBC)
- Cycling Interventions



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Appendix E - Sittingbourne Walking and Wheeling Routes and Interventions

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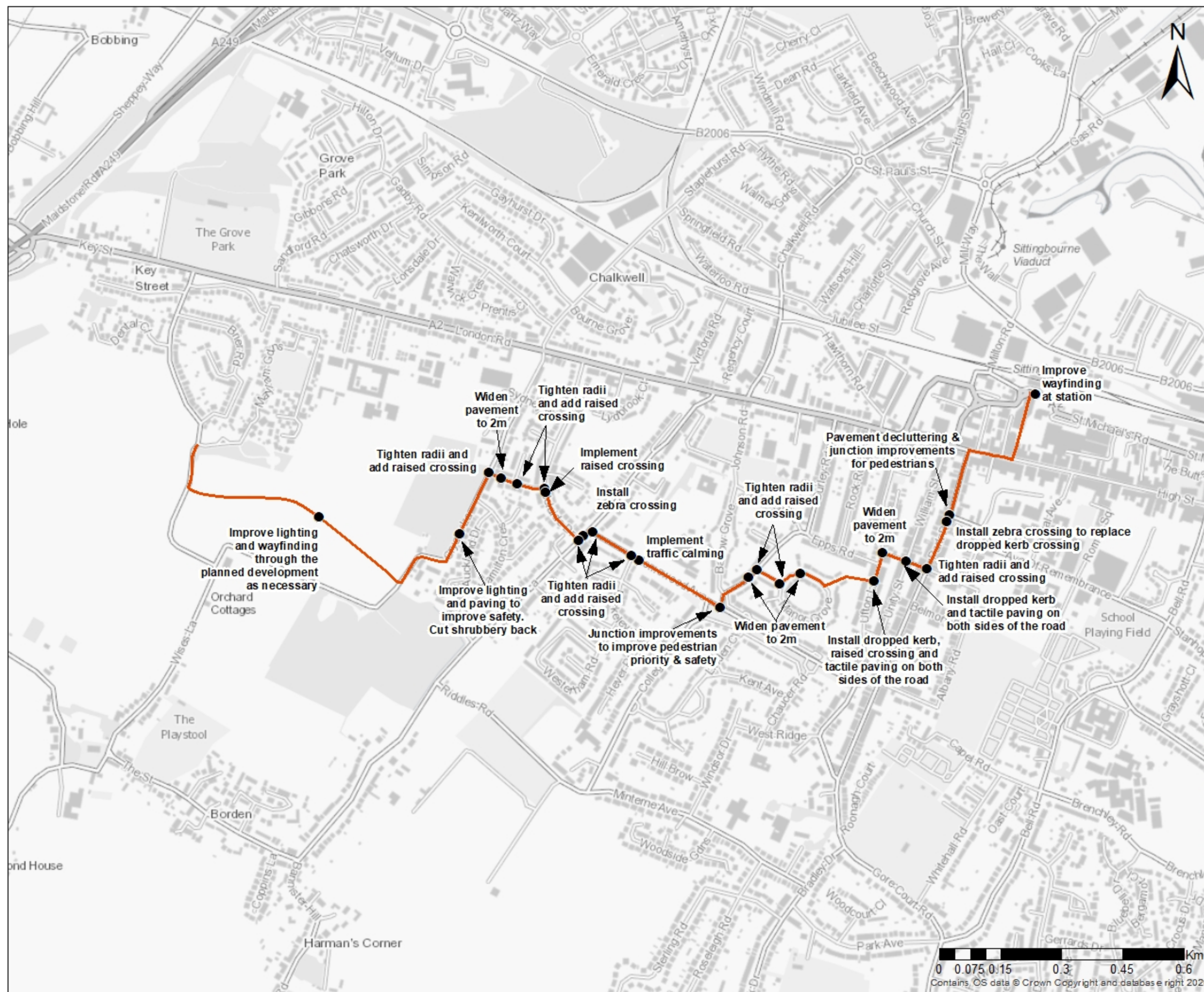
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LEGEND

-  Study Area
-  Route 2 - Sittingbourne Station to SW Developments
-  Walking Interventions



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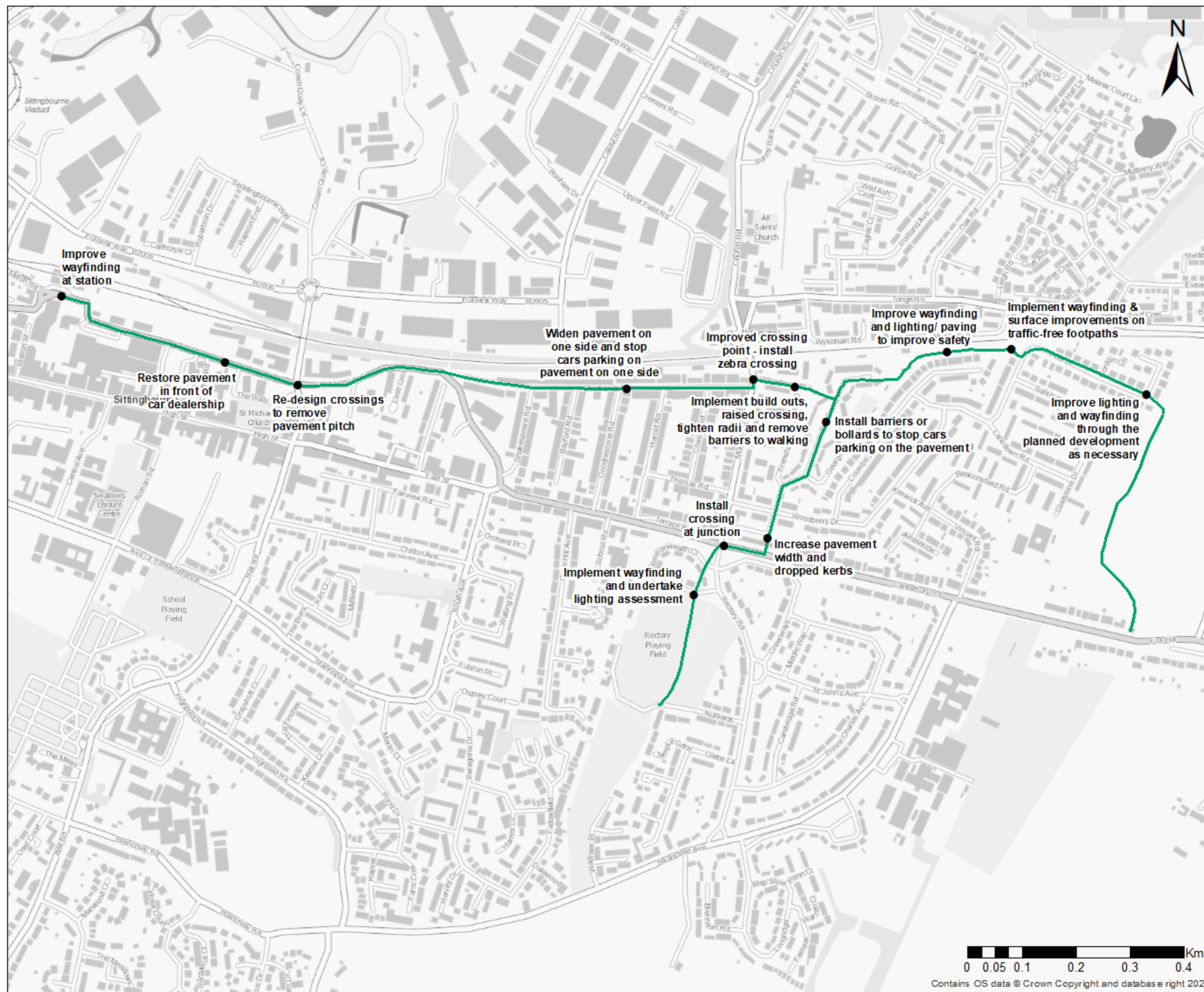
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LEGEND

- Study Area
- Walking Interventions
- Route 3 - Sittingbourne Station to East Sittingbourne

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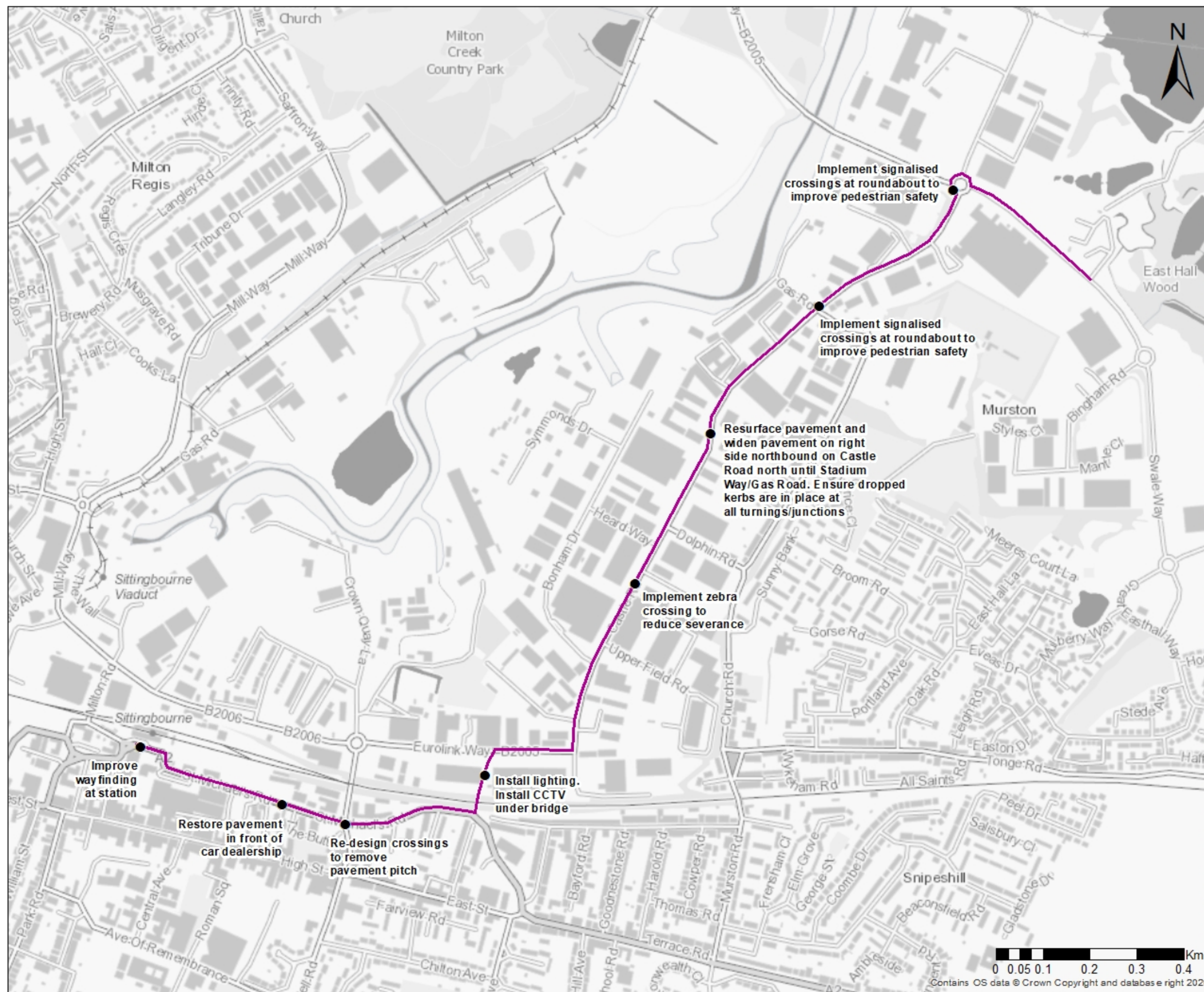
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LEGEND

- Study Area
- Route 4 - Sittingbourne Station to Eurolink Business Park
- Walking Interventions



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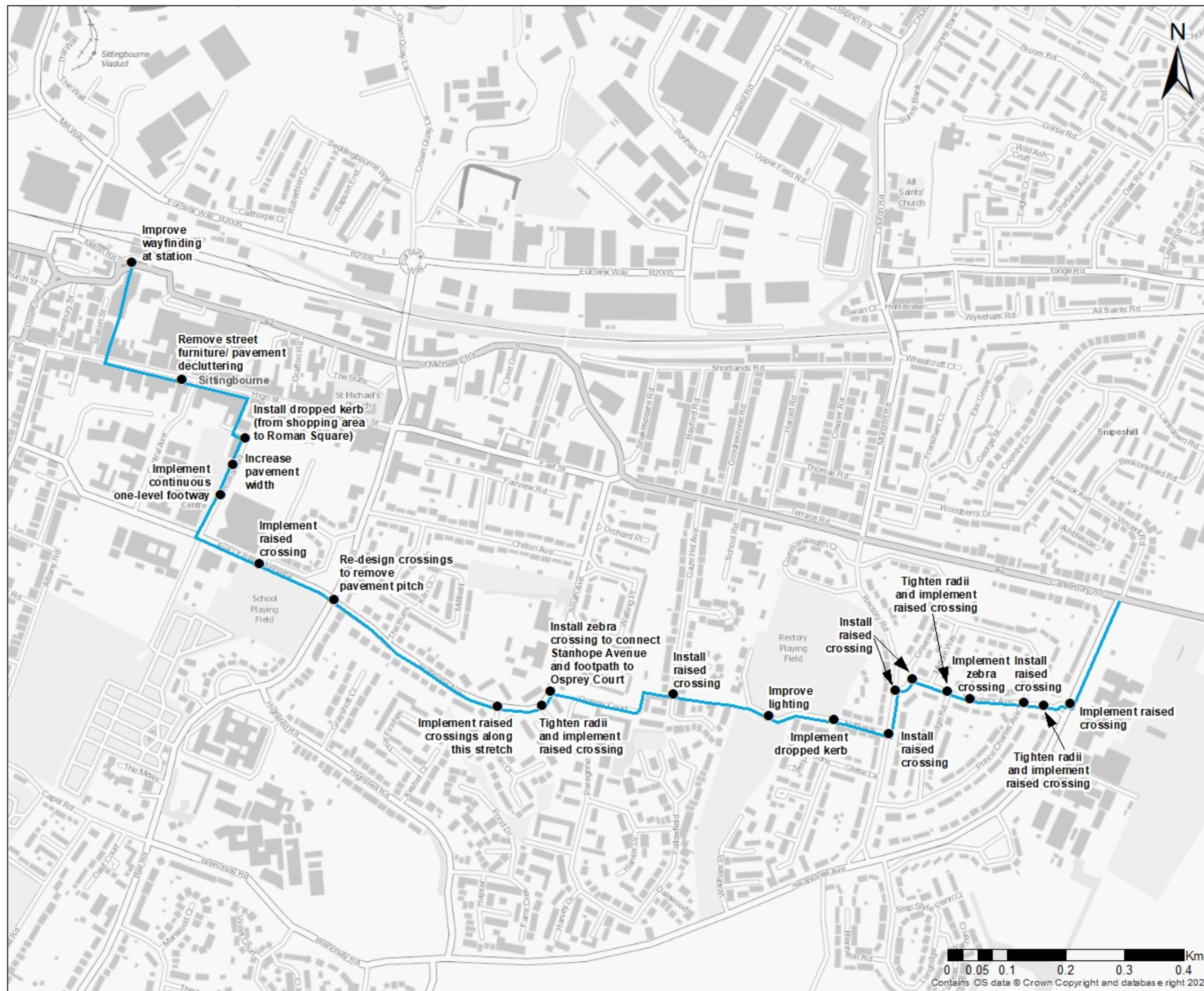
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LEGEND

-  Study Area
-  Route 5 - Central Sittingbourne to East Sittingbourne
-  Walking Interventions



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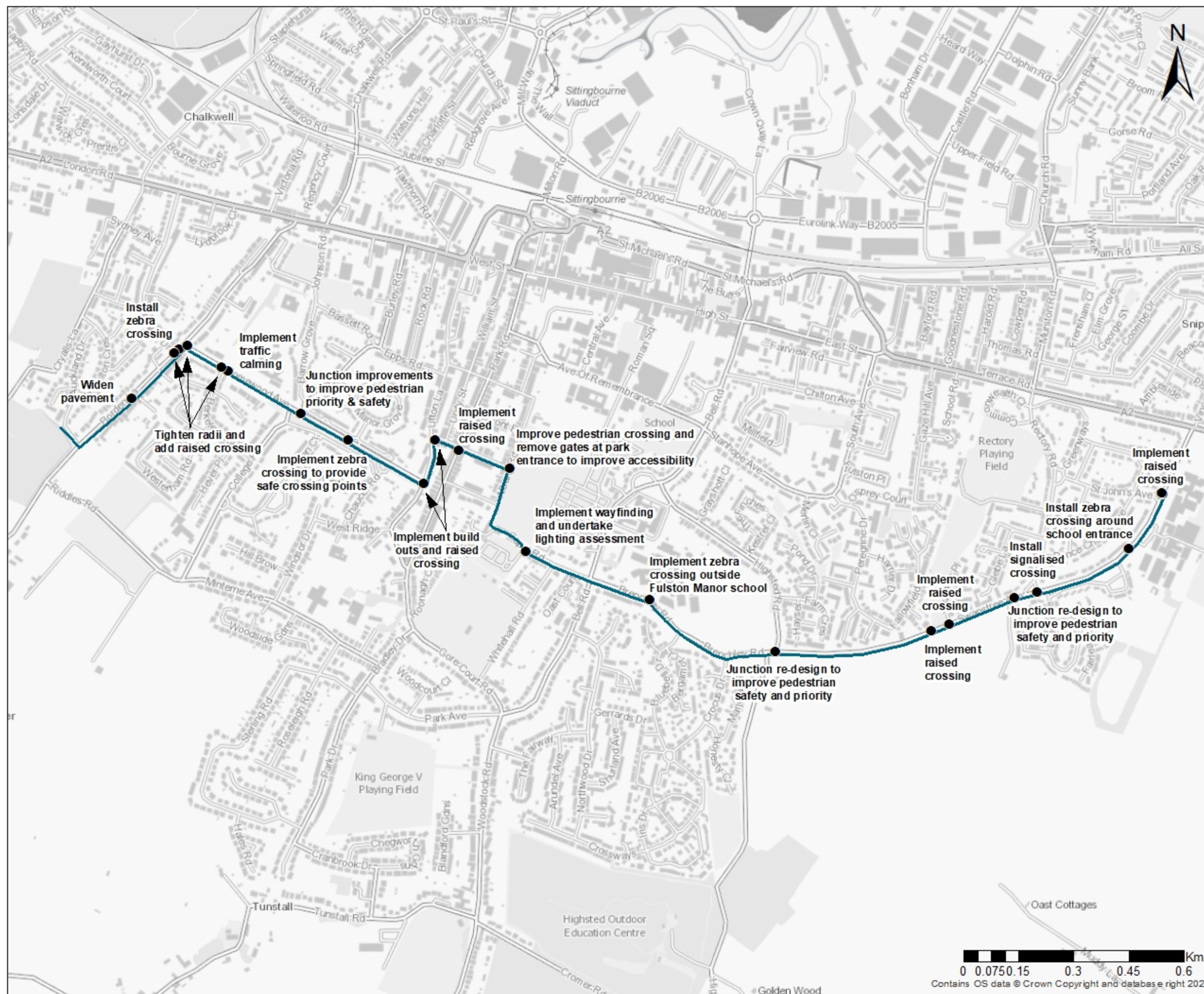
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LEGEND

-  Study Area
-  Route 6 - SW Developments to South Sittingbourne
-  Walking Interventions



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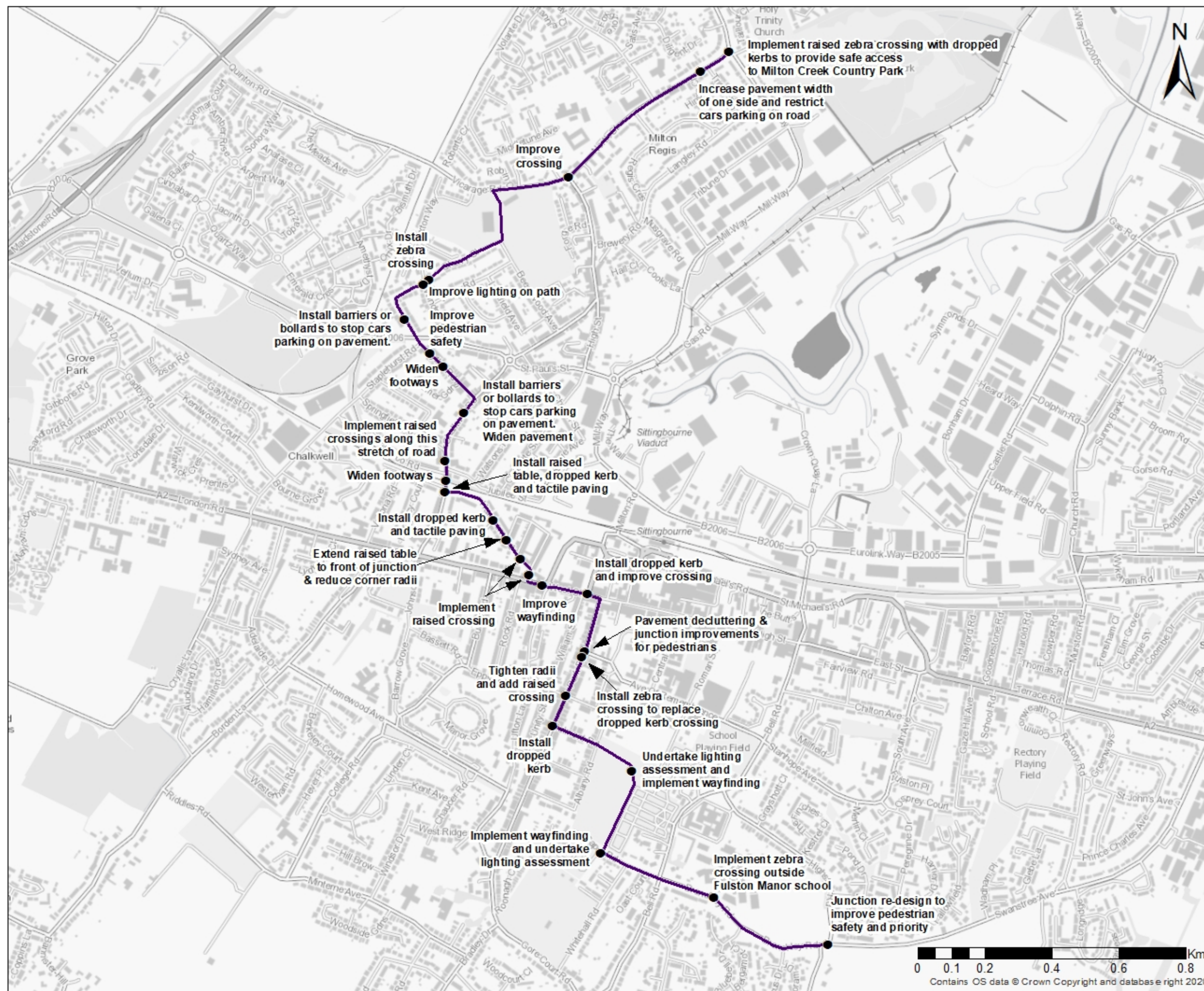
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LEGEND

- Route 7 - South Sittingbourne to Milton Creek Country Park
- Walking Interventions



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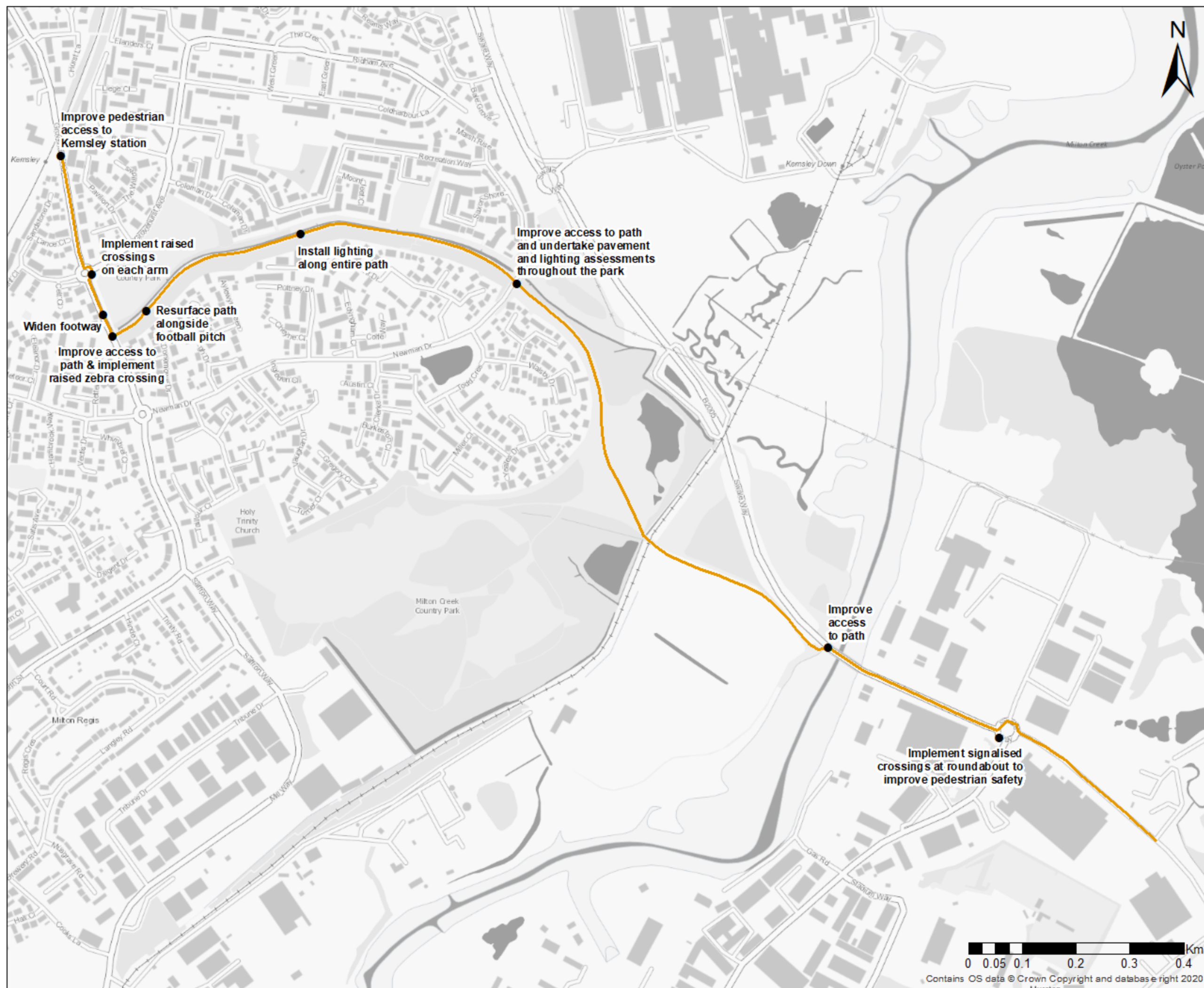
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LEGEND

- Study Area
- Walking Interventions
- Route 8 - Kemsley to Eurolink Business Park

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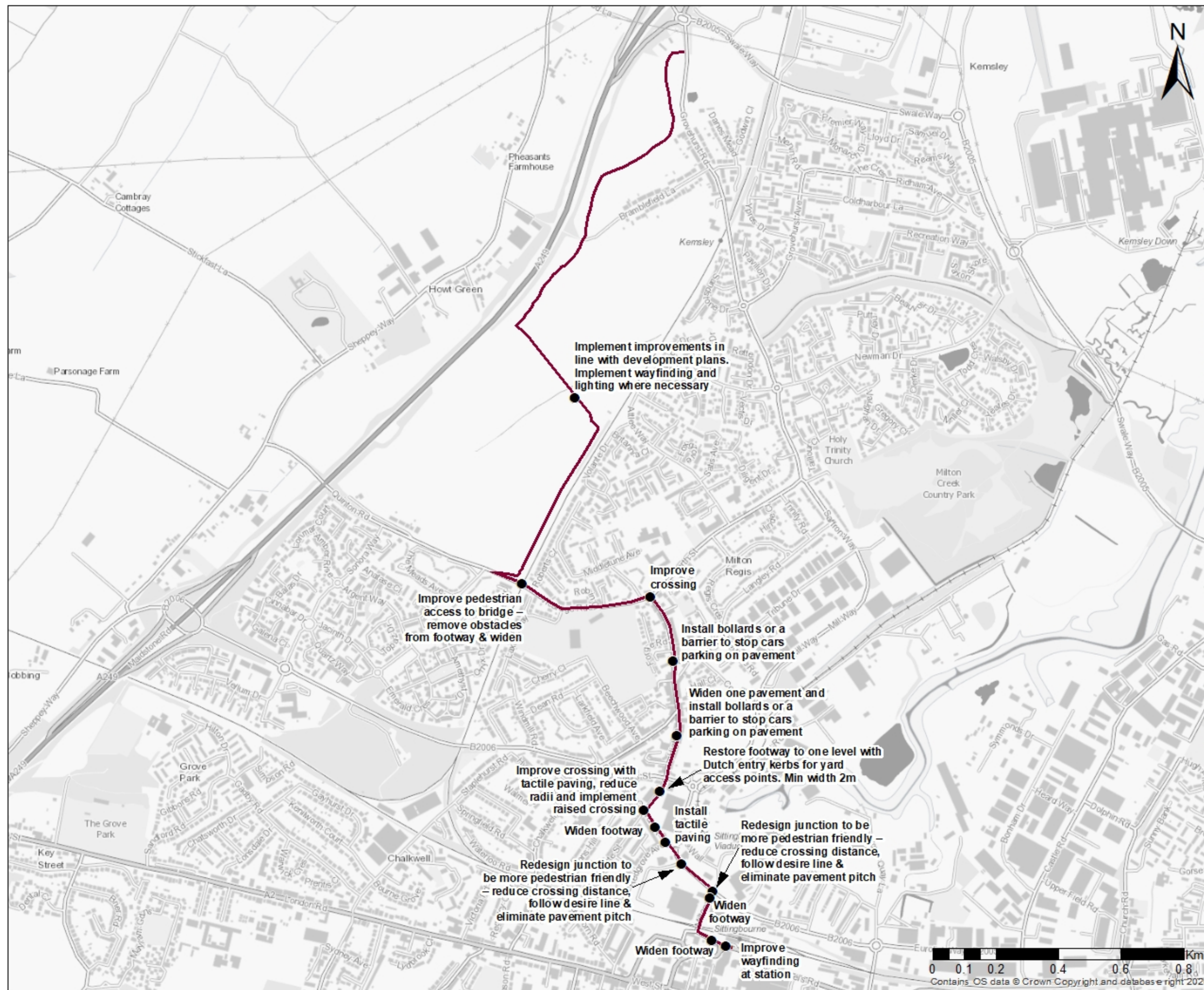
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LEGEND

-  Study Area
-  Route 9 - NW Development to Sittingbourne Station
-  Walking Interventions



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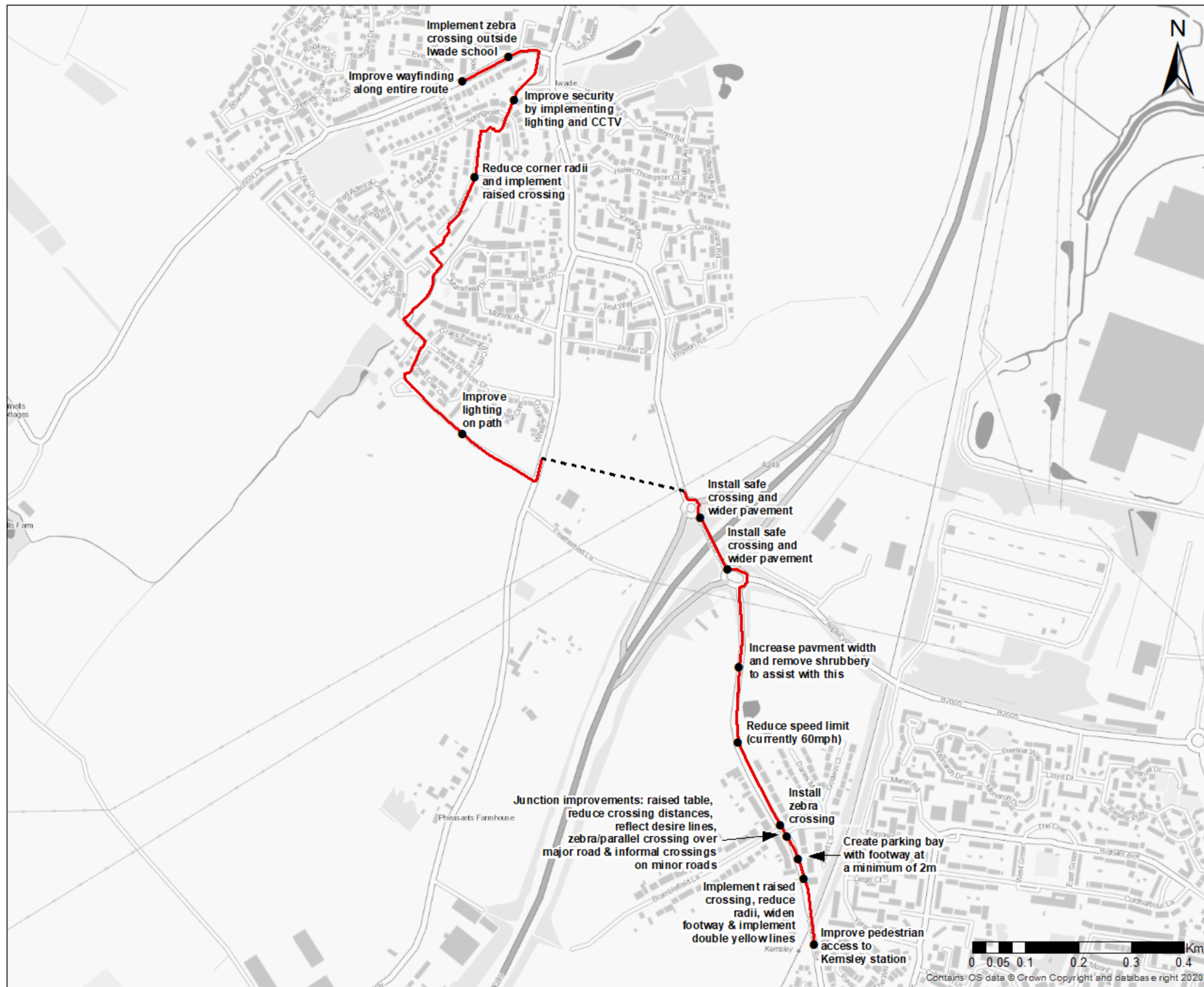
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LEGEND

- Study Area
- Walking Interventions
- Route 10 - Kemsley to Iwade
- - - Route 10 - Kemsley to Iwade (alignment TBC)



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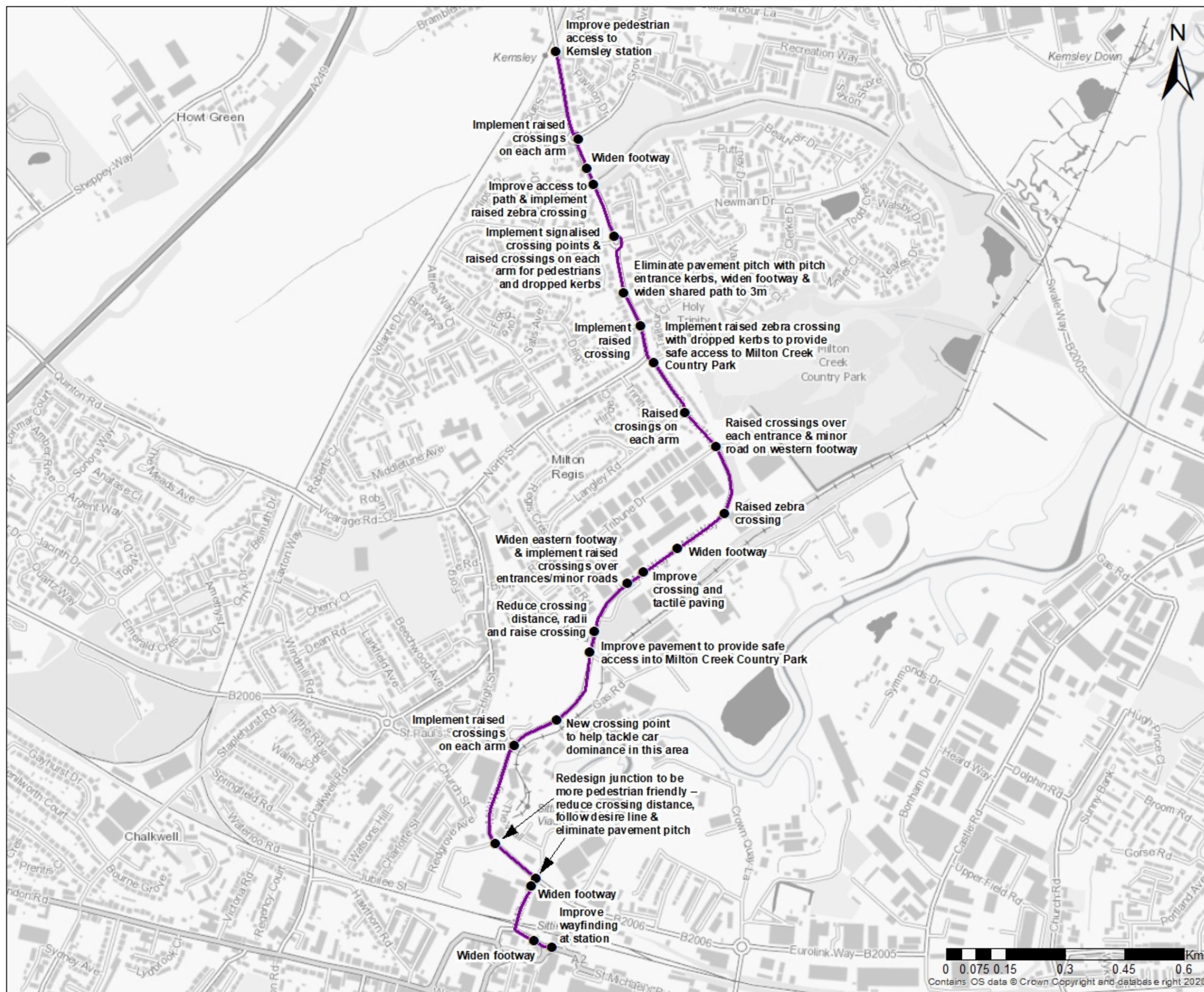
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LEGEND

- Study Area
- Route 11 - Kemsley to Sittingbourne Station
- Walking Interventions



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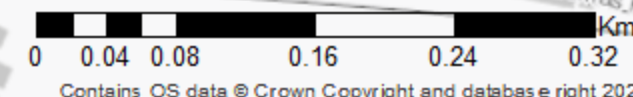
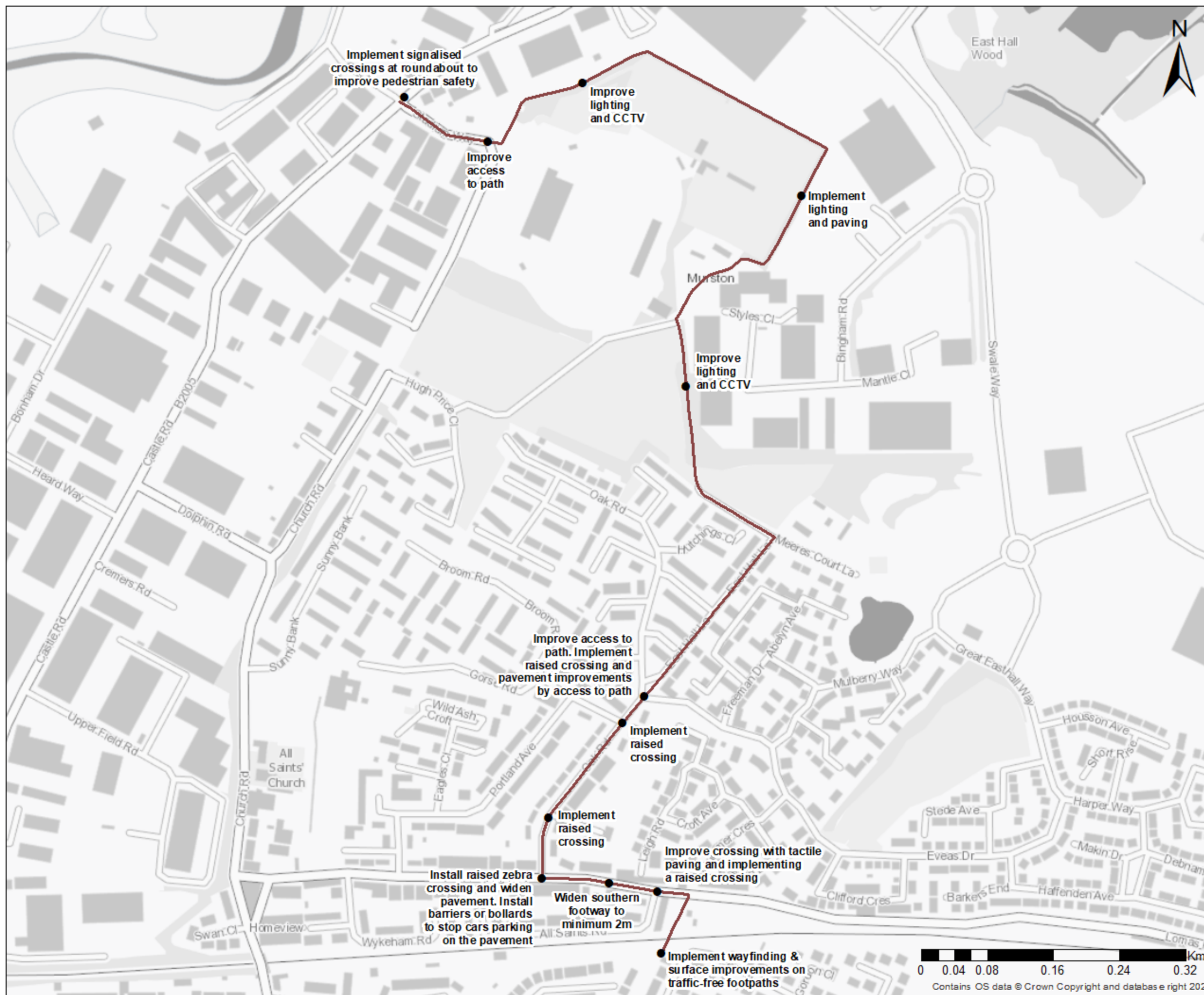
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LEGEND

- Study Area
- Walking Interventions
- Route 12 - North to South Murston



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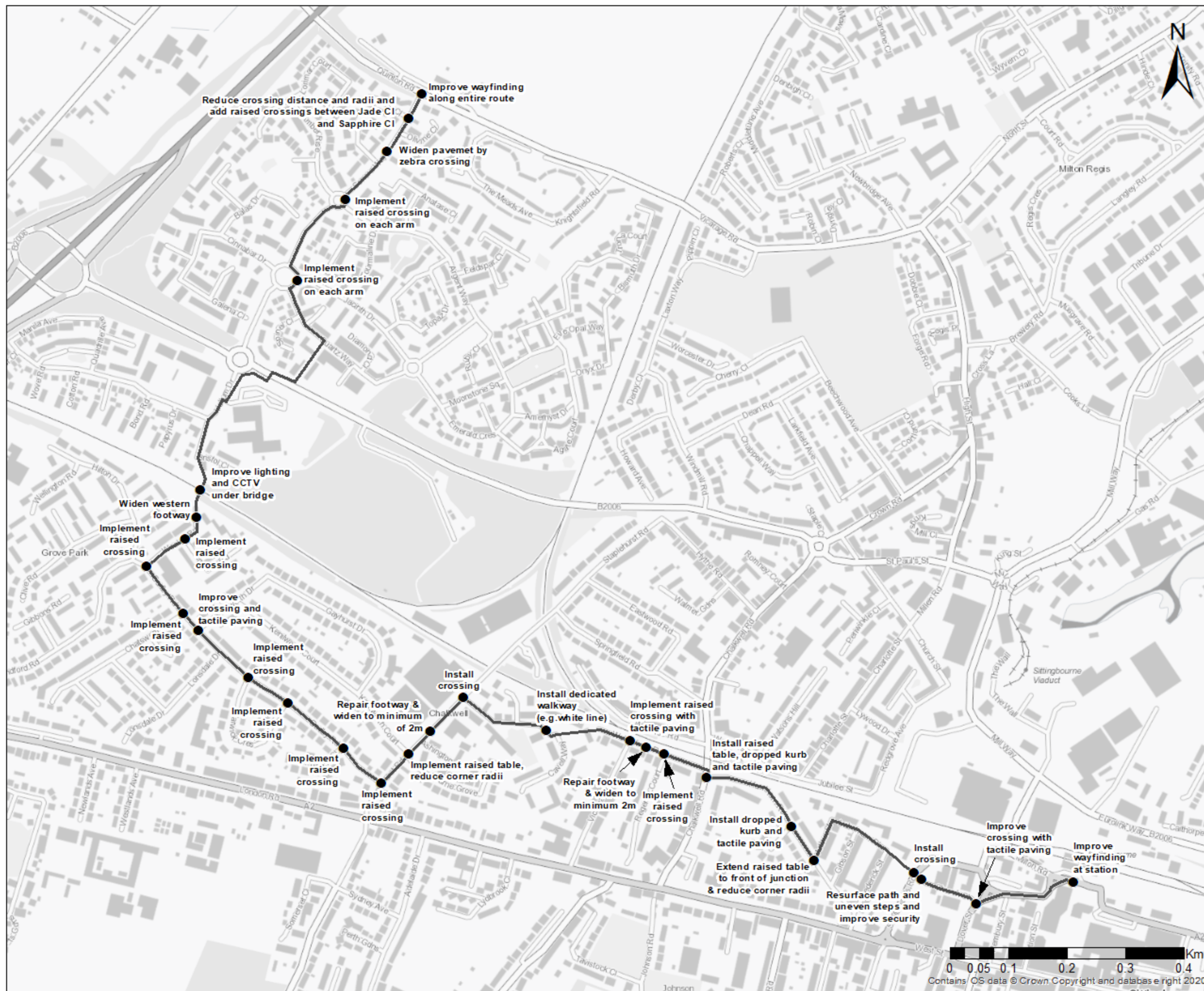
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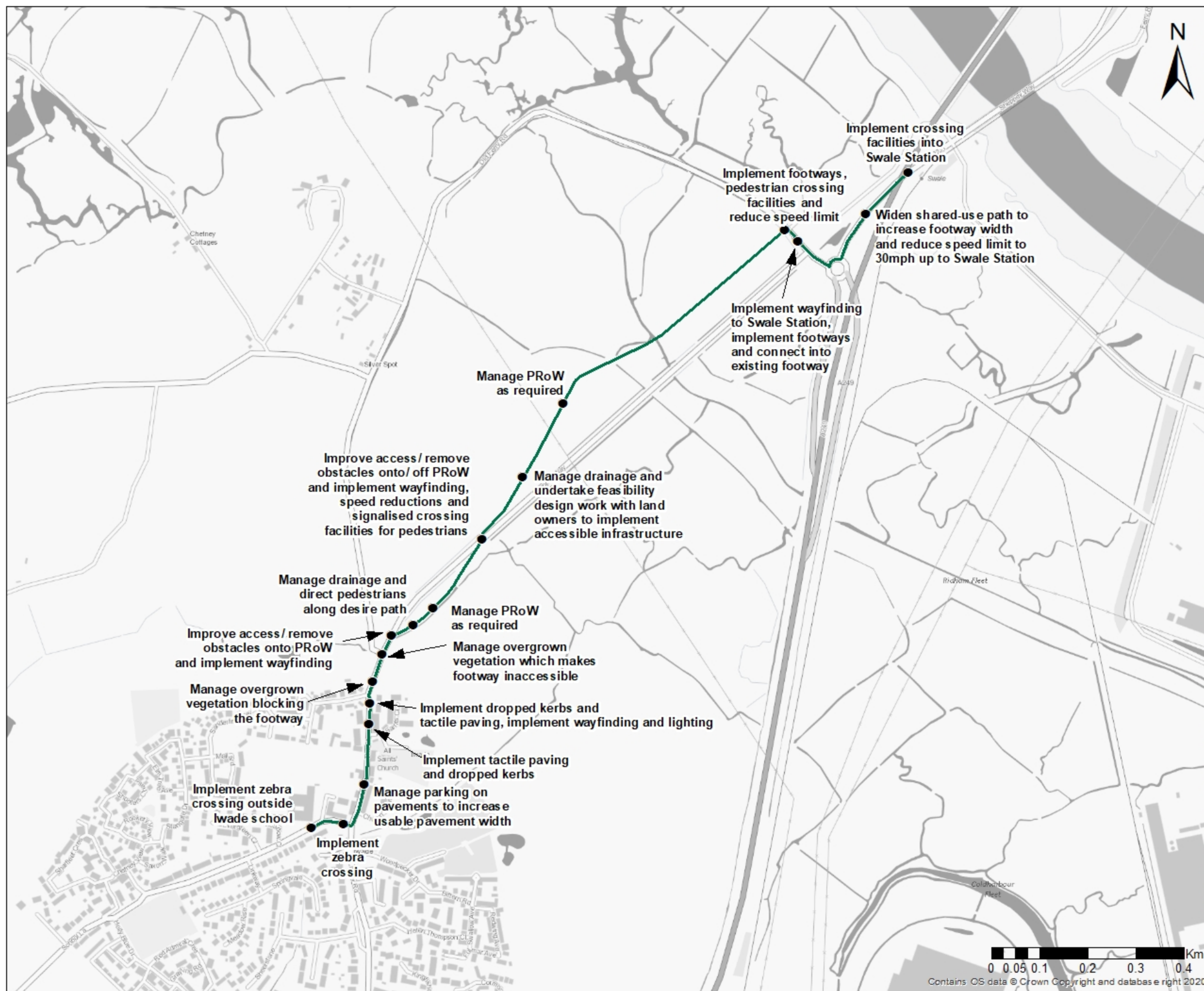
LEGEND

- Study Area
- Route 13 - West Sittingbourne
- Walking Interventions



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Appendix F - Isle of Sheppey Active Travel and Walking and Wheeling Routes and Interventions

The Broadway

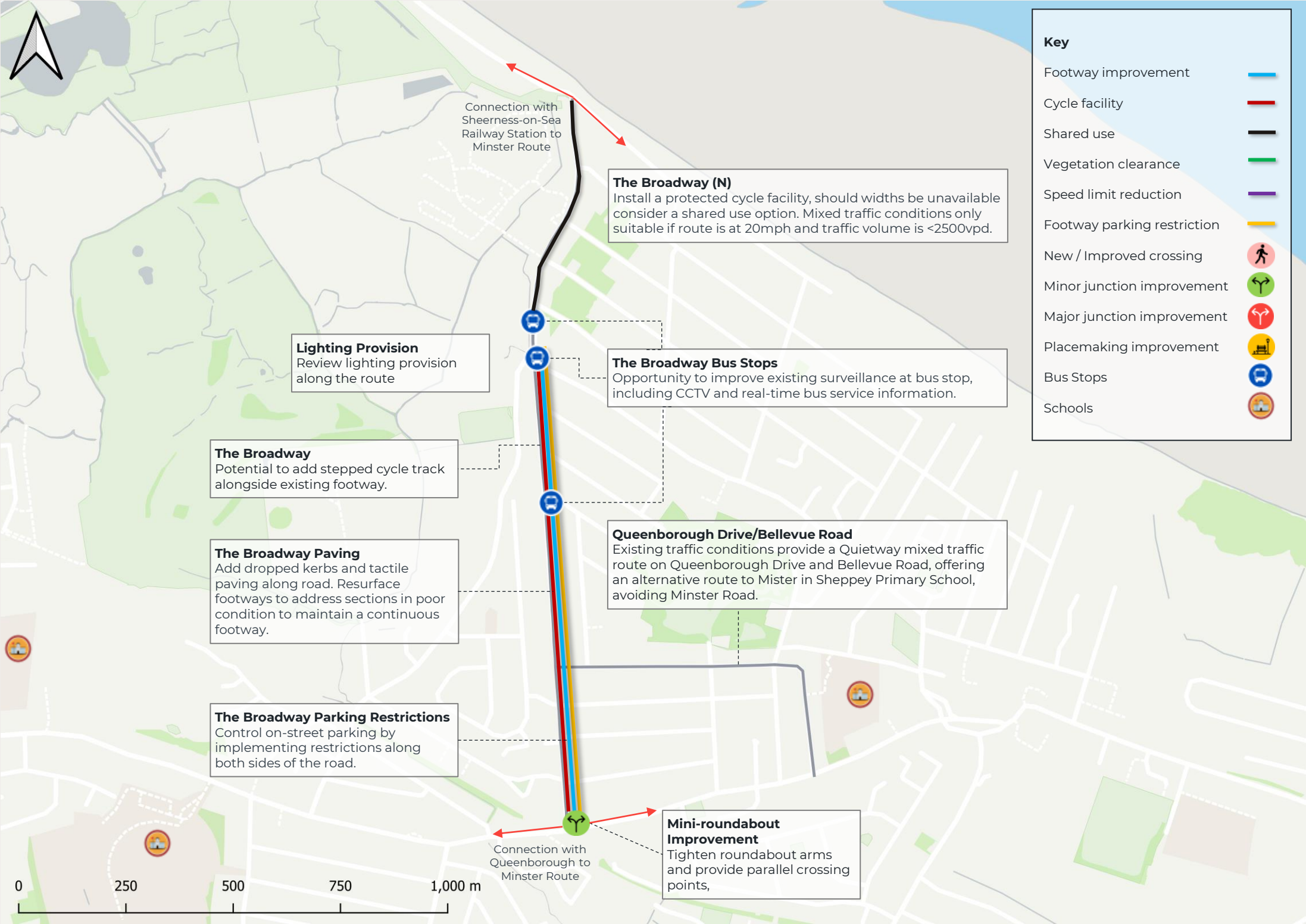


Figure 50 : The Broadway

Main Road (B2007) to Minster Road

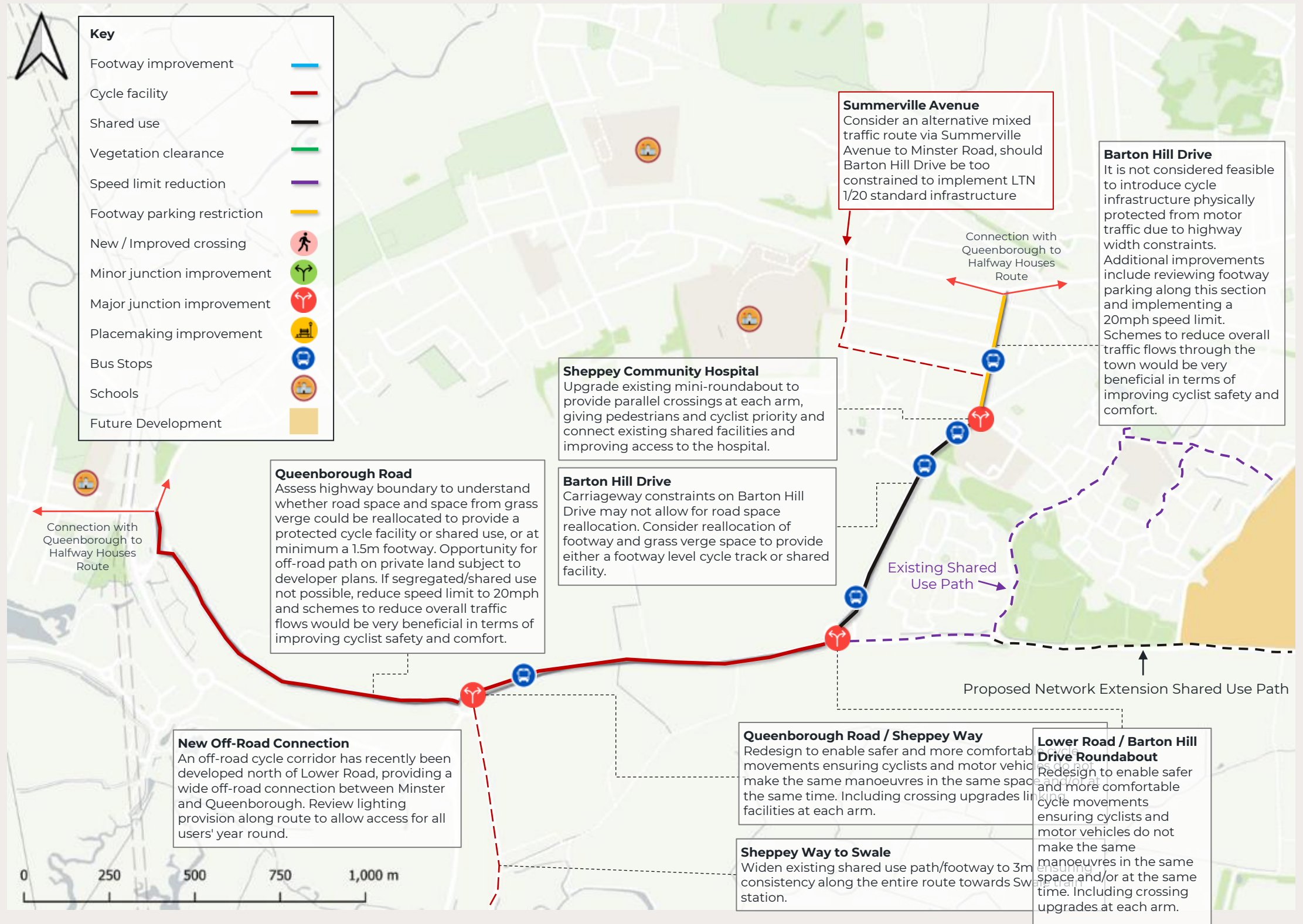


Figure 51 : Main Road (B2007) to Minster Road

Power Station Road

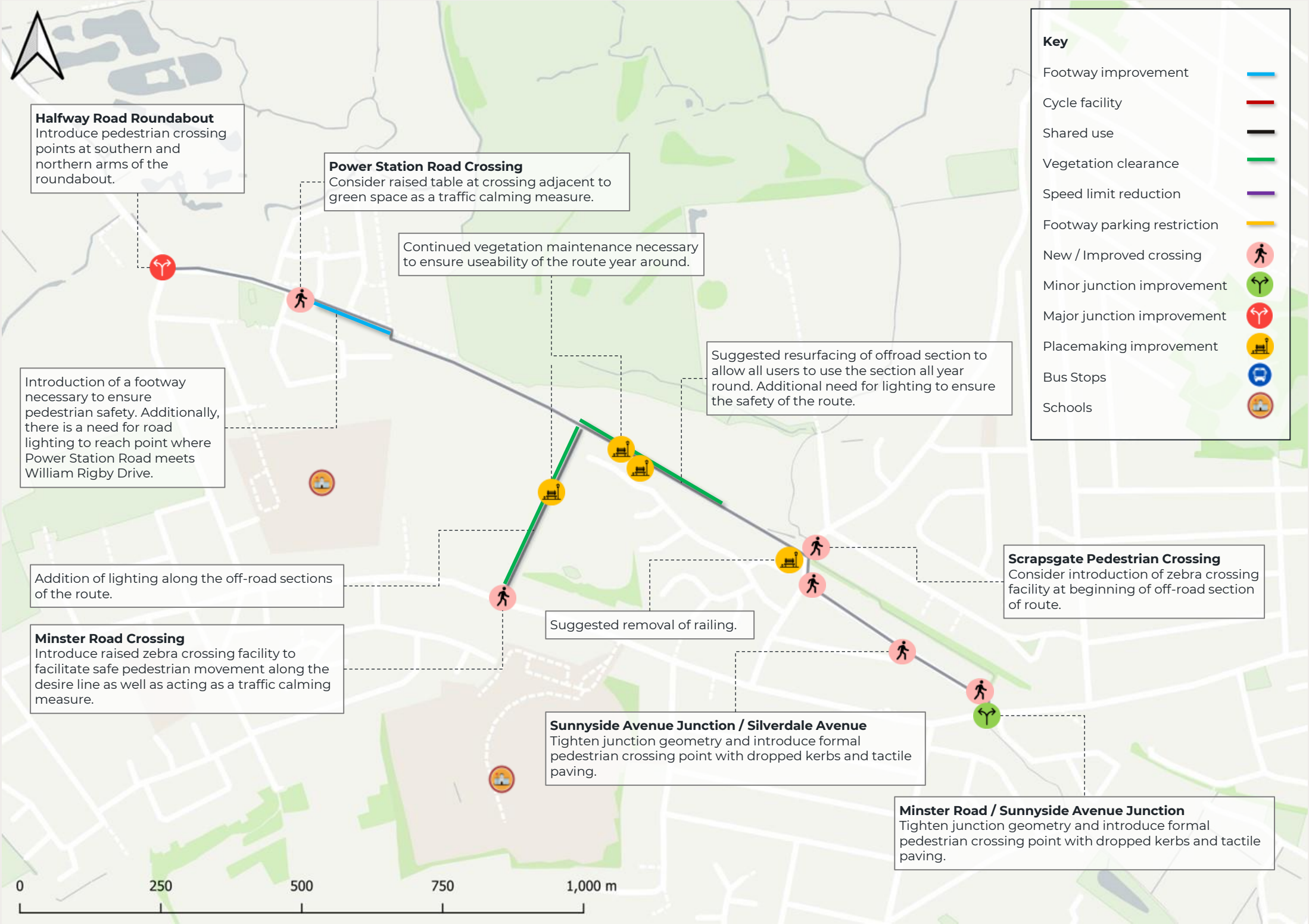


Figure 52 : Power Station Road

Brielle Way to Rushenden Road



Figure 53 : Brille Way to Rushenden Road

Sheerness-on-Sea Railway Station to Minster

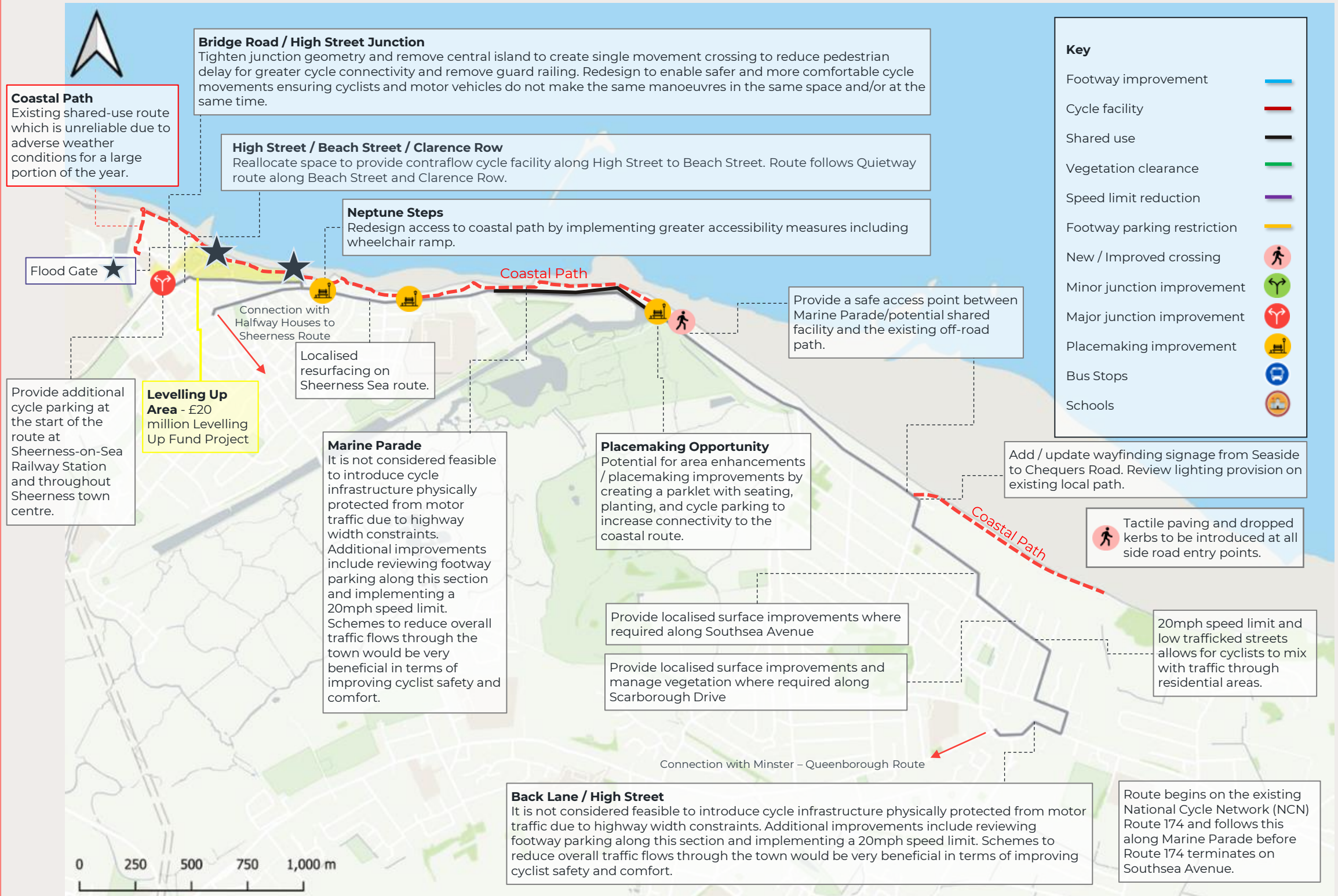


Figure 54 : Sheerness-on-Sea Railway Station to Minster

Queenborough to Minster



Figure 55 : Queenborough to Minster

Halfway Houses to Sheerness

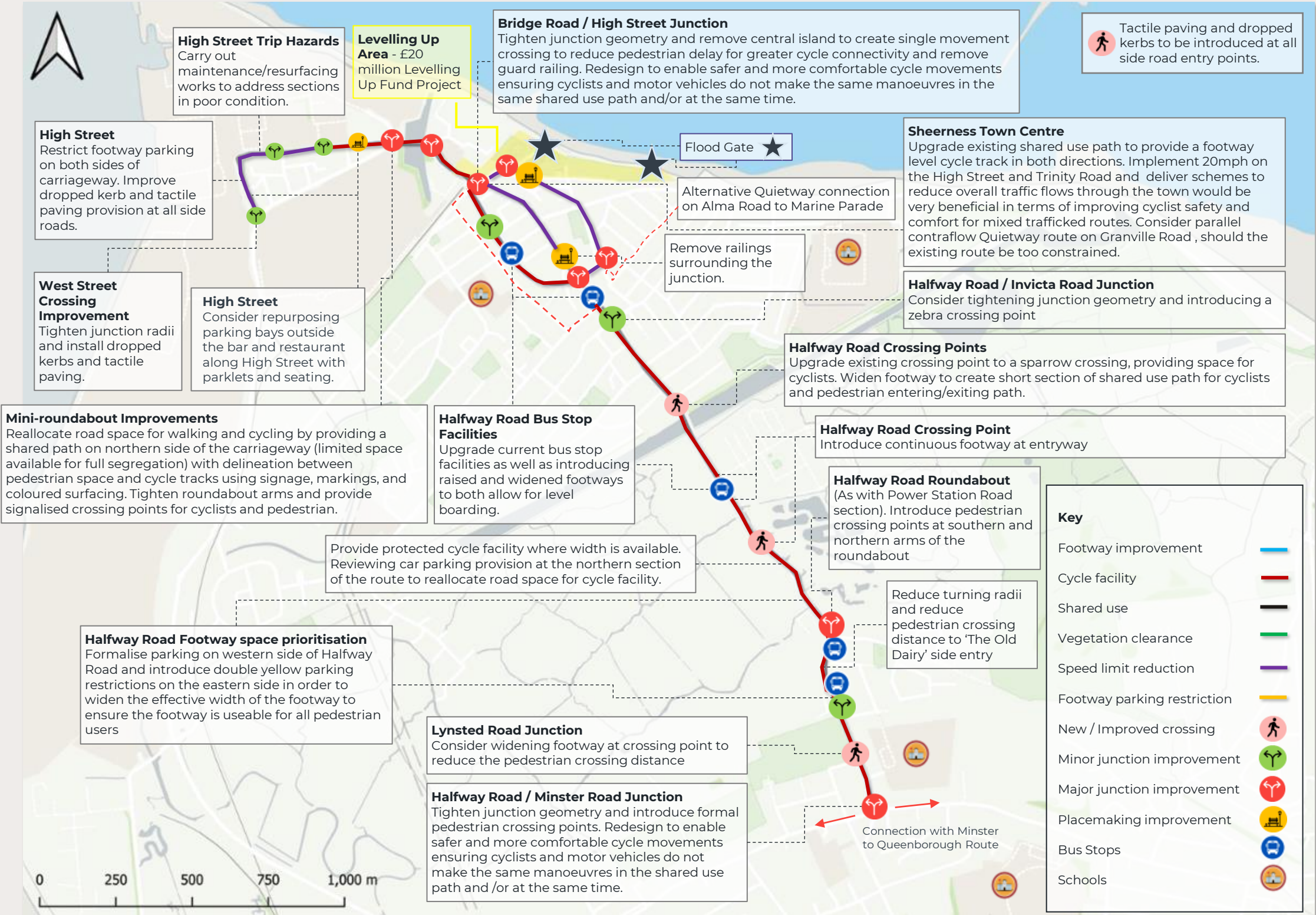


Figure 56 : Halfway Houses to Sheerness

Cromwell Road to Marine Parade

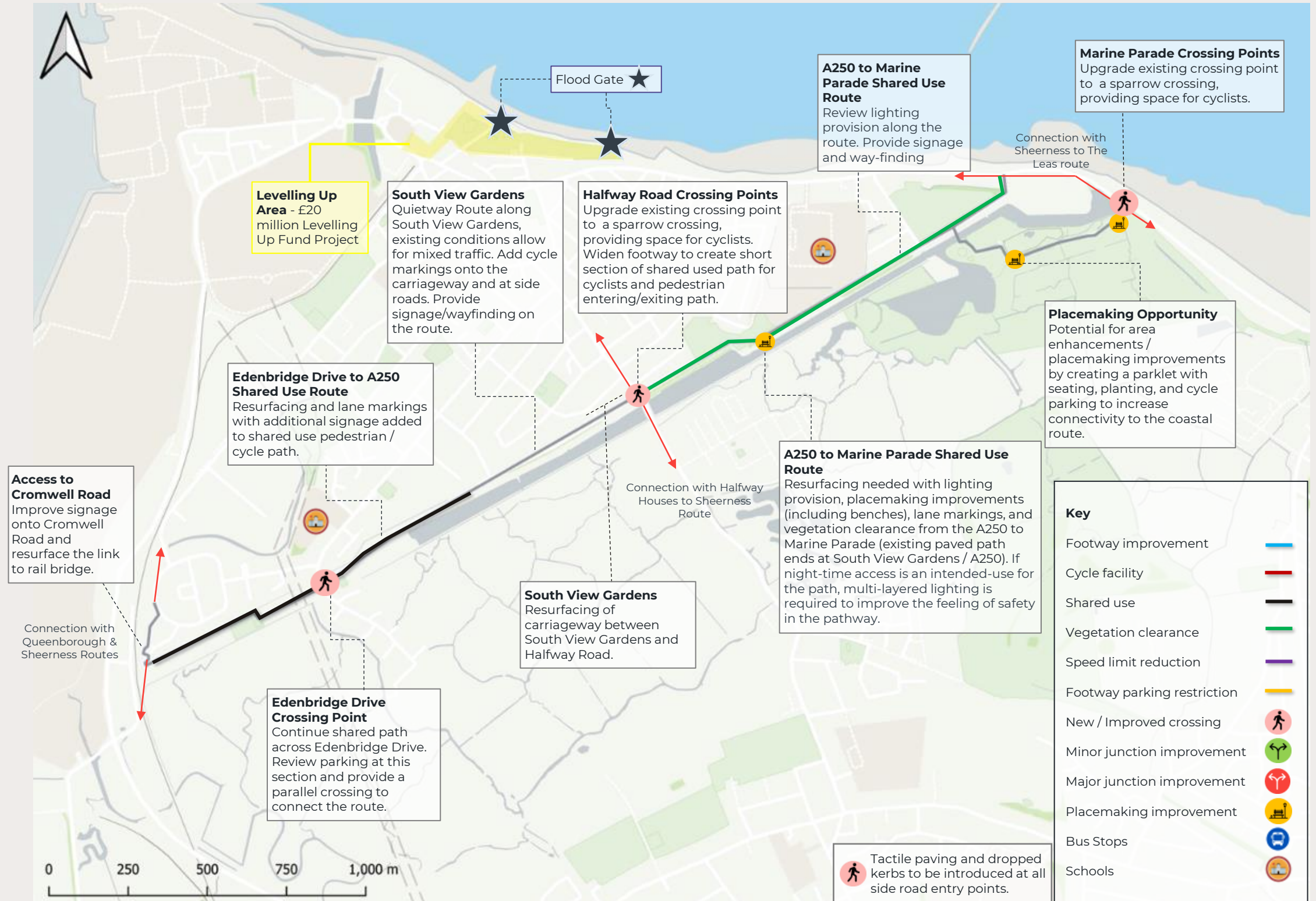


Figure 57 : Cromwell Road to Marine Parade

Swale Railway Station to Queenborough Road (A2500)

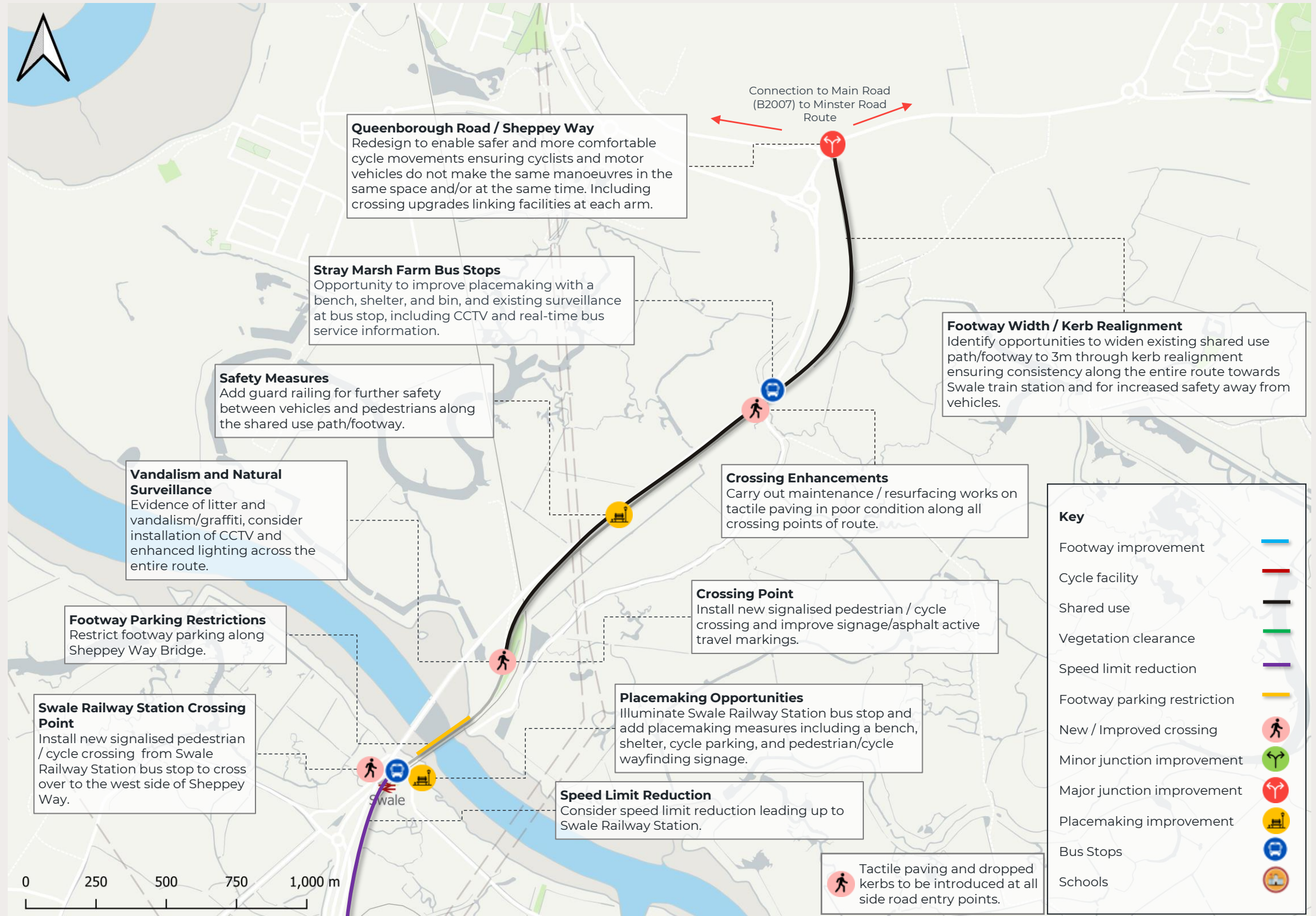


Figure 58 : Swale Railway Station to Queenborough Road (A2500)

Sheerness Town Centre



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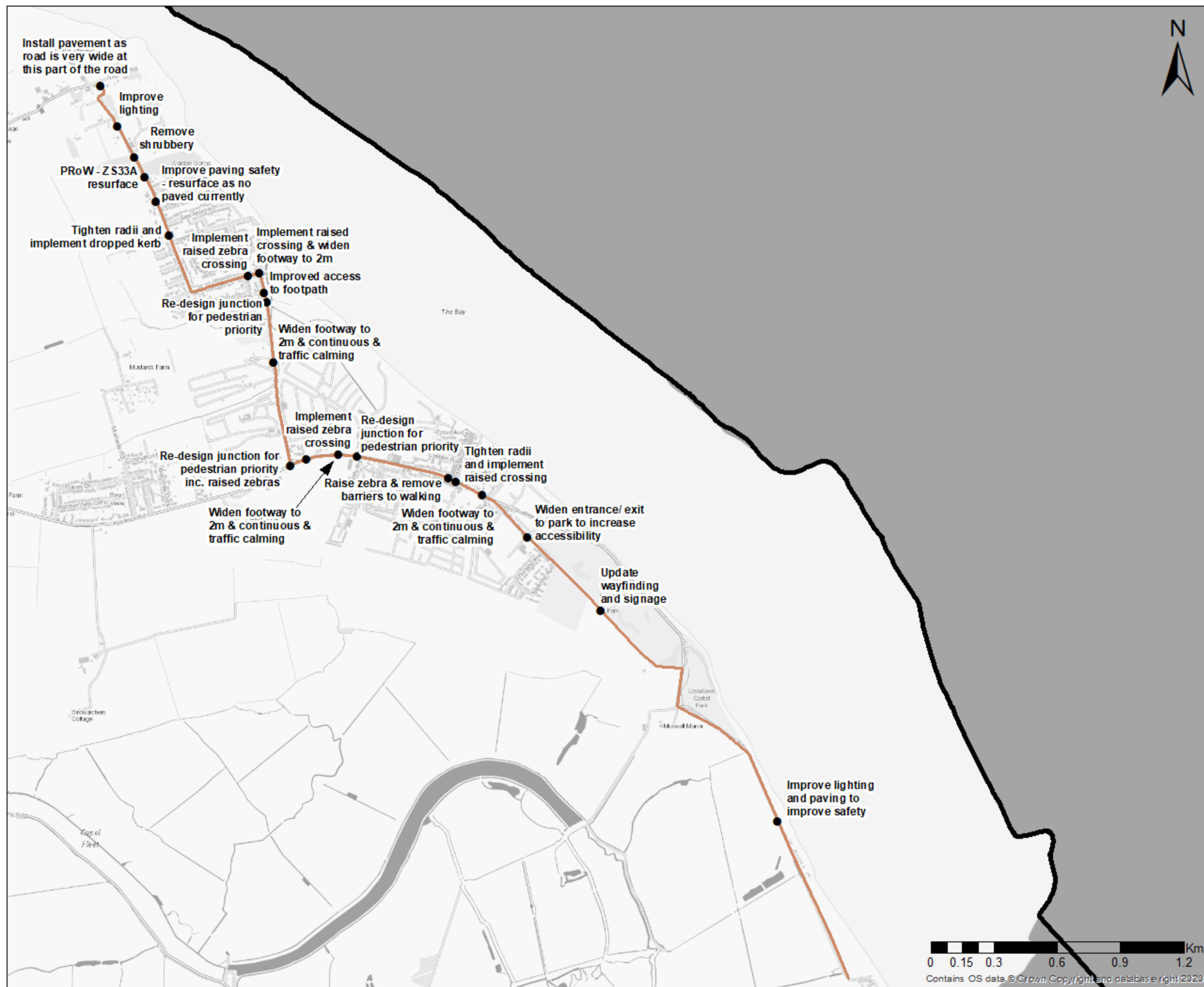
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LEGEND

- Study Area
- Walking Interventions
- Route 1 - Shellness to Warden



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