

Basildon Borough Cycling Action Plan

Highways/Transport Planning

November 2017



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Executive Summary

Essex Highways was commissioned by Essex County Council to produce a Cycling Action Plan (CAP) for Basildon Borough, as part of a commitment in the Essex Cycling Strategy to create Cycling Action Plans for every Borough/District/City.

The purpose of the Essex Cycling Strategy is to set out the key elements of a long term plan that will lead to a significant and sustained increase in cycling in Essex, establishing it in the public's mind as a 'normal or regular' mode of travel, especially for short A-to-B trips, and as a major participation activity and sport for all ages.

To help achieve this, Essex is committed to establishing a coherent, comprehensive and advantageous cycle network in every major urban area, utilising a combination of on-carriageway and off-carriageway cycle facilities. To enable this, each Borough/ District/City in Essex will have an up-to-date Cycling Action Plan (renewed every five years). These are seen as key elements of a long term plan that will lead to a significant and sustained increase in cycling in Basildon Borough and in Essex.

This Basildon CAP is targeted towards the specific needs of Basildon residents, which will assist Essex County Council (ECC) in tackling wider problems associated with poor health, pollution, traffic congestion and inequalities of opportunities for Basildon's youth population and people on low incomes.

The aims of this Action Plan are to:

- Identify how cycling levels can be increased in the Borough;
- Prioritise funding for new cycling schemes in Basildon;
- Create a usable, high-quality cycle network that connects residential areas with key employment locations, railway stations, and town centres; and
- Create opportunities to increase recreational cycling in Basildon.

Understanding current levels and conditions for cycling has been important in developing this CAP, which has involved analysis and consideration of 2011 Census data, the Active People Survey (by Sport England), the Essex Cycle Monitor database, Department for Transport count data, collision data, cycle crime statistics and topography.

In order to create an environment where cycling is normal for the residents of Basildon, it will be necessary to remove existing barriers to cycling and a series of cycle routes provided, with the aim of creating a connected cycle network over

time. Cycling infrastructure should provide for both key utility journeys and encourage leisure cycling.

The key recommendations and schemes are listed in Sections 6, 7 and 8 of this CAP and are summarised in Section 11 and below.

Key Recommendations

Taking into account the current barriers to cycling in Basildon Borough, commuter flow analysis and locations of committed development, the following key recommendations have been made for cycle enhancements in the Borough:

- Review existing route signage and lighting;
- Improve maintenance of existing routes;
- Prioritise North – South and East-West Flagship routes, providing access to the town centre and railway station;
- Increased provision of useful cycle routes in Billericay, Wickford and Basildon, in particular;
- Provide new and improved cycle parking with a focus on satiating the considerable demand for commuter trips at railway stations;
- Fill obvious gaps in the existing cycle-route network (on alignments with cycle-friendly topography);
- Provide new infrastructure on key roads with cycle-friendly topography but no existing facilities;
- Update the existing cycle map every two years taking on board new innovation in cycle-map design, and promote it and disseminate it widely through a range of channels and outlets;
- Develop Flagship Routes through Feasibility Studies to Detailed Design; and
- Promote and market Flagship Routes with ‘Cycle Superhighway’ style branding and disseminating techniques.

Next Steps

This is a draft Action Plan and, although the potential schemes have been developed in discussion with Council representatives, further consultation is required before the overall Action Plan can be finalised.

The character of the existing highway network has been taken into account, when developing potential cycle routes and schemes – in particular existing traffic levels. Broad costs of schemes have been identified, as well as broadly prioritising schemes against deliverability, directness, extension of the existing

network and proximity to key attractors. However, the potential routes and schemes have not been constrained to a set budget and the feasibility and the precise cost of the routes can only be established through further study.

1 Introduction

1.1 Preamble

As part of the county-wide Essex Cycling Strategy, Cycling Action Plans are being developed for individual Boroughs, Districts and Cities of Essex, including one for the Borough of Basildon. This document provides an opportunity to develop and promote cycling in Basildon through improved infrastructure, together with the wider promotion of cycling by Active Essex, Essex County Council (ECC) and Basildon Borough Council (BBC), to establish it in the public's mind as a 'normal' mode of travel, especially for short a-to-b trips, and as a major participation activity and sport for all ages.

Two key commitments of the Essex Cycling Strategy are to:

- Establish a coherent, comprehensive and advantageous cycle network in every major urban area, utilising a combination of on-carriageway and off-carriageway cycle facilities; and
- Ensure each Borough/ District/ City has an up to date Cycling Action Plan (renewed every 5 years).

The Cycling Action Plans should help to identify high quality and well planned infrastructure which will be vital in encouraging cycling and improving safety. ECC will ensure that every urban area has a well-planned cycle network that:

- Connects key destinations;
- Supports a network of recreational routes; and
- Caters for all users and abilities.

Coherent cycle networks will ensure that:

- The physical barriers to cycling in many of Essex's urban areas are progressively broken down; and
- Cycling becomes a prioritised mode of transport in the mind of Essex residents.

In addition, Active Essex (County Sports Partnership) priority aims and how cycling helps achieve these aims are included in Table 1.1.

Table 1.1: Active Essex priority aims

Active Essex priority aims	How cycling helps achieve these aims
Increase participation in sport and physical activity	Cycling is one of the most popular sports in Essex and can be enjoyed by people of all ages
Encourage healthy and active lifestyles	Cycling provides a means of active transport that can help to reduce the number of short car journeys
Develop sporting pathways	Alex Dowsett, cycling world record breaker, is from Essex and benefited from Active Essex Sporting Ambassador funding and support when he was a talented young cyclist
Encourage lifelong learning and skills development	Bikeability courses help children and adults to acquire physical skills and road safety awareness

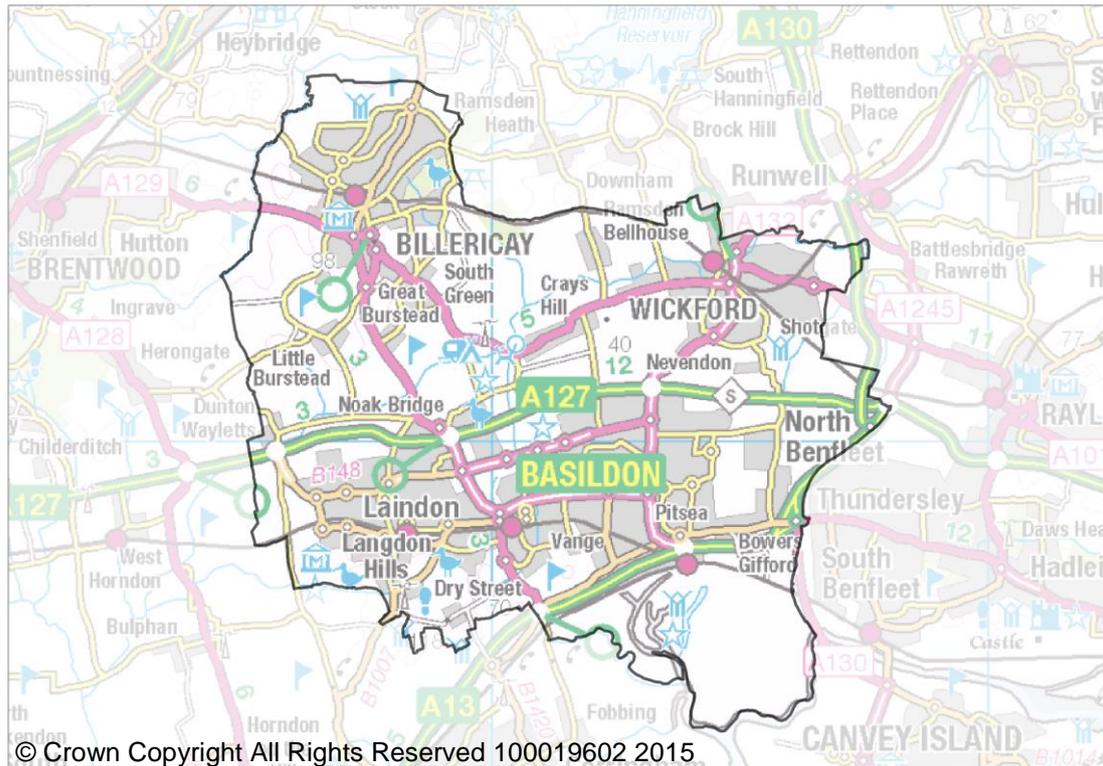
1.2 Background

Basildon is a borough of considerable geographical diversity. To the north-west, Billericay lies on a hill between 70m and 100m above sea level. Wickford is a few miles to the east of Billericay by the River Crouch, a low-lying settlement most of which is below an altitude of 20m. Basildon is a much larger settlement (population around 100,000), and is a heavily motorised town with a high-capacity road network and a large number of car-parking spaces. Its topography is varied – relatively low and cycle friendly in the central and eastern areas (20m to 40m above sea level) but some steep gradients and high areas (up to 100m) out to the west.

The Borough has good rail connections. Billericay and Wickford are on the Liverpool Street line with journey times of 30 minutes to 40 minutes (single fares £13-£14). Basildon trains go to Fenchurch Street with a similar journey time (35 minutes) but considerably cheaper fares (singles are £9.50), and therefore attract quite a few trips from people who are closer to the Billericay line. The Basildon line also serves Laindon and Pitsea stations within the Borough. The south-east tip of the Borough is the most rural part, with the Wat Tyler Country Park a local recreational amenity.

The 2011 Census records the population in Basildon Borough at 174,500.

Figure 1.1: Basildon Borough Map



1.3 Aims of the Action Plan

Although Essex County Council (ECC) and Basildon Borough Council (BBC) have been promoting and facilitating cycling for many years, the lack of a planned and justifiable list of interventions aimed at widening the appeal of cycling within the Borough means that it has not always been prioritised.

The aims of the Action Plan are to:

- Identify how cycling levels can be increased in the Borough;
- Prioritise funding for new cycling schemes in Basildon;
- Create a usable, high-quality cycle network that connects residential areas with key employment locations, rail stations and town centres; and
- Create opportunities to increase recreational cycling in Basildon.

This is a draft Action Plan and, although the potential schemes have been developed in discussion with Council representatives, further consultation is required before the overall Action Plan can be finalised.

1.5 Report Structure

The remainder of this Action Plan is set out as follows:

- Section 2 – Policy Review;
- Section 3 – Data Analysis;
- Section 4 – Existing Network Provision and Barriers;
- Section 5 – Basildon’s Cycling Potential;
- Section 6 – Potential Infrastructure Improvements;
- Section 7 – Prioritisation and Costings of Potential Schemes;
- Section 8 – Flagship Routes;
- Section 9 – Smarter Travel Measures;
- Section 10 – Delivery and Funding; and
- Section 11 – Key Recommendations.

2 Policy Review

2.1 Introduction

This section provides a summary of the relevant national, regional and local policies related to cycling. Relevant National, Regional and Local Policy contexts have been examined through consideration of the following documents: the UK Government's Cycling and Walking Investment Strategy (CWIS, 2017), the Essex Transport Strategy (2011) and the Basildon Draft Local Plan (2016).

These documents indicate that there is a great deal of support for cycling at all levels. At a national level, there is a long term vision for cycling to become the normal mode of choice for short journeys or as part of a longer journey. At a regional level, there is a particular emphasis on providing sustainable access and travel choice for Essex residents. It is recommended that cycling will be promoted as a way to reduce congestion within urban areas, to encourage healthier lifestyles, and as a valuable leisure and tourism opportunity that is important to the local economy. Basildon is specifically identified in Policy 14 (Cycling) of the Essex Transport Strategy as a 'main urban area where cycling facilities will continue to be improved'.

At a local level, to support the planned growth in Basildon Borough and to enable more existing journeys to be made by bike, extending and upgrading the cycle networks is a key objective, along with promoting their use. Evidence shows that future traffic growth in the Borough will lead to significant parts of the highway network operating at or above capacity, causing delay. Whilst much of the Borough is reasonably flat and Basildon town centre has a well-developed cycle network, the proportion of people travelling to work by bicycle is currently well below the national average.

2.2 National Policy Context

2.2.1 Cycling and Walking Investment Strategy (CWIS)

Under the Infrastructure Act 2015, the UK Government is required to set a Cycling and Walking Investment Strategy (CWIS) for England. A Draft First CWIS was published at the end of March 2016, which set out the UK Government's ambition for creating a walking and cycling nation, the targets and objectives they are working towards, the financial resources available to meet their objectives, the strategy for delivering the objectives, and the governance arrangements that will review this delivery. Following consultation, a final version of the Strategy was published in 2017.

The final Cycling and Walking Investment Strategy states that the Government “wants to make cycling and walking the natural choices for shorter journeys, or as part of a longer journey”. The aim is for more people to have access to safe, attractive routes for cycling and walking by 2040. By 2040, the ambition is to deliver:

Better Safety (a safe and reliable way to travel for short journeys), through:

- Streets where cyclists and walkers feel they belong, and are safe;
- Better connected communities;
- Safer traffic speeds, with lower speed limits where appropriate to the local area; and
- Cycle training opportunities for all children.

Better mobility (more people cycling and walking – easy, normal and enjoyable), through:

- More high quality cycling facilities
- More urban areas that are considered walkable;
- Rural roads which provide improved safety for walking and cycling;
- More networks of routes around public transport hubs and town centres; with safe paths along busy roads;
- Better links to schools and workplaces;
- Technological innovations that can promote more and safer walking and cycling;
- Behaviour change opportunities to support increased walking and cycling; and
- Better integrated routes for those with disabilities or health conditions.

Better streets (places that have cycling and walking at their heart), by:

- Places designed for people of all abilities and ages so they can choose to walk or cycle with ease;
- Improved public realm;
- Better planning for walking and cycling;
- More community-based activities, such as led rides and play streets where local places want them; and
- A wider green network of paths, routes and open spaces.

The document recognises that great progress has been made on cycling in the past six years. Cycling rates have increased in areas where dedicated funding has been made available and spend on cycling has risen from around £2 per

person in 2010 to £6 per person in England in 2016-17. The Government want to build on these successes and to help achieve this have made over £1 billion of Government funding available to local bodies that may be invested in walking and cycling over the next five years. The £1.2 billion is allocated as follows:

- £50 million to provide cycling proficiency training for further 1.3 million children;
- £101 million to improve cycling infrastructure and expand cycle routes between the city centres, local communities, and key employment and retail sites;
- £85 million to make improvements to 200 sections of roads for cyclists;
- £80 million for safety and awareness training for cyclists, extra secure cycle storage, bike repair, maintenance courses and road safety measures;
- £389.5 million for councils to invest in walking and cycling schemes; and
- £476.4 million from local growth funding to support walking and cycling.

In addition, the government is investing an extra:

- £5 million on improving cycle facilities at railway stations;
- £1 million on Living Streets' outreach programmes to encourage children to walk to school; and
- £1 million on [Cycling UK's 'Big Bike Revival' scheme](#) which provides free bike maintenance and cycling classes.

By 2020, the objectives of the CWIS are to:

- Increase cycling activity, where cycling activity is measured as the estimated total number of cycle stages made;
- Increase walking activity, where walking activity is measured as the total number of walking stages per person;
- Reduce the rate of cyclists killed or seriously injured on England's roads, measured as the number of fatalities and serious injuries per billion miles cycled; and
- Increase the percentage of children aged 5 to 10 that usually walk to school.

2.2.2 Cycling and Walking Infrastructure Plans (CWIP)

A National CWIP is being developed to inform the CWIS. This will include the identification of nationally significant locations/infrastructure. Six outputs are currently being developed (three national and three local outputs):

- The national outputs focus on identifying criteria for national significance and developing a pipeline of potential schemes; and
- The local outputs are focused on developing a Level of Service tool, and guidance to Local Authorities on developing their own local CWIP.

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

While only focusing on cycling it is hoped that ECC's suite of Cycling Action Plans will contribute to the future development of an Essex CWIP by providing:

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

2.3 Regional Policy Context

2.3.1 Essex Transport Policy

The Essex Transport Strategy (2011) seeks to achieve the following five broad outcomes:

- Provide connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration;
- Reduce carbon dioxide emissions and improve air quality through lifestyle changes, innovation and technology;
- Improve safety on the transport network and enhance and promote a safe travelling environment;
- Secure and maintain all transport assets to an appropriate standard and ensure that the network is available for use; and
- Provide sustainable access and travel choice for Essex residents to help create sustainable communities.

‘Policy 14 – Cycling’ states that Essex County Council will encourage cycling by:

- Promoting the benefits of cycling;
- Continuing to improve the cycling facilities within the main urban areas of Basildon, Chelmsford, Colchester and Harlow;
- Developing existing cycling networks in other towns where cycling offers an appropriate local solution;
- Working with schools and employers to improve facilities for cyclists;
- Improving access to local services by integrating the Public Rights of Way, walking and cycling networks to form continuous routes; and
- Providing training opportunities to school children and adults.

Cycling will be promoted as a way to reduce congestion within urban areas, to encourage healthier lifestyles, and as a valuable leisure and tourism opportunity that is important to the local economy.

Improving the safety of the cycling network is also a key concern within the *Essex Transport Strategy*. Policy 14 of the plan sets out Essex County Council’s approach to encouraging cycling, which includes developing cycle networks within towns across Essex and improving access to local services and schools for cyclists. In terms of locational priorities in relation to cycling, the plan identifies Basildon (including Laindon and Pitsea) as a priority area, seeking improvements to the town’s cycle networks, including links with surrounding areas such as Billericay and Wickford.

The *Essex Transport Strategy* seeks to promote sustainable travel, by providing the infrastructure for sustainable travel and promoting the use of travel plans. With regard to cycling, the *Essex Transport Strategy* considers actions to improve access for cyclists and pedestrians in particular, and identifies the following improvements as essential:

- Addressing gaps in existing networks;
- Better linkages for walking and cycling routes within the Public Rights of Way network;
- Improving signing;
- Improving crossing facilities; and
- Ensuring that pedestrian routes are accessible for everyone.

The *Infrastructure Act 2015* includes a new legal requirement for the Government to produce a cycling and walking investment strategy. The DfT’s *Cycling Delivery Plan (2014)* refers to a new national cycling target, to double the number of

cycling stages (trips) nationally over a 10 year period. This new target will be adopted by Essex County Council as part of the *Essex Cycle Strategy (2015)*.

Additionally, the Government has introduced a £6bn Local Growth Fund for cycling and walking. It has also set a target of achieving an annual cycling spend of £10 to £20 per head of the population. In the Borough this could see between £1.8m and £3.6m per year spent on improving cycling provision.

2.3.2 Essex Cycle Strategy (2016)

In response to the legal requirement, and also the requirements of the Essex Transport Strategy, the Essex Cycle Strategy has been prepared with the aim of setting out a strategy for providing coherent cycle networks. The purpose of the strategy is to set out the key elements of a long term plan that will lead to a significant and sustained increase in cycling in Essex, establishing it in the public's mind as a 'normal' mode of travel, especially for short a-to-b trips, and as a major participation activity and sport for all ages. The strategy has been produced in conjunction with Essex County Council, the 12 Essex Boroughs/ Districts/ Cities, the two Unitary Authorities (Southend-on-Sea and Thurrock) and other key stakeholders. It has taken account of current UK policy, data on cycling levels within Essex and best practice from around the world. Specifically, it commits to:

- I. Establishing a coherent, comprehensive and advantageous cycle network in every major urban area, utilising a combination of on-carriageway and off-carriageway cycle facilities;
- II. Ensuring each Borough, District or City has an up to date cycling action plan (renewed every 5 years);
- III. Providing well placed and high quality cycle parking at key public destinations such as town centres, leisure facilities and railway stations;
- IV. Ensuring that all new housing includes secure and easily accessible cycle storage and that new secure cycle storage is facilitated in existing housing developments;
- V. Ensuring that cycling is prioritised over motorised transport in all new developments – making it easier to carry out short trips by bicycle than by car. Cycle routes within commercial and residential developments will be more direct and convenient than car routes and will connect in to existing cycling infrastructure on leaving the site;
- VI. Prioritising more frequent and good maintenance of our cycle network;
- VII. Providing a clear and consistent standard of good quality, well placed cycle signage – to an appropriate density, with provision of journey times as well as distances (to cater for all audiences) where possible;

- VIII. Continuing to improve cycle safety at sites with actual and perceived safety problems; and
- IX. Developing an improved mechanism for the reporting of safety issues.

2.4 Local Policy Context

2.4.1 Basildon Draft Local Plan (January 2016)

Essex is a diverse county with different sub-areas that have different needs and issues with regards to continued and future transport provision. The Thames Gateway South Essex sub-area, within which Basildon Borough is located, can become heavily congested, particularly at peak periods. The *Essex Transport Strategy* therefore identifies a specific suite of priorities for South Essex that aims to promote more sustainable modes of transport that support economic growth ambitions. The priorities which are specifically related to cycling are:

- Providing for and promoting access by sustainable modes of travel to new development areas;
- Improving the availability of sustainable travel choices and raising public awareness of these through travel planning; and
- Addressing maintenance, signing and broken links in the cycle network to improve conditions for cyclists and create a safer environment for cycling;

Specific funding has been secured from SELEP to fund various improvements along the A127 Corridor, including £27 million for improvements to the A127/A130 Fairglen Interchange. A further £13m has also been secured for the Basildon Integrated Transport Package which will help deliver public transport improvements, highway changes including cycle routes, required by the *Basildon Town Centre Masterplan* and improved access to Basildon Hospital.

A *Highway Impact Assessment* was prepared for Basildon Borough Council in partnership with Essex County Council to understand the implications that growth within the Borough, and also growth arising from outside the Borough, could have on the existing highway network in the Borough in the future. The results of the *Highway Impact Assessment* showed that significant parts of the road network in the Borough would operate at or above capacity as a consequence of growth. In particular, most of the existing junctions in both Billericay and Wickford are shown to be over capacity in future years as a consequence of the levels of growth proposed in this plan. Both improvements to the highway network, and a modal shift towards more sustainable travel modes is therefore required in both of these settlements to enable further growth without exacerbating congestion levels.

In terms of sustainable transport modes, Basildon Borough Council has been working closely with Essex County Council to develop a local Cycling Strategy. A strategic approach to cycling is essential to address the levels of participation in this mode. Basildon town has a well-developed cycle network. However, the proportion of people travelling to work by bicycle is well below the national average. It is therefore necessary to deliver improvements to the existing network, and also to secure new route provision within new development proposals.

2011 Census data shows that only 1% of journey to work trips in the Borough are made by bicycle, with only 4% on foot. However, 31% of journeys to work are less than 5km, and 12% are less than 2km. Whilst there are some steep gradients and hills around the Borough such as at Noak Hill, Crown Hill, and Crays Hill, which would make some journeys by bicycle or foot challenging, there is great potential within the Borough for cycling rates to be increased to meet the national cycling target. Significant parts of the Borough have relatively flat terrain, particularly within Basildon. There are also opportunities to improve cycling access to the rail network.

With regard to walking and cycling, the *NPPF* expects Local Plans to support patterns of development which facilitate the use of sustainable modes of transport. In particular, plans should be located and designed to give priority to pedestrian and cycle movements, and create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians.

The *Essex Transport Strategy* seeks to promote sustainable travel, by providing the infrastructure for sustainable travel and promoting the use of travel plans. In supporting this aim, Policy TS 3 (Improvements to Footpaths and Cycle Infrastructure) of the Draft Local Plan states that:

1. In order to increase the proportion of residents accessing work, railway services, education facilities, other services and recreational opportunities by foot or by bicycle, the schemes and projects set out in the *Basildon Cycling Action Plan* to improve footpaths, footways and cycling infrastructure will be delivered during the plan period.
2. The Council will work with partners including Essex County Council to secure the funding necessary to deliver the infrastructure improvements set out in the *Basildon Cycling Action Plan*. It will also expect development proposals to support the implementation of *Essex Cycle Strategy* and the *Basildon Cycling Action Plan* by:

- a. Retaining, and improving, any existing footpaths, footways, cycle routes, bridleways and other Public Rights of Way passing through or adjacent to their site;
- b. Providing additional footpaths, cycle routes and bridleways which link up with the existing network, provide access to nearby residential, commercial, retail, education and leisure opportunities, provide access to the countryside and address any gaps in the network;
- c. Providing facilities for pedestrian and cycle access, including the provision of cycle parking, in both residential development and non-residential development; and
- d. Contributing to facilities for pedestrian and cycle access at nearby public transport hubs

3 Data Analysis

3.1 Introduction

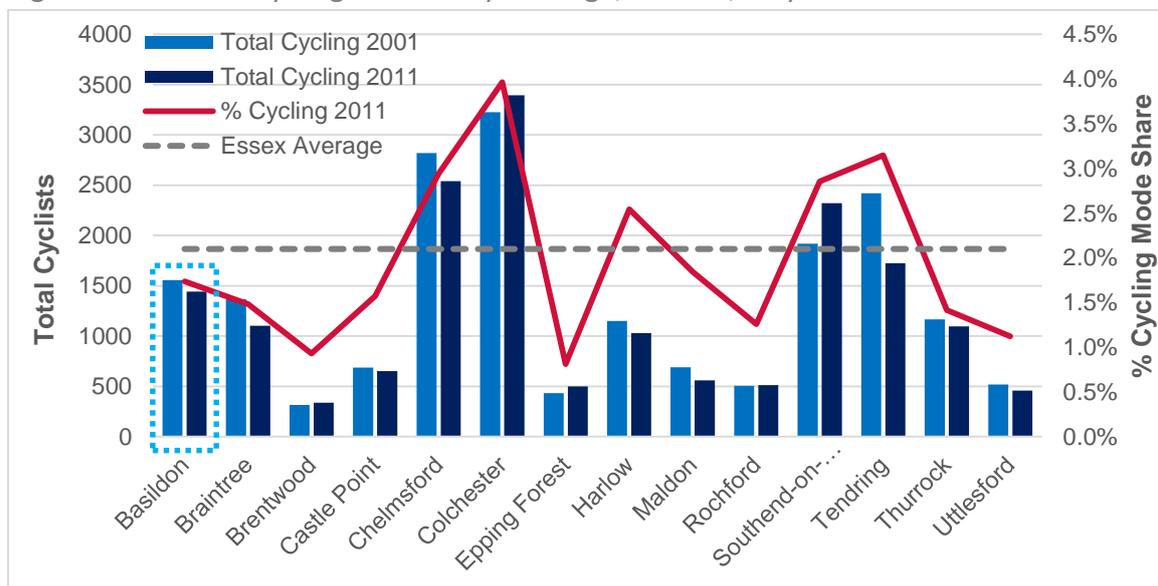
When planning for cycling infrastructure it is important to first understand current levels and conditions for cycling. This section includes analysis of:

- 2011 Census data;
- The Active People Survey (by Sport England);
- The Essex Cycle Monitor database;
- Department for Transport count data;
- Collision data;
- Cycle crime statistics; and
- Topography.

3.2 Census Data

As part of the 10 year national census, respondents are asked to state their main mode of travel to work by distance. The 2011 Census results for Essex are shown in Figure 3.1 below.

Figure 3.1: Census Cycling to Work by Borough/ District/ City



As shown above, based on the 2011 Census data, Basildon has slightly below average levels of cycling numbers when compared with other Essex Boroughs/ Districts, with 1,441 people cycling to work every day (1.7% of all journeys to work) in 2011. In other words, 1.7% of the journeys to work in Basildon are made by bicycle, which is slightly lower than the Essex average of 2.1%.

Cycling-to-work levels decreased marginally in the majority of Essex Districts between 2001 and 2011 Census. This slight decline has been widely observed across many shire counties in England and Wales, despite the number of people cycling to work growing by 90,000 between 2001 and 2011, the proportion remained the same at 2.8%. The decline in cycling to work in Essex and many other shire counties has been attributed to failures in local policy and a lack of infrastructure¹. Whereas, in urban areas, cycling to work increased due to the implementation of improved infrastructure, thus balancing the decline in rural areas.

Within Basildon town itself, 4% of internal journeys to work are made by bike, equating to 858 cyclists per day, putting it in the top 10 urban areas for cycling in Essex.

Figure 3.2 to Figure 3.4 show percentage cycling to work by origin in Basildon, Billericay and Wickford.

¹ <http://www.sustrans.org.uk/press-releases/governments-must-get-times-cycling-work-levels-stagnate-over-10-years>

Figure 3.2 % Cycling to Work by Origin in Basildon

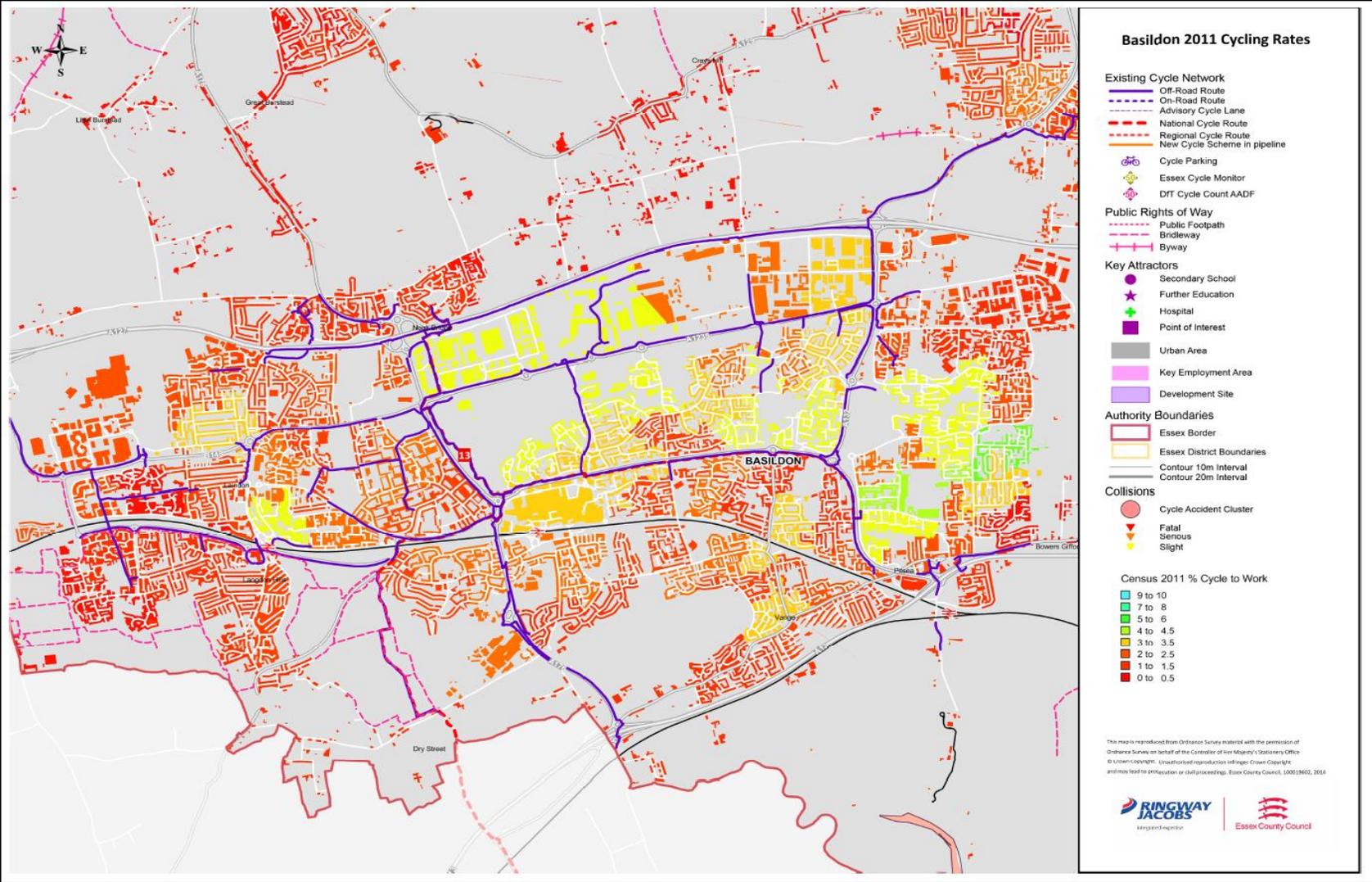


Figure 3.3 % Cycling to Work by Origin in Billericay

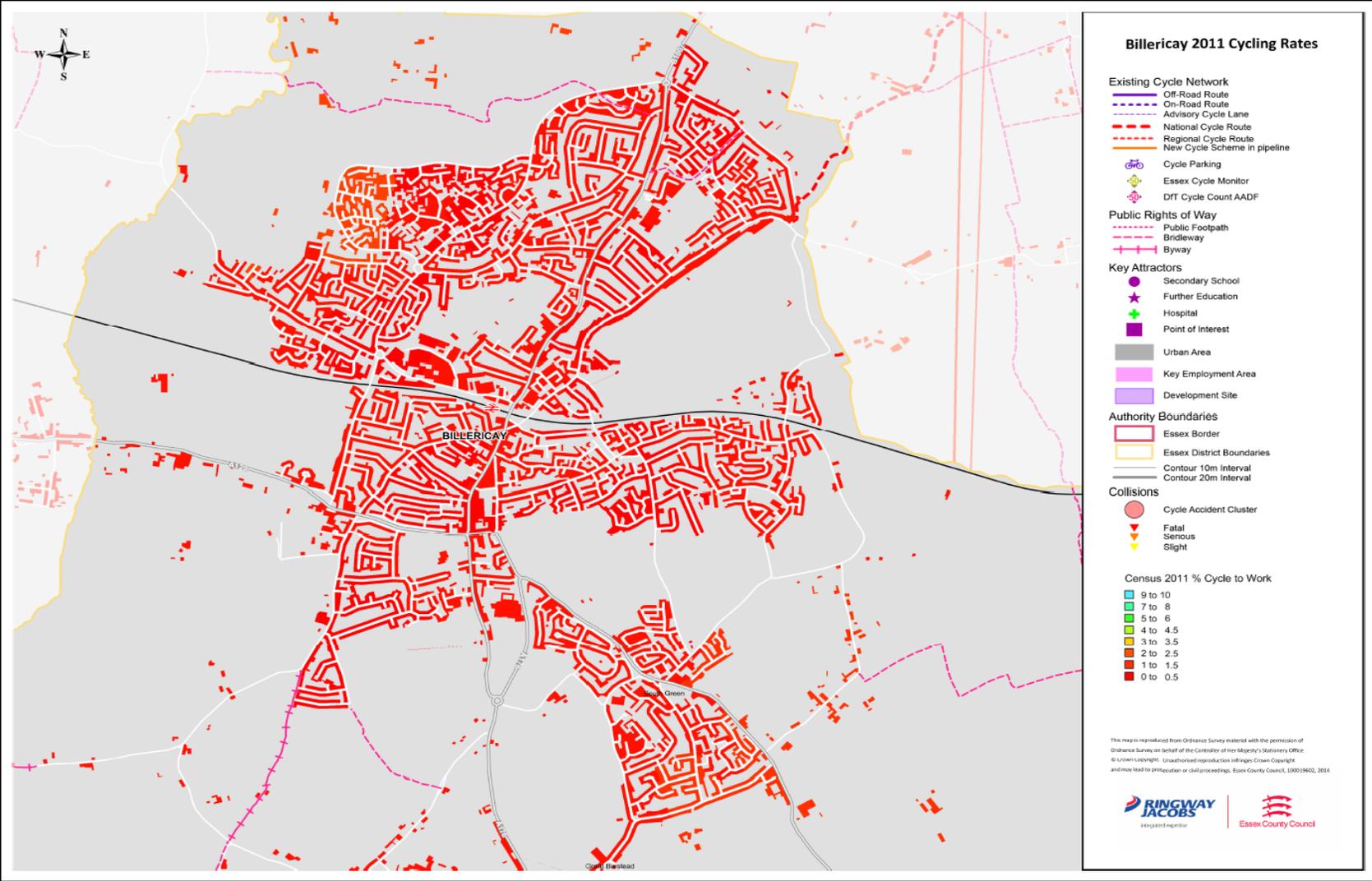
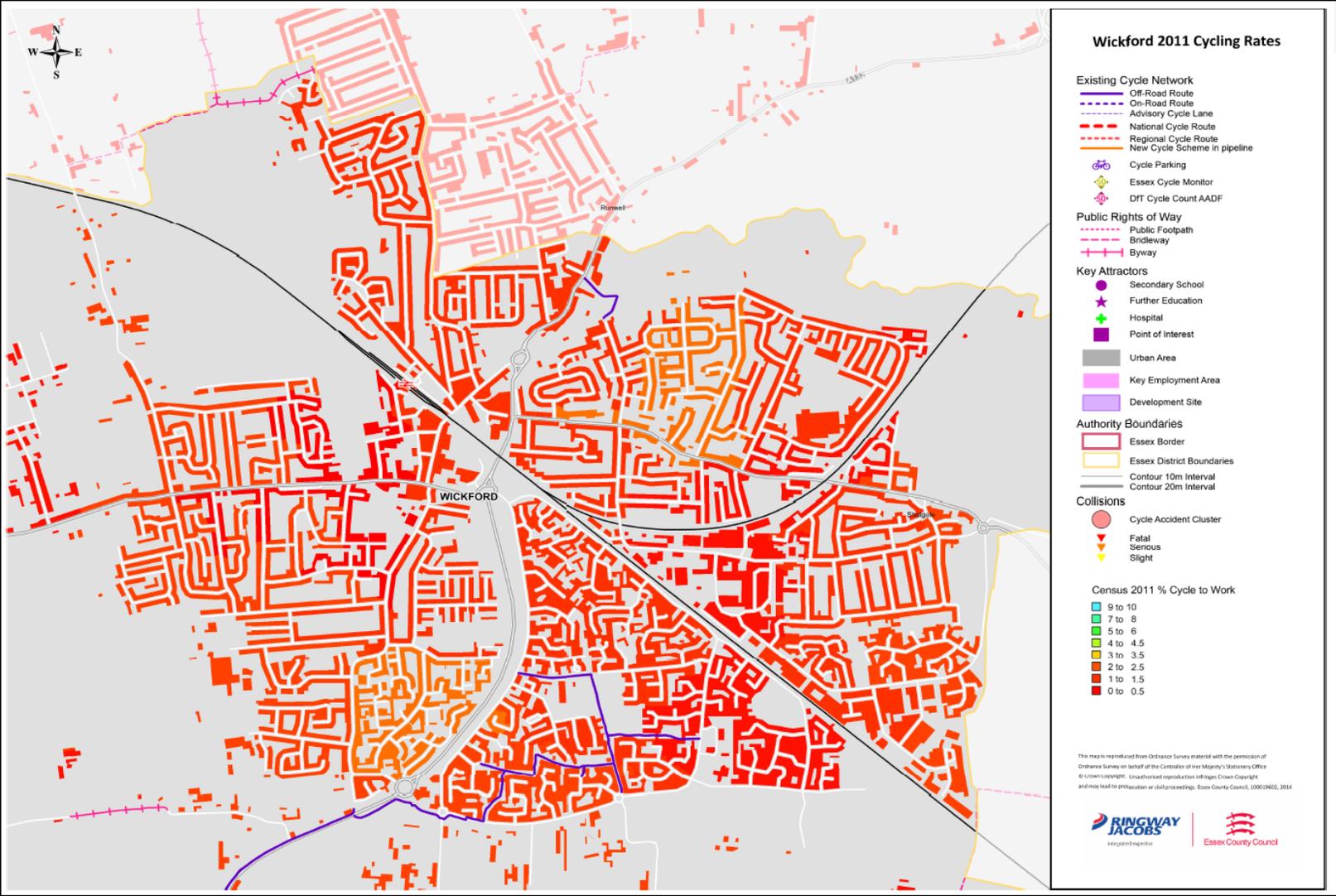


Figure 3.4 % Cycling to Work by Origin in Wickford

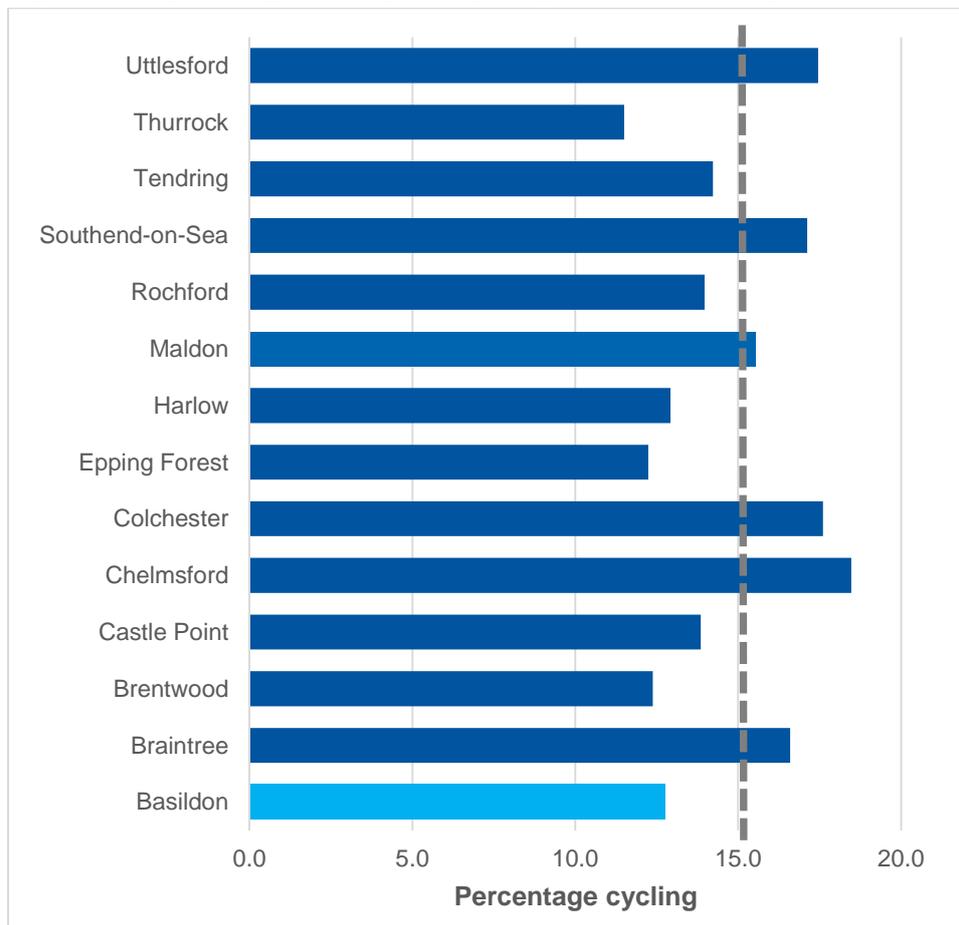


3.3 Sport England Active People Survey

Sport England carry out an Active People Survey annually, which involves interviewing 500 people from every District in England about their propensity to do physical activity. It is the largest survey of sport and active recreation in Europe.

Figure 3.5 shows 2010-2013 average propensity to cycle at least once per month for any purpose based on the Sport England data. The results show that across Essex, Basildon has relatively low levels of residents cycling at least once a month in the county. Relative to other districts and boroughs, Basildon fares worse in this data set than for journey to work. This may be because, as an urban and heavily motorised Borough, recreational cycling is relatively less appealing than most other parts of the county.

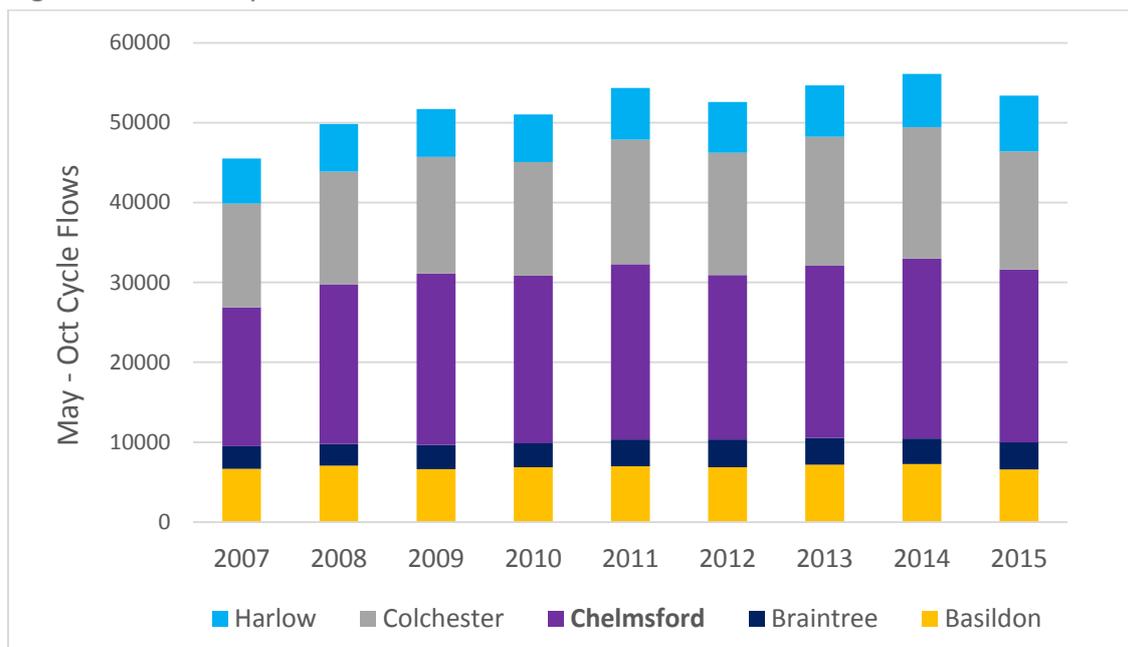
Figure 3.5: Sport England Propensity to cycle at least once per month 2010-2013



3.4 Essex Cycle Monitor

Essex County Council has an established network of over 50 cycle monitor counters located across the five urban areas of Basildon, Braintree, Chelmsford, Colchester and Harlow. The count sites continuously record hourly total cycle flow data and have a baseline of 2007. Figure 3.4, below shows May to October total 7-day flows by urban area.

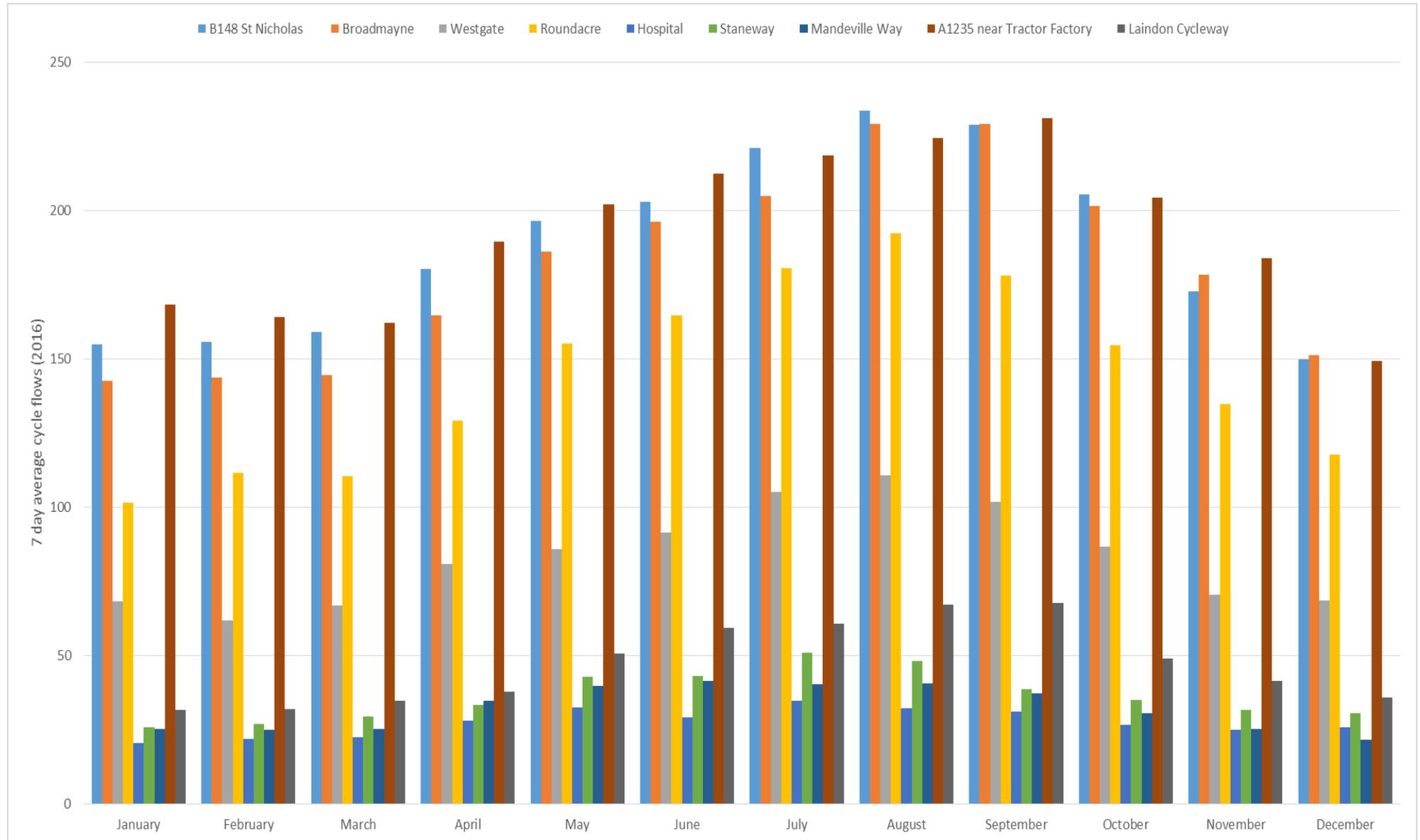
Figure 3.6 Essex Cycle Monitor 2007-2015



The cycle monitor sites have observed a 17% increase between 2007 and 2015, although levels in Basildon have remained fairly steady with 7 day average flows of approximately 7000 cycles per week, peaking in 2014 with average weekly flows of 7,380 cycles. Since 2014, levels have declined to 6,573 cycles per week in 2016.

There are 9 Cycle Monitor sites in Basildon, located at: B148 St Nicholas; Broadmayne; Westgate; Roundacre; Hospital; Staneway; Mandeville Way; A1235 near the Tractor Factory; and Laindon Cycleway. In 2016, 4 of these sites recorded 7 day average cycle flows of more than 100 cycles, reaching more than 200 cycle 7 day average in the summer months (Figure 3.7).

Figure 3.7: 7 day average cycle flows at Essex Cycle Monitor Sites in Basildon (2016)



3.5 DfT Count Data

The Department for Transport collects vehicular flow data at various locations on the road network around the country. These counts record all vehicles using the carriageway, including pedal cycles. Of the 20 count sites located in Basildon, 7 sites recorded more than 100 cyclists per day, and most of these are on the off-road cycle network indicating that, despite its poor quality in places, it is still attracting a fair amount of use.

3.6 Collision Data

Fear of personal injury is often cited as the biggest barrier to cycling but while this is an important issue, it is useful to use statistics rather than just perception to direct improvements to highway infrastructure to improve the cycling environment. The location of cycling personal injury collisions also serves to identify where cyclists are travelling in higher numbers which can be useful when deciding where to prioritise new infrastructure.

Table 3.1 shows the number of recorded personal injury collisions (PICs) involving cyclists by District for the 5 year period between August 2012 and July 2017.

Table 3.1: Personal Injury Collisions involving Cyclists, August 2012-July2017

Cycle Accidents	Fatal	Serious	Slight	Grand Total	% of Total	Number cycling to work ²	% of Total
BASILDON	0	37	135	172	8%	1412	8%
BRAINTREE	2	37	90	129	6%	1070	6%
BRENTWOOD	0	16	41	57	3%	320	2%
CASTLE POINT	0	24	69	93	5%	631	4%
CHELMSFORD	2	56	194	252	12%	2486	14%
COLCHESTER	0	72	227	299	15%	3310	19%
EPPING FOREST	1	36	105	142	7%	482	3%
HARLOW	2	13	60	75	4%	1018	6%
MALDON	1	15	42	58	3%	548	3%
ROCHFORD	1	25	63	89	4%	498	3%
SOUTHEND	1	63	266	330	16%	2260	13%
TENDRING	3	28	117	148	7%	1683	10%
THURROCK	0	35	101	136	7%	1078	6%
UTTLESFORD	0	18	41	59	3%	433	3%
ESSEX	12	412	1285	1709		13891	
GREATER ESSEX	13	475	1551	2039		17229	100%

Basildon has the fourth highest number of cyclist collisions in the County but the fifth highest amount of cycle commuting and ninth highest amount of monthly cycling (from the Sports England survey). This suggests that cyclists are at greater risk in Basildon than they are on average across the county. The large majority of the 103 collisions took place in Basildon town with about 20 in the other two towns (Billericay and Wickford) combined. There is a relatively even distribution in Basildon.

² Source: NOMIS. Census 2011. Journey to work by cycle data.

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Figure 3.8 Location of pedal cycle PICs in Basildon

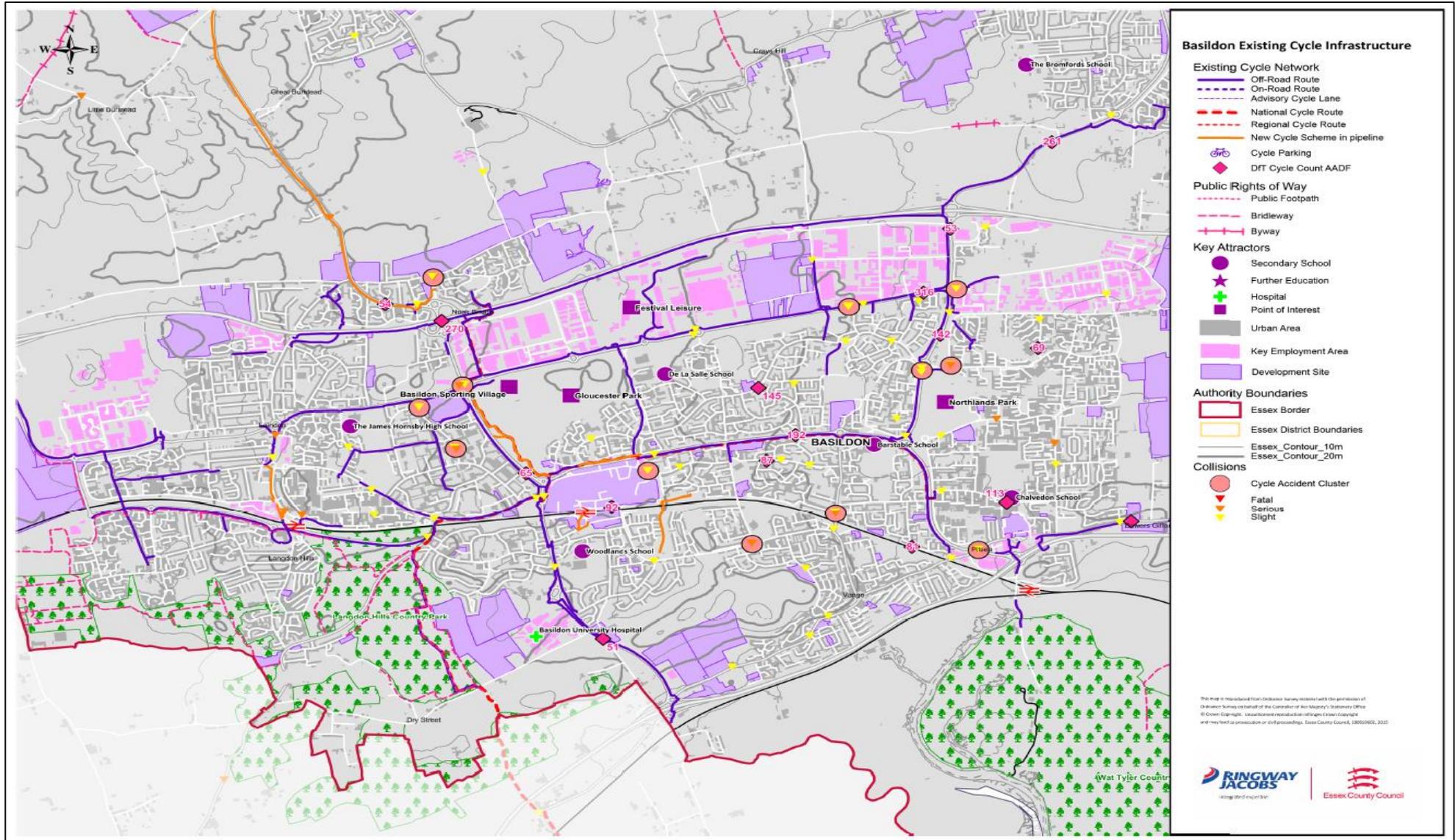


Figure 3.9: Location of pedal cycle PICs in Billericay

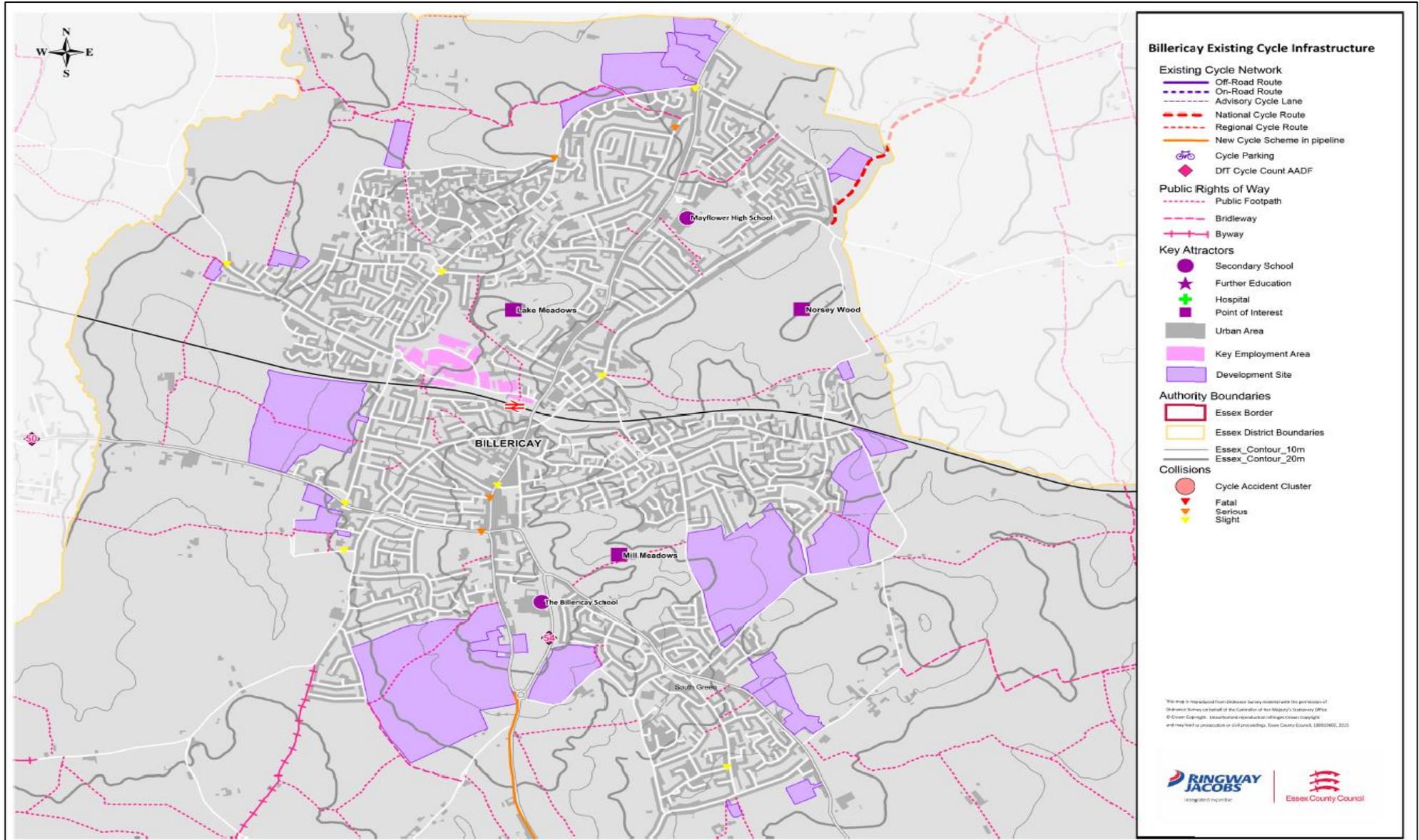
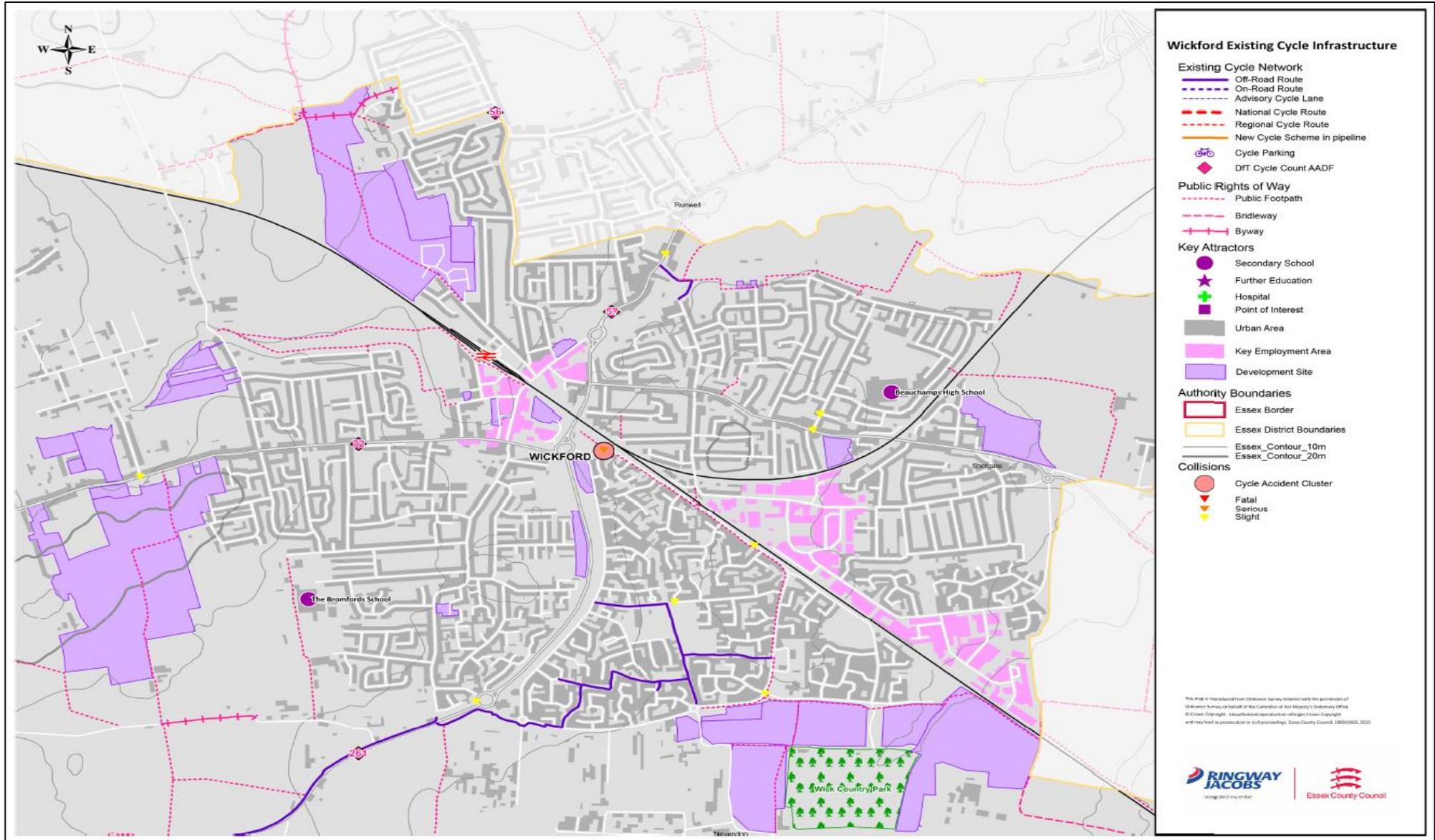


Figure 3.10: Location of pedal cycle PICs in Wickford



3.7 Cycle Crime

Cycle crime (mainly theft) is reported both to Essex Police and British Transport Police, although it should be noted that cycle thefts are generally considered to be under reported. Figures for both of these constabularies are combined by District in Table 3.2, below. Note that the figures for ‘Essex’ exclude the Unitary Authorities of Southend and Thurrock, figures for ‘Greater Essex’ include these areas.

Table 3.2: Total reported Cycle Crime by District

All Essex Reported Cycle Thefts	2013	2014*	Year ending June 2016	Year ending June 2017	% of all cycle thefts in Essex (2017)	Annual number of cycle thefts per cycle commuter ²
Basildon	221	208	173	203	8%	0.15
Braintree	116	98	160	154	6%	0.15
Brentwood	63	59	34	71	3%	0.23
Castle Point	45	73	63	81	3%	0.13
Chelmsford	292	274	334	450	17%	0.19
Colchester	355	373	247	390	15%	0.12
Epping Forest	37	53	69	53	2%	0.12
Harlow	127	108	166	244	9%	0.25
Maldon	26	28	14	21	1%	0.04
Rochford	43	50	51	23	1%	0.05
Southend-on-Sea	450	326	403	467	18%	0.22
Tendring	180	167	124	160	6%	0.10
Thurrock	217	205	251	235	9%	0.23
Uttlesford	41	30	23	27	1%	0.07
Essex	1546	1521	1458	1877		0.14
Greater Essex	2213	2052	2112	2579	100%	0.16

*to Nov 20th only

2. Based on 2017 thefts and Census 2011 Journey to work by cycle total for District/ Borough/ City (NOMIS)

Basildon has the sixth highest level of cycle crime in Essex, in terms of total numbers of reported crimes (2017) and the 7th highest level of annual number of cycle thefts per cycle commuter trip. The annual number of cycle thefts per cycle commuter is in line with the average for Essex, and indicates that the level of cycle crime appears to be in proportion to the level of cycling in the Borough.

Statistics from British Transport Police show that cycle crime at Basildon Rail Station has fallen from 25 incidents in 2011 to 14 in 2016 (Table 3.3). In 2016,

this was the fourth highest recorded theft from all of the Essex stations shown in the table.

Table 3.3: Cycle Crime at Essex Rail Stations 2010-2016 (British Transport Police)

Station	2010	2011	2012	2013	2014	2015	2016
Basildon	12	25	17	18	13	14	14
Chelmsford	69	77	73	58	16	15	39
Colchester	26	25	21	31	31	35	31
Leigh on Sea	3	3	19	29	13	11	19
Harlow Town	8	36	18	26	16	15	14
Billericay	29	27	26	21	8	7	5
Grays	11	17	14	16	10	14	12
Southend Victoria	12	9	13	12	13	13	12
Stanford le Hope	5	10	11	12	5	5	7
Audley End	5	6	7	11	8	17	13

3.8 Topography

There are a number of factors which determine the popularity of cycling in any given area. Of the geographical factors, by far the most significant is topography, as identified in many research studies and policy statements. These include research carried out by leading UK cycling academic Professor John Parkin who concluded; ‘hilliness was found to be, by far, the most significant determiner of the proportion that cycled to work in a District’³.

Basildon is one of the hillier districts/boroughs in the county. To the north-west, Billericay is on top of a hill between 70m and 100m above sea level. The roads are relatively undulating – some are too hilly to support high levels of utility cycling but others are likely to be sufficiently flat. The eastern and south-east side are particularly hilly with South Green around 50m below the height of the town centre, and Hillside Road/Valley Road have particularly steep gradients.

Wickford is a relatively low-lying settlement, most of which is below an altitude of 20m, and most of the radial corridors have gentle topography. In Basildon town, the central and eastern side is quite flat but, to the south and west, the land rises considerably from 30m up to 100m (in Westley Heights) which would remove

³ Parkin, J. Wardman, M and Matthew, P. (2008) *Estimation of the determinants of bicycle mode share for the journey to work using census data*. Transportation, 35 (1). pp. 93-109.

virtually all demand for utility cycling apart from those who have no transport choice.

4 Existing Network Provision and Barriers

4.1 Introduction

The Borough of Basildon lies at the heart of South Essex. It includes the urban areas of Basildon (including Laindon and Pitsea), Billericay and Wickford. The Borough is served by two railway lines to the north and the south. Access to these is via five railway stations: Basildon, Laindon, Pitsea, Billericay and Wickford.

4.2 Existing infrastructure

There is very little cycling infrastructure in Billericay – just some very short sections of shared footway alongside new housing estates (Figure 4.1 left, below).

Wickford has more substantial provision with a mixture of shared footways (some have white line segregation but not up to continental standard), some ‘traffic free’ paths through residential areas, and a number of Toucan crossings. There are some subways beneath the major arterial roads but these generally do not permit cycling. It is interesting to note that some of the people who currently cycle in Wickford (Figure 4.1 right) do not use the cycling infrastructure presumably because it involves too much delay, and potential conflict with pedestrians.



Figure 4.1: Existing cycle provision in Billericay and Wickford

Basildon town has a relatively dense network of cycling provision which is typical of the ‘new towns’ of the 1950s. Much of the network is substandard, with facilities too narrow to support large levels of use particularly where there are shared paths which are well used by pedestrians e.g. Cranes Farm Road (Figure 4.2 left, below).

Some obvious desire lines are not catered for by the existing provision, and cyclists have limited priority and protection at junctions and crossings. The main shopping centre (Westgate) is pedestrianised with some well used cycle parking dotted around, and bikes frequently seen locked to railings and other street furniture (Figure 4.2 right). Cycling is not formally permitted, although there is plenty of space, and other towns have found that cycling can work well in pedestrianised areas.



Figure 4.2: Existing cycle provision at Cranes Farme Road (looking towards Eastmayne) and Eastgate Shopping Centre, Basildon

4.3 Key Barriers

There are a number of major barriers to cycling movements in the Borough. Some of these (e.g. major junctions) could still be cycled through but many people would find them too intimidating.

The most difficult junctions and other obstacles in the Borough are likely to be:

- Travelling to and from the north side of the Basildon railway station into the shopping centre and along Roundacre and Southernhay. These are wide, heavily trafficked roads without any cycling provision (on or off carriageway), and also include some turning restrictions and sections of one-way street. The whole area acts as a barrier to cycle movement in a key part of the town centre.
- Broadmayne is a major east-west arterial road just to the north of Basildon town centre with very limited crossing points (for pedestrians as well as cyclists)
- London Road/Laindon Road roundabout, Billericay, is a relatively busy roundabout with two lanes on the circulatory carriageway and most approaches, a single lane entry on the eastern arm and no cycling facilities. Cycle-friendly interventions would encourage considerably more cycle trips close to the town centre and help to release suppressed demand.

- The A176 Laindon Road/Kennel Lane roundabout, Billericay, is on the direct route between Billericay and Basildon, and is likely to feel quite intimidating for people trying to cycle through it, particularly in the southbound direction. The Laindon Road arm is one-way (into the roundabout). A contra-flow arrangement would be very beneficial to cycling conditions along here.
- Golden Jubilee Way, Wickford, is a major road (the A132) which runs north-south through Wickford and creates a major obstacle to direct cycle trips. There are two pedestrian subways which provide useful connections (although cycling is not permitted in either) but there is no provision to cross the arms at the major roundabouts.
- The Nevendon Road/London Road signalised crossroads in Wickford is the main way into the town centre from the south. There are no cycling facilities, and there are some banned turns making it an uninviting junction to cycle through which could act as a local barrier to cycle trips.

5 Basildon's Cycling Potential

5.1 Introduction

This section provides a summary of existing travel behaviour within Basildon Borough as well as identifying the potential for cycling.

5.2 Commuter Flow Analysis

The 2011 Census records how residents choose to travel to work, as well as the location of their workplace. The aim of analysing this information is to establish where the predominant local commuter movements exist that could feasibly be undertaken by bicycle. This data can then be used to assess the commuter cycle potential for an area.

The predominant commuter flows for Basildon Borough have been calculated based on travel between Medium Super-Output Areas (MSOAs). As journeys to work take place to and from all MSOAs within the Borough, only the top 10 most popular commuter journeys per mode have been highlighted.

It has been assumed that commuters would choose the same route and mode of travel to work (in the AM) as they do to return from work (in the PM).

5.2.1 Cycle trips

Figure 5.1 shows the predominant commuter flows for journeys to work by bicycle within Basildon. The majority of the cycle trips picked up in the MSOA analysis seem to be heading to and from the Pipp's Hill Industrial Estate (zone Basildon 015) from most other parts of Basildon, with daily trip numbers of between 27 and 41. The only other attractor (of 10 most popular trips) is the Burnt Mills Industrial Estate (zone Basildon 011) with movements of 23 and 24 people from nearby MSOAs (on the eastern side of Basildon).

5.2.2 Car trips

The car trips mirrored the cycle trips fairly closely (nearly everyone heading to Pipp's Hill) but with much bigger numbers involved (between 184 and 435). See Figure 5.2.

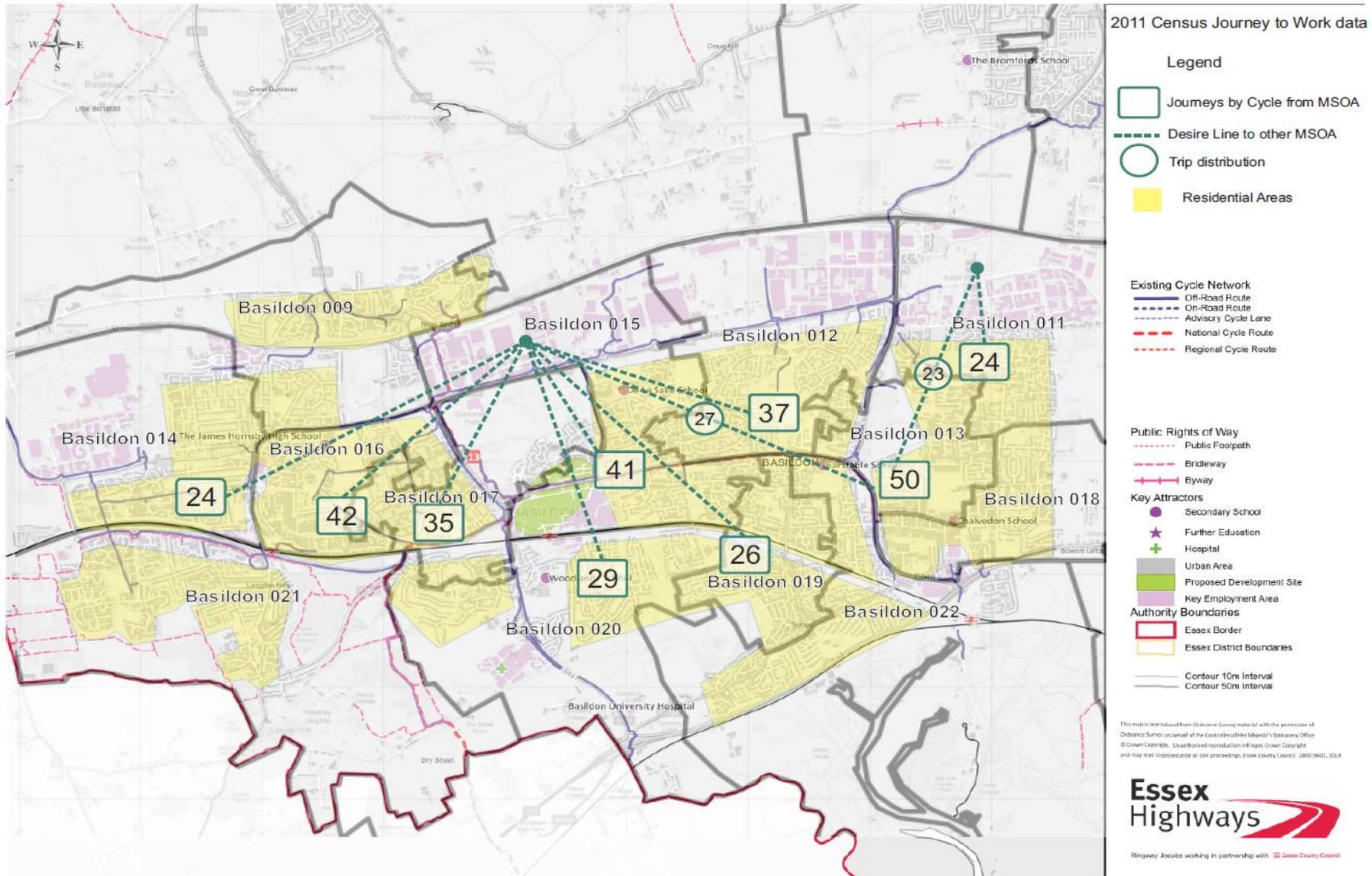
5.2.3 Rail

In many cases, cycling can form a key part of commuter rail journeys. The 2011 Census only records main mode by distance, therefore assumptions must be made when analysing journeys that would be multi-modal. Therefore where commuters have stated their main mode of travel to work to be by rail, it has been

assumed that rail commuters would predominantly choose the closest station to them, unless a main line station is located within a similar proximity. In such a case, it is assumed the preference would be the main line station.

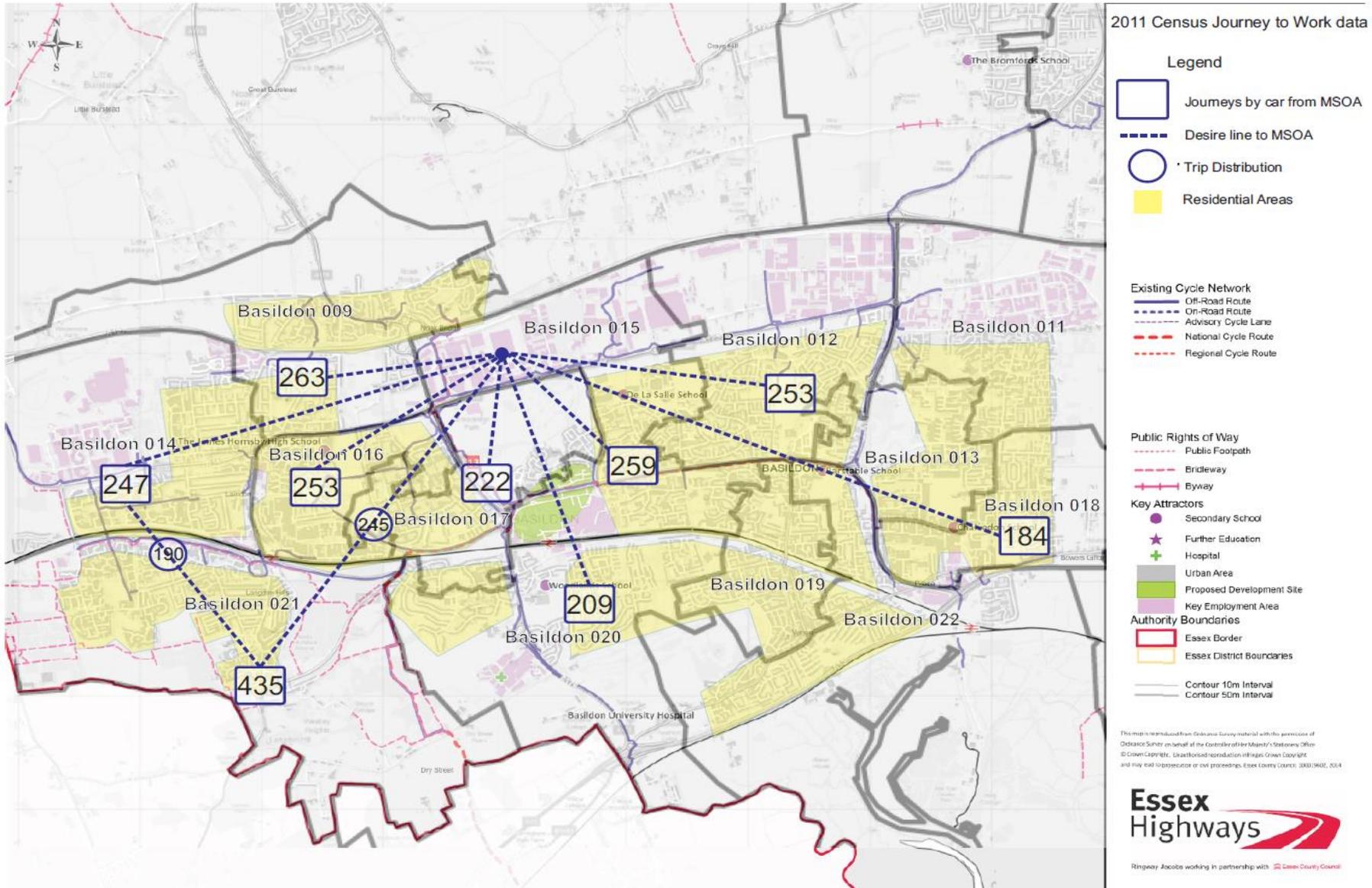
Cycling Action Plan Basildon Borough

Figure 5.1 Predominant commuter flows for journey to work by bicycle in Basildon



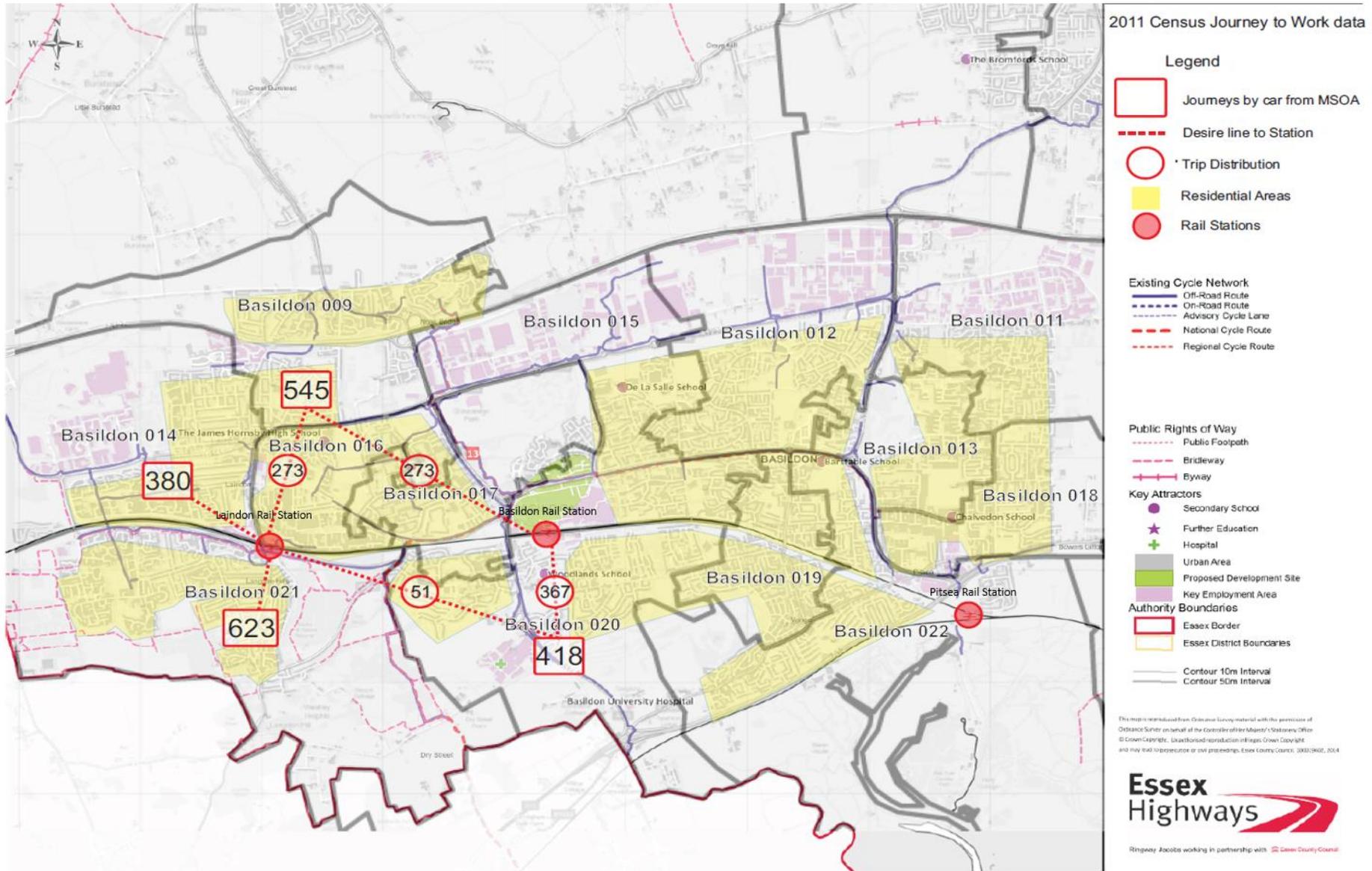
Cycling Action Plan Basildon Borough

Figure 5.2 Predominant commuter flows for journey to work by car in Basildon



Cycling Action Plan Basildon Borough

Figure 5.3 Predominant commuter flows for journey to work by rail in Basildon



5.3 MOSAIC Propensity to Cycle

Market segmentation is concerned with grouping together a diverse range of people to understand their current behaviour and the likelihood and triggers for maintaining or changing how they act in the future.

The MOSAIC Cycling Segmentation was developed for TfL by Steer Davies Gleave as an aid to cycling policy development, planning, implementation and evaluation. This was required to help target opportunity areas to best increase mode share and assist in increasing trips.

The MOSAIC Cycling Segmentation classifies the population into seven segments, each with a different propensity to cycle e.g. those in the 'urban living' segment are 4.6 times more likely to cycle than those in the 'comfortable maturity' segment. This can then be applied to postcodes and displayed on mapping as shown in Figure 5.4.

The MOSAIC data for Basildon Borough suggests there are only a few small pockets where the propensity to cycle is high. These are just north of the A13 in Pitsea, north-west Basildon near Noak Bridge, and immediately south of Laindon station (Figure 5.4).

High propensity areas in Billericay were immediately north of the train station, around Queens Park Avenue on the north-west side of the town, and down in the South Green area although this is unfortunately 50m below the height of the town centre which would discourage most people from making the journey by bike (Figure 5.5).

In Wickford, the Pebmarsh Drive area off Salcott Crescent would appear to be an area of high potential for cycle trips, as well as Napier Crescent which is also off Salcott Crescent, about 1km further south (Figure 5.6).

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Figure 5.4: MOSAIC Analysis – Propensity to Cycle in Basildon

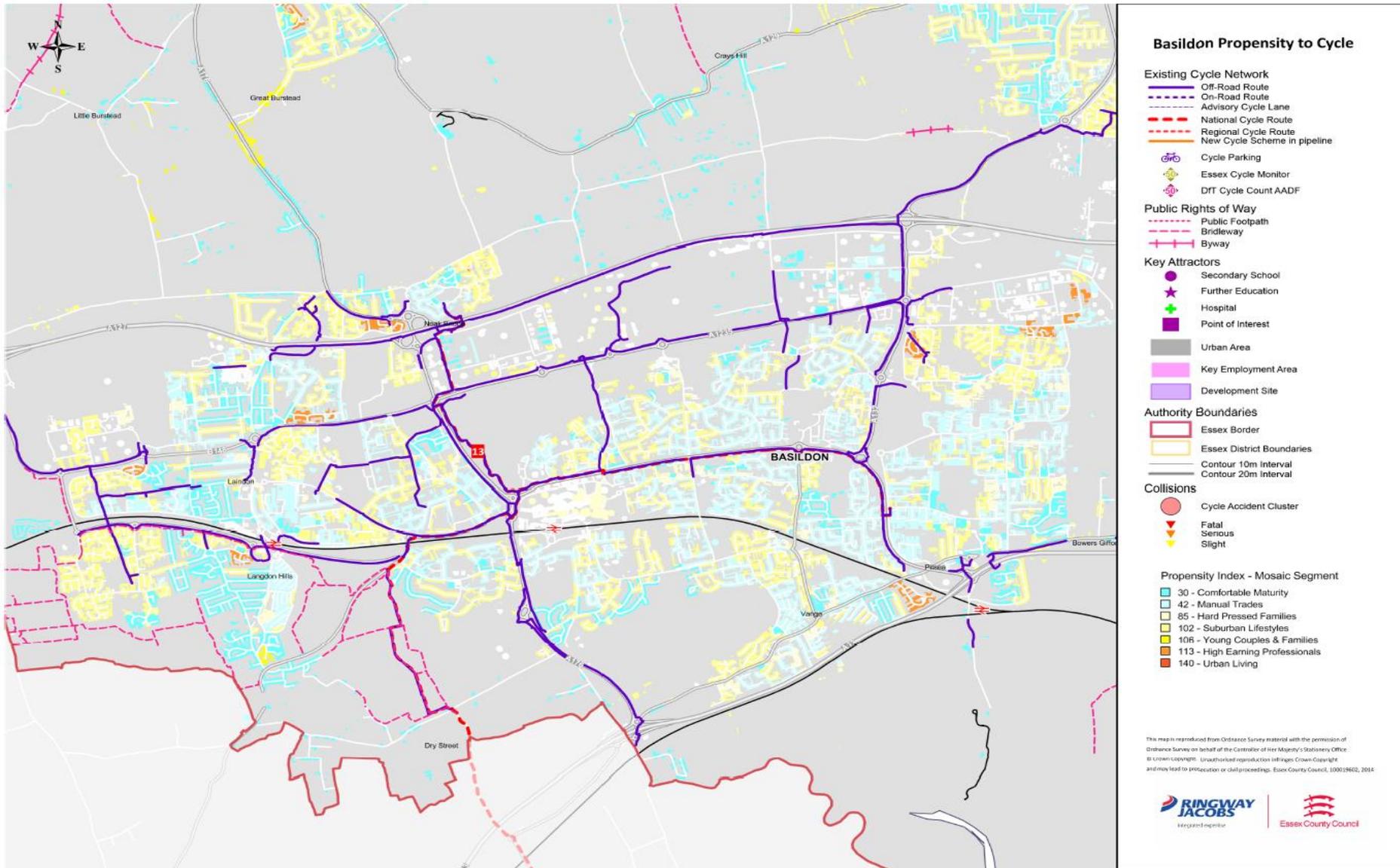


Figure 5.5: MOSAIC Analysis – Propensity to Cycle in Billericay

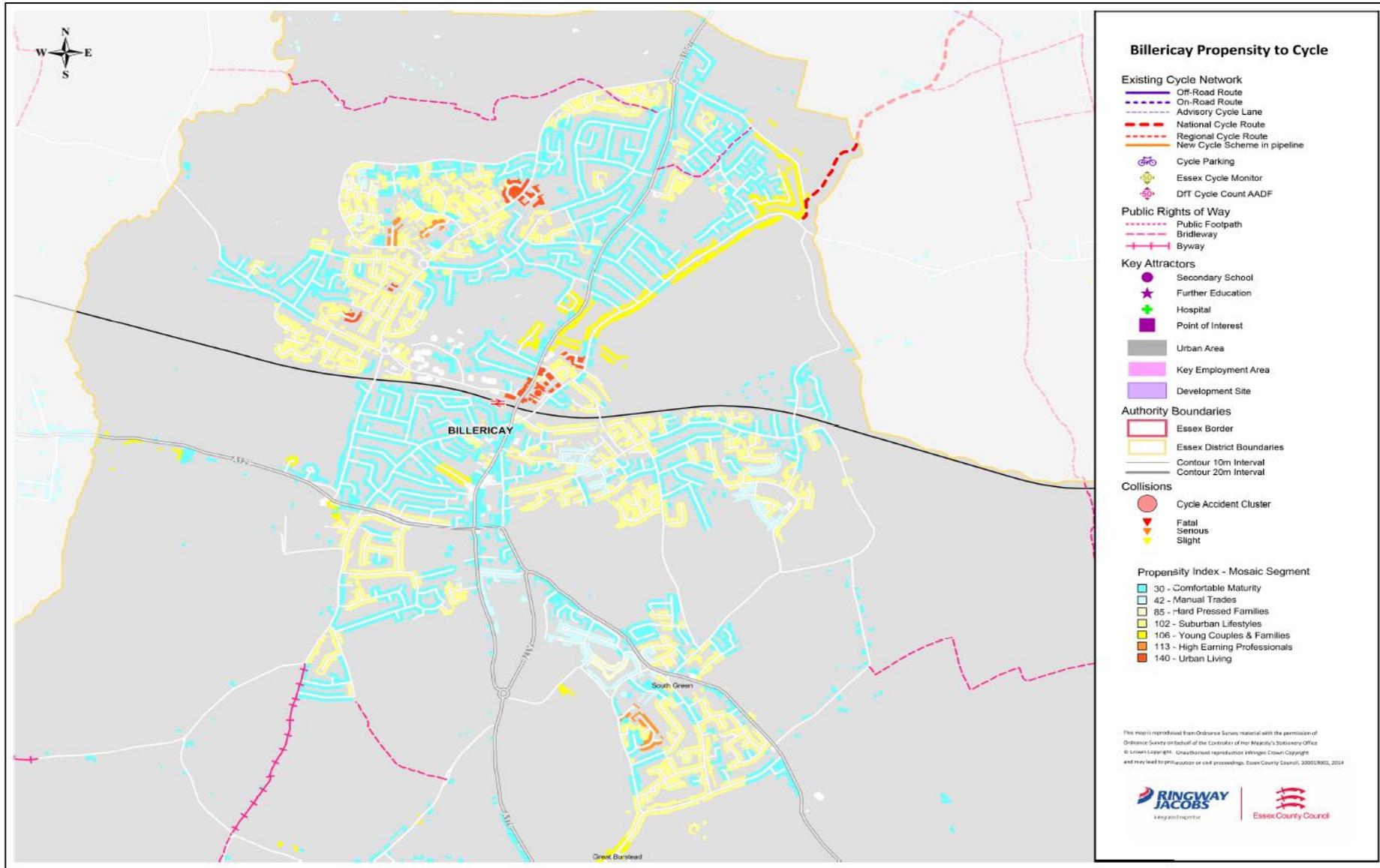


Figure 5.6: MOSAIC Analysis – Propensity to Cycle in Wickford



5.4 Summary of Potential

This exercise has yielded some interesting results although some of the high potential areas are very close to stations (i.e. too close for cycling to be advantageous) or at a topographic disadvantage e.g. 50m below or above the town centre.

The commuter flow analysis has helped to identify the key commuter trip attractors. This is a particularly useful exercise as commuting is usually the biggest journey purpose for cycle trips. Specific areas that will be focused on resulting from this analysis include trips to all the railway stations in the Borough (especially Pitsea, Basildon and Billericay), and trips to and from Pipp's Hill Industrial Estate and Retail Park, Basildon (lots of short, car commuter trips).

6 Potential Infrastructure Improvements

6.1 Background

In order to remove barriers to cycling and provide suitable infrastructure, it is essential that all new developments in the Borough have good quality, cycle-friendly routes to key services, railway stations and areas of employment. To this end, all potential developments associated with the Basildon Local Plan should contribute towards creating a wider network of cycle-friendly routes with provision along key corridors and desire lines.

A coordinated approach should be taken, whereby development planning and highway scheme delivery in Basildon is linked with infrastructure provision, complemented by soft measures that promote cycling as part of a range of alternatives to single-occupancy car travel.

This CAP is identifying a network of strategic cycle routes, as well as, within this, specific Flagship Routes. These Flagship Routes for the Borough of Basildon are described later in this report, in Section 8.

6.2 Potential cycle routes

Potential new cycle routes have been identified to help create a step-change in cycling conditions across the Borough. These might include signed routes (with journey times and surface markings), networks of interconnected cycle routes on quiet residential streets, filtered permeability (e.g. convenient cut-throughs and contraflows) and, where appropriate, 2nd generation cycling infrastructure, such as Dutch, Danish or light segregation. Infrastructure improvements have been considered for the three urban areas of Basildon, Billericay and Wickford.

6.3 Methodology Statement

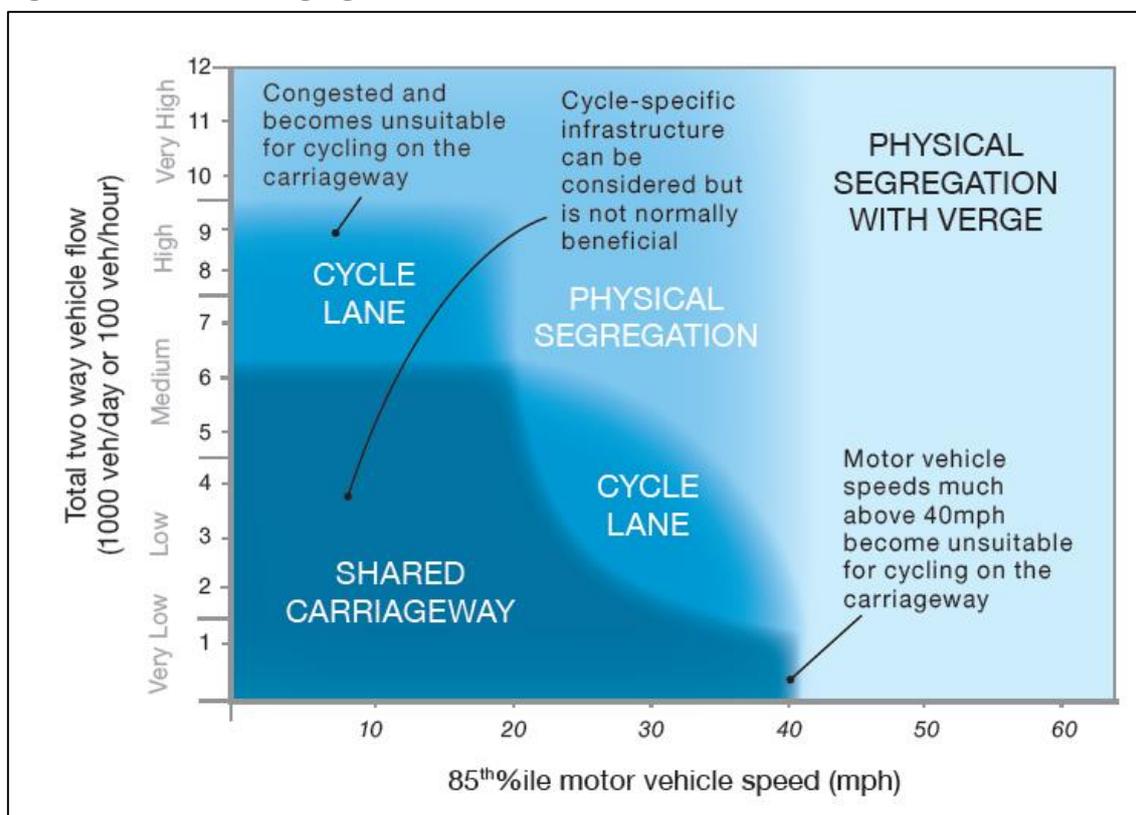
The potential routes have not, at this stage, been subject to detailed scheme design or feasibility, they are the result of an initial scoping study which is recommending a strategic network. Local knowledge, obtained through Stakeholder Consultation, has been used to inform this process. Where possible, the Sustrans Design Manual has been used to inform provision, particularly with regard to the acceptable provision related to traffic speed and volume conditions in specific locations.

Where traffic volume and speed data is available, the potential schemes have been subjected to Sustrans design principles, which recommend the type of scheme that should be considered under those conditions (Figure 6.1). Traffic

volume and speed may influence the decision on the need to segregate cyclists from other traffic. For example, where low speeds and traffic volumes are evident, there is no need to segregate cycles and other traffic and a shared carriageway is acceptable. As traffic speeds and volumes increase, cycle lanes are found to be more desirable, until the threshold is reached whereby physical segregation is required. Beyond this point, where 85 percentile traffic speeds exceed 40mph, and/ or volumes exceed 9500 vehicles/ day (or 950 vehicles/ hour)

, conditions become unsuitable for cycling on the carriageway and physical segregation with a verge is necessary. Where traffic volume and speed data are not currently available, it may be necessary to undertake a traffic survey to determine the provision that is required.

Figure 6.1 Sustrans Segregation and traffic flow⁴



In some locations, it has been noted that cycle-friendly crossings will be required. In most instances, further work and traffic surveys will be required to enable the exact type of crossing provision to be determined.

⁴ Sustrans Design Manual. Handbook for cycle-friendly design, Sustrans, April 2014

⁵*There are some examples where footway/ footpath conversions to shared use have been identified. The conversion of footpaths and footways to permit bicycle use is not regarded as a general or area-wide remedy, but has been confined to specific links and locations. It is recommended that where footpaths conversion and/ or footway conversion to shared use is considered then further studies are undertaken to demonstrate that alternative options have been considered and discounted and that clear benefits can be derived. In such situations, it is vital that the benefits to the cyclist are balanced against the increased risk and inconvenience to pedestrians.

ECC aims to limit the use of footway conversion/ shared use paths and Engineers and Designers should first consider alternative options.

A full list of recommended schemes can be found in Table 7.1, Table 7.2 and Table 7.3. The locations of these routes are shown in Figure 6.2, Figure 6.3 and Figure 6.4, below.

6.4 Construction Design and Management (CDM)

The potential new cycle routes identified in this CAP all require further feasibility assessment before they can be finalised or confirmed. In some cases, the alignment of the routes may need to be amended to ensure that the safest scheme design, in terms of operation, construction design and management, is identified. In some cases, a route might need to be deleted entirely, if it is determined that CDM risks cannot be reasonably mitigated through early design stages.

Some of the potential routes are alongside or cross features such as high speed roads, water courses or railway lines and may either require a new structure or widening of an existing structure in order to be implemented. It is recognised that these features raise the potential for significant risk (and indeed cost) during construction and operational management and they will need to be given particular consideration during the feasibility assessment.

⁵ The asterisk refers to schemes with footway conversions, listed in Tables 7.1, 7.2 and 7.3.

Figure 6.2 Existing and potential cycle routes in Basildon

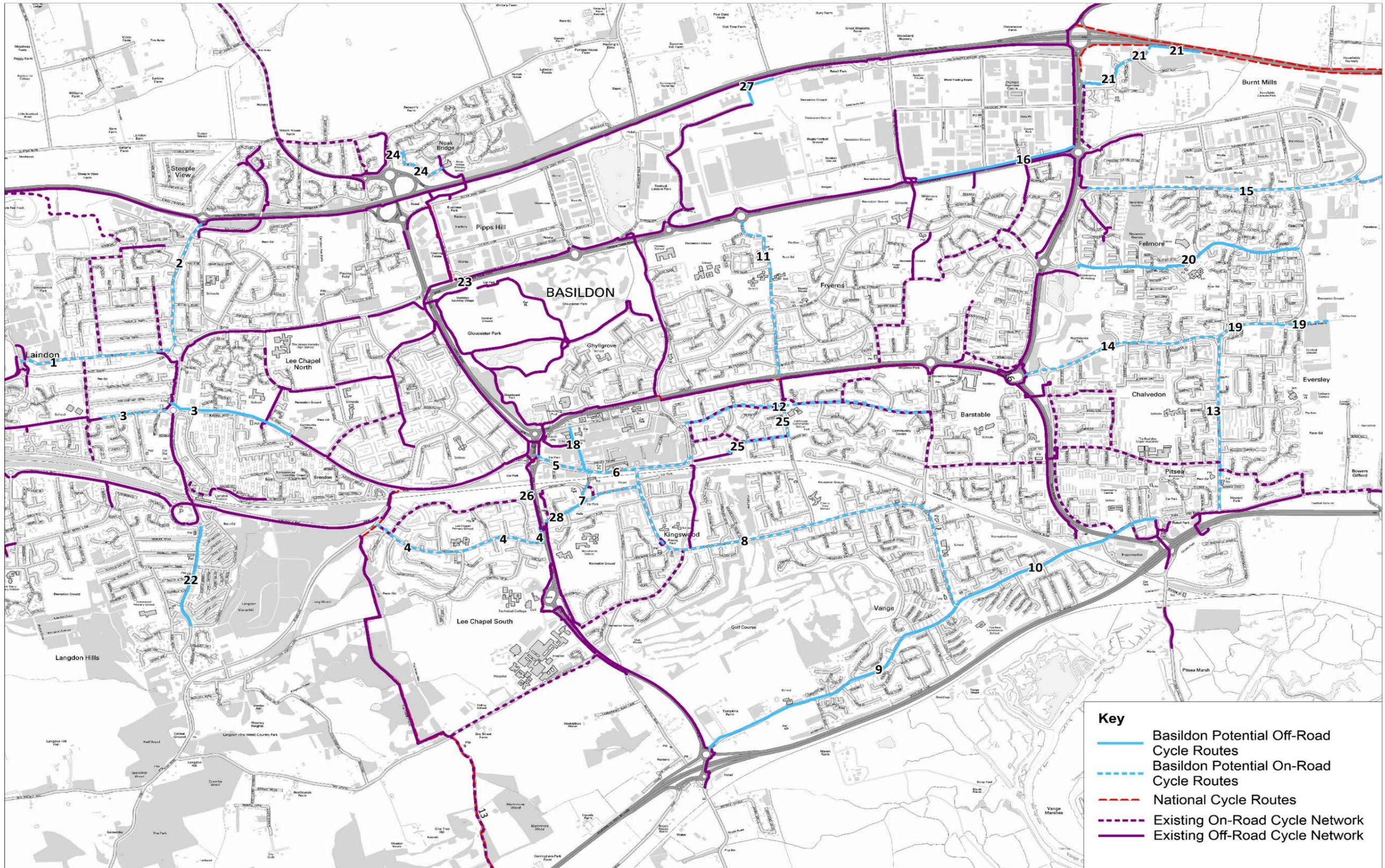


Figure 6.3 Existing and potential cycle routes in Billericay

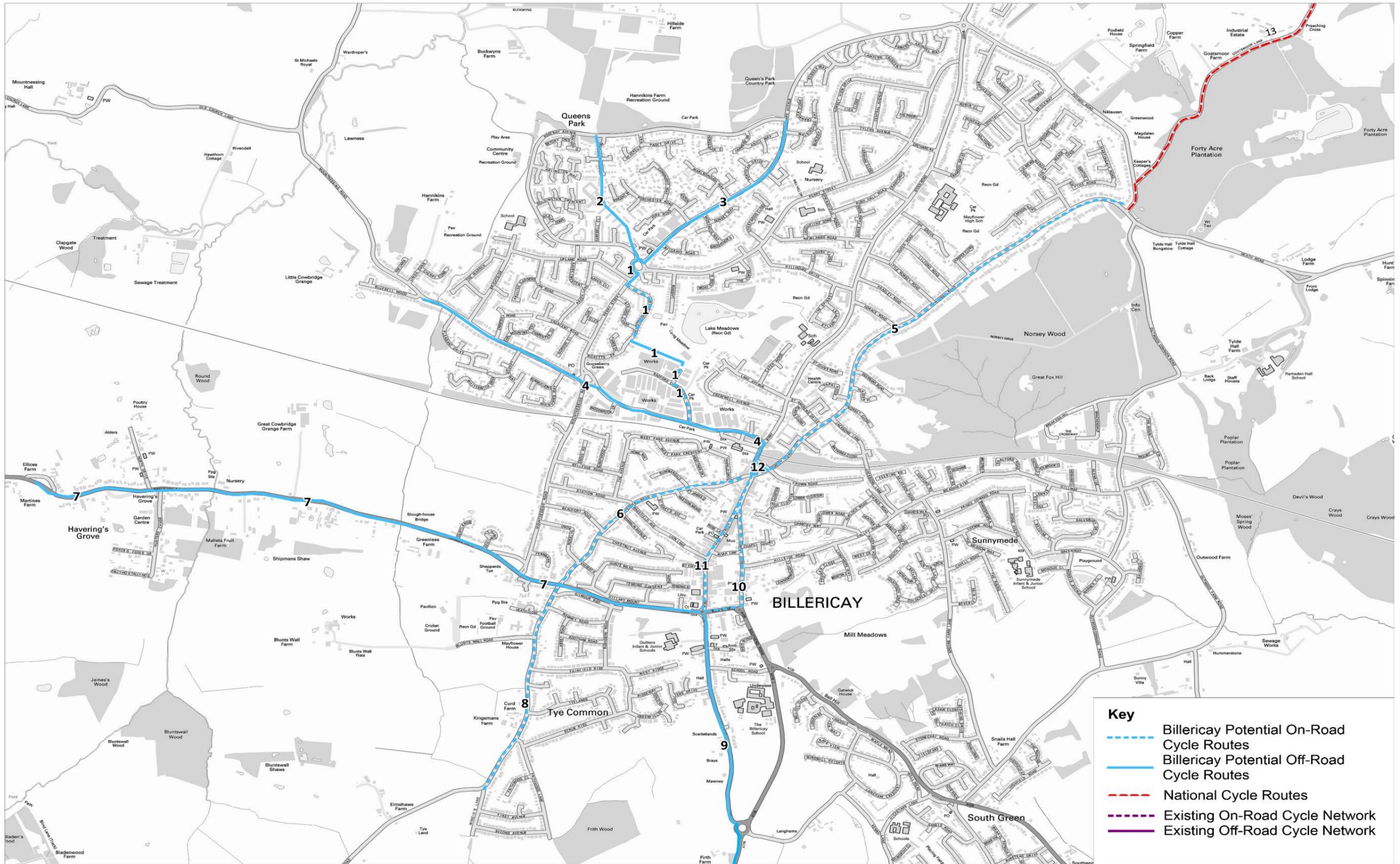
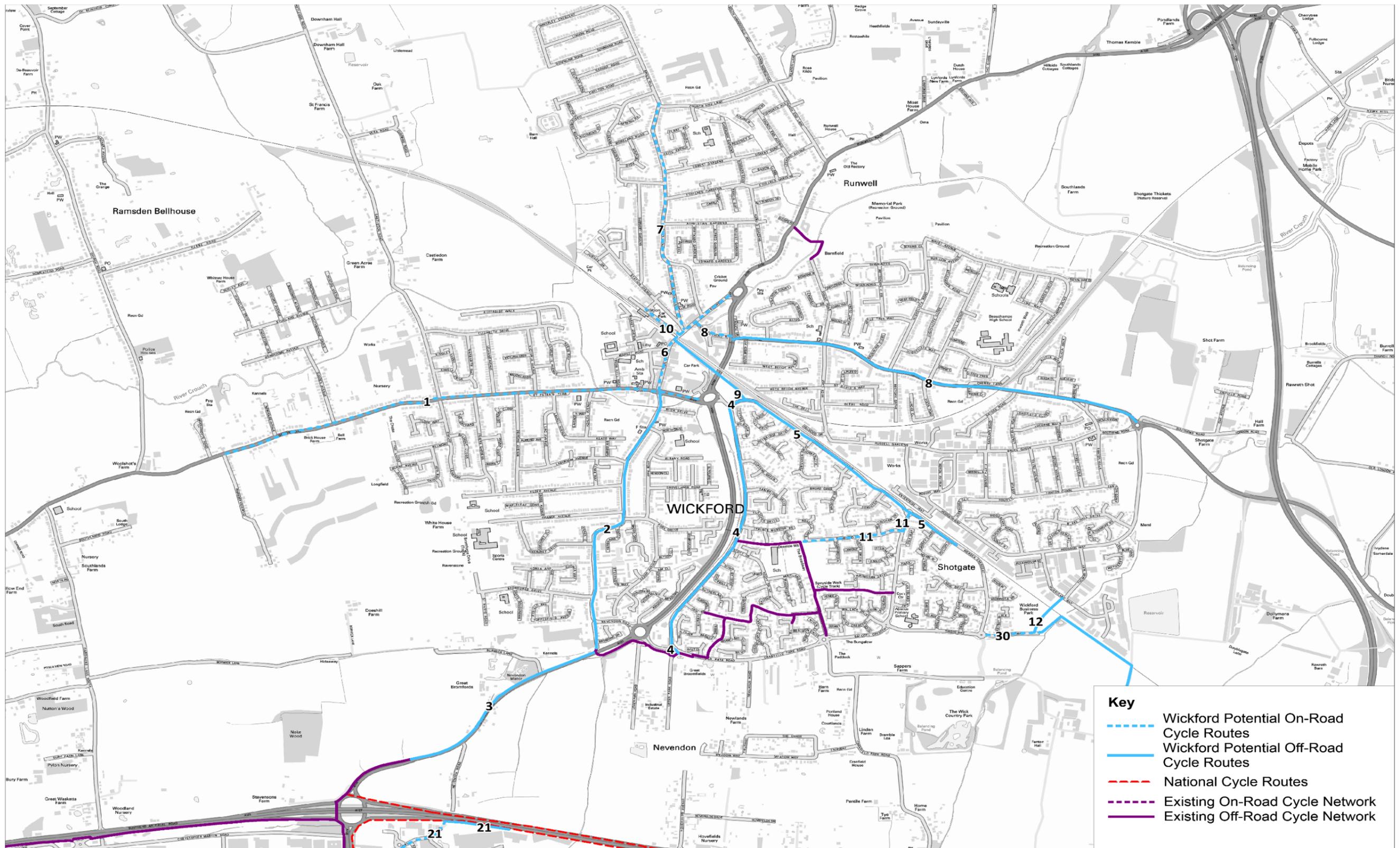


Figure 6.4 Existing and potential cycle routes in Wickford



7 Prioritisation and Costings of Potential Schemes

7.1 Prioritising Schemes

The potential schemes have been prioritised according to four criteria of their design:

- Deliverability;
- Directness;
- Extension of existing network; and
- Key attractors.

A score of high, medium or low has been given for each potential scheme against each of the prioritisation elements. It was then possible to determine the overall prioritisation score for each scheme (again, scoring each potential scheme as high, medium or low).

7.2 Deliverability

The deliverability of a scheme has been assessed according to land ownership issues, which will determine how easy the scheme will be to deliver:

- H: High being a scheme that lies wholly within the highway boundary, straightforward to deliver, with no land ownership issues.
- M: Medium being any route that requires conversion of Public Rights of Way (PROW); and
- L: Low being any scheme which is likely to encounter private land ownership issues, or requires a singular large expense, such as a bridge.

7.3 Directness

The directness of the route is considered in terms of where it is proposed to provide access to, for instance a town centre or a railway station:

- H: High being a scheme that provides direct access, using as short a distance as reasonably possible, or could provide a real improvement on the corresponding car journey time;
- M: Medium being a link route, providing access to the main radial cycle route(s);
- L: Low being indirect routes, which are routed along relatively longer distances.

7.4 Extension of existing network

The extent to which a potential route extends the existing network is considered against this criteria:

- H: High being a route which extends, or fills a gap in, the existing network;
- L: Low being a route which is isolated and/ or unlinked to the existing network.

It should be noted that in some urban areas, for example Billericay, there is little or no existing network to connect to, so most of the potential schemes will achieve a low score in this case.

7.5 Key attractors

Under this criteria, the number of key attractors that a route connects is considered. Key attractors include town centres, other urban areas, railway stations, secondary schools/ education facilities, employment (including hospitals), and leisure destinations (parks, sports centres, etc.). The scoring is undertaken as follows:

- H: High being a route which connects to three attractors;
- M: Medium being a route which connects to two of these attractors; and
- L: Low being a route which connects to none (or just a leisure destination) of these attractors.

Within this criteria, town centres and railway stations are considered to be the most important attractors, so if a route connects to both it is likely to score high rather than medium. On the converse, leisure destinations are considered to be less important, so may attract a lower score.

7.6 Overall prioritisation

Once a score has been obtained for each of the four criteria (Deliverability, Directness, Extension of Existing Network and Key Attractors), its overall prioritisation can be determined, giving an overall score of low (L), medium (M) or high (H). As a general rule, the most frequent score obtained across the four criteria will be the resulting overall score. Where there are an equal number of different scores, there may be some element of subjective judgement used to decide the overall result.

The resulting prioritisation for each of the potential schemes is shown in Table 7.1, Table 7.2 and Table 7.3.

7.7 Estimated costs of potential schemes

As with the prioritisation, the costs of the potential schemes are rated on a low (L), medium (M), high (H) and exceptionally High (H+) scale. The 2017 cost estimates relate to the following broad ranges:

- L: Low being less than £100,000;
- M: Medium being within the range £100,000 to £500,000;
- H: High being within the range £500,000 to £1,000,000; and
- H+: Exceptionally High being more than £1,000,000.

The outline costs are indicative of a feasibility proposal stage costing, prior to detailed surveys being undertaken for design and construction. Costs exclude the following:

- VAT (costs are exclusive of VAT);
- Land costs, legal fees, Highways consultation;
- Construction on contaminated land;
- Diversion of services;
- Landscaping; and
- Access roads for construction.

Realistic unit costs have been derived for each of the elements that are identified in the potential schemes and they have been applied to a length of route where appropriate and as a series of elements to enable the overall cost of each scheme to be built up. The resulting estimated cost for each scheme is included in Table 7.1, Table 7.2 and Table 7.3.

Table 7.1 Costs and Prioritisation of Potential Basildon Cycle Schemes

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
Basildon					
1	Victoria Road (full length) to Fenton Way	Fills gap in existing network, could be a very useful east-west link connecting residential areas to the Basildon Enterprise Corridor.	On-road quietway along Victoria Road to link existing off-road network at Victoria Road (junction with Tattenham Rd) to existing network at the West Mayne/High Road roundabout.	H	L
2	High Road, Laindon, from W Mayne roundabout to Fortune of War roundabout	Gap in existing network. Provides link between existing networks and providing continuous link to Laindon station from the north.	New on-carriageway route along High Rd, from W Mayne roundabout to Fortune of War junction, linking to existing off-road network on Willowfield and adjacent to A127. Linking to existing footbridge across A127, requiring upgrade to safely accommodate shared use. Existing signalised junction at High Road/ School Ave - potential for innovation. High Road is 6.54m wide with 2m footways on either side. If hybrid cycle lanes cannot be implemented (physically segregated) to comply with Sustrans recommendations, traffic calming measures to reduce vehicle speeds (significantly, to 20mph) would be required.	L	H+
3	Somerset Road and Laindon Link. Create route between the existing cycling facilities along Laindon Link and Merrylands.	Gap in existing network and would serve demand for east-west route to Basildon town centre and station. Part of this is signed as bus-only - a good cycle route will give clear advantage over car travel. Laindon Link is wide and quiet. Good potential for cycling facilities	Signed quietway along Somerset Rd, linking to potential footway conversion* to shared use at the Laindon roundabout. Convert zebra crossing on High Rd north to tiger crossing. Enhance existing non controlled crossings to ensure room for cyclists. Route continues along Laindon Link as a potential shared use path. Scheme links to existing off-road facilities along Maylands Path, Gubbins Path and with existing off-road facilities along Laindon Link, east of Drake Road	H	L
4	Staneway to Basildon rail station via The Knares and Cherrydown West	Would serve large residential area south of the railway, following the contours, and provide useful southern access to the railway station.	New on-road route along The Knares, linking Staneway and existing NCN13 to Basildon station. Signed Quietway along The Knares (Sustrans recommends shared carriageway/ cycle lane), with footway conversion* to shared use on the eastern side of Nether Mayne to the footbridge. Either footbridge requires enhancement for cyclists or a toucan crossing should be considered on Nether Mayne close to The Knares junction.	H	L
5	Roundacre (A176 to Basildon Railway Station)	Connects railway station to existing cycle network. A central and direct route to the railway station on what is currently a hazardous and intimidating road for cycling, and where the eastbound movement to the station is banned.	New cycle route along Roundacre between Station Way and Nether Mayne. Footway conversion* to shared use (currently 2.5m wide)	H	M
6	Southernhay from Basildon Railway station to Nether Priors Estate	Direct route to Basildon station from residential areas on eastern side of the town. Existing route cannot be cycled due to contra-flow bus only, and dual carriageway means uncomfortable cycling. Large improvements could be made, the route is flat, and it is likely to serve a high demand, so this would be a very useful addition.	New segregated cycle way and footway on southern side of Southernhay between Basildon train station and Clay Hill Road. Cycle route continues as shared cycle way/ footway between Clay Hill Road and Southernhay (N), remaining on southern side of carriageway.	H	M
7	Cherrydown East	Convenient connection, close to station so likely to attract a large number of cycle trips. Lots of carriageway space so should be opportunity to put in high quality facility	New hybrid cycle track along Cherrydown East, between Station Way roundabout and Clay Hill Road. Hybrid cycle track continues between Cherrydown East and Southernhay, linking potential routes along Southernhay with potential routes along Cherrydown Way East. Consideration should be given to cycle friendly measures at Station Way/ Cherrydown East roundabout to provide a safe and direct passage for cyclists.	H	H
8	Clay Hill Road (full length)		New hybrid cycle track along whole length of Clay Hill Road, linking town centre with B1464 High Road. Wide carriageway/ footway and verge means there is potential for hybrid cycle route along this link. Sustrans recommend cycle lane/ physical segregation. If only an on-road route were provided, measures to reduce vehicle speeds would be beneficial.	M	H+

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
9	B1464 from A176 roundabout to Clay Hill Road mini roundabout		Footway conversion* to shared use along London Road (B1464), from Nether Mayne roundabout (A176) to Clay Hill Road, linking Scheme 8 along Clay Hill Road with existing off-road facilities adjacent to A176.	M	H
10	High Road, Vange/ Pitsea route (from Clay Hill Road to South Mayne roundabout, with onward connections to Pitsea Train Station)	Opportunity to give residents in the Vange area the chance to cycle to a closer station than Basildon, and avoid the traffic and awkward road layouts of the town centre.	Footway conversion* to provide new off-road shared use cycle track adjacent to B1464 (High Road), from Clay Hill Road to existing off-road facilities giving access to Pitsea Railway station. Carriageways are typically in excess of 7metres width, with separate off-road footways adjacent. Route passes under a railway bridge on High Road, east of Chestnut Road, as well as passing under the A132 road bridge (carriageway width is constrained in both locations to 9m). Junction and roundabout improvements for cyclists should be considered. Sustrans recommends physical segregation.	M	H
11	Church Road: North/south route from the A1235 to A1321	Useful north-south link as part of route between town centre and Basildon Enterprise Corridor. Limited opportunities to provide new infrastructure beyond opening up the no-through-road section at northern end of Church Road, but quality of route could be improved.	On-road shared use quietway along Church Rd, providing N-S link between A1235 and A1321 (Broadmayne), providing connection to NCN16 and existing off-road cycle route south of Broadmayne (using stepped footbridge). Signing/ road markings to reflect branding of Quietway. Utilises existing shared cycle/pedestrian link between Cranes Ln and Church Rd. Crossing of Broadmayne to be considered - potential to convert footbridge to cycle use	H	L (cost to upgrade bridge is additional)
12	Long Riding (entire length from Timberlog Lane to Southernhay)	A long and direct east-west route into the town centre. Could attract short car trips from surrounding residential area. Highway space may limit the extent of any intervention, but topography is very cycle friendly.	On-road cycle route along Long Riding from Timberlog Lane to Southernhay. Potential to remove centre line, add bus and cycle-friendly traffic calming, and also treat junctions. Scheme 12 consists of improvements to existing route identified in Basildon cycle network map	H	L
13	Rectory Road (B164 London Road to Ashlyns/Tyefields)	Improvement would help a key north-south movement on this side of Basildon. A good number of trips could be expected due to the proximity of Pitsea station, the Burnt Mills Industrial Area, the neighbouring housing estates, the local shops, and the cycle friendly topography.	New on-road cycle lane along Rectory Rd, between London Road and Ashlyns. Potential to reallocate footways with wide verges if additional road space is required in places. Provides a link to existing off-road cycle facility on London Road. Improvements to link to existing at B1464 mini roundabout will be required.	M	L
14	Ashlyns from Rectory Road to A132	There appears to be quite a lot of highway space available along this corridor suggesting that a high quality 'step change' facility could be provided. This would be a useful east-west link bringing people from the Eversley and Felmore areas to the central parts of Basildon and the station.	New E-W hybrid cycle track (reallocation of carriageway/ footway would enable new segregated provision) - from Rectory Rd to A132 (South Mayne) and existing off road cycle route, as well as NCN16.	H	H+
15	Burnt Mills Road from the A132 to Courtauld Rd	Likely to be a useful route for people accessing the industrial estate from both directions. It could form part of a strategic east-west route, linking with potential Castle Point provision (to the east) via a country lane and a byway.	New E-W on-road cycle route between A132 and Courtauld Rd, linking to existing off-road N-S link at A132. Opportunity for hybrid cycle tracks (reallocation of carriageway would enable new segregated on-road provision). Scheme 15 consists of improvements to existing route identified in Basildon cycle network map.	M	H+
16	Cranes Farm Road from Gardiners Lane to Courtauld Road	High cycle flows on this route (over 300 per day) probably due to the Basildon Enterprise Corridor. There is already a cycling facility on this link but it is a shared-use footway and offers a poor level of surface (narrow, high likelihood of delay/conflict with pedestrians). Opportunity to introduce a continental-standard facility to improve comfort and perceived safety, and reduce conflict with, and delay due to, pedestrians	Upgrade/ improve existing substandard E-W shared use off-road cycle route along Cranes Farm Road, between Gardiners Lane and Courtauld Rd. Sustrans recommends physical segregation with verge. More detailed study required.	H	H+
18	Town centre route via St Martin's Square and Market Square to	Useful N-S link across the pedestrianised town centre	New cross town cycle route, from Great Oaks to Fodderwick utilising existing pedestrianised areas of	H	L

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
	Basildon Railway Station		shopping centre, via St Martins Square and close to Bell Tower.		
19	Tyefields and Trenham Avenue		Signed and marked advisory on-road route along Tyefields and signed quietway along Trenham Avenue, linking existing NCN 16 with potential development site.	M	L
20	Felmores and Lanhams		Signed footway conversion* to shared use from Felmores/Burnt Mills Rd roundabout along Felmores and Lanhams to Lanhams/Tyefields roundabout. Convert zebra crossings on Felmores and Lanhams to tiger crossings. Ensure side road crossings are suitable for cyclists.	M	H
21	A127 Westbound to Courtauld Road via Cricketers Way		Signed footway conversion* to shared use on the westbound side of the A127 and on-road route along Cricketers Way to the Sainsbury's roundabout. Convert zebra crossing to tiger crossing at the roundabout. Signed and widened footway conversion* on the eastbound side of Cricketers Way to the East Mayne.	M	M
22	Extension of High Road, Laindon scheme south of Laindon Railway station to Delmores		Extension of High Road scheme south of Laindon Train Station to Delmores. New on-road advisory cycle lane to be provided. Potential to acquire additional carriageway from wide verge on eastern side of carriageway if necessary, to provide a mandatory cycle lane. Consideration to be given to cycle friendly crossings of High Road/ Florence Way/ Valence Way roundabout. Sustrans recommends cycle lane	H	L
23	Controlled crossing over Cranes Farm Road north of Basildon Sporting Village		Controlled crossing over Cranes Farm Road north of Basildon Sporting Village. Toucan or Tiger crossing.	H	L
24	NCN Route 13 improvement		NW SE opportunities using Quietways through Noak Bridge. Also potential to provide a route along Wash Road and Bridge Street linking to NCN13. This area needs further investigation as it provides an important link between Billericay and Basildon key attractors.	M	L
25	Church Road/ Clickett Hill: London Riding to Clickett Hill		Advisory cycle lane from end of segregated cycle/pedestrian route on Church Rd. Make the transition safe for cyclists. Signed quietway on Clickett Hill and E Thorpe. Scheme 25 consists of improvements to part of an existing route identified in Basildon cycle network map.	H	L
26	Footpath from Great Gregorie to A176		Signed and widened footway conversion* to shared use on south west access to town centre, from Great Gregorie, connecting to A176 at Ashdon Way. Remove the no cycling sign.	H	L
27	Endeavour Link		New access road with off-road cycling provision, extending along Endeavour Drive and connecting to Endeavour Link/ Gardiner's Link at Tesco.	M	M
28	Cherrydown West		Signed quietway along Cherrydown West from Station Way to join existing cycle network along A176 Nether Mayne, providing access to Basildon Hospital	H	L
29	Burnt Mills	East West route linking Basildon to Thundersley avoiding A130 and A127.	East West route along Burnt Mills Road linking to existing N S routes (Burnt Mills Industrial Estate). Potential advisory cycle lanes in both directions – detailed study required at roundabout and junction with Courtauld Road. Speed reduction measures should also be considered. Utilise N Benfleet Hall Road, BW182 and Byway 150 to complete link to A130 underpass. Surface improvements will be required. Quietways network exists to Thundersley.	M	H
30	Byway 150	North South route linking Thundersley to Wickford	From existing underpass of A130 Byway 150 will require significant improvements including surfacing and vegetation cut back. Where route meets A127 grade separated crossing will be required. Route then continues north on bridleway 192 which will also require improvements to encourage cycling. Doublegate Lane and Footpath 99* complete link to South East Wickford – surface improvements imperative.	M	H+

Table 7.2: Costs and Prioritisation of Potential Billericay Schemes

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
Billericay					
1	Rosebay Avenue to Radford Way (railway station) via existing footpaths and Perry Street/Queens Park Avenue	Opportunity to develop a largely 'traffic free' route linking residential area to town centre and station giving considerable advantage over road alternative and therefore quickest car route.	Potentially segregated cycle lanes or tracks on Radford Way, Radford Crescent, Knightsbridge Walk and Queens Park Avenue. Conversion of footpaths to Cycle tracks in Lake Meadows Park and Regent Drive Estate. Continental style cycling facilities at Perry Street/Rosebay Avenue roundabout.	M	M
2	Perry Street/ Rosebay Avenue roundabout to Rosebay Avenue, through Regent Drive		New N-S cycle route along Regent Drive from Perry Street/ Rosebay Ave roundabout to Rosebay Avenue. Requires conversion of existing footpath PROW 4 to shared use. Potential width issue which will require further study.	L	M
3	Queens Park Avenue		New off-road NE-SW cycle route (footway conversion*) along Queens Park Avenue from Rosebay Avenue to Perry Street/ Rosebay Avenue roundabout. Carriageway is 8m wide plus 2m footways on either side. Potential to reallocate footway/ carriageway to provide an off-road cycling facility, or implement speed reductions to enable on road cycle lane to be provided (subject to speed/ traffic counts).	M	M
4	Radford Way (full length) and Mountnessing Road to junction with Bluebell Wood	Key east-west route serving station and town centre. Some of is already cycle friendly but there are opportunities to increase its appeal. Main obstacle is Mountnessing Rd roundabout but there is a lot of space here, and it could be made a lot more cycle friendly.	New off-road E-W cycle route along Radford Way and Mountnessing Road to junction with Bluebell Wood. Reallocation of verge to dedicated cycling facilities on southern side of Mountnessing Road and for continental style cycling facilities at Mountnessing Road roundabout. Sustrans recommends cycle lane/ physical segregation.	H	H
5	Norsey Road (Potash Road to B1007)	Serves similar but smaller catchment area to Stock Road as little development on the south-east side. Topography is relatively cycle friendly. Options for dedicated cycling facilities are limited.	New on road N-S advisory cycle lanes along Norsey Road (B1007 to Potash Road). Remove centre lines, add traffic calming and cycle journey time signs. Close Crown Road to motor vehicles to provide a cut-through to the station from Norsey Rd to High St. Note that use of Norsey Road requires further investigation.	H	L
6	Western Road and Norsey Road from London Road to Potash Road	Would expect high demand as a direct radial route serving the railway station and the town centre.	New on road N-S advisory cycle lanes along Western Road and Norsey Rd (from London Road to Potash Road). Remove centre line, add bus/ cycle friendly traffic calming and cycle journey time signs. Cycle friendly signalised junctions	M	L
7	A129 from Billericay to Brentwood (Hutton Village)	Likely to be an extremely useful and popular route, if it built to a sufficiently high quality, and well promoted. The distance between the towns is ideal for utility cycling, and the topography is very gentle. There appears to be plenty of highway space, with an obvious opportunity to reallocate from the central hatching	New off road cycle route along A129 between Billericay and Brentwood. Road space reallocation and off-carriageway cycle track (footway conversions*). Consideration to be given to cycle priority across junctions – this is a long, strategic route, and crosses many junctions.	M	H+
8	Tye Common Road (Wiggin's Lane to London Road)		New on road cycle route along Tye Common Road, between Wiggin's Lane and London Road (A129). Remove centre line, install bus/ cycle friendly traffic calming and cycle journey time signs. Joins with Byway PROW 45. Would benefit from cycle-friendly signalised junctions at London Road...	M	L
9	Laindon Road from Kennel Lane roundabout to London Road roundabout	Would benefit from new cycling infrastructure especially a contra-flow cycle route in the one-way section. Would open up a very useful direct route into the town centre from new development area, with low levels of northbound traffic due to the one-way arrangement.	New off-road contra-flow cycle lane / shared use footway (footway conversion*) along Laindon Road from Kennel Lane roundabout to London Road roundabout. Potential for a northbound shared use cycle way and a southbound cycle lane both requiring reallocation of carriageway/ footway. London road roundabout should be redesigned to be cycle friendly. Sustrans recommends a shared carriageway (NB) and segregation (SB). Further investigation required to extend to existing provision on Noak Hill Road. An RJ report (2015) gives potential options for this route (A176 Billericay to Basildon). Potential to be developed as a future Flagship Route as we have identified a route with options and we know people use it to access stations. Requires further study as it provides a key link	M	M

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
			between stations, enabling access to the more affordable C2C railway line.		
10	Chapel Street		New on road route along Chapel Street utilising Alma Link to access the High Street – possible contraflow required. Potential to extend route Eastward along Hillside Road	M	L
11	Town centre improvements (High Street, Sun Street and Chapel Street)	Town centres are high demand areas for cycling as most cycling is for local trips to central destinations. Measures to open up one-way streets and pedestrianised areas to two-way cycling are extremely useful.	<p>Billericay town centre general improvements (High St, Sun St and Chapel St):</p> <ul style="list-style-type: none"> -enable 2 way cycling on one way streets -consider cycle bypasses of signal crossings -fewer signals and more zebras (or courtesy crossings) -de-cluttering through a shared space approach, with reductions in signs and street furniture <p>more cycle parking, particularly for long stay with weather protection</p>	H	H
12	B1007 Billericay Railway Station to town centre.	A widened footbridge across the railway and controlled cycle crossing of High Street (to Crown Road) would improve access to the station from the south and east significantly.	New off road cycle route (footway conversion*) along B1007 (High St between Billericay railway station and the town centre, to include widening of footbridge across railway and controlled cycle crossing of High St. Dedicated cycle facilities to High St/ Western Rd signalised crossroads (off road will require reallocation of road/ footway)	M	H+

Table 7.3: Costs and Prioritisation of Potential Wickford Cycle Schemes

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
Wickford					
1	A129 from Woolshots Road to A132 junction	A useful route to improve cycling conditions along - it has a good residential catchment area, and gentle topography. Space to reallocate to cycling infrastructure does seem limited but options such as traffic calming and centre-line removal could still be effective.	New E-W on road cycle route along A129 from Woolshots Road to A132 junction. Remove centreline, add bus/cycle friendly traffic calming and cycle journey time signs. Intersects with potential schemes 2 and 6. Sustrans recommends physical segregation. To comply with Sustrans guidance, in order to provide a cycle lane, traffic speeds would need to be reduced significantly (20mph)	M	L
2	Nevendon Road from the A132 (Browning Drive cycle path cut-through) to High Street.	Likely to be good demand as connects a large residential area to town centre and station, on a route with cycle-friendly topography. Most of the route has central hatching; some footways are verge-segregated.	New N-S off-road cycle route along Nevendon Road, from the A132 (Browning Drive cycle path cut-through) to High Street. Carriageway is approximately 6.5 m in width, with additional 2m footways. Potential to reallocate carriageway or footway space to create an off-road route (potential footway conversion*).	M	H (cost of crossing is additional)
3	Wickford to Basildon (Enterprise Corridor)	This is a potentially very high demand route due to the proximity of the two places, the flat topography, and the amount of employment at the Basildon Enterprise Corridor. Upgrading this to a continental best-practice standard should result in much greater take-up if effectively promoted.	Upgrade existing off-road shared use cycle track along the A132 Nevendon Road. Existing Toucans at A127 junction. Existing cycle track is narrow and poorly surfaced. Would benefit from drawing on current best practice and TSRGD developments for signalling and signing. Sustrans recommends physical segregation with verge	M	M
4	Radwinter Avenue (full length)	Long, radial route with gentle gradient towards the town centre so likely to have high demand. Good opportunity for high-quality facility. Light pedestrian flows, and adjacent A132 carries all heavy/strategic traffic.	New N-S off-road cycle route along Radwinter Avenue, from Cranfield Park Road to A129 roundabout. Existing carriageway is 7m width plus 1 additional footway (2m), plus some verge. Reallocate carriageway, footway or verge space to provide a continental standard cycling facility. Golden Jubilee Way has been identified as a barrier to E-W cycle movement. Study required to investigate the potential of utilising existing underpass between Radwinter Avenue and Champions Close.	M	H (cost of subway upgrade is additional)
5	Mersea Crescent and Salcott Crescent from Potton Drive to Radwinter Avenue	A direct link to the town centre and railway station from a large residential area. Opportunity to upgrade railway footbridge to provide a continuous link to employment area on north side of railway.	New NW-SE advisory cycle lane along Salcott Crescent and Mersea Crescent, between Potton Drive and Radwinter Avenue, providing a direct link to Shotgate area. Sustrans recommends cycle lane. Huge potential to encourage NW-SE cycle movements and access to town centre by upgrading footbridge adjacent to railway (detailed study required).	M	M (footbridge upgrade is additional)
6	Wickford town centre	There are opportunities to open up the town centre to cycling which would have a big positive impact on the appeal of the mode. If a mode switch from car was achieved, peak-time congestion on the roads and in the car parks could be relieved considerably.	General package of town centre cycle-friendly measures, including: - Allow 2-way cycling on 1-way streets, and areas where not allowed e.g. the Lower Southend Road pedestrian subway, and the ramp up to the railway station from High Street. - Review crossings and junctions, assessing potential to use new signalling and other options (e.g. cycling Zebras). - Provide attractive cycle parking (for commuters). - Include measures to de-clutter streets to make more attractive and less traffic dominated.	H	H
7	Swan Lane and Jersey Gardens from Church End Lane to Station Avenue	A key north-south desire line linking a large residential area to town centre and station. Little space to reallocate to cycling so be signed route with assistance at junctions e.g. to help right turn Swan Lane into Jersey Gardens.	New N-S on-road cycle route (Quietway) along Swan Lane and Jersey Gardens, between Church End Lane and Station Avenue. Potential to remove centre line, add bus/ cycle-friendly traffic calming and cycle journey time signs. Improved cycle-friendly junctions.	M	L
8	A129 from Hodgson Way roundabout to Golden Jubilee Way	Cycling demand expected to be high as main eastern approach to town centre (gentle topography). Would also serve Hill Avenue shopping precinct. Subway (pedestrian only) provides an onward link to railway station.	New E-W on-road cycle route along Lower Southend Road between The Broadway and Golden Jubilee Way and off-road route along A129 (Southend Road) from Golden Jubilee Way to Hodgson Way. Subway under Golden Jubilee Way provides an essential link along this route - convert subway to shared cycle/ pedestrian use with appropriate measures (white line segregation). Create off-carriageway cycle lanes by reallocating road and verge space. Sustrans recommends physical segregation.	M	H

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
9	A132 over-bridge and path from Salcott Crescent to High Street	An excellent opportunity to provide a direct, 'traffic free' route from a large residential area to town centre and station, on a shorter/quicker route than the road alternative. It is probably used by cyclists but promoting as a formal route will increase numbers considerably.	Convert existing footpath (PROW 97) to shared use. Opportunity to widen off-road footpath (PROW 97) at access and egress to bridge over A132. Consider whether bridge itself can be widened to allow cycle access. If a continuous route can be provided this would provide good alternative, quiet cycle access to the town centre. Potential need for cycle traffic calming if shared pedestrian/ cycle use is possible. Toucan/tiger crossing should be considered if necessary.	M	M
10	Station Approach from High Road		New on-road cycle route along Station Approach, from High Road to railway station. One way uphill carriageway (4m wide), with additional footway (2.5m).	M	L
11	Twinstead and Salcott Crescent		New on-road Quietway route along Twinstead and footway conversion* to shared use along Salcott Crescent (PROW 279_97), to connect Scheme 5 with existing off-road network, utilising existing track across former railway route. Sufficient signing should be implemented along route. Potential land ownership issues on western end of Twinstead.	M	L
12	Railway Underpass	Opportunity to link South East Wickford to important employment opportunities in Wickford Business Park	Sustrans licence to use Network Rail underpass exists. Creation of a cycle track linking Tresco Way to Hurricane Way. Use Tresco Way and Mersea Crescent as Quietways.	M	M

8 Flagship Routes

8.1 Introduction

A Flagship Cycle Route is a key corridor providing safer, faster and more direct access to one or more key attractors (town centres, employment sites, education establishments, transport hubs, visitor attractions and existing/proposed developments). The routes will be on high demand corridors, be able to meet demand (both existing and potential), encourage a focus on innovation/design best practice and will include continental standard facilities, where appropriate.

It is hoped that a county-wide suite of Flagship Routes will be a focus for future funding, high quality infrastructure, design best practice and innovation.

8.2 Potential Flagship Routes in Basildon Borough

It is proposed that two Flagship routes for Basildon are created: an East/ West Flagship Route and a North/ South Flagship Route. Both routes meet at Basildon town centre, with the East/ West route passing the northern side of the town centre and the North/ South route passing along the western and southern sides of the town centre. The potential Flagship Routes are shown in Figure 8.1.

8.3 East/West Flagship Route (FR1)

An East/West Flagship route can be delivered by upgrading the existing cycling network that runs alongside Broadmayne (A1321) from Westgate in the East to Pitsea Road in the West.

This key spine route could benefit from upgraded provision and can be supplemented by improved connections to the north of town, the town centre, the Enterprise zone, the station and various residential areas. It is noted in Section 4 of this report that Broadmayne currently represents a significant barrier to North – South pedestrian and cycle movements, so it is recommended that consideration be given to providing pedestrian and cycle-friendly crossings at key locations, giving useful and easy access to the destinations already identified (particularly the Enterprise Zone, the station and the town centre). In particular, new toucan crossings will be required across Broadmayne at the junction with Ghyllgrove.

8.4 North/South Flagship Route (FR2)

According to the MSOA analysis data the car trips in the Pippis Hill Industrial Estate location mirrored the cycle trips fairly closely but with much bigger

numbers involved (See Figure 5.2) therefore a significant opportunity for modal shift is possible with suitable provision.

By linking existing cycling provision at Cranes Farm roundabout (e.g. routes heading north/south along Miles Gray Road, West along St Nicolas' Lane and East along Cranes Farm Road) to Basildon rail station and Clay Hill Road a North/South Flagship route can be created. The majority of the cycle trips picked up in the MSOA analysis (see 5.1 Commuter Flow Analysis above) seem to be heading to and from the Pipp's Hill Industrial Estate therefore the creation of a high quality route to this location will improve current provision and encourage growth. Provision of a new toucan crossing of Cranes Farm Road in the vicinity of Pipp's Hill Industrial Estate would be required.

Particular focus will be required at the station interchange and where the route cuts through the town centre. This flagship route would benefit from existing high quality provision and proposed improvements around Basildon train station.

This key spine route could be supplemented by improved connections to residential and employment opportunities in the north and south of the town, the station and the town centre.

8.5 Prioritisation of Flagship Routes

Both Flagship Routes have been considered against the four prioritisation criteria, as per the other potential schemes:

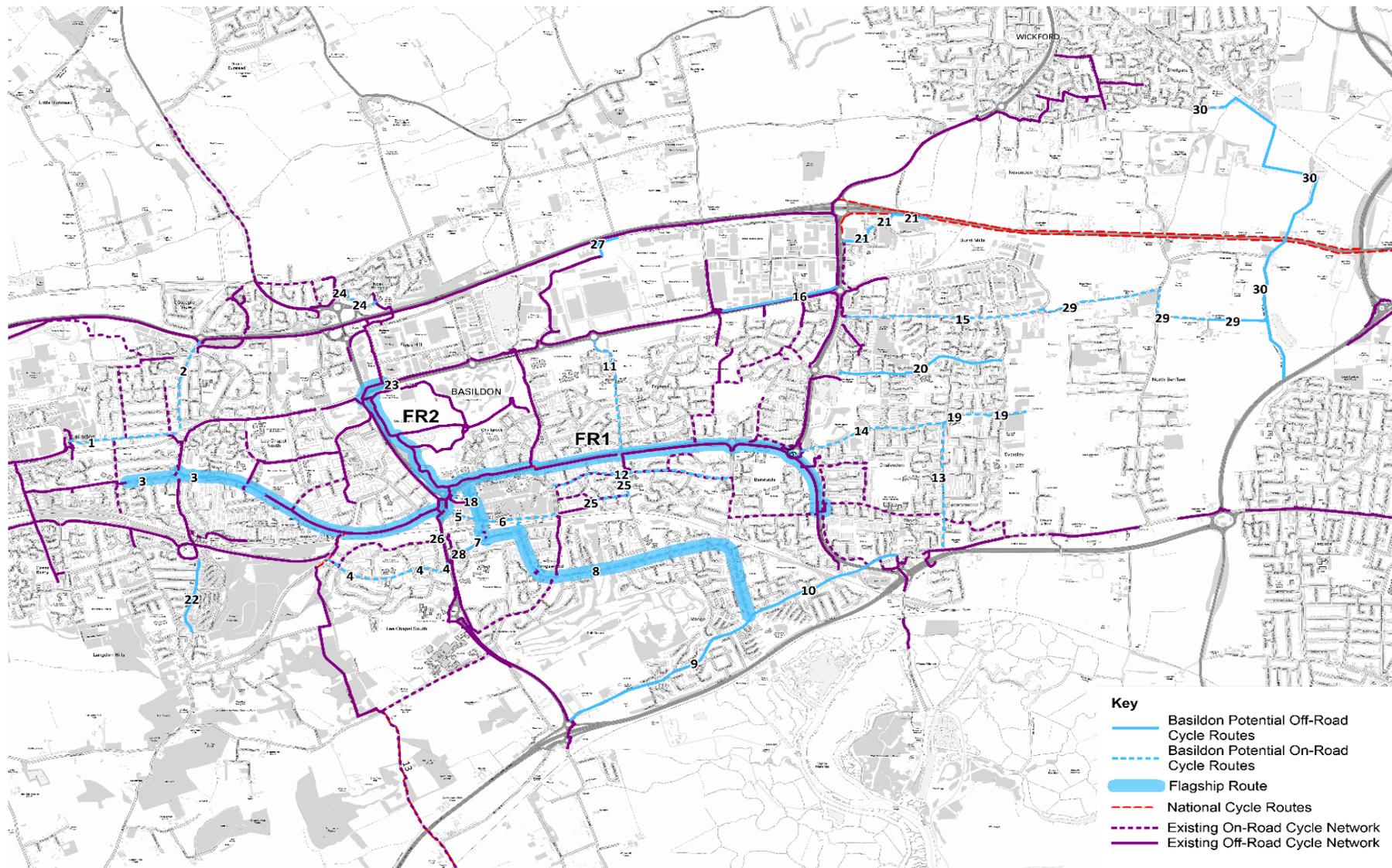
- Deliverability;
- Directness;
- Extension of existing network; and
- Key attractors.

For the East/ West Flagship Route (FR1), this assessment found that the route would be relatively easy to achieve, is relatively direct, connects to the existing network in a number of locations and links the key attractors of Basildon town centre and the Enterprise Zone (with short onward links to Basildon Rail Station). As such, this route (FR1) would overall achieve a high prioritisation.

The North/ South Flagship Route (FR2) similarly connects a number of key destinations (Pipp's Hill Industrial Estate, Gloucester Park, Basildon Town Centre and Basildon rail station), is direct, relatively straightforward to deliver and connects to the existing network in a number of locations, so would also achieve a high priority.

The inference from the prioritisation exercise is that it supports the basis for identifying the Flagship Routes in the first instance, in that they are key corridors, providing important benefits for cycling in Basildon and should therefore be considered a high priority going forward.

Figure 8.1 Potential Flagship Routes for Basildon Borough



9 Smarter Travel Measures

9.1 Introduction

To ensure the potential for cycling is fully realised, new infrastructure must be accompanied by targeted promotion and events.

Local promotion of cycling should be increased to convince residents that cycling is a normal and accessible activity for all as well as highlighting the health benefits of cycling.

In addition, cycling has the potential to alleviate congestion by persuading people to replace a local car journey by cycling. This could include workplace travel planning in the town centres within the Borough.

9.2 Marketing and promotion

The Essex Cycling Strategy sets out a number of overarching themes for marketing and promoting cycling which are as follows:

9.2.1 Cycle Essex

ECC are committed to running high profile campaigns under the “Cycle Essex” umbrella which aim to change the image of cycling in Essex, break down perceptual barriers, communicate a safety message and tie in with existing organisations such as Active Essex.

9.2.2 High profile events

Essex has been successful in attracting high profile cycling events to the County that have been well attended by the public, such as the Tour of Britain, The Tour Series and hosting Stage 3 of the 2014 Tour de France. ECC would like people to continue to support these events but also give cycling a try through further mass event, car free days in town centres and bike festivals.

9.2.3 Support for local initiatives

ECC recognise that Local initiatives are particularly effective at engaging with people on a personal level. Therefore they aim to empower Boroughs / Districts to promote cycling locally, support community providers / charities, support cycling clubs and ensuring that secondary schools, large employers, large council offices and major hospitals have up to date travel plans.

9.2.4 Cycling Maps

Cycling maps (digital and on paper) aid in navigation and are an effective marketing tool for raising the profile of cycling. If the maps are legible, well

designed and effectively disseminated, they can be the nudge that is needed to motivate the 'near market' to start making some trips by bike.

In addition, in order to maximise the benefits of cycling maps, future cycling maps for Basildon should be designed with the following principles in mind:

- The maps should be prepared under the same design guidelines as the promotion of 'Cycle Essex'. This will help to raise their profile and visibility;
- Information included in the maps should correspond with the signage by the roadside;
- Include more information about local points of interest. This might encourage leisure cycling, local tourism and increase patronage to local attractions; and
- Widely distribute the maps (if more than one) in a bundle and on as many online and physical outlets as possible.

Furthermore, official and unofficial routes are also available through mobile phone apps, social media and specialised websites such as *mapmyride.com* and *strava.com*, which allows people to track their routes whilst cycling and share them on various platforms.

For example, there is some interest in cycling at a community level in Basildon, as demonstrated by the website *mapmyride.com* displaying over 1,200 routes recommended in the local area by its users.

9.3 Potential Local Considerations

Local considerations, improvements and factors that may have an effect on encouraging cycling in Basildon Borough include:

- Updating the existing cycle map of Basildon town to include isochrones and mode-switch motivational information
- Cycle access – promoting access to bicycles through the cycle to work scheme, cycle hire, provision of subsidised bikes,
- National Bike Week events to include a commuter challenge where people using different modes make the same journey in the morning peak – would normally show the advantageousness of cycle travel in the peak time) and a cycle commuter's breakfast where free refreshments are laid on at a central location for all those who arrive by bike.
- Essex Roads Cycle Club, based in Billericay is very active and organises a number of sportives throughout the year.
www.essexroadscyclingclub.com/index.htm

- The demographics of Basildon town population largely aspire to drive which results in relatively low cycle mode share. Any promotion work needs to be customised to address this.
- Although Basildon Enterprise Corridor is a very large employment area there is a large amount of free car parking and good highway network capacity which supresses cycling demand.

10 Delivery and Funding

10.1 Delivery

The recent Infrastructure Act (February 2015) places a commitment on the Government to produce a Cycling and Walking Investment Strategy. The strategy would specify the objectives to be achieved and the financial resources available. This new bill shows a change in the government's thinking and a clear commitment to providing for cycling as well as accepting responsibility for targets and funding.

The Department for Transport's Cycling Delivery Plan (October 2014) refers to a new national cycling target, to double the number of cycling stages (trips) nationally over a 10 year period. This new target will be adopted by Essex as part of this strategy.

The Government has also set a target of achieving an annual cycling spend of £10 to £20 per head of the population. In Essex this would equate to approximately £17million to £34million per year spent on cycling.

A step change in the provision of cycling infrastructure and promotion will require an increase in funding over and above the current level of funding for cycling in Essex. Essex County has committed to:

- Ensuring a consistent level of revenue and capital funding to support the delivery of this strategy;
- Increasing the level of funding in Essex from its current level of £2 - £3 per head of population to £10 per head of population by 2025;
- Increasing the utilisation and prioritisation of other funding sources such as developer contributions and central Government grants/allocations; and
- Developing a clear and cohesive methodology for the allocation of cycle funding across Essex Districts/ Boroughs.

This will ensure that new proposals are not frustrated by a lack of funding and designers and promoters are set free to develop measures that will lead to a consistent growth in cycling numbers, frequency and safety.

10.2 Funding Options

There are a range of funding sources available for the potential schemes identified in the Cycling Action Plans which are as follows:

- Local Highways Panels (LHPs);
- South East Local Enterprise Partnership (SELEP) funding;
- DfT Access Fund;
- Section 106 (S106) monies.

10.3 Funding for Basildon

The delivery of the potential schemes, soft measures and smarter travel measures will require additional funding and so for this Cycling Action Plan to be successful, it is imperative that funding is provided and sustained over a number of years.

ECC Local Highway Panels are a source of capital funding for local highway schemes and are an appropriate way for new cycle infrastructure to be funded.

Planning contributions from new developments are an important source of finance and can either provide funding towards new or improved cycle infrastructure in Basildon Borough or, if in the vicinity, actually construct schemes as part of the development.

Current UK Government spending is £2.50 per person per year; the aim is to increase this to at least £10 per person per year by 2020/2021. Essex will also aim to spend £10 per person per year, with an initial increase to £5 by 2017.

The Government has a £6 billion Local Growth Fund for cycling and walking and wishes to reduce the administrative budget Local Authorities have to use in bidding for funding.

Other sources of funding also become available from time to time such as from the DfT. Therefore it is important that there are schemes readily available to be put forward for funding, should such opportunities arise.

In addition to the above, other possible funding options include:

- As part of major highway schemes;
- As part of road safety schemes;
- As part of health and safety schemes;
- Sustrans;
- Local growth funds;
- Network Rail and/or rail operating companies;
- Active Essex / Essex Health;
- SELEP Local Growth Funds for local sustainable transport programme;
- European Union funding (e.g. European Regional Development Fund and Rural Development Programme); and
- Acquire and investigate corporate sponsorship opportunities for any high profile public schemes/events.

11 Key Recommendations

In order to create an environment where cycling is normal for the residents of Basildon, existing barriers to cycling should be removed and a series of cycle routes provided with the aim of creating a connected cycle network over time. Cycling infrastructure should provide for both key utility journeys and encourage leisure cycling.

Analysis was undertaken to assess existing travel patterns, not only for cyclists but rail and car commuters as well. Alongside this, the propensity to cycle was also analysed to assess whether there were similarities between those that commute by other methods of travel and the areas where there is a high propensity to cycle.

The existing cycle networks in Basildon Borough should be developed and the following key recommendations can be made for cycle enhancements:

- A review of existing route signage and lighting;
- Maintenance of existing routes;
- Enhancement of North – South and East - West routes through Basildon urban area (and railway station), as per the potential Flagship routes, to a high level of design standards;
- Increased provision of useful cycle routes in Billericay, Wickford and Basildon, in particular;
- Provide new and improved cycle parking with a focus on satiating the considerable demand for commuter trips at railway stations;
- Fill any obvious gaps in the existing cycle-route network (on alignments with cycle-friendly topography) such as the northern approach to Laindon railway station, and an east-west route along all of Laindon Link;
- Provide new infrastructure on key roads with cycle-friendly topography but no existing facilities such as The Knares, Basildon;
- Update the existing cycle map every two years taking on board new innovation in cycle-map design, and promote it and disseminate it widely through a range of channels and outlets;
- Develop Flagship Routes through Feasibility Studies to Detailed Design; and
- Promote and market Flagship Routes with 'Cycle Superhighway' style branding and disseminating techniques.