

Transport Strategy for Cambridge and South Cambridgeshire

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Transport Strategy and High Level Programme

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Executive summary

Cambridge and South Cambridgeshire have one of the most dynamic and forward looking economies in the United Kingdom, and will lead economic growth in the wider economy. The growth in jobs and population that has helped fuel the economy will continue. In the period between 2013 and 2031, some 44,000 jobs are expected to be created and around 35,000 new dwellings will be built in and around the city, including in the new town of Northstowe.

The transport network will support this growth and provide capacity to allow for the additional transport demands of new residents and workers. It must also help protect Cambridge and South Cambridgeshire's distinctive character and environment.

To achieve this, sustainable transport capacity will be provided and enhanced in the city region between key economic hubs in and around the city, and to where people live and access services. The sustainable transport network will strengthen the employment hubs and high tech clusters in Cambridge and South Cambridgeshire, and in the surrounding towns, by making movement between them straightforward and convenient.

The backbone of the strategy will be a high quality passenger transport network of bus, guided bus and rail services, fed and complemented by comprehensive pedestrian and cycle networks. Highways capacity enhancements will ensure that traffic can move efficiently in appropriate locations without interfering with passenger transport corridors.



Cyclists, pedestrians, buses and cars crossing the Hills Road railway bridge in Cambridge in the morning peak hour
([Creative Commons](#) licensed image, Klaas Brumann; CycleStreets [#4882](#))

In Cambridge and its fringes

Whilst trips into the city will be possible by all modes of transport, priority will be given to passenger transport services, cyclists and pedestrians. The permeability of the city will vary depending on the mode of transport chosen. All areas of the city will be highly accessible by passenger transport, cycling and walking. Movements along radial routes and orbital routes will be prioritised and it will be easy and direct to travel between different areas of the city. General vehicular traffic will still be able to travel between most areas; however it will not receive priority at pinch points. Cross-city movements for general traffic will also be constrained as cars will have to go out, make an orbital movement and travel back in again.

To enable priority to be given to passenger transport, road space will need to be reallocated from general vehicular traffic. In the case of orbital movements however, it will also mean that more capacity for general traffic will need to be provided to enable this to happen

In the short to medium term, the strategy will focus on overcoming pinch points on the passenger transport network as well as creating a comprehensive and coherent cycle and pedestrian network that connects key economic hubs to transport interchanges and residential areas.

In the longer term, investment will be sought to transform whole routes through filling key gaps in the network and introducing high quality facilities. Further demand management measures will be considered in the form of more widespread parking restrictions and extending the principles of the core traffic scheme to the wider city.

In South Cambridgeshire

All major routes into the city will have a high quality passenger transport option which will be focussed on rail or bus/guided bus, in addition to one or more Park & Ride facilities. The corridors will be fed and supported by a network of cycle and pedestrian routes and also community-led transport solutions which will connect local services and employment areas.

Traffic along the corridors will be intercepted as far out from Cambridge as possible through the provision of bus and rail interchanges.

In the short to medium term, the focus will be on giving passenger transport services priority through pinch points in order that they have an advantage over the private car through key congestion points. Upgrades on many corridors will take place to provide more frequent services. The cycling and pedestrian network will be built up and linked into the key corridors.

In the long term, high quality passenger transport networks will be developed along the length of each corridor to make passenger transport, rather than the private car the mode of choice for many more journeys.

Vision

In the future, Cambridge and the surrounding area of South Cambridgeshire will be renowned for its efficient, accessible and sustainable transport system which will support a thriving and beautiful historic core, and provide efficient and networked links to and from the city, its major employment hubs, and the bustling villages and key centres beyond.

More and more people will walk, cycle or use community or passenger transport as the more sustainable option when travelling. This will help to reduce car traffic on key routes and protect the area's distinctive character and environment while supporting continued growth of the area as an internationally important cluster for high tech industries and research and development.

There will be an extended network of dedicated passenger transport routes with fast and frequent links to and from key destinations. This will link up with community or local transport at hubs which will connect with some more rural parts of the area. An improved system of safe and direct cycle and walking routes will provide a viable alternative for journeys between key destinations. Information about sustainable travel options will be readily available and new technology will make this even easier to access. This enhanced accessibility will help to sustain and enhance the quality of life and well-being of residents.



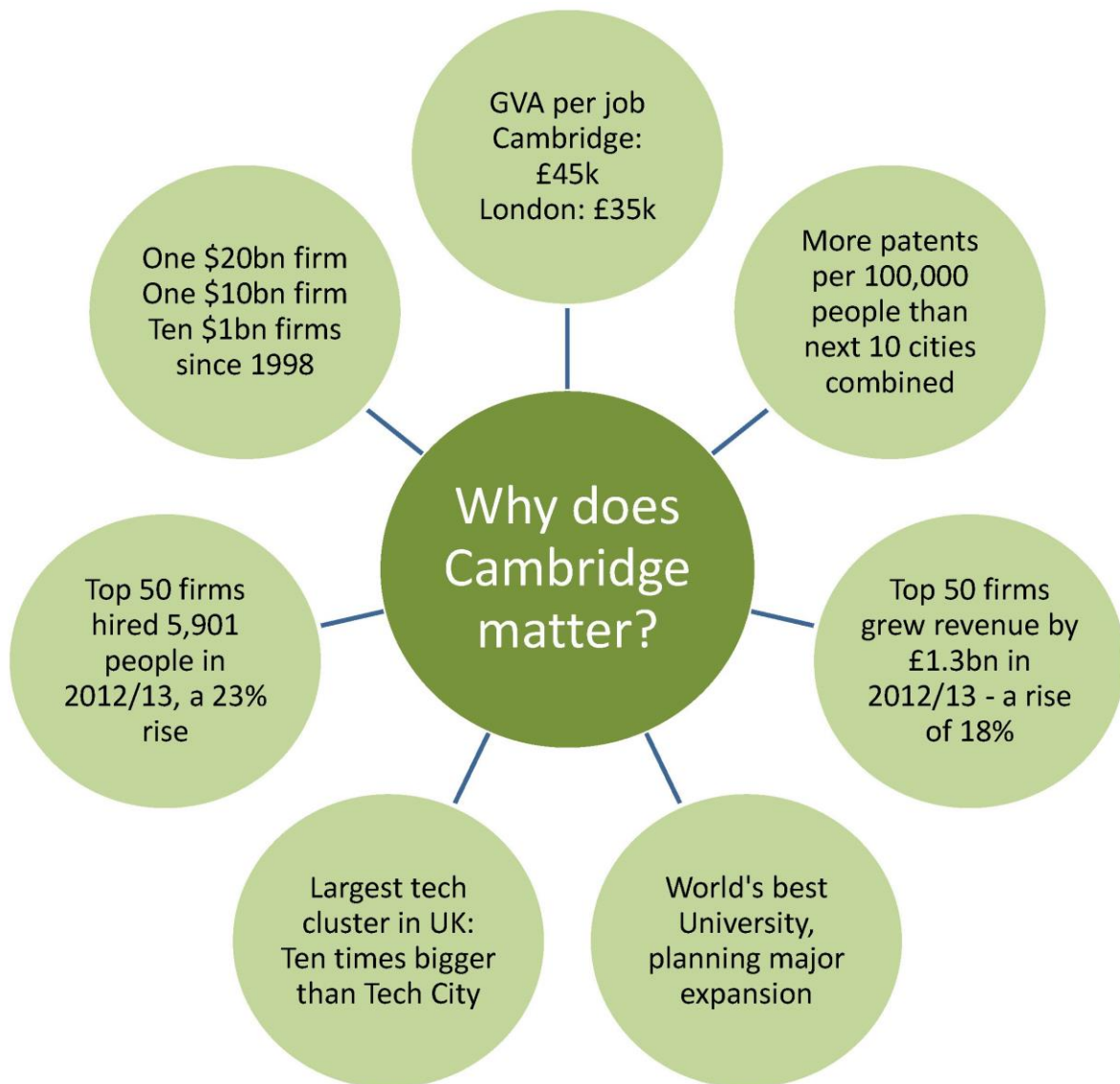
Riverside pedestrian and cycle bridge, Cambridge

Both the strategic and local road networks will operate efficiently and reliably, with most car traffic choosing to access the rural hubs or Park & Ride hubs. Accident clusters and congestion hotspots will be addressed and the impacts of congestion on the bus network will be reduced significantly. Although car trips to the city centre will still be possible, they will be channelled along routes away from buses and cyclists.

A frequent and reliable rail service with enhanced services and capacity to London, market towns and cities across the region will ensure that rail travel will continue to be a popular choice for a growing number of residents, commuters and visitors. The Science Park Station and improved City Station will provide links to St Pancras International, Stansted and Gatwick airports, to the European mainland, and to the rest of the UK. The Cambridge City Region's profile as a thriving, attractive and accessible business destination will be further enhanced.

Why does Cambridge matter?

In 2013...



1. Introduction

The Cambridge area is a success story. It is one of the best performing economic areas in the country, with globally renowned research and high tech and biotech clusters. Given this context, Cambridge and South Cambridgeshire are popular places to live and work, and are expected to continue to experience high levels of jobs, housing and population growth with the right conditions.

However, with such success come challenges, not least on the transport network. Despite figures from the 2011 Census showing that the proportion of people using private cars or vans to travel to work has dropped in both Cambridge and South Cambridgeshire, congestion on some parts of the network has worsened. In peak periods, parts of the network frequently operate at or near capacity. In addition, many people, especially in rural South Cambridgeshire find it difficult to access the services they need, because of the lack of transport options available to them. The challenge ahead is to address current problems on our network whilst at the same time using the network more efficiently to accommodate new trips.

Both Cambridge City Council and South Cambridgeshire District Council have published and consulted on Draft Local Plans which set out the expected number of new jobs and homes for the area and this document should be read alongside them to appreciate the full context of the strategy. In the period to 2031 around 33,000 new homes are proposed to be built in and around the city and in South Cambridgeshire to help accommodate the 44,000 new jobs projected for the area.

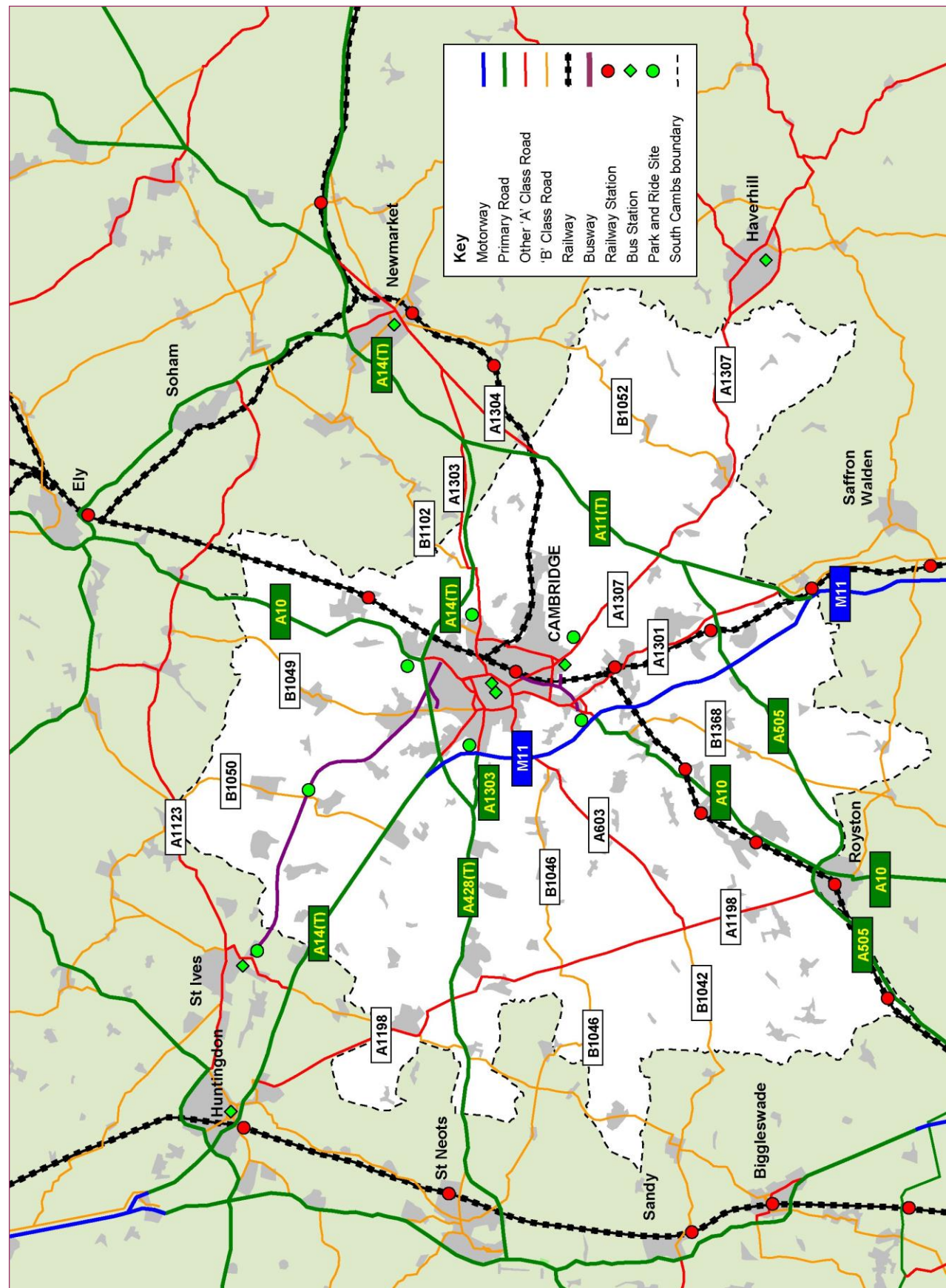
The purpose of this strategy is to:

- Provide a detailed policy framework and programme of schemes for the area, addressing current problems and consistent with the policies of the Third Cambridgeshire Local Transport Plan 2011-26 (LTP3).
- Support the Cambridge and South Cambridgeshire Local Plans, and take account of committed and predicted levels of growth, detailing the transport infrastructure and services necessary to deliver this growth.

This strategy covers the district of South Cambridgeshire and the city of Cambridge, but also considers the transport corridors beyond the district boundaries from the ring of towns around Cambridge. In addition to the detailed consideration of the Local Plan period to 2031, the strategy looks beyond this, and considers how the transport network and trip making patterns may develop in the longer term.

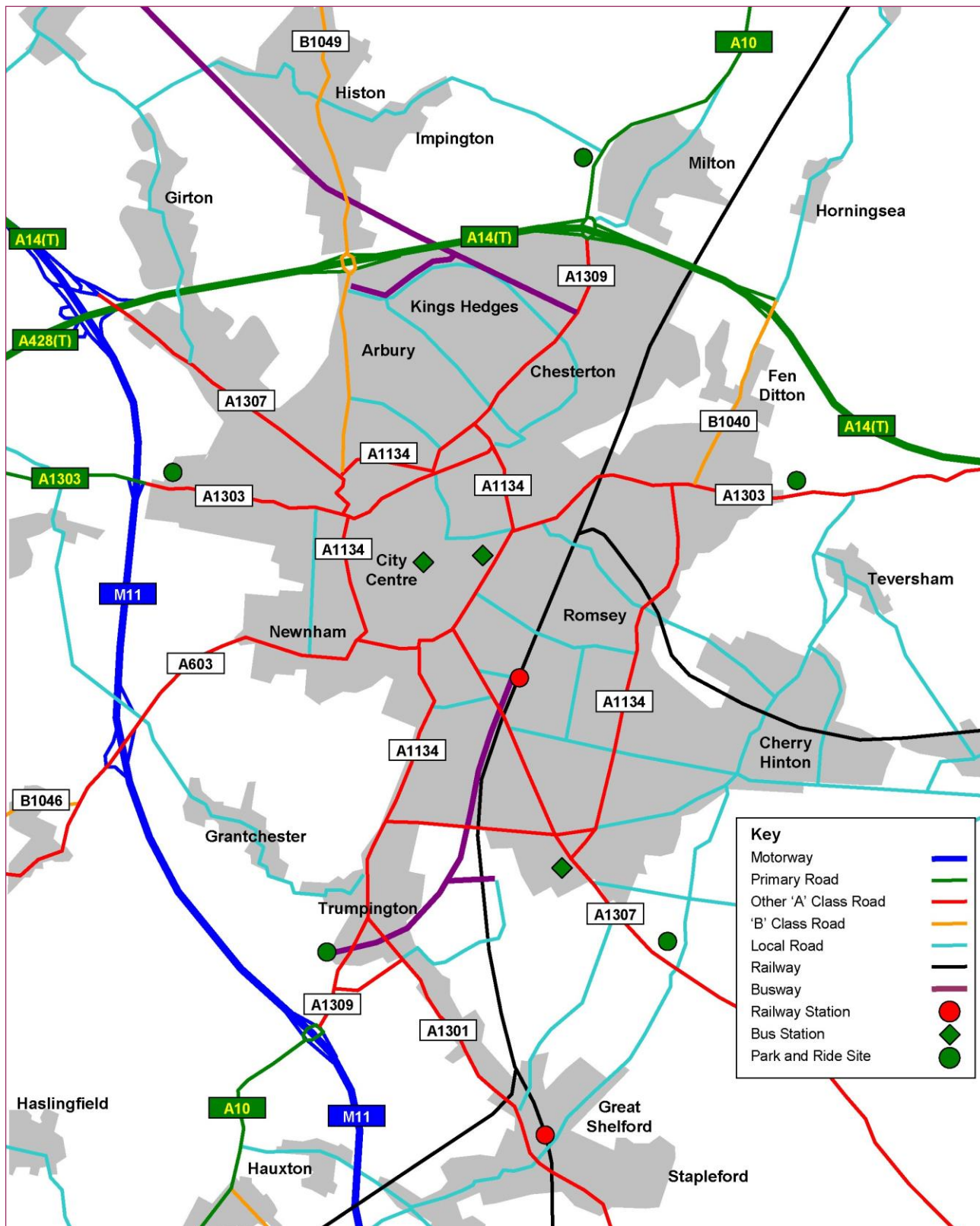
Many of the measures in this strategy are intended to help facilitate and support new development. As such, developers will be expected to contribute to the delivery of the strategy measures by way of contributions through the appropriate channels, namely through the Community Infrastructure Levy (CIL) and Section 106 (S106) Agreements for measures specific to a site. The measures outlined in this strategy will inform the development of the Community Infrastructure Levy requirements for each district.

Figure 1.1. The strategy area.



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Figure 1.2. The road, rail and busway networks in Cambridge.



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Development of the TSCSC

The strategy will not be set in stone; it will be subject to monitoring and review throughout its lifetime. Review of the strategy will be undertaken when needed, and may be triggered by a number of factors, which could include:

- Changes in the land use planning context set by the Local Plans.
- Changes in other relevant policy areas.
- Changes in the funding environment for transport infrastructure and services.
- Review of how successful interventions have been in addressing problems, and any changes to the strategy necessary to address problems or to reflect and seek to replicate successes.

The TSCSC and the emerging Long Term Transport Strategy (LTTS) for Cambridgeshire will be adopted as part of Cambridgeshire's Third Local Transport Plan in 2014.

As part of the work to update LTP3 to reflect these strategies, work will be undertaken to ensure that the reviewed LTP meets the statutory requirements set out in legislation governing Local Transport Plans. This will include a review of the current Strategic Environmental Assessment, Habitat Regulation Assessment and Community Impact Assessment of the LTP in the context of the TSCSC and LTTS, and new assessments if necessary. These reviews may in turn feed in to a review of the TSCSC.

The TSCSC Action Plan

Associated with this strategy is an action plan. The action plan is a live document that will be reviewed and rolled forward on a regular basis in line with the approach and policies set out in this strategy.

The action plan contains an outline programme of improvements to 2031 and details the key major schemes proposed to deliver this strategy in the short, medium and longer term. At this stage (first adoption of the Strategy, April 2014) it does not include specific details for smaller, more local interventions. It is aligned with the sequence of development proposed in the Local Plans.

The action plan will be updated and reviewed regularly by the Joint Strategic Transport and Spatial Planning Group to ensure the schemes and measures are progressed in relation to priority, and as funding opportunities arise. The group will also oversee the further development of the action plan, which will involve work with local stakeholders to populate the more local interventions across Cambridge and South Cambridgeshire.

Funding the TSCSC

The current funding environment is challenging. Opportunities such as the Government's City Deal process offer potential opportunities to invest in infrastructure. It is important to maintain a level of realism over what might be delivered in the current funding environment; but a strategy that sets a realistic assessment of the needs of the area is necessary. A strategy that is constrained by known funding will not provide the evidence base to support calls for investment through mechanisms such as City Deal. An ambitious strategy is therefore presented, but without such investment plans will take longer to deliver.

2. The strategy approach

Policy TSCSC 1: The strategy approach

The transport network will support economic growth, mitigate the transport impacts of the growth agenda and help protect the area's distinctive character and environment.

To achieve this, sustainable transport capacity will be provided in and around the city between key employment areas, and to where people live and access services. The sustainable transport network will strengthen the economic hubs and the high tech clusters in and around the city by making movement between them straightforward and convenient.

The backbone of the strategy will be a high quality passenger transport network of bus, guided bus and rail services, fed and complemented by comprehensive pedestrian and cycle networks. Highways capacity enhancements will ensure that traffic can move efficiently in appropriate locations without interfering with passenger transport corridors.

Scope of the strategy

The strategy:

- Covers the City of Cambridge and the District of South Cambridgeshire. It will also consider neighbouring areas where there is a strong transport or economic link.
- Considers all modes of transport used for local trips, including trips on the trunk road and motorway network managed by the Highways Agency, and the rail network managed by Network Rail.
- Identifies interventions to address current problems on the network.
- Takes account of jobs and housing growth planned in Cambridge, South Cambridgeshire and in surrounding Districts in the period to 2031 and identifies interventions to provide for the transport demands of that growth.
- Supports interventions that will minimise the need to travel.
- Looks to set a vision for transport in the longer term, towards 2050.
- Recognises that the dispersed rural population of South Cambridgeshire and the compact population and constrained network of Cambridge bring different challenges and different solutions.



Genome stripes (gene BRCA2) on the Addenbrooke's to Great Shelford cycle path

Land use planning and the growth agenda

This strategy has been developed alongside the Local Plans for Cambridge and South Cambridgeshire. These plans set out the Local Planning Authority's policies for the development and use of land in their areas, and have been developed together.

The Local Plans have regard to national policies contained in the National Planning Policy Framework. In compliance with that policy, they take account of the evidenced need for development to cater for forecast demographic changes and economic activity.

The plans for Cambridge and South Cambridgeshire also take account of the ability of existing infrastructure to cope with growth, and the ability to provide new infrastructure to serve the development.

Economic growth in Cambridge and South Cambridgeshire continues, and jobs growth in the area remains strong. The attractiveness of the area as a place to live combined with this growth has led, over the years, to high house prices and to many people who work in the area being unable to afford to live in the area. Housing allocations contained in the Local Plans will go some way to rebalancing local supply and demand.

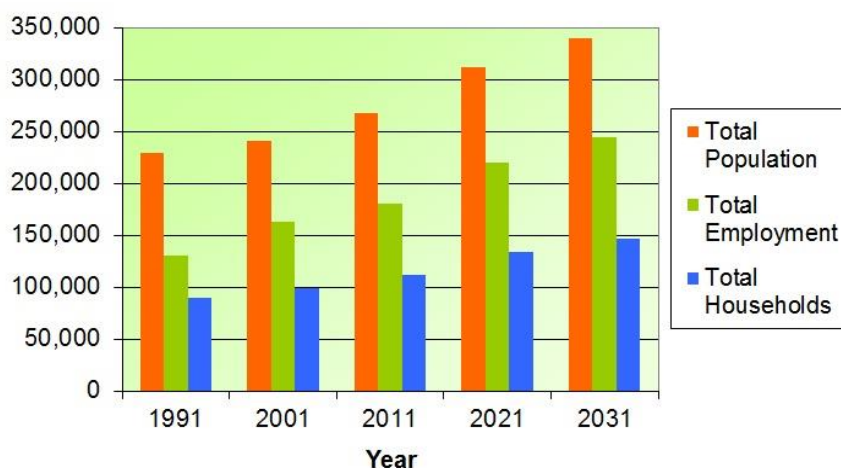
Transport is one of the critical factors in deciding where growth should occur. Previous experience suggests that with economic growth continuing, failure to provide new homes in the area will lead to greater levels of travel in Cambridge and South Cambridgeshire as people from outside the area travel through to access new jobs.

The development strategy is important in itself in locating new development in sustainable locations which mean that the need to travel in the first place is either reduced or removed. The provision of infrastructure such as high speed broadband is crucial in this

Figure 2.1. Development Plans covering Cambridge and South Cambridgeshire.

Plan	Planning Authority	Adoption date
Cambridge Local Plan	Cambridge City Council	Winter 2014
South Cambridgeshire Local Plan	South Cambridgeshire District Council	Spring/Summer 2015
The Cambridgeshire and Peterborough Minerals and Waste Plan	Cambridgeshire County Council	July 2011

Figure 2.2. Predicted growth in Cambridge and South Cambridgeshire.¹



¹ Sources: East of England Forecasting Model – employment, and Cambridgeshire County Council Research, Performance and Business Intelligence Team – population and households.

respect to enable people to work from home or in other remote locations. Funding has been secured to accelerate the roll-out of high speed broadband across the area.

However, if growth is to occur in the area, the transport network must be capable of dealing with it sustainably. The Draft Transport Strategy for Cambridge and South Cambridgeshire should be read alongside the Draft Local Plans.

A [Memorandum of Co-Operation](#) sets out the objectively-assessed housing needs for the area, at levels detailed in [Figure 2.3](#). Growth in the strategy area is shown on the maps in [Figure 2.4](#) and [Figure 2.5](#). Further details of the housing and employment growth for each corridor in the strategy area are set out in [Chapter 5](#).

Traffic growth and the impact of new development

As a city, Cambridge has been very successful in recent years at keeping traffic levels stable. [Figure C.3](#) in Appendix C shows how this compares to the increase in population that has taken place in the city. Similarly in South Cambridgeshire, Department for Transport data shows that between 2001 and 2008, traffic grew roughly in line with the growth in population, but decreased slightly between 2008 and 2011. [Figure C.4](#) in Appendix C shows these trends along with more detail on trends in trip making.

Modelling work to date has demonstrated that the proposed Transport Strategy would have a beneficial effect, by helping to reduce some of the predicted car traffic growth. It would also mitigate some of the implications of this growth through increasing the modal shift and number of non-car trips within the area. However, despite these improvements there will be a growth in car traffic and further demand management and smarter travel measures will be necessary to help reduce car growth even further.

Further analysis and work is proposed to help understand which demand management measures and parking controls would assist in reducing traffic growth and also to clarify which measures are more or less effective depending on the focus of development.

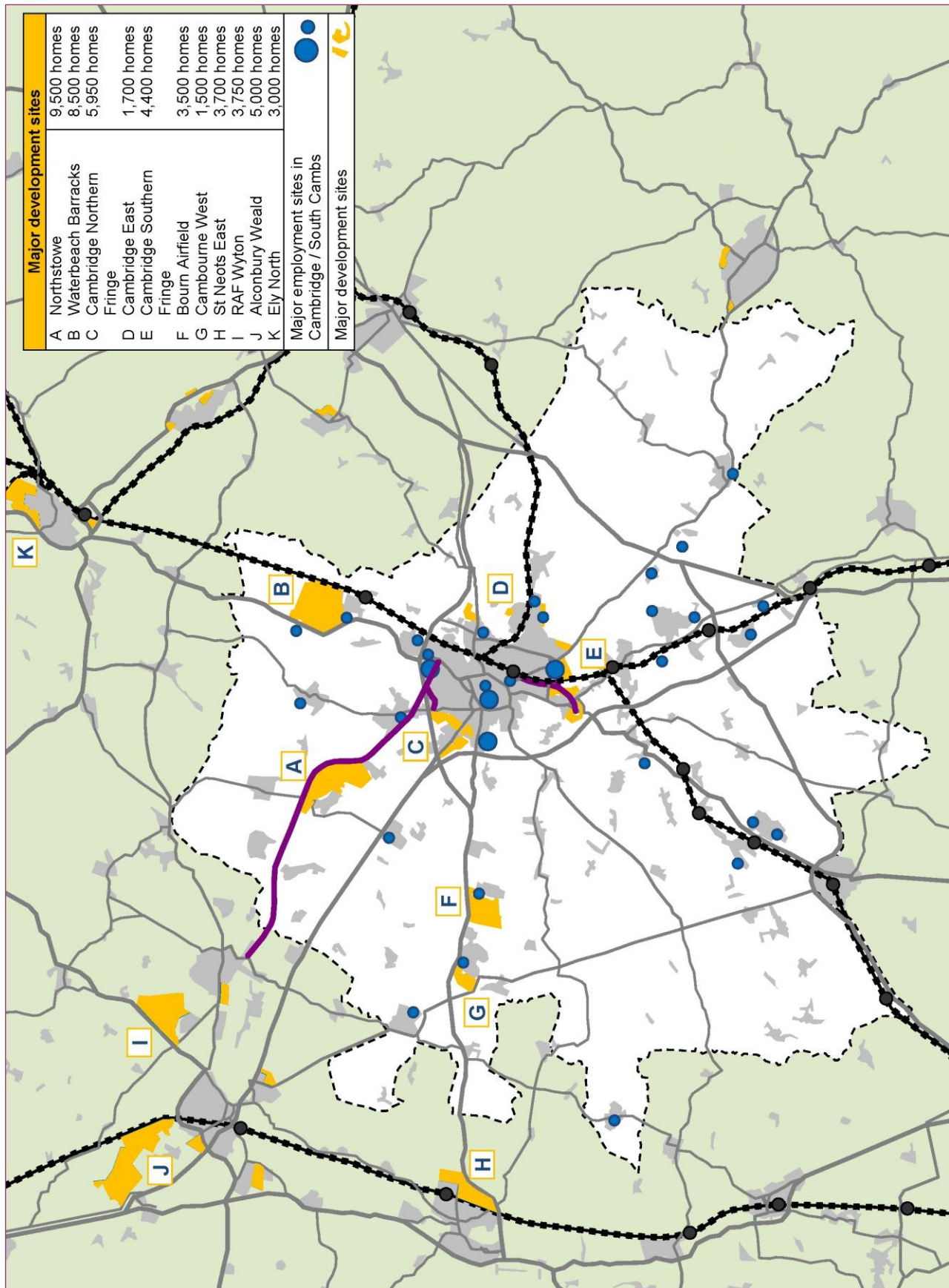
Figure 2.3. Planned growth in the Cambridge Housing Market Area, 2011-2031.

District	County	Housing Growth	Jobs Growth
Cambridge	Cambs.	14,000	71,000
South Cambridgeshire	Cambs.	19,000	
East Cambridgeshire	Cambs.	11,500	
Fenland	Cambs.	11,000	
Huntingdonshire	Cambs.	17,000	
Cambridgeshire		72,500	71,000
Forest Heath (Suffolk)	Suffolk	7,000	
St Edmundsbury (Suffolk)	Suffolk	11,000	
Total		90,500	



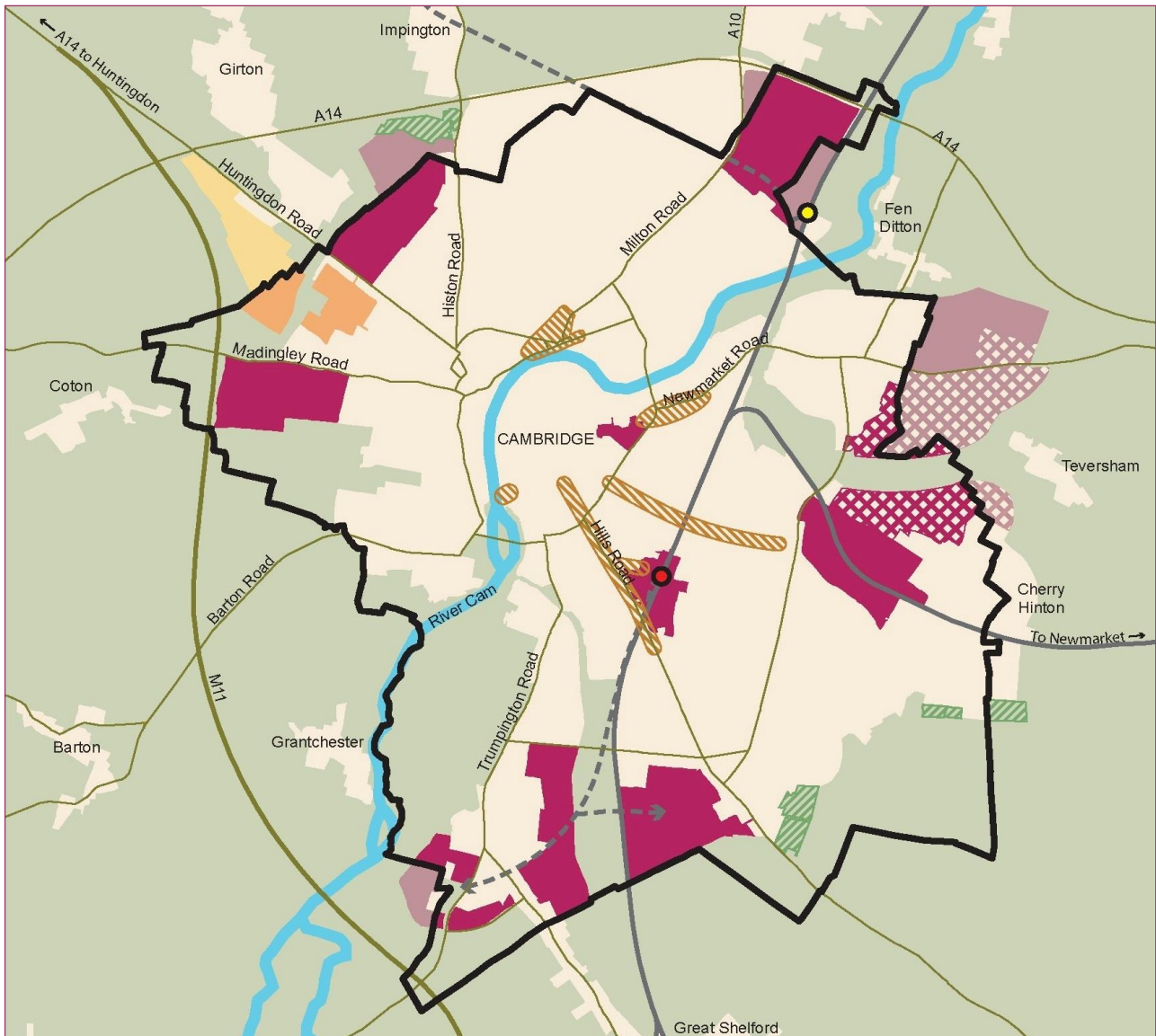
The planned new town of Northstowe

Figure 2.4. Proposed major development sites in and around the strategy area.

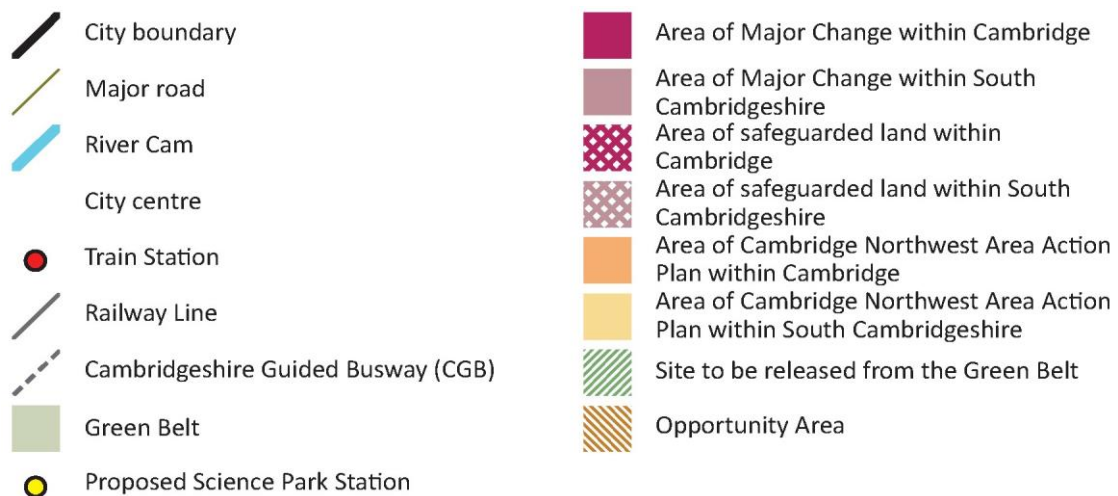


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Figure 2.5. Cambridge Local Plan Key Diagram.



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Areas identified in South Cambridgeshire are indicative only and subject to confirmation via a review of the South Cambridgeshire Local Plan.

Transport Policy Context

The Third Cambridgeshire Local Transport Plan

The Third Cambridgeshire Local Transport Plan (LTP3) covers the period 2011–2026 and demonstrates how our policies and plans for transport will contribute towards the County Council’s vision – creating communities where people want to live and work: now and in the future. It provides a framework for this strategy, setting out the policies and strategies necessary to ensure that planned large-scale development can take place in the county in a sustainable way.

The LTP3 seeks to address eight challenges

- Improving the reliability of journey times by managing demand for road space, where appropriate and maximising the capacity and efficiency of the existing network.
- Reducing the length of commute and the need to travel by private car.
- Making sustainable modes of transport a viable and attractive alternative to the private car.
- Future-proofing our maintenance strategy and new transport infrastructure to cope with the effects of climate change
- Ensuring people - especially those at particular risk of social exclusion - can access the services they need within reasonable time, cost and effort wherever they live in the county.
- Addressing the main causes of road accidents in Cambridgeshire.
- Protecting and enhancing the natural environment by minimising the environmental impact of transport.
- Influencing national and local decisions on land-use and transport planning that impact on routes through Cambridgeshire.



Hunts Road, Duxford

This strategy looks to apply the LTP’s overarching policies and objectives at a local level, whilst reflecting the local needs and views. The LTP is a live document and will be updated to incorporate the TSCSC, which in turn will be adopted as part of LTP3 suite of documents, which inform the LTP implementation plan.

TSCSC policies

At various points in the strategy there are policy statements that give a specific steer on:

- The strategy approach.
- The requirements and expectations of the County Council in relation to infrastructure to be delivered by others, including developers and government agencies such as the Highways Agency and Network Rail.

These policies should be read in conjunction with the relevant Local Plans for the area. The Local Plans contain all of the local planning policies by which a development/planning

application must abide. The TSCSC policies are intended to complement the Local Plan policies and come under the wider umbrella of the LTP and will be material planning consideration.

Challenges to be addressed by the strategy

Compared to cities of a similar size in the UK and in Europe, Cambridge already has a relatively low level of trips made by private car, and correspondingly high levels of trip making by bicycle.

The settlement pattern in South Cambridgeshire is opposite to that of Cambridge, with 105 villages and other settlements in 100 parishes. While the population of the district is larger than Cambridge, the dispersed population of the district means that away from the larger villages and main transport corridors it can be difficult to provide frequent and timely passenger transport services.

- Accessibility
 - Making it easier to walk, cycle and use passenger transport for work and leisure journeys.
 - Increasing the number of bus lanes, pedestrian routes and cycle routes.
 - Addressing passenger transport availability, particularly in rural areas and in the evenings.
 - Finding alternatives to passenger transport where it is not viable for commercial services to run.
 - Improving transport links for new and existing communities.
- Managing Demand
 - Managing the increasing demand for road space.
 - Tackling congestion and delay.
 - Reducing unnecessary through traffic in Cambridge.
 - Managing parking capacity in a balanced way.
 - Reducing reliance on road transport for the movement of freight.
- Safety
 - Improving road safety.
 - Tackling stretches of road or junctions where there are accident or congestion problems.
- Travel Information
 - Raising awareness of travel options.
 - Ensuring transport information is available and easy to use.
- Environment
 - Addressing local air pollution.
 - Addressing carbon emissions.
 - Preserving the area's natural environment, including green corridors.
- Sourcing funding to deliver transport improvements.

Strategy Objectives

Eight objectives have been set for this strategy. These are:

- To ensure that the transport network supports the economy and acts as a catalyst for sustainable growth.
- To enhance accessibility to, from and within Cambridge and South Cambridgeshire (and beyond the strategy area).

- To ensure good transport links between new and existing communities, and the jobs and services people wish to access.
- To prioritise sustainable alternatives to the private car in the strategy area, and reduce the impacts of congestion on sustainable modes of transport.
- To meet air quality objectives and carbon reduction targets, and preserve the natural environment.
- To ensure that changes to the transport network respect and conserve the distinctive character of the area and people's quality of life.
- To ensure the strategy encourages healthy and active travel, supporting improved well-being.
- To manage the transport network effectively and efficiently.

The approach in Cambridge

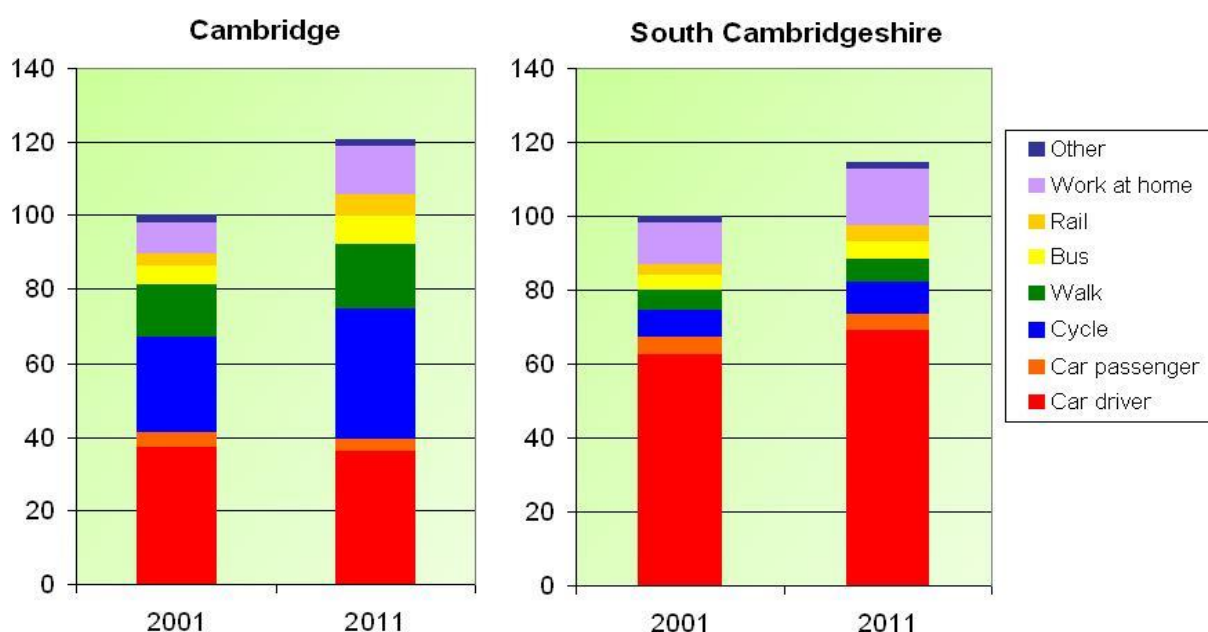
Cambridge is a compact city, with around 124,000 residents in 2011. The transport network in the city is relatively constrained and has a finite capacity for vehicles. In peak periods, parts of the network frequently operate at or near that capacity. Significant increases in general vehicular traffic cannot be accommodated on the city's road network.

However, the capacity for movement on the transport network is far greater than the capacity for vehicles – if the network is used differently. [Figure 2.6](#) shows how patterns of trip making for the travel for work journey changed in Cambridge and South Cambridgeshire in the period between 2001 and 2011.

In Cambridge, despite the growth in population in the period, the level of car traffic generated by travel to work trips slightly reduced. The proportion of employed residents of the city who drove to work dropped from 37.5% to 30%. For the same pattern to be seen in the city in 2031 with the population growth envisaged in the Local Plans, this proportion would need to fall to around 24%.

Figure 2.6. Employed resident's main mode of travel to work, factored by employed population.

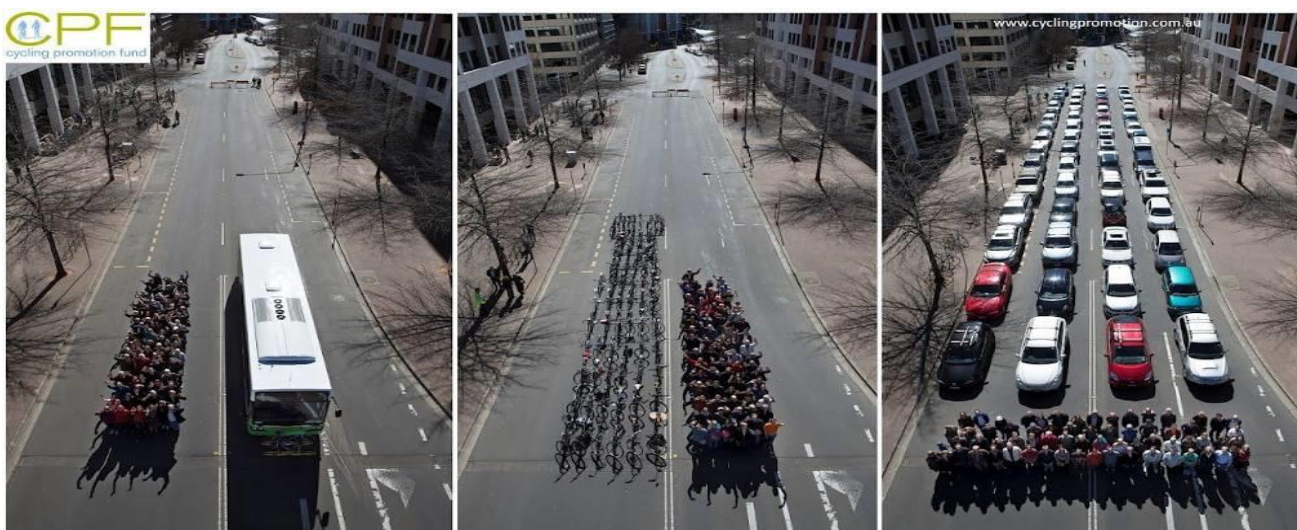
(Index base 100 for all trips in 2001, data from 2001 and 2011 censuses).



Policy TSCSC 2: Catering for travel demand in Cambridge

For more travel demand to be accommodated on the constrained transport network of Cambridge:

- More people will walk, cycle and use passenger transport services for journeys into, out of and within the city.
- More people will car share.
- Pedestrians, cyclists and buses will be prioritised for trips across the city. General vehicular traffic will not be prohibited and accessibility will be maintained, but a car journey may be longer and more time consuming than at present for many trips.
- General traffic levels will remain at current levels.



Picture courtesy of www.cyclingpromotion.com.au

The approach on the main transport corridors and in the rural areas of South Cambridgeshire

The settlement pattern in South Cambridgeshire is the opposite to that of Cambridge, with a dispersed population of over 148,000 in 105 villages and other settlements, in 100 parishes. While the population of the district is larger than that of Cambridge, its dispersed pattern means that away from the larger villages and main transport corridors it is difficult to provide viable, frequent and timely conventional passenger transport services. Of necessity, the car will continue to be used for part or all of many trips in the District.

However, the main road corridors in the district – particularly those between Cambridge and the ring of market towns that surround it – suffer from significant congestion, and Cambridge itself acts as a fundamental constraint on capacity of these routes.

In South Cambridgeshire, the level of car traffic generated by travel to work trips (see [Figure 2.6](#)) grew by 9.8%, but the proportion of employed residents of the district who drove to work dropped from 62.7% to 60.2%. For stability in car trips to be seen in the period to 2031 with the population growth envisaged in the Local Plans, this proportion would need to fall to around 47%.

The strategy recognises that providing major new capacity for local car trips on interurban routes between Cambridge and the surrounding towns will increase congestion in

Cambridge and those towns. If increases in congestion are to be minimised, both in Cambridge and on the radial routes

- The bus, rail, pedestrian and cycle networks must provide the additional capacity needed for additional trips.
- The need to travel must be minimised by the use of technology and the web, or through the appropriate location of local service provision.

For trips to Cambridge, the passenger transport network has the potential to intercept many more trips. The Busway provides a high quality link between Cambridge, the new town of Northstowe, St Ives, Huntingdon and Alconbury. The rail network provides similarly high quality links between Cambridge and Ely, Royston and Saffron Walden.

Policy TSCSC 3: Catering for travel demand in South Cambridgeshire

For additional travel demand to be accommodated on the constrained transport network of South Cambridgeshire and into Cambridge and surrounding towns:

- Passenger transport services on main radial corridors will be used for part or all of more trips to Cambridge and to other key destinations.
- More people will walk and cycle to access these services.
- More people will car share.
- More locally led transport solutions will provide passenger transport options in more remote areas that cannot viably be served by conventional bus services.

The approach in a national / international context

Cambridge and South Cambridgeshire sit on or near a number of nationally and internationally important routes and has direct links to a number of international transport gateways. These include:

- The M11 motorway and the A14, A11 and A428 Trunk Roads.
- The Felixstowe to Nuneaton rail freight route.
- Direct road and rail links to international gateways:
 - St Pancras International station.
 - London Stansted and London Luton airports.
 - The ports of Felixstowe and Harwich.

Local travel demand impacts on the performance of these corridors, but it is the national and international context that primarily drives the case for investment in them.

Policy TSCSC 4: National networks: trunk roads, motorways and rail

For these routes to play their part in catering for the travel demand of Cambridge and South Cambridgeshire:

- Improvements driven by the national agenda must take account of local circumstances, local opportunities and local impacts.

3. Funding, delivery and review of the strategy

Introduction

The Transport Strategy outlines the policy approach, transport infrastructure and services necessary to support planned growth and its travel demand into the longer term. This includes key requirements related to growth to 2031 as well as the longer term aspirations related to the vision for this area.

The strategy takes a long term view, and recognises that many of the interventions that are planned will not be delivered early (and indeed that some will not be needed in the short or even medium term). However, there is a large gap between the cost of measures in the strategy and known funding that might be available currently for the delivery of the strategy.

In this regard prioritisation will need to be undertaken to prioritise the essential infrastructure related to growth, and that which will be necessary to support the modal shift that will be necessary into the longer term to maintain and enhance accessibility and quality of life for all.



Silver Street, Cambridge

This transport strategy provides a strong policy basis for the funding and delivery of schemes. Without this strategy, the ability to bid for funding as opportunities arise, or to make the case for the necessity of delivery of schemes to support growth and support the local economy would be far weaker.

Funding of the new strategy

A key challenge for the new strategy will be ensuring that it is achievable within the funding that is likely to be available over time. At the same time, it is important that the needs and aspirations of transport users are reflected, as this gives a strong basis on which to seek additional funding, and lobby for improvements.

Funding is a key consideration, and it is acknowledged that there are challenges given the current financial climate. However, despite this there is recognition of the need to be clear on aspirations for this area which is one of the highest performing areas in the country, to help secure investment towards transport infrastructure as a key enabler of growth.

Local Transport Plan funding from government

The County Council receives Local Transport Plan funding for small scale transport improvements from government. In 2014/15, this funding is likely to be in the region of £5.7 Million for all of Cambridgeshire. Pro rata by population, this would equate to funding of around £2.5 Million in 2014/15 from government for small scale transport improvements in Cambridge and South Cambridgeshire.

However the level of grant funding received from this source is likely to significantly reduce from 2015/16 as money is top sliced by government into the Single Local Growth Fund – see below.

Funding from development

The Transport Strategy supports committed and planned growth and as such funding from development will be critically important to help deliver the strategy. Funding from Section 106 of the Town and Country Planning Act 1990 will be used to deliver site specific infrastructure and to improve and mitigate the impacts of growth proposals.

The Community Infrastructure Levy (CIL) will also be important in supporting the delivery of infrastructure related to growth. This is a new levy that local authorities can choose to charge on new developments in their area. The money raised will help to fund the key infrastructure related to growth, and priorities will need to be established as CIL funding won't be sufficient to cover the full list of infrastructure requirements.

The TSCSC & Action Plan provides a clear strategy and policy approach, and outlines the key measures and interventions needed to support growth and mitigate the impacts of development to 2031. This provides an update to the adopted Area Transport Plans in terms of key measures and interventions. Until CIL is introduced, planning obligations will continue to be secured on the basis of site-specific impacts and the existing adopted Area Transport Plans (see link) which seek contributions towards transport measures on the basis of trips generated.



The area around Cambridge Station.

Since this photo was taken in 2011, two new platforms have been provided at the station, the Busway has opened, and large parts of the site have been redeveloped for office, housing, student residence and retail use (see also photo on Page 3.7). The development is contributing towards improvements to the station including a major enlargement of the ticket hall and a 2,900 space cycle park.

Policy TSCSC 5: Planning obligations

A comprehensive approach will be applied to secure the provision of new and improved transport infrastructure, in a timely manner to ensure that accessibility is maintained and the impact(s) of developments are addressed, in line with this Strategy approach.

Developers will be required to make provision to mitigate both the site specific and network impacts of their planning proposal. Mitigation measures will be secured by direct improvements carried out by the developer, and through the Community Infrastructure Levy (CIL) and/or a Section 106 (S106) agreement.

The nature and scale of mitigation/contributions will be determined by, the scale and type of development, as well as the transport impact and demands this places on the site and the local network.

In Cambridge (and South Cambridgeshire where applicable), until such time as CIL is implemented, planning obligations will continue to be secured through the Area Transport Plan process.

Policy TSCSC 6: Transport Assessments

Transport Assessments (TA) will be required to support any planning application that produces a net increase of approximately 500 person trips (by all transport modes) per day. For smaller scale developments a Transport Statement (TS) will generally be required. However a full TA may also be required if the development falls below this threshold but there are other local issues that may need to be addressed.

Early engagement with the local highway authority is strongly advised to agree the scope of the TA or TS and ensure that all the required data and information is provided when a planning application is submitted.

For the larger sites, it is expected that robust land use and transport modelling will be undertaken to assess not only the specific impact of the development but to assess the cumulative impact of the proposal on the surrounding transport network. The detail of this would need to be discussed and agreed with the Local Highway Authority.

Local major scheme funding from government

It is the intention of the Department for Transport that the [Local Transport Body](#) (LTB) for Cambridgeshire, Peterborough and Rutland will receive funding for major transport schemes from April 2015 onwards. This funding will be used to fund large schemes (those with a total cost of £2 Million or greater). In July 2013 it was announced that the LTB will receive £14.1 Million for the period from 2015/16 to 2018/19 (compared to an indicative allocation of £21.1 Million), to be allocated across the three transport authorities.



The A10 at Milton

Single Local Growth Fund from government

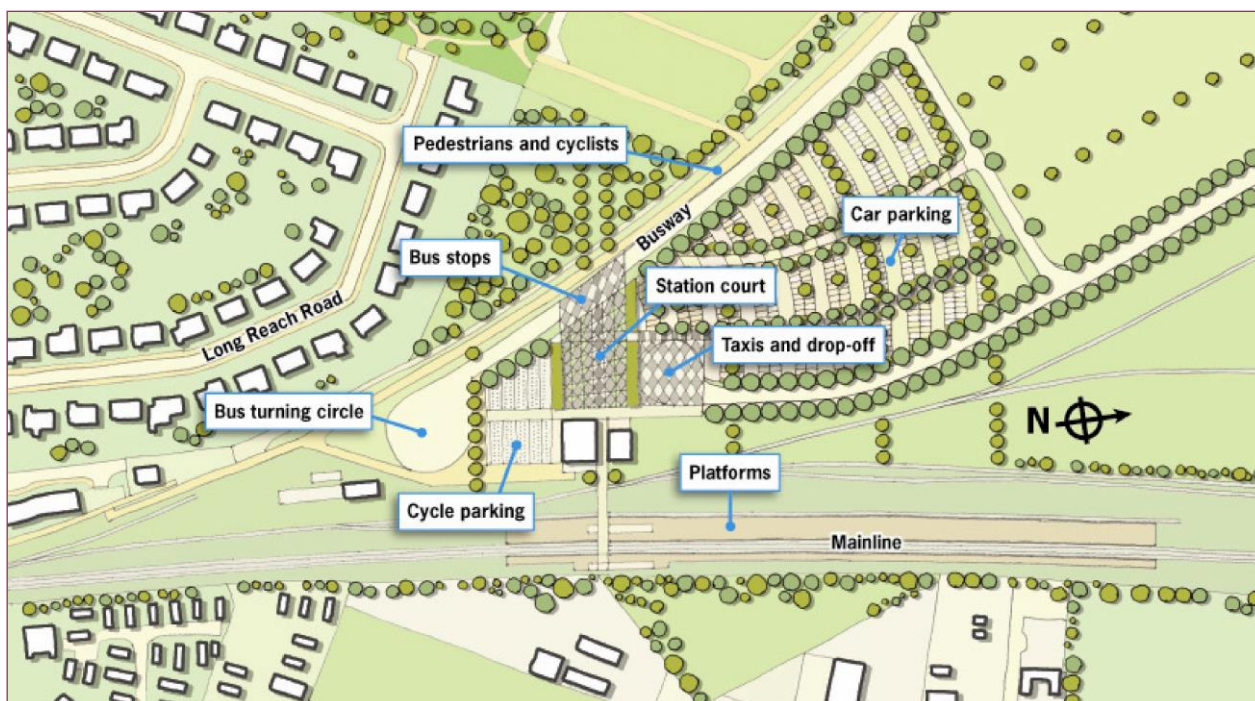
The government is establishing a Single Local Growth Fund (SLGF) from 2015/16, with funding of £2 Billion per annum nationally from a range of government departments. The transport funding for the SLGF is being top sliced from the LTP funding for small schemes and from local major scheme funding – see above. Local Enterprise Partnerships will bid into the SLGF for schemes across all thematic areas related to growth, including transport, education and skills, community infrastructure and drainage.

The Local Transport Body is advising the Greater Cambridge Greater Peterborough Enterprise Partnership on transport priorities for Cambridgeshire, Peterborough and Rutland. The Enterprise Partnership will submit its Strategic Economic Plan to government in March 2014.

Other funding opportunities

The council takes a proactive approach to securing funding from external sources towards priorities across the County. Opportunities to fund specific schemes or programmes from government or from European funding have and continue to be available. For example, the Local Sustainable Transport Fund and the Better Bus Areas Fund allocated a total of £6.7 Million to programmes in Cambridgeshire in the three year period to March 2015.

In areas such as rail, where there is an income stream as well as a capital cost associated with infrastructure or service investment, there are commercial opportunities that may allow investment to be made. These opportunities often require the drive and support of local partners such as the County Council to get off the ground, as was the case for [Cambridge Science Park Station](#).



Indicative plan showing early ideas of how the planned Cambridge Science Park Station could look

A City Deal for Cambridge and South Cambridgeshire?

Work is being undertaken by the County Council, Cambridge City Council, South Cambridgeshire District Council, the Greater Cambridge Greater Peterborough Enterprise Partnership and Cambridge University with government to attempt to secure significant future investment in the area through a [City Deal](#).

This would enable more of the taxes and business rates raised locally to be retained and invested in infrastructure to support growth, including major investments in transport measures. Without such investment, plans will take longer to deliver, and growth may take longer to deliver. The powers included in Manchester's City Deal include the ability to 'earn back' a portion of the additional tax revenue generated by investing in infrastructure. This is the first time that a city outside of London will have the freedom to reinvest its own national tax revenue.

A City Deal could therefore see significantly more funding and powers retained in the Cambridge city-region, with greater freedom to determine local priorities and invest in them.

The creation of local investment funds to invest in transport improvements in support of growth would help to ensure that some of the longer-term or more aspirational aims on the strategy could be delivered earlier than would otherwise be the case.

Prioritisation and delivery of the strategy programme

The County Council will work with the City and District Councils to prioritise the schemes that are required to directly facilitate the delivery of housing and jobs growth contained in the Cambridge and South Cambridgeshire Local Plans. This scheme list will form part of the wider Local Investment Plan, which will also include other items of public infrastructure such as schools and community facilities that are needed to cater for growth.

Schemes in the transport strategy that do not have a direct link to growth will also be prioritised.

However, it is also recognised that schemes may need to be delivered as funding opportunities

allow; there is no guarantee that the funding opportunity for a higher priority scheme will necessarily be available in a convenient or timely manner.

The adopted strategy will contain a ten year forward programme and an indicative programme for the longer term.



The B1049 at Histon

Monitoring and review

Monitoring of outcomes

Schemes within the strategy will be monitored in a number of ways.

- Selected schemes will be subject to before and after monitoring of usage.
- Patronage of passenger transport services will be monitored where possible; although for reasons of commercial confidentiality, data on individual services is not always available.
- Monitoring of the reliability of bus services using GPS tracking.
- Monitoring of the speed of traffic on the road network.
- Monitoring of trends in the number of road accident casualties.
- Annual monitoring of trends in transport on the wider network (for example, traffic levels such as those shown in [Figure 3.1](#) and [Figure 3.2](#)) will also inform consideration of progress towards the aims and desired outcomes of the strategy.

Figure 3.1. Population growth and daily vehicular traffic into and out of Cambridge / across the River Cam in the city².

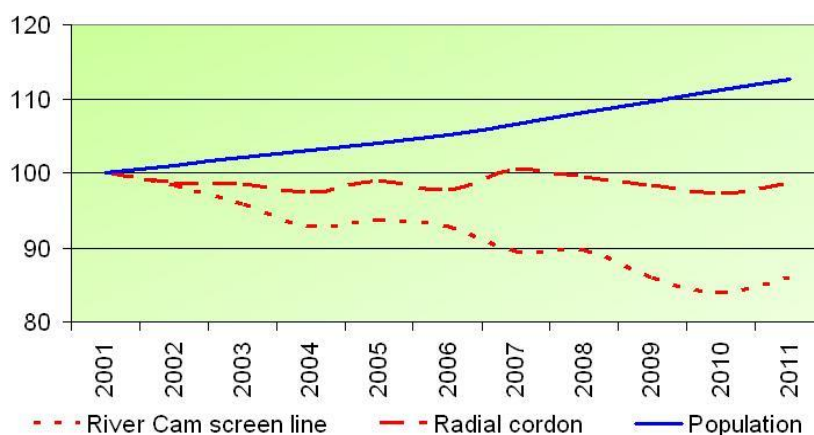
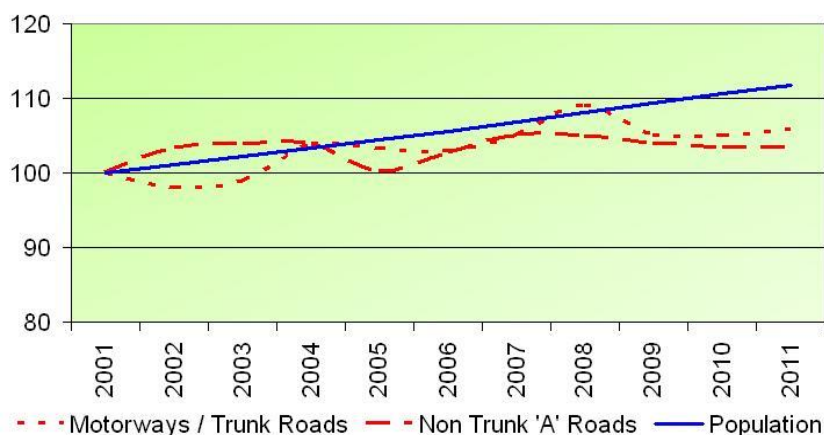


Figure 3.2. Traffic growth on main roads in South Cambridgeshire.³



The monitoring of overall progress and of individual schemes will inform the ongoing review of the strategy.

² Traffic cordons: Index, base 100 (2001). Cambridge Radial Cordon – used to monitor trips into and out of the city. River Cam Screenline – used to monitor trips across the river within the city; this provides useful proxy data for vehicles are using city centre roads.

Population growth: Index base 100 (2001) for Cambridge and South Cambridgeshire)

³ DfT Traffic counts: Index, base 100 (2001).

Population growth: Index base 100 (2001) for South Cambridgeshire

Review of the strategy

As noted above, this strategy takes a long term view. It should be capable of evolving to reflect any change in circumstances, and to remain current and relevant.



Bus interchange and redevelopment at Cambridge Station

A forward programme of between eight and ten years will be maintained. The whole programme will be reviewed at least once every two years. These reviews will:

- Ensure that there is a pipeline of schemes for delivery that reflects the availability of known funding in the medium term.
- Ensure that progress towards the delivery of the strategy is reflected accurately and robustly, and that any variances are accounted for in the forward programme.
- Reflect on the monitored outcomes of schemes that have been delivered, and consider any changes to the forward programme as a result that might lead to more positive outcomes to be achieved.
- Consider whether the monitored outcomes of schemes, and progress towards the delivery of the programme would lead to the consideration of changes to the strategy to reflect the effectiveness of interventions to date.



Construction of the Gilbert Road, Cambridge cycle lanes scheme

In addition, on an ongoing basis, the strategy will be kept under review to:

- Reflect on wider societal or regulatory changes that might require different strategy approaches to be taken.
- Reflect on progress toward the delivery of planned housing and jobs growth, and any changes that might be needed to support the growth agenda.

It is important that the strategy is not seen as a barrier to the exploiting of future opportunities that might occur. Rather, the strategy should be capable of evolving and should seek to take advantage of any such opportunities.

4. The transport strategy

This chapter sets out the strategy approach that will be taken overall, and for individual transport themes:

- Passenger transport.
 - Bus and Guided Bus
 - Rail
 - Cambridgeshire Future Transport
 - Taxis and Private Hire vehicles
- Transport interchanges.
- Walking and Cycling.
- The Road Network
 - Demand management and parking.
 - Road Safety
- Road and Rail Freight movements and servicing.
- Smarter choices.
- Streetscape and environment



Park & Ride Bus at the Grafton Centre Bus Interchange, Cambridge

It shows how they support the LTP strategy and contribute towards overall objectives, and describes the key elements of the LTP programme.

The individual strategies seek to build on previous strategies and schemes that have been implemented. Past strategies have been reviewed to confirm that they have contributed to meeting our objectives. In some cases, our strategies have performed very well, and the Transport Strategy for Cambridge and South Cambridgeshire (therefore continues with our present approach. In other cases, we have developed our strategies to address the changing situation. In all cases, we have expanded the LTP programme to reflect the scale of the challenge we face.

Policy TSCSC 7: Supporting sustainable growth

The transport network will be developed in line with the strategy approach and objectives, to provide the capacity necessary to accommodate planned growth levels while protecting the area's distinctive character and environment.

New development will be required to make provision for integrated and improved transport infrastructure to ensure that most people have the ability to travel by foot, bicycle or by passenger transport and in line with specified modal split targets where relevant.

Access by walking, cycling and public transport will be maximised in all new developments, ensuring that planning contributions are sought for transport improvements where appropriate.

A Passenger Transport

The Strategy Approach

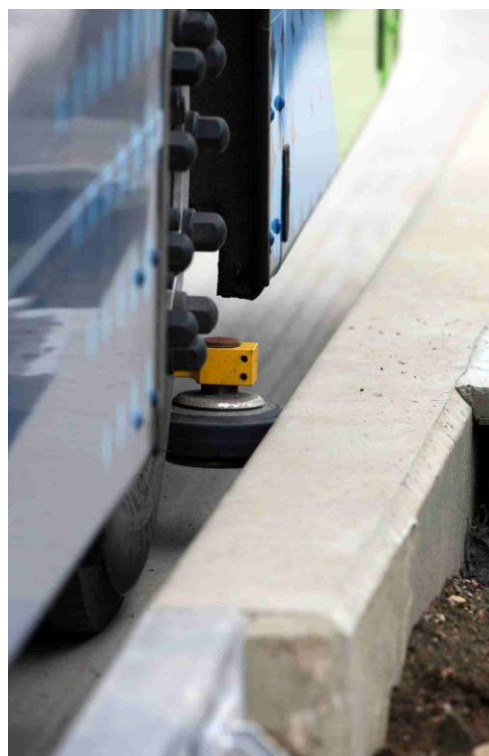
Passenger transport encompasses rail, bus and guided bus services, along with taxis and private hire vehicles, and other demand responsive local services.

Underpinning the strategy is the development of the network of High Quality Passenger Transport⁴ (HQPT) links across the area. Passenger transport services will provide a cost effective and reliable travel choice. Barriers to the reliability and timeliness of services will be addressed. Accessibility of services will be improved. We will improve the integration of different types of passenger transport, so as to make them more attractive and reduce the need to travel by car.

In Cambridge

The strategy will seek to make bus, cycling and walking the modes of choice for an increasing proportion of trips in the city. In the short term, bus and guided bus priority measures will be introduced on radial routes and other key links in the bus network where congestion severely impacts on the timeliness and reliability of services. In the medium to longer term, comprehensive treatment of routes to give a consistent level of priority along the whole length will be sought. Road space will be reallocated to buses, cyclists and pedestrians in many areas of the city.

Orbital bus movements will also be prioritised. In the short term, development in the northwest of the city will facilitate bus links between Chesterton, Cambridge Science Park and West Cambridge, and onwards to Addenbrooke's and the Cambridge Biomedical Campus, either through the city centre or on the M11. In the longer term, we will look at options to complete the circuit to the east of the city, linking Cambridge Science Park, Cambridge Airport, Cherry Hinton, Fulbourn, Addenbrooke's and the Cambridge Biomedical Campus for bus movements.



Guide wheel on a Guided Bus

Along transport corridors and in the rural area

We will create new HQPT corridors and enhance existing corridors. Where bus or guided bus services are the focus on a corridor, frequencies of every 15 minutes or better will be sought. Where rail services are the focus, a half hourly frequency or better will be sought

⁴ A High Quality Public Transport Service is defined as:

A One that provides at least a 10 minute bus frequency during the peak periods and a 20 minute frequency inter peak. If a parallel rail service of half hourly frequency is provided, the service would meet the high quality standard if the accompanying bus service was at least 15 minute frequency in the peak periods and 30 minute frequency inter peak. Weekday evening frequencies would run 1/2 hourly until 11pm, on Saturday 1/2 hourly 7am until 6pm, then hourly and on Sunday hourly 8am until 11pm.

B One that provides, high quality, low floor/easy access buses, air conditioning, prepaid / electronic ticketing, real time information and branding to encourage patronage.

at all stations on a route. [Figure 4.1](#) and [Figure 4.2](#) show the focus for HQPT in each corridor.

Where bus services are the focus, in the short term we will seek to address particular pinch points on the corridors that cause problems for buses. In the medium to longer term, we will seek to introduce more comprehensive Guided Bus or bus priority infrastructure along a route. Outer Park & Ride sites will be introduced to take advantage of the new infrastructure. Expansion or relocation of the current inner ring of Park & Ride sites will also be undertaken. Smaller rural interchanges will also be introduced.



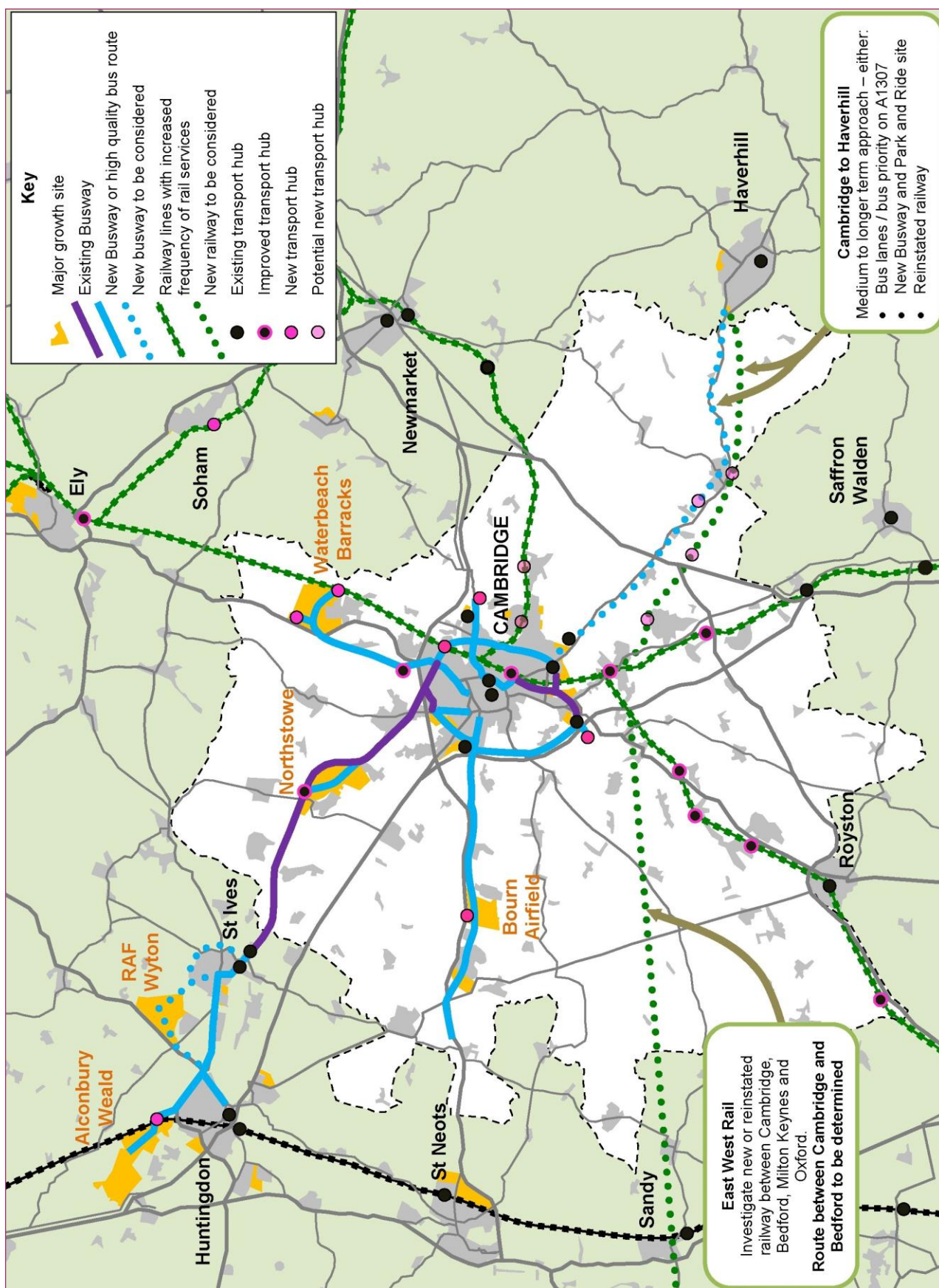
Emmanuel Street, Cambridge

Where rail is the focus, we will work with the rail industry to deliver infrastructure and service improvements that provide more capacity and more frequent services. There are significant improvements to services already in Network Rail and the Train Operating Companies' (TOCs) plans. However, there are further enhancements that are needed, which the County Council is driving forward with local MPs and other Councils in the east of England.

Figure 4.1. Focus for High Quality Passenger transport provision / enhancement on main transport corridors between Cambridge and neighbouring towns.

Corridor	Primary HQPT focus	Other HQPT	Notes
Ely and Waterbeach to Cambridge	Rail	Park & Ride	The new settlement at Waterbeach Barracks would also be served by a Guided Bus link to north Cambridge and the Busway.
Newmarket to Cambridge	Rail	Park & Ride	-
Haverhill to Cambridge	Rail or Guided Bus	Park & Ride	Old rail route between Shelford and Haverhill could potentially be used for bus, guided bus or rail in longer term.
Saffron Walden (Audley End) to Cambridge	Rail	Park & Ride	-
Royston to Cambridge	Rail	Park & Ride	-
St Neots to Cambridge	Guided Bus	Park & Ride	Potential for rail option, depending on route choice and deliverability of the East West Rail central section between Bedford and Cambridge in the medium to longer term.
Alconbury, Huntingdon, St Ives and Northstowe to Cambridge	Guided bus	Park & Ride	-

Figure 4.2. Focus for HQPT provision / enhancement on main transport corridors between Cambridge and neighbouring towns.



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The bus and guided bus network

Policy TSCSC 8: Improving bus services

The County Council will work with partners and passenger transport operators to develop an improved and integrated network of High Quality Passenger Transport.

The County Council will use existing channels, such as the Quality Bus Partnership to raise standards and monitor service provision.

Bus infrastructure and priority between neighbouring towns and Cambridge

Bus has a role to play in providing a HQPT option on most of the major corridors into Cambridge.

On the Alconbury, Huntingdon, St Ives and Northstowe to Cambridge corridor

The existing Busway will be the primary passenger transport option on this corridor. The Busway between St Ives and Cambridge on this corridor sets a benchmark against which the quality of bus services on other corridors can be measured. Several enhancements to busway infrastructure on this corridor are envisaged.

- The Busway will be extended from Milton Road in Cambridge to the Cambridge Science Park Station.
- The development of Northstowe will provide a busway loop through the town.
- The Longstanton Park & Ride site will be expanded.
- The on road busway link between Huntingdon and St Ives will be enhanced
- A new busway link between the Enterprise Zone at Alconbury and Huntingdon will be provided.



The Busway at Histon

The last two interventions are wholly in Huntingdonshire but by intercepting trips into Cambridge earlier, will be of significant benefit to Cambridge and South Cambridgeshire.

On the St Neots and Cambourne to Cambridge corridor

Significant growth on the corridor at St Neots, Bourn Airfield and Cambourne is likely to exacerbate congestion on the A428 Trunk Road between St Neots and Caxton Gibbet, and on the A1303 between the A428 and Cambridge. If buses are caught in this congestion, services will not be able to offer a competitive journey experience to the private car for longer trips.

The strategy will therefore focus on achieving a journey time and quality of service for buses on this corridor that equals or exceeds the equivalent car trip in peak periods, as has been achieved on the Huntingdon corridor with the Busway. In the short term, this will involve measures on the existing highway to give increased priority for buses on the inbound trip into Cambridge on the A1303. In the longer term, a more comprehensive solution for both inbound and outbound services will be sought.

On the Haverhill to Cambridge corridor

On the corridor from Haverhill to Cambridge, study work will be undertaken to identify whether in the medium to longer term, a Guided Bus (or other bus priority option) or a reopened railway line would provide greater benefit. This work will also consider the links to the adjacent corridor to Saffron Walden, and the Business Parks and Science Parks on both corridors. It will also consider issues on the A505 / A11 / A1304 route between Royston and Newmarket which crosses the Haverhill and Saffron Walden corridors, and takes high levels of traffic.



Traffic on the A1307 at Linton

On the Ely and Waterbeach to Cambridge corridor

A new Guided Bus link between the proposed new town at Waterbeach Barracks and Cambridge will sit alongside enhanced rail services and a new railway station to provide a comprehensive passenger transport offer.

Cambridge inner ring of Park & Ride sites

On all of the main corridors, Park & Ride services from the inner ring of sites around Cambridge will complement the longer distance Guided Bus and rail networks and provide a second HQPT option. Expansion, relocation, and new sites will be delivered, in each case looking at the needs of travellers and issues and opportunities on the corridors feeding into the sites. Further detail on the strategy for interchanges can be found later in this chapter.



*Over-ranking taxis on St Andrews Street, Cambridge. Works funded by the Better Bus Areas Fund will allow better management of the taxi ranks in the city centre.
([Creative Commons](#) licensed image, David Earl;
[CycleStreets](#) #17788)*

Radial and orbital movements in Cambridge

Policy TSCSC 9: Access to jobs and services

Access to areas of employment and key services will be maximised, particularly by sustainable modes of travel, to:

- Provide a transport network that is efficient and effective
- Provide good accessibility to services and for businesses
- Provide a HQPT and cycle network to routes near major employment, education and service centres.

A major impediment to the reliability of and the further increase in usage of bus services within and into Cambridge is the delay experienced by buses due to congestion caused by general vehicular traffic in the city. With the growth that is planned for the city, this impediment must be removed if the bus network is to become the mode of choice for many more journeys. A step change in the quality, availability and reliability of bus services within the city is needed. To achieve this, comprehensive bus priority is required over time on main routes used by buses, including:

- Milton Road
- Newmarket Road
- Fendon Road / Mowbray Road / Perne Road / Brooks Road / Barnwell Road
- Mill Road
- Gonville Place / East Road / Elizabeth Way
- Hills Road
- Madingley Road
- Histon Road

Reallocation of road space

In order to achieve a level of priority that will guarantee buses are able to get past congestion on the road network, general vehicular traffic will need to be restricted on some routes. These are likely to include Hills Road to the north of Station Road, East Road and Mill Road, however modelling will be undertaken to scope out which offer the greatest benefits. The removal of general vehicular traffic on these routes will have knock on effects on the wider network, and these are considered as part of the [Demand management and parking](#) strategy approach set out later in this chapter.

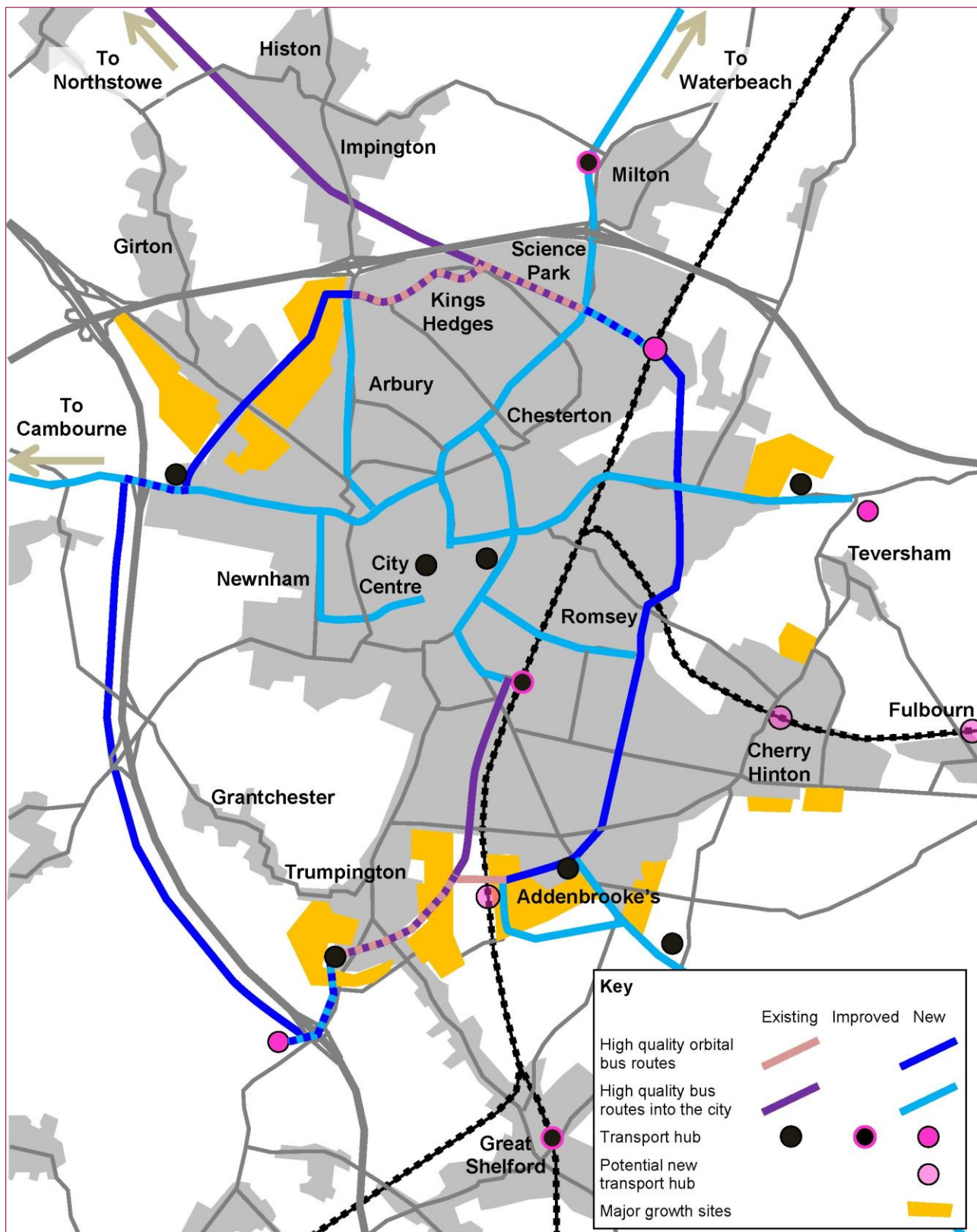
These measures would bring significant benefits for bus users, pedestrians and cyclists, and would also facilitate the greater use of the Grafton Centre bus interchange on East Road as a secondary bus interchange for the city centre.

North Cambridge: Milton Road, Histon Road and the Busway

The guided section of The Busway from St Ives ends at Milton Road and Histon Road in north Cambridge. There is some bus priority on Milton Road into the city, and a limited stretch of outbound bus lane on the approach to the north of the city. There is no bus priority on Histon Road other than a hurry call facility at traffic signals. Current development in the north and northwest of the city and the proposed new settlement at Waterbeach Barracks will bring significant additional demand on this part of the transport network. New and improved bus links are vital to cater for this demand.

On Milton Road, inbound and outbound bus lanes will be provided. Histon Road has limited space for any substantial bus priority, but detailed assessment of what measures might be possible to allow more space for current users – buses, cyclists, cars and pedestrians – will be investigated and further enhancements will need to be implemented.

Figure 4.3. Focus for HQPT provision / enhancement on routes in Cambridge.



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New busway links to Cambridge Science Park Station and onward links to Addenbrooke's

The Cambridge Science Park Station presents a significant opportunity to bring more trips into and out of the area by rail. New bus links and interchange opportunities for onward trips will enhance the attractiveness of the station. A busway access to the station will be delivered as part of the scheme.

A further busway link from the Science Park station to Newmarket Road will allow new radial bus services into the city, and new orbital bus services between Cambridge Science Park, East Cambridge and Addenbrooke's hospital. Bus priority measures on the eastern section of the ring road (incorporating Barnwell Road, Brooks Road, Perne Road and Mowbray Road, and then on Fendon road to link to Addenbrooke's and the Cambridge Biomedical Campus) will complete this link.

Madingley Road and orbital bus movements to the west of the city

Inbound bus priority measures will be introduced on Madingley Road between the M11 and Queens Road in Cambridge. Between the M11 and A428, options for segregated high quality bus priority will be investigated on the current alignment of the A1303 and on off-line alignments.

Bus only links will be provided between Histon Road and Madingley Road as part of the development of the NIAB and North West Cambridge sites. An orbital bus service from Cambridge Science Park would be able to travel on to Addenbrooke's and the Cambridge Biomedical

Campus by the M11. A demand management option that looks at the Queens Road / Grange Road area might also facilitate such a service travelling through or round the city centre and using the Busway to access the Addenbrooke's area.



Newmarket Road at its junctions with River Lane and Coldhams Lane

Newmarket Road

Newmarket Road can be heavily congested in both the morning and evening peak hours, and during the day at the weekend. A busway link between the East Road / Elizabeth Way junction and the railway line, complemented by busway or bus lanes from the railway line to Airport Way will allow buses to get past this congestion. There is space available on the corridor that should minimise the need for substantial reallocation of road space to achieve this.

The rail network

Policy TSCSC 10: Improving Rail Services

The County Council will work with other authorities and the rail industry to bring forward service enhancements and new infrastructure to increase rail use, through frequency and capacity improvements and increasing the proportion of freight moved by rail in line with the Strategy approach.

There is tremendous potential for greater use of the rail network in the strategy area, in particular for trips into Cambridge. [Figure 4.4](#) sets out planned rail service improvements that already feature in rail industry plans. [Figure 4.5](#) sets out further service enhancements that are not yet planned for by the rail industry, but that form part of this strategy. [Figure 4.6](#) and [Figure 4.7](#) show diagrammatically current services in the strategy area, and how the service increases detailed in [Figure 4.4](#) and [Figure 4.5](#) would enhance them.

Rail infrastructure – capacity improvements

To achieve the service levels detailed in [Figure 4.4](#) and [Figure 4.5](#), infrastructure upgrades will be needed in a number of areas. These include:

- Capacity improvements in the Ely area.
- Power supply upgrade to allow more electrically powered services to concurrently use the Cambridge to Ely and Kings Lynn route north of Milton.
- Platform lengthening at stations may be needed on the Hitchin to Cambridge and Kings Lynn route, including in Cambridgeshire:
 - Ashwell and Morden.
 - Meldreth.
 - Shepreth.
 - Foxton.
 - Waterbeach.
 - Ely (only if required for 10 car Inter City Express trains).
 - Littleport.
- Double tracking or passing loops on the route between Cambridge and Newmarket.
- Electrification of the Ely to Norwich and Cambridge to Newmarket routes.

This strategy does not address the detail of these improvements or the cost of them. Further information on the scope of improvement sought in Cambridgeshire and the wider region can be found in [Once in a generation – A rail prospectus for East Anglia](#). The prospectus was developed by Cambridgeshire, Essex, Norfolk and Suffolk County Councils in partnership with Local Members of Parliament and other government and business partners.

Rail and development at Waterbeach

A critical part of the transport package for the planned new town on the Waterbeach Barracks site will be a replacement station to cater for both the village and the new town. This station will need to be capable of taking the longer trains that will run on the line north of Cambridge after the commencement of the new Thameslink timetable in 2018.

Figure 4.4. Planned rail service improvements.

Journey / corridor	Off peak service		Status of proposals with rail industry
	Current	Planned	
Cambridge to Royston	2 trains per hour (1 fast, 1 stopping)	4 trains per hour (2 fast, 2 stopping)	Planned as part of Thameslink programme for implementation in 2018.
<i>Cambridge to London Kings Cross or London St Pancras</i>	4 trains per hour	6 trains per hour	Planned as part of Thameslink programme for implementation in 2018.
<i>Cambridge to London Kings Cross</i>	<i>2 fast, 1 semi fast, 1 stopping</i>	<i>2 fast</i>	2 fast trains to Kings Cross retained after implantation of Thameslink programme.
<i>Cambridge to London St Pancras, London Bridge, Gatwick Airport and Brighton</i>	-	<i>2 semi fast</i>	Thameslink programme likely to include Cambridge to Horsham (and Gatwick) and Cambridge to Maidstone East services from 2018.
<i>Cambridge to London St Pancras, London Bridge and Maidstone East.</i>	-	<i>2 stopping</i>	Cambridge to Brighton not currently planned.
Cambridge to Ely	3 trains per hour	5 trains per hour	See below
<i>Cambridge to Ely and Kings Lynn</i>	1 stopping	2 stopping	Works at Ely to provide extra track capacity needed are planned to start in 2014.
<i>Cambridge to Ely and Norwich</i>	1 semi fast	2 semi fast	Services need to be specified in relevant franchises.

Figure 4.5. Future services enhancements sought.

(Not currently in rail industry plans).

Journey / corridor	Off peak service		Status of proposals with rail industry
	Current	Sought	
Cambridge to Ipswich	1 train per hour	2 trains per hour	Not currently planned. Passing loops or track doubling needed between Ely and Newmarket.
Cambridge to Ely and Peterborough	1 train per hour (Stansted Airport to Birmingham New Street semi fast)	2 trains per hour (2 semi fast)	Not currently planned. Options for additional hourly service covering both links include: Cambridge or Stansted Airport to Peterborough, Birmingham New Street or Nottingham.
Cambridge to Audley End (Saffron Walden) and Stansted Airport	1 train per hour (Semi fast)	2 trains per hour (1 semi fast, 1 stopping)	Additional option for Stansted Airport only is to extend Norwich to Cambridge hourly.
Cambridge to Bedford and Oxford (East West Rail)	-	2 or more trains per hour	Eastern (Bedford to Cambridge) section not currently planned.

Stopping – stops at every station in Cambridgeshire on the route.

Semi fast – stops at limited numbers of Cambridgeshire stations on the route.

Fast – non-stop between Cambridge and noted destination (train may be semi fast or slow over whole journey).

Figure 4.6. Current (2012) rail services in Cambridgeshire.

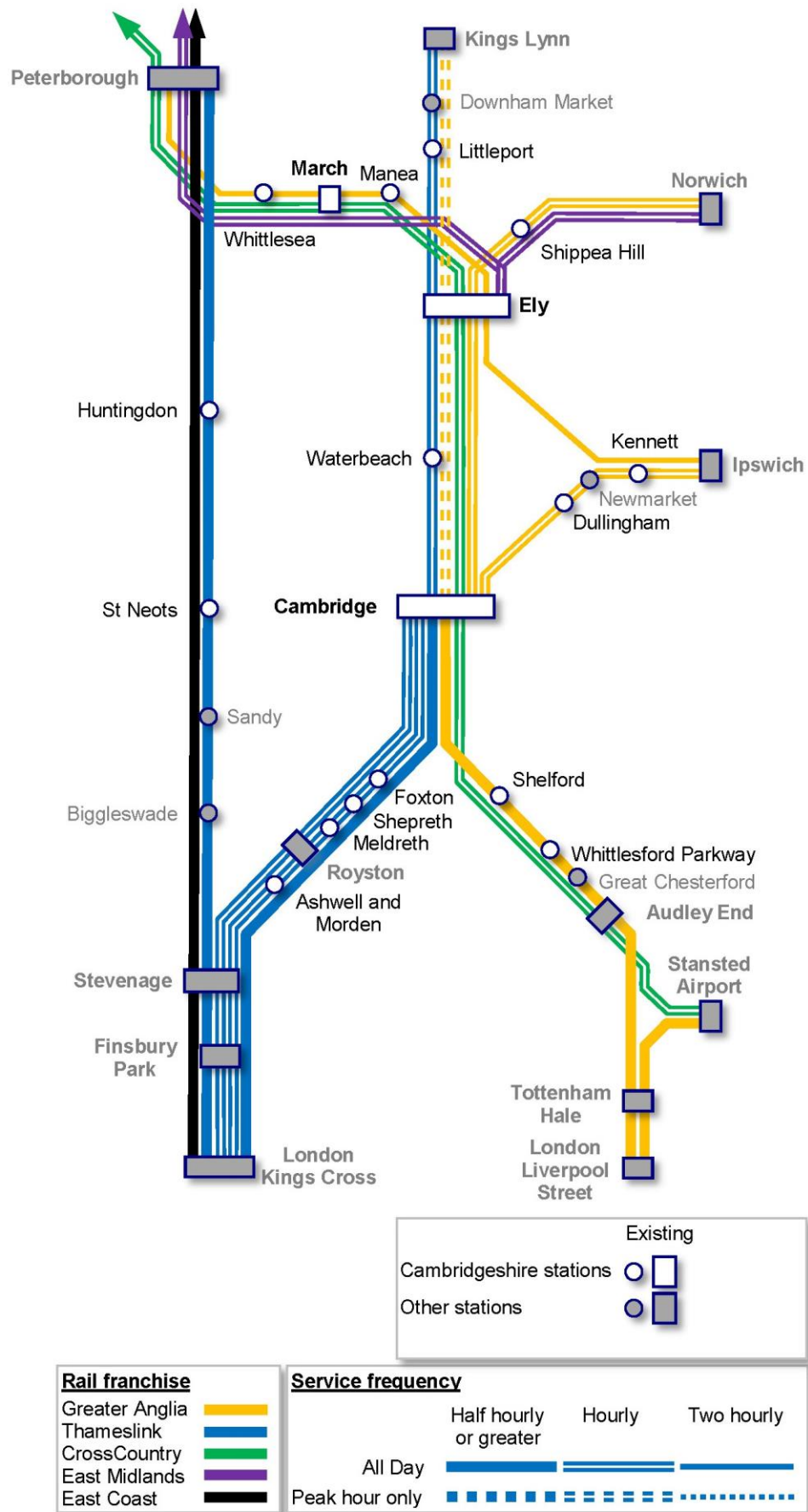
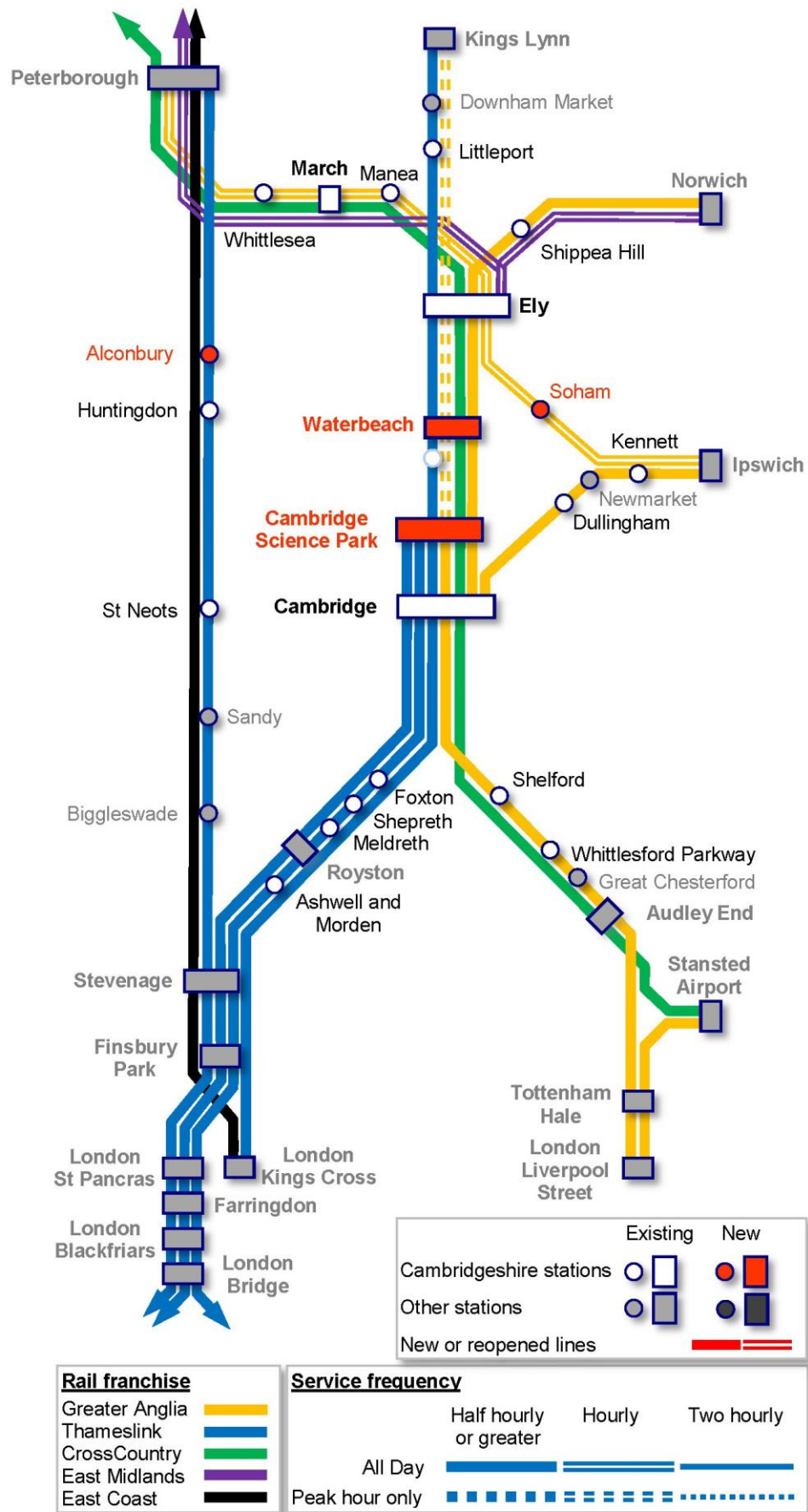


Figure 4.7. Planned rail service improvements and new stations.



Further opportunities for rail

There has been massive growth in rail patronage nationally. Cambridge, with over 9.5 million passenger journeys in 2011/12, is now the busiest station in the East of England. Cambridge has seen growth in patronage of over 80% in ten years. Stations in South Cambridgeshire have seen increases in patronage of between 42% (Ashwell and Morden) and 118% (Waterbeach) in the same period.

Capacity improvements, including a new island platform at Cambridge and the planned Cambridge Science Park Station are going some way to providing for these trips and for further growth in rail use. However, if growth continues at current rates, there is likely to be a need for more track capacity in the Cambridge area in the medium to longer term, simply to cater for demand on existing routes and services. Such capacity might open up opportunities for new routes, services or stations that are not currently possible to accommodate. In addition, improvements to journey times on routes into Cambridge will be pursued with Network Rail. Such improvements have potential to give more flexibility in providing for intermediate stops without prejudicing a regular 'clock face' timetable⁵.



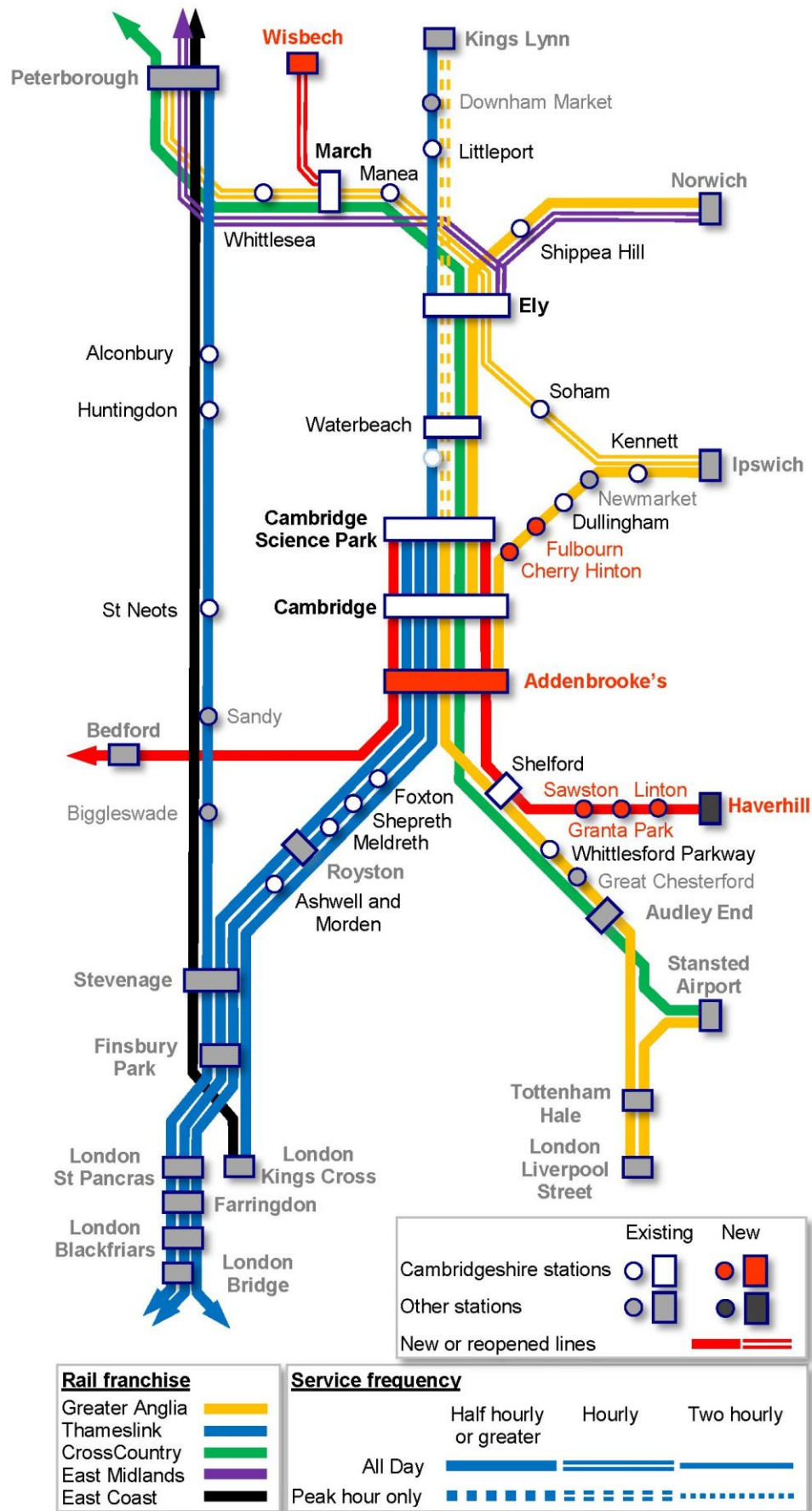
Rail and Busway corridor south of Cambridge station

Further opportunities beyond those discussed above in the medium to longer term include the following (and also shown diagrammatically in [Figure 4.8](#).

- A new station at Addenbrooke's to serve the Cambridge Biomedical Campus will be investigated. Provision of a station would be likely to require track capacity upgrades between Cambridge Station and Shelford junction.
- New stations at Cherry Hinton and / or Fulbourn could be provided. Line speed improvements would be likely to be needed between Cambridge and Ipswich to allow trains to stop without prejudicing the provision of the clock face timetable.
- On the corridor to Haverhill, a High Quality Passenger Transport option could be the reopening of the railway, with potential for a number of new stations that might include Sawston, Granta Park and Linton as well as Haverhill itself. Guided Bus options on the corridor might also use the old rail alignment.
- The [East West Rail Consortium](#) (of which Cambridgeshire County Council is a member) proposes to reopen the Varsity Line between Oxford and Cambridge. A number of options exist for the challenging central section of the route between Bedford and Cambridge. To the east of Cambridge, services would run on the existing rail network to Norwich and Ipswich. The delivery of the central section of East West Rail would further strengthen the case for investment on these routes. In December 2013, the Department for Transport confirmed its commitment to the creation of a new railway between Bedford and Cambridge.
- The reinstatement of the west curve at Chippenham junction (north of Newmarket) would allow for consideration of new service patterns into Cambridge from Ely, Newmarket and Soham.

⁵ A 'clock face' timetable will see trains on a route departing at the same time past each hour.

Figure 4.8. Further opportunities for rail in the medium to longer term.



Cambridgeshire Future Transport

A reason that is commonly given for people not using bus services is that they don't go where they need, or when they need to travel. As subsidies for non-commercial bus services have steadily declined, there has been a need to redesign subsidised services to ensure they go where residents want them to go and are cost effective.

Cambridgeshire Future Transport was established in 2011 as a means of involving local communities in the design of their local transport services to make the best use of the available public funding for non-commercial transport services.

It is a local initiative with partners across Cambridgeshire and Peterborough, including local authorities, health services, community groups and transport providers. Local communities are integral to deciding how the money is spent and how services are provided to meet local need. A comprehensive programme of community engagement will continue with local members, communities, parish councils, businesses and operators in order to understand local issues and develop local solutions.

Local transport solutions

Given the rural nature of much of the strategy area, commercial bus services are often not viable and are not always the best or most appropriate solution for addressing specific local issues. The Cambridgeshire Future Transport programme offers a 'toolkit' of possible solutions that can be developed to fit a particular need in a certain area. The County Council will provide legal, marketing, booking and admin support to schemes, as well as helping to develop partnerships. Possible transport solutions that could be used include

- Car sharing – private
- Community bus service
- Social car – volunteer
- Community bus service - private
- Taxi vouchers
- New dial-a-ride service
- Taxi scheme
- New community transport scheme
- Parish-owned car
- Travel clubs
- Subsidised service

One such example of this toolkit in action is the launch of the 7A service, the first community-developed bus service in the County. Concerns over the high cost per passenger trip on the existing subsidised service, combined with changes to the commercial service in the area provided a good opportunity for local people to be involved in the redesign of services to better meet their needs.

The result was the implementation of a new subsidised service which feeds into a more frequent commercial service and also extends to one of the Park & Ride sites, at significantly less cost than the previous service. It provides a more bespoke local service to meet the needs of passengers.

Community Transport

Policy TSCSC 11: Improving community transport services

The County Council will work with partners, the voluntary sector and passenger transport operators to develop an improved and integrated network of community transport services.

Community Transport forms an important element of the passenger transport network and can provide an important bridge between social isolation and accessing public services and facilities, for example healthcare. Services are run by volunteers or not-for-profit transport organisations and provide a means of transport principally for:

- Those who do not have access to passenger transport and do not have access to their own car.
- Those who experience difficulty using passenger transport, i.e. because of a disability or age.
- Those who are socially or rurally isolated from accessing basic public services and facilities, such as healthcare.

Community Transport will play an important supporting role in the transport strategy, especially in the rural areas of South Cambridgeshire where it will feed into and complement the high quality passenger transport services along the corridors. Transport interchanges along each corridor will be increasingly important as a means of integrating community transport with other passenger transport services. Improvements will be made to existing transport interchanges as necessary, as well as new interchanges being introduced in appropriate locations.

New community transport services will be welcomed, especially those that complement and feed into the high quality passenger transport services along the corridors. Practical support will be given to local organisations wishing to do this, as they are best placed to design services that best meet local demand and need.

Taxis and Private Hire Vehicles

Taxis and private hire vehicles form another important element of the passenger transport network. They complement other forms of passenger transport by providing a feeder service, are an important link when other forms of passenger transport are not viable, especially in rural areas or in off peak periods, and provide an important link for elderly people and people with mobility issues.

Responsibility for taxi licensing lies with the district councils and the need to work together is imperative to balance the competing demands of number of licenses issued, use of taxi ranks, impact on air quality and interaction with other modes of transport.

To integrate taxi use more effectively with our wider strategy, we will:

- Improve access for disabled people
- Ensure appropriate provision at interchange points and review facilities at the Park & Ride sites to ensure they remain adequate
- Continue to review the provision of taxi ranks throughout the city centre
- Where the pressure on space for passenger transport is greatest, introduce innovative techniques such as electronic hailing, and;
- Improve vehicle specification, in particular the use of cleaner vehicle fuels.

B Transport interchanges and hubs

The Strategy Approach

Interchange – the act of changing from one transport mode or service to another – is a critical part of many journeys, and the convenience and timeliness of interchange is an important factor in many people’s choice of how to travel.

Interchange facilities on the transport network are often thought of as places where changes between different passenger transport services are made. However, feeder trips by car, cycle or on foot are equally important. The location and

quality of facilities, and the timeliness and convenience of the onward passenger transport journey are critical to the success of interchanges.

New and enhanced opportunities for interchange are a key part of this strategy. Improving opportunities for passengers to interchange conveniently between transport modes or services is a driver of change in travel behaviour.



School coach at the Madingley Road Park & Ride site on the A1303

Figure 4.9. Standard of facilities to be provided at bus interchanges.

Interchange type		Strategic transport hub / Major interchange	Transport interchange	Minor transport interchange
Passenger facilities	Building or enclosed / semi-enclosed shelter	✓	-	-
	Overhead shelter	-	✓	✓
	Advanced passenger facilities (toilet, phone etc.)	✓	-	-
	Basic passenger facilities (seats, bins, lights etc.)	✓	✓	✓
Bus facilities	Advanced physical bus facilities (totem pole, CCTV.	✓	-	-
	Basic physical bus facilities (flag, raised kerb)	✓	✓	✓
Cycle Parking		✓	✓	✓
Passenger information	Advanced passenger information (central information points, large timetable cases)	✓	-	-
	Real Time Passenger Information (RTPI)	✓	✓	-
	Basic passenger information (small timetable case)	-	✓	✓

In addition, we will specify standard levels of facilities for all bus stops and bus interchange facilities, based on the level of use that those facilities will receive. Over the course of the strategy, we will work towards delivering improvements to stops to meet these standards.

In Cambridge

The delivery of the Busway and the redevelopment of the area around Cambridge station have and continue to facilitate and drive improvements to the station and to interchange facilities for other modes. The Cambridge Gateway scheme has improved interchange facilities and access to the station for all bus journeys, and for pedestrians and cyclists. As part of the redevelopment of the station a new cycle hub will be provided, which will be the largest in the UK, with space for 2,900 cycles. Works at the station itself have already delivered a new island platform, significantly improving the capacity and operational flexibility for rail services. The ticket hall will be expanded – trebling in size – with work completed by mid-2014.

New, replacement or improved Park & Ride capacity and facilities at or near to the existing ring of five sites serving the city will be delivered. While a key focus of the strategy will be to intercept trips further from Cambridge in the medium to longer term, some expansion in the Cambridge area will give additional capacity to intercept trips that originate from areas that are less well placed to access the HQPT corridors and interchanges on them.

Cambridge Science Park station

The plans for Cambridge Science Park station were recommended for approval in December 2013 and the station is expected to open in December 2015. It will be located on the Cambridge to Ely and Kings Lynn line (The Fenline) at Chesterton sidings, around 800m from the Science Park. As well as improving access to the rail network in north Cambridge and along the route of the Busway to St Ives, it will be a key part of the HQPT network on three corridors into Cambridge. It will open up access to the Science Park by passenger transport from

Interchange characteristics

For the purposes of this strategy a station, bus station, bus stop or group of bus stops that...

- ...takes **over one million** passenger trips per year **and caters for longer distance journeys into and through the strategy area** will be defined as a **Strategic transport hub**.
- ...takes **over 500,000** passenger trips per year will be defined as a **Major transport interchange**.
- ...takes **between 100,000 and 500,000** passenger trips per year will be defined as a **Transport interchange**.
- ...that takes **less than 100,000** passenger trips per year will be defined as a **Minor transport interchange**.

Standards for facilities at an interchange will generally be guided by the category of passenger use it falls under.



Cycle parking at Cambridge Station.
(Creative Commons licensed image, Klaas Brumann;
CycleStreets #18419)

Ely, Royston and Saffron Walden and rural stations on the lines to them. By offering a very competitive journey time into the area compared to the competing trip on the congested A10, A1307, M11 and A14, it will take pressure off these routes. Service level enhancements on these routes will further increase the attractiveness of rail services into the area.

Along transport corridors and in the rural area

New and enhanced interchange facilities will be delivered on the transport corridors between Cambridge and the surrounding ring of towns.

Where bus-based HQPT services and bus priority measures are introduced, new outer Park & Ride sites will be delivered to intercept car trips further away from the city than the current inner ring of sites. On existing HQPT corridors, enhancements to existing interchanges and opportunities for new major interchanges will be investigated.

Along the railway corridors where the stations are the focus for interchange, enhancements to facilities will be investigated and improved upon where necessary to ensure that they are fit for local need and demand.

On all HQPT corridors, opportunities for smaller rural interchange sites will also be sought, particularly focussing on providing for more local trips to the corridors by walking and cycling, and by feeder passenger transport services.

In villages away from the transport corridors that are served by a reliable and relatively frequent bus service, opportunities for smaller rural interchanges will be looked for.

These will focus on providing for shorter walking

and cycle trips to the interchange, but may also include 'kiss and ride' drop off facilities and facilities for drop off / pick up by feeder community transport services.



Visualisation of Cambridge Science Park Station.

In addition to enhanced infrastructure improvements at interchanges, softer measures such as improved information provision will also be crucial in persuading people to make the switch from private car to other more sustainable forms. Further details can be found in the Smarter Choices section of the strategy.

C Walking and Cycling.

Policy TSCSC 12: Encouraging cycling and walking

The capacity, quality and safety of walking and cycling networks will be increased to enhance and promote healthy and active travel. The highest possible standard of cycling and walking infrastructure appropriate to a location will be pursued in line with this strategy and the emerging cycle strategy.

All new development must provide safe and convenient pedestrian and cycle environments including adequate and convenient cycle parking and ensure effective and direct integration with the wider network.

Where development opportunities arise, land should be released to improve the existing cycle network, for example the elimination of pinch points. New links should also be provided to expand the network as set out in the DfT LTN 1/12, LTN 2/08 and Manual for Streets.

Where feasible, pedestrian and cycle facilities will be provided alongside HQPT and new road infrastructure (citing the Busway facilities as a standard example).

Through the planning system future cycle routes should be safeguarded, where appropriate/feasible.

Cycle routes should be maintained, where possible, to offer year round and all-weather availability.

The Strategy Approach

The strategy recognises that new development in the area will bring a very significant number of additional trips on to the transport network. To accommodate these, there needs to be a step change in the number of trips that are undertaken on foot or by bike if unacceptable levels of delay are to be avoided.

Whilst cycling and pedestrian infrastructure is not cheap, it is considerably less expensive than creating more highway capacity and it needs to form a key element of the overall transport strategy for the area if existing traffic problems are not to be exacerbated. The benefits of walking and cycling reach much further than simply keeping additional vehicles off the road; both walking and cycling contribute to healthy lifestyles and help those without access to a car or a good passenger



Cyclists at junction of Hills Road and Cherry Hinton Road, Cambridge

([Creative Commons](#) licensed image, Klaas Brumann; CycleStreets [#49069](#))

transport service to take advantage of opportunities to access employment, training and other vital services.

Previous research has revealed that there is a “near market” for cycling, of people who would potentially be interested, but currently are put off cycling by one or more reasons. This research is supported by consultation on this strategy which showed that people want to be able to cycle for more journeys. This forms an excellent basis from which to further increase the mode share of cycling trips.

The strategy takes a twin tack approach towards walking and cycling. Firstly, it aims to create high quality networks for pedestrians and cyclists that provide routes linking key destinations in Cambridge and the main employment areas, transport interchanges and secondary schools in South Cambridgeshire. Secondly, it seeks to improve the quality of the existing network by embracing contemporary standards, bridging gaps and discontinuities and by improving surfaces. In doing so, consideration will be given to how barriers to cycling and walking can be overcome to encourage more people to undertake trips using these modes. The approach will be supported through a programme of education and marketing.

This will result in:

- Reduced pressure on the transport network, in particular the road network ensuring the additional journeys generated by new development can be accommodated.
- Improvements in air quality as well as contribute to a reduction in climate change impacts.
- Improved accessibility to services in the area, which in turn will provide benefits to the local economy.

Factors affecting a person's decision to cycle

- The perception of safety is the most important factor determining whether someone would cycle
- On-road provision does little to reduce perceived safety risks amongst non-regular cyclists.
- Revealed preference work shows segregated cycleways have the biggest impact on uptake of cycling.
- Regular cyclists, such as those who commute, prefer direct routes and will use on-road routes rather than segregated routes if the segregated route isn't as direct or fast.
- Off-road facilities are of high importance in getting irregular users to take up cycling but once they become confident they will prefer direct routes.
- People often start cycling for leisure reasons and positive experience leads to broader uptake.

[Figure 4.10](#) details how the strategy will address barriers to walking and cycling.

In Cambridge

Cambridge is unique in this country in having a very significant level of cycling. The 2011 Census revealed that 29% of journeys to work were made by bicycle, an increase of some 12% (from 26%) in a decade. Within Cambridge, the challenge is to maintain and increase the already high levels of cycling.

Figure 4.10. Barriers to walking and cycling.

Barrier		Measure to address
Cycling	Safety concerns	20mph on all but major routes in Cambridge
		50mph on all but major routes (outside villages) in South Cambridgeshire
		Road closures and traffic calming schemes to reduce motor traffic volumes and speeds and thus make streets more attractive to cycle in.
		Consider safety improvements at junctions, including potential innovations such as separate signal control for cycles.
		Provision of a network of off-road and quiet routes to provide an alternative option for travelling on major traffic routes
		Provision of on-road facilities on major corridors for those who want to cycle the most direct route
	Parking & security	Provision of secure cycle parking facilities at transport interchanges, community facilities, employment locations
		Provision of a third cycle park or cycle park extension in the city centre
	Lack of awareness	Promotion of cycling at community events and by working closely with partner organisations
		Personalised travel planning for residents of new developments to promote cycling and raise awareness of facilities
	Training	Continue ambitious programme of Bikeability training
	Lack of dedicated routes/links between major sites	Deliver the Chisholm Trail – a strategic cycle route extending alongside the railway line from Cambridge Station to Cambridge Science Park Station
		Provide high quality cycling routes on alignments parallel to any new dedicated Bus corridor
		Cross city cycle improvements to improve routes and links
Walking	Safety concerns	Increase the number and improve the quality of pedestrian crossings
		Lighting and visibility improvements on specific routes
	Pedestrian / cyclist conflict	Where possible, widen off-road routes
		Provision of new segregated cycle and pedestrian paths
		Increase cycle parking and reduce indiscriminate cycle parking that can block pedestrian routes.
	Distance/access to local facilities/services	Introduce benches/rest stops
	Removal of Central Government funding incentives for landowners	Work with landowners to maintain access to ROW permissive paths
	Lack of routes/access to frequently used services and facilities	Work with local communities to identify and develop routes between communities and facilities that are used most frequently.
	Training	Support Safer routes to School programme
	Lack of awareness	Promoting walking routes and opportunities (guided walks, etc.) for leisure routes around Cambridge and South Cambridgeshire.
	Quality of walking environment	Remove street clutter, ensure street furniture is not obstructing access

Similarly, the high quality of the public realm in the city and its historic core lend itself to walking, as does the extensive off-road pedestrian network which provides attractive routes across commons and meadows and by the River Cam. Key streets in the city centre are destination streets and this is of at least equal importance to their role as access routes. In these streets pedestrians must have priority, elsewhere the aim is to ensure that all pedestrian and cycle routes are safe, continuous and attractive to users.

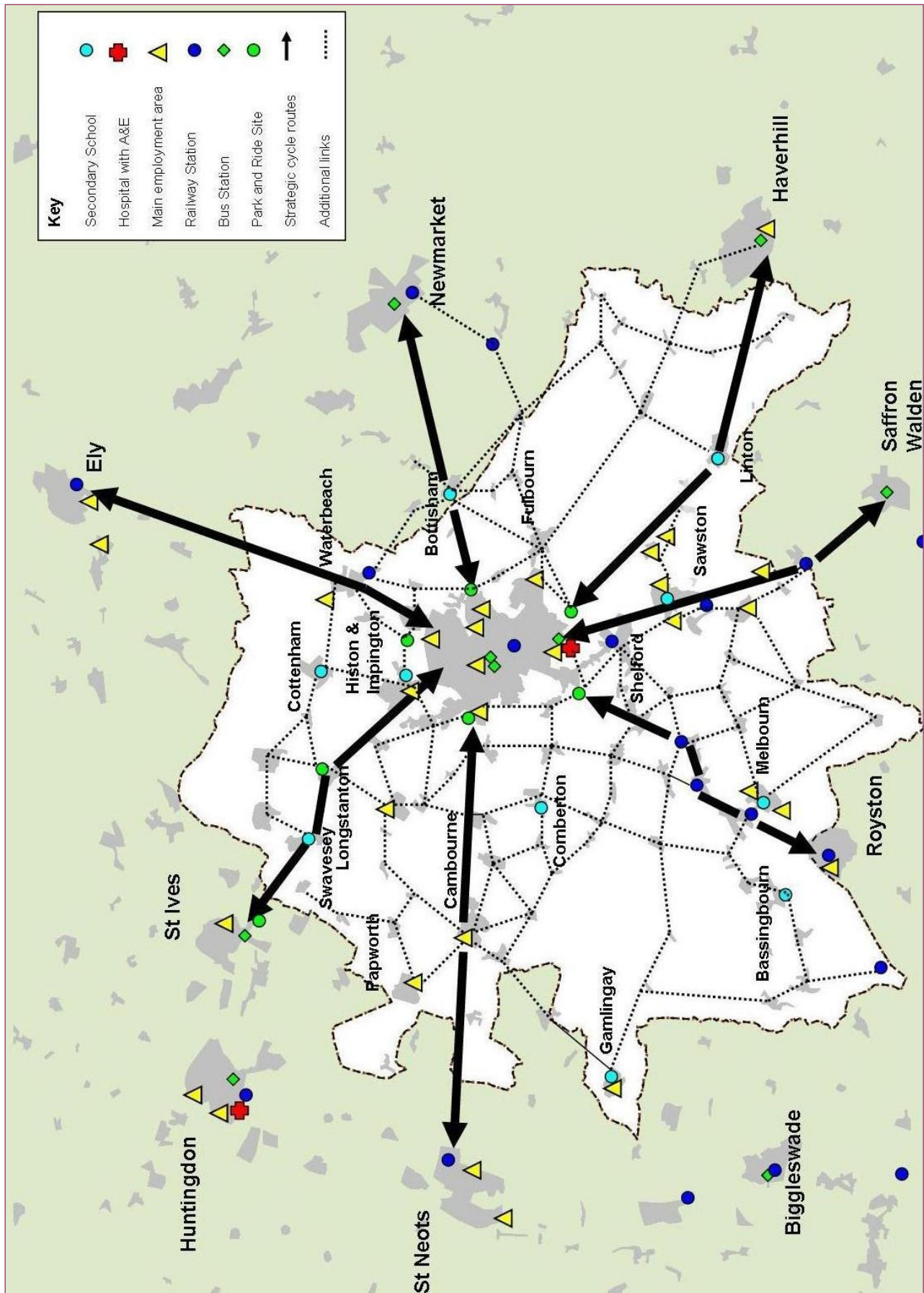
The strategy in Cambridge can be summarised as follows:

- High quality cycle provision, bringing in Dutch-style segregation along the main radial and orbital roads.
- Cycle safety measures at major junctions which could include innovative solutions such as separate signals for cyclists.
- Safe, convenient and frequent crossings for pedestrians, employing zebra crossings where possible and a pedestrian phase at signalised junctions.
- Review of on road car parking on roads forming part of the city cycle network to improve cycle provision.
- Using the opportunity that the new developments in and around the city present to create a step-change in the level and quality of walking and cycling facilities that are provided, which can in turn be plugged into the wider network.
- Provision of additional links on the existing network to join up key destinations that are already partially served by the network (for example the Chisholm Trail).
- As part of the wider corridor treatment, seek to widen existing cycle and pedestrian paths and introduce new segregated paths where appropriate. (Seek to ensure bus/cycle lanes are wide enough for a bus to overtake a cyclist without leaving the lane where space constraints allow).
- Increasing cycle parking capacity so this does not present a major barrier to certain cycling trips.
- Working with Cambridge City council to investigate opportunities for new city centre cycle parks or expansion of existing cycle parks.
- Working towards 20mph speed limits on all but major routes, which will make cycling safer and more attractive.
- Improving publicity and the legibility of the pedestrian and cycle network – in particular improving signage, providing information to tourists/visitors and marketing and promotion to new residents.
- Working with partners such as the NHS to publicise the health benefits associated with cycling and walking.

Along transport corridors

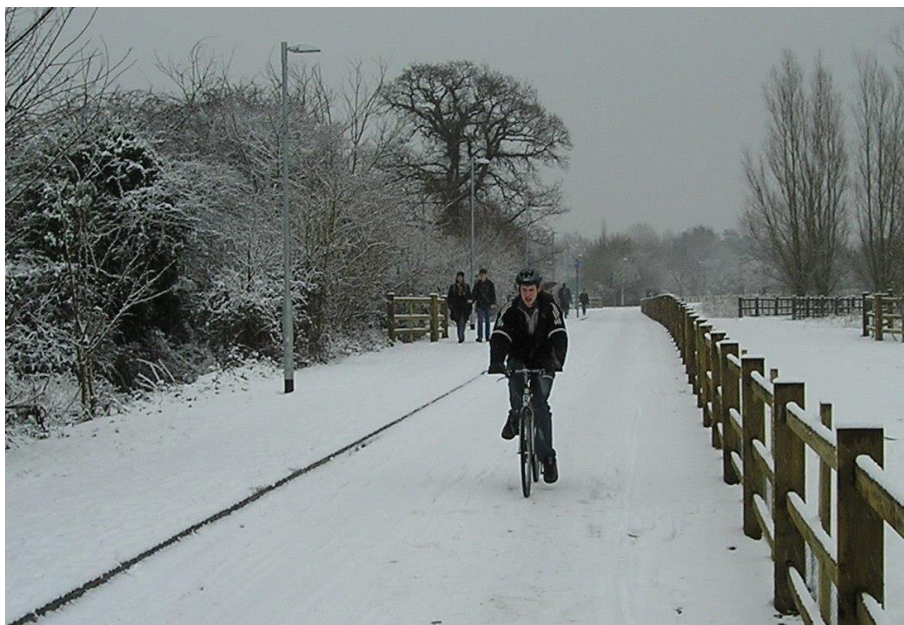
The main transport corridors that link Cambridge to the market towns typically provide the most direct route into the city. Conditions along these roads are not necessarily attractive to new cyclists, due to the volume and speed of traffic. For similar reasons, the main routes are not always the obvious choice for pedestrians. However, research has shown that regular cyclists - often commuters - actually prefer to cycle the most direct route, even if there are off-road facilities, and so provision on these arterial routes remains essential. The villages that form a necklace around Cambridge sit an ideal cycling distance from the city.

Figure 4.11. Cycle network – indicative main network in South Cambridgeshire



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To maximise the number of people who choose to cycle from these locations into the centre of the city, proper, high quality, direct links between each village into the city will be provided. As the cycleway alongside The Busway has demonstrated, if high quality, direct routes are provided, then people become more willing to consider cycling greater distances.



The Coton footpath in the snow

The other focus on the main corridors will be on improving access to the transport interchanges that exist or that will be created along these routes. Particular attention will be given to ensuring that cyclists have the necessary infrastructure they need to be able to seamlessly transfer onto passenger transport. This might involve the provision of sufficient secure

parking at the transport interchange, or having the ability to transport their bikes with them. This is already common practice on the railway, but not on the bus network.

Improving pedestrian access to the key interchanges along the transport corridors is an important element of the wider strategy of encouraging travel in Cambridge and South Cambridgeshire by non-car modes. In exploring opportunities for improving pedestrian routes to passenger transport interchanges consideration will be given to total journey time, to ensure that wherever possible, pedestrians have the benefit of the most direct route.

Along the transport corridors, the strategy can be summarised as:

- Providing direct, safe and accessible walking and cycling routes by constructing new paths and crossings and improving existing ones to create high quality continuous networks built to contemporary standards linking key destinations along each corridor. (Corridors include: A10 South to Royston, A1301 to Saffron Walden, A428 to Cambourne and A1307 to Haverhill.)
- Providing high quality cycle and pedestrian paths adjacent to any new Busway, to separate cyclists and pedestrians from heavy traffic wherever possible.
- Improving access to transport interchanges for cyclists and pedestrians, to encourage whole journeys by non-car modes.
- Making better use of the off road and village links that already exist by improving the quality and width of surfaces and signage, crossing facilities and resting points.

In the rural area

South Cambridgeshire is predominantly rural in nature; all of its settlements are villages of varying sizes. In South Cambridgeshire, the percentage of people cycling to work is 7.6%, which is the highest level of cycling in any rural district in England. While some of the roads that link South Cambridgeshire villages are quiet in terms of the volume of traffic, traffic speeds are often high, and they can be perceived as unsafe to all but the most confident of cyclists.

The passenger transport corridors will provide the overarching focus for the rural areas for both the cycling and walking network. The cycle network will take in new and existing transport interchanges on each corridor to enable longer journeys to be made through a combination of bike and passenger transport, or for confident cyclists along the major corridor itself. These strategic routes will be supported by a network of routes on a more local level that focus on major employment sites, secondary schools and any local leisure attractions. These have been chosen as they generate trips during the peak hours when road capacity is most likely to be strained. Secondary schools in particular also often have a role as a community facility, with people wanting to access them for sports, courses and other uses. Wherever possible, opportunities will be taken to improve existing or build new paths, ideally set back from the road edge with a grass verge retained.



Cyclists on the Wandlebury to Babraham Park & Ride cycle route alongside the A1307. Addenbrooke's hospital and the Cambridge Biomedical Campus can be seen in the background.

The Public Rights of Way network is an important asset for connecting rural villages with services, either directly or via a passenger transport interchange. The strategy will seek to provide an enhanced Rights of Way network through improvements and better maintenance of bridleways, permissive paths, local routes and riverside walks.

The strategy will seek to identify those parts of the network, which primarily serve utility users, concentrating appropriate improvements there, while ensuring the more rural paths remain more natural.

The strategy will seek to identify those parts of the network, which primarily serve utility users, concentrating appropriate improvements there, while ensuring the more rural paths remain more natural.

In addition, South Cambridgeshire has several key visitor sites where enhanced pedestrian and cycle access, along with publicity and additional Smarter Choices measures could encourage a greater number of visitors to travel by foot or bicycle for all or part of their journey.

The strategy approach in rural areas can be summarised as:

- To introduce 50 mph limits to all roads that aren't major routes or within settlements in order to improve the environment on country roads, whilst continuing to prioritise segregated cycle/footpaths where appropriate
- Creating a cycling and walking network that connects major employment sites, transport interchanges, secondary schools and key visitor sites.
- Identifying ways of working in partnership with local groups e.g. Parish Paths Partnerships (P3) Scheme, to identify new ways of funding network development.
- Working with landowners to formally designate new routes.
- Enabling effective provision of linear access for walking, riding, cycling and boating from where people live to the countryside and key destinations.
- Promote walking in the countryside through publicity and joint projects, including guided walks and organised events.

D The Road Network.

The Strategy Approach

Policy TSCSC 13: Provision of new highway capacity

Where there is a requirement for new roads or increased road capacity, these should adhere to the highest possible design standards. Where feasible, pedestrian and cycle facilities will be provided alongside new road infrastructure (citing the Busway facilities as a standard example). The needs of public transport services will be considered in all road schemes, and priority for services should be provided on any new road where there is an expectation of regular bus usage, and an expectation that services reliability and timeliness would otherwise be disadvantaged.

This policy applies to new roads delivered by the County Council, new roads that will be passed to the Council through a relevant legal agreement, and those that will remain in third party ownership.

Policy TSCSC 14: New roads within development sites, or to provide access to development

Where there is a requirement for new distributor roads or through routes as part of a development, adherence to the need to prioritise pedestrians, cyclists and public transport users will remain. This will include:

- Providing the highest possible standard of pedestrian, cycling and public transport infrastructure as part of the road where feasible and necessary
- Discouraging speeding
- Restricting through access for general motor traffic (unless specifically required as part of the development).
- Ensuring that there are safe and appropriate access arrangements to the adjoining public highway network and minimising the possibility of additional car traffic in the local area as a result of the new road.

This policy applies to both roads that will be passed to the County Council through a relevant legal agreement and those that will remain in third party ownership.

The strategy recognises that to provide major new capacity for local car trips on interurban routes between Cambridge and the surrounding towns will increase congestion in Cambridge and those towns. If increases in congestion are to be minimised, both in Cambridge and on the radial routes, other modes of transport must provide the additional capacity needed. The backbone of the strategy will be a high quality passenger transport network of bus, guided bus and rail services, fed and complemented by comprehensive pedestrian and cycle networks.

In this context, any highway capacity enhancements that are provided must ensure that traffic can move efficiently in appropriate locations without interfering with passenger transport corridors. Measures to manage demand and allow the prioritisation of bus, pedestrian and cycle movements are likely to be needed.

[Figure 4.12](#) details the proposed major interventions to provide new road capacity that are in development or under consideration in and around the strategy area, and which are discussed in more detail below.

In Cambridge

Orbital capacity

In Cambridge, the need for new orbital road capacity on the outskirts of the city will be considered in the context of the development of orbital and radial passenger transport and cycle capacity. Radial routes into and out of the city centre are used for many cross city car movements, as is the ring road to the east of the city between Addenbrooke's and Newmarket Road. Road space on many of these routes will be reallocated to buses and cycles, and some routes may be closed to general traffic movements (see [Demand Management and Parking](#) section). Orbital capacity for general traffic further out may be provided to allow cross city movements by car to continue to be made.

There are several areas where additional orbital capacity for vehicular traffic might be provided:

- **A14 Cambridge Northern Bypass.**
Additional capacity on the A14 to the north of the city between Girton and Histon is programmed by the Highways Agency to be delivered by April 2015. The A14 Cambridge to Huntingdon scheme is likely to provide further additional capacity on the Histon to Milton stretch of the A14.
- **M11 between Trumpington and Girton.**
Additional capacity may be needed in the medium to longer term on or parallel to the M11 between Trumpington and Girton. The form and role of such capacity, if required, will be the subject of detailed discussions with the Highways Agency and may include the consideration of managed motorways as an alternative.
- **Cambridge Southern Relief Road.**
Orbital bus movements between Addenbrooke's, Cambridge East and Cambridge Science Park will use Fendon Road, Mowbray Road, Perne Road, Brooks Road and Barnwell Road, which form part of the city's ring road. While the highway boundary is quite wide, significant expansion of road space to facilitate high quality bus infrastructure and cycle facilities would be disruptive. An alternative would be to provide high quality bus infrastructure on the current road, and to provide replacement capacity for general vehicular traffic between Addenbrooke's and Cherry Hinton. Such a route would have a high environmental impact, but this could be mitigated to a significant extent by tunnelling under the Gogs. Further detailed assessment and modelling is needed on the costs and benefits of doing this.
- **Fen Ditton Link Road.**
Additional capacity to distribute traffic from areas north of Cambridge is likely to be needed, particularly in the context of development at Waterbeach towards the end of the South Cambridgeshire Local Plan in the late 2020s. Works needed to accommodate a new settlement at Waterbeach are discussed in more detail [below](#). In addition to those works a new link between the A14 (at its junction with Horningsea Road) and Newmarket Road and Airport Way in Cambridge may be required.

Along transport corridors and in the rural area

As is the case in Cambridge, increased capacity along transport corridors and in rural areas will be limited to a few key locations where there are existing problems or there is a need to deal with trips generated from major new development. The major interventions that are planned are:

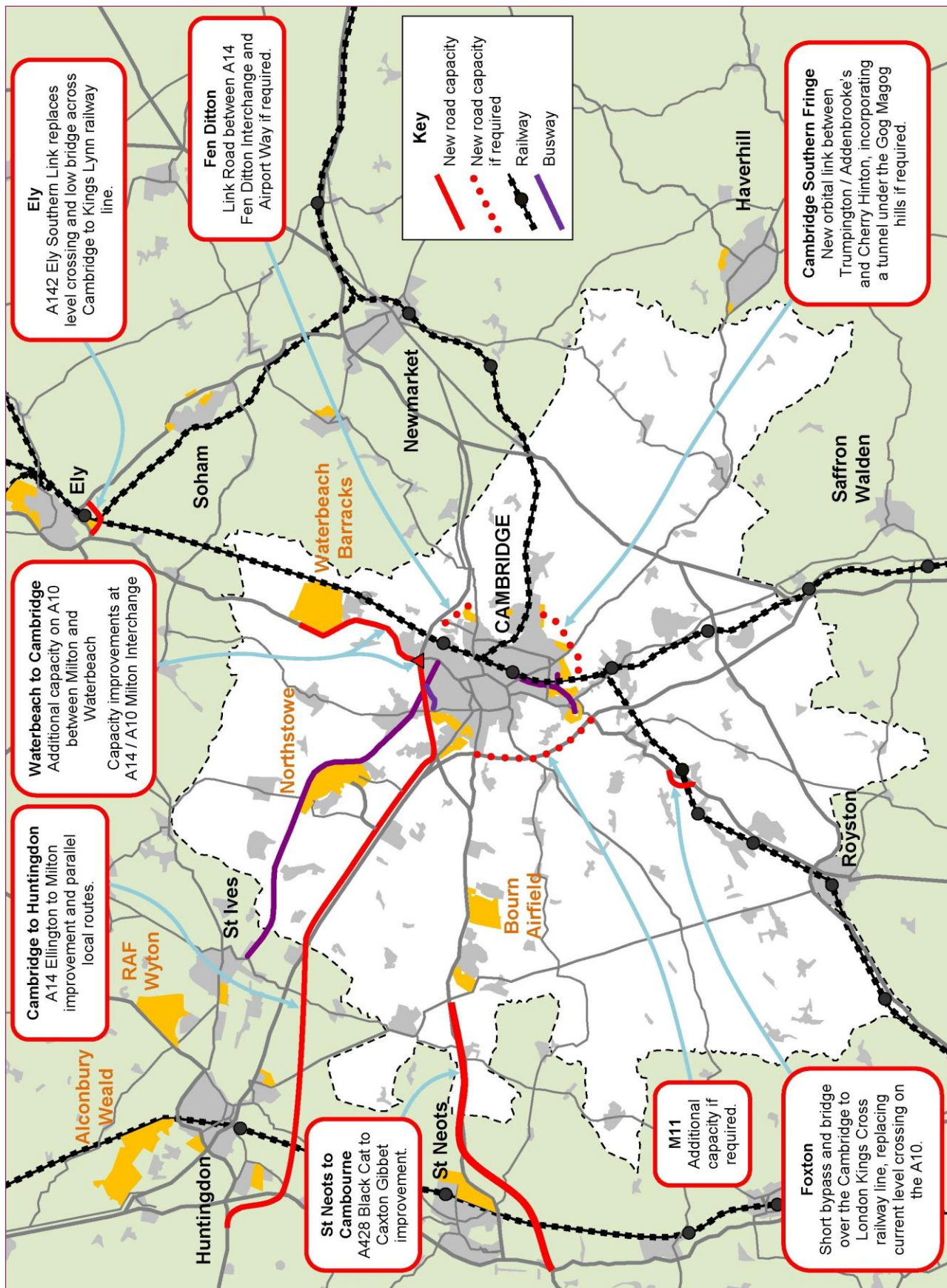
- **A14(T) Cambridge to Huntingdon improvement.**
This scheme will provide additional capacity on the A14 including a Huntingdon Southern Bypass, widening between Fenstanton and Bar Hill, and parallel local roads between Fenstanton and Girton. It will address existing capacity problems on this nationally and internationally important route, as well as providing capacity that will allow new development at Alconbury, Godmanchester and Northstowe.
- **A428(T) Caxton Gibbet to Black Cat improvement.**
This scheme will address existing capacity problems between St Neots and Caxton Gibbet, and allow for new development at St Neots and Cambourne.



*Foxton Station and the level crossing on the A10
(Paul Hollinghurst, [Meldreth, Shepreth and Foxton Rail User Group](#))*

- **A10 Foxton.**
A new road bridge over the railway will be provided on a short bypass alignment to replace the level crossing on Cambridge to Kings Cross line, addressing local safety and congestion problems.
- **A10 Milton to Waterbeach and A10/A14 Milton Interchange.**
To cater for the demand for car trips associated with a new town at Waterbeach, additional capacity will be needed on the A10 between the new town and Cambridge, including at its junction with the A14 at Milton.

Figure 4.12. Major highway improvements.



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Demand Management and Parking

Policy TSCSC 15: Managing travel demand

Appropriate measures and interventions will be introduced to manage the demand for general vehicular travel, and reducing through traffic in Cambridge in line with the strategy approach.

Further work is proposed to determine the specific priorities which will be consulted on over time with such measures expected to include;

- Reallocation of road space to be used by passenger transport, pedestrians and cyclists
- Access restrictions for general vehicular traffic
- Parking restrictions

In the medium to longer term, to maintain accessibility levels further demand management measures will be needed in Cambridge to ensure that buses, pedestrians and cyclists are able to travel through the city in a timely fashion. Modelling has demonstrated that unless there are further measures introduced that make it more inconvenient for people to drive into the city than to use alternative modes of transport, traffic levels will still increase despite the improvements to other modes. A number of approaches are available, including:

- Measures to restrict or manage the supply of car parking, alongside the wider package of improvements to the bus, cycle and pedestrian networks that provide the alternative option to car trips.
- Measures to reallocate road space, reducing capacity for general traffic movements, and reallocating that capacity to non-car modes.

Two schemes which could be considered are set out below:

On Street Parking management

A scheme of this type would involve the introduction of comprehensive measures to manage on-street parking in Cambridge and in the fringes of the city in South Cambridgeshire. Acting in concert with improvements to the bus, rail, cycle and pedestrian networks, this would be a hard measure that would incentivise greater use of these modes.

Under this approach, parking on all streets in the city and its fringes would be actively managed and restricted where appropriate. Management regimes would be those that are currently in use:

- Controlled Parking Zones (CPZs).
- Residents' permit schemes.
- Pay and Display on street parking.
- Limited waiting.
- Prohibition of parking at certain times.

The current policy position in Cambridgeshire on CPZs and residents' permit schemes is that they will be introduced where there is a local demand for them, supported by public consultation on detailed proposals. Schemes are introduced to address local parking

problems rather than as a demand management tool. A city wide managed parking scheme would change this approach, and use the supply of on street parking as a demand management tool.

Such an approach would mean that certain trips become less convenient or more costly by car. For example, a current trip to work in the city centre or to Addenbrooke's can involve parking on street in areas outside the current CPZ. With this approach, such a trip would involve finding a paid parking space in a car park or on-street, or changing the mode of transport used for part or all of the journey. In addition, there are routes where space is limited, and where removing on-street parking would be of significant benefit in smoothing the flow of traffic and removing conflict, particularly between cyclists and other vehicles.

Cambridge Core Traffic Scheme extension

Restrictions on car traffic making through trips in the city would enable further space to be reassigned to the bus, cycle and pedestrian networks. Access to all areas by car would be maintained; however, for many journeys the car trip would be less direct and longer than the alternative cross city trip by bus or cycle.

The Cambridge Core Traffic Scheme, 1997-2008

The first phase of the Cambridge Core Traffic Scheme (Bridge Street) was introduced in 1997 to reduce through traffic in the historic core of the city and to make the area more accessible by foot, bicycle and public transport. Further phases were implemented in 1999 (Emmanuel Road), in 2003 (Silver Street) and in 2008 (St Andrews Street).

The scheme uses a system of rising bollards that allow essential vehicles such as buses and taxis into the core area. Traffic calming and streetscape improvements have also been used to enhance the environment of the area. Street audits were carried out to remove unnecessary street furniture.

The scheme has made a significant contribution to reducing traffic congestion in the city. Since its closure to all traffic except buses, cycles, taxis and authorised users, traffic flows on Silver Street have reduced by 2,000 vehicles per day, while traffic levels in parts of the core area have decreased by over 60%. Air quality in the core area has improved and the overall perception of the scheme is that it works well.

In keeping with our wider transport strategy, the Cambridge Core Traffic Scheme encourages drivers to use alternative modes of transport to travel into the city, such as the award winning Park & Ride service. In addition, the reduction in traffic has led to greater priority for pedestrians and cyclists.



This approach might involve the partial or full closure of routes outside of the city centre that are particularly challenging for buses, pedestrians and cyclists to travel through due to the level of general vehicular traffic that uses them and the congestion that results. Such closures might be for part or all of the day. In principle, this approach is very similar to that applied by the Cambridge Core Traffic Scheme in the centre of Cambridge, but over a wider area of the city.

Two key routes where challenging conditions exist for buses, pedestrians and cyclists are Hills Road (between Station Road and Lensfield Road) and East Road. Any scheme that involved a full or partial closure of either of these routes would have very significant implications for how general traffic flows in the city. However, such closures would allow major reallocation of road space, and would have scope to significantly improve the timeliness and reliability of bus and cycle journeys. The impact of such closures on routes such as Mill Road, Coldhams Lane, Trumpington Road and Brooklands Avenue might be severe, and in such a scenario, bus, cycle and pedestrian journeys on these routes might be significantly disadvantaged by additional congestion. A more radical option would also look at additional restrictions on further routes, to manage such impacts and channel general vehicular traffic. Similar approaches have been successfully undertaken in cities such as Freiburg in Germany and Groningen in Holland.

This would be a very challenging intervention if taken forward, and critical to its success would be:

- Prior investment in sustainable alternatives to the car trips that would be displaced,
- The provision of replacement capacity for previous through trips by car which would now be orbital movements.

Further detailed modelling will need to be undertaken to consider what the most effective areas for access controls would be.

Road Safety

Policy TSCSC 16: Road safety

The safety of users of all modes of travel is a top priority, both on the existing network and through all new developments and schemes. The County Council will:

- Implement road safety initiatives to reduce road traffic accidents
- Work towards road safety targets held locally and nationally
- Prioritise pedestrian and cycle safety
- Work to increase cycling without increasing accidents

One of the key challenges for the Strategy to overcome is to meet objectives that promote sustainable modes of travel such as cycling and walking, whilst also ensuring that road safety improves.

The Department for Transport published a '[Strategic framework for road safety](#)' in May 2011. In line with this document, the organisations involved locally in delivering road safety will make new connections and build on existing relationships with other local agendas, such as public health and sustainable travel. In terms of the wider public health agenda, there will be increased focus on the removal of barriers to increased levels of walking and cycling.

The core activities of road safety engineering, road safety education and targeted enforcement will continue to be important tools, but in the lifetime of this strategy there will be even more emphasis on providing evidence and influencing the work of other organisations. Planning and development, highways maintenance, public realm design, public health campaigns, and activities delivered by third sector or community groups can all contribute positively to road safety and casualty reduction. Driving for work also accounts for a significant proportion of journeys so employers and businesses can play a key part in encouraging safer and more sustainable journeys.

More radical approaches to the reallocation of road space will need a sensible and proportionate consideration of road safety issues. The balance between the safety of the transport network and its usability – particularly for pedestrians and cyclists – can be the deciding factor as to whether a facility is used or not. This in turn can be the determining factor as to whether wider policy objectives (such as those relating to public health) are met.

Over the lifetime of this strategy to 2031, maintaining an open and flexible approach, working in partnership and collaborating with communities will help to shape future road safety to meet the growing needs of the travelling public.

E Freight movements and servicing.

The Strategy Approach

The overall approach with regard to freight movements is to encourage the transfer of more freight onto rail and to continue to work with freight operators to promote the use of the most appropriate routes for road freight, particularly where that is passing through the county.

In addition this strategy will aim to reduce the number of freight movements entering Cambridge by providing innovative solutions that reduce congestion and other negative impacts such as air quality, as well as providing economic benefits by reducing the cost of the 'final mile'.



Servicing the centre of Cambridge is often challenging for businesses and inconvenient for other road users.

([Creative Commons](#) licensed image, CycleStreets [#9449](#))

In Cambridge

In Cambridge the focus will be on reducing the number of freight-related movements into the city centre by providing alternative solutions for the 'final mile' of freight deliveries. The County Council is a consortium partner on the Cyclelogistics Ahead project -a freight logistics project aimed at replacing unnecessary motorised vehicles with cargo bikes for intra-urban delivery. The project involves delivering measures that help move towards zero emission logistics in urban centres.

Linked to this project the County Council is exploring the use of delivery consolidation centres to reduce the need for freight movements into the city centre. Freight Consolidation Centres are distribution centres, situated close to a town centre, shopping centre or construction sites, at which part loads are consolidated and from which a lower number of consolidated loads are delivered to the target area.

The Felixstowe to Nuneaton (F2N) freight capacity scheme

The government has identified a package of rail investment including major capacity improvements at Soham, Ely, Peterborough and Leicester. This will enable more freight to be carried by rail between Felixstowe and the north and west of England. The F2N route links to the East Coast, Midland and West Coast main lines. Works at Ely and between Ely and Soham will be undertaken to improve capacity in the near future.

The Ely Southern Link scheme on the A142 will remove the constraint of the low bridge and level crossing at Ely. This will improve conditions for local traffic and freight movements, which would be severely disadvantaged by the increase in freight train movements on the F2N route.

Reducing the number of freight journeys into the city centre has a number of benefits in particular reducing emissions affecting air quality (Particulate Matter (PM) and Nitrogen Oxides (NO_x)), reducing CO₂ emissions, reducing congestion as well as allowing for better

use of the road space available. There are cost saving benefits for the logistics industry and businesses operating in Cambridge particularly in the context of rising fuel prices and the time lost in terms of road congestion. The benefits for local businesses include the opportunity to maximise retail space, reducing the delivery cost of the 'final mile' as well as meeting corporate social responsibility targets.

Along transport corridors and in the rural area

On the transport corridors and in the rural areas of South Cambridgeshire, the focus of the strategy will be to keep goods vehicles on the most appropriate routes for them. This will involve the continuation of a number of strategy approaches that are already in use in Cambridgeshire, including:

- For new developments that generate freight movements, the use of planning agreements with freight operators which secure the use of routing agreements. These agreements will specify the use of the most appropriate routes for their journeys and minimising impacts on local communities.
- The Lorry Watch scheme, which empowers local

The A14 Cambridge to Huntingdon improvement scheme

The A14 is of national, regional and local importance and provides vital links from the east coast ports to the rest of the country.

Improvement of the road is vital to support the world class Cambridgeshire economy that has the potential to create the growth that the country needs and help bring the UK out of recession. Aggregate for this scheme will be transported by rail to the rail heads at Chesterton in north Cambridge.



communities by providing local residents with the opportunity to report examples of inappropriate driving of HCVs to us via a local co-ordinator. This type of approach allows us to work in partnership with the community to jointly combat concerns regarding illegal lorry movements.

- The continued development of clear signage of advisory routes and weight restrictions, and if appropriate, the introduction of new weight or environmental restrictions.
- The Cambridgeshire [Advisory Freight Map](#), which is provided to freight operators and is available on the County Council's website.
- The Cambridgeshire Considerate Haulier Scheme which sets out objectives that operators and drivers should aim to meet. These objectives include:
 - Following Cambridgeshire's strategic and local HCV route network and only use other routes for essential access.
 - Checking that vehicles are appropriately loaded to ensure safety and reduce noise.
 - Avoiding residential areas wherever possible.
 - Showing consideration to other road users at all times.

Working with the Highways Agency, Cambridgeshire County Council is also exploring the possibility of providing more secure overnight parking facilities along the A14 to reduce the numbers of drivers driving further when tired and parking inappropriately in villages.

F Smarter Choices.

The Strategy Approach

The Smarter Choices strategy approach is aimed at influencing the travel behaviour of people that live in, work and visit Cambridge and South Cambridgeshire by providing information on alternative travel options in order to reduce the reliance on private car travel.

Although Smarter Choices measures are identified in this section specifically, behavioural measures have a crucial part to play in order for the full benefits of the wider transport strategy to be realised.

The twin elements of the Smarter Choices approach are:

- Promoting the different travel options available to people that live, work and visit Cambridge and South Cambridgeshire.
- Raising awareness of the positive impacts of travel by sustainable modes.

Smarter choices are measures that aim to encourage environmentally sustainable travel by influencing individual travel behaviour, they can also contribute towards the transition to low carbon living.

For Smarter Choices measures to have the greatest effect, the benefits need to be 'locked in' with other sustainable transport initiatives, such as improved walking routes, cycling facilities, bus priority measures and parking controls.

Walking & Cycling

How long does walking really take?

For short trips of less than a quarter of a mile (5 minutes walk) it will almost certainly be quicker to walk than to drive.*

People often overestimate how long it will take to get around by foot, but underestimate the time it takes to drive. Research shows that most car trips take 5 minutes to go nowhere! This is the time it takes to get the car started, on to the road, find a parking space and then walk to the final destination.

Why not try walking to your local shops and see how long it takes you?

Walking and cycling are healthy

Walking for 20 minutes burns about 82 calories. Walk 20 minutes a day, 5 days a week and it burns the equivalent calories of approximately 2 chocolate bars. Cycling for 20 minutes at 10mph burns about 95 calories.

walking for 20 mins
5 days a week

410
calories

...the equivalent of
2 chocolate bars

*For an average fit person. This is someone who walks 3 miles per hour.

Time spent walking and cycling is quality time

Walking relaxes us and helps us arrive at our destination fresher and more alert.

It's great for the environment

Walking 30 minutes a day (or approximately 1.5 miles) instead of driving saves around 130kg of carbon dioxide a year and reduces other harmful emissions.

It can make the streets feel safe

Pedestrians are the eyes and ears on the street. People feel safer when others are around.

It's sociable

Walking is a great way to bump into friends and neighbours and cycling is a fun way to spend time with friends and family.

It supports local shops

How many local shops have you used in the past week? If we walk or cycle, we're more likely to use local shops than drive further afield.

Extract from Ely Active Travel leaflet and map

Lack of information often presents a barrier to the uptake of sustainable travel, therefore improving sustainable travel awareness is very important to achieving modal shift, reducing carbon dioxide emissions and improving air quality. Travel awareness campaigns encourage people to consider their own travel behaviour and increase acceptance of the need to reduce car use.

The strategy will build on existing Smarter Choices related programmes that are being rolled out in Cambridge and South Cambridgeshire at present and in the near future:

- The Local Transport Plan (2011-2026) focuses on a wide range of smarter choices including workplace and residential travel planning, raising awareness of the different transport choices available to people, and promoting car sharing and car clubs
- Cambridgeshire County Council's Local Sustainable Transport Fund programme (LSTF) sets out a range of Smarter Choices measures to be implemented on two corridors into Cambridge and in the City itself. Specifically the programme is focused on travel to the workplace. The strategy approach set out in this section will look to build upon the measures programmed for Cambridge beyond the 2014/15 LSTF period.
- The [Cambridgeshire Travel for Work Partnership](#) assists developers and employers with developing sustainable and effective travel initiatives including travel plans, cycle training and loan schemes.

Menu of Smarter Choices Measures

- Workplace, school and residential travel planning.
- Promotion and operation of car sharing initiatives, Car clubs and locally led transport solutions.
- Sustainable travel information and raising awareness.
- Journey planning tools.
- Flexible working initiatives.
- Technology such as electric vehicle charging infrastructure.



The Cambridgeshire Travel for Work Partnership website

- The Safer Routes to School Project helps schools, parents and children to reduce car use on school journeys and adopt a more sustainable approach to getting to school by walking and cycling thereby increasing independence, health and fitness. This is done through a combination of educational and infrastructure improvements.
- [CamShare](#) is a car sharing service which provides opportunities for people who live or work in Cambridgeshire to share journeys. CamShare operates a website which provides information and opportunities for car sharing. In addition Camshare operates [BikeBUDi](#), a tool to connect experienced cyclists and those wanting to know the best cycle routes.

In Cambridge

This Strategy will build on the LSTF programme of Smarter Choices measures planned up to 2014/15. The LSTF measures include:

- Installation of electric vehicle charging points at Busway Park & Ride sites as well as at key employment sites.
- Utilising the established [Cambridgeshire Travel for Work Partnership](#) (TfW) to support workplace travel plans.

Measures to support the development and implementation of workplace travel plans will include:

- Adult Cycle Training
- Bicycle user groups
- Electric bike loan service
- Personal journey planning
- Postcode mapping of employees
- Promotion of car sharing
- Promotional activities and road shows providing targeted and specific information about travel options
- TfW discounts at bike shops
- TfW discounts on train tickets
- Travel challenges, such as 'Cycle Challenges'

Along transport corridors and in the rural area

On the key transport corridors, running through South Cambridgeshire into Cambridge, the Smarter Choices approach will be to ensure high quality information provision regarding car sharing initiatives and journey planning tools. The dispersed nature of the population in South Cambridgeshire means that car use is unavoidable for many. The strategy objective in South Cambridgeshire will focus on increasing the uptake of opportunities for car sharing and journey planning to link into the passenger transport offering along the transport corridors.

In South Cambridgeshire, the approach will be to identify and implement Smarter Choices measures that will support the objectives of passenger transport services being used for part of more trips into Cambridge, more people walking and cycling to access these services, car sharing, as well as locally led transport solutions.

Digital technology

Cambridge and the surrounding area is a globally-significant cluster for high-tech innovation with a high rate of technology adoption within the local population. As such, it offers significant potential as a test-bed for technology to help the area function better, improve accessibility, make more efficient use of our transport networks and enhance quality of life.

Technology offers important tools for supporting the management of our transport networks. Embracing technology developments will enable us to make better use of the infrastructure.

Deploying technology for our transport systems can make:

- transport more reliable and economical
- travel more attractive and easier to use and operate

Investment into smart technology can support:

- intelligence on how transport networks are operating
- easy payments for transport services
- better management of transport networks
- better planning of journeys using information on people's travel patterns and trends

Digital Infrastructure

Ambitious targets will ensure that Cambridgeshire has some of the highest coverage of fibre based broadband in the country, by the end of 2015.

Better connectivity is revolutionising the way many people are able to work and access information and services. Working from home will become realistic for many more people with better broadband and some journeys could be eliminated which would reduce congestion and help us accommodate housing and economic growth in the area. Together with better broadband, digital inclusion initiatives also mean that we can help address rural accessibility to public services – which can be provided in different ways to more people.

The role of data

Adopting an “open data” approach and optimising the use of real-time traffic data, collected through the Integrated Highways Management Centre (IHMC), can help to positively affect conditions on the network. Traffic signal junctions can be adjusted as demand dictates, and road works and events can be actively managed to minimise their disruption.

More effective coordination with other stakeholders, such as the emergency services and the Highways Agency can be facilitated – reducing the impact of incidents, such as breakdowns and crashes, by speeding up response times and improving communication.

Sharing information

Timely information using the data we collect can help people plan their journeys or make decisions during their journey that in turn helps make the most efficient use of the network. The County Council has online tools - such as [SmartTravel Cambridgeshire](#) - to help people compare various modes of transport when planning their journey, and to see real time traffic information to help inform the way they travel. These initiatives will continue to play a significant role in the future, as Council services shift towards a “digital first” approach. Such tools can help promote sustainable and well-planned transport, and improve understanding of customer needs.

In combination with other traffic and weather information, the information the IHMC collects can be used to inform people already out on the transport network of any problems or issues in real time. Variable Message Signs (VMS), car park information signs and social media in the form of Twitter all help the travelling public to make informed decisions about their journey, which in turn can help the network operate more efficiently.

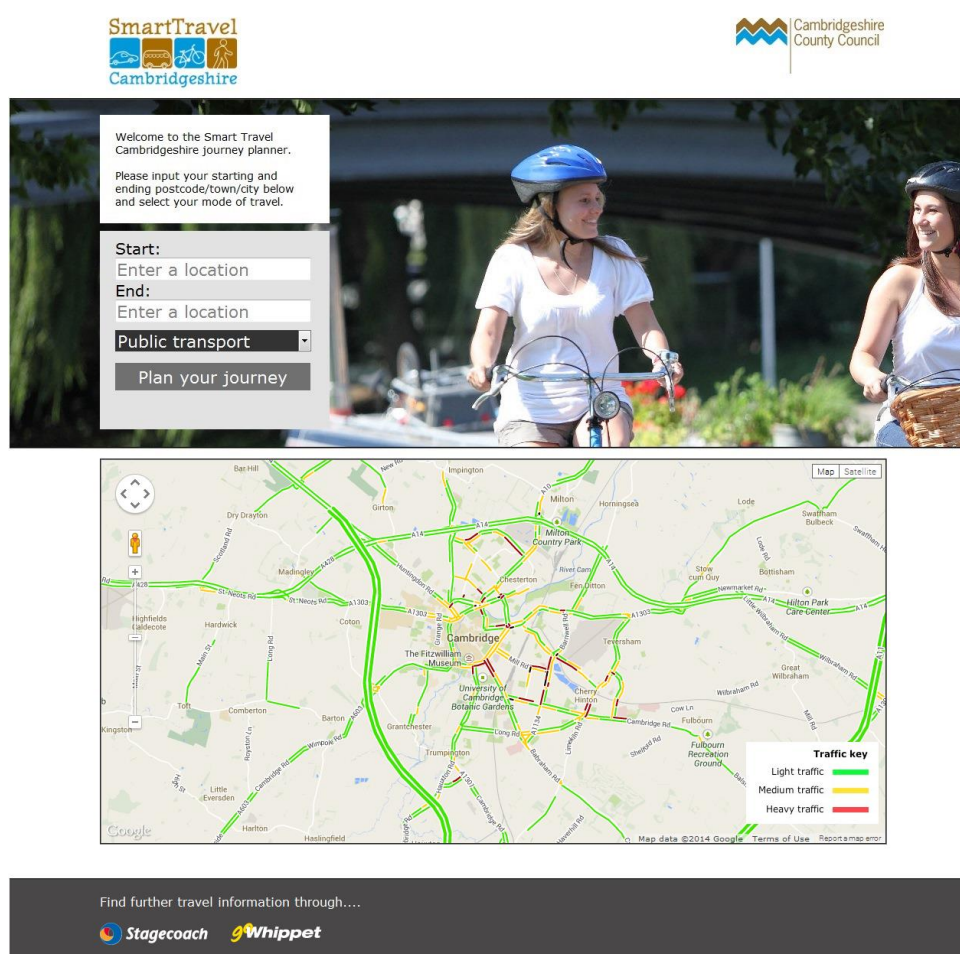
Significant investment has also been made into real-time passenger information for public transport. Developing this further, a live traffic webpage will soon become available, that

can be accessed easily so that people can be kept up to date on whether they are at their desk or already out on the road.

Supporting the Strategy aims

Technology developments offer real potential to make more efficient use of the transport network and support the delivery of the Transport Strategy aims.

With improved systems in place, in future more integration of the data streams could bring new insights and interoperability across related areas. This will help in enabling a more integrated and resource efficient environment. From helping inform travel choices to real time information on incidents and parking availability to information on road conditions and where potholes need filling.



The [SmartTravel Cambridgeshire](#) website

Such improvements help improve accessibility and travel choice and cities like Barcelona and Amsterdam are already seeing how technology enables greener, smarter and more multi modal travel, and improved energy efficiency and mobility. There are a number of innovative trial projects currently underway in this area considering how technology can help journey planning and making more efficient use of transport infrastructure and these can be built on and extended:

The [STRIDE project](#) (Smart Transport Internet of Things Data Ecosystem) is developing a data platform and an application for Improving Journey Time Predictions. It will provide historical and real-time data from sensors and act as a focal point for the development of smart transport applications and business process improvements.

Another project underway is the *East of England Transport Initiative* which aims to improve traffic information systems on the A14 corridor from Felixstowe to the M1 with a specific focus on improved journey time prediction and reliability and traffic incident management.

G Streetscape and environment

In terms of built and natural environment, the city of Cambridge and South Cambridgeshire are both regarded as distinct and desirable locations that are required to be preserved and protected to keep quality of life high. This includes a need to ensure the air is clean, with the need to improve air quality featuring prominently as a requirement in the strategy area.

Cambridge itself has a pleasant natural environment, and boasts a large number of open green spaces and parks in and around the city and the city centre. In addition, the historic core of the city with its world renowned heritage assets, many of which are university and college buildings, gives Cambridge a distinct and unique character. These characteristics, along with the economic success of the area, make Cambridge a very desirable place to live and work.

South Cambridgeshire is considered one of the best areas to live and work in the United Kingdom. It is a predominately rural District and houses a number of small market towns and villages. The open and green countryside of South Cambridgeshire is considered to be a precious and like Cambridge, has a number of planning policies aimed at preserving such character.

It is therefore vital that the impact on the built and natural environment from transport is kept to a minimum, with measures looking to improve on the current situation wherever possible.

The Strategy Approach

Air Quality

Policy TSCSC 17: Air quality

The County Council is committed to working with partners to achieve air quality improvement targets both in Cambridge and in South Cambridgeshire. Particular emphasis will be placed on reducing emissions from transport in existing and future air quality management areas.

The County Council will work with partners to ensure that passenger transport operators use increasingly 'clean' fleets and monitor air quality and implement Air Quality Action Plans where relevant to ensure agreed targets are met.



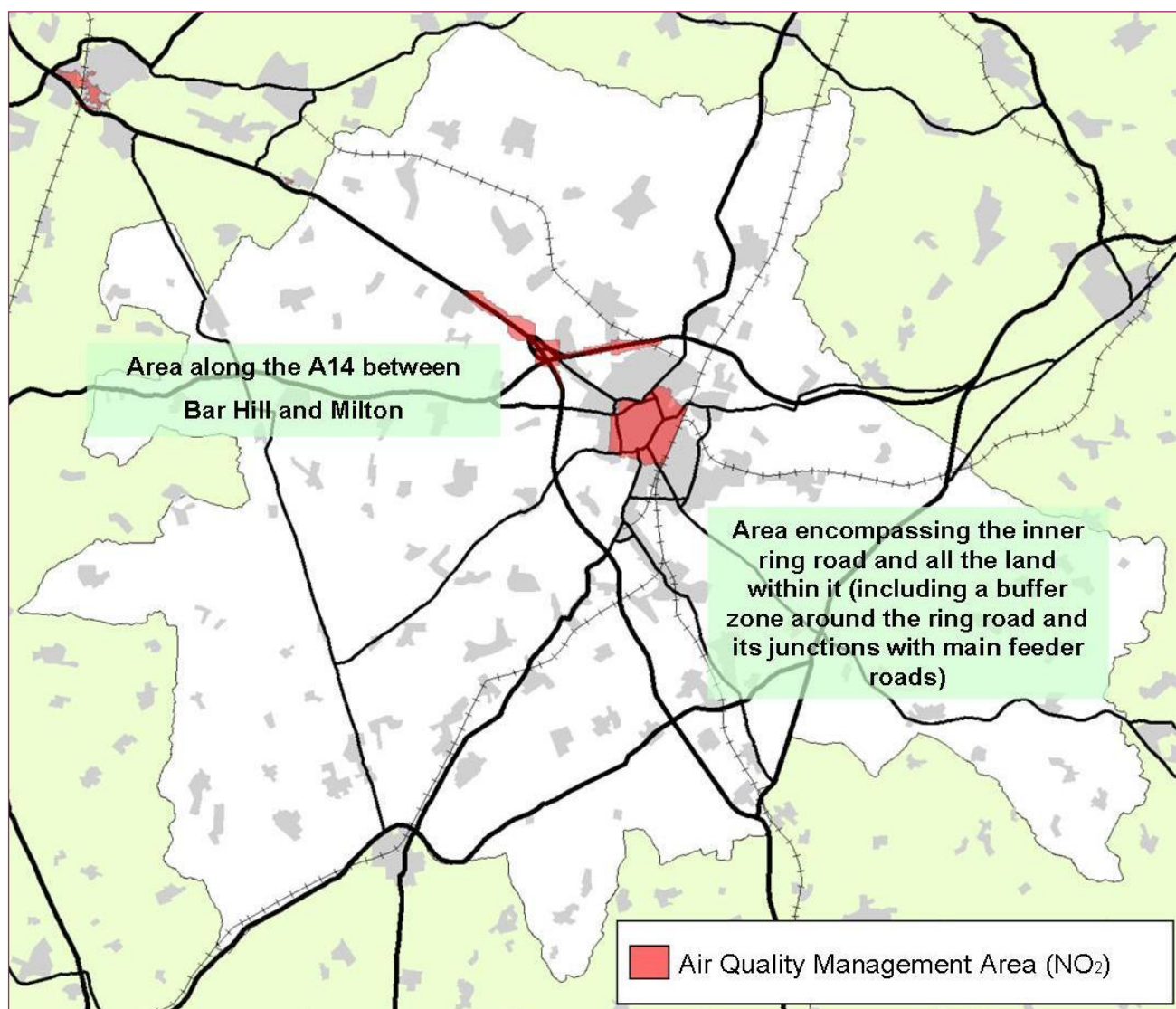
One of the main aims of the Cambridge Core Traffic Scheme restrictions was to address air quality issues in the city centre

Poor air quality is detrimental to the environment and to public health. It is linked to asthma and breathing problems, with children being particularly susceptible to these conditions. Poor air quality is thought to result in more death and illness than road traffic accidents.

Nationally, the cost through ill health as a result of poor air quality is estimated to be up to £20 billion a year⁶. Vehicular traffic is a major contributor to problems with two particular pollutants, Nitrogen Dioxide (NO₂) and Particulate Matter (PM).

The most severe transport related air quality problems are generally associated with roads which have slow moving or stationary traffic on a regular basis, or which have very high traffic flows. There are two Air Quality Management Areas (AQMA)⁷ in the strategy area, covering Cambridge city centre and the A14 between Bar Hill and Milton, as shown in [Figure 4.13](#). Buses are a major contributor to Air Quality problems in Cambridge city centre. Heavy Commercial Vehicles have the greatest impact on air quality in South Cambridgeshire, and on the A14 and M11 corridors.

Figure 4.13. Air Quality Management Areas.



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⁶ "Air quality strategy for England, Scotland, Wales and Northern Ireland: Volume 1," March 2011. See <https://www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1>

⁷ Where national Air Quality Objectives are unlikely to be met by a specified date, Air Quality Management Areas (AQMA) must be declared and Air Quality Action Plans (AQAPs) developed to demonstrate how the local authority intends to work towards meeting the objectives.

The County, District and City Councils in Cambridgeshire have worked together on Air Quality since 1997. In 2009, Cambridge City Council, South Cambridgeshire District Council, Huntingdonshire District Council and the County Council produced an [Updated Air Quality Action Plan for the Growth Areas](#).

The County Council and its partner councils, through the Local Transport Plan and the Air Quality Action Plan have looked to address the transport impacts of air quality in several ways, including:

- A presumption in favour of sustainable modes of transport within and into Cambridge.
- Measures such as the Cambridge Core Traffic Scheme which have already significantly reduced traffic levels and congestion in the city centre.
- The A14 Cambridge to Huntingdon improvement, which will reduce congestion on the A14 and through the bar Hill to Milton AQMA, and in places, reroute the road corridor further away from residential areas in that AQMA.
- Measures as part of the Cambridge Central Area Quality Bus Partnership⁸ to improve the emission standard of the bus fleet that uses the city centre.
- Maintain 8-year age limit on taxis for all taxis licensed (role of Cambridge City Council) and all taxis entering the transponder-controlled Core Area - to ensure that the fleet is continuously improving.
- Work alongside the Freight Quality Partnership, to improve local operators understanding of local air quality problems and to reduce emissions for their fleets.

This strategy looks to take forward these schemes and initiatives.

Streetscape and the built and natural environment

Policy TSCSC 18: Protecting the environment

The County Council will work with key partners including transport operators and businesses to reduce transport related emissions, to help protect and enhance the area's distinctive character and environment, while supporting sustainable growth and identifying solutions that will help to achieve longer term environmental benefits.

When implementing schemes through the strategy, the impact on the built and natural environment will be an important consideration. The balance between the positive and negative impacts of schemes is often difficult. For example, schemes that reallocate road space to buses, cyclists and pedestrians away from the private car may facilitate or deliver major streetscape improvements. However, they may lead to higher traffic levels and adverse environmental impacts in other locations. These issues will be explored in the planning, design and implementation of schemes in order that impacts can be managed and mitigated where possible.

The County Council will work closely with partner organisations on good design, and will also look to reduce the unnecessary street clutter where possible. Many traffic schemes have, in the past, resulted in a large presence of various traffic signs, railings, road markings and street furniture. Whilst much of this may be required by regulation, the County Council will aim to minimise this wherever it is appropriate to do so.

⁸ See <http://www.cambridgeshire.gov.uk/CMSWebsite/committee-document.aspx/area-joint-committees/cambridge-traffic-management-ajc/2012-10-22/Reports/5038/121022-6.doc> for detail of

Meeting wider objectives of partners

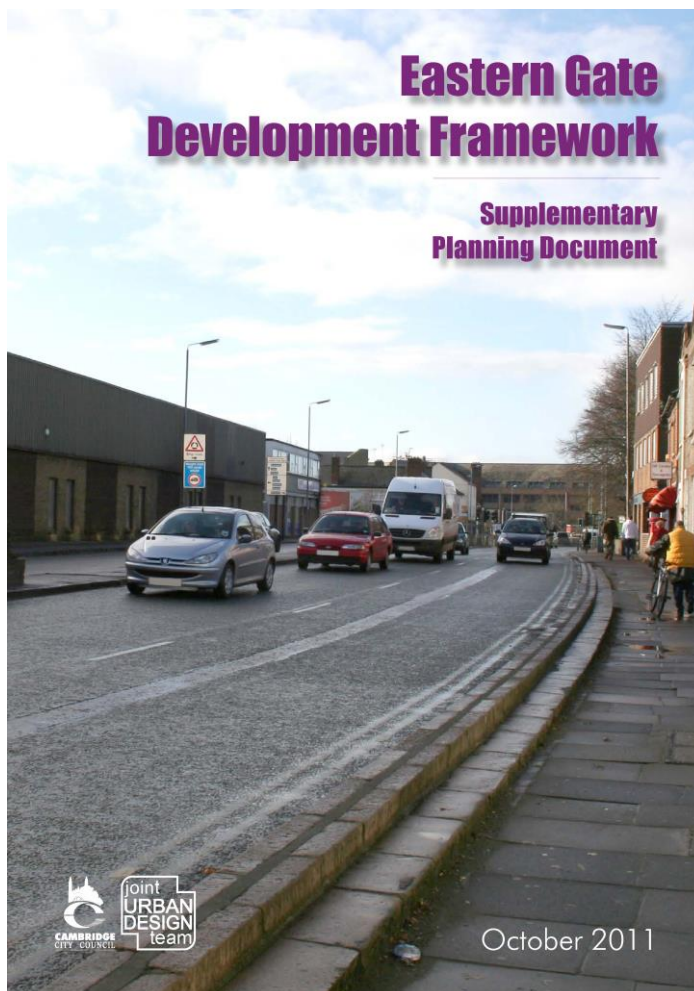
In terms of scheme being implemented on specific corridors, regard will be given to existing plans and documents produced by Local Authority partners.

An example in Cambridge is the 'Eastern Gate' area, which suffers from significant levels of peak time congestion which delays and inconveniences passenger transport users, cyclists and cars users alike. There are also numerous growth and development proposals for the areas around Newmarket Road and the east of the city, which will add to the pressure already felt in the area. To this end, Cambridge City Council produced the [Eastern Gate Development Framework Supplementary Planning Document](#) (Eastern Gate SPD) in 2011. This contains a list of proposals, some of which are transport related, aimed at improving the area in terms of amenity and functionality.

The aims, objectives, proposals and schemes in the Eastern Gate SPD will inform the development of transport strategy interventions in the area. Streetscape and the environment for all users of the area will be one of the primary considerations that will guide street design, the modification of the existing traffic arrangements and the remodelling of various junctions in the area.

The strategy looks to protect and preserve the character of the area. Cambridge's historic core is home to numerous listed and designated buildings. Where the strategy looks to deliver measures on routes that might affect the historic core, particular effort will be put into the sympathetic consideration of the streetscape. Relevant policy documents produced by the County Council and partner authorities that aim at preserving the built environment will inform this consideration.

The strategy similarly recognises and gives a strong emphasis to the need to protect the natural environment. This is especially important given the rural nature of South Cambridgeshire and the numerous tree lined roads in Cambridge. The implementation of road improvement schemes and bus and cycle priority measures is likely in places to require the loss or replacement of trees and hedgerows, and may have visual impacts that need to be mitigated. In this context, difficult decision will need to be made if the transport strategy is to be delivered.



The Eastern Gate Development Framework

The Council will work closely with partners and the appropriate bodies to ensure impacts are minimised and mitigated as best as possible. For larger schemes where impacts are likely to be greater, compensatory habitats and other larger scale environmental mitigation works may be needed. These will be assessed on a scheme by scheme basis as is typically required under planning and highway legislation.

Carbon emissions

Policy TSCSC 19: Carbon emissions

The County Council will work with key partners and transport operators and businesses to reduce transport related emissions of carbon and pollutants to help achieve agreed targets.

The understanding and profile of climate change as an environmental issue of global significance has increased enormously in the past few years. The Climate Change Act 2008 and the Energy White Paper (2007) highlighted the importance of the need to reduce global carbon emissions. Whilst reducing carbon emissions has been identified as one of the most important challenges faced by the global community, it will also have severe repercussions on a local level in Cambridge if it is not dealt with.

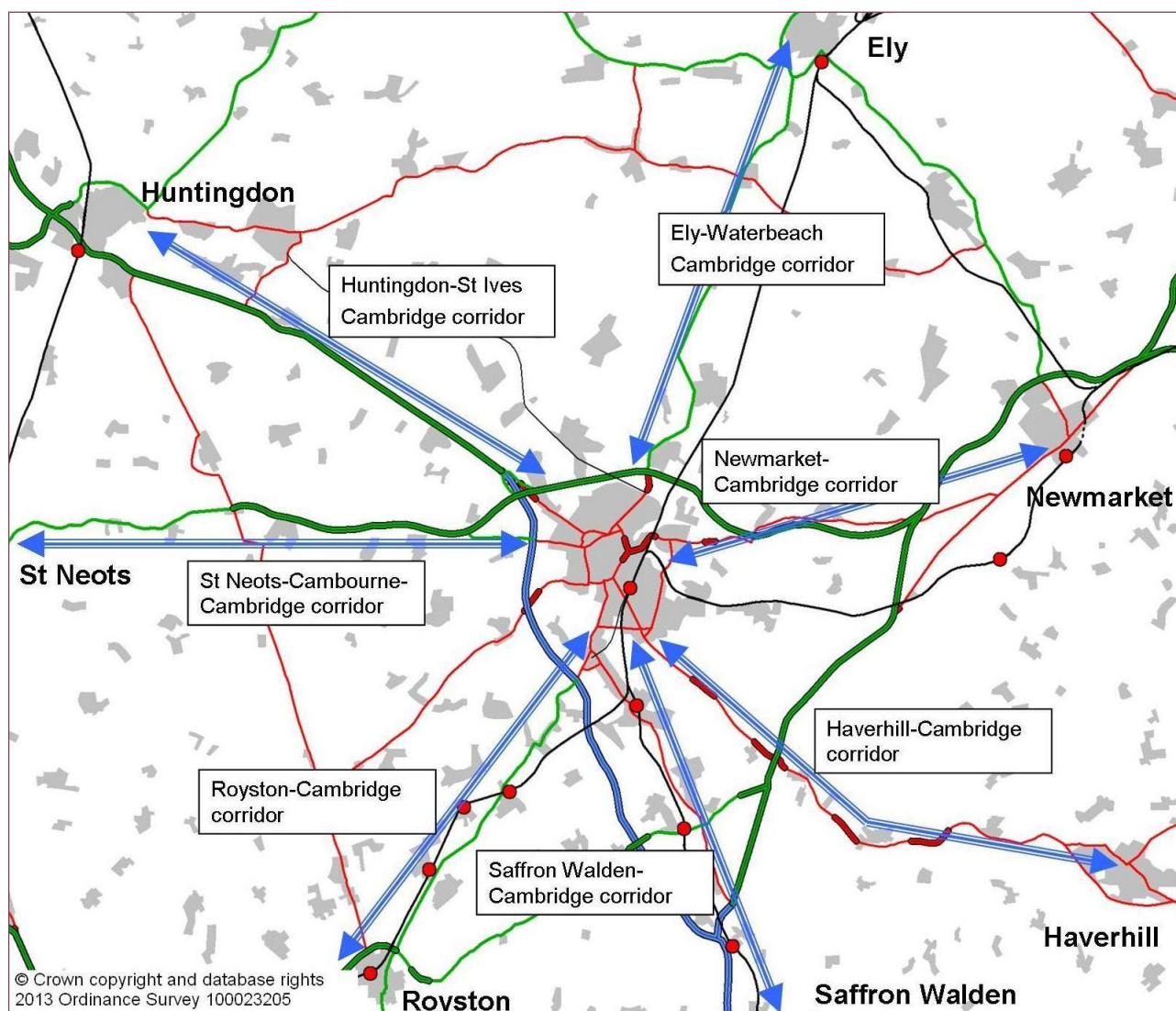
There are some links between carbon emissions and emissions of Nitrogen Dioxide (NO₂) and Particulate Matter (PM) which are associated with worsening air quality. It is important to recognise this and understand that tackling transport related carbon emissions can help with the pursuit of reducing emissions in gases and particles that damage air quality.

The strategy places heavy emphasis on the aim of promoting more sustainable modes of travel as an alternative to private car use. Increases in walking and cycling, as well as increasing rail links and bus patronage (and thus bus efficiency in terms of passenger trips) will help to reduce emissions on a local level. This is especially true of the level of carbon emissions from the longer distance trips from South Cambridgeshire into Cambridge, where the greater emissions occur.

5. The high level programme

This chapter sets out a high level programme for Cambridge, and for each of the seven main corridors between the city and the neighbouring ring of towns (see [Figure 5.1](#)). It also sets out a Smarter Choices package. The programme contains details of larger schemes or high level measures across all transport themes that will be included for that area. Work will be undertaken to develop the detail of all schemes, for example the exact improvements to the cycle and pedestrian networks. Further detail about the programme is contained within the accompanying Action Plan.

Figure 5.1. The transport corridor programme areas.



The programme makes a distinction between short-medium term and longer term measures. It sets out stepped improvements in many cases. For example in the short-medium term, targeted improvements to the bus, cycle and walking networks may be made, focussing on pinch points for buses. An upgrade to a comprehensive high quality passenger transport solution such as a busway would follow in the longer term.

[Chapter 3](#) discusses the potential that a City Deal would bring to delivering the strategy at a much accelerated pace. Whilst many of the measures are very long-term, they are still integral to the strategy. However, if a City Deal is successful, the longer term measures

will be brought forward much earlier meaning many of the intermediate measures proposed for the short-medium period will not be necessary.

The Action Plan which accompanies this strategy contains the outline programme to 2031 as well as details of the key major schemes proposed for the short, medium and longer term in line with the sequence of development proposed in the Local Plans. The Action Plan is intended to be a live document that will be reviewed and rolled forward on a regular basis in line with the approach and policies set out in this strategy.

In the tables that follow, short term is assumed to be 2015/16, medium term is 2016/17 to 2020/21 and long term is 2021/22 onwards.



*Pedestrians and Cycle cut through on Hooper Street between Kingston Street and Sturton Street, Cambridge
([Creative Commons](#) licensed image; Simon, CycleStreets [#35147](#))*

Cambridge

The area

Cambridge forms the hub of the network with seven main corridors feeding into the city. Four of these are along railway lines (Royston, Saffron Walden, Newmarket and Ely), one is along The Busway (St Ives and Huntingdon) and the remaining two are along road corridors (St Neots and Haverhill). The city is surrounded by a ring of villages and further out, a ring of market towns. Access to the central area of the city is controlled through a system of rising bollards; otherwise movements around the city are not restricted. Significant development is planned for the city.

Committed and future growth

- North Cambridge
- 890 dwellings.
- 11.85 Ha employment land.
- East Cambridge
- 1,896 dwellings.
- South Cambridge
- 1,768 new homes.
- 8.25 Ha employment land.
- West / Central Cambridge
- 1,012 dwellings.
- 8.54 Ha employment land.
- Station Area
- 886 dwellings
- 5.37 Ha employment land.
- Orchard Park / Arbury
- 253 dwellings.
- 1.86 Ha employment land.
- Cambridge Eastern
- 1,718 dwellings.
- 5 Ha employment land.
- Fulbourn Road / Worts Causeway.
- 10.6 Ha employment land at Fulbourn Road.
- 430 new homes at Worts Causeway.
- Cambridge Southern Fringe
- 3,993 dwellings.
- 17.9 Ha employment land
- North West Cambridge
- 5,669 dwellings.
- 4.5 Ha employment land

Analysis of current strengths, weaknesses, opportunities and threats in the city

Strengths	Weaknesses
<ul style="list-style-type: none"> • Cycling culture within the city • Compact city, conducive to cycling and walking • City has already accommodated new growth whilst keeping traffic levels constant • Five of the seven corridors into the city are already along railway lines or the Busway. 	<ul style="list-style-type: none"> • The transport network is relatively constrained and has a finite capacity for vehicles • Significant increases in vehicular traffic cannot be accommodated on the city's road network
Opportunities	Threats
<ul style="list-style-type: none"> • The capacity for movement on the network is far greater than the capacity for vehicles <i>IF</i> the network is used differently. • Build on success of Core Scheme as a demand management tool. • Very strong cycling culture from which to build 	<ul style="list-style-type: none"> • 35,000 new homes in and around the city will magnify existing problems and create new problems on the transport network if not properly planned for

Significant levels of growth have already taken place within the city without increasing levels of traffic. The existing core scheme, combined with the ring of Park & Ride sites, differential parking pricing and a culture of cycling within the city has effectively kept unnecessary traffic out of the city centre. Whilst this approach has worked in the past, to accommodate the levels of growth that are planned for the future, significantly more trips

will need to be undertaken by passenger transport, by bike or on foot as there is very little capacity on the network for an increase in general vehicular traffic.

There are successes to build upon; the level of cycling in the city is already comparable to many European cities so there is an existing culture to build on which is unique in this country. The core scheme principles can be rolled out further as a demand management tool to make the most efficient use of the road space we have in the city and to give priority to passenger transport, cyclists and pedestrians, increasing the attractiveness of these modes of transport.

Interventions in Cambridge

In the city, passenger transport, walking and cycling will be the priority. A new station and transport interchange will be provided at Cambridge Science Park, allowing much better penetration into the north of the city by passenger transport. In the longer term, three new rail stations may be provided on the outskirts of the city at Addenbrooke's (to serve the Cambridge Biomedical Campus) Cherry Hinton and Fulbourn to provide new gateways into the city.

Further capacity will be provided at the inner ring of Park & Ride sites, with a view to intercepting more car journeys before they join the city's roads.

Once within the city, priority will be given to passenger transport, cycling and pedestrians on a number of key radial corridors into Cambridge. In addition, orbital passenger transport movements will be prioritised around the city, through the provision of new busway links, prioritisation on Barnwell Road, Brooks Road, Perne Road, Mowbray Road and Fendon Road. In the longer term, a tunnel underneath the city centre for buses will be investigated.

To enable road space in the city to be reallocated to passenger transport, cycling and walking, the principles of the existing Cambridge Core Traffic Scheme will be extended. Whilst car trips would not be prohibited, non-essential vehicular traffic would be removed and many through traffic movements across the city prevented. Distance, time and cost penalties would be applied to car trips as they would have to use more circuitous routes to cross the city. It would provide a competitive advantage for bus users, cyclists and pedestrians due to the shorter journey length, reduction in congestion – and consequent improved journey time – and the reallocation of road space to those modes.

However, to enable road space in the city to be reallocated to passenger transport, new orbital capacity for general traffic will need to be considered between Addenbrooke's and Cherry Hinton, via a tunnel under the Gog Magog Hills. An Airport Way/Newmarket Road interchange link will also be considered, alongside additional capacity on the M11 corridor, either through managed motorway or parallel capacity for local car or passenger transport movements.

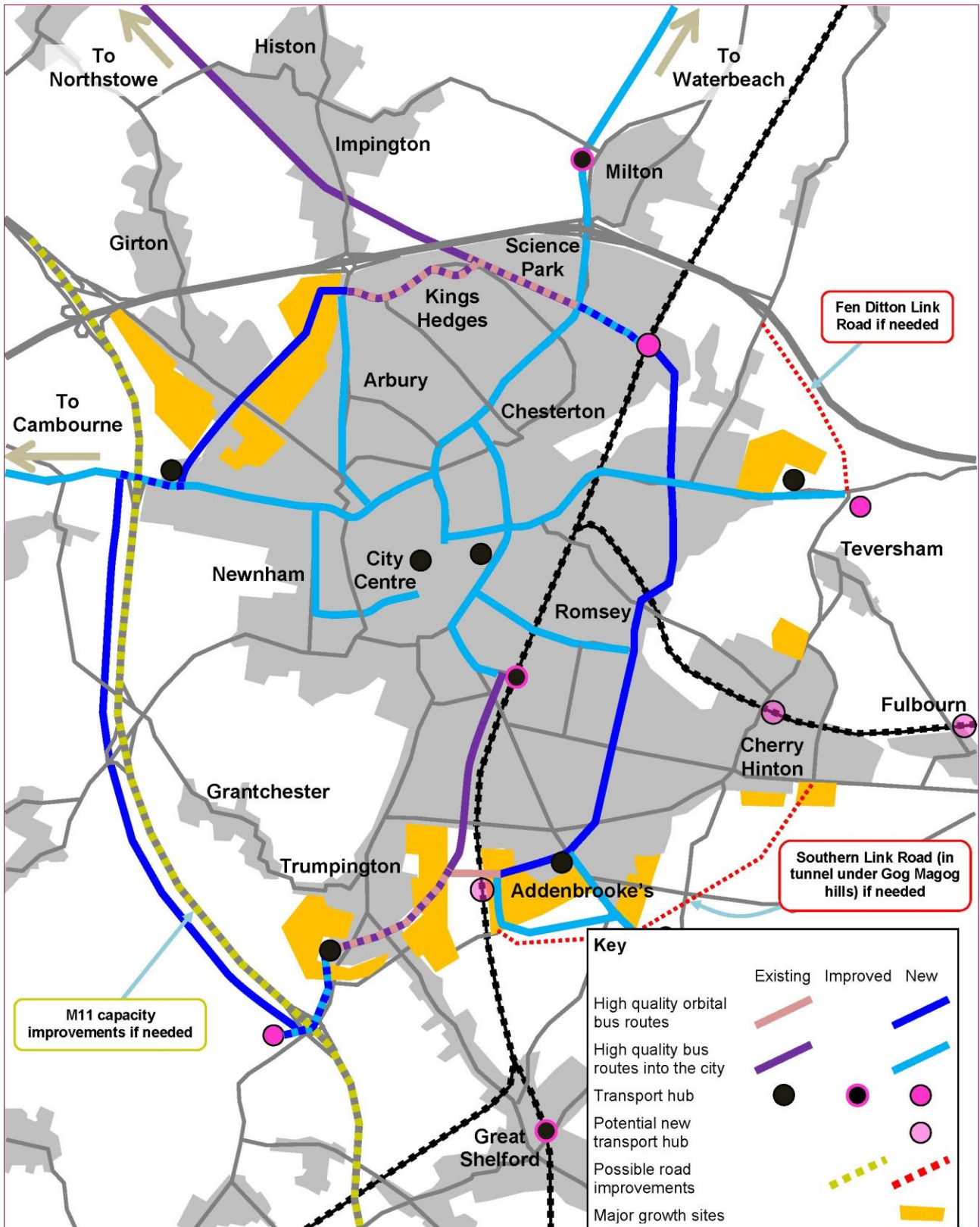
[Figure 5.2](#) lists the interventions planned for the Cambridge area. [Figure 5.3](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the city.

Figure 5.2. List of interventions in Cambridge.

Intervention	
Interchanges and service improvements	Short term interventions
	Cambridge Science Park Station.
	Improved passenger facilities at Cambridge Station
	Rail service frequency increases
	Improve accessibility of Babraham Road site through provision of segregated car access
	Medium to long term interventions
	Provision of new 1,000-space P&R site at Hauxton
	Expansion of Milton P&R to 2,000 spaces
	Relocation of Newmarket Road P&R site to Airport Way and expansion to 2,500 spaces
	Consideration of a new railway station at Addenbrooke's
	Consideration of a new railway station at Cherry Hinton
	Consideration of a new railway station at Fulbourn
Passenger Transport – radial links	Medium to long term interventions
	Bus Priority - Madingley Road
	Bus Priority - Histon Road
	Bus Priority - Milton Road
	Bus Priority - Newmarket Road
	Bus Priority - Hills Road
	Bus Priority - Chesterton Road
	Bus Priority - East Road
	Bus Priority - Hauxton to Trumpington
	Bus Priority - Milton P&R to Milton Road Busway junction
	Busway between new Hauxton P&R site and Trumpington P&R
	Inbound bus lane between Addenbrooke's and Cherry Hinton Road
	Comprehensive bus priority On Hills Road / Station Road between Cambridge Station and Gonville Place
	Bus priority along Mill Road
	Milton Road outbound bus lane, Mitcham's Corner to Cambridge Science Park
	Busway between Milton P&R and Cambridge Science Park
	Bus priority / busway between Airport Way and Barnwell Road
	Bus priority between Barnwell Road and Abbey Stadium
	Busway between Abbey Stadium and East Road
Passenger Transport – orbital links	Short term interventions
	Busway / Bus Priority between Histon Road and Madingley Road through new development
	Bus links between Chesterton, Cambridge Science Park and West Cambridge and onwards to Addenbrooke's through the city or on M11
	Medium to long term interventions
	Busway/bus priority parallel to M11 corridor
	Bus priority - Addenbrooke's - Coldham's Lane
	Busway linking Coldham's Lane to Newmarket Road
	Busway linking Newmarket Road to Cambridge Science Park Station
	Busway linking Cambridge Science Park Station to Milton Road

Intervention	
Orbital Highway Capacity	Medium to long term interventions
	M11 corridor capacity
	Highway capacity between Addenbrooke's Road and Babraham Road
	Highway capacity between Babraham Road and Cherry Hinton (Yarrow Road) including tunnel under the Gogs
	Highway capacity between Airport Way and the A14 Fen Ditton junction
City Centre improvements	Short term interventions
	Provision of a cycle park at Cambridge Station
	Improvements to the city centre streetscape and public realm
	Medium to long term interventions
	East Road bus and cycle priority
	Elizabeth Way / East Road / Newmarket Road junction, remodelling to improve priority for buses, cyclists and pedestrians at grade
	Grange Road bus priority
	Safety improvements at the Trumpington Street/Fen Causeway / Lensfield Road / Trumpington Road junction
	Provision of a third City Centre cycle park
	Investigate bus tunnels as a possible longer term option for addressing capacity constraint in city centre.
Demand Management	Medium to long term interventions
	Extension to Core Traffic Scheme to cover Maid's Causeway
	Expansion of Controlled Parking Zone across Cambridge and the South Cambridgeshire fringes
	Extension of Core Traffic Scheme principles
Walking and Cycling	Short term interventions
	Provision of the Chisholm Trail, an orbital cycle way connecting Addenbrooke's to Cambridge Science Park
	Medium to long term interventions
	Development of a comprehensive, high quality cycling and walking network

Figure 5.3. Major interventions in Cambridge



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Ely and Waterbeach to Cambridge corridor

The Ely to Cambridge corridor is focussed on the A10 to the north of Cambridge and also the Cambridge to King's Lynn railway line. While many of the villages to the north of the corridor look to Ely for their day to day services, Cambridge is still a major focus for employment, retail and primary healthcare. There is significant employment on the A10 near Waterbeach at the Cambridge Business Park. A commercial bus service operates along the corridor; however the main passenger transport focus is the railway line, which also stops at Waterbeach.

Committed and future growth

- Ely – maximum 3,904 homes (2012 – 2031)
- Waterbeach – a new town of 8,000 – 9,000 homes, of which 1,400 are likely to have been built by 2031.
- Histon and Impington – 25 new homes

Analysis of strengths, weaknesses, opportunities and threats on the corridor

Strengths	Weaknesses
<ul style="list-style-type: none"> • Existing railway line • Existing P&R site at Milton • Cambridge Science Park Station already planned 	<ul style="list-style-type: none"> • Congestion along A10 already severe
Opportunities	Threats
<ul style="list-style-type: none"> • Potential to expand Milton P&R • Plans in place by rail industry to improve services along corridor • Plans in place by rail industry to improve infrastructure at Ely and Waterbeach stations 	<ul style="list-style-type: none"> • Significant high level growth planned along the corridor which could exacerbate existing situation on A10 if not properly planned for

A good passenger transport corridor already exists between Ely and Cambridge along the railway line with regular, frequent services that also serve Waterbeach. The planned new station at Cambridge Science Park will also cater for trips into to north Cambridge in the future. Car trips are also catered for by the Milton P&R site and there is the potential to expand this site in the future. The rail industry already has plans to improve the quality and frequency of the rail services in the corridor, in addition to improving Ely and Waterbeach stations to take longer trains.

Despite this however, congestion along the A10 is already a significant issue with delays common in the peak hours. The B1049 also experiences significant congestion in peak periods. Further considerable growth is already planned for Ely and a new town at Waterbeach is currently under consideration both of which would put unacceptable levels of traffic onto the A10 if alternative provision is not provided.

Interventions on the Ely and Waterbeach to Cambridge corridor

[Figure 5.4](#) lists the interventions planned for the Ely to Cambridge corridor, and [Figure 5.5](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the corridor.

As with other corridors, the overarching approach is to create a high quality passenger transport corridor which offers a real alternative to using the private car for trips between Ely and Cambridge. The aim is to intercept as many trips as possible along the corridor to

minimise the additional vehicles on the main radials and entering the constrained network in Cambridge.

Figure 5.4. List of interventions on the Ely and Waterbeach to Cambridge corridor.

Intervention	Timescale
Creating a HQPT corridor	King's Lynn to Cambridge service increase in frequency to half hourly
	Norwich to Cambridge service increased in frequency to half hourly
	King's Lynn, Norwich and Birmingham New St trains between Ely and Cambridge to stop at Cambridge Science Park
	Rolling stock for King's Lynn and Cambridge to London Kings Cross fast services to be replaced with new IEP or Thameslink rolling stock
	Improved interchange at Waterbeach and Ely
	Platform lengthening at Ely (and Waterbeach if needed – see below) to take 12-carriage Thameslink trains or 10-carriage InterCity Express trains.
	Electrification of rail lines feeding Cambridge in Network Rail CP6 (2019 to 2024)
	Replacement of diesel rolling stock on Norwich to Cambridge and Birmingham to Stansted services
	Waterbeach Barracks to north Cambridge Busway
	Waterbeach Park & Ride
	A new station at Waterbeach to serve the village and the new town on the Waterbeach Barracks site.
	Consideration of a new railway station at Addenbrooke's
Walking and cycling	Complete the direct cycle route from Cambridge to Cambridge Business Park on the A10 at Waterbeach.
	Extension of cycle route from Cambridge Business Park to Stretham and Ely.
	Create network connecting to transport interchanges along corridor
	Create network focussed on catchment of Cottenham and Impington Village Colleges
	Network of cycle links between the new town on Waterbeach Barracks and north Cambridge, Stretham and Ely, and the surrounding villages.
Highway capacity	Capacity improvements on the A10 to address existing capacity issues and the impact of the Waterbeach Barracks development. The capacity required will be informed by consideration of: <ul style="list-style-type: none"> The capacity of the network to cater for new vehicular trips into Cambridge. The capacity of the A14 The new transport capacity that investment in bus, Guided bus, rail, pedestrian and cycle infrastructure will bring.
	Capacity enhancements to the A14 / A10 Milton interchange, informed by the factors noted above
	Longer term consideration of the capacity of the A10 between Ely and Waterbeach.

The railway will be the focus for passenger transport on the corridor. As with other corridors, the initial aim will be to create a high quality passenger transport corridor that will attract people to use it for as much of their journey as possible. The plans that the rail industry already has in place will see the frequency of services increased, the introduction of an extra stop at Cambridge Science Park Station and rolling stock on the fast services

replaced and upgraded. In the longer term, lines north of Cambridge will be electrified enable the diesel units to be replaced with electric.

Policy TSCSC 20: Planning obligations for Waterbeach Barracks

A comprehensive approach will be used to secure provision of infrastructure and improvements in a timely manner to ensure that accessibility is maintained and that the impacts of developments are mitigated in line with the Strategy approach.

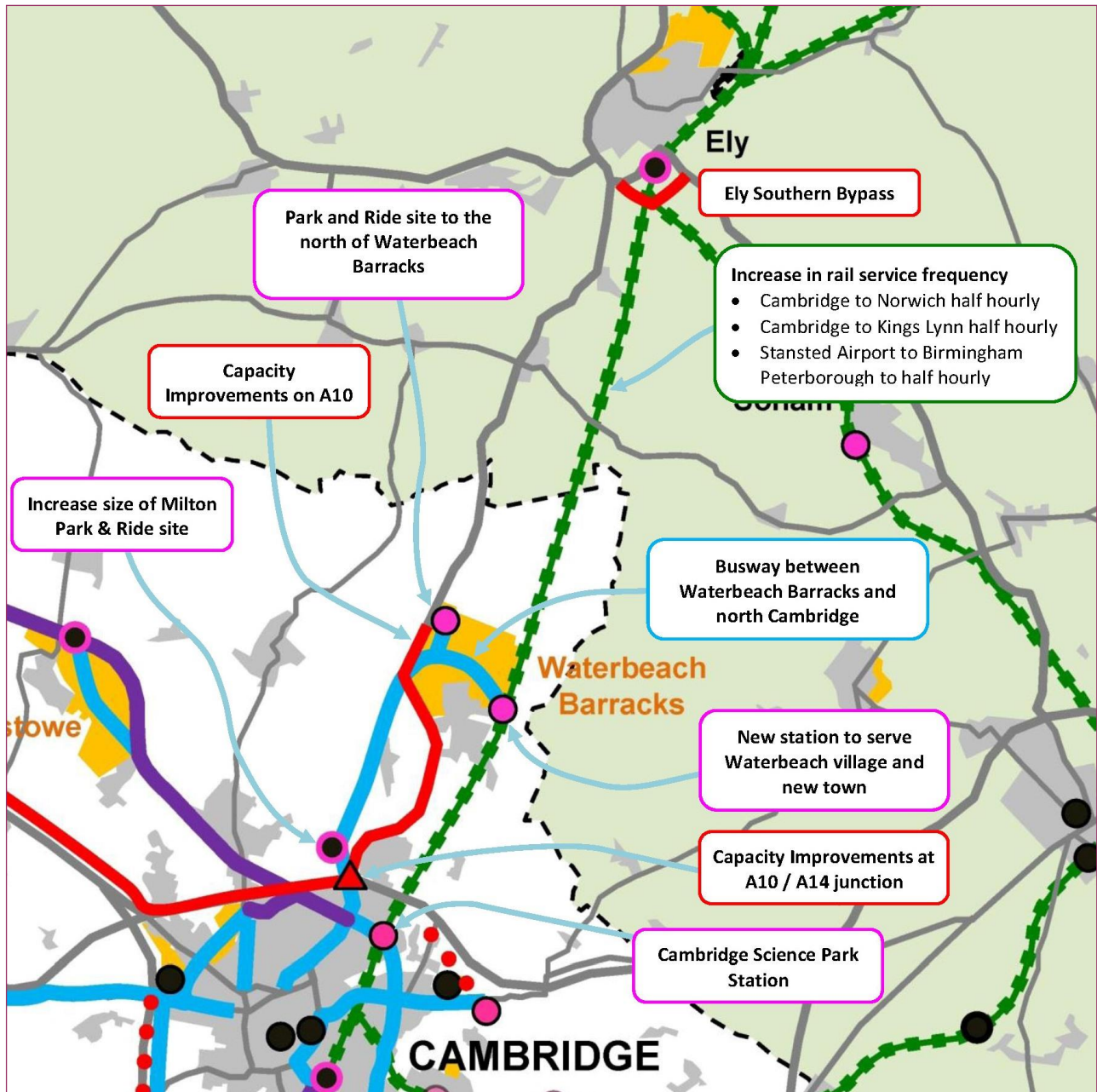
Developers will be expected to make provision for mitigation of the site specific and network impacts of their proposal. The following interventions are expected to be required (subject to more detailed Transport Assessments agreed with the Highway Authority) intended to help mitigate and support the impact of development at Waterbeach Barracks:

- Additional capacity on the A10 between the northernmost access to the new town and the Milton Interchange of the A10 with the A14.
- Additional capacity at the A14 / A10 Milton Interchange
- Waterbeach Barracks to north Cambridge Busway
- Waterbeach Park & Ride
- Waterbeach new station
- Direct, segregated high quality pedestrian and cycle links to north Cambridge including to Cambridge Science Park, Milton, Cottenham, Histon, Impington, Landbeach, Horningsea, Fen Ditton, Chittering, Stretham and the Cambridge Research Park
- Delivery or funding of any measures required to mitigate the traffic impact of the new town on Horningsea, Fen Ditton, Milton and Landbeach
- A smarter choices package including residential, school and workplace travel planning

Interchange facilities will be improved at Waterbeach and Ely stations and these will also become a focus for a cycle and pedestrian network, as well as community transport services. For those trips where rail is not feasible, an expansion of Milton P&R site will intercept more traffic before it reaches the edge of Cambridge.

A comprehensive cycling and walking network will be created, linking villages into the HQPT corridor at the transport interchanges at Milton and Waterbeach, as well as employment sites. Networks around the catchment areas for Cottenham and Impington Village Colleges will also be created.

Figure 5.5. Major interventions in the corridor



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Newmarket to Cambridge corridor

The area

The corridor forms the principal link between Cambridgeshire and Suffolk, along the A14. The A1303 provides for a more local link between Cambridge and Newmarket. The Ipswich-Cambridge railway line runs through the corridor, with stations at Newmarket and Dullingham. However, the area to the south of the A14 is very sparsely populated with the only significant villages at Dullingham and Balsham, with small hamlets interspersed in between. In common with other market towns surrounding Cambridge, Newmarket, whilst lying outside Cambridgeshire looks towards the city for many of its services.

Committed and future growth in the corridor

- ARM / capital park – up to 1,000 new jobs.

Analysis of strengths, weaknesses, opportunities and threats on the corridor

Strengths	Weaknesses
<ul style="list-style-type: none"> • Railway line between Cambridge and Newmarket • Existing Park & Ride site on Newmarket Road 	<ul style="list-style-type: none"> • Only station between Newmarket and Cambridge is Dullingham • Sparsely populated corridor making it difficult to provide a HQPT service
Opportunities	Threats
<ul style="list-style-type: none"> • Rail industry plans to increase frequency along line • Opportunity to reconnect Newmarket to Soham through reinstatement of short stretch of line of line to east of Newmarket • Soham Station 	<ul style="list-style-type: none"> • Increasing congestion along A142/A14 could lead to increase in traffic along B1102

However, the area surrounding much of the corridor, especially to the south is very sparsely populated making it difficult for a good quality passenger transport service to be viable.

Interventions on the Newmarket to Cambridge corridor

[Figure 5.6](#) lists the interventions planned for the Newmarket to Cambridge corridor, and [Figure 5.7](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the corridor.

Despite having a railway line, the focus on this corridor won't exclusively be on this. Because the corridor is sparsely populated and there only being one station between Cambridge and Newmarket, the corridor doesn't lend itself to the same focus in the same way as other corridors do. For journeys between Newmarket, Dullingham and Cambridge, the railway will be the focus. To improve the service, in the longer term the service will be increased to half hourly and the line electrified to enable diesel rolling stock to be replaced with electric units. Additions to the single track will be made to enable timetabling improvements and with the provision of a station at Soham, a connecting link will be created between Newmarket and onwards to Soham and Ely.

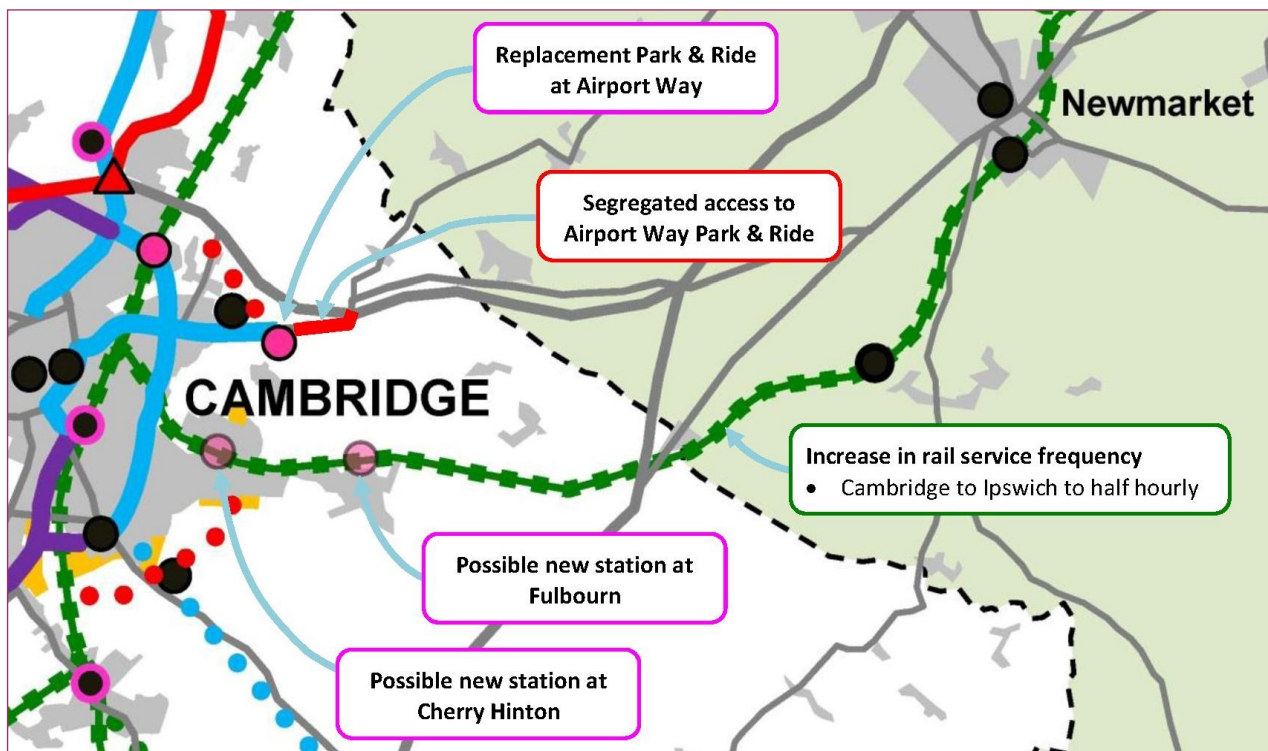
In order to cater for trips that aren't made by rail, the current Newmarket Road Park & Ride site will be relocated to Airport Way and expanded to create 2,500 spaces. A segregated

car access to the new site will be provided from the Quy interchange to enable users to access it directly.

Figure 5.6. List of interventions on the Newmarket to Cambridge corridor.

Intervention	Timescale
Creating a HQPT corridor	Electrification of rail lines feeding Cambridge and Newmarket
	Doubling of track or passing loops between Newmarket and Cambridge
	Ipswich to Cambridge rail service increase in frequency to half hourly
	Relocation of Newmarket Road Park & Ride site to Airport Way
	Provision of segregated access from Quy interchange to new Park & Ride site
	Consideration of a new railway station at Addenbrooke's
	Consideration of a new railway station at Cherry Hinton
	Consideration of a new railway station at Fulbourn
Walking and cycling	Create network connecting employment sites
	Create network connecting to transport interchanges along corridor
	Create network focussed on catchment of Bottisham Village College

Figure 5.7. Major interventions in the corridor



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Haverhill to Cambridge corridor

The area

The Haverhill to Cambridge corridor is an alternative route to the A14 into west Suffolk via the A1307. Although Haverhill lies in Suffolk, like many of the market towns surrounding Cambridge, it looks to the city as a regional centre for employment, retail and primary healthcare. There is also a cluster of research and knowledge-based industries within or near the corridor at Granta Park, the Babraham Research Campus and nearby at the Genome Campus, all of which are significant employment locations. The principal villages within the corridor are the Abingtons and Linton with other smaller villages located off the A1307. There is no functioning railway line although the alignment of the former Cambridge-Colchester line still largely exists through the corridor.

Committed and future growth in the corridor

- Haverhill – up to 4,260 homes (2009-2031).
- Granta Park – up to 3,200 new jobs.
- Babraham Research Campus – up to 1,000 new jobs.

Analysis of strengths, weaknesses, opportunities and threats on the corridor

Strengths	Weaknesses
<ul style="list-style-type: none"> • Corridor with obvious points for interchange at Linton, Abington and Granta Park • Research campuses in close proximity to each other • Babraham Road Park & Ride site 	<ul style="list-style-type: none"> • Queues to get into Cambridge from the Gogs. • Accidents on the A1307 • No functioning railway so bus services get caught in congestion
Opportunities	Threats
<ul style="list-style-type: none"> • Disused railway corridor which could potentially be used for HQPT 	<ul style="list-style-type: none"> • Considerable development planned for both ends of the corridor at Addenbrooke's and Haverhill will lead to increasing pressure on the A1307

The corridor has a cluster of research and knowledge based sites within close proximity to each other. The larger settlements within the corridor also lie directly on the A1307 which makes it easier to run a bus service. The corridor has no rail service therefore the focus for passenger transport is of necessity on bus. However, congestion is a problem at particular points on the A1307, particularly coming over the Gog Magog Hills into Cambridge which not only holds up cars, but also buses, which then become unreliable. The potential for this to worsen is significant, with considerable development planned at both ends of the corridor, as well as expansion of the high-tech cluster in the middle. The alignment of the former Cambridge-Colchester railway line is still largely in existence which raises the possibility of using it to develop a high quality passenger transport corridor in the long term

Interventions on the Haverhill to Cambridge corridor

[Figure 5.8](#) lists the interventions planned for the Haverhill to Cambridge corridor, and [Figure 5.9](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the corridor.

As with other corridors, the overarching approach is to create a high quality passenger transport corridor which offers a real alternative to using the private car for trips between

Haverhill and Cambridge. The aim is to intercept as many trips as possible along the corridor to minimise the additional vehicles on the main radials and entering the constrained network in Cambridge.

Bus will be the focus for passenger transport in this corridor. In the short to medium term, the quality of the bus service will be improved through implementing bus priority schemes where possible at congestion points on the A1307. A segregated car access into Babraham Road Park & Ride site will also be provided to lessen the amount of time cars have to queue to get into the site. Transport interchanges will be provided at key locations along the corridor such as at the Babraham Research Campus, Granta Park, the Abingtons, and Linton. These will be a focus for links in the cycling, walking and community transport networks.

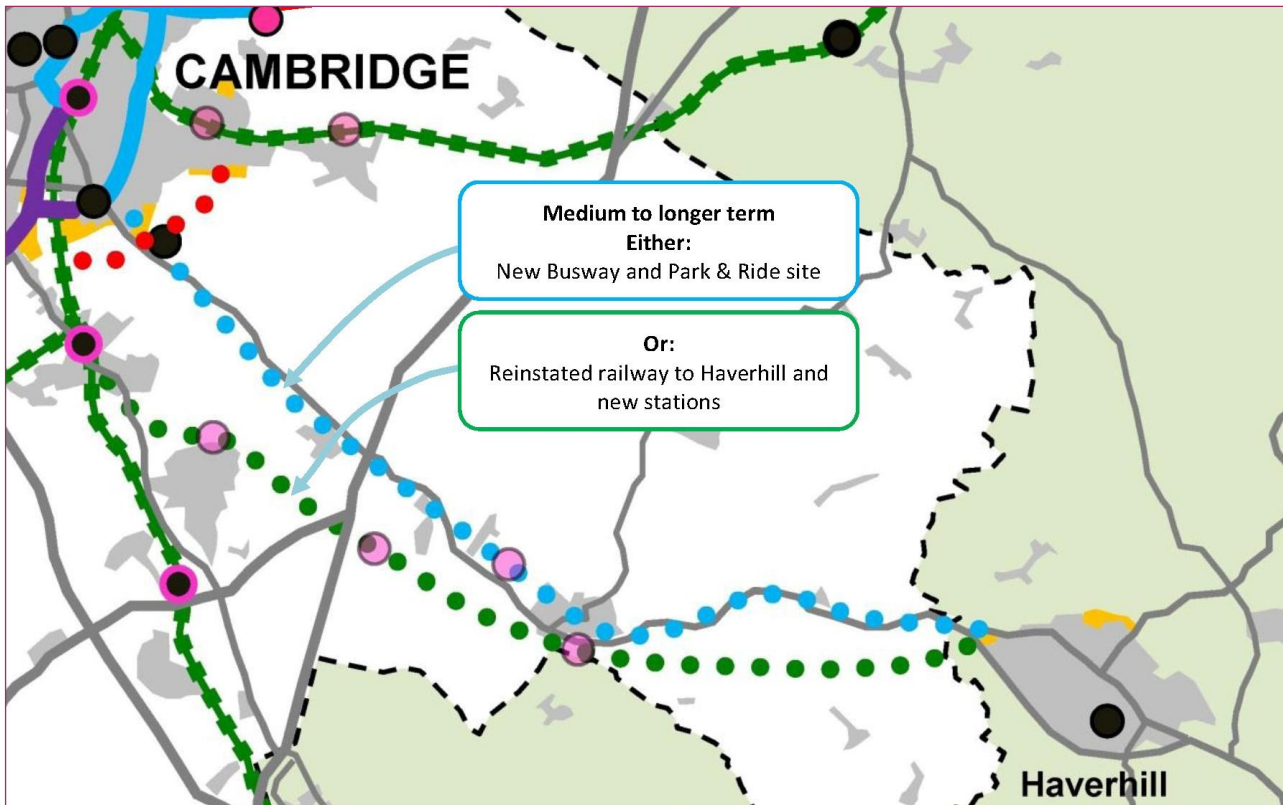
A cycling and walking network will focus on connecting the outlying villages into the passenger transport corridor at the transport interchanges, the large employment sites at Granta Park and Babraham Research Campus and the secondary school at Linton. There will also be connections across to the Saffron Walden-Cambridge corridor and the station at Whittlesford as well as extending the direct route into Cambridge along the A1307.

In the longer term, a HQPT corridor, which could be bus or rail based, will be created. Notionally, this could be along the line of the former Cambridge-Colchester railway line to remove buses from traffic along the A1307, parallel to the A1307 itself, or a mixture of both. A further Park & Ride site will be created between the A11 and Linton to enable cars to be intercepted further away from Cambridge, thus freeing up capacity at the existing Babraham Park & Ride site for increasing traffic from the A11.

Figure 5.8. List of interventions on the Haverhill to Cambridge corridor.

Intervention		Timescale
Creating a HQPT corridor	Bus priority at key congestion points on A1307	Short-Medium
	Segregated car access into Babraham Road P&R site	Short-Medium
	Creation of high quality transport interchanges along corridor	Short-Medium
	Busway/HQPT corridor along line of former Cambridge-Colchester railway	Long
	Additional P&R site between A11 and Linton	Long
Walking and cycling	Complete direct cycle route from Cambridge to Babraham Research Campus and Granta Park	Short-Medium
	Continue direct cycle route from Granta Park outwards towards Haverhill	Long
	Create network connecting to transport interchanges along corridor	Short-Medium
	Create network focussed on catchment of Linton Village College	Short-Medium

Figure 5.9. Major interventions in the corridor



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Saffron Walden to Cambridge corridor

The area

Along with the M11, the Saffron Walden to Cambridge corridor is the main entry point into the county from Essex via the A1301 and also via the Cambridge-London Liverpool Street railway line. As with many of the market towns that surround Cambridge, although Saffron Walden lies in Essex, it looks to the city for much of its employment, services, healthcare and retail. The corridor is also close to the cluster of biotech sites to the south of the city. The Genome Campus sits on the corridor and there are strong links to the Babraham Research Campus and Granta Park. The main passenger transport focus for the corridor is the railway line, which has stations at Shelford, Whittlesford, Great Chesterford and Audley End.

Committed and future growth in the corridor

- Sawston – 540 new homes.
- Wellcome Trust Genome Campus – up to 1,000 new jobs.

Analysis of strengths, weaknesses, opportunities and threats on the corridor

Strengths	Weaknesses
<ul style="list-style-type: none"> • Existing railway line along corridor with regular services between Cambridge and London Liverpool Street • Connections to Stansted Airport • Four village stations • Park & Ride site at Trumpington • Existing off-road cycle route between Addenbrooke's and Shelford 	<ul style="list-style-type: none"> • Congestion on the A1301 around the interchange with A505 caused by high volumes of traffic along A505 • Knock-on effects of rat-running through neighbouring villages
Opportunities	Threats
<ul style="list-style-type: none"> • Planned railway industry increases to service frequency along route • Potential to link to north of Cambridge once CSPA built • Potential connections between the knowledge-based campuses in this area of the district • Improve the stations as interchanges 	<ul style="list-style-type: none"> • Increasing congestion along A1301 and A505

The natural focus for providing a high quality passenger transport corridor along this corridor is the Cambridge-London Liverpool Street railway line, which currently serves four village stations between Cambridge and Saffron Walden and provides regular services to Liverpool Street and connections to Stansted Airport. Planned improvements along the route by the railway industry include increased services to Stansted Airport, as well as the ability for trains to penetrate to the north of Cambridge once a new station at Cambridge Science Park is built.

Whilst traffic along the A1301 to Saffron Walden flows reasonably freely, congestion is an issue around the junction with the A505 which has high volumes of traffic and has a knock-on effect on this road and also roads in surrounding villages which are used as rat-runs.

Interventions on the Saffron Walden to Cambridge corridor

[Figure 5.10](#) lists the interventions planned for the Saffron Walden to Cambridge corridor, and [Figure 5.11](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the corridor.

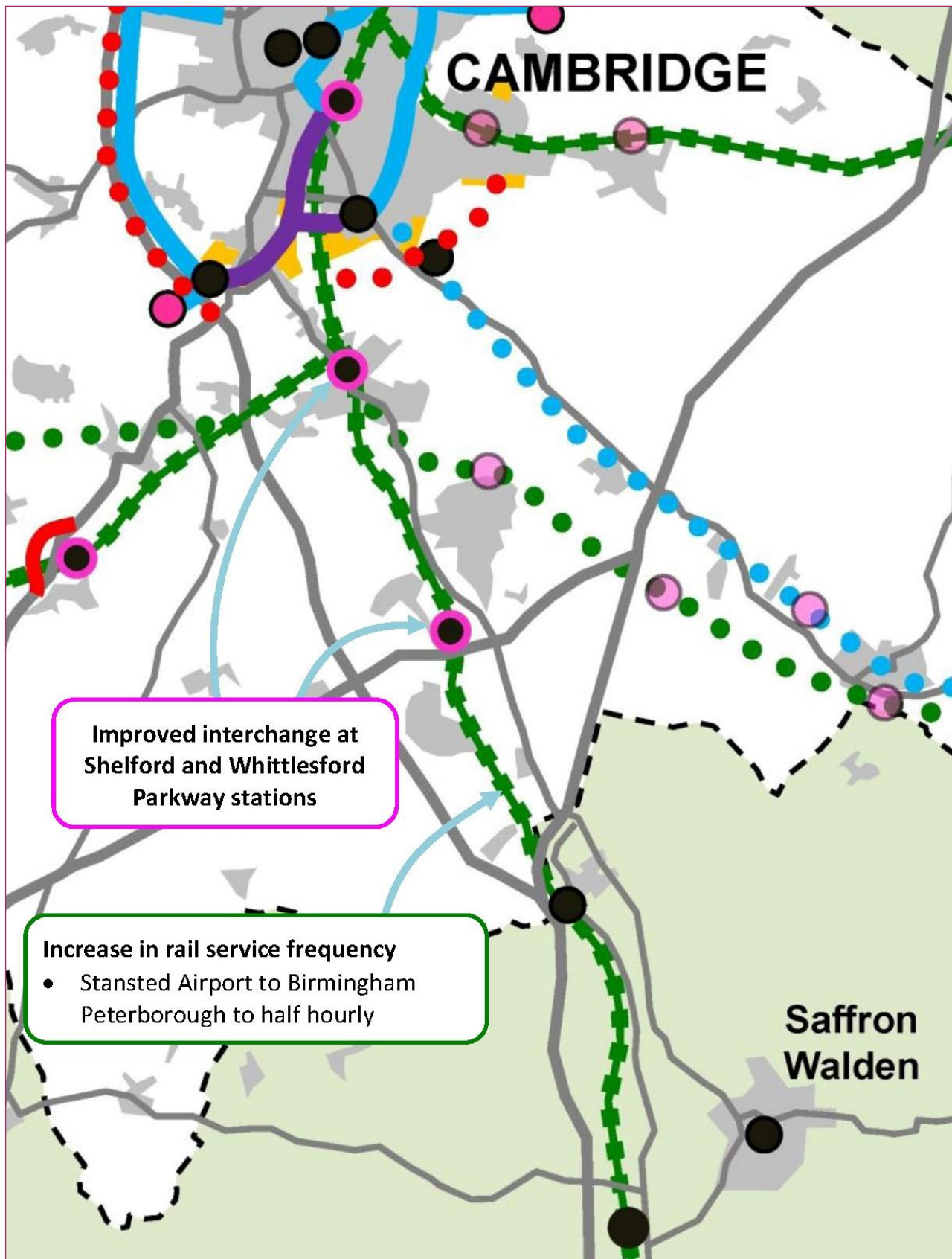
Figure 5.10. List of interventions on the Saffron Walden to Cambridge corridor.

Intervention		Timescale
HQPT	Increase frequency of services calling at stations	Short-Medium
	Improve interchange facilities at Shelford, Whittlesford Parkway and Great Chesterford stations	Short-Medium
	Consideration of a new railway station at Addenbrooke's	Medium-Long
Walking and cycling	Continue cycle route outwards from Shelford along corridor towards Saffron Walden	Short-Medium
	Create network connecting employment sites at Babraham Research Campus, Granta Park and Genome Campus	Short-Medium
	Create network connecting to transport interchanges along corridor	Short-Medium
	Create network focussed on catchment of Sawston Village College	Short-Medium

The approach for the corridor will be to focus on making the existing railway the first mode of choice, and improving upon the existing service provided by the railway line. As with other corridors, the overarching principle will be to intercept as many trips as far out of Cambridge as possible. The role of the railway will be strengthened through improvements to services, especially to Stansted Airport and also to the village stations, whose roles will become more important as interchange points between the railway and other modes of transport servicing the more rural areas.

Interchange facilities will be provided at Shelford and Whittlesford Parkway stations, linking villages into the HQPT corridor through a network of cycle and pedestrian links, which will also connect the large employment sites in Sawston and the Genome Campus to those further afield at Granta Park and Babraham Research Campus. Networks around the catchment area for Sawston Village College will also be created.

Figure 5.11. Major interventions in the corridor



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Royston to Cambridge corridor

The area

The Royston to Cambridge corridor forms the principal link into the county from Hertfordshire, via the A10 and also the King's Cross to Cambridge railway line. Although Royston lies in Hertfordshire it looks towards Cambridge as a regional centre for employment, retail and primary healthcare. Conversely, many of the villages towards the southern half of the corridor look to Royston for their day to day needs. A commercial bus service operates along the A10 corridor, covering the villages of Melbourn, Foxton and Harston. However the railway line provides the obvious focus for providing a high quality passenger transport corridor.

Committed and future growth in the corridor

- Royston – maximum 877 homes 2011-2031 (currently being consulted on)
- Melbourn – 65 new homes

Analysis of current strengths, weaknesses, opportunities and threats on corridor

Strengths	Weaknesses
<ul style="list-style-type: none"> • King's Cross to Cambridge railway line • Four village stations on the line 	<ul style="list-style-type: none"> • A10 – Foxton level crossing • A10 – Harston – traffic queuing through the village to access M11 junction • No car park at Foxton
Opportunities	Threats
<ul style="list-style-type: none"> • Potential to intercept traffic along the A10 corridor at an interchange • Various possible locations for a rural hub (Shepreth station? Melbourn Science Park? Harston? Foxton?) • Villages to south ideal cycling distance to Royston if infrastructure and safety improved • Potential for existing road to be used for an interchange at Foxton if level crossing replaced • Plans in place by rail industry to improve services on this line • Potential to penetrate to north side of Cambridge by train once Cambridge Science Park station opens. • Well-established community transport groups in area which could feed into HQPT corridor 	<ul style="list-style-type: none"> • Increasing traffic along the A10 • Increasing services along Cambridge-King's Cross line resulting in increased downtime at Foxton Level Crossing

A good passenger transport link already exists between Royston and Cambridge in the form of the Cambridge-King's Cross line, which serves four village stations within South Cambridgeshire, as well as Royston in Hertfordshire. Royston typically has four services an hour in each direction in the peak periods, and two services per hour off peak. Ashwell and Morden, Meldreth, Shepreth and Foxton have a half hourly service in the peak and an hourly service off peak.

Improvements to infrastructure and services on this route that are currently planned by the rail industry as part of the Thameslink programme will provide the potential to increase trips made on the railway on this corridor. For local trips, the railway stations provide obvious focus points for interchanges as there are quite a number of villages which are within a reasonable cycling distance.

The level crossing at Foxton is a particular issue, with the barriers down up to eight times an hour and with service increases potentially taking this to twelve or more closures. Congestion along the A10, which goes through the centre of Harston is an increasing issue, especially as traffic can queue back from the M11 junction at peak times.

Interventions on the Royston to Cambridge corridor

[Figure 5.12](#) lists the interventions planned for the Royston to Cambridge corridor, and [Figure 5.13](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the corridor.

Figure 5.12. List of interventions on the Royston to Cambridge corridor.

Intervention		Timescale
Creating a HQPT corridor	A10 Foxton Level Crossing replacement with bridge or underpass on short bypass alignment	Short / Medium
	New footbridge at Foxton Station	Short / Medium
	Increased no of destinations from Cambridge and village stations through replacement of semi-fast and slow services with Thameslink timetable serving St Pancras, London Bridge, Gatwick and Brighton	Medium
	Rolling stock for Kings Lynn and Cambridge to London Kings Cross fast services to be replaced with new 10-car IEP or 12-car Thameslink Trains	Medium
	Kings Cross to Cambridge trains to be extended to Cambridge Science Park	Short / Medium
	Improve interchange facilities at Foxton, Shepreth, Meldreth and Ashwell stations	Medium
	Provision of a new Park & Ride site at Hauxton (1000 spaces)	Medium
	Bus priority measures between Hauxton and Trumpington	Medium
	Busway between Hauxton Park & Ride and Trumpington	Medium / Long
	Consideration of a new railway station at Addenbrooke's	Medium / Long
Walking and cycling	Improved links to the HQPT corridor from villages	Short
	Off-road cycle links along A10	Short / Medium
	Links to Melbourn and Bassingbourn Village Colleges	Short

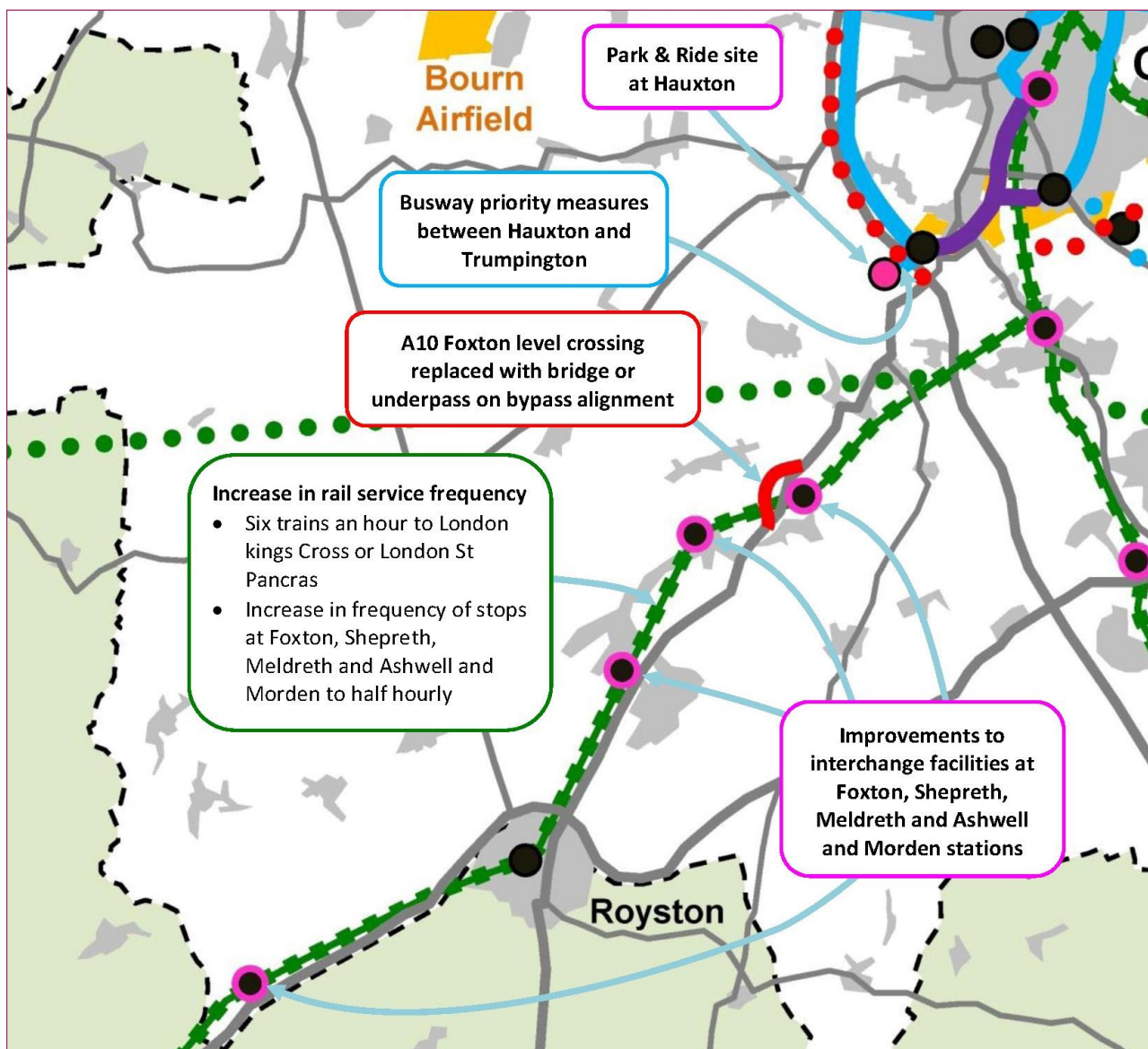
The overarching principle will be to reduce unnecessary vehicular traffic on the corridor and in Cambridge through intercepting traffic at various points along the corridor. The railway will be the focus for high quality passenger transport and the aim will be to encourage those who can, to use it for as much of the journey as possible. This means in the first instance, strengthening the role of the railway through increasing the attractiveness of the services and accessibility to the stations. The stations will be designated as major transport interchanges and their roles will be reinforced as a focus for cycle, pedestrian and community transport networks. This will in the first instance encourage people to access the HQPT corridor entirely by non-car modes.

The next step will be to intercept journeys part-way along the corridor, particularly those that begin by car. The issue of the level crossing at Foxton will need to be addressed with a bridge or underpass for the A10, but this will also allow the importance of Foxton station as an interchange to be increased as opportunities to improve the accessibility of the station are opened up by the removal of the A10 from the immediate locale. This will enable more vehicular trips to be intercepted before they get close to Cambridge and also minimise additional traffic flowing through the village of Harston.

With the opening of Cambridge Science Park Station in the north of Cambridge, there will be greater opportunity for people to use the railway to access north Cambridge from south of the city. Vehicular trips will also be intercepted further along the A10 through the provision of a new Park & Ride site at Hauxton which will intercept Cambridge-bound traffic, thus freeing up capacity at the existing Trumpington P&R for additional trips coming off the M11. In the longer term, the new Park & Ride site will be linked to the existing P&R by a busway across the M11.

Away from the railway corridor, a pedestrian and cycle network will link the corridor to surrounding villages at the transport interchanges. The network will also focus on linking the Village Colleges at Melbourn and Bassingbourn to their catchment areas and also creating better links into Royston along the A10 and A1198.

Figure 5.13. Major interventions in the corridor



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St Neots and Cambourne to Cambridge corridor

The area

The St Neots and Cambourne to Cambridge corridor is focussed on the A428, a trunk road which connects Cambridge westwards to Bedfordshire and beyond. The new town of Cambourne lies on the corridor and has a business park which generates employment-based trips. The passenger transport offer on the corridor is bus-based and there is a Park & Ride site just within the M11 on Maddingley Road. Many of the villages to the western end of the corridor look to St Neots for their local services; however as with other market towns surrounding the city, Cambridge is a draw for retail, employment and healthcare services.

Committed and future growth in the corridor

- St Neots East – 3,700 new homes.
- West Cambourne – 1,500 new homes by 2031.
- Bourn Airfield – a new village of 3,500 homes, of which 1,500 are likely to have been built by 2031.
- Comberton – 90 new homes
- Gamlingay – 90 new homes

Analysis of current strengths, weaknesses, opportunities and threats on corridor

Strengths	Weaknesses
<ul style="list-style-type: none"> • Existing Park & Ride site at Cambridge end of corridor • Short length of bus lane on approach to Maddingley Road 	<ul style="list-style-type: none"> • Buses get caught in congestion between A1303 and A428 • Congestion points at Caxton Gibbet roundabout A1198/A428
Opportunities	Threats
<ul style="list-style-type: none"> • Possible to intercept more traffic further along the corridor • A number of villages that could be connected in to a high quality cycle route into Cambridge. 	<ul style="list-style-type: none"> • Increased traffic along corridor

With no railway line along this corridor, the focus for a HQPT corridor between Cambridge and St Neots will be on bus. The basis of such a corridor is already in place, with the Maddingley Road P&R site at the Cambridge end. However, there are a number of pinch points along the route that cause congestion, especially at the A428 / A1198 Caxton Gibbet roundabout and on the A1303 between the A428 and the M11. This affects buses travelling along the route as they get snarled up in the traffic. A number of villages that are within cycling distance of Cambridge lie just off the A428 / A1303 corridor; however the main route is not conducive to cycling. There is also the potential for more traffic to be intercepted further out from Cambridge if a transport interchange was provided, such as a Park & Ride.

Interventions on the St Neots and Cambourne to Cambridge corridor

[Figure 5.14](#) lists the interventions planned for the St Neots to Cambridge corridor, and [Figure 5.15](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the corridor.

The over-arching approach will be to intercept as many car-based trips as possible before they reach Cambridge, through the creation of an attractive high quality passenger transport system. On this corridor, the focus will be on bus and addressing the issues that prevent a good service being provided.

Figure 5.14. List of interventions on the St Neots and Cambourne to Cambridge corridor.

Intervention		Timescale
Creating a HQPT corridor	Segregated bus links on the A1303 or on an offline alignment between the A428 and the M11.	Short / Medium
	Eastbound bus priority through the A428 / A1198 Caxton Gibbet roundabout	Short / Medium
	Provision of an outer Park & Ride on A428 between Cambourne and A1303	Medium / Long
	A1303 busway / HQPT infrastructure to serve Bourn Airfield / Cambourne.	Medium / Long
	A428 Caxton Gibbet to Black Cat improvements	Medium / long
Walking and cycling	Create direct cycle route along corridor, connecting Cambridge to Cambourne and onwards to St Neots	Medium / Long
	Create network connecting employment sites, including Cambourne	Short / Medium
	Create network connecting to transport interchanges along corridor	Short / Medium
	Create network focussed on catchments of Comberton Village College, Gamlingay Village College and the new secondary school at Cambourne	Short / Medium
Highway capacity	A428 Black Cat to Caxton Gibbet improvement; an on or offline capacity improvement to address the capacity constraints on the route.	Medium-Long
	A428 / A1198 Caxton Gibbet junction improvements (in the event that a full scheme for the A428 between the Black Cat and Caxton Gibbet roundabouts cannot be programmed in the short to medium term).	Medium

In the short to medium term, the focus will be on providing bus priority in locations where buses currently get caught up in congestion, in particular between the A1303 and A428 and also around the A428 / A1198 Caxton Gibbet roundabout. Interchange points will be provided at strategic points along the corridor to enable trips that begin in some of the villages off the route to be able to access high quality passenger transport services.

A cycling and walking network will be provided which links into the interchanges along the corridor, but that also connects the outlying villages to employment sites, such as at Cambourne and also to secondary schools in Comberton, Cambourne and further afield in Gamlingay.

In the longer term, a busway or HQPT bus infrastructure will be introduced along the A1303 section of the corridor to completely segregate buses from other traffic. It will service a second Park & Ride site between Cambourne and the A1303, which will intercept traffic further out from Cambridge and free up more capacity at the existing Madingley Road site which would then be used principally for traffic coming off the M11.

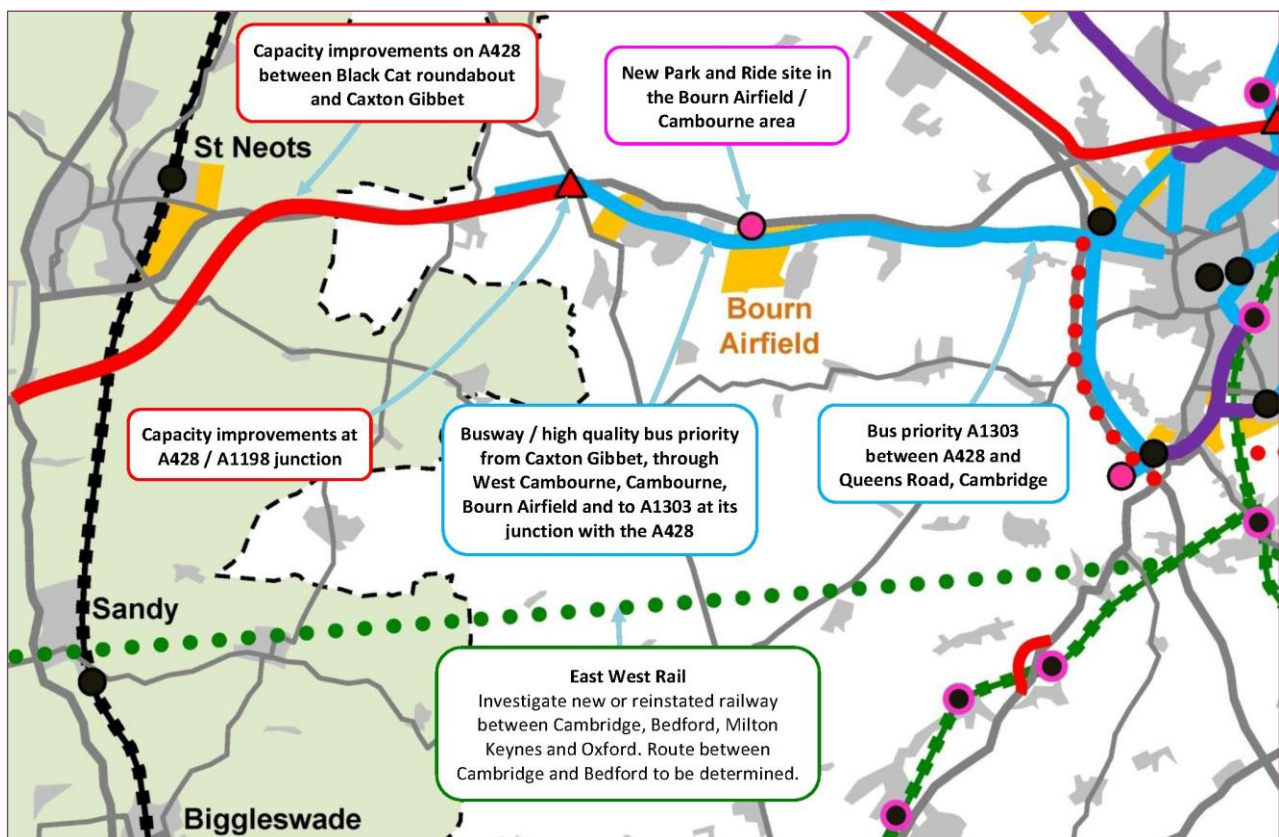
Policy TSCSC 21: Planning obligations for Bourn Airfield and West Cambourne

A comprehensive approach will be used to secure provision of infrastructure and improvements in a timely manner to ensure that accessibility is maintained and that the impacts of developments are mitigated in line with the Strategy approach.

Developers will be expected to make provision for mitigation of the site specific and network impacts of their proposal, and the following interventions are expected to be required (subject to more detailed Transport Assessments agreed with the Highways Authority) to help mitigate and support the development at Bourn Airfield and West Cambourne.

- Busway between West Cambourne site and the junction of the A1303 / A428.
- Segregated bus links between the A428 and the M11.
- A1303 / A428 outer Park & Ride capacity.
- Direct, segregated high quality pedestrian/cycle links to west Cambridge, Papworth Everard, Highfields, Hardwick, Caxton, Bourn, Caldecote, Comberton, Bar Hill and Dry Drayton.
- Any mitigation measures needed at the junctions of the A428 with the A1303 and A1198.
- Delivery of funding of any measures required to mitigate the traffic impact of the developments on Bourn, Caldecote, Toft, Comberton and Barton.
- A smarter choices package including residential school and workplace travel planning.

Figure 5.15. Major interventions in the corridor



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Alconbury, Huntingdon, St Ives and Northstowe to Cambridge corridor

The area

The corridor linking Cambridge to Huntingdon and onwards to Alconbury is focussed principally on the A14 and The Busway which runs parallel to it. It forms part of the nationally significant Felixstowe to Midlands corridor, and also an alternative route to the M1 and A1(M) between London and the Midlands. The proposed level of growth along the corridor is significant, with the new town of Northstowe planned between Oakington and Longstanton, and significant housing and employment development in the Enterprise Zone at Alconbury. In addition, there is development planned for Huntingdon and Cambridge at both ends of the corridor. This corridor is somewhat different from most of the other radials in that there is a significant through movement along the A14, rather than the dominant flow being in one direction. In addition, there are major destinations at both ends of, and along the corridor.

Committed and future growth in the corridor

- Northstowe – a new town of 9,500 new homes
- Willingham – 50 new homes
- Huntingdonshire
 - Fenstanton – 185 new homes
 - St Ives – 600 new homes
 - Wyton Airfield and Wyton-on-the-Hill – An urban extension of up to 4,500 new homes, of which 3,750 may be delivered by 2031, and 10 hectares of employment land.
 - Godmanchester – 870 new homes.
 - Huntingdon – 2,184 homes, of which 1,400 will be on sites north and south of Ermine Street.
 - RAF Brampton – 400 new homes
 - Alconbury Weald – An urban extension of up to 7,000 homes (of which 5,000 may be delivered by 2031, and a 150 hectare Enterprise Zone.

Analysis of current strengths, weaknesses, opportunities and threats on corridor

Strengths	Weaknesses
<ul style="list-style-type: none"> High Quality Passenger transport corridor already in place Park & Ride already in place at St Ives and Longstanton 	<ul style="list-style-type: none"> Congestion on A14 Buses coming off the Guided Busway are prone to getting caught up traffic between Huntingdon and St Ives, and in Cambridge.
Opportunities	Threats
<ul style="list-style-type: none"> Opportunity to spread the benefits of The Busway further afield 	<ul style="list-style-type: none"> Congestion along A14 threatens delivery of development along the corridor

In many ways, this corridor is the exemplar of the quality of passenger transport provision that we should aspire to on other corridors. The Busway carries over 2.5 million passengers per year, is fast, frequent and reliable. Between St Ives and Cambridge, buses are completely segregated and do not suffer from congestion on the A14. It is also a good template for providing transport interchanges that link to the rural areas, with the Park & Ride sites and other interchange points along the route.

However, issues still remain around buses getting between St Ives and Huntingdon and also travelling through Cambridge once they get off the Busway as they get caught up in

on-street congestion. Similarly, for those services that still use the A14, the frequent congestion and accidents on the road make for unreliable services.

Opportunities exist to roll out the benefits of the Busway further afield, by strengthening the links to the interchanges along the Busway and also extending the principle of the Busway to connect Alconbury to St Ives and subsequently into the existing Busway. Despite the Busway, the impact of traffic growth along this corridor is huge and if not managed, the delivery of planned growth along the corridor will be threatened.

Interventions on the Alconbury, Huntingdon, St Ives and Northstowe to Cambridge corridor

[Figure 5.16](#) lists the interventions planned for the Huntingdon to Cambridge corridor, and [Figure 5.17](#) shows the largest individual passenger transport and highway interventions or programme areas proposed for the corridor.

Figure 5.16. List of interventions on the Alconbury, Huntingdon, St Ives and Northstowe to Cambridge corridor.

Intervention	Timescale
Creating a HQPT corridor	Comprehensive bus priority measures between Huntingdon, St Ives and the Alconbury Enterprise Zone
	Expansion of Longstanton Park & Ride to 1,000 spaces
	Busway loop through Northstowe (as part of Northstowe development)
Walking and cycling	Create network connecting employment sites,
	Create network connecting to transport interchanges along corridor
	Create network focussed on catchments of Swavesey Village College, Cottenham Village College and Impington Village College
Road	A14 Cambridge to Huntingdon improvement.
	Northstowe access works (as part of Northstowe development)

The principles that are being applied to other corridors are in large part already in place along this corridor due to the Busway. The focus therefore will be on improving access to the Busway and addressing problems that the buses encounter once they leave the guided section. Although outside the jurisdiction of the local authorities, the A14 will also be improved.

In the short-medium term, comprehensive bus priority measures will be provided between St Ives, Huntingdon and the Alconbury Enterprise Zone to enable the benefits that buses gain from segregation on the Busway to be continued further. A loop for the Busway will be provided through Northstowe, as part of the development to enable access from the town as it is built out. The Park & Ride at Longstanton will be expanded to 1000 spaces to enable those from further afield who can't walk or cycle to the Busway to access it part way along, thus intercepting more trips before they reach Cambridge or Huntingdon. Other infrastructure that will be put in as part of the Northstowe development will be access works to the site itself.

A comprehensive cycling and walking network will be developed around the corridor which will link into the high quality provision that already exists along the Busway, to enable people to connect to destinations both along and at either end of the corridor. The

networks will also connect employment destinations as well as the secondary schools at Swavesey, Cottenham and Impington

The Highways Agency will be making improvements along the A14 during this period to relieve the on-going issues with congestion.

In the longer term, the bus priority between St Ives, Huntingdon and Alconbury Enterprise Zone will be improved further through the provision of a busway or other HQPT infrastructure that brings it up to the same standard as the existing Busway.

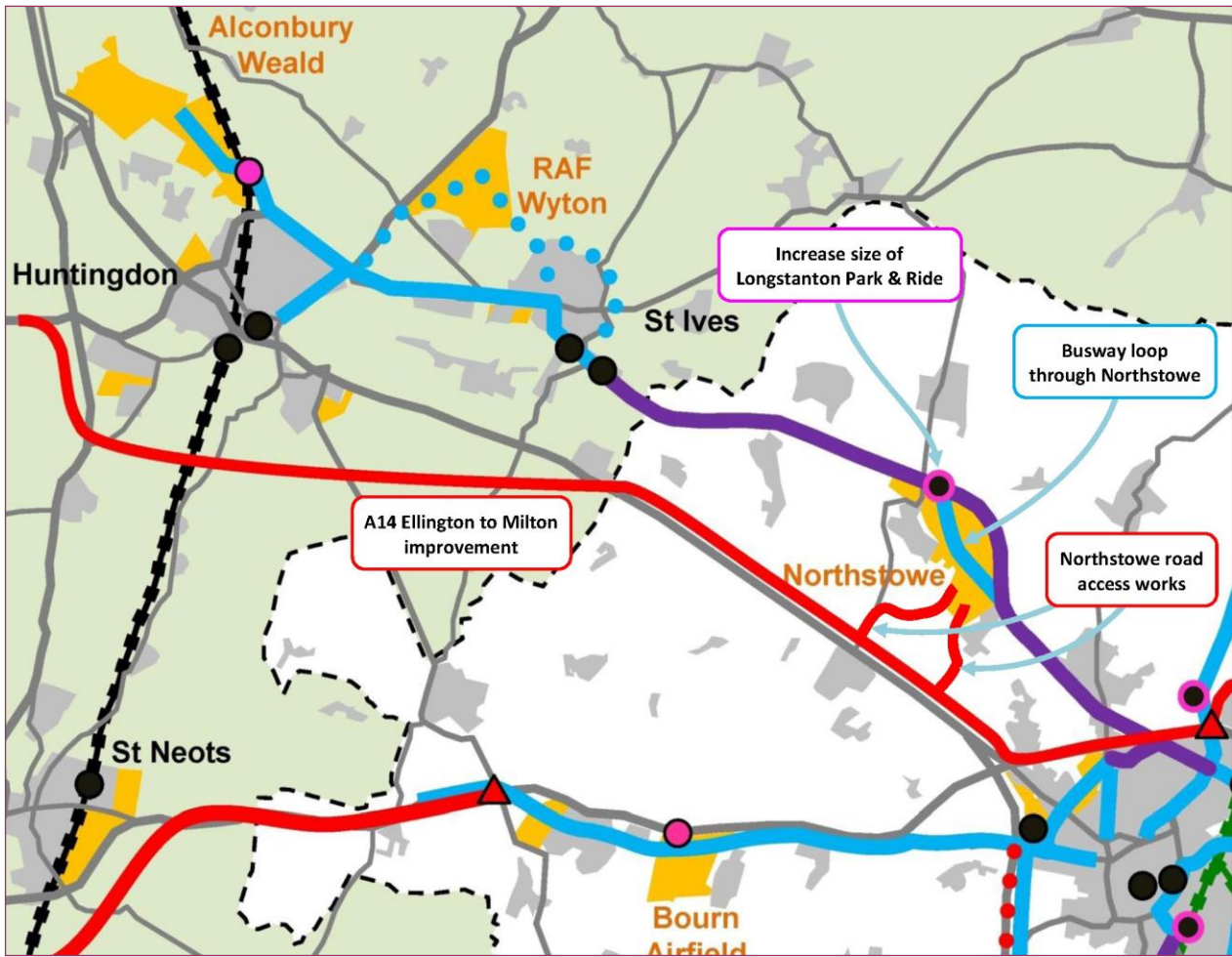
Policy TSCSC 22: Planning obligations for Northstowe

A comprehensive approach will be used to secure provision of infrastructure and improvements in a timely manner to ensure that accessibility is maintained and that the impacts of developments are mitigated in line with the Strategy approach.

Developers will be expected to make provision for mitigation of the site specific and network impacts of their proposal, and the following interventions are expected to be required (subject to more detailed Transport Assessments which will need to be agreed with the Highways Authority) to help mitigate and support the development at Northstowe:

- Busway loop through Northstowe (as part of Northstowe development)
- High quality cycle, pedestrian and public transport links to key employment sites, schools, services, and to and from neighbouring local communities
- Off-site highway improvements should Transport Assessments indicate a need for these
- Northstowe access roads (as part of Northstowe development)
- A smarter choices package including residential, school and workplace travel planning

Figure 5.17. Major interventions in the corridor



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The Smarter Choices package

Smarter Choices is closely aligned to the principles and objectives of contemporary transport policy-managing travel demand and promoting alternative uses to the car.

Smarter Choices measures seek to give people motivation for changing behaviour (predominately through communicating the personal benefits that could accrue and through incentivising and rewarding sustainable travel choices.

In the period between 2013 and 2031 around 35,000 new dwellings will be built in and around the city, including the new settlement of Northstowe. Whilst there is a strong cycling culture in Cambridge new residents to the city and South Cambridgeshire may not automatically embrace this, and therefore Smarter Choices are an important part of managing future pressures on the transport network.

Analysis of current strengths, weaknesses, opportunities and threats

Strengths	Weaknesses
<ul style="list-style-type: none"> Relatively low cost measures Can be quick to implement Strong policy justification Provide a uniquely positive experience as general public choose to engage, rather than being coerced Wide range of measures applicable across the different modes of sustainable travel 	<ul style="list-style-type: none"> Measuring impacts can be problematic Reliant on strong partnerships with transport operators, local businesses, schools and other groups in the community Requires comprehensive, targeted approach, delivering single elements may be ineffective
Opportunities	Threats
<ul style="list-style-type: none"> Smarter Choices can become fully integrated into public and private sector strategies and business plans. Wide range of benefits and different types of partners will create momentum making smarter choices a central element of other strategies. Open source technology will allow transport databases, systems as well as customer intelligence to be shared creating more efficient services. 	<ul style="list-style-type: none"> Funding Political will Lack of skills/training within teams to implement

Smarter Choices measures can be low cost and have a high impact. In addition they can be quick to implement and as a result are becoming a central part of transport policy. There is strong policy justification for Smarter Choice measures which are closely aligned to the principles and objectives aimed at managing travel demand and promoting alternative uses to the car.

Smarter Choices measures are distinctive in that provide a uniquely positive experience. Unlike demand management measures the general public choose to engage with Smarter Choices measures. For example individualised travel marketing aimed at households provides information on travel. Those who require travel information or want some advice participate, those who are happy with their travel choices decline.

This approach to encouraging change in travel behaviour can be an effective way of engaging the public as it emphasises choice while publicising the benefits to the individual in contrast to demand management measures.

Smarter Choices measures can deliver a range of different environmental, economic and social benefits. Applicable across the range of sustainable travel modes these measures are a cost effective way of delivering a multitude of benefits. As a result there is the opportunity to work with partners to embed smarter choices measures into the public and private sector.

The health benefits associated with increasing walking and cycling amongst the population mean that these elements can become a part of the health-related strategies for the City and South Cambs. In addition the economic benefits of Smarter Choices measures will appeal to the private sector as businesses seek to reduce the cost of travel. As a result Smarter Choices measures can become a central part of business plans and as the momentum behind Smarter Choices measures increases they will become an element of non-transport strategies.

In order to access the benefits described there are a number of conditions that need to be in place for the Smarter Choices package to be successful. Although Smarter Choices measures such as travel planning are generally low cost, compared to highways improvements, secure funding for programmes is necessary. The Local Sustainable Transport Fund (LSTF) is delivering a number of Smarter Choice interventions in Cambridge and South Cambridgeshire in the period to March 2015. The Better Bus Area Fund (BBAF) programme also includes Smarter Choices elements in the form of Real Time Passenger information systems. It will be important in future years to identify funding opportunities in order to continue the programmes initiated by the LSTF and BBAF programmes.

Smarter Choices interventions

The Smarter Choices package will seek to ensure that the public are provided with accurate and effective information regarding all aspects of the transport network, in particular the travel choices available to them. The promotional element will focus on publicising the alternative travel options available through road shows and targeted household marketing. The LSTF programme is focused on two specific corridors; in future years the most effective promotional measures could be extended to further corridors in Cambridge and South Cambridgeshire.

The Smarter Choices package will seek to ensure that organisations are provided with effective and coordinated support for the development of travel plans to encourage greater use of alternatives to the car. This element seeks to ensure that individuals across Cambridgeshire have access to travel and transport advice and information that is tailored to their circumstances.

In addition, the strategy will also seek to rationalise car use and provide alternatives to private car use. Ensure that all new development is Smarter Choices compliant in terms of design and provision of associated measures will also form an important element of the Smarter Choice package. Finally the package will include measures for monitoring and evaluation of programmes and activity.

Car Clubs

Car clubs have been found to reduce the average mileage of members by around one third, reduce demand for parking, promote low carbon lifestyles and increase a sense of community. On average, each car club vehicle takes five private cars off the road. Zipcar

operates a car club within Cambridge, which has had positive results such as a relatively large and increasing membership, and an average usage in December 2009 of 88%.

Targeted marketing

As part of the LSTF programme a personalised travel planning programme is in place to target 21,000 homes in the 2 LSTF corridors prior to the end of March 2015. Building on the approach and the lessons learned from the programme, this form of targeted marketing could be extended further to households not included in the 2 LSTF corridors as part of a comprehensive approach to encouraging sustainable travel into the city.

Targeted website and social media

A high quality website for travel information will provide a wealth of information on the travel choices available for the journey to work (and other journeys). It will include bus timetables and routes, real time passenger information, community transport information, cycle information and maps, walking routes, and links to CCC's car sharing website. The website will also provide personalised journey planning by linking with Transport Direct. In addition, CCC will explore the use of social media as a marketing tool and the development of a free smart phone application to provide real-time passenger information direct to users.

Sustainable travel information and awareness

In some of the more rural parts of Cambridgeshire, accessing key services and facilities without using a private car can be challenging. Car sharing in these areas could improve access to urban centres, and for example, provide greater employment opportunities from more isolated areas. As part of this strategy we will promote car sharing - both formally through CamShare, and informally by raising awareness of the benefits of sharing journeys with family, friends and neighbours.

Technology will also be utilised to enhance the standard and availability of information about travel options as well as helping to improve booking options for passenger transport services, car sharing schemes, and other transport services.

Encouraging sustainable developments

Beyond the period of the LSTF programme, from April 2015, the county Council will continue to work with developers on travel planning and may require them to undertake personalised travel planning as part of planning conditions (where appropriate) in order to continue the benefits of this thematic area beyond the LSTF period.

Broadband and teleworking

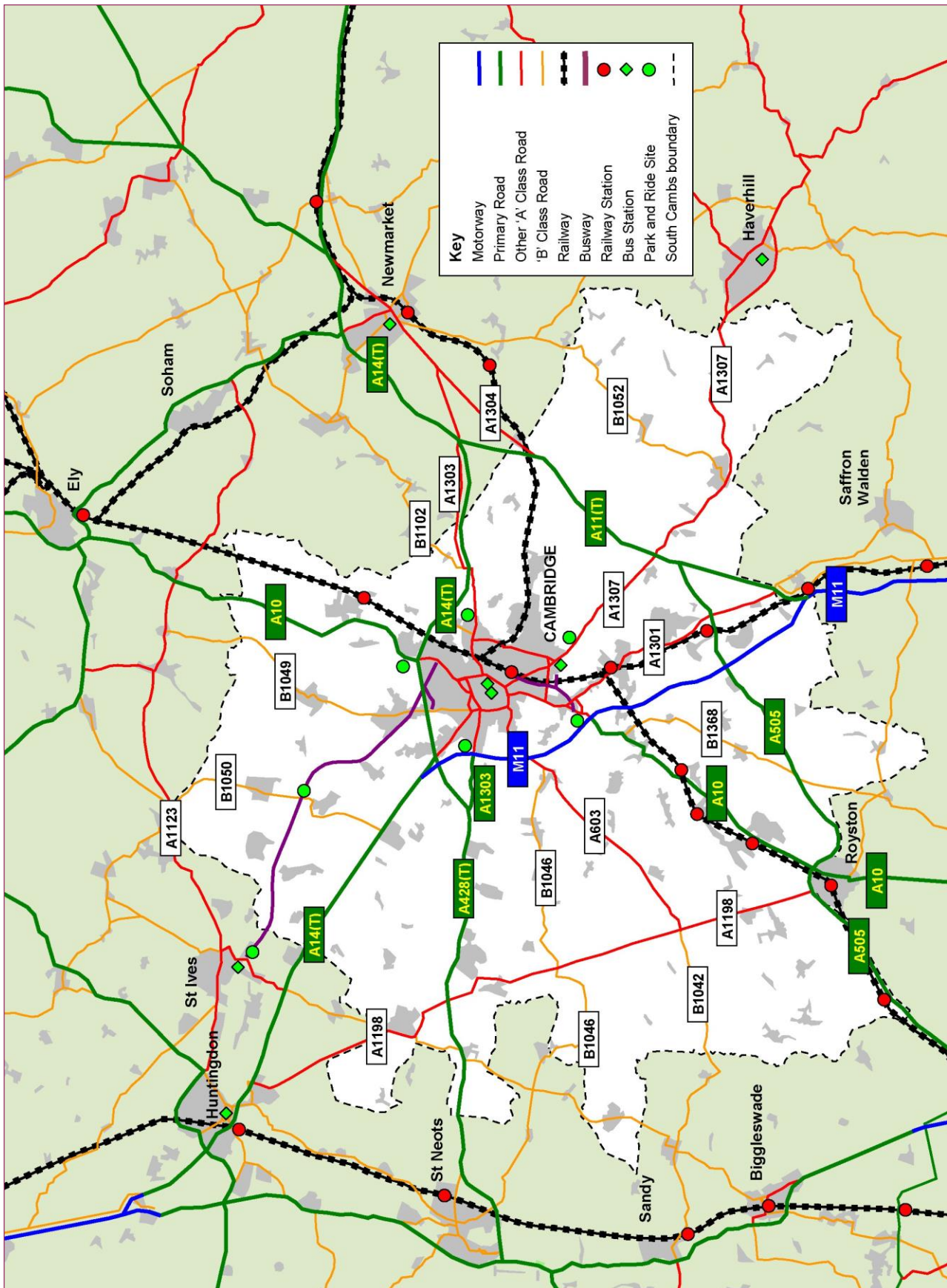
We will make better use of Information and Communications Technology (ICT). High Speed Broadband and any necessary training in systems that allow for its use for work purposes will facilitate increased levels of teleworking, helping to reduce the need for personal travel. Furthermore, increased availability of video conferencing will help to reduce business mileage. Enhanced internet and broadband access will also improve accessibility, with teleworking a potential option for those who might otherwise be unable to access the labour market such as those with impaired mobility and full or part time carers.

Figure 5.18. List of Smarter Choices interventions.

Intervention		Timescale
Smarter Choices	Development and deployment of co-ordinated information and marketing strategy (to include branding and awareness)	Throughout strategy period
	Comprehensive workplace travel planning strategy	
	Deployment of rail station passenger access strategies	
	Progressive approach to school travel planning	
	Deployment of travel planning support to 'other' organisations	
	Comprehensive car sharing scheme available to all	
	Comprehensive approach to deployment of car clubs	
	Consistent and robust approach to securing 'smarter choices compliant' new development	
	Travel demand management for events and visitors	
	Comprehensive approach to smarter living and working activity	

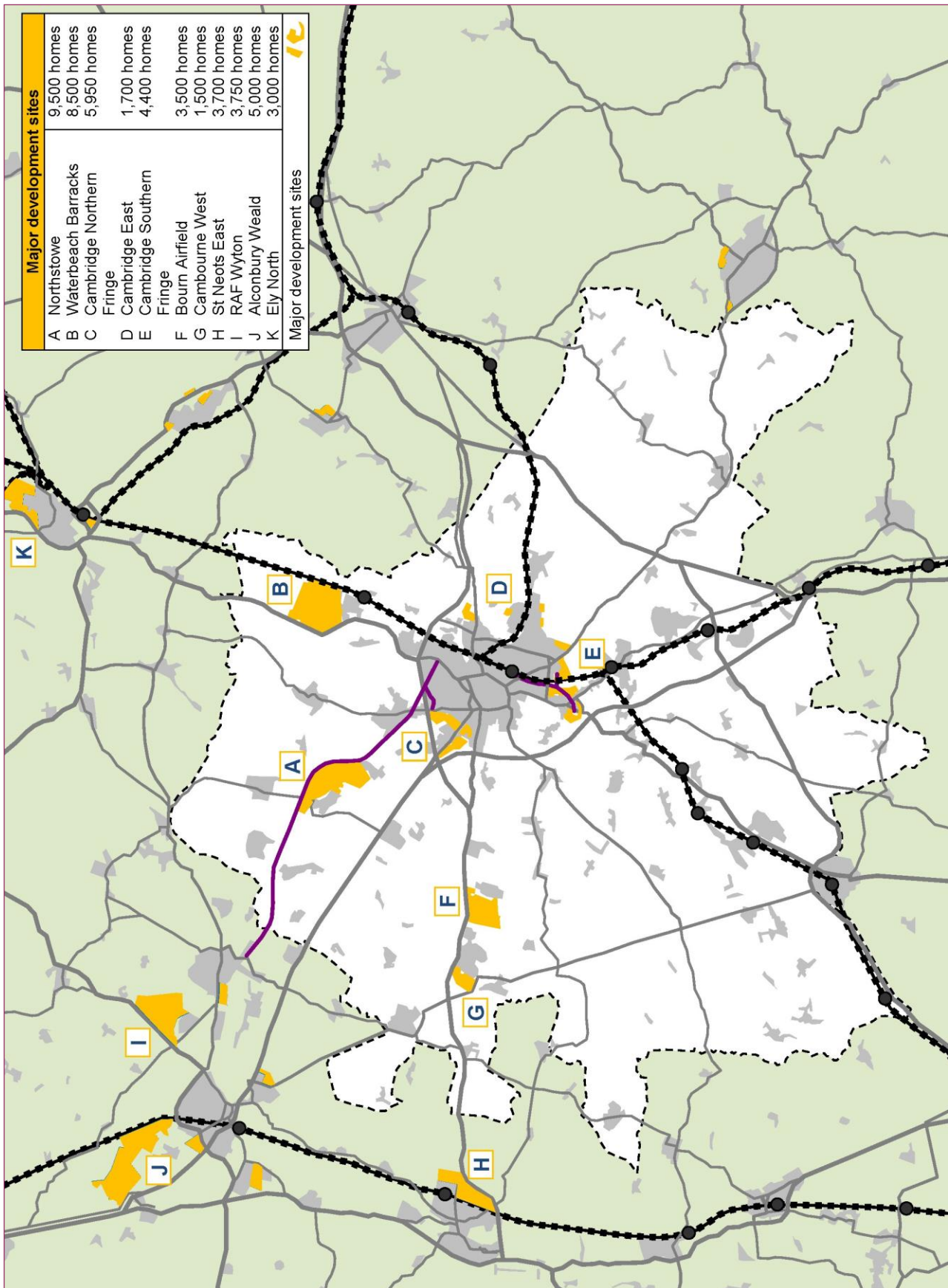
Appendix A. The strategy area

Figure A.1 The Road, Rail and Busway networks



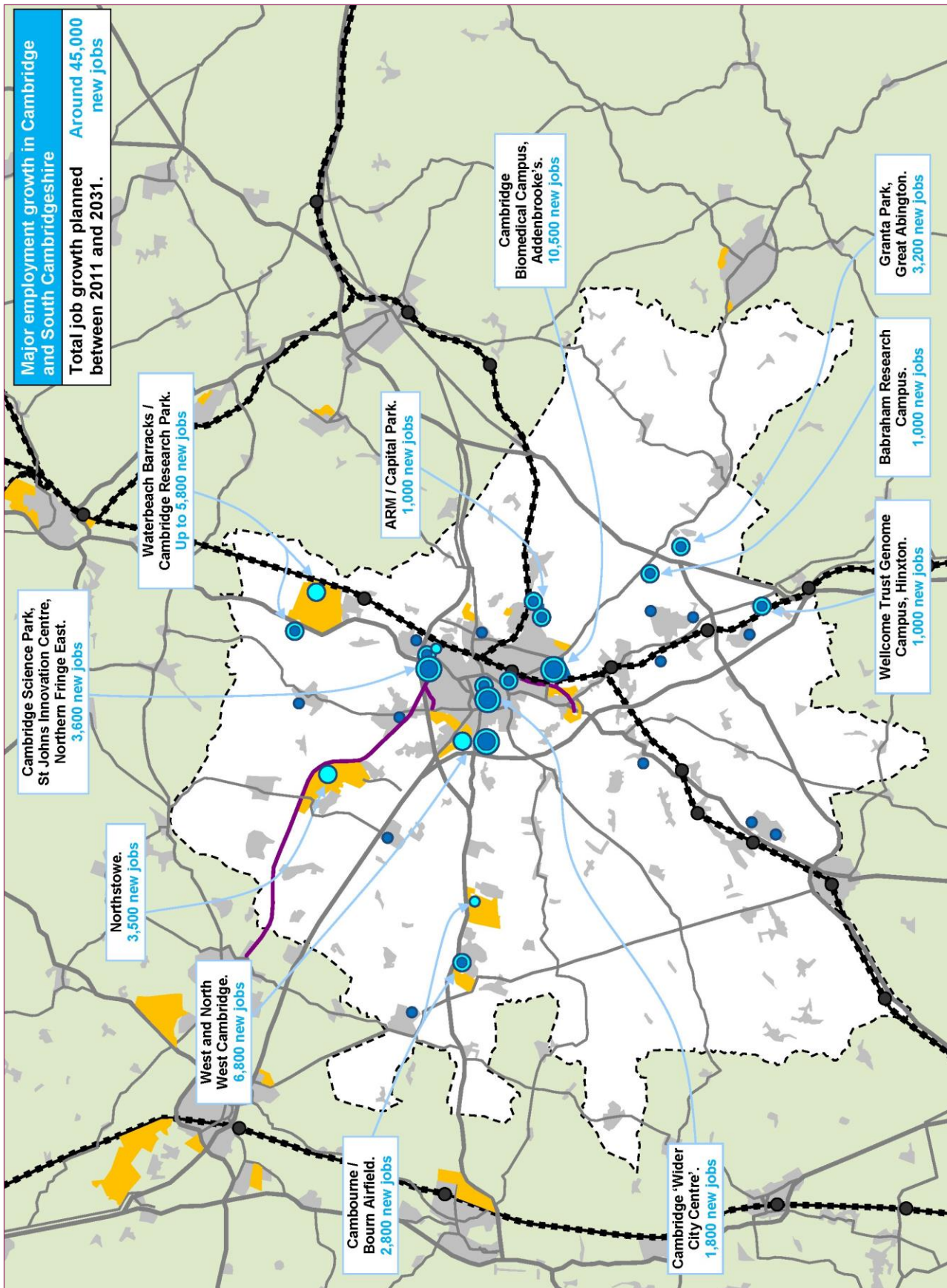
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Figure A.2 Major growth sites in and around the strategy area



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Figure A.3 Major employment sites and areas of planned jobs growth

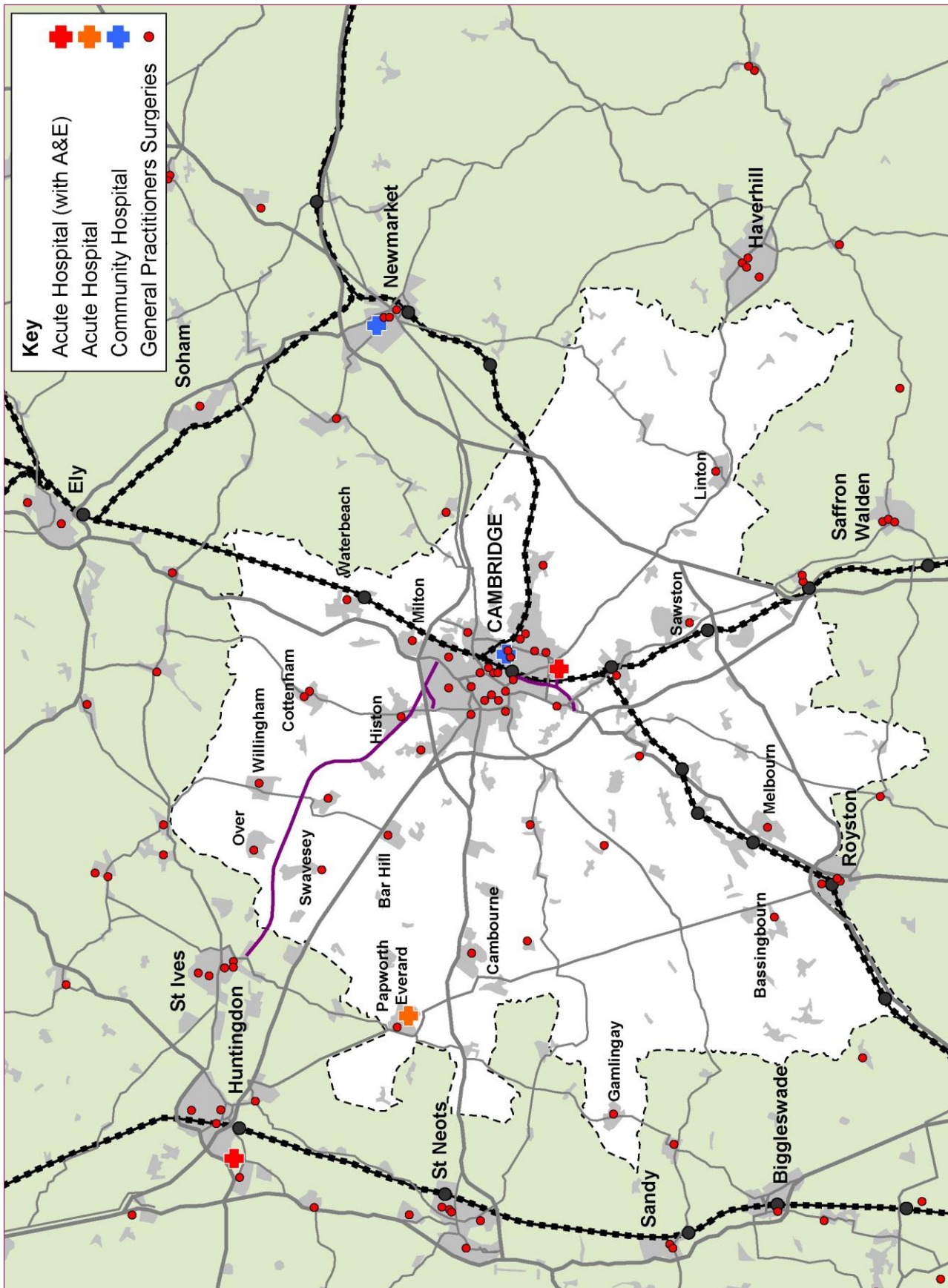


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Figure A.4 Planned growth in the Cambridge Housing Market Area, 2011-2031.

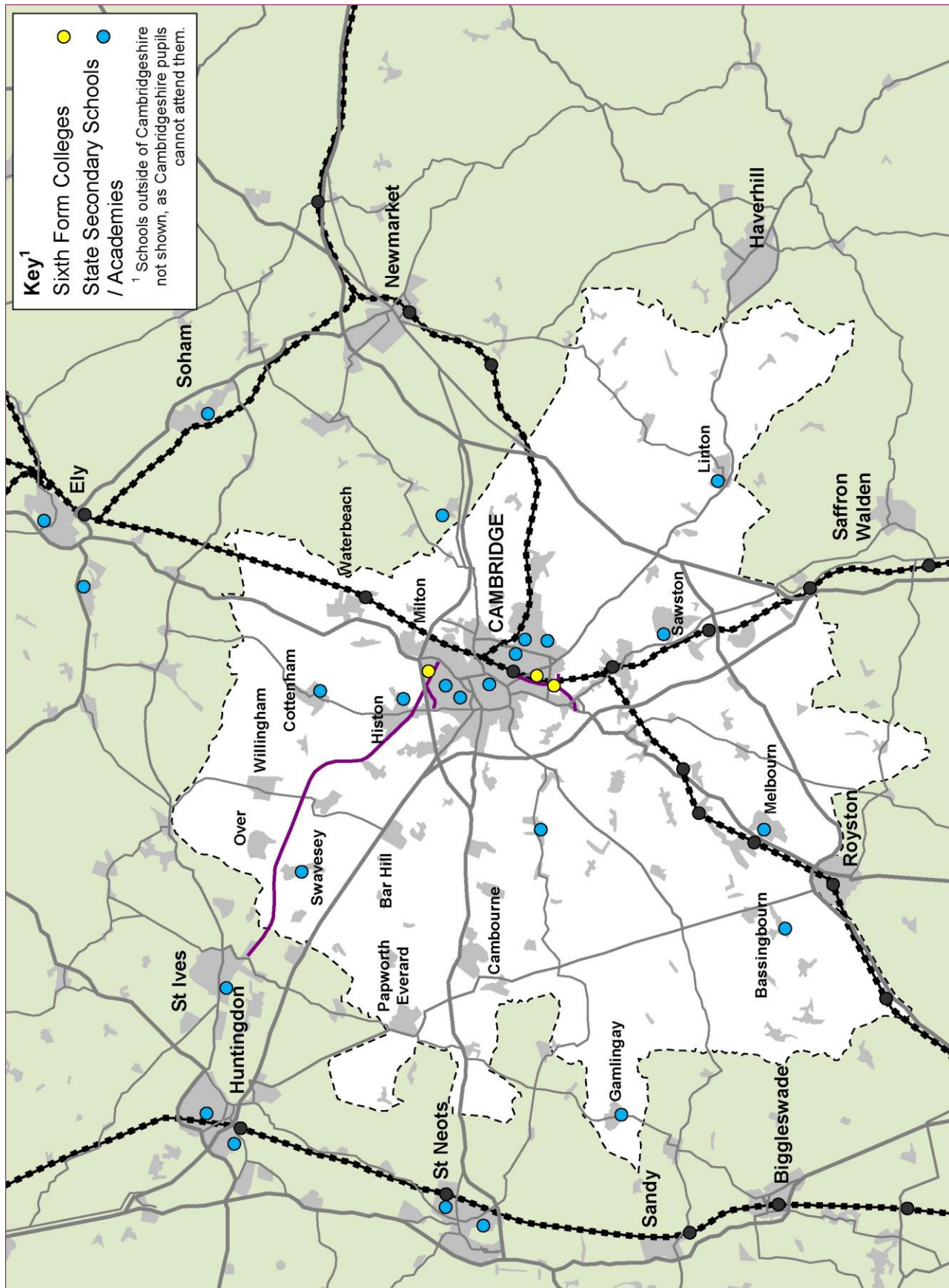
District	County	Housing Growth	Jobs Growth
Cambridge	Cambs.	14,000	71,000
South Cambridgeshire	Cambs.	19,000	
East Cambridgeshire	Cambs.	11,500	
Fenland	Cambs.	11,000	
Huntingdonshire	Cambs.	17,000	
Cambridgeshire		72,500	71,000
Forest Heath (Suffolk)	Suffolk	7,000	
St Edmundsbury (Suffolk)	Suffolk	11,000	
Total		90,500	

Figure A.5 Hospitals, health centres and doctors surgeries.



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Figure A.6 Secondary Schools, Academies and Sixth Form Colleges



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Appendix B. The transport network

The passenger transport network in the Strategy Area is made up of the rail, bus and Park & Ride network. Guided bus services run between Cambridge and St Ives, with two Park & Ride sites along the route.

The bus network

The quality of the bus network in the Strategy area varies between Cambridge, the main transport corridors and larger villages, and more isolated rural areas.

The Cambridge urban area is served by the Citi Network (see [Figure B.1](#)). Services in the city centre operate at frequencies of up to every ten minutes, with services to outlying areas and villages running every twenty to thirty minutes. Some of the services benefit from bus priority measures to provide some journey time reliability. However, other services are often delayed and unreliable due to congestion in the city centre and on radial routes in the area. The Citi Network is complemented by [Park & Ride](#) services (see [Figure B.2](#)), which operate from five sites around the city at ten minute frequencies throughout the day. Park & Ride offers express services from the sites to the city centre and other key destinations such as Addenbrooke's Hospital. Passenger numbers on Park & Ride services have increased each year. The number of Cambridge residents using the bus for their journey to work increased by nearly 50% between 2001 and 2011 and by 12% in South Cambridgeshire over the same period.

Bus services along the transport corridors vary in quality and frequency. Where a bus service competes with a parallel rail service, buses often have long journey times and operate infrequently. On other corridors, services run approximately half hourly or hourly. The major exception to this is [The Busway](#) between Huntingdon, St Ives and Cambridge (see below and [Figure B.3](#)) which operates at 10 minute frequencies.

Bus services in the rural parts of South Cambridgeshire are more limited and often infrequent, with passengers experiencing long journey times due to protracted and circuitous routes. In some areas the [Cambridgeshire Future Transport](#) programme is developing locally led and tailored transport solutions to cater for journeys in these areas and provide connections to more frequent bus services along the main transport corridors.

The Strategy Area benefits from a number of community transport schemes including voluntary car schemes, dial-a-ride services and taxi card schemes. These services provide door-to-door transport for people who have difficulty accessing traditional bus services, those who do not have access to a car or conventional bus services, and those who suffer from poor access to basic services, such as healthcare. Community Transport provides a vital link for communities without access to bus services, however coverage is not comprehensive and services generally do not provide connections to more traditional frequent bus services along the corridors.

Figure B.1 The Cambridge 'Citi' network.



The rail network

The rail network in the strategy area is shown in [Figure 1.1](#), and diagrammatically in [Figure B.4](#). Cambridge is very well linked to London, with typically four services an hour to London Kings Cross, two of which are fast, and two services an hour to London Liverpool Street. In addition Cambridge has hourly services to Stansted Airport, Ipswich, Norwich, Kings Lynn and Birmingham New Street (via Peterborough).

The holders of three separate rail franchises run these services:

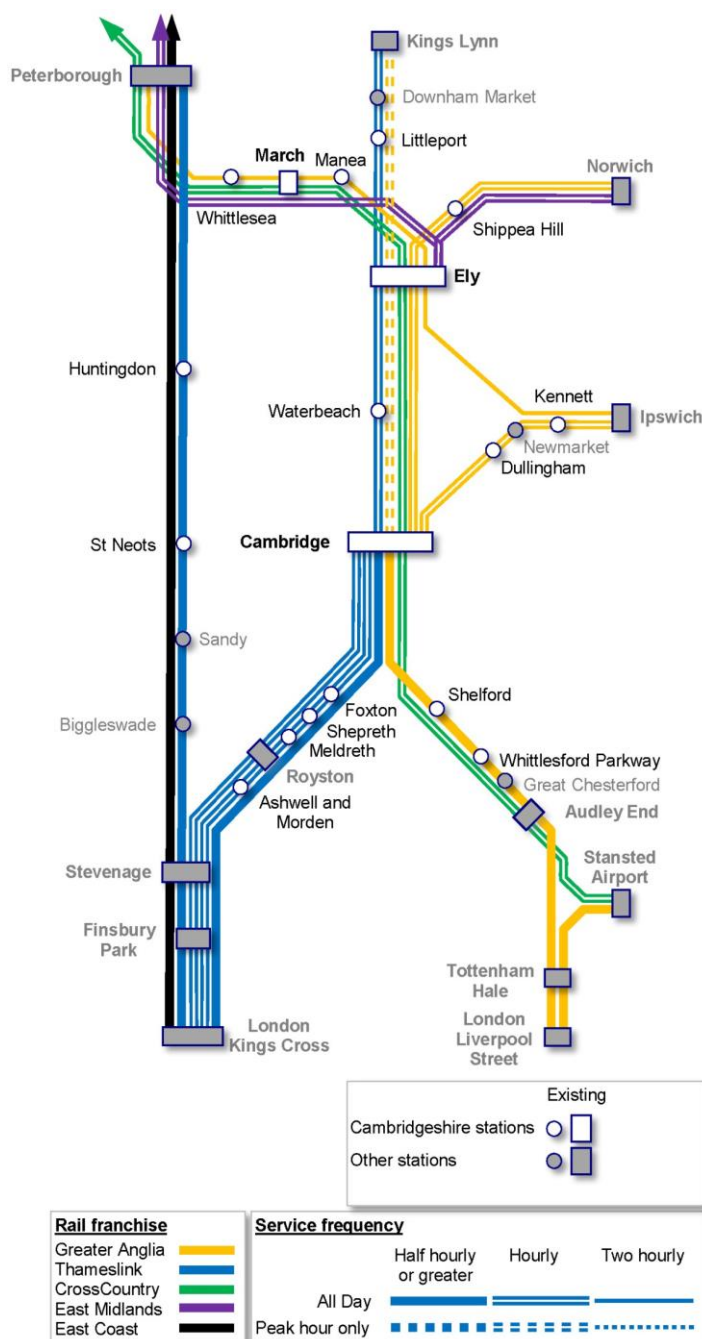
- Thameslink Great Northern franchise**
Services to London Kings Cross and Kings Lynn.
- Greater Anglia franchise**
Services to London Liverpool Street. Norwich and Ipswich.
- CrossCountry franchise**
Services to Stansted Airport and Birmingham New Street.

Services between Cambridge and London are run by electrically powered trains of four, eight or twelve carriages. Services to Kings Lynn are typically four carriage electrically powered trains. Services on all other routes to Cambridge are run by two or three carriage diesel units.

The seven stations in South Cambridgeshire generally have fewer services. In peak periods they will typically have a half hourly service, dropping to hourly in the off peak. A number of stations outside of the strategy area also serve residents in South Cambridgeshire. These include Great Chesterford and Audley End in Essex, Royston in Hertfordshire, Huntingdon and St Neots in Huntingdonshire, and Sandy and Biggleswade in Central Bedfordshire.

To the east of Cambridge station and between Mill Road and Coldhams Lane there are carriage sidings, and there are train maintenance facilities to the south of Coldhams Lane.

Figure B.4 Current (2012) rail services in Cambridgeshire.



There are also rail freight terminals in the strategy area including at Chesterton in north Cambridge and Barrington to the south west of Cambridge.

Transport interchanges

Interchange – the act of changing from one transport mode or service to another – is a critical part of many journeys, and the convenience and timeliness of interchange is an important factor in many people’s choice of how to travel.

Interchange facilities on the transport network are often thought of as places where changes between different passenger transport services are made. However, feeder trips by car, cycle or on foot are equally important. The location and quality of facilities for both types of interchange, and the timeliness of the onward passenger transport journey are critical elements of this strategy.

Interchange characteristics

For the purposes of this strategy a station, bus station, bus stop or group of bus stops that...

- ...takes **over one million** passenger trips per year **and caters for longer distance journeys into and through the strategy area** will be defined as a **Strategic transport hub**.
- ...takes **over 500,000** passenger trips per year will be defined as a **Major transport interchange**.
- ...takes **between 100,000 and 500,000** passenger trips per year will be defined as a **Transport interchange**.
- ...that takes **less than 100,000** passenger trips per year will be defined as a **Minor transport interchange**.

Standards for facilities at an interchange will generally be guided by the category of passenger use it falls under.

[Figure A.1](#) shows bus stations, railway stations and Park & Ride sites in and around the strategy area.

Cambridge currently has nine major transport interchanges:

- Cambridge railway station and bus interchange.
- Drummer Street bus station and adjacent on street stops.
- East Road (Grafton Centre) bus interchange.
- Addenbrooke’s hospital bus station.
- The ring of five Park & Ride sites on the edge of the city (see [Figure B.5](#)).

A tenth, Cambridge Science Park railway station and bus / guided bus interchange, will open in 2015/16.

In the rest of South Cambridgeshire, other than rural stations, the Longstanton Park & Ride site and the other Busway stops, interchange facilities are largely limited to bus stops.

Of the eight towns surrounding Cambridge, bus stations are present in Huntingdon, St Ives, Haverhill, Newmarket and Saffron Walden but not in Ely, St Neots or Royston.

Huntingdon, St Neots, Newmarket, Saffron Walden (Audley End) and Royston all have railway stations. [Figure B.6](#) details patronage at stations in and around the strategy area.

Figure B.5 Park & Ride sites.

Site	Capacity
Cambridge inner Park & Ride sites	
Babraham Road	1,458
Maddingley Road	930
Milton	750
Newmarket Road	873
Trumpington	1,340
Busway Park & Ride sites	
Longstanton	350
St Ives	1,000

Smaller rural transport interchanges are being delivered in Cambourne, Linton and Sawston with funding from the Governments Better Bus Areas Fund, and should be in place by March 2015. These sites will have a mixture of parking, cycle parking, high quality bus shelters, real time passenger information, and facilities for local feeder services to drop off passengers.

The Better Bus Areas Fund will also make grant funding available for other villages in South Cambridgeshire to improve facilities for their bus users. Individual bus stops are typically the smallest form of formal interchange facility, and can range from enclosed shelters with level boarding and real time passenger information to an area of hard standing on a grass verge where the bus stops, with or without a pole and flag.

Figure B.6 Usage of rail services from stations in and around the strategy area.

Station (Cambridge or South Cambridgeshire unless noted)	Annual passenger usage (2011/12)			Growth from 2001/02	Growth from 2010/11
	Entries and exits	Interchange	Total		
CAMBRIDGE	8,823,724	729,555	9,553,279	+82%	+6%
Foxton	83,366	-	83,366	+88%	+8%
Shepreth	82,366	-	82,366	+88%	-1%
Meldreth	204,224	-	204,224	+56%	+3%
Royston (Hertfordshire)	1,217,516	22,131	1,239,647	+37%	+2%
Ashwell and Morden	130,196	-	130,196	+42%	+13%
Shelford	145,904	-	145,904	+54%	-3%
Whittlesford Parkway	343,768	-	343,768	+48%	+2%
Great Chesterford (Essex)	118,614	-	118,614	+51%	+2%
Audley End (Essex)	751,188	5,391	756,579	-3%	+1%
Waterbeach	312,220	-	312,220	+118%	+4%
Ely (East Cambridgeshire)	1,824,023	322,668	2,146,691	+91%	+10%
Dullingham (East Cambridgeshire)	27,466	-	27,466	+42%	+4%
Newmarket (Suffolk)	232,374	-	232,374	+273%	+17%

Data from Office of Rail Regulation (see <http://www.rail-reg.gov.uk/server/show/nav.1529>)

The pedestrian and cycle network

The cycle network

The cycle network in Cambridge and its fringes is a mixture of on-road, off-road and shared use routes. The network focuses on connections to key employment sites, the city centre and schools. The network is extremely well used, with increasing levels of cycling in the Strategy Area. However, there are a number of important links in need of improvement or completion. Furthermore, there are several areas where new routes are required. In recent years, the Cambridge cycle network has grown and expanded to provide links to outlying villages and employment sites. The 2011 census shows that this has contributed towards an increase in the proportion of people cycling in these areas for their journey to work – an increase of 11% in Cambridge and a 12% increase in South Cambridgeshire between 2001 and 2011.

The cycle network in rural South Cambridgeshire is more limited, focusing on the National Cycle Network and on street cycling, often without dedicated facilities along fast rural roads.

The cycleway which runs parallel to The Busway between Cambridge and St Ives has demonstrated that a direct, high quality route will encourage people to cycle longer distances to work and for leisure. The opening of the route resulted in a 75% increase in cyclists entering and leaving St Ives in 2011 compared to 2010 and a 21% increase in cycling across the Cambridge radial cordon in the autumn of 2011 compared with autumn 2010.

Cycle parking

The high number of cyclists in the Cambridge area has led to significant demand for cycle parking facilities, particularly in the city centre and at Cambridge railway station. The cycle parks at the Grand Arcade and Park Street provide around 400 spaces, with demand often exceeding capacity. On street cycle parking spaces are extremely well used and are often full. This shortfall in cycle parking facilities has resulted in cyclists parking their bikes along railings, pavements and against buildings, sometimes causing a hazard for pedestrians, particularly those with mobility difficulties.

Plans are being drawn up for a new 3,000 space cycle park at Cambridge railway station as part of the redevelopment of the wider station area.

The pedestrian network

The pedestrian network in Cambridge is made up of footways, public rights of way and some shared use paths. The network serves the majority of residential areas linking them with the city centre, the wider transport network, education, leisure, health and employment. There are a number of routes in need of improvement and connections that need to be made. In South Cambridgeshire the pedestrian network is mainly made up of local village footpaths and public rights of way. There are many routes where improvements to existing facilities are needed and many areas where new safe and direct routes are required.

The road network

The strategic and primary route network

The M11 links London with Cambridge. In Cambridgeshire it takes high but relatively balanced flows and generally operates well, although there are queues at a number of junctions in the Cambridge area. It links to the A11 at Great Chesterford. The A11 provides a link to Norwich, but is also used by local traffic accessing business parks to the south east of Cambridge.

The A14 Trunk Road provides an east west link across Cambridgeshire. The stretch of the route between the Girton interchange in South Cambridgeshire and the Spittals Interchange in Huntingdon is a critical link in the national transport network. As well as east-west traffic on the A14 itself, it is also a link in the A1-M11 north-south corridor. Significant amounts of local traffic also use the route, particularly for commuting into Cambridge. There are three lanes in each direction between Girton and Bar Hill, but only two between Bar Hill and Huntingdon. As such this stretch is a cross roads and pinch point in the strategic road network.

A second east-west link is provided by the A428 trunk road between Cambridge and St Neots. This road is a dual carriageway between Cambridge and Caxton Gibbet, and single carriageway between Caxton Gibbet and the A1 at St Neots. The single carriageway section to Caxton Gibbet experiences congestion in peak periods, as does the A1303, which provides the link between the A428 and Cambridge.

The A10 to the north of Cambridge is one of the busiest routes managed by the County Council, linking Cambridge with Ely and Kings Lynn in Norfolk. The section between Ely and Cambridge is under particular pressure due to significant housing growth at Ely, contributing to a 14% increase in traffic over the past ten years.

The A10 to the south of Cambridge links the city to Royston (Hertfordshire) and onto London. While this section of the route carries fewer vehicles per day than the A10 to the north of the city, congestion is experienced at certain points along the route, particularly at the Foxton level crossing and on the approach to Cambridge at the junction with the M11 and A1309.

A505 links the A11 to the south of Cambridge with the M11 and Royston in Hertfordshire. The majority of the route in Cambridgeshire runs smoothly, however, the single carriageway section between the M11 and A1301 is very heavily used, taking more traffic than the dual carriageway A11, and experiences peak time congestion.

[Figure A.1](#) shows the motorway, primary and 'A' and 'B' Road networks in the strategy area.

The 'A' and 'B' class road network

The major inner radial routes into Cambridge are mainly 'A' roads, with the exception of the B1049 Histon Road. While use of bus, rail and cycle into the city has increased, most of these roads are busy routes for general vehicular traffic, particularly at peak times. Cambridge has a designated ring road, which enables traffic to move around the city. While they are not signed as such, Lensfield Road, Gonville Place and East Road form an unofficial inner ring road to the south of the city centre. There are a number of bottlenecks along the ring road which cause peak time congestion, delays to bus services and conflicts with cyclists.

The strategy area contains a number of other rural A and B roads, including:

- The A1301 between Great Chesterford and Cambridge
- The A1303 between Newmarket and Cambridge
- The A1307 between Haverhill and Cambridge
- The A603 between Wimpole and Cambridge
- The A1198 between Royston and Godmanchester
- The B1049 between Wilburton and Cambridge
- The B1050 between Earith and the A14.

These routes are generally of a lower standard than the Primary Route network, and often travel through the centre of villages, impacting on both the local community and the environment. Traffic flows on such routes have been identified as a key issue in a number of villages in central Cambridgeshire. In response to such issues, it is important to consider solutions for entire routes and corridors, rather than dealing with them in isolation. A holistic approach should avoid local solutions that simply move problems from one part of the road network to another.

Traffic Management in Cambridge

The introduction of infrastructure and services to provide additional capacity for pedestrians, cyclists and passenger transport users have contributed significantly to the decrease in car use and increase in use of other modes that has been seen in and around the city (see [Figure C.1](#), [Figure C.2](#) and [Figure C.3](#)). However, traffic and demand management measures have played a crucial role in creating the environment where use of non-car modes became a more attractive choice.

The Cambridge Core Traffic Scheme

Four phases of the Cambridge Core Traffic Scheme were implemented between 1997 and 2008, and built upon previous traffic management measures in the city centre that included restrictions to through movements on St Johns Street and Trinity Street.

The scheme restricts most through movements in the city centre by general vehicular traffic. Access is maintained for through movements by cycles, buses and taxis. Access is also maintained to city centre car parks, for servicing and deliveries, and for residents.

The four phases of the scheme are:

- Bridge Street (1997): 24 hour restriction.
- Emmanuel Road (2001): 24 hour restriction.
- Silver Street (2003): 10am to 4pm restriction, Monday to Saturday
- St Andrews Street (2008): 24 hour restriction on northbound movements

Off-Street Parking

In Cambridge, off-street parking is available at five city centre multi-store car parks and a number of pay and display car parks. As noted above, Some 5,300 spaces are also provided at the five Park & Ride sites around Cambridge.

[Figure B.7](#) shows the amount of car parking at the Multi-Storey and Pay & Display car parks in the city. The cycle parking figure only refers to parking in or in the immediate vicinity of the car park. There is typically further cycle parking near all of these car parks.

The cycle parking capacity at Cambridge Station has a nominal capacity of over 800 spaces, but there are often far greater numbers of bicycles parked there. A new purpose built cycle park with capacity for 3,000 cycles is planned.

On-Street Parking

[Controlled Parking Zones](#) cover Cambridge City Centre and a number of other areas in the city. In these areas, all on-street parking is controlled. The [Resident's Parking Scheme](#) exists to alleviate parking congestion in parts of the city.

Road and Rail Freight movements

The A14 through Cambridge and South Cambridgeshire is a nationally and internationally important route for freight traffic to and from the UK from the ports of Felixstowe and Harwich. Improvements to the route form part of the Trans-European Transport Network [Priority Project 13](#) – Road axis United Kingdom / Ireland / Benelux.

The Felixstowe to Nuneaton (F2N) rail route which passes just outside the strategy area is equally important, and improvements to this route form part of the Trans-European Transport Network [Priority Project 26](#) – Railway/road axis Ireland/United Kingdom/continental Europe. Felixstowe deep water port is currently the largest port in the UK, and major expansion at both Felixstowe and Harwich ports will increase the level of amount of road freight on the A14 and rail freight on the F2N. Improvements to the F2N will allow road freight traffic to and from Felixstowe and Harwich to transfer to rail.

There are six rail freight terminals in south Cambridgeshire, (Barrington, Chesterton (2), Duxford, Fulbourn and Whittlesford). Of these the Chesterton rail heads are in current use, and are likely to be used for the importing of aggregate for the A14 Cambridge to Huntingdon improvement scheme.

At the county level, deliveries and freight movements play a vital role for the local economy, in all sectors. Businesses and residents of Cambridge and South Cambridgeshire rely on the efficient movement of goods and parcels. However, the use of the local road network by large goods vehicles leads to environmental and social impacts in many areas.

The Cambridge Core Traffic Scheme effectively limits the times of deliveries to businesses in much of the city centre to before 10:00am and after 4:00pm. The balance between need for deliveries to businesses and the environment of the city centre for residents, visitors and customers of those businesses is a delicate one.

In a number of villages in South Cambridgeshire, particularly those on the 'A' and 'B' road networks, goods vehicle movements contribute to the negative impacts generated by through traffic, including road safety, air quality, noise and congestion.

Figure B.7 Car and cycle parking capacity at Multi Storey and other Pay & Display car parks.

Car Park	Capacity	
	Car	Cycle
City centre		
Park Street	399	Over 200
Grand Arcade	989	Over 200
Grafton West	286	-
Grafton East	942	-
Queen Anne	641	-
Adam and Eve Street	50	-
Other		
Castle Hill	115	-
Gwydir Street	50	Over 20
Cambridge Station	449	Over 800
Cattle Market	600	-

Appendix C. Trends in travel behaviour and trip making

Travel to work

[Figure C.1](#) shows the transport mode used by residents of Cambridge and South Cambridgeshire to travel to and from work from the 2001 and 2011 censuses. [Figure C.2](#) factors this data by the growth in the employed population to show the growth in travel to work trips in the same period.

Cambridge census data

For Cambridge residents, there has been a significant reduction in the proportion of the population using private cars or vans to travel to work. This has counteracted the growth in trips due to the increase in the population of the city.

In 2011 the number of residents who travelled to work in a car or van was 3.4% less than in 2001, despite the fact that the employed population of the city grew by almost 21% in the same period.

Levels of walking, cycling, bus and rail use and of working at home have all increased. The proportion of people working from home rose from 8.6% in 2001 to 11.1% in 2011.

South Cambridgeshire census data

In South Cambridgeshire, the proportion of residents using the car to travel to and from work was 4% less in 2011 compared to 2001.

The proportion of people travelling to and from work by cycling, bus and rail have all increased as has the proportion of people

Figure C.1 Resident's main mode of travel to work.
(Data from 2001 and 2011 censuses⁹).

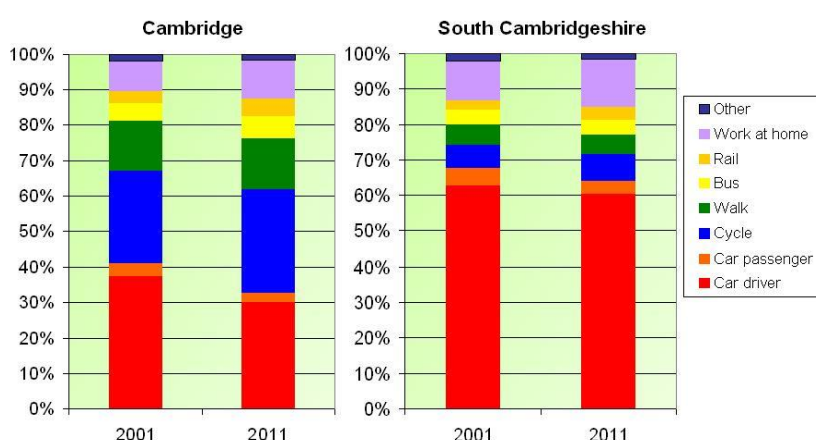
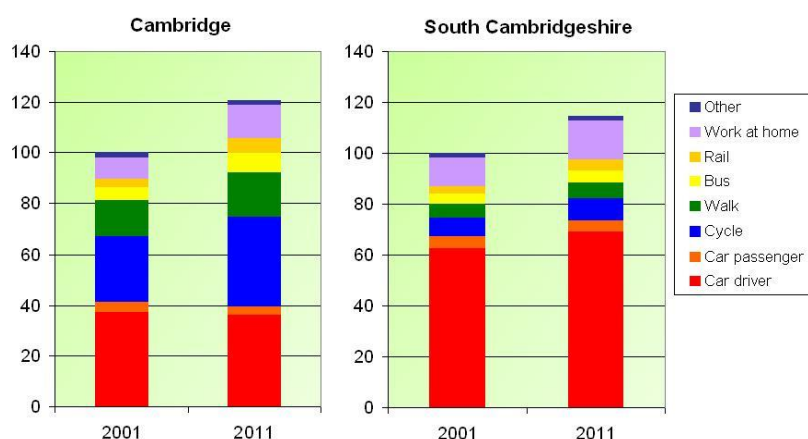


Figure C.2 Employed resident's main mode of travel to work, factored by employed population.
(Index base 100 for all trips in 2001, data from 2001 and 2011 censuses).



⁹ Data from <http://www.ons.gov.uk/ons/guide-method/census/census-2001/index.html> and <http://www.ons.gov.uk/ons/guide-method/census/2011/index.html>.

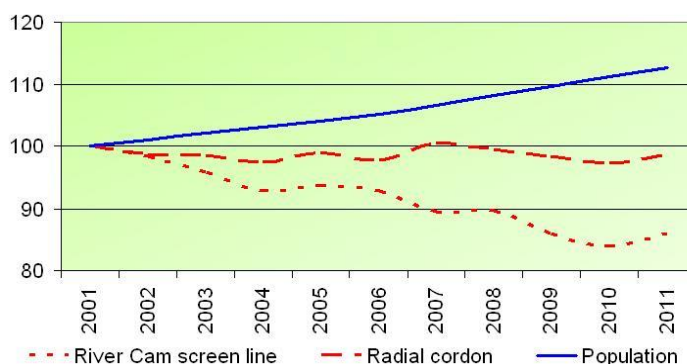
working at home. The proportion of people walking to work and the proportion travelling to work as car passengers have decreased. The proportion of people working from home rose from 11.1% in 2001 to 13.6% in 2011.

Car and van trips

While a proportion of the car or van driver trips in South Cambridgeshire will be as part of a Park & Ride journey to Cambridge, the benefit in traffic terms of these movements is primarily to traffic conditions in Cambridge. The number of car and van trips to and from work made by South Cambridgeshire residents increased by around 9.9% between 2001 and 2011, while the employed population grew by around 14.3%. Some significant additional road capacity has provided for these journeys, including:

- A428 Trunk Road dualling, Hardwick to Caxton Gibbet.
- A1198 Papworth Everard bypass.
- B1050 Longstanton bypass.
- A505 / Hunts Road roundabout, Duxford
- A10 / A14 / A1309 Milton Interchange and Milton Road / Cowley Road junction capacity improvements.
- Addenbrooke's Access Road.

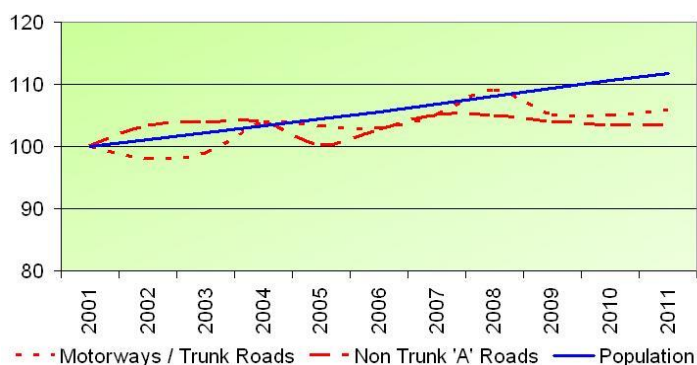
Figure C.3 Population growth and daily vehicular traffic into and out of Cambridge / across the River Cam in the city¹⁰.



Traffic count data

In Cambridge, the 2011 census data confirms trends seen in traffic monitoring data collected by the County Council. Monitored traffic levels into and out of the city have been relatively stable since the mid-1990s, and traffic levels across an inner River Cam screen line have decreased in the same period. [Figure C.3](#) shows changes in traffic between 2001 and 2011 for these cordons.

Figure C.4 Traffic growth on main roads in South Cambridgeshire.¹¹



The Department for Transport collects traffic data for all 'A' Class roads and Motorways in the UK. While this data is not robust enough to allow detailed analysis of individual routes or count sites on a year by year basis, it does allow for an assessment of trends. [Figure C.4](#) shows traffic growth on Motorways and Trunk Roads, and on other 'A' class roads. Between 2001 and 2008, traffic

¹⁰ Traffic cordons: Index, base 100 (2001). Cambridge Radial Cordon – used to monitor trips into and out of the city. River Cam Screenline – used to monitor trips across the river within the city; this provides useful proxy data for vehicles are using city centre roads.

Population growth: Index base 100 (2001) for Cambridge and South Cambridgeshire)

¹¹ DfT Traffic counts: Index, base 100(2001).

Population growth: Index base 100 (2001) for South Cambridgeshire

grew roughly in line with the growth in population, but decreased slightly between 2008 and 2011.

Journey time data and congestion

[Figure C.5](#), [Figure C.6](#) and [Figure C.7](#) show vehicle speeds in the morning peak, daytime and evening peak respectively.

Figure C.5 Morning peak period vehicle speeds, main radials and ring road

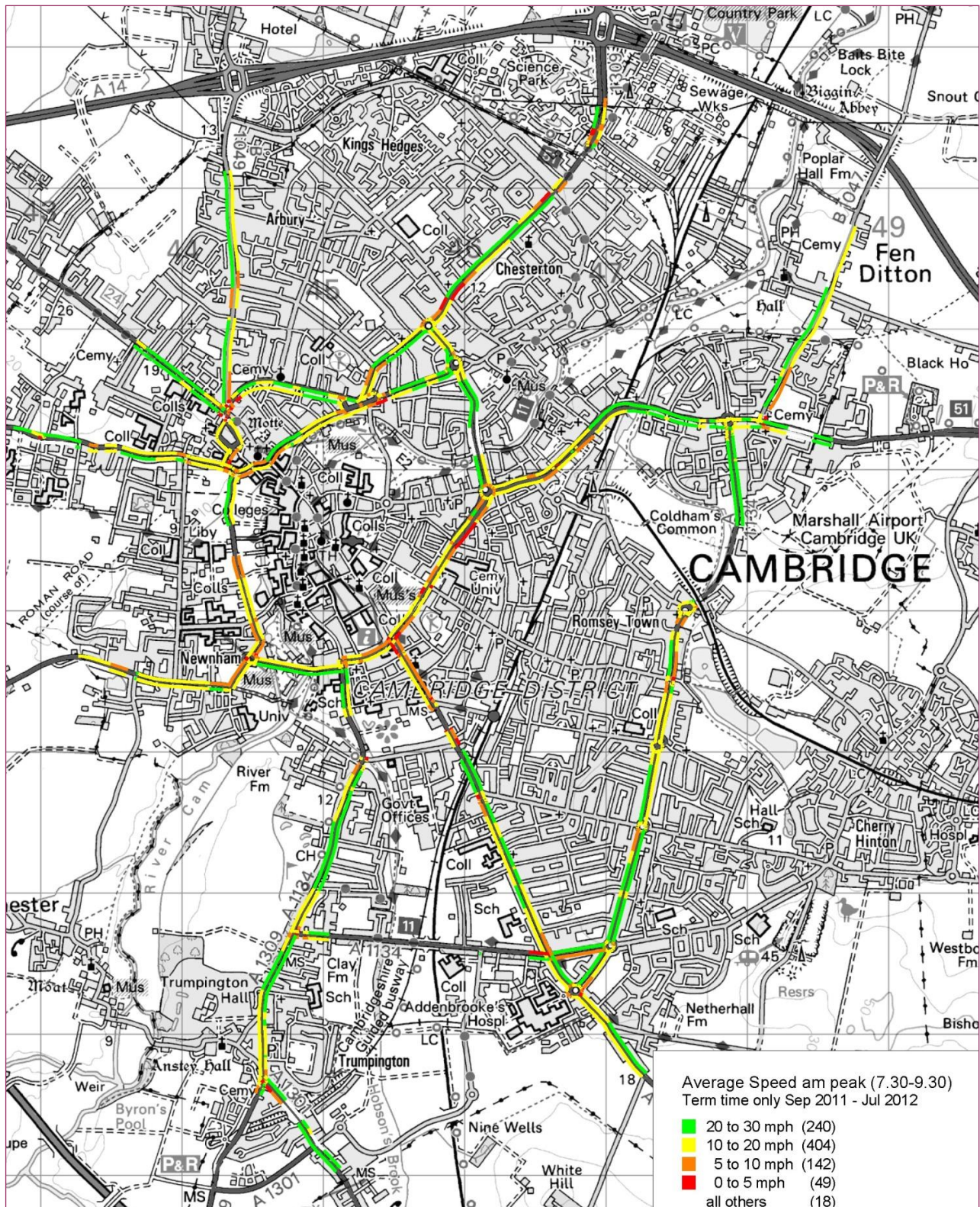


Figure C.6 Day time vehicle speeds, main radials and ring road

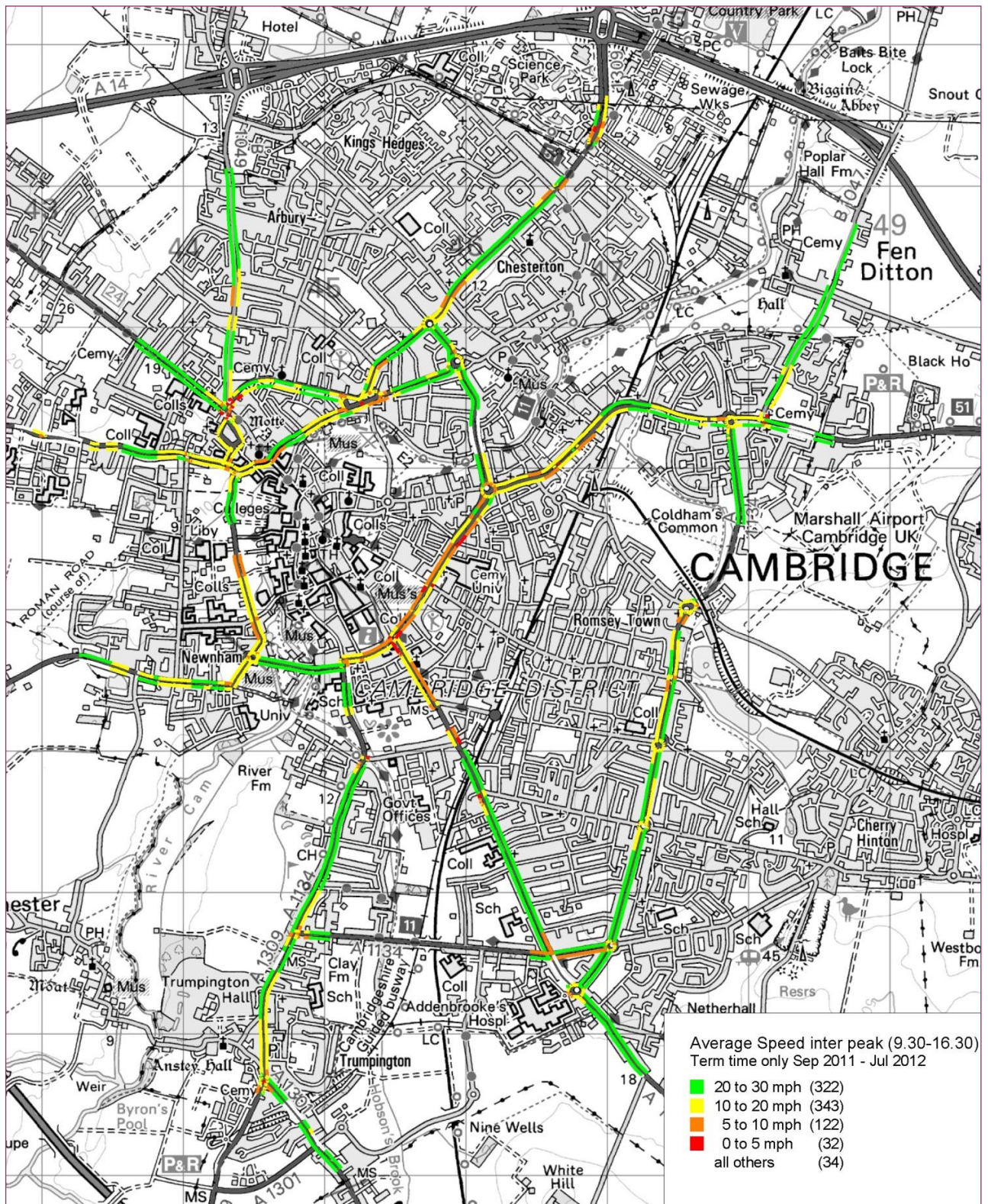
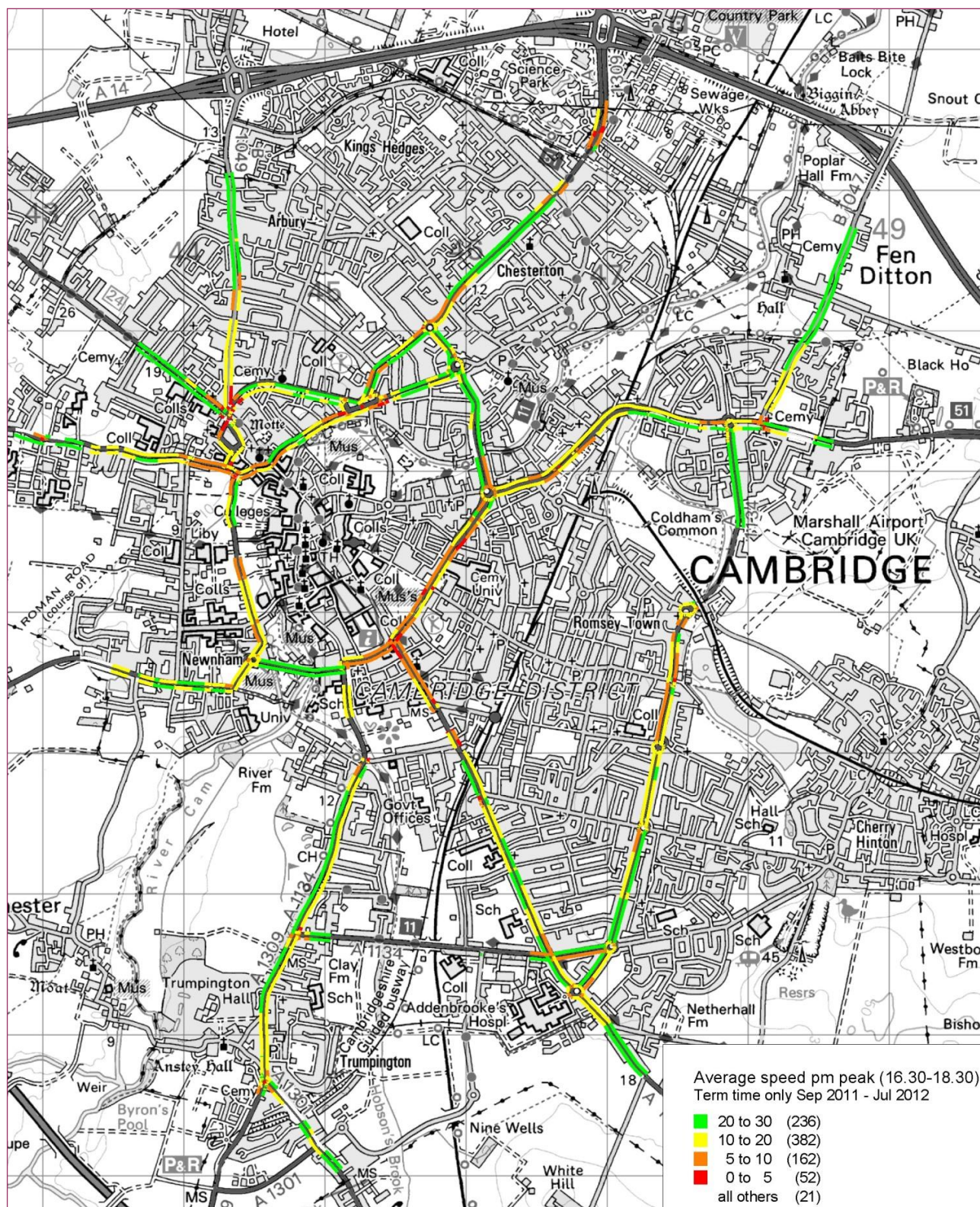


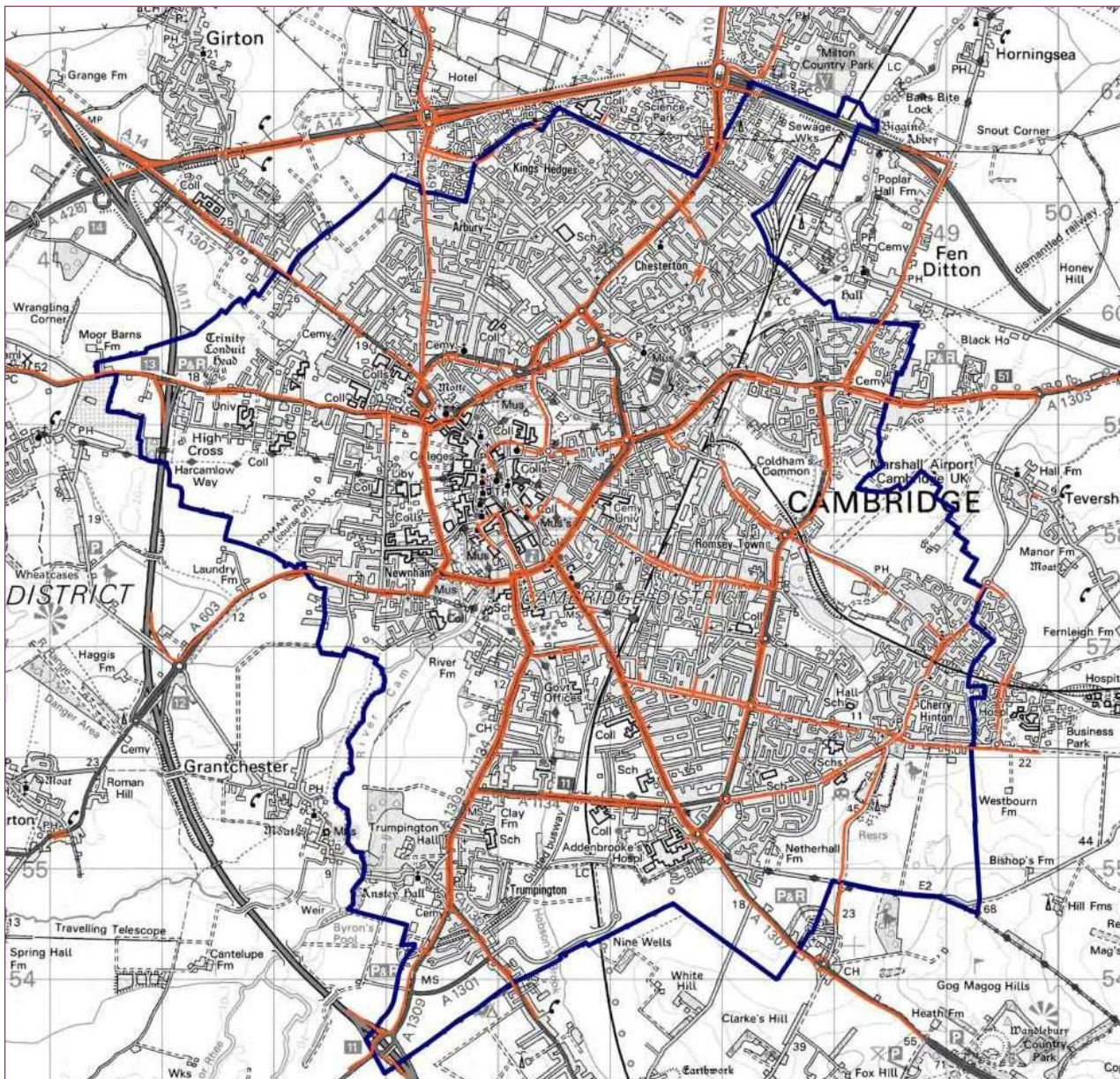
Figure C.7 Evening peak period vehicle speeds, main radials and ring road



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Figure C.8 and Figure C.9 show roads where the speed of traffic in the morning and evening peak hours is at least 30% lower than the average speed of traffic throughout the day. This information is from TrafficMaster GPS data between September 2008 and July 2009. Unsurprisingly, all major radial routes into the city are highlighted.

Figure C.8 Reduction in traffic speed in the morning and evening peak periods in Cambridge



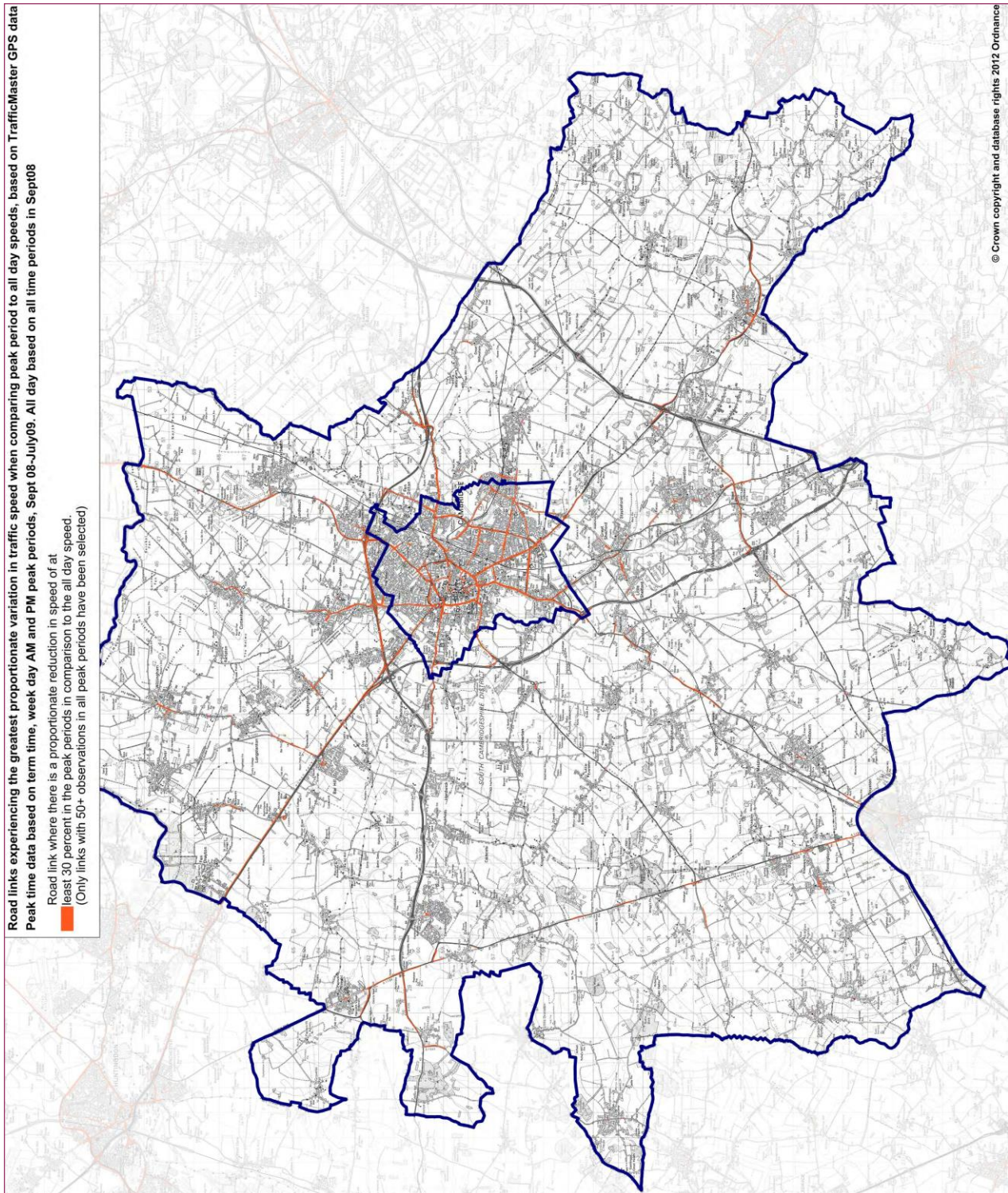
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In South Cambridgeshire, the following routes are notable for the reduction in peak hour traffic speeds

- The A14 between the District Boundary and the trinity foot junction, and between the Bar Hill and Milton junctions.
- Several sections of the A10 north of Cambridge between Milton and the District boundary.
- The B1049 north of Cambridge in Histon / Impington and Cottenham.
- The A1303 to the west of Cambridge between the A428 and the city boundary.
- The A505 between the M11 and Pampisford.
- The A1307 around Linton, at its junction with the M11 and on the approach to Cambridge.
- The A10 south of Cambridge at Foxton (level crossing), and on the approach to the junction with the M11.

- The B1050 between Longstanton and the M11, and through Willingham.
- The A428 west, A1198 north and A1198 south approaches to the Caxton Gibbet roundabout.
- The A1303 to the east of Cambridge on its approaches to the Quy interchange with the A14 and into the city.

Figure C.9 Reduction in traffic speed in the morning and evening peak periods in South Cambridgeshire



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Appendix D. Consolidated list of TSCSC transport policies

These policies should be read in conjunction with the relevant Local Plans for the area. The Local Plans contain all of the local planning policies by which a development/planning application must abide. The TSCSC policies are intended to complement the Local Plan policies and come under the wider umbrella of the LTP and will be material planning consideration.

Policy TSCSC 1: The strategy approach

The transport network will support economic growth, mitigate the transport impacts of the growth agenda and help protect the area's distinctive character and environment.

To achieve this, sustainable transport capacity will be provided in and around the city between key employment areas, and to where people live and access services. The sustainable transport network will strengthen the economic hubs and the high tech clusters in and around the city by making movement between them straightforward and convenient.

The backbone of the strategy will be a high quality passenger transport network of bus, guided bus and rail services, fed and complemented by comprehensive pedestrian and cycle networks. Highways capacity enhancements will ensure that traffic can move efficiently in appropriate locations without interfering with passenger transport corridors.

Policy TSCSC 2: Catering for travel demand in Cambridge

For more travel demand to be accommodated on the constrained transport network of Cambridge:

- More people will walk, cycle and use passenger transport services for journeys into, out of and within the city.
- More people will car share.
- Pedestrians, cyclists and buses will be prioritised for trips across the city. General vehicular traffic will not be prohibited and accessibility will be maintained, but a car journey may be longer and more time consuming than at present for many trips.
- General traffic levels will remain at current levels.

Policy TSCSC 3: Catering for travel demand in South Cambridgeshire

For additional travel demand to be accommodated on the constrained transport network of South Cambridgeshire and into Cambridge and surrounding towns:

- Passenger transport services on main radial corridors will be used for part or all of more trips to Cambridge and to other key destinations.
- More people will walk and cycle to access these services.
- More people will car share.
- More locally led transport solutions will provide passenger transport options in more remote areas that cannot viably be served by conventional bus services.

Policy TSCSC 4: National networks: trunk roads, motorways and rail

For these routes to play their part in catering for the travel demand of Cambridge and South Cambridgeshire:

- Improvements driven by the national agenda must take account of local circumstances, local opportunities and local impacts.

Policy TSCSC 5: Planning obligations

A comprehensive approach will be applied to secure the provision of new and improved transport infrastructure, in a timely manner to ensure that accessibility is maintained and the impact(s) of developments are addressed, in line with this Strategy approach.

Developers will be required to make provision to mitigate both the site specific and network impacts of their planning proposal. Mitigation measures will be secured by direct improvements carried out by the developer, and through the Community Infrastructure Levy (CIL) and/or a Section 106 (S106) agreement.

The nature and scale of mitigation/contributions will be determined by, the scale and type of development, as well as the transport impact and demands this places on the site and the local network.

In Cambridge (and South Cambridgeshire where applicable), until such time as CIL is implemented, planning obligations will continue to be secured through the Area Transport Plan process.

Policy TSCSC 6: Transport Assessments

Transport Assessments (TA) will be required to support any planning application that produces a net increase of approximately 500 person trips (by all transport modes) per day. For smaller scale developments a Transport Statement (TS) will generally be required. However a full TA may also be required if the development falls below this threshold but there are other local issues that may need to be addressed.

Early engagement with the local highway authority is strongly advised to agree the scope of the TA or TS and ensure that all the required data and information is provided when a planning application is submitted.

For the larger sites, it is expected that robust land use and transport modelling will be undertaken to assess not only the specific impact of the development but to assess the cumulative impact of the proposal on the surrounding transport network. The detail of this would need to be discussed and agreed with the Local Highway Authority.

Policy TSCSC 7: Supporting sustainable growth

The transport network will be developed in line with the strategy approach and objectives, to provide the capacity necessary to accommodate planned growth levels while protecting the area's distinctive character and environment.

New development will be required to make provision for integrated and improved transport infrastructure to ensure that most people have the ability to travel by foot, bicycle or by passenger transport and in line with specified modal split targets where relevant.

Access by walking, cycling and public transport will be maximised in all new developments, ensuring that planning contributions are sought for transport improvements where appropriate.

Policy TSCSC 8: Improving bus services

The County Council will work with partners and passenger transport operators to develop an improved and integrated network of High Quality Passenger Transport.

The County Council will use existing channels, such as the Quality Bus Partnership to raise standards and monitor service provision.

Policy TSCSC 9: Access to jobs and services

Access to areas of employment and key services will be maximised, particularly by sustainable modes of travel, to:

- Provide a transport network that is efficient and effective
- Provide good accessibility to services and for businesses
- Provide a HQPT and cycle network to routes near major employment, education and service centres.

Policy TSCSC 10: Improving Rail Services

The County Council will work with other authorities and the rail industry to bring forward service enhancements and new infrastructure to increase rail use, through frequency and capacity improvements and increasing the proportion of freight moved by rail in line with the Strategy approach.

Policy TSCSC 11: Improving community transport services

The County Council will work with partners, the voluntary sector and passenger transport operators to develop an improved and integrated network of community transport services.

Policy TSCSC 12: Encouraging cycling and walking

The capacity, quality and safety of walking and cycling networks will be increased to enhance and promote healthy and active travel. The highest possible standard of cycling and walking infrastructure appropriate to a location will be pursued in line with this strategy and the emerging cycle strategy.

All new development must provide safe and convenient pedestrian and cycle environments including adequate and convenient cycle parking and ensure effective and direct integration with the wider network.

Where development opportunities arise, land should be released to improve the existing cycle network, for example the elimination of pinch points. New links should also be provided to expand the network as set out in the DfT LTN 1/12, LTN 2/08 and Manual for Streets.

Where feasible, pedestrian and cycle facilities will be provided alongside HQPT and new road infrastructure (citing the Busway facilities as a standard example).

Through the planning system future cycle and walking routes should be safeguarded, where appropriate/feasible.

Cycle routes should be maintained where possible to offer year round and all-weather availability.

Policy TSCSC 13: Provision of new highway capacity

Where there is a requirement for new roads or increased road capacity, these should adhere to the highest possible design standards. Where feasible, pedestrian and cycle facilities will be provided alongside new road infrastructure (citing the Busway facilities as a standard example). The needs of public transport services will be considered in all road schemes, and priority for services should be provided on any new road where there is an expectation of regular bus usage, and an expectation that services reliability and timeliness would otherwise be disadvantaged.

This policy applies to new roads delivered by the County Council, new roads that will be passed to the Council through a relevant legal agreement, and those that will remain in third party ownership.

Policy TSCSC 14: New roads within development sites, or to provide access to development

Where there is a requirement for new distributor roads or through routes as part of a development, adherence to the need to prioritise pedestrians, cyclists and public transport users will remain. This will include:

- Providing the highest possible standard of pedestrian, cycling and public transport infrastructure as part of the road where feasible and necessary
- Discouraging speeding
- Restricting through access for general motor traffic (unless specifically required as part of the development).
- Ensuring that there are safe and appropriate access arrangements to the adjoining public highway network and minimising the possibility of additional car traffic in the local area as a result of the new road.

This policy applies to both roads that will be passed to the County Council through a relevant legal agreement and those that will remain in third party ownership.

Policy TSCSC 15: Managing travel demand

Appropriate measures and interventions will be introduced to manage the demand for general vehicular travel, and reducing through traffic in Cambridge in line with the strategy approach.

Further work is proposed to determine the specific priorities which will be consulted on over time with such measures expected to include;

- Reallocation of road space to be used by passenger transport, pedestrians and cyclists
- Access restrictions for general vehicular traffic
- Parking restrictions

Policy TSCSC 16: Road safety

The safety of users of all modes of travel is a top priority, both on the existing network and through all new developments and schemes. The County Council will:

- Implement road safety initiatives to reduce road traffic accidents
- Work towards road safety targets held locally and nationally
- Prioritise pedestrian and cycle safety
- Work to increase cycling without increasing accidents

Policy TSCSC 17: Air quality

The County Council is committed to working with partners to achieve air quality improvement targets both in Cambridge and in South Cambridgeshire. Particular emphasis will be placed on reducing emissions from transport in existing and future air quality management areas.

The County Council will work with partners to ensure that passenger transport operators use increasingly 'clean' fleets and monitor air quality and implement Air Quality Action Plans where relevant to ensure agreed targets are met.

Policy TSCSC 18: Protecting the environment

The County Council will work with key partners including transport operators and businesses to reduce transport related emissions, to help protect and enhance the area's distinctive character and environment, while supporting sustainable growth and identifying solutions that will help to achieve longer term environmental benefits.

Policy TSCSC 19: Carbon emissions

The County Council will work with key partners and transport operators and businesses to reduce transport related emissions of carbon and pollutants to help achieve agreed targets.

Policy TSCSC 20: Planning obligations for Waterbeach Barracks

A comprehensive approach will be used to secure provision of infrastructure and improvements in a timely manner to ensure that accessibility is maintained and that the impacts of developments are mitigated in line with the Strategy approach.

Developers will be expected to make provision for mitigation of the site specific and network impacts of their proposal. The following interventions are expected to be required (subject to more detailed Transport Assessments agreed with the Highway Authority) intended to help mitigate and support the impact of development at Waterbeach Barracks:

- Additional capacity on the A10 between the northernmost access to the new town and the Milton Interchange of the A10 with the A14.
- Additional capacity at the A14/A10 Milton Interchange
- Waterbeach Barracks to north Cambridge Busway
- Waterbeach Park & Ride
- Waterbeach new station

- Direct, segregated high quality pedestrian and cycle links to north Cambridge including to Cambridge Science Park, Milton, Cottenham, Histon, Impington, Landbeach, Horningsea, Fen Ditton, Chittering, Stretham and the Cambridge Research Park
- Delivery or funding of any measures required to mitigate the traffic impact of the new town on Horningsea, Fen Ditton, Milton and Landbeach
- A smarter choices package including residential, school and workplace travel planning

Policy TSCSC 21: Planning obligations for Bourn Airfield and West Cambourne

A comprehensive approach will be used to secure provision of infrastructure and improvements in a timely manner to ensure that accessibility is maintained and that the impacts of developments are mitigated in line with the Strategy approach.

Developers will be expected to make provision for mitigation of the site specific and network impacts of their proposal, and the following interventions are expected to be required (subject to more detailed Transport Assessments agreed with the Highways Authority) to help mitigate and support the development at Bourn Airfield and West Cambourne.

- Busway between West Cambourne site and the junction of the A1303/A428.
- Segregated bus links between the A428 and the M11.
- A1303 / A428 outer Park & Ride capacity.
- Direct, segregated high quality pedestrian/cycle links to west Cambridge, Papworth Everard, Highfields, Hardwick, Caxton, Bourn, Caldecote, Comberton, Bar Hill and Dry Drayton.
- Any mitigation measures needed at the junctions of the A428 with the A1303 and A1198.
- Delivery or funding of any measures required to mitigate the traffic impact of the developments on Bourn, Caldecote, Toft, Comberton and Barton.
- A smarter choices package including residential school and workplace travel planning.

Policy TSCSC 22: Planning obligations for Northstowe

A comprehensive approach will be used to secure provision of infrastructure and improvements in a timely manner to ensure that accessibility is maintained and that the impacts of developments are mitigated in line with the Strategy approach.

Developers will be expected to make provision for mitigation of the site specific and network impacts of their proposal, and the following interventions are expected to be required (subject to more detailed Transport Assessments which will need to be agreed with the Highways Authority) to help mitigate and support the development at Northstowe:

- Busway loop through Northstowe (as part of Northstowe development)
- High quality cycle, pedestrian and public transport links to key employment sites, schools, services, and to and from neighbouring local communities
- Off-site highway improvements should Transport Assessments indicate a need for these
- Northstowe access roads (as part of Northstowe development)
- A smarter choices package including residential, school and workplace travel planning

Appendix E. References and useful documents

Planning documents

National Planning Policy Framework

<https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Cambridge Local Plan

<https://www.cambridge.gov.uk/local-plan-review>

South Cambridgeshire Local Plan

<http://www.scambs.gov.uk/services/local-plan>

Cambridge & Peterborough Memorandum of Co-operation
Supporting the Spatial Approach 2011-2021.

<http://www.cambridgeshire.gov.uk/CMSWebsite/Apps/Committees/AgendaItem.aspx?agendaItemID=6847>

Transport documents

Third Cambridgeshire Local Transport Plan 2011-2026

<http://www.cambridgeshire.gov.uk/NR/exeres/E2C5C502-4C13-4355-B7AF-35C55C2D074A.htm>

‘Strategic Framework for Road Safety’, Department for Transport

<https://www.gov.uk/government/publications/strategic-framework-for-road-safety>

Controlled Parking Zones

<http://www.cambridgeshire.gov.uk/transport/parking/restrictions/cpz/>

Cambridgeshire Future transport

<http://www.cambridgeshire.gov.uk/transport/cft/>

Once in a Generation: A Rail Prospectus for East Anglia

<http://www.newanglia.co.uk/Assets/Files/Content/Rail%20prospectus%20for%20East%20Anglia.pdf>

Rail usage data

<http://www.rail-reg.gov.uk/server/show/nav.1529>