Cambridgeshire County Council

Transport Strategy for Cambridge and South Cambridgeshire

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Action Plan and Scheme Details

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Contents

1. INTRODUCTION 1-1

2. FUNDING SOURCES 2-1

COUNTY COUNCIL LED SCHEMES 2-1
SCHEMES DELIVERED BY THE HIGHWAYS AGENCY NETWORK RAIL AND THE TRAIN OPERATING COMPANIES 2-2
CITY DEAL 2-2
DEVELOPER-FUNDING OF SCHEMES 2-2

3. WORK PROGRAMME AND PRIORITISATION 3-1

MAJOR TRANSPORT SCHEMES 3-1
LOCAL TRANSPORT SCHEMES AND THE LOCAL SUSTAINABLE TRANSPORT PROGRAMME 3-1

4. FURTHER DETAIL AND STUDY WORK 4-1

SCHEMES WITH MORE DETAIL 4-1
FURTHER STUDY WORK 4-1

APPENDIX A. GENERAL OVERVIEW A-1

INTRODUCTION A-1
DEFINITIONS A-1

APPENDIX B. CAMBRIDGE B-1

STRATEGIC TRANSPORT INTERVENTIONS B-1

APPENDIX C. ELY AND WATERBEACH TO CAMBRIDGE C-1

STRATEGIC TRANSPORT INTERVENTIONS C-1
DEVELOPMENT- RELATED INTERVENTIONS C-1
REQUIREMENTS FOR WATERBEACH BARRACKS NEW TOWN DEVELOPMENT C-12

APPENDIX D. NEWMARKET TO CAMBRIDGE CORRIDOR D-1

APPENDIX E. HAVERHILL TO CAMBRIDGE CORRIDOR E-1

APPENDIX F. SAFFRON WALDEN TO CAMBRIDGE CORRIDOR F-1

APPENDIX G. ROYSTON TO CAMBRIDGE CORRIDOR G-1

APPENDIX H. ST NEOTS/CAMBOURNE TO CAMBRIDGE CORRIDOR H-1

STRATEGIC TRANSPORT INTERVENTIONS H-1
DEVELOPMENT- RELATED INTERVENTIONS H-1
REQUIREMENTS FOR BOURN AIRFIELD AND WEST CAMBOURNE H-9

APPENDIX I. ALCONBURY, WYTON, HUNTINGDON AND ST IVES TO CAMBRIDGE CORRIDOR I-1

STRATEGIC TRANSPORT INTERVENTIONS I-1
DEVELOPMENT-RELATED INTERVENTIONS I-1

1. Introduction

This is the Action Plan for the Transport Strategy for Cambridge and South Cambridgeshire. It is intended to be a living document that will be reviewed and rolled forward on a regular basis in line with the strategy approach and policies.

It contains an outline programme to 2031 and details of key major schemes proposed to deliver the Transport Strategy for Cambridge and South Cambridgeshire in the short, medium and longer term in line with the sequence of development proposed in the Local Plans. The programme will be updated regularly to ensure this is a rolling and up to date and that priority schemes can be agreed and progressed as funding opportunities arise.

The Action Plan also identifies outline schemes, interventions and packages of further work that will need to be undertaken to define the schemes in more detail. This further work will then feed future updates of the Action Plan, which currently does not include specific details for the small, local interventions.

All proposed schemes, measures and interventions will be consulted upon in detail to seek views and comments ahead of finalising any specific plans for implementation.

2. Funding sources

Significant investment will be needed to deliver the Strategy aims over its lifetime. A comprehensive approach will be taken to funding the strategy including all sources such as developer contributions/ community infrastructure levy, grants/ funding bids and opportunities as relevant and support from central Government given the significant scale of infrastructure needed to unlock growth.

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.

The main component of the Action Plan is the programme of work which will deliver small, medium and larger scale interventions across the strategy area. An outline of anticipated key funding sources is included, but important to clarify that where City Deal is identified as a key source, this is one element of funding proposed and developer funding and other potential sources will also be expected to contribute towards the delivery of key schemes.

In addition, where the Highways Agency or Network Rail have lead responsibility, the County Council and our partners will work with these agencies to ensure alignment on priorities and secure investment for the Rail and Trunk and Motorway network.

The County Council – led programme is formed of three parts:

County Council led schemes

- **Major Transport Schemes**
  Larger schemes (typically those costing more than £2m). These are major transport interventions that will deliver benefits across a wide area. These schemes will address barriers to employment and housing development by creating the capacity for growth through improved transport links. Funding for some schemes in Cambridge and South Cambridgeshire is being sought through a Growth Deal bid which will be shaped by the Greater Cambridge Greater Peterborough Enterprise Partnership's priorities related to transport connectivity. Funding is also sought for these large schemes through the proposed City Deal with government (see below).
- **Local Transport Projects**
  Small and medium sized schemes costing below £2m that help to address barriers – such as capacity pinch points or junction improvements or new cycleway links. Government usually provides this funding through the Local Transport Plan Integrated Transport block for small and medium sized transport improvement projects. These schemes play a critical part in maintaining the network performance, supporting development and stimulating economic growth. While funding in this area remains, it is being top sliced to contribute to the LEP's Local Growth Fund pot, so unless secured back via competitive bidding, funding could be at levels that are greatly reduced from those seen over the last ten or more years.
- **Local Sustainable Transport programme**
  Small and medium sized schemes aimed at developing and delivering innovative packages of promotional and behavioural change activity that achieve maximum impact by wedding them to infrastructure improvements. This would typically include strategic cycleway infrastructure improvements / bus priority measures along key corridors along with improved signage/ travel information. This also includes better travel planning information with the aim of transferring more trips from general vehicular traffic to sustainable alternatives and making the most use of the network capacity. This approach will be rolled out to the development sites and along corridors as they are targeted for improvement.

Schemes delivered by the Highways Agency Network Rail and the Train Operating Companies

In addition, there are a number of trunk road, motorway and major rail schemes or rail service improvements that are considered important / necessary in support of growth across the strategy area. The aim will be to work with the key responsible agency to identify and press for improvements as necessary. This will include working with the Highways Agency, Network Rail or the Train Operating Companies as relevant. While these specific improvements do not feature in the delivery programme, we will be mindful of the delivery timescales of these improvements so that wherever possible, we can programme our own schemes to complement these.

City Deal

A City Deal is currently being negotiated with government which will enable Local Authorities to borrow against some of the future tax revenues generated locally. Such funding would be used to implement schemes that deliver housing and economic growth. A City Deal would allow us to invest in infrastructure up front and enable development to proceed at a much accelerated pace. However, the City Deal is predicated on the basis that developers will still contribute to schemes and / or deliver schemes themselves as part of the necessary transport infrastructure needed to accommodate their development.

Developer-funding of schemes

Both Cambridge City Council and South Cambridgeshire District Council have consulted on their preliminary draft charging schedules for Community Infrastructure Levy and will progress the implementation of the levy in parallel with the review of their Local Plans.

The three authorities are working together and have produced an Infrastructure Delivery Plan. This will be updated as and when there is greater clarity on the funding situation over the coming months. The Infrastructure Delivery Plan includes an outline of what schemes will be funded by CIL, S106 and how City Deal will also contribute to transport infrastructure. A large proportion of the site-specific schemes will be secured through a S106 agreement and this will be determined through the transport assessment process when a planning application is submitted.

In relation to new development sites/proposals that are to be brought forward through the emerging Local Plans and supplementary planning documents, the Local Planning Authorities and the County Council as the Highway Authority strongly encourage early engagement and work on a comprehensive transport assessment. This is particularly true for the larger sites. This early work is particularly helpful for all parties, not least the Planning Inspectorate who will ultimately oversee the Local Plan Examinations. Any early transport assessment work can then form part of the planning application process. See **Policy TSCSC 6** in the main strategy regarding transport assessments.

3. Work programme and prioritisation

The programme for the following three areas has been drawn up and reflects the forecast delivery timescales of new development, known funding and the early indications of City Deal funding. Due to its scale the City Deal programme is going to take some time to get up and running in full. The work programme takes the short term to mean 2015/16, the medium term to mean 2016/17 -2020/21 and the long term to mean 2021/22 and beyond.

Major Transport Schemes

Figure 3.1 shows the timescales for the development and delivery of major schemes that are currently programmed or under discussion as part of the City Deal or Growth Deal programmes. Further detail on the schemes can be found in the appendices below.

Local Transport Schemes and the Local Sustainable Transport programme

Schemes in these programme areas have previously been funded through the government's Integrated Transport block and Local Sustainable Transport Fund. While these funding sources still exist, allocations for the period from 2015/16 onwards are not yet known. Funding from both blocks has been top sliced nationally into a Local Growth Fund, into which Local Enterprise Partnerships can bid for funding through a 'Growth Deal'. Allocations from these funding sources are likely to be known for Cambridgeshire and for the Greater Cambridge Greater Peterborough Enterprise Partnership by the end of 2015. Developer contributions will also contribute to these schemes.

In addition, as explained in more detail in the next section, further work is needed on many of the smaller scale interventions to work up the nature and scope of the schemes. There will be some overlap with the major schemes where whole corridors are being considered as some smaller schemes may be incorporated into that work if it is appropriate.

These smaller schemes will be grouped in the same way as the major schemes – according to corridor within South Cambridgeshire and within Cambridge, according to the boundaries set out in the Area Transport Plans. It is important that schemes are considered in a geographic, as well as thematic nature to enable schemes to be packaged up where possible, and especially where packages of promotional or behavioural change are being promoted.

For each corridor or area, schemes will be developed under the following headings:

- Cycling and walking measures
- High quality public transport measures
- Small scale safety measures
- Small scale traffic management measures
- Smarter choices measures

The clear priority is to start developing schemes and undertaking studies that will inform the more detailed programme once future allocations are known. Once there is more clarity on the allocations for these two sources of funding, then a more detailed programme will be compiled and included in future revisions of the Action Plan. Consideration will be given when prioritising the schemes to how growth is coming forward and the deliverability of schemes.

Figure 3.1. Major scheme programme

Major Scheme Programme

Funding : R = Reserve scheme

Timescales for delivery	
	Business Case development
	Scheme preparation
	Scheme delivery

Scheme	Funding						City Deal Ref.	Timescales for delivery															
	DfT Majors	Growth Deal	City Deal	CIL / S016	DfT / HA	Other		2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Saffron Walden and Haverhill pedestrian / cycle route programme			Y	Y			CD11															
Chisholm Trail links	R		Y	Y			CD15a															
Chisholm Trail bridge	R	Y		Y			CD15b															
A14 Cambridge to Huntingdon improvements					Y	Y	-															
City Centre capacity improvements			Y	Y			CD15d															
Cambridge to Royston cycle link			Y	Y			CD9															
A428 to M11 segregated bus links	R	Y		Y			CD1c															
Bourn Airfield / Cambourne Park & Ride			Y	Y			CD1b															
Bourn Airfield / Cambourne pedestrian / cycle route programme			Y	Y			CD2															
Madingley Road bus priority			Y	Y			CD1d															
Histon Road, Cambridge, bus priority			Y	Y			CD5d															
Milton Road, Cambridge, bus priority		Y		Y			CD5c															
Project Cambridge, Hills Road			Y	Y			CD10c															
A1307 Bus priority			Y	Y			CD10a															
Cross city cycle improvements			Y	Y			CD15c															
Foxton level crossing and interchange			Y	Y			CD8															
Bourn Airfield / Cambourne Busway			Y	Y			CD1a															
Additional Park & Ride capacity, A1307			Y	Y			CD10b															
Hauxton Park & Ride			Y	Y			CD7a															
Hauxton - Trumpington Busway			Y	Y			CD7b															
Newmarket Road bus priority phase 2, Abbey Stadium to Airport Way			Y	Y			CD12b															
Newmarket Road bus priority phase 1, Elizabeth Way to Abbey Stadium		Y		Y			CD12a															
Ring road bus priority - Addenbrooke's to Newmarket Road			Y	Y			CD14a															
Newmarket Road bus priority phase 3, Airport Way Park & Ride			Y	Y			CD12c															
M11 parallel bus priority			Y	Y			CD13															
Newmarket Road to Cambridge Science Park Station Busway			Y	Y			CD14b															
Waterbeach pedestrian / cycle route programme			Y	Y			CD6															
A10 dualling and junctions			Y	Y			CD3a															
A14/A10 Milton Interchange			Y	Y			CD3b															
Waterbeach Park & Ride			Y	Y			CD5b															
Waterbeach Barracks to north Cambridge Busway			Y	Y			CD5a															
Waterbeach new station			Y	Y			CD4															

4. Further detail and study work

The scope of the transport strategy and the short timescales involved in preparing it in line with the processes for the Local Plans has meant that whilst a number of principles have been set out in the strategy, the exact detail of specific schemes has not yet been defined in many cases. Furthermore, as set out in the previous section, there are some areas – mainly related to small-scale local schemes, cycling and walking schemes in certain corridors, and smarter choices – where work will now begin on identifying and developing up schemes in line with the strategy approach. When this action plan is updated, a much more detailed programme for those areas of work can expect to be included.

Schemes with more detail

In addition to the main action plan and programme, a set of appendices is included. They are structured by corridor, with Cambridge having its own section. Within each appendix, a summary is given of all the interventions planned for that corridor along with an indication of how the scheme will be delivered. For each City Deal scheme, there is then a series of tables which give more detail on the individual schemes.

Further study work

A number of principles have been set out in the strategy which received strong support though the consultation, however further work is needed to establish exactly how they might work on the ground. Strong support was expressed for increasing the amount of road space for public transport, cyclists and pedestrians and for restricting car traffic movement in some areas if it resulted in a boost to walking, cycling and public transport usage. These issues and how they interact with and affect other areas of the network are complex. As such, further work to understand some of these impacts is needed, from which exact schemes will be derived. These studies are an important priority for the strategy to set the direction in future years. The areas that will require more detailed study work, and for the first two in particular, more detailed modelling, can be summarised as follows:

Cambridge city access and capacity study

Whilst a number of principles for Cambridge have been set out in the strategy, their interaction needs to be considered and modelled in much more detail. Further work is needed to consider capacity and access in and around Cambridge more holistically. This will help inform what longer term options might include, as well as a range of operational proposals relating to accessibility, demand management, access controls, bus and taxi routes and capacity as well as public realm, way finding and how digital infrastructure can help make Cambridge a Smart and more accessible City overall.

A1307 public transport study

Whist a number of short-medium term bus priority schemes for this corridor are proposed as part of the City Deal programme, in the longer term there is a need for a more radical and large scale high quality public transport improvement along the corridor in the future. This would be complementary to the proposals included in the City Deal scheme, rather than superseding them. Further study is required to determine what the preferred scheme might be but possible options for consideration include:

- Comprehensive bus priority along the A1307 between Haverhill and Cambridge

- Single-track busway parallel to the A1307
- Twin-track busway between Haverhill and Shelford/Cambridge Biomedical Campus along the route of the old Haverhill to Cambridge railway
- Hybrid A1307/railway-alignment busway
- Reopening the old railway between Haverhill and Cambridge

Cycling and walking schemes

The transport strategy approach seeks to mainstream cycling and deliver an even greater modal shift towards cycling and walking. In Cambridge, because of the already strong cycling culture, the desired network is well understood along with the desired standard. However, there is a significant opportunity for a step change in the type of provision as part of the City Deal programme and further work needs to be undertaken to challenge whether standards of cycle provision could be even higher.

Along the corridors, work has been undertaken to establish broad networks on the two corridors where major development is taking place. However on the remaining corridors, other than a requirement for a strategic route connecting Cambridge to the relevant market town, further work is needed to define local networks.

Small scale local traffic and safety schemes

Whilst many of the larger schemes have been defined in principle at least, time constraints have not allowed for detailed consideration of the small scale traffic and safety improvements which can be just as important in a local context. Resources will be allocated to this area during 2014/15 to work with local communities and build up a programme of schemes for inclusion in the next revision of the Action Plan.

Smarter Choices

This is an important area of work that will be critical to squeezing as much benefit as possible from the schemes that are delivered. Packages of measures will be put together to help people change behaviour, particularly when new infrastructure is put in place and a rolling programme that reflects the development timescales will be established.

Appendix A. General overview

Introduction

The appendices to the action plan give more detailed information about the schemes included in the strategy. The appendices cover Cambridge and the seven main radial corridors into the city, and are structured in this manner. Each appendix contains a brief summary of the plans for the corridor, followed by a table summarising all schemes intended for delivery regardless of whether a funding source has currently been identified. A series of tables then follows for each of the City Deal schemes relevant to that area. They are intended to give an at-a-glance overview of:

- what each scheme is
- its objective
- outputs and outcomes
- an indication of its value for money
- costs and funding
- delivery and risk
- status of the project and whether further information is available

Non-City Deal schemes fall into the following categories:

- Will be delivered by a partner organisation
- Are packages of work still to be undertaken to define specific schemes. They will typically be funded through the Integrated Transport pot, the Local Sustainable Transport Fund or through development.

Definitions

For a strategy of this size and complexity, many of the schemes are in the very early stages of development. As such, in many cases the exact costs, or timescales are not yet known. For consistency a number of terms have been used to give an indication of costs, timescales and status of the project. These are summarised as follows:

Timescales

The timescales used mirror the financial planning periods that are used and are defined as:

- Short term: Year 1 (2015/16)
- Medium term: Years 2-5 (2016/17 to 2020/21)
- Long term: Year 6 onwards (2022 onwards)

Costs

In order for a broad range of costs to be categorised as high, medium or low, some context needs to be given to the type of scheme in question. For example, a high cost major transport scheme will not cost the same as a high cost local sustainable transport scheme

Figure A.1 Definition of costs

	Major Transport schemes	Local Transport schemes	Local sustainable transport programme
Very low	n/a	<£10k	
Low	£2m-£5m	£10k - £100k	
Medium	£5m-£30m	£100k - £500k	
High	>£30m	>£500k	

Stages in scheme development

In order for an indication to be given of how far a scheme has progressed the following definitions are used.

Term	Definition
Option identification	Generation of possible options. Study work. Consultation.
Option selection	Options assessed against specific criteria, feasibility studies. Consultation. Business case work. Preferred option agreed.
Preliminary design	Technical drawings and information collated. Consultation.
Detailed design	Technical drawings and information collated. Consultation.
Statutory powers and consents	Planning application and other consents prepared and applied for. Consultation. Possible Public Inquiry.
Procurement	Tendering, contract preparation and award.
Construction	Commencement of building the scheme.
Operation	Handover, commissioning and use of the scheme.

Appendix B. Cambridge

Section 5 of the strategy outlines the key issues for Cambridge.

Strategic Transport interventions

The focus for Cambridge will be on giving priority to public transport, cyclists and pedestrians on the key radial routes into the city. In addition, orbital public transport movements will be prioritised through the provision of new busway links. To enable road space in the city to be reallocated to public transport, cycling walking, the principles of the Cambridge Core Traffic Scheme will be extended to apply distance, time and cost penalties to car trips.

Figure B.1 summarises the interventions planned for Cambridge.

Figure B.1 Summary of Cambridge interventions

■	**City Deal scheme** (with funding package established including developer contributions)	◆	**Scheme being delivered by partner organisation**	○	**Scheme investigated further and defined through Cambridge Study**. Funding package to be established.

Intervention		Further information
Interchanges and service improvements		
Cambridge Science Park Station	◆	Being delivered by Network Rail
Provision of new 1,000 space P&R site at Hauxton	■	Scheme CD7a
Expansion of Milton P&R to 2,000 spaces	○	
Improved passenger facilities at Cambridge Station	◆	Being delivered by the Greater Anglia franchise holder.
Rail service frequency increases	◆	Being delivered by Train Operating Companies
Improve accessibility of Babraham Road site through the provision of segregated car access	■	Part of City Deal scheme CD10a
Relocation of Newmarket Road P&R site to Airport Way and expansion to 2,500 spaces	■	Scheme CD12b
Consideration of a new railway station at Cherry Hinton	○	
Consideration of a new railway station at Fulbourn	○	
Passenger Transport – radial links		
Bus Priority - Madingley Road	■	Part of City Deal scheme ref CD1d*
Bus Priority – Histon Road	■	Part of City Deal scheme ref CD5d*
Bus Priority – Milton Road	■	Part of City Deal scheme ref CD5c*
Bus Priority – Newmarket Road	■	Part of City Deal scheme ref CD12a*
Bus Priority – Hills Road	■	Part of City Deal scheme ref CD10c*
Bus Priority – Chesterton Road	○	
Bus Priority – East Road	○	
Bus Priority – Hauxton to Trumpington	■	Part of City Deal scheme ref CD7b*
Bus Priority – Milton P&R to Milton Road Busway junction	■	Part of City Deal scheme ref CD5a*

Intervention		Further information
Busway between new Hauxton P&R site and Trumpington P&R	■	Part of City Deal scheme ref CD7b
Inbound bus lane between Addenbrooke's and Cherry Hinton Road	■	Part of City Deal scheme ref CD10c
Intervention		**Further information**
Passenger Transport – radial links		
Comprehensive bus priority between Station Road and Gonville Place	■	Part of City Deal scheme ref CD10c
Bus Priority – Mill Road	○	
Busway between Milton P&R and Cambridge Science Park	■	Part of City Deal scheme ref CD5a
Bus priority/busway between Airport Way and Barnwell Road	■	Part of City Deal scheme ref CD12a
Bus priority between Barnwell Road and Abbey Stadium	■	Part of City Deal scheme ref CD12a
Busway between Abbey Stadium and East Road	■	Part of City Deal scheme ref CD12a
Passenger transport – orbital links		
Busway/bus priority between Histon Road and Madingley Road through new development	◆	Will be delivered by developers
Bus links between Chesterton, Cambridge Science Park and West Cambridge and onwards to Addenbrooke's through the city or on M11	○	
Busway/bus priority parallel to M11 corridor	■	City Deal scheme ref CD13
Bus priority – Addenbrooke's to Coldham's Lane	■	City Deal scheme ref CD14a
Busway linking Coldham's Lane to Newmarket Road	■	City Deal scheme ref CD14a
Busway linking Coldham's Lane to Cambridge Science Park Station	■	
Busway linking Cambridge Science Park Station to Milton Road		Will be delivered by the County Council as part of the Cambridge Science Park Station scheme using DfT funding.
Orbital highway capacity		
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		
Provision of a cycle park at Cambridge Station	◆	Will be delivered by the Greater Anglia franchise
Improvements to the city centre streetscape and public realm	○	
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	■	Part of City Deal scheme CD15c
Investigate bus tunnels as a possible longer term option for addressing capacity constraint in city centre	○	

Intervention		Further information
Demand Management		
Extension to Core Traffic Scheme to cover Maid's Causeway	○	
Expansion of Controlled Parking Zone across Cambridge and South Cambridgeshire fringes	○	
Expansion of Core Traffic Scheme principles	○	
Walking and cycling		
Provision of the Chisholm Trail, an orbital cycle way connecting Addenbrooke's to Cambridge Science Park	■	City Deal scheme CD15a
Development of a comprehensive, high quality cycling and walking network	■	City Deal scheme CD15b
Smarter Choices		
Package of work to define schemes	○	
Small scale local traffic management and safety schemes		
Package of work to define schemes	○	

General scheme information	
Scheme reference:	CD1d
Project name:	**Madingley Road Bus Priority**
Brief description:	High quality on-line bus priority measures between M11 and Queen's Road, Cambridge.
Scheme objective:	To ensure that a bus journey between the M11 and Queen's Road, is direct and unaffected by congestion caused by general traffic on the corridor
Desired outputs and outcomes (including success measures):	• On-line bus priority measures between the M11 and Queen's Road • Buses can compete with the private car on journey times
Project start and completion years:	• Medium term • Early delivery planned through City Deal • Business case development planned 2014/15 • Scheme delivery planned 2016/17 to 2018/19
Value for money	
Evidence of need / market demand:	This scheme is part of the improvements along the whole of the A428 corridor to accommodate further additional growth focussed on West Cambourne and Bourn Airfield. The stretch of road between the M11 junction and Queen's Road is already a pinch point on the corridor that causes congestion for both general traffic and public transport. In order for the A428 corridor to accommodate the additional trips generated as a result of the allocation, without increasing congestion on the A428 into Cambridge, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic through along this stretch of the corridor and into the centre of Cambridge.
Economic benefits:	The link will form part of a longer segregated bus route between the Caxton Gibbet roundabout and Cambridge, helping to facilitate development both at the West Cambourne and Bourn Airfield sites and also further afield in St Neots (outside the strategy area)
Costs and funding	
Overall project costs (estimated)	Major Scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council/Cambridge City Council/Developers of West Cambourne/Bourn Airfield site
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that the new journeys created by the developments at West Cambourne and Bourn Airfield will be predominantly car-based as public transport is not able to compete with the private car in terms of journey time or reliability. This will lead to increased congestion on the A428 corridor, with the junction of the A428 and A1303 particularly exacerbated,
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

General scheme information	
Scheme reference:	CD5c
Project name:	**Milton Road Cambridge, Bus Priority**
Brief description:	High quality on-line bus priority measures between the Milton Interchange and Mitcham's Corner, Cambridge.
Scheme objective:	To ensure that bus journeys between the Milton Interchange and Mitcham's Corner are direct and unaffected by congestion caused by general traffic on the corridor.
Desired outputs and outcomes (including success measures):	• On-line bus priority measures between the Milton Interchange and Mitcham's Corner • Buses can compete with the private car on journey times
Project start and completion years:	• Medium term • Early delivery planned through City Deal • Business case development planned 2014/15 • Scheme delivery planned 2017/18 to 2019/20
Value for money	
Evidence of need / market demand:	This scheme is part of the improvements along the whole of the A10(N) corridor to accommodate further additional growth at Waterbeach Barracks. Milton Road is already a pinch point on the corridor that causes congestion for both general traffic and public transport. In order for the A10(N) corridor to accommodate the additional trips generated as a result of the allocation, without increasing congestion on the A10(N) into Cambridge, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic through along this stretch of the corridor and into the centre of Cambridge.
Economic benefits:	The link will form part of a longer segregated bus route between a new P&R site to the north of the Waterbeach development and Cambridge, helping to facilitate development both at Waterbeach and also further afield in Ely (outside the strategy area)
Costs and funding	
Overall project costs (estimated)	Major scheme - medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, Bus operators, local residents
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that the new journeys created by the development at Waterbeach will be predominantly car-based as public transport is not able to compete with the private car in terms of journey time or reliability. This will lead to increased congestion on the A10 (N) corridor, with the Milton Interchange particularly exacerbated,
Proposed management of delivery	To be decided once preferred option is identified
Further information available	No

General scheme information	
Scheme reference:	CD5d
Project name:	**Histon Road, Cambridge, Bus Priority**
Brief description:	High quality on-line bus priority measures between the Histon Interchange and the junction of Histon Road, Huntingdon Road and Victoria Road, Cambridge.
Scheme objective:	To ensure that a bus journey between the Histon Interchange and the junction of Histon Road, Huntingdon Road and Victoria Road, is direct and unaffected by congestion caused by general traffic on the corridor
Desired outputs and outcomes (including success measures):	• On-line bus priority measures where possible between the Histon Interchange and the junction of Histon Road, Huntingdon Road and Victoria Road • Buses can compete with the private car on journey times
Project start and completion years:	• Medium term • Early delivery planned through City Deal • Scheme delivery planned 2017/18 to 2018/19
Value for money	
Evidence of need / market demand:	This scheme is part of the improvements along the whole of the A10(N) corridor to accommodate further additional growth at Waterbeach Barracks. Histon Road is already a pinch point on the corridor that causes congestion for both general traffic and public transport. In order for the A10(N) corridor to accommodate the additional trips generated as a result of the allocation, without increasing congestion on the A10(N) into Cambridge, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic through along this stretch of the corridor and into the centre of Cambridge.
Economic benefits:	The link will form part of a longer segregated bus route between a new P&R site to the north of the Waterbeach development and Cambridge, helping to facilitate development both at Waterbeach and also further afield in Ely and (outside the strategy area)
Costs and funding	
Overall project costs (estimated)	Major scheme - low
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, Bus operators, local residents
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that the new journeys created by the development at Waterbeach will be predominantly car-based as public transport is not able to compete with the private car in terms of journey time or reliability. This will lead to increased congestion on the A10 (N) corridor, with the Milton Interchange particularly exacerbated,
Proposed management of delivery	To be decided once preferred option is identified
Further information available	No

General scheme information	
Scheme reference:	CD10C
Project name:	**Project Cambridge, Hills Road**
Brief description:	Connecting Cambridge rail station and the city centre using a high quality 'green link'.
Scheme objective:	To significantly improve the experience for pedestrians and cyclists travelling between the city centre and Cambridge rail station, including a much improved public realm.
Desired outputs and outcomes (including success measures):	• Improved cycle and pedestrian connectivity between the city centre and station • Hills Road and Regents Street given a sense of place, not just a place to pass through – commercial and social value added • Widened pavements, increased cycle parking, reduced street clutter
Project start and completion years:	• Short-medium term • Business case development planned 2014/15 • Scheme delivery planned 2017/18 to 2019/20
Value for money	
Evidence of need / market demand:	Hills Road is one of the key radials into the city and provides the gateway to the city from Cambridge Station. Project Cambridge will complement the improvements made to the station area through the CB1 development, extending improvements to the public realm into the city centre. The project will integrate this area into the wider city and will transform Station Road, Hills Road and Regents Street from the currently fragmented and confused route for pedestrians and cyclists.
Economic benefits:	Cambridge rail station is the international gateway to Cambridge, providing a major link to Stansted airport. Through public realm, cycling, walking and public transport improvements, the route between the city centre and the station will be enhanced to make it feel better connected and more direct. It will deliver improved conditions for growth and economic prosperity.
Costs and funding	
Overall project costs (estimated)	Major scheme – Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridge City Council
Other partners involved	Cambridgeshire County Council, local residents and businesses, bus operators
Status or stage the project has reached, and key milestones	**Option Selection.** Options for potential solutions are being identified. The next key milestone will be to select a preferred option. The project will be looked at as part of the wider Cambridge City Access and Capacity Study looking at the south-east quadrant of the city.
Deliverability and risk	This project will inform the wider Cambridge City Access and Capacity Study, which may conclude that a different approach for this corridor is necessary, when it is looked at in a wider context. Not delivering the improvements outlined in this project would mean that a poor pedestrian and cycle experience remains between the station and city centre and the local economy and vibrancy of the area is not enhanced.
Proposed management of delivery	To be decided once preferred option is identified.
Further information available	No

General scheme information	
Scheme reference:	CD12a
Project name:	**Newmarket Road Bus Priority**
Brief description:	High quality on-line bus priority and segregated busway measures along the length of Newmarket Road, between the junction with East Road/Elizabeth Way and the junction with Airport Way
Scheme objective:	To ensure that a bus journey between the Elizabeth Way/East Road/Newmarket Road junction and Airport Way is direct and unaffected by congestion caused by general traffic on the corridor
Desired outputs and outcomes (including success measures):	• Busway between East Road and the Abbey Stadium • Bus priority between the Abbey Stadium and Barnwell Road • Bus priority or busway between Barnwell Road and Airport Way • Buses can compete with the private car on journey times
Project start and completion years:	• Medium term • Early delivery planned through City Deal • Business case development planned 2016/17 • Scheme delivery planned 2019/20 to 2022/23
Value for money	
Evidence of need / market demand:	This scheme is part of the wider improvements needed to increase public transport capacity on the radial routes into the city. Newmarket Road is already a pinch point on the corridor that causes congestion for both general traffic and public transport, both in the morning and evening peaks but also at weekends due to the retail sheds along the route. In order for additional trips in the city to be accommodated without increasing congestion on the existing network, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic through along this stretch of the corridor and into the centre of Cambridge.
Economic benefits:	The link will form part of a wider high quality bus network around the city, helping to facilitate major development both in the city and outside it.
Costs and funding	
Overall project costs (estimated)	Major scheme – high
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, bus operators, local residents
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that new journeys created by the development developments both within and outside the city will be predominantly car-based as public transport is not able to compete with the private car in terms of journey time or reliability. This will lead to increased congestion on an already busy road network within the city.
Proposed management of delivery	To be decided once preferred option is identified
Further information available	No

General scheme information	
Scheme reference:	CD12b
Project name:	**Newmarket Road – Airport Way Park and Ride**
Brief description:	Relocation of Newmarket Road P&R site to Airport Way and expansion to 2,500 spaces
Scheme objective:	To intercept more car journeys before they reach the city
Desired outputs and outcomes (including success measures):	• A relocated, expanded P&R site on Airport Way • An increased number of car journeys on the corridor intercepted
Project start and completion years:	• Medium term • Earlier delivery planned through City Deal • Business case development planned 2019/20 • Scheme delivery planned 2022/23 to 2023/24
Value for money	
Evidence of need / market demand:	Keeping unnecessary car trips out of the city is a cornerstone of the transport strategy for Cambridge and South Cambridgeshire. An expanded ring of Park & Ride sites is one of the ways that this will be achieved. The existing Park & Ride site on Newmarket Road is one of the oldest and will not be large enough to cope with the continued increase in demand as the economy in and around the city grows.
Economic benefits:	Coupled with the planned improvements for public transport along the Newmarket Road corridor, a relocated Park & Ride site will provide a high quality public transport corridor for this side of the city. It will help to deliver the planned economic growth for the city and in particular will assist with delivering the vision for the Opportunity Area at the Eastern Gate.
Costs and funding	
Overall project costs (estimated)	Major scheme - medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, South Cambridgeshire District Council, bus operators, local residents
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that new journeys created by growth both within and outside the city won't be intercepted at the edge of the city as the existing P&R site will not have the capacity to cater for the growth. This will result in further congestion on a network that is already at capacity in many places and people not being able to interchange from the car to public transport to take advantage of the high quality public transport corridor on Newmarket Road.
Proposed management of delivery	To be decided once preferred option is identified
Further information available	No

General scheme information	
Scheme reference:	CD13
Project name:	**M11 Parallel Bus Priority**
Brief description:	Dedicated bus facility to run parallel to the M11 between junction 11 (Trumpington) and junction 13 (Madingley Road)
Scheme objective:	To provide a segregated means of buses travelling orbitally between the university developments in the north west of the city and the biomedical campus to the south, without being held up in congestion caused by general traffic
Desired outputs and outcomes (including success measures):	• A dedicated, segregated bus facility running parallel to the M11 between junction 11 (Trumpington) and junction 13 (Madingley Road) • Buses able to compete with the private car on journey time
Project start and completion years:	• Long term • Earlier than envisaged delivery planned through City Deal • Business Case development planned 2021/22 • Scheme delivery planned 2023/24 to 2024/25
Value for money	
Evidence of need / market demand:	This scheme is part of the wider improvements needed to increase public transport capacity on the orbital routes around the city. A journey made by bus between the north west of the city - where significant university development is planned – and the Biomedical Campus in the south must currently be made by going through the city centre and out again. Buses invariably get caught up in congestion caused by general traffic and the time taken to travel such a relatively short distance is disproportionately long. In order for additional trips in the city to be accommodated without increasing congestion on the existing network, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic in this part of the city.
Economic benefits:	Coupled with the planned increases in orbital capacity for public transport elsewhere in the city, this section of high quality public transport infrastructure will help to deliver the planned economic growth for the city. In particular it will assist with connecting two major areas of growth in the city at North West Cambridge and on the Addenbrooke's Campus.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, South Cambridgeshire District Council, Highways Agency, bus operators
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that new journeys created by growth both within and outside the city won't be accommodated on the public transport network. This will result in further congestion on a network that is already at capacity in many places
Proposed management of delivery	To be decided once preferred option is identified
Further information available	No

General scheme information	
Scheme reference:	CD14a
Project name:	**Ring Road bus priority – Addenbrooke's to Newmarket Road**
Brief description:	Online high quality bus priority on the ring road connecting Addenbrooke's to Newmarket Road by way of Fendon Road, Mowbray Road, Perne Road, Brook's Road and Coldham's Lane
Scheme objective:	To provide a means of giving priority to buses travelling orbitally between the biomedical campus in the south of the city and the western side of the city, without being held up in congestion caused by general traffic
Desired outputs and outcomes (including success measures):	• A high quality bus priority route connecting Addenbrooke's to Newmarket Road • Buses able to compete with the private car on journey time and reliability
Project start and completion years:	• Long term • Earlier than envisaged delivery planned through City Deal • Business Case development planned 2019/20 • Scheme delivery planned 2021/22 to 2023/24
Value for money	
Evidence of need / market demand:	This scheme is part of the wider improvements needed to increase public transport capacity on the orbital routes around the city. A journey made by bus between the Biomedical Campus in the south and the west of the city must currently be made by going through the city centre and out again. Buses invariably get caught up in congestion caused by general traffic and the time taken to travel such a relatively short distance is disproportionately long. In order for additional trips in the city to be accommodated without increasing congestion on the existing network, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic in this part of the city.
Economic benefits:	Coupled with the planned increases in orbital capacity for public transport elsewhere in the city, this section of high quality public transport infrastructure will help to deliver the planned economic growth for the city. In particular it will assist with connecting one of the city's major areas of growth with the west of the city.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, South Cambridgeshire District Council, bus operators
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that new journeys created by growth both within and outside the city won't be accommodated on the public transport network. This will result in further congestion on a network that is already at capacity in many places.
Proposed management of delivery	To be decided once preferred option is identified
Further information available	No

General scheme information	
Scheme reference:	CD14b
Project name:	**Newmarket Road to Cambridge Science Park Station Busway**
Brief description:	A busway linking Newmarket Road to the new Cambridge Science Park Station
Scheme objective:	To provide a segregated means of buses travelling orbitally between west of the city and the new Cambridge Science Park Station, without being held up in congestion caused by general traffic
Desired outputs and outcomes (including success measures):	• A busway link between Newmarket Road and Cambridge Science Park Station • Buses able to compete with the private car on journey time and reliability
Project start and completion years:	• Long term • Earlier than envisaged delivery planned through City Deal • Business Case development planned 2019/20 • Scheme delivery planned 2023/24 to 2025/26
Value for money	
Evidence of need / market demand:	This scheme is part of the wider improvements needed to increase public transport capacity on the orbital routes around the city. A journey made by bus between the west of the city and the north of the city must currently be made by going through the city centre and out again. Buses invariably get caught up in congestion caused by general traffic and the time taken to travel such a relatively short distance is disproportionately long. In order for additional trips in the city to be accommodated without increasing congestion on the existing network, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic in this part of the city.
Economic benefits:	The opening of Cambridge Science Park Station will result in a major new transport interchange for the north of the city, however people travelling from the west of the city by bus to use the new station will currently undertake a circuitous route to reach it. Coupled with the planned increases in orbital capacity for public transport elsewhere in the city, this section of high quality public transport infrastructure will help to deliver the planned economic growth for the city. In particular it will assist with opening up accessibility to Cambridge Science Park Station to the west of the city.
Costs and funding	
Overall project costs (estimated)	Major scheme - High
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, South Cambridgeshire District Council, bus operators
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that new journeys created by growth both within and outside the city won't be accommodated on the public transport network. This will result in further congestion on a network that is already at capacity in many places.
Proposed management of delivery	To be decided once preferred option is identified
Further information available	No

General scheme information	
Scheme reference:	CD15a
Project name:	**Chisholm Trail**
Brief description:	A strategic cycle route that will extend along the rail corridor from Cambridge Station in the south of the city through to the Cambridge Science Park Station
Scheme objective:	To bridge the gap between two strategic cycle routes to the north and south of the city and connect the commercial hub of the city around Cambridge Station to employment sites such as the Cambridge Science Park and Cambridge Business Park in the north of the city.
Desired outputs and outcomes (including success measures):	• A strategic cycle route that will extend along the rail corridor from Cambridge Station in the south of the city through to the Cambridge Science Park Station • Increased level of cycling within the city • Release of extra highway capacity in the city
Project start and completion years:	• Short-medium term • Scheme preparation planned 2014/15 • Scheme delivery planned 2015/16 to 2016/17
Value for money	
Evidence of need / market demand:	Cycling links between the south of the city and the north are currently indirect, on road and of varying quality. Research shows that having completely segregated, high quality cycle infrastructure is the biggest single factor in encouraging people to take up cycling. This piece of infrastructure will significantly help to increase levels of cycling in the city, which is a key element of accommodating major new growth whilst keeping traffic levels at current levels.
Economic benefits:	Coupled with the planned increases in capacity for cycling elsewhere in the city, this section of high quality public transport infrastructure will help to deliver the planned economic growth for the city. In particular it will assist with connecting the Biomedical Campus at Addenbrooke's to the commercial hub of the city around Cambridge Station and onwards to other high-tech industries and employment sites to the north of the city, supporting the economic growth of these important sectors..
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, Network Rail, Cambridge Cycle Campaign, Sustrans
Status or stage the project has reached, and key milestones	**Preliminary Design** Technical design underway
Deliverability and risk	The planned new Cambridge Science Park Station is expected to have substantial transport and economic benefits for the Greater Cambridge area. Connectivity of the station to various modal transport networks is an important part of its appeal to commuters, business people and investors. If that scheme is not delivered, the number of trips that the Chisholm Trail would be expected to accommodate would be reduced as it would be a major destination. If the Chisholm Trail is not delivered, the accessibility of the new station would be reduced, particularly from areas to the east of the River Cam, thereby reducing its benefits.
Proposed management of delivery	To be decided
Further information available	No

General scheme information	
Scheme reference:	CD15b
Project name:	**Cross city cycle improvements**
Brief description:	Enhancing, improving and extending the network of cycle routes, crossings and other infrastructure in Cambridge
Scheme objective:	To encourage modal shift away from the private car and towards cycling.
Desired outputs and outcomes (including success measures):	• Developing a network of segregated cycle routes on arterial roads, safe junctions, crossings and an attractive network following quieter streets and open spaces • Reviewing all of the radial routes into the city to make them as safe, direct and attractive as possible • Enhancements through measures such as clear signage, cycle parking, public bike pumps and prominently-deployed bicycle counters • Increase in cycling numbers in the city
Project start and completion years:	• Short-medium term • Scheme preparation planned 2014/15 • Scheme delivery planned 2015/16 to 2016/17
Value for money	
Evidence of need / market demand:	In locations where brand new links have been created and cyclists and pedestrians aren't in conflict with motor vehicles, they have shown high usage levels almost immediately. For example, the Riverside Bridge linking Abbey with Chesterton was used by 1,900 people a day – almost double the level predicted – within a few months of opening and usage has grown ever since. Links such as the Riverside Bridge have contributed to large rises in the number of people who walk and cycle in the Greater Cambridge area. This programme continues investment in routes and facilities which will make walking and cycling safer and more convenient, and enable more people to make the choice to walk and cycle. This in turn will reduce the increasing pressure on the road network associated with growth.
Economic benefits:	Traffic congestion and poor journey time reliability are factors that impact negatively on business continuity and the attractiveness of the Greater Cambridge area to prospective investors. In this context, despite the very high levels of cycling seen in Cambridge, there is evidence of suppressed demand for cycling in the city. The upgrade and expansion of the Cambridge cycle network will create a realistic scenario whereby less confident cyclists would be able to make the majority of their trips on routes away from motor traffic, lifting cycling levels to a figure nearing 40%. This figure means that highway capacity could be released in the city, thus making way for further growth to be accommodated.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, Cambridge Cycle Campaign, Sustrans
Status or stage the project has reached, and key milestones	**Option Identification**. There is a long list of potential improvements that is already in place. Options for potential solutions in each location are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing preferred schemes. The risk of non-delivery of these cycling schemes is that cycling won't be seen

	as the preferred mode of travel for many of the new journeys that will be created as part of the growth agenda. If cycling routes aren't seen to be safe and direct levels of cycling won't increase as much as they need to to prevent new journeys being undertaken by car. This will result in further congestion on a network that is already at capacity in many places.
Proposed management of delivery	To be decided
Further information available	Yes, see Figure B2

General scheme information	
Scheme reference:	CD15c
Project name:	**City Centre cycle capacity improvements**
Brief description:	Measures to improve capacity for cycling movements in the city centre, including a new cycle parking facility or extension of one or both of the existing cycle parks
Scheme objective:	To encourage modal shift away from the private car and towards cycling
Desired outputs and outcomes (including success measures):	• A new city centre cycle park • Improved surfacing of pavement and off road pedestrian and cycle provision, especially in areas where surfaces are used by servicing vehicles. • Streetscape enhancements and measures to improve the legibility of the pedestrian and cycle network in the city centre • Increase in number of trips made by cycling
Project start and completion years:	• Short-medium term • Scheme preparation planned 2014/15 • Scheme delivery planned 2015/16 to 2018/19
Value for money	
Evidence of need / market demand:	Cycle parking in the centre of Cambridge is at a premium, and the two existing cycle parks (in the Park Street car park and at the Grand Arcade shopping centre) are often fully utilised. On street racks are typically full throughout the day. A new facility or extended facility will provide capacity for new trips, help ensure that demand is not suppressed, and reduce the number of cycles that will otherwise be attached to any available railing, lamp post or sign.
Economic benefits:	Traffic congestion and poor journey time reliability are factors that impact negatively on business continuity and the attractiveness of the Greater Cambridge area to prospective investors. In this context, despite the very high levels of cycling seen in Cambridge, there is evidence of suppressed demand for cycling in the city. The expansion of capacity in the city centre will help to address , lifting cycling levels to a figure nearing 40%. This figure means that highway capacity could be released in the city, thus making way for further growth to be accommodated.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	Cambridge City Council, Cambridge Cycle Campaign, Sustrans
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions in each location are being identified. The next key milestone will be to select preferred options
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing preferred schemes. The risk of non-delivery of these cycling schemes is that cycling won't be seen as the preferred mode of travel for many of the new journeys that will be created as part of the growth agenda. If cycling routes aren't seen to be safe and direct levels of cycling won't increase as much as they need to to prevent new journeys being undertaken by car. This will result in further congestion on a network that is already at capacity in many places.
Proposed management of delivery	To be decided
Further information available	No

Figure B.2 Summary of potential cycle improvements in Cambridge

This table lists some of the types of cycle improvements which could be implemented in Cambridge. It is not an exhaustive list and may be subject to change as related schemes are brought forward for implementation. As noted in Section 4, further study work is planned for cycling and walking schemes.

Location	Suggested
New Hauxton P&R site	Covered cycle parking and lockers
Milton P&R site expansion	Additional covered cycle parking and lockers
Relocation and expansion of Newmarket Road P&R site to Airport Way	Covered cycle parking and lockers. Good cycle and pedestrian access
Milton P&R to Milton Road busway junction	Cycle provision included with bus priority
Trumpington P&R to new Hauxton P&R	Cycle provision included with bus priority
Madingley Road	Cycle provision included with bus priority
Grange Road	Cycle provision included with bus priority
Histon Road	Cycle provision included with bus priority
Milton Road	Cycle provision included with bus priority
Newmarket Road	Cycle provision included with bus priority
Hills Road	Cycle provision included with bus priority
Chesterton Road	Cycle provision included with bus priority
East Road	Cycle provision included with bus priority
Hauxton to Trumpington	Cycle provision included with bus priority
Addenbrooke's to Cherry Hinton Road	Cycle provision included with bus priority
Station Road to Gonville Place	Cycle provision included with bus priority
Milton P&R to Cambridge Science Park	Cycle provision included with bus priority
Milton Road – Mitcham's Corner to Cambridge Science Park	Cycle provision included with bus priority
Cambridge Science Park Station to Milton Road	Cycle provision included with bus priority
Airport Way to Barnwell Road	Cycle provision included with bus priority
Barnwell Road to Abbey Stadium	Cycle provision included with bus priority
Abbey Stadium to East Road	Cycle provision included with bus priority
Mill Road	Cycle improvements included with bus priority where possible
Arbury Road, Queen's Road, Davy Road and Coleridge Road	Improved cycle provision
Cherry Hinton High Street, Queen Edith's Way and Long Road	Improved cycle provision
Gonville Place and Lensfield Road	Improved cycle provision
Brooks Road, Mowbray Road and Fendon Road	Improved cycle provision
Coldham's Lane to Newmarket Road	Improved cycle provision
Cambridge city centre	Additional on street cycle parking where possible
Trumpington Street/Silver Street junction	Safety improvements
Pembroke Street/Trumpington Street junction	Safety improvements
Coldham's Lane/Brooks Road/Barnwell Road roundabout	Remodel roundabout to a Dutch style design
Perne Road/Cherry Hinton Road roundabout	Remodel roundabout to a Dutch style design
Mowbray Road/Queen Edith's Way roundabout	Remodel roundabout to a Dutch style design
Elizabeth Way roundabouts	Remodel roundabout to a Dutch style design
Addenbrooke's roundabout	Remodel roundabout to a Dutch style design
Castle Street/Chesterton Road junction	Advanced green/ all green phases
Mitcham's Corner	Advanced green/ all green phases
Long Road/Hills Road junction	Advanced green/ all green phases
Arbury Road/Milton Road junction	Advanced green/ all green phases
Cherry Hinton Road/Queen Edith's Way/Cherry Hinton High Street	Advanced green/ all green phases
Coldham's Common	Widen and improve off road surface, with priority given to NCN route
Ditton Lane	Improved NCN crossing

Appendix C. Ely and Waterbeach to Cambridge

Section 5 of the main strategy identifies the transport issues on this corridor. Along this corridor, in the major developments some 1,400 of 9,000 new homes will have been built at the new development at Waterbeach by 2031 and further afield, some 3,900 new homes in Ely.

Strategic Transport interventions

The focus for this corridor will be on providing a segregated bus and cycle route between Waterbeach and the north of Cambridge to complement improvements to services on the railway which will also serve the new development. The busway will allow buses an unhindered route into the city and cyclists a safe, direct route between the city and the new developments. The segregated bus route will be enhanced by the provision of an additional Park & Ride site to the north of the development at Waterbeach to allow more traffic to be intercepted further out. Highway capacity improvements will also take place along the A10 between Waterbeach and the A14, and also at the Milton interchange.

While strategic transport interventions will have a wider benefit than just the new development, it is expected that the development at Waterbeach should contribute to these schemes.

Development- related interventions

In addition to the strategic transport interventions, the new development will need to ensure that the principles of segregated bus provision are continued in the vicinity of the site and that the site is fully linked into the bus, cycle and rail networks. The section later in this appendix set out the exact requirements for the development at Waterbeach.

Figure C.1 Summary of Ely and Waterbeach corridor interventions

■	City Deal scheme (with funding package established including developer contributions)	◆	Scheme being delivered by partner organisation	o	Scheme investigated further and defined through Cambridge Study. Funding package to be established.

Intervention		Further information
Creating a HQPT corridor		
King's Lynn to Cambridge service increase in frequency to half hourly	◆	Scheme Included in specification for new Thameslink rail franchise.
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 King's Cross fast services to be replaced with new IEP or Thameslink rolling stock	◆	Announcement of which type of stock to be used yet to be made
Improved interchange at Ely and Waterbeach	◆	
Platform lengthening at Waterbeach and Ely to take 12-carriage Thameslink trains or 10-carriage InterCity Express trains	◆	Scheme may be superseded by proposals for a relocated Waterbeach Station associated with Waterbeach Barracks development.
Electrification of rail lines feeding Cambridge in Network Rail Control Period 6 (2019 to 2024)	◆	
Replacement of diesel rolling stock on Norwich to Cambridge and Birmingham to Stansted services	◆	
A relocated Waterbeach station to serve the village and new town	■	City Deal scheme CD4
A busway link connecting a new P&R site, new town centre and new station to north Cambridge	■	City Deal scheme CD5a
A Park & Ride site on the A10 to intercept traffic from the north of Waterbeach	■	City Deal scheme CD5b
Highway capacity		
Additional capacity for general traffic between the northernmost access to the new town and the Milton Interchange of the A10 with the A14 trunk road	■	City Deal scheme CD3a
Additional capacity at the Milton Interchange for movements between the A10 and A14, and the A14 and A10	■	City Deal scheme CD3b
Delivery or funding of any measures required to mitigate the traffic impact of the new town on Horningsea, Fen Ditton, Milton and Landbeach	◆	To be delivered by developer
Cycling and walking		
Direct, segregated pedestrian and cycle route from north Cambridge to the Cambridge Research Park	■	Part of City Deal scheme CD6
Direct, segregated pedestrian and cycle route from the Cambridge Research Park to Ely	■	Part of City Deal scheme CD6
Direct, segregated pedestrian and cycle links to surrounding villages of Milton, Cottenham, Histon and Impington, Landeach, Horningsea, Fen Ditton, Chittering and Stretham and to transport interchanges	■	Part of City Deal scheme CD6
Smarter choices		

Intervention		Further information
A smarter choices package including residential, school and workplace travel planning	O	
Small scale local traffic management and safety schemes		
A package of measures to be worked up	O	

General scheme information	
Scheme reference:	CD4
Project name:	**Waterbeach Station relocation**
Brief description:	A relocated Waterbeach Station to serve the village and the new town, with platforms (capable of taking 12-carriage Thameslink trains or 10-carriage InterCity Express trains)
Scheme objective:	To increase the accessibility of the new town by public transport
Desired outputs and outcomes (including success measures):	• A new railway station more centrally located between the new town and the existing village • Increased percentage of people travelling from Waterbeach by train
Project start and completion years:	• Long term • Business case development planned 2024/25 • Scheme delivery planned 2027/28 to 2028/29
Value for money	
Evidence of need / market demand:	This scheme forms part of the package of measures for developing Waterbeach Barracks into a new town. A station already exists in the village of Waterbeach, however its current location is not ideal for encouraging residents of the new town to use the train. In addition, the rail industry is proposing significant service improvements along this line, including the introduction of 12-carriage trains. A relocated station would enable longer platforms to be provided to take advantage of the longer trains and increased capacity.
Economic benefits:	The scheme is integral to the delivery of the new development at Waterbeach which will help support the economic growth of the area by providing homes for people coming to work in the area.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the Waterbeach development
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Network Rail, Train Operating Companies (TOCs)
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk associated with the non-delivery of this scheme is that the existing station won't be convenient for residents of the new development and these people will choose to travel by car along the already congested A10 towards Cambridge.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

General scheme information	
Scheme reference:	CD5a
Project name:	**Waterbeach Barracks Busway**
Brief description:	A busway link from the station and town centre to north Cambridge, including a fully segregated crossing of the A14 Trunk Road
Scheme objective:	To ensure that a bus journey between the centre of the new town, the relocated railway station and the outskirts of is direct and unhindered by congestion along the A10 or the A10/A14 junction.
Desired outputs and outcomes (including success measures):	• A busway link from Waterbeach station and the town centre to north Cambridge, including a fully segregated crossing of the A14 • Bus journeys able to compete with the private car in terms of journey time
Project start and completion years:	• Long term • Business case development planned 2023/24 • Scheme delivery planned 2026/27 to 2028/29
Value for money	
Evidence of need / market demand:	This scheme forms part of the package of measures for developing Waterbeach Barracks into a new town. The A10 is already congested and buses that currently use the road as their route into Cambridge get caught up in the same queues as general traffic, giving them no advantage over the private car. For the new development at Waterbeach to be acceptable in transport terms, a high proportion of trips will need to be made by public transport. In order for buses to have an advantage over the private car, the journey needs to be direct and segregated from general traffic.
Economic benefits:	The scheme is integral to the delivery of the new development at Waterbeach which will help support the economic growth of the area by providing homes for people coming to work in the area.
Costs and funding	
Overall project costs (estimated)	Major scheme - High
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the Waterbeach development
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, developers of Waterbeach site, The University of Cambridge, bus operators, community transport operators, residents' organisations
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk associated with the non-delivery of this scheme is that journeys by bus will not be a reliable or attractive enough option for people to leave their car at home. Without a dedicated segregated bus link the journey will take too long as the bus will get caught up in the same congestion as general traffic. This will mean that not enough journeys generated by the new development will be made by public transport, thus increasing traffic on the already congested A10 towards Cambridge and making the new development unacceptable in transport terms.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No.

General scheme information	
Scheme reference:	CD5b
Project name:	**A10 (N) corridor outer Park & Ride site**
Brief description:	Park & Ride site on A10 to intercept traffic from the north of Waterbeach, served by new busway link to Cambridge. Alignment to be determined.
Scheme objective:	To intercept traffic from the north of Waterbeach and provide an opportunity for interchange onto public transport for the remainder of the journey
Desired outputs and outcomes (including success measures):	• A new Park & Ride site on the A10 north of Waterbeach • Contribute to relief of congestion on the A10 • Greater number of people using public transport for part of their journey
Project start and completion years:	• Long term • Business case development planned 2023/24 • Scheme delivery planned 2026/27 to 2027/28
Value for money	
Evidence of need / market demand:	This scheme forms part of the package of measures for developing Waterbeach Barracks into a new town. There is a significant volume of traffic from the north of Waterbeach that contributes to the congestion on the southern stretch of the A10. The Park & Ride site at Milton currently caters for not only this traffic but also traffic coming off the A14. By providing an additional Park & Ride site further out, more general traffic could be intercepted before reaching the southern stretch of the road, thus helping with the capacity problem on the A10 and also freeing up capacity at the existing Milton Park & Ride.
Economic benefits:	The scheme is integral to the delivery of the new development at Waterbeach which will help support the economic growth of the area by providing homes for people coming to work in the area.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the Waterbeach development
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Cambridge City Council, developers of Waterbeach site, The University of Cambridge, bus operators, community transport operators, residents' organisations
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk associated with the non-delivery of this scheme is that volumes of traffic from the north of Waterbeach will continue to increase, putting greater pressure on the already congested A10. By intercepting some of this traffic further out, some of the congestion can be relieved.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No.

General scheme information	
Scheme reference:	CD3a
Project name:	**A10 capacity improvements**
Brief description:	Additional capacity for general traffic between the northernmost access to the new town and the Milton Interchange of the A10 with the A14
Scheme objective:	To relieve pinch points and provide additional capacity on the A10 between the northernmost access to the Waterbeach new town and the junction of the A10 and A14
Desired outputs and outcomes (including success measures):	• Additional capacity on an alignment to be determined on the stretch of the A10 between the northernmost access to the new town and the A10/A14 junction. • Reduced queuing time on the A10 towards Cambridge
Project start and completion years:	• Long term • Business case development planned 2022/23 • Scheme delivery planned 2024/25 to 2027/28
Value for money	
Evidence of need / market demand:	The scheme is integral to the delivery of the new development at Waterbeach. Congestion on the A10 is already bad at peak times and often during the inter-peak as well. Whilst it is intended that a high proportion of trips generated by the new development will be undertaken by public transport, cycling and walking, there will still be some trips that will be made by car and that will use this stretch of road, placing more demand on it.
Economic benefits:	The scheme is integral to the delivery of the new development at Waterbeach which will help support the economic growth of the area by providing homes for people coming to work in the area.
Costs and funding	
Overall project costs (estimated)	Major scheme - High
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the Waterbeach development
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Cambridge City Council, developers of Waterbeach site, residents' organisations
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk associated with the non-delivery of this scheme is that additional trips generated by the new development at Waterbeach will worsen congestion on this stretch of the A10.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

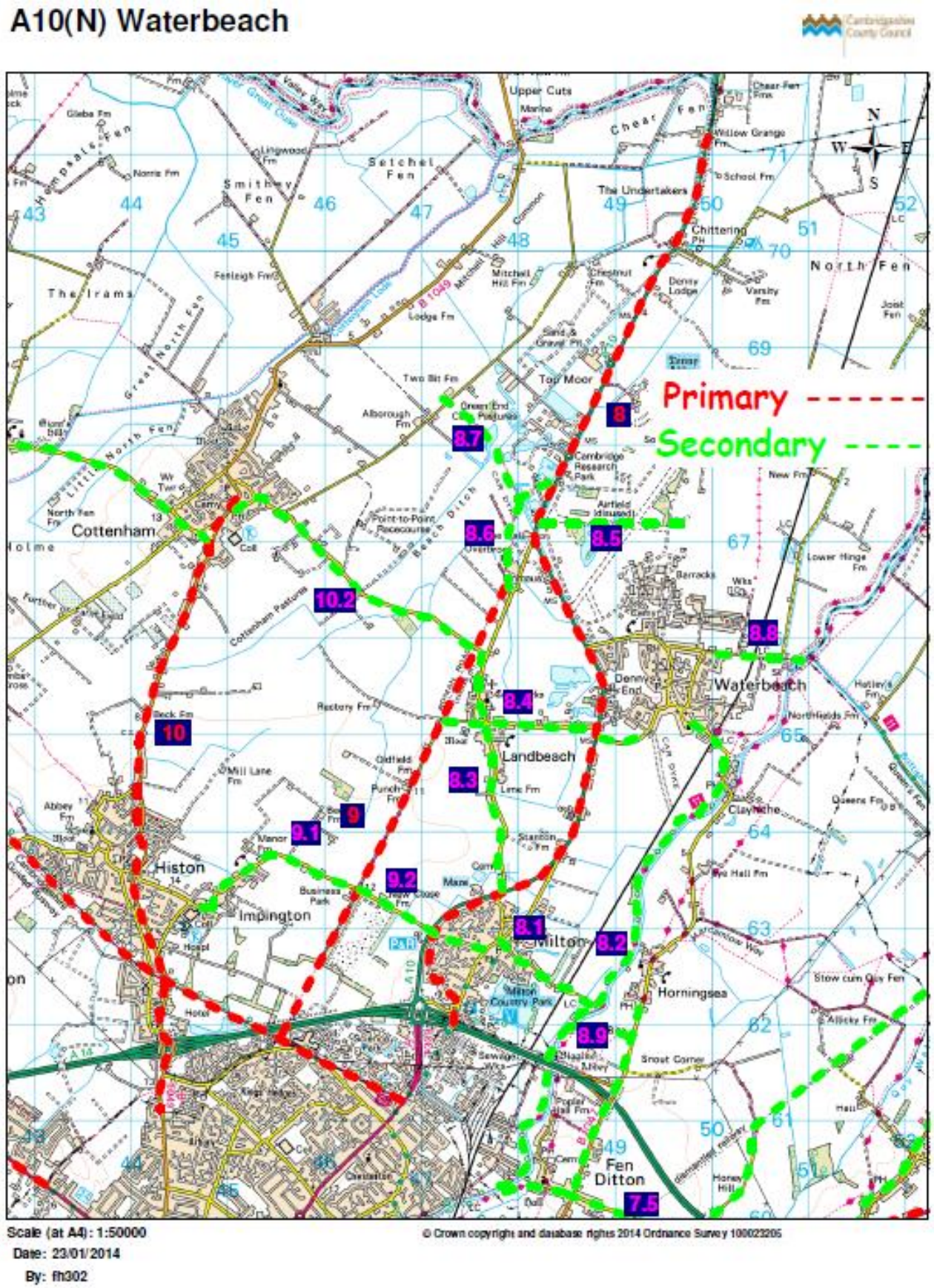
General scheme information	
Scheme reference:	CD3b
Project name:	**A14/A10 Milton Interchange improvements**
Brief description:	Additional capacity at the Milton Interchange for movements between the A10 and A14, and the A14 and A10.
Scheme objective:	To facilitate movements for general traffic through the Milton Interchange, through providing additional capacity between the A10 and A14 movements.
Desired outputs and outcomes (including success measures):	• Additional capacity at the Milton Interchange to facilitate movements between the A14 and the A10. • Reduced queuing time on the A10 towards Cambridge
Project start and completion years:	• Long term • Business case development planned 2022/23 • Scheme delivery planned 2025/26 to 2028/29
Value for money	
Evidence of need / market demand:	The scheme is integral to the delivery of the new development at Waterbeach. Congestion on the A10 is already bad at peak times and often during the inter-peak as well. Whilst it is intended that a high proportion of trips generated by the new development will be undertaken by public transport, cycling and walking, there will still be some trips that will be made by car and that will use this junction, placing more demand on it.
Economic benefits:	The scheme is integral to the delivery of the new development at Waterbeach which will help support the economic growth of the area by providing homes for people coming to work in the area.
Costs and funding	
Overall project costs (estimated)	Major scheme - High
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the Waterbeach development
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Cambridge City Council, developers of Waterbeach site, residents' organisations
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk associated with the non-delivery of this scheme is that additional trips generated by the new development at Waterbeach will worsen congestion on this junction.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No.

General scheme information	
Scheme reference:	CD6
Project name:	**Wider Waterbeach pedestrian/cycle network**
Brief description:	A comprehensive network of high quality pedestrian/cycle routes linking the town with key destinations in Cambridge and the surrounding villages
Scheme objective:	To encourage more short and medium-length journeys to be undertaken on foot or by bike through the provision of safe, high quality links which are segregated from general traffic wherever possible
Desired outputs and outcomes (including success measures):	• A segregated cycle lane alongside the chosen route of the bus corridor, connecting Waterbeach to Landbeach and onwards to Cambridge • A network of rural cycle links connecting surrounding villages to the strategic cycle route into Cambridge, the Park & Ride, the village colleges at Impington and Cottenham Village Colleges, • Increased mode share of people cycling
Project start and completion years:	• Long term • Scheme development planned 2022/23 • Scheme delivery planned 2023/24 to 2025/26
Value for money	
Evidence of need / market demand:	The acceptability of the Waterbeach development in transport terms relies on a significant number of trips being made by sustainable modes of transport, such as bus, train or by bike. Waterbeach is ideally located for cycling into Cambridge, however cycling along the A10 is not a safe or enjoyable option in its current form. Research has shown that fully segregated routes for cyclists are key to increasing the uptake of cycling. Therefore, a fully segregated, direct route into Cambridge from the new development is necessary to encourage significant numbers of people to use bike instead of their car into Cambridge.
Economic benefits:	The scheme is integral to the delivery of the new development at Waterbeach which will help support the economic growth of the area by providing homes for people coming to work in the area.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the Waterbeach development
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Sustrans, local cycling groups and campaigns, local residents' groups, developers of Waterbeach Barracks
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential routes and alignments are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk associated with the non-delivery of this scheme is that not enough journeys will be made by bike to make the development acceptable in transport terms. Without a fully segregated cycle route between the new town and Cambridge, the opportunity for more journeys to be undertaken by bike, rather than the private car will be lost, thus increasing traffic on the already congested A10 towards Cambridge and making the new development unacceptable in transport terms.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

Figure C.2 Potential cycling improvements for the A10(N) corridor

Map Ref	Location	Existing	Suggested
8	A10 main corridor to Chittering	Mixed - low quality lanes and shared use paths where present	3m path alongside road Improvements through Milton
8.1	Fen Road Milton	None	On road
8.2	Hayling Way	Unsealed path	1.8m unsealed path - improvements
8.3	A10 - Landbeach	2m Tarmac path	No change
8.4	Landbeach – A10 Waterbeach	None	Calming – works to A10 crossing
8.5	A10 links to new development	None	Unknown
8.6	Link into Cambridge Research Park	None	3m tarmac path
8.7	Link into Cambridge Research Park	None	3 m tarmac path
8.8	Waterbeach to Bottisham Lock	None	Approach to lock and bridge improvements
8.9	Horningsea to Baits Bite	Footpath only	2.5m tarmac path and bridge improvements
9	New Busway Link (Mere Way)	Footpath only	4m Busway Maintenance track
9.1	Mere Way to Impington	1.5m tarmac path	2.5m tarmac path
9.2	Mere Way to Milton	1.5m tarmac path	2.5m tarmac path
10	Histon - Cottenham	Mixed. Lanes and shared path.	No change
10.2	Cottenham to Landbeach	None	2.5m tarmac path

Figure C.3 Potential cycling improvements for the A10 (N) corridor



Requirements for Waterbeach Barracks new town development

The following section sets out the broad requirements and considerations that the developer of the site needs to be mindful of. As set out in policy **TSCSC 6** of the strategy, a comprehensive Transport Assessment will be required to accompany any planning application. Early engagement with the County Council as the local highway authority will be crucial to outline the scope of the Transport Assessment. As the highway authority further develops the detail for schemes along the A10 (north) corridor, continued dialogue between the County Council and the developers will enable this thinking to be reflected in their plans.

Detailed masterplanning for the site will take place in due course; however the following sets out some high level principles for the two sites that should be considered.

Developers should also have regard for **Policy TSCSC 5** with regard to planning obligations, and **Policy TSCSC 20** with reference to Waterbeach Barracks (see below). The transport infrastructure listed in the Policy **TSCSC 20** is considered critical to make the development work and the developers of each site will be required to make a significant contribution towards these.

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

Highway infrastructure and provision

Development will be subject to sufficient highway capacity being available at all stages of the development, including on the adjacent strategic road network. Detailed analysis of the impact of the developments on the surrounding road network will need to be undertaken through a Transport Assessment and if significant adverse impacts are shown, then the development will be expected to mitigate them.

Vehicular Access

The exact form of the access arrangements for the site will need to be developed and agreed with the local highway authority at an appropriate point in the planning process. There should be primary road access to the A10 from the new development. There should be no direct vehicular access to the existing village at Waterbeach from the new development for general traffic. However, excellent provision for public transport, cycles and pedestrians should be provided to link the two areas together.

Links to the existing village at Waterbeach

Waterbeach will still be a focus for some local services for the new development and as such, connections for easy access by sustainable modes of transport must be provided. The principles of segregated access by bus and cycle/walking should be continued.

Public transport provision

As already set out, a high quality public transport corridor will be created along the A10 (north), giving buses priority through congestion and an advantage over the private car. It is expected that the development will fully utilise this facility for Cambridge-bound trips and within the new development, it is expected that buses will be segregated in some way to ensure that they have complete priority.

As the design of the developments progress, consideration should be given to the proximity of new homes to the bus route, with an aim of the majority being within 400m of a bus stop. This is considered to be a reasonable walking distance. A high quality of facilities at bus stops should be provided from the outset, including Real Time Passenger Information (RTPI) as well as seating facilities and stands for bikes to be locked up, so that each bus stop is properly integrated with walking and cycling networks.

A combination of Park & Ride site and interchanges will be provided to serve the new developments and to enable access to the high quality public transport corridor. The exact combination is to be determined but will need to strike a balance between the number of stops and fast access to Cambridge.

Cycling provision

New and improved cycle links will be provided as part of each development.

Within the developments themselves, priority should be given to cycling and in particular creating connections to key destinations such as the local centres, bus stops, primary schools and employment sites. Direct links to existing facilities in Waterbeach and Landbeach should also be made. The cycle network should, wherever possible, be effectively segregated from the pedestrian network to ensure that conflict between the two modes is minimised.

Development should be designed to maximise the permeability of the site and the legibility of cycle routes to encourage trips to be made by bike and so reduce the dependence on the private car. Within the development areas, excellent facilities therefore need to be provided for cyclists, including:

- High quality provision for cyclists within the development providing maximum permeability for cyclists to the surrounding cycle network and to the local centre;

- Cycle parking provision for all development, including the local centre and also at any bus stops and interchanges
- Cycle parking for all dwellings, including visitor parking nearby
- Schemes to promote cycling, including the consideration of cycle sharing schemes and information on routes to residents and employees.

Cycle routes within the new development should link directly and conveniently to the wider cycle network, including to neighbouring villages and in particular, to a new high quality cycle route between the development and Cambridge. Access to this route from the development needs to be provided in as many places as possible.

All developments should comply with guidance outlined in Manual for Streets and current DfT Local Transport Notes LTN 2/08 and 1/12

Pedestrian provision

As with cycling, given the right facilities and connections, walking offers the opportunity for many internal trips to be undertaken on foot. The development should be designed in such a way that local centres are highly permeable for pedestrians. Key destinations should be connected by safe, direct footpaths and special consideration should be given to making bus stops easily accessible on foot, to enable people to access the wider transport network.

The new development will need to directly link to both new and existing facilities through a network of footpaths, which should wherever possible be separated from facilities for cyclists to ensure that conflict between the two modes is minimised.

In addition, pedestrian routes within the development should link to the wider rights of way network, linking to neighbouring villages and leisure attractions such as Anglesey Abbey and the Wicken Vision Area.

Smarter choices

In addition to the physical infrastructure, developers will be expected to support a package of smarter choices measures that encourage behavioural change, especially as the developments begin to be occupied and people are already making lifestyle changes and choices.

- Schemes to promote cycling, including consideration of cycle sharing schemes and information on routes to residents and employees
- Support for residential travel plans and employee travel plans

Appendix D. Newmarket to Cambridge Corridor

The key issues for the Newmarket to Cambridge corridor are set out in section 5 of the strategy. Due to the sparse population on this corridor, the focus will be split between improving the rail service between Newmarket, Dullingham and Cambridge and increasing capacity for Park & Ride. Figure D.1 summarises the interventions on this corridor.

Figure D.1 Summary of interventions on the Newmarket to Cambridge corridor

■	City Deal / Growth Deal scheme (with funding package established including developer contributions)	◆	Scheme being delivered by partner organisation	○	Scheme investigated further and defined through Cambridge Study. Funding package to be established.

Intervention		Further information
Creating a HQPT corridor		
Electrification of rail lines feeding Cambridge and Newmarket	◆	Plans to be progressed by Network Rail
Doubling of track or passing loops between Newmarket and Cambridge	◆	Plans to be progressed by Network Rail
Ipswich to Cambridge rail service increase in frequency to half hourly	◆	Plans to be progressed by rail industry
Provision of segregated access from Quy interchange to new Park & Ride site on Airport Way	○	
Cycling and walking		
Creation of a wider cycle network along the Cambridge to Newmarket corridor	○	
Smarter choices		
Creation of a smarter choices package	○	

Appendix E. Haverhill to Cambridge Corridor

Section 5 of the strategy identifies the issues on this corridor.

The focus for this corridor will initially be on providing bus priority at key congestion points along the A1307. Further study work will be undertaken to determine whether the public transport focus in the longer term should be bus or rail-based. The latter option would involve reopening the former Cambridge to Colchester line. Figure E.1 summarises the interventions on this corridor.

Figure E.1 Summary of interventions on the Haverhill to Cambridge corridor

■	City Deal / Growth Deal scheme (with funding package established including developer contributions)	◆	Scheme being delivered by partner organisation	○	Scheme investigated further and defined through Cambridge Study. Funding package to be established.

Intervention		Further information
Creating a HQPT corridor		
Bus priority at key congestion points on the A1307	■	City Deal scheme ref CD10a
Segregated car access into Babraham Road Park & Ride	■	Part of City Deal scheme ref CD10a.
Creation of high quality transport interchanges along corridor	■	Part of City Deal scheme ref CD10a
Busway/HQPT corridor along line of former Cambridge-Colchester railway	■	Longer-term scheme related to City Deal scheme ref CD10a
Additional P&R site between A11 and Linton	■	Part of City Deal scheme ref CD10b
Cycling and walking		
Complete direct cycle route from Cambridge to Babraham Research Campus and Granta Park	■	Part of City Deal scheme ref CD11
Continue direct cycle route from Granta Park outwards towards Haverhill	■	Part of City Deal scheme ref CD11
Create network connecting to transport interchanges along corridor	■	Part of City Deal scheme ref CD11
Create network focussed on catchment of Linton Village College	■	Part of City Deal scheme ref CD11
Small scale local highway improvements		
Comprehensive programme of small scale local highway and safety improvements	○	
Smarter choices		
Comprehensive smarter choices package	○	

General scheme information	
Scheme reference:	CD10a
Project name:	**A1307 Bus Priority**
Brief description:	Bus priority at key congestion points on the A1307
Scheme objective:	To enable buses to get through key congestion points on the A1307
Desired outputs and outcomes (including success measures):	• Bus priority in particular locations along the A1307 • Segregated car access to Babraham Park & Ride site • Transport interchanges at key locations along the corridor • Improved bus journey times between Haverhill and Cambridge
Project start and completion years:	• Short-medium term • Business case development planned 2014/15 • Scheme delivery planned 2017/18 to 2019/20
Value for money	
Evidence of need / market demand	The A1307 corridor has a lot of growth planned for it – particularly in terms of employment. It is home to some world-leading employment sites such as Cambridge Biomedical Campus and Granta Park, which have substantial potential to create new jobs in industries that are particularly international in their nature. However this potential is constrained greatly by infrastructure issues on the corridor. Access to some of these major employment sites, particularly to Granta Park and Babraham Research Campus, is difficult compared to most sites with which these compete. Access is generally by car, with very few possibilities available for bus, rail, cycling or walking to these sites. This therefore means that the congestion issues experienced in the area, and indeed in the wider city-region, detract substantially from the attractiveness of the corridor as a place to invest. Greater Cambridge, and the UK as a whole, is therefore restrained in its potential to attract international investment by the transport network on the A1307 corridor. There are routinely substantial queues to get into Cambridge in the morning peak hour along the A1307. The road also has a relatively poor safety record. With no functioning railway or system of bus priority, bus services get caught in the same congestion. The potential for this to worsen is significant given the considerable development that is planned at both ends of the corridor, as well as expansion of the high-tech cluster in the middle. Measures have been implemented in the past to improve the safety record of the A1307 itself, which has been relatively poor. However measures to relieve congestion and ease access such as those proposed have not been possible due to a lack of resources
Economic benefits:	Poor and unreliable access to Cambridge is also a substantial constraint on the ability of Haverhill in particular to witness housing growth. Whilst housing growth is planned for other sites along the corridor, it is in Haverhill that the greatest objectively assessed need is found. However, with the difficulties that are experienced in accessing Cambridge and accessing the employment sites that sit along this corridor, the desirability of housing in Haverhill is reduced to the point where the market is considerably less feasible for housing developers than it otherwise would be. Relieving these constraints would allow Haverhill to be much more closely integrated into the Greater Cambridge labour market, affording substantially increased labour market flexibility and increasing the attractiveness of the area to prospective investors.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	

Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Cambridge City Council, bus operators, community transport operators employment centres such as Granta Park and Babraham Research Campus
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential interventions are being identified. The next key milestone will be to select a preferred options.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The measures proposed in scheme City Deal scheme CD11 (A1301/A1307 pedestrian/cycle links) overlaps significantly with the proposed scheme. The benefits delivered by those links will be substantially diminished if improvements such as better interchange facilities along the corridor and bus priority measures are not brought forward. Enhanced interchange facilities would be expected to greatly increase the attractiveness of travelling by foot/cycle and bus, rather than driving, thereby improving health through increased physical activity and reducing congestion by taking car trips off the road. The attractiveness of leaving the car at home in this way will also be greatly increased if the buses can be separated from key congestion points through the proposed bus priority measures. Without these improvements, the pedestrian and cycle links will be able to deliver significantly fewer health, economic and environmental benefits.
Proposed management of delivery	To be decided once preferred options are selected.
Further information available	No

General scheme information	
Scheme reference:	CD10b
Project name:	**Additional Park and Ride Capacity, A1307**
Brief description:	Provision of an outer Park & Ride site on the A1307, located between Linton and the A11
Scheme objective:	To provide additional Park & Ride capacity on the corridor and to intercept more car trips further out from Cambridge, thus freeing up more roadspace closer to the city.
Desired outputs and outcomes (including success measures):	• An additional Park & Ride site accessed from the A1307 • Increased numbers of car trips intercepted on the A1307
Project start and completion years:	• Short-medium term • Scheme preparation planned 2017/18 to 2018/19 • Scheme delivery planned 2019/20 to 2020/21
Value for money	
Evidence of need / market demand:	The A1307 corridor has a lot of growth planned for it – particularly in terms of employment. It is home to some world-leading employment sites such as Cambridge Biomedical Campus and Granta Park, which have substantial potential to create new jobs in industries that are particularly international in their nature. However this potential is constrained greatly by infrastructure issues on the corridor. Access to some of these major employment sites, particularly to Granta Park and Babraham Research Campus, is difficult compared to most sites with which these compete. Access is generally by car, with very few possibilities available for bus, rail, cycling or walking to these sites. This therefore means that the congestion issues experienced in the area, and indeed in the wider city-region, detract substantially from the attractiveness of the corridor as a place to invest. Greater Cambridge, and the UK as a whole, is therefore restrained in its potential to attract international investment by the transport network on the A1307 corridor. There are routinely substantial queues to get into Cambridge in the morning peak hour along the A1307. The road also has a relatively poor safety record. With no functioning railway or system of bus priority, bus services get caught in the same congestion. The potential for this to worsen is significant given the considerable development that is planned at both ends of the corridor, as well as expansion of the high-tech cluster in the middle. Measures have been implemented in the past to improve the safety record of the A1307 itself, which has been relatively poor. However measures to relieve congestion and ease access such as those proposed have not been possible due to a lack of resources
Economic benefits:	Poor and unreliable access to Cambridge is also a substantial constraint on the ability of Haverhill in particular to witness housing growth. Whilst housing growth is planned for other sites along the corridor, it is in Haverhill that the greatest objectively assessed need is found. However, with the difficulties that are experienced in accessing Cambridge and accessing the employment sites that sit along this corridor, the desirability of housing in Haverhill is reduced to the point where the market is considerably less feasible for housing developers than it otherwise would be. Relieving these constraints would allow Haverhill to be much more closely integrated into the Greater Cambridge labour market, affording substantially increased labour market flexibility and increasing the attractiveness of the area to prospective investors.
Costs and funding	
Overall project costs (estimated)	Major scheme - Low

Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Cambridge City Council, bus operators, community transport operators employment centres such as Granta Park and the Babraham Institute
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential schemes are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that fewer journeys along the corridor will be undertaken by bus, as there won't be the interchange opportunity until nearer Cambridge. The opportunity to help free up some capacity along the corridor will be lost, leading to increased congestion on the A1307 corridor,
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

General scheme information	
Scheme reference:	CD11
Project name:	**Saffron Walden and Haverhill pedestrian/cycle network**
Brief description:	The creation of a high-quality network of foot and cycle routes linking key destinations in the Saffron Walden/Haverhill area
Scheme objective:	To deliver a comprehensive integrated network for cycling and walking along and within the corridor and to ensure good access between key residential and employment centres. The proposal aims to provide direct, safe and accessible links for cycling in the corridor by constructing new paths and crossings, and by improving existing ones
Desired outputs and outcomes (including success measures):	• A range of high quality cycle links to the main trip generators such as the three rail stations, the key employment sites and villages with a range of service, including secondary schools • Increase in levels of cycling
Project start and completion years:	• Short-medium term • Scheme delivery planned 2014/15 to 2017/18
Value for money	
Evidence of need / market demand:	Outside of Cambridge and in the Haverhill and Saffron Walden area, accessibility is a significant constraint. This applies both to residents in terms of accessing employment, education and other essential opportunities, and to businesses in terms of staff and customer access to their sites. Congestion and poor journey time reliability are also factors that negatively impact on business continuity and the attractiveness of the area to potential investors. Many of the business parks are notoriously difficult to access by means other than private car – although some put on shuttle buses for staff, there is evidence to suggest that there is a suppressed demand for cycling to many of these sites. Several of these sites are located within cycling distance of a bus route or rail station, but there are few options to cycle to/from these points. This represents a considerable missed opportunity and a real constraint on their growth potential. There is great potential in this part of South Cambridgeshire to enhance multi-modal journeys by enhancing the links between cycle and bus or rail. This would increase mobility choices for people, reduce congestion and negate the need for extensive car parks at stations, as well as reducing the likelihood of residential streets being clogged with commuter cars.
Economic benefits:	Poor and unreliable access to Cambridge is also a substantial constraint on the ability of Haverhill in particular to witness housing growth. Whilst housing growth is planned for other sites along the corridor, it is in Haverhill that the greatest objectively assessed need is found. However, with the difficulties that are experienced in accessing Cambridge and accessing the employment sites that sit along this corridor, the desirability of housing in Haverhill is reduced to the point where the market is considerably less feasible for housing developers than it otherwise would be. Relieving these constraints would allow Haverhill to be much more closely integrated into the Greater Cambridge labour market, affording substantially increased labour market flexibility and increasing the attractiveness of the area to prospective investors.
Costs and funding	
Overall project costs (estimated)	Major scheme - Low
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Sustrans, local cycling groups and

	campaigns, local residents
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential schemes are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. City Deal schemes CD10a, CD10b and CD10c would see bus priority and interchange improvements along the A1307 corridor. If these schemes are not delivered, the benefits that could be realised through the proposed pedestrian and cycle links would be greatly reduced as opportunities for interchange with longer-distance travel modes (particularly in this case bus travel) would not be nearly as widely available. The ability to shift trips away from the private car would therefore be considerably reduced.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

Appendix F. Saffron Walden to Cambridge Corridor

Section 5 of the strategy sets out the key issues for this corridor. The focus for this corridor will be on Cambridge – London Liverpool St line. Figure F.1 summarises the interventions on this corridor.

Figure F.1 Summary of interventions on the Saffron Walden to Cambridge corridor:

■	City Deal scheme (with funding package established including developer contributions)	◆	Scheme being delivered by partner organisation	○	Scheme investigated further and defined through Cambridge Study. Funding package to be established.

Intervention		Further information
Creating a HQPT corridor		
Increase frequency of services calling at Shelford and Whittlesford Parkway stations	◆	To be delivered by rail industry
Improve interchange facilities at Shelford, Whittlesford Parkway and Great Chesterford stations	○	
Cycling and walking		
Continue cycle route outwards from Shelford along corridor towards Saffron Walden (check gaps)	■	Part of City Deal scheme CD11
Create network connecting employment sites at Babraham, Granta Park and Genome campus	■	Part of City Deal scheme CD11
Create network connecting to transport interchanges along corridor	■	Part of City Deal scheme CD11
Create network focused on catchment of Sawston Village College	■	Part of City Deal scheme CD11
Small scale highway and safety improvements		
Comprehensive programme of small scale highway and safety improvements	○	
Smarter choices		
Smarter choices package for corridor	○	

Appendix G. Royston to Cambridge Corridor

Section 5 of the strategy sets out the main issues for this corridor. The focus for this corridor will be on the Cambridge to London King's Cross line, which has four stations on this corridor. Opportunities for access to and interchange with the railway line will be the focus, coupled with more Park & Ride capacity and bus priority nearer Cambridge. Figure G.1 summarises the interventions planned for the Royston to Cambridge corridor

Figure G.1 Summary of interventions on the Royston to Cambridge corridor

■	City Deal scheme (with funding package established including developer contributions)	◆	Scheme being delivered by partner organisation	○	Scheme investigated further and defined through Cambridge Study. Funding package to be established.

Intervention		Further information
Creating a HQPT corridor		
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	◆	To be delivered by rail industry
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	◆	To be delivered by rail industry
Kings Cross to Cambridge trains to be extended to Cambridge Science Park	◆	To be delivered by rail industry
Improve interchange facilities at Foxton, Shepreth, Meldreth and Ashwell stations	○	
Provision of a new Park & Ride site at Hauxton (1000 spaces)	■	City Deal scheme CD7a
Bus priority measures between Hauxton and Trumpington	■	Short-term solution related to City Deal scheme CD7b. If CD7b progresses this won't be required
Busway between Hauxton Park & Ride and Trumpington	■	City Deal scheme CD7b
Highway improvements		
A10 Foxton level crossing replacement with bridge or underpass on short bypass alignment	■	City Deal scheme CD8
Cycling and walking		
New footbridge at Foxton Station	■	Part of CD8
Improved accessibility at Meldreth Station	◆	To be investigated by Network Rail
Off-road strategic cycle link between Cambridge and Royston	■	City Deal scheme CD9
Improved links to transport interchanges, village colleges, employment sites and the strategic cycle route from surrounding villages	■	Partly covered by City Deal scheme CD9
Small scale local highway improvements		
Comprehensive programme of small scale local highway and safety improvements	○	
Smarter choices		
Smarter choices package	○	

General scheme information	
Scheme reference:	CD7a
Project name:	**Hauxton Park & Ride**
Brief description:	Provision of an outer Park & Ride site on the A10 (south) at Hauxton with capacity for 1,000 spaces
Scheme objective:	To provide additional Park & Ride capacity on the corridor and to intercept more car trips further out from Cambridge, thus freeing up road capacity closer to the city.
Desired outputs and outcomes (including success measures):	• An additional Park & Ride site accessed from the A10(S) • Increased numbers of car trips intercepted on the A10(s)
Project start and completion years:	• Medium term • Business case development planned 2016/17 • Scheme delivery planned 2019/20 to 2021/22
Value for money	
Evidence of need / market demand:	The ring of Park & Ride sites has been a cornerstone of the approach to managing demand for road space in Cambridge for almost two decades. The sites have been highly successful at intercepting car journeys that would otherwise have continued on to the city centre, adding to congestion on the city's already busy road network. The existing Park & Ride site on this side of the city at Trumpington not only caters for traffic coming off the M11, but also for traffic coming from the Royston direction along the A10(south). As demand for access to this part of city rises, especially for employment-related trips to Addenbrooke's and theh Biomedical campus, further pressure will be put on the capacity of Trumpington Park & Ride site and also the M11 interchange. An additional Park& Ride site on the other side of the M11 junction in Hauxton would serve a number of couple of purposes. By intercepting car trips from Royston further out, it will free up some highway capacity around the M11 junction and between the M11 junction and Trumpington Park & Ride. It will also relieve pressure on the Trumpington Park & Ride, allowing its primary purpose to be to serve M11 traffic. Coupled with a busway between Hauxton and Trumpington (see City Deal scheme CD7b) which would allow buses to bypass congestion around the M11 junction, this scheme would help to create a HQPT corridor in this part of the city.
Economic benefits:	Additional Park & Ride sites or rural interchanges will form an important element of the high quality public transport corridor into Cambridge. The creation of a high quality public transport network into and around the city will help to accommodate the growth that will take place in this part of the city.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, bus operators,
Status or stage the project has reached, and key milestones	**Option Identification**. Options for a potential scheme are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing

	the preferred scheme. The risk with non-delivery of this scheme is that new trips created as a result of growth in the area will be made predominantly by car, rather than by more sustainable modes. This will exacerbate congestion on areas of the network that are already operating at capacity. A further risk is if the related scheme to provide a busway between Hauxton and Trumpington is not delivered, this will significantly reduce the attractiveness of the new Park & Ride site as there will be no time advantage for using the facility.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

General scheme information	
Scheme reference:	CD7b
Project name:	**Hauxton to Trumpington Busway**
Brief description:	A busway link between the new Park & Ride site at Hauxton and the existing Park & Ride site in Trumpington
Scheme objective:	To segregate buses from general traffic between Hauxton and Trumpington by providing a busway link.
Desired outputs and outcomes (including success measures):	• A busway link between the new Park & Ride site at Hauxton and the existing Park & Ride site in Trumpington • An increase in the number of car trips intercepted before reaching the city
Project start and completion years:	• Medium term • Business case development planned 2016/17 • Scheme delivery planned 2019/20 to 2021/22
Value for money	
Evidence of need / market demand:	The ring of Park & Ride sites has been a cornerstone of the approach to managing demand for road space in Cambridge for almost two decades. The sites have been highly successful at intercepting car journeys that would otherwise have continued on to the city centre, adding to congestion on the city's already busy road network. The existing Park & Ride site on this side of the city at Trumpington not only caters for traffic coming off the M11, but also for traffic coming from the Royston direction along the A10(south). As demand for access to this part of city rises, especially for employment-related trips to Addenbrooke's and theh Biomedical campus, further pressure will be put on the capacity of Trumpington Park & Ride site and also the M11 interchange. An additional Park& Ride site on the other side of the M11 junction in Hauxton would serve a number of couple of purposes. By intercepting car trips from Royston further out, it will free up some highway capacity around the M11 junction and between the M11 junction and Trumpington Park & Ride. It will also relieve pressure on the Trumpington Park & Ride, allowing its primary purpose to be to serve M11 traffic. The success of the new Park & Ride site would depend on how easily buses can get through the M11 junction and whether there was an advantage to a car driver to leaving the car at the new facility. This scheme would allow buses to bypass congestion around the M11 junction, forming part of a HQPT corridor in this part of the city.
Economic benefits:	The creation of a high quality public transport network into and around the city will critical in accommodating the extra demand that will be placed on the network as a result of significant growth in this part of Cambridge, especially at Addenbrooke's and the Biomedical Campus.
Costs and funding	
Overall project costs (estimated)	Major scheme – Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Cambridge City Council, bus operators, local residents
Status or stage the project has reached, and key milestones	**Option Identification**. Options for a potential scheme are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing

	the preferred scheme. The risk with non-delivery of this scheme is that new trips created as a result of growth in the area will be made predominantly by car, rather than by more sustainable modes. This will exacerbate congestion on areas of the network that are already operating at capacity. A further risk is if the related scheme to provide a busway between Hauxton and Trumpington is not delivered, this will significantly reduce the attractiveness of the new Park & Ride site as there will be no time advantage for using the facility.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

General scheme information	
Scheme reference:	CD8
Project name:	**Foxton level crossing and interchange**
Brief description:	The provision of a grade-separated crossing facility of the London King's Cross –Cambridge railway line as it crosses the A10 and the introduction of a rural interchange using the resultant road layout.
Scheme objective:	• To remove the disruption along the A10 (south) corridor that is regularly caused to traffic through the lowering of the barriers at Foxton level crossing • To provide a better means by which people living in the more rural areas can interchange between modes to access the improved rail service along the corridor
Desired outputs and outcomes (including success measures):	• The provision of a grade-separated crossing facility of the London King's Cross – Cambridge railway line as it crosses the A10 • To provide a rural interchange at Foxton railway station with dedicated parking for cars and cycles and improved bus infrastructure • To improve journey times along the corridor • To increase the number of people using rail to continue their journey to Cambridge
Project start and completion years:	• Medium term • Business case development planned 2016/17 • Scheme delivery planned 2018/19 to 2019/20
Value for money	
Evidence of need / market demand:	A transport improvement scheme is needed to reduce congestion on the A10 north and south of the level crossing at Foxton. The A10 carries approximately 12,000 vehicle trips per day (12 hour count) and is part of the Primary Road Network. The level crossing barrier operates some 76 times in a 12 hour period for an average time of 2 minutes and 20 sections per operation (almost 3 hours per day). The delays caused are being compounded as growth on the rail network, and in particular rail freight, increases.
Economic benefits:	The amount of downtime at the current level crossing causes significant congestion along this stretch of the A10, which is exacerbated in peak hours. With the forecast increase in rail movements along the corridor, coupled with the increased demand for trips on the A10, the issues that already exist at Foxton will be made even worse. The provision of the scheme will help relieve congestion and improve the reliability of journey times along this corridor. These are both factors that impact negatively on business continuity and the attractiveness of the Greater Cambridge area to prospective investors.
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Network Rail
Other partners involved	Cambridgeshire County Council, Train Operating Companies, South Cambridgeshire District Council, Foxton Parish Council, cycling groups, community transport operators
Status or stage the project has reached, and key milestones	An option study has been completed, which evaluated a number of routes (both under and over bridges) and types of construction that would be feasible. The online option, route A, was dismissed due to the likely disruption caused to the A10 users and local network. The southern option, route B, was also dismissed due to the presence of existing dwellings and statutory undertakers services. Route C, to the north, has been identified for further development. This route largely crosses farm land. The current speed limit is 50mph, which is maintained for all options. However, in addition route C has also been developed for a design speed of 40mph, allowing the use of a smaller curve radius in the design
Deliverability and risk	The deliverability of the scheme has been considered as part of the options study already undertaken and the preferred option is considered to be the most deliverable out of those identified.

	The risk of non-delivery of this scheme is that the existing congestion problems will worsen, given the forecast increase in rail movements on this line and the increase in traffic on the A10. This will impact negatively on business continuity and the attractiveness of the Greater Cambridge area to attract investors.
Proposed management of delivery	The scheme is likely to be delivered by Network Rail
Further information available	Yes, Network Rail Feasibility Study report available at: http://www.cambridgeshire.gov.uk/transport/strategies/transportstudies/Foxton_level_crossing.htm

General scheme information	
Scheme reference:	CD9
Project name:	**Cambridge to Royston cycle link**
Brief description:	The creation of a high-quality network of foot and cycle routes linking key destinations along the A10 corridor between Cambridge and Royston
Scheme objective:	To deliver comprehensive integrated network for cycling and walking along and within the corridor, to ensure good access between key residential and employment centres
Desired outputs and outcomes (including success measures):	• Completion of the strategic 'trunk' route along the A10 (south) between Cambridge and Royston • Links from the strategic route to employment centres, villages, railway stations/interchanges and other key destinations within the corridor • An increase in cycling levels along the corridor
Project start and completion years:	• Short-medium term • Scheme preparation planned 2014/15 • Scheme delivery planned 2015/16 to 2016/17
Value for money	
Evidence of need / market demand:	Outside of Cambridge and in the A10 corridor, accessibility is a significant constraint on the potential for economic growth. This applies both to residents in terms of accessing employment, education and other essential opportunities, and to businesses in terms of staff and customer access to their sites. Congestion and poor journey time reliability are also factors that negatively impact on business continuity and the attractiveness of the area to prospective investors. Many of these business and research parks are notoriously difficult to access by means other than private car – although some put on shuttle buses for staff, there is evidence to suggest there is a suppressed demand for cycling to many of these sites. Several of these sites are located within cycling distance of a rail station that is connected to both Cambridge and London, but there are few options to cycle to/from these interchanges. This represents a considerable missed opportunity and a real constraint on growth potential.
Economic benefits:	There is great potential in this corridor to enhance multi-modal journeys by enhancing the links between cycle and bus/rail. This would increase mobility choice for people, reduce congestion and negate the need for extensive car parks at stations, as well as reducing the likelihood of residential streets being clogged with commuter cars
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Cambridge City Council, local parish councils, Sustrans, Cycling Stakeholder Group, A10 cycle campaign
Status or stage the project has reached, and key milestones	**Option Identification**. Options for a potential scheme are being identified. The next key milestone will be to select a preferred option
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk with non-delivery of this scheme is that new trips created as a result of growth in the area will be made predominantly by car, rather than by more sustainable modes. This will exacerbate congestion on areas of the network that are already operating at capacity.
Proposed management of delivery	To be decided once preferred route is chosen
Further information available	No

Appendix H. St Neots/Cambourne to Cambridge corridor

Section 5 of the main strategy outlines the key issues for this corridor. By 2031, some 6,880 homes out of a planned 8,880 will have been built at developments in St Neots, Bourn Airfield and at West Cambourne.

Strategic Transport interventions

The focus for this corridor will be on providing a segregated bus and cycle route along the length of the A428 between Queen's Road in Cambridge to the Caxton Gibbet roundabout, allowing buses an unhindered route into the city and cyclists a safe, direct route between the city and the new developments. The segregated bus route will be enhanced by the provision of further park and ride facilities along the corridor to allow more traffic to be intercepted further out.

While strategic transport interventions will have a wider benefit than just the new development, it is expected that the developments at West Cambourne, Bourn Airfield and any other developments in this vicinity should contribute to these schemes.

Development- related interventions

In addition to the strategic transport interventions, the new developments will need to ensure that the principles of segregated bus provision are continued in the vicinity of the sites and that the sites are fully linked into both the bus route and the cycle route. The section later in this appendix sets out the exact requirements for the developments at Bourn Airfield and West Cambourne. Consideration should also be given to Policy TSCSC 6 – Transport Assessments and Policy TSCSC 21 – Planning Obligations for Bourn Airfield and West Cambourne, in the main strategy.

Figure H.1 Summary of interventions on the St Neots/Cambourne to Cambridge corridor

■	City Deal scheme(with funding package established including developer contributions)	◆	Scheme being delivered by partner organisation	○	Scheme investigated further and defined through Cambridge Study. Funding package to be established.

Intervention		Further information
Creating a HQPT corridor		
Bus priority between the M11 and A428	■	Related to City Deal scheme CD1c. Likely to be unnecessary if City Deal scheme comes forward as scheme will then be segregated.
Bus priority around the A428/A1198 roundabout	○	Likely to be unnecessary if City Deal scheme comes forward
One or more Park & Ride or rural interchange sites accessed from the A428	■	Part of City Deal scheme CD1b
Segregated bus links from the A428 at Caxton Gibbet through the West Cambourne site	■	Part of City Deal scheme CD1a
Segregated bus link from Cambourne to Bourn Airfield	■	Part of City Deal scheme CD1a
Bus links between Highfields and the junction of the A428/A1303	■	Part of City Deal scheme CD1a
High quality segregated bus priority measures between the junction of the A428/A1303 and the M11	■	Part of City Deal scheme CD1c
Highway capacity and traffic improvements		
A428 Caxton Gibbet to Black Cat improvements	◆	Will be investigated by Highways Agency
Grade separation of the A428/A1198 Caxton Gibbet roundabout	◆	To be progressed in partnership with the Highways Agency
Any measures required to mitigate the traffic impact of the developments on Bourn, Caldecote, Toft, Comberton and Barton	◆	Delivered or funded by developers
Walking and cycling		
Direct cycle route along corridor connecting Cambridge to Cambourne and on to St Neots	■	Part of City Deal CD2
Network connecting employment sites on corridor	■	Part of City Deal CD2
Network connecting transport interchanges along corridor	■	Part of City Deal CD2
Network focussed on catchments of Comberton Village College, Gamlingay Village College and the new secondary school at Cambourne	■	Part of City Deal CD2
Smarter Choices		
A smarter choices package to include residential, school and workplace travel planning	○	

General scheme information	
Scheme reference:	CD1a
Project name	**Bourn Airfield/Cambourne bus links**
Brief description	Segregated bus links from the A428 at Caxton Gibbet connecting West Cambourne, Cambourne and Bourn Airfield and continuing a segregated route to the junction of the A1304/A428
Scheme objective	To enable buses to access the West Cambourne development from the Caxton Gibbet roundabout and onwards to Cambourne and Bourn Aiirfield along a segregated route, providing a reliable and quick journey by bus.
Desired outputs and outcomes (including success measures)	• Segregated busway or bus priority between the A428 at Caxton Gibbet and the junction of the A1303/A428, via West Cambourne, Cambourne and Bourn Airfield • Buses can compete with the private car on journey times
Project start and completion years	• Medium term • Business case development planned 2015/16 • Scheme delivery planned 2018/19 to 2020/21
Value for money	
Evidence of need / market demand	This scheme is linked to the local plan allocations at West Cambourne and Bourn Airfield. In order for the A428 corridor to accommodate the additional trips generated as a result of the allocation without increasing congestion on the A428 into Cambridge, a significant proportion of new trips will need to be made by public transport. In order for buses to have an advantage over the private car, a high quality service needs to be provided which is fully segregated from general traffic.
Economic benefits	The link will help to facilitate the development of strategic development sites.at West Cambourne and Bourn Airfield by forming part of a longer segregated bus route between this part of the A428 and Cambridge. The route in its entirety will also help to connect strategic development sites in St Neots and also significant University-based employment sites on the west of Cambridge.
Costs and funding	
Overall project costs (estimated)	Major Scheme - Medium £5-30m
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the West Cambourne and Bourn Airfield developments and as such they will be required to contribute towards the scheme.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, developers of West Cambourne, Bourn Airfield and Wintringham Park St Neots sites, The University of Cambridge, bus operators, community transport operators, residents' organisations
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential routes are being identified and reviewed for feasibility and deliverability. The next key milestone will be to select a preferred scheme.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred route. If this scheme is not delivered that the new journeys created by the developments at West Cambourne and Bourn Airfield will be predominantly car-based. Public transport will not be able to compete with the private car in terms, of journey time or reliability. This will lead to increased congestion on the A428 corridor, with the junction of the A428 and A1303 particularly exacerbated.
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No

General scheme information	
Scheme reference:	CD1c
Project name:	**A1303 bus priority measures**
Brief description:	High quality segregated bus priority measures between the A428 junction with the A1303 and the junction of the M11. Scheme will include: • On-line or off-line bus priority measures between the A428 and M11
Scheme objective:	To ensure that a bus journey between the A428/A1303 junction and the M11 is direct and unaffected by congestion caused by general traffic on the corridor
Desired outputs and outcomes (including success measures):	• On or off-line bus priority measures between the A428 and M11 • Buses can compete with the private car on journey times
Project start and completion years:	• Short-medium term • Business case development planned 2014/15 • Scheme delivery planned 2017/18 to 2018/19
Value for money	
Evidence of need / market demand:	This scheme is part of the improvements along the whole of the A428 corridor to accommodate further additional growth focussed on West Cambourne and Bourn Airfield. The stretch of road between the A428/A1303 junction and the M11 is already a pinch point on the corridor that causes congestion for both general traffic and public transport. In order for the A428 corridor to accommodate the additional trips generated as a result of the allocation, without increasing congestion on the A428 into Cambridge, a significant proportion of new trips will need to be made by public transport. To do this, buses need to have an advantage over the private car in terms of journey time and reliability and as such need to have priority over general traffic through along this stretch of the corridor and into the centre of Cambridge.
Economic benefits:	The link will help to facilitate the development of strategic development sites.at West Cambourne and Bourn Airfield by forming part of a longer segregated bus route between Caxton Gibbet and Cambridge. The route in its entirety will also help to connect strategic development sites in St Neots and also significant University-based employment sites on the west of Cambridge.
Costs and funding	
Overall project costs (estimated)	Major Scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the West Cambourne and Bourn Airfield developments.
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, developers of West Cambourne, Bourn Airfield and Wintringham Park St Neots sites, The University of Cambridge, bus operators, community transport operators, residents' organisations
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential solutions are being identified. The next key milestone will be to select a preferred option.
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred scheme. The risk of non-delivery of this scheme is that the new journeys created by the developments at West Cambourne and Bourn Airfield will be predominantly car-based as public transport is not able to compete with the private car in terms of journey time or reliability. This will lead to increased congestion on the A428 corridor, with the junction of the A428 and A1303 particularly exacerbated,
Proposed management of delivery	To be decided once preferred option is selected.
Further information available	No.

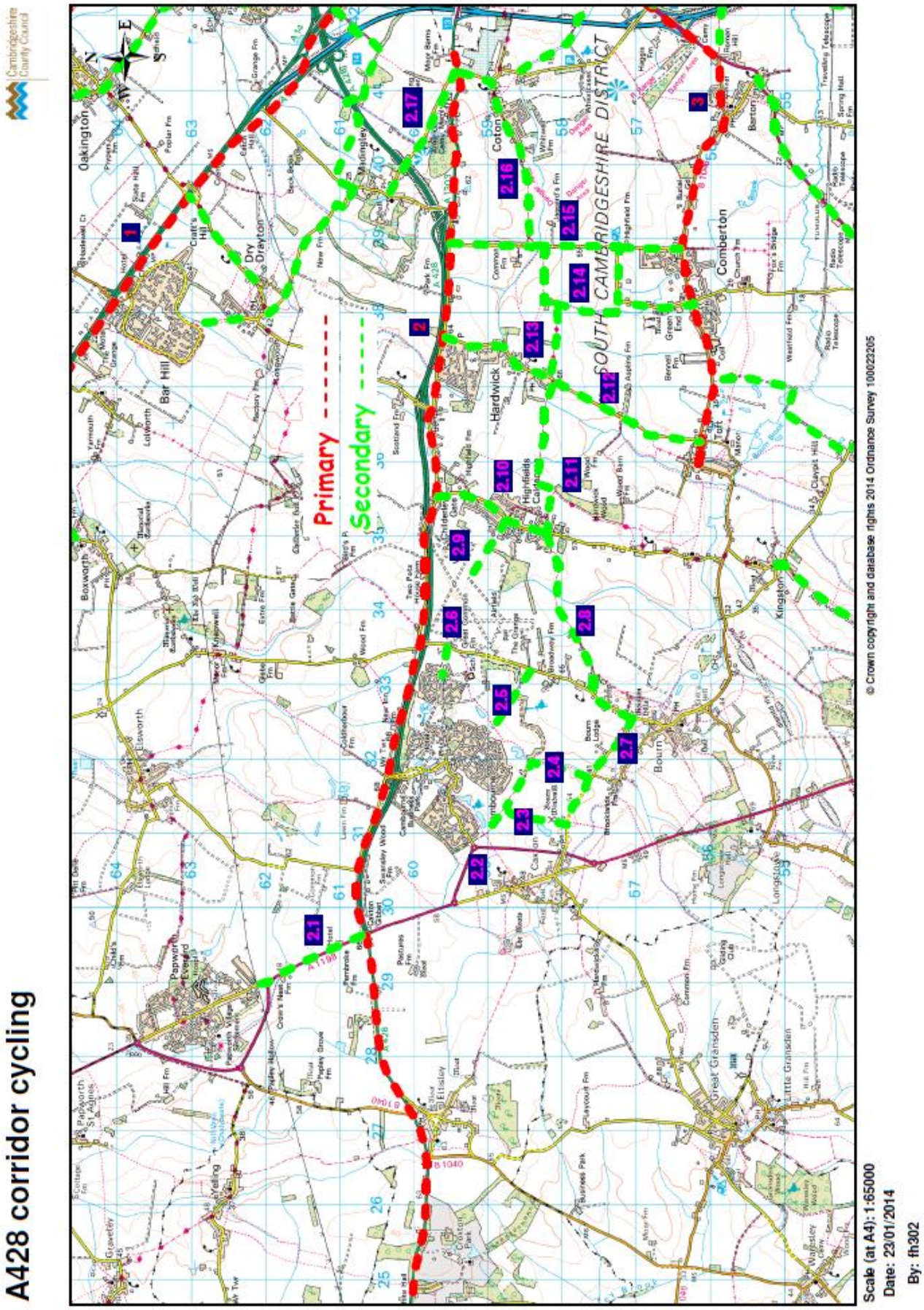
General scheme information	
Scheme reference:	CD1b
Project name:	**A1303/A428 corridor outer Park & Ride capacity**
Brief description:	• One or more Park & Ride or rural interchange sites accessed from the A428, to take advantage of the bus priority measures on the A1303 between the A428 and the M11
Scheme objective:	To intercept more Cambridge-bound general traffic on the A428
Desired outputs and outcomes (including success measures):	• One or more Park & Ride sites or rural interchanges along the A428 • Greater mode share using bus as the final mode into the centre of Cambridge
Project start and completion years:	• Medium term • Business case development planned 2016/17 • Scheme delivery planned 2018/19
Value for money	
Evidence of need / market demand:	A Park & Ride already exists on Madingley Road, however it doesn't have the capacity needed to accommodate the additional trips generated along the A428 corridor. Additional Park & Ride capacity along the corridor would improve the corridor in a number of ways. Through the provision of segregated facilities along the corridor, Park & Ride buses would benefit from the same advantages in terms of journey time and reliability as other services on the corridor, making it an attractive option for people who would otherwise drive all the way to Madingley Road Park and Ride or further into the city centre. More trips could be intercepted further out, helping to free up capacity at existing pinch points.
Economic benefits:	Additional Park & Ride sites or rural interchanges will form an important element of the high quality public transport corridor into Cambridge. This will help to facilitate development both at the West Cambourne and Bourn Airfield sites and also further afield in St Neots (outside the strategy area)
Costs and funding	
Overall project costs (estimated)	Major Scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the West Cambourne and Bourn Airfield developments
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, developers of West Cambourne, Bourn Airfield and Wintringham Park St Neots sites, The University of Cambridge, bus operators, community transport operators, residents' organisations
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential locations are being identified. The next key milestone will be to select a preferred location(s).
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred location(s). The risk of non-delivery of this scheme is that fewer journeys along the corridor will be undertaken by bus, as there won't be the opportunity for existing trips made by car to interchange on to the high quality public transport corridor. The opportunity to help free up some capacity along the corridor will be lost, leading to increased congestion on the A428 corridor, with the junction of the A428 and A1303 particularly exacerbated,
Proposed management of delivery	To be decided once preferred location(s) is selected.
Further information available	No.

General scheme information	
Scheme reference:	CD2
Project name	**Wider Cambourne pedestrian/cycle network**
Brief description	Direct, segregated high quality pedestrian/cycle links to west Cambridge, Papworth Everard, Highfields, Hardwick, Caxton, Bourn, Caldecote, Comberton, Bar Hill and Dry Drayton
Scheme objective	To encourage more short and medium-length journeys to be undertaken on foot or by bike through the provision of safe, high quality links which are segregated from general traffic wherever possible
Desired outputs and outcomes (including success measures)	• A segregated, 3m/2m segregated cycle/pedestrian lane or a 4m wide shared lane alongside the chosen route of the bus corridor, connecting West Cambourne, Cambourne and Bourn Airfield to Cambridge • A network of rural cycle links connecting surrounding villages to the strategic cycle route into Cambridge, the Park & Ride or rural interchanges along the route, the village colleges at Comberton, Gamlingay and Cambourne, • Increased mode share of people cycling
Project start and completion years	• Medium term • Scheme preparation planned 2015/16 • Scheme delivery planned 2016/17 to 2018/19
Value for money	
Evidence of need / market demand	The acceptability of the developments along the A428 in transport terms relies on a significant number of trips being made by sustainable modes of transport, such as bus or by bike. Observations from the cycleway that runs alongside the existing guided busway between Cambridge and St Ives suggests that if high quality, segregated cycling infrastructure is in place, people are willing to consider cycling much further distances than typically assumed. Evidence from this corridor suggests that people are commuting to Cambridge by bike from Longstanton, Swavesey and even St Ives, which indicates that given the right infrastructure the same could be true for the A428 developments which are a similar distance. However cycling along the A428 is not a safe or enjoyable option in its current form. Research has shown that fully segregated routes for cyclists are key to increasing the uptake of cycling. Therefore, a fully segregated, direct route into Cambridge from the new developments is necessary to encourage significant numbers of people to use bike instead of their car into Cambridge.
Economic benefits	The link will help to facilitate the development of strategic development sites.at West Cambourne and Bourn Airfield
Costs and funding	
Overall project costs (estimated)	Major scheme - Medium
Any funding identified	This scheme is identified for delivery as part of the City Deal package. This piece of infrastructure is considered to be critical to the West Cambourne and Bourn Airfield developments
Delivery and risk	
Lead partner	Cambridgeshire County Council
Other partners involved	South Cambridgeshire District Council, Sustrans, local cycling groups and campaigns, local residents
Status or stage the project has reached, and key milestones	**Option Identification**. Options for potential schemes are being identified. The next key milestone will be to select preferred scheme(s).
Deliverability and risk	The deliverability of various options is currently being assessed as part of the option identification process. This will form a key consideration when choosing the preferred location(s).
Proposed management of delivery	
Further information available	Yes – see Figure H.2

Figure H.2 Potential cycling improvements for the A428 corridor

Map Ref	Location	Existing	Suggested
1	A14 Girton-Cambridge Services	A14 No provision	3m tarmac path or 3m/2m segregated
2	A428 corridor	Variable. 2m path and old A428 road	3m/2m segregated or 4m shared as Busway provision
2.1	Papworth – Caxton Gibbet	None	3m tarmac path
2.2-7	Links into Cambourne	Mixed, mostly none	2.5 – 3m paths
2.8	Bourn-Caldecote	Concrete road to Sewage Treatment Works	Continue from STW to Caldecote
2.9	Link to new development	None	3m tarmac path link
2.10	Caldecote	None	Centreline removal -calming
2.11	Caldecote-Hardwick South	None	2.5m tarmac path
2.12	Hardwick-Toft	None	2.5m tarmac path behind hedge from 30 limit
2.13	Hardwick-Long Road	Part planings surface path	2.5m tarmac path
2.14	2.13 – Green End Road	Track	2.5 m tarmac path
2.15	Coton B'way – Branch Rd	None	2.5m tarmac path inside hedge
2.16	Coton B'way	Track	Improve 2.5m width tarmac
2.17	Madingley – A1303	None	2.5 m tarmac path set back in places
3	A603 – B1046	-	-

Figure H.3 Potential cycling improvements for the A428 corridor



Requirements for Bourn Airfield and West Cambourne

The following section sets out the broad requirements and considerations that the developer of either site needs to be mindful of. As set out in **Policy TSCSC 6** of the strategy, a comprehensive Transport Assessment will be required to accompany any planning application. Early engagement with the County Council as the local highway authority will be crucial to outline the scope of the Transport Assessment. As the highway authority further develops the detail for schemes along the A428 corridor, continued dialogue between the County Council and the developers will enable this thinking to be reflected in their plans.

Detailed masterplanning for the site will take place in due course, however the following sets out some high level principles for the two sites that should be considered.

Developers should also have regard for **Policy TSCSC 5** with regard to planning obligations, and **Policy TSCSC 21** with reference to Bourn Airfield and West Cambourne (see below). The transport infrastructure listed in the Policy TSCSC 21 is considered critical to make the developments work and the developers of each site will be required to make a significant contribution towards these.

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.

Highway infrastructure and provision

Development will be subject to sufficient highway capacity being available at all stages of the development, including on the adjacent strategic road network. Detailed analysis of the impact of the developments on the surrounding road network will need to be

undertaken through a Transport Assessment and if significant adverse impacts are shown, then the development will be expected to mitigate them.

Vehicular Access

Convenient vehicular access will be provided to the site, ideally two accesses should be provided, if achievable. A segregated bus link from Cambourne to Bourn Airfield new village across the Broadway, and on through the development to the junction of the St Neots Road with Highfields Road will also be provided. There will be no direct vehicular access to the Broadway, except for buses and cycles. The exact form of the access arrangements will need to be developed and agreed with the local highway authority at an appropriate point in the planning process.

Vehicular access to the Cambourne West site will be provided by an enhanced route through the Business Park, one or more access points from the Caxton Bypass and via Sheepfold Lane. Bus prioritisation measures will also be provided, including a bus link from one of the roundabouts on the Caxton bypass through the Cambourne West site, linking through to Great Cambourne by the Cambourne Business Park. The exact form of the access arrangements will need to be developed and agreed with the local highway authority at an appropriate point in the planning process.

Links to Cambourne

Cambourne will be an important focus for local services for both sites and as such, connections for easy access by sustainable modes of transport must be provided. The principles of segregated access by bus and cycle/walking should be continued.

Public transport provision

As already set out, a high quality public transport corridor will be created along the A428, giving buses priority through congestion and an advantage over the private car. It is expected that the developments will fully utilise this facility for Cambridge-bound trips and that this high level of provision will be continued within the new developments in order to encourage a significant proportion of trips to be undertaken by bus.

In the vicinity of the new developments, the public transport corridor will split to allow a strategic link to continue as far as the Caxton Gibbet roundabout, with a loop diverting through the new developments and Cambourne itself, in a similar way to the proposals at Northstowe. Within the new developments, it is expected that buses will be segregated in some way to ensure that they have complete priority.

As the design of the developments progress, consideration should be given to the proximity of new homes to the bus route, with an aim of the majority being within 400m of a bus stop. This is considered to be a reasonable walking distance. A high quality of facilities at bus stops should be provided from the outset, including Real Time Passenger Information (RTPI) as well as seating facilities and stands for bikes to be locked up, so that each bus stop is properly integrated with walking and cycling networks.

A combination of Park & Ride sites and interchanges will be provided to serve the new developments and to enable access to the high quality public transport corridor. The exact combination is to be determined but will need to strike a balance between the number of stops and fast access to Cambridge.

Cycling provision

New and improved cycle links will be provided as part of each development.

Within the developments themselves, priority should be given to cycling and in particular creating connections to key destinations such as the local centres, bus stops, primary schools and employment sites. Direct links to existing facilities in Cambourne should also be made. The cycle network should, wherever possible, be segregated from the pedestrian network in some form to ensure that conflict between the two modes is minimised.

Development should be designed to maximise the permeability of the site and the legibility of cycle routes to encourage trips to be made by bike and so reduce the dependence on the private car. Within the development areas, excellent facilities therefore need to be provided for cyclists, including:

- High quality provision for cyclists within the development providing maximum permeability for cyclists to the surrounding cycle network and to the local centre;
- Cycle parking provision for all development, including the local centre and also at any bus stops and interchanges
- Cycle parking for all dwellings, including visitor parking nearby
- Schemes to promote cycling, including the consideration of cycle sharing schemes and information on routes to residents and employees.

Cycle routes within the new developments should link both directly and conveniently to the wider cycle network, including to neighbouring villages and in particular, to a new high quality cycle route between the developments and Cambridge. Access to this route from the developments needs to be provided in as many places as possible.

All developments should comply with guidance outlined in Manual for Streets and current DfT Local Transport Notes LTN 2/08 and 1/12

Pedestrian provision

As with cycling, given the right facilities and connections, walking offers the opportunity for many internal trips to be undertaken on foot. The development should be designed in such a way that local centres are highly permeable for pedestrians. Key destinations should be connected by safe, direct footpaths with appropriate lighting and special consideration should be given to making bus stops easily accessible on foot, to enable people to access the wider transport network.

The new developments will need to directly link to the existing facilities in Cambourne through a network of footpaths, which should wherever possible be separated from facilities for cyclists to ensure that conflict between the two modes is minimised.

In addition, pedestrian routes within the development should link directly and conveniently to the wider rights of way network, linking to neighbouring villages.

Smarter choices

In addition to the physical infrastructure, developers will be expected to support a package of smarter choices measures that encourage behavioural change, especially as the developments begin to be occupied and people are already making lifestyle changes and choices.

- Schemes to promote cycling, including consideration of cycle sharing schemes and information on routes to residents and employees
- Support for residential travel plans and employee travel plans

Appendix I. Alconbury, Wyton, Huntingdon and St Ives to Cambridge Corridor

Section 5 of the main strategy identifies the transport issues on this corridor. Along this corridor, in the major developments there will be 9,500 new homes at Northstowe, 3,750 new homes at Wyton, 2,184 homes in Huntingdon and up to 7000 homes at Alconbury Weald. Figure I.1 summarises the interventions on this corridor.

Strategic Transport interventions

The strategic interventions on this corridor are two-fold. The Busway is the exemplar of the type of quality and service provision that we aspire to on all the corridors. The Busway will be extended to form a loop through Northstowe and its principles will be extended to provide segregated bus facilities - either through bus lane or guided busway – between St Ives, Wyton, Huntingdon, Alconbury Weald and Great Haddon, although this is outside the strategy area. The second element of the strategic interventions on this corridor is the upgrade of the A14, which will be undertaken in two phases. An additional lane in each direction on the Girton to Histon stretch will be provided initially, with the upgrade of the Ellington to Milton stretch being undertaken by 2019.

Development-related interventions

The package of transport measures for Northstowe is already established and includes the provision of the Northstowe Guided Busway loop, a link to the site, a southern access road, a cycleway between Northstowe and Bar Hill and improvements to the Citi 5 bus service and community transport.

The developments at Wyton, Alconbury and Huntingdon are outside the scope of this strategy and the transport packages for these sites will be set out in the relevant strategy.

Figure I.1 Summary of interventions on the Huntingdon, St Ives to Cambridge corridor

■	City Deal scheme(with funding package established including developer contributions)	◆	Scheme being delivered by partner organisation	○	Scheme investigated further and defined through Cambridge Study. Funding package to be established.

Intervention		Further information
Creating a HQPT corridor		
Northstowe busway loop	◆	New Busway/segregated bus corridor through the town, lining from the Busway at the Longstanton Park & Ride to the Busway at Oakington
Longstanton Park & Ride expansion	◆	Expansion of Longstanton Park & Ride to 1,000 spaces
Highway capacity		
A14 junctions 31 to 32 capacity improvements	◆	An additional lane in each direction on the Girton to Histon stretch of the A14 and improvements to the westbound slip roads, funded through the Highway's Agency's Targeted Improvements Programme and Pinch Point Programme. To be delivered 2014/15
A14 Ellington to Milton improvement	◆	Major capacity enhancement scheme in four main sections Huntingdon Bypass, between Ellington and Swavesey On-line widening between Swavesey and Girton Simplified Girton Interchange maintaining currentmajor movements On-line widening from 2 to 3 lanes between Girton and Histon Cycle route alongside new A14
Northstowe access roads	◆	Access roads to Northstowe from the A14 at Bar Hill and to the A14 parallel local access road at Dry Drayton
Cycling and walking		
Rural pedestrian cycle network development	○	Network connecting employment sites, transport interchanges and larger village centres and colleges in Swavesey, Cottenham and Impington
Interurban cycle network	◆	Direct cycle route to Huntingdon along line of improved A14 (HA scheme)

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