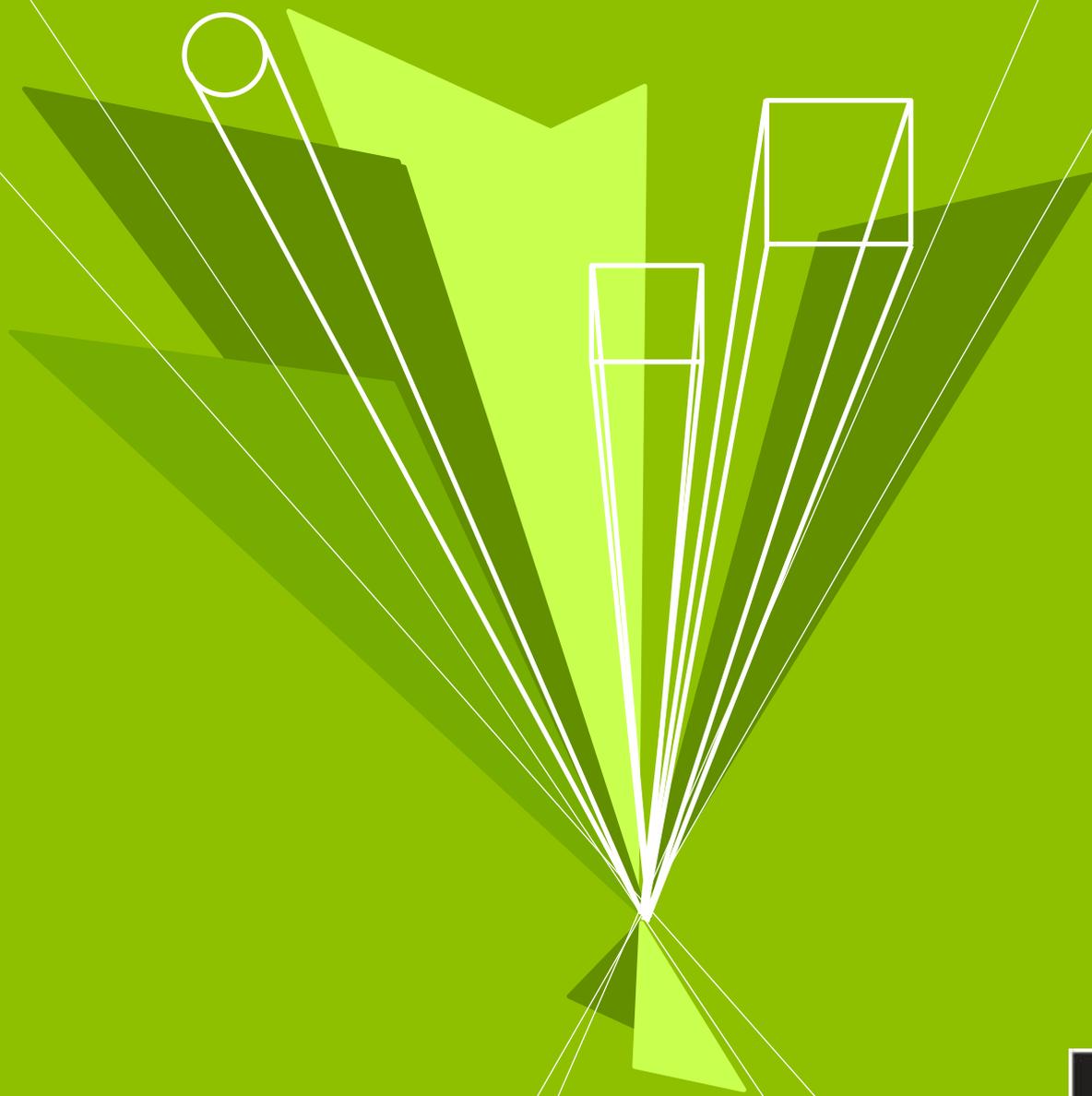


# North Central Hertfordshire Growth and Transport Plan Stage 3 Interventions Paper

May 2022



AECOM



Prepared for:

Hertfordshire County Council

Prepared by:

AECOM

AECOM Limited  
AECOM House  
63-77 Victoria Street  
St Albans  
Hertfordshire  
AL1 3ER  
UK

T: +44(0)1727 535000  
aecom.com

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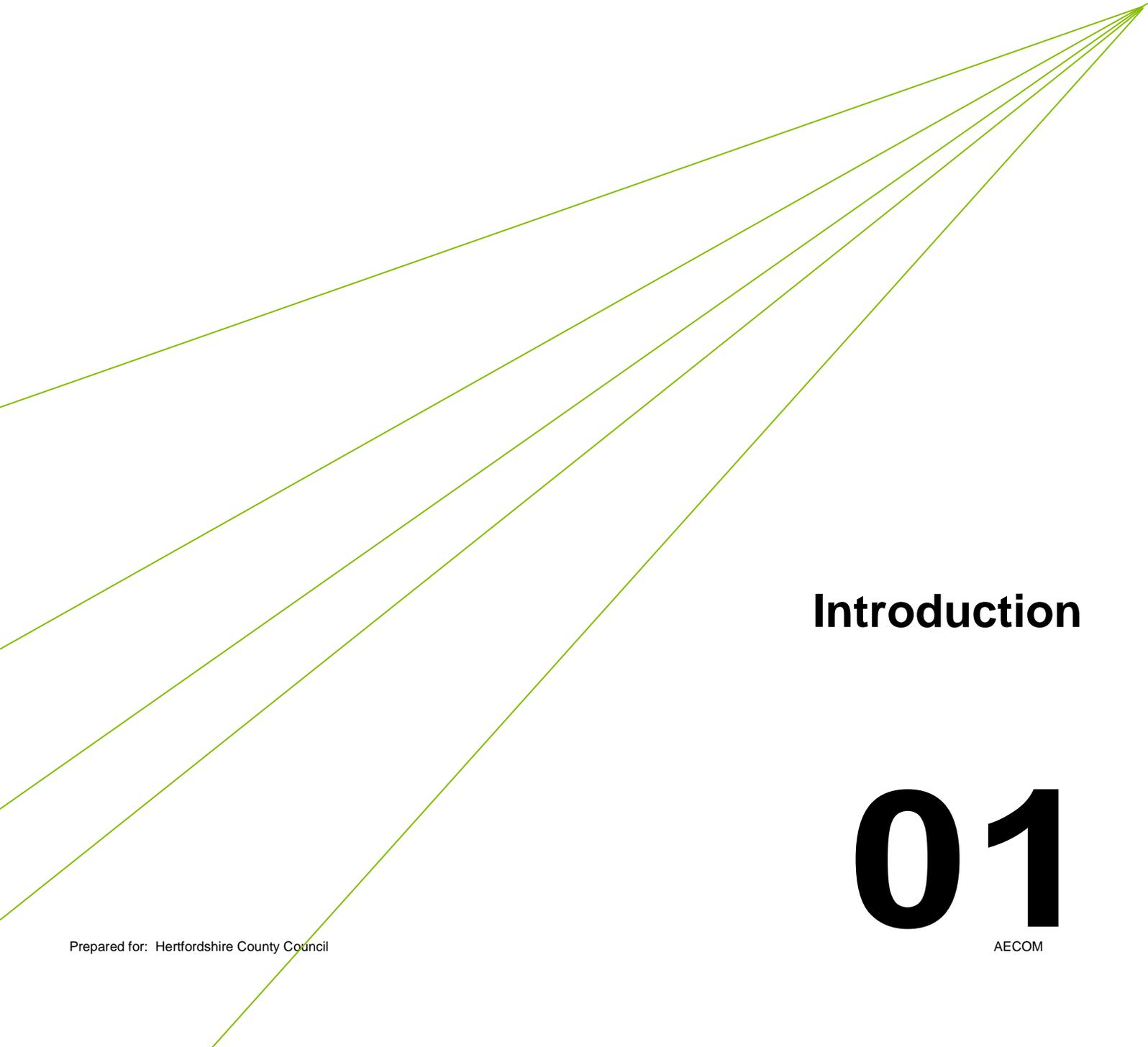
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# Introduction

# 01

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# 1. Introduction

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High quality transport infrastructure and services are not only essential components of functioning communities both urban and rural, but are required to deliver sustainable and accessible development. Transport helps facilitate journeys from home to work, to school, for leisure purposes and for access to vital services such as healthcare.

Businesses are reliant upon an efficient, safe and reliable transport system in order to attract employees and customers, as well as for the transport of goods and services to different places. As well as catering for existing requirements, transport can also help enable or constrain new opportunities for economic development and for individual wellbeing.

Good planning practices can help identify the conditions needed to operate an efficient transport system and facilitate development growth proposals. If the planning process is not equipped to deal with these requirements, the delivery of sustainable development could be delayed or even prevented, and this could therefore have lasting negative consequences on towns and communities.

Hertfordshire is facing a substantial amount of housing and employment growth, which is expected to have an impact not only on the county's transport network – at a local and strategic level – but also on the environment in the short, medium and long term. The County's Sustainable Hertfordshire Strategy recognises the critical consequences of climate change and commits to considering the environmental impact of the county's operations and services.

Delivering economic growth through sustainable infrastructure whilst mitigating climate change challenges is also one of the UK Government's main priorities. However, this is set against a backdrop of increasing competition for funding to help invest in new infrastructure, with less money available for local authorities to spend today than perhaps in the past.

The transport needs of large-scale residential and employment development coming forward within Hertfordshire and surrounding areas may be reliant upon seeking vital funding from Central Government and elsewhere, and this funding may only be obtained if a good case is made for investment which is based on robust evidence and positive collaborative planning.

With this in mind, a suite of Growth and Transport Plans (GTP) are being developed as supporting documents to the fourth Local Transport Plan (LTP4). A GTP is a strategic spatial transport plan developed by Hertfordshire County Council in partnership with key stakeholders, including North Hertfordshire District Council and Stevenage Borough Council and the Local Enterprise Partnership, for the purpose of applying LTP policies and objectives to a growth-focussed sub-area within Hertfordshire. The GTP looks ahead at transport improvements required at least over the period of the Local Plans and will be subject to review periodically to reflect changes in growth and transport forecasts.

Each GTP focuses on a different sub-area within Hertfordshire. This document concerns the North Central Growth and Transport Plan. This area incorporates the towns of Stevenage, Hitchin, Letchworth, Baldock and Royston as well as connections outside of the study area towards the rest of Hertfordshire, Luton, Central Bedfordshire and Cambridge. This area is proposed to have a large amount of development which will increase demand on an already constrained highway network unless a significant shift towards walking, cycling and public transport is achieved. It is therefore appropriate and necessary to look beyond provision of

additional highway capacity and invest significantly in other modes of transport which support efficient mobility while reducing environmental impacts.

As shown in Figure 1 this is the third paper within the NC GTP. This paper provides an indepth description of the proposed intervention packages developed based on analysis of the existing evidence base and assessment of transport networks and services against the NC GTP objectives undertaken at Stage 2.

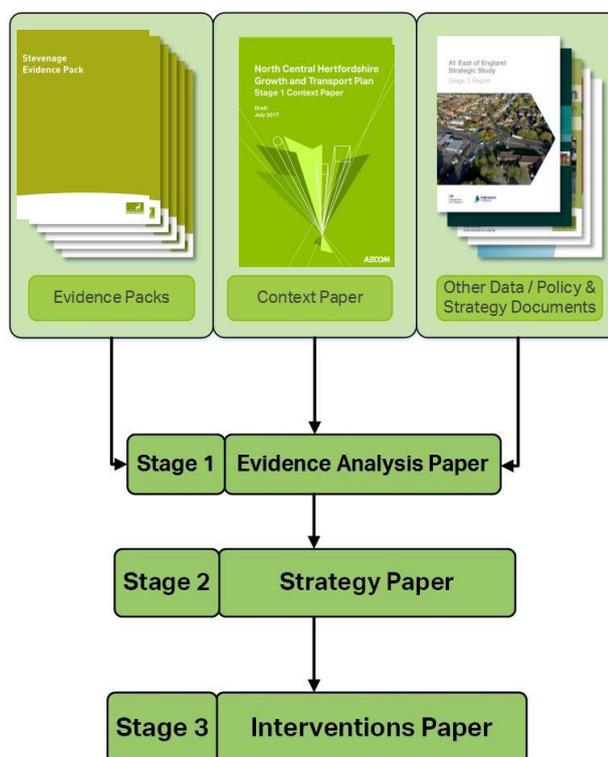


Figure 1 - GTP Stages

## Report Structure

The report is composed of 7 sections that outline the following:

- Section 2 provides a spatial portrait of North Central Hertfordshire (discussed in more detail in the Stage 0 context paper).
- Section 3 summarises the objectives and vision developed specifically for the GTP which have guided the review of evidence, prioritisation and sifting of growth and transport challenges (discussed in more detail in the Stage 2 Strategy Paper).
- Section 4 describes the method used to identify growth and transport challenges and development of innovative packages of interventions.
- Section 5 summarises the approach to prioritising interactions to determine what might be most in need of mitigation through the GTP.
- Section 6 summarises the main growth and transport challenges addressed through the GTP as well as the formulation of transport interventions.
- Section 7 provides concluding remarks and highlights the steps that will be taken following the adoption of this GTP.



# North Central Hertfordshire

# 02

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## 2. North Central Hertfordshire

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In the Hertfordshire context, the NC GTP area includes all of Stevenage, Hitchin, Letchworth, Baldock and Royston, as well as the A505 corridor within North Hertfordshire. A similar South Central GTP has been developed in parallel considering towns to the south within the A1(M) / East Coast Main Line corridor.

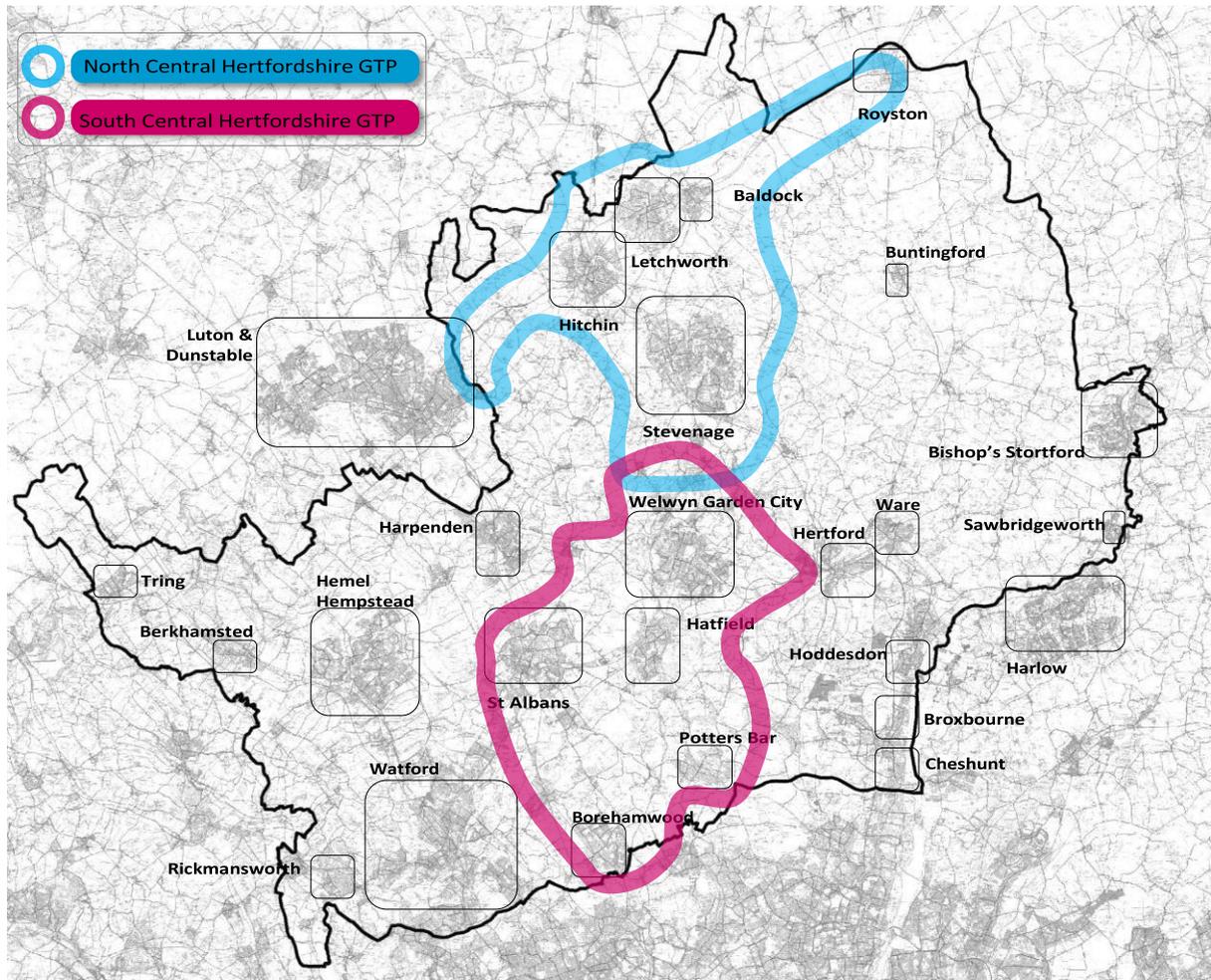
Figure 2 presents the indicative study area for each plan within the GTP programme. The South West Hertfordshire GTP was finalised in 2019. The South East Hertfordshire and Hertfordshire Eastern Area GTPs are currently being developed.

Overall, the NC GTP area represents 19% of Hertfordshire's total population (with over 89% of the area's residents located in urban areas). The largest and densest urban centre in the plan area is Stevenage with a population of approximately 86,500 and 33 residents per hectare. Hitchin, Letchworth, Royston and Baldock have populations of approximately 33,500, 34,000, 16,000 and 10,000 respectively.

Hertfordshire is characterised by a relatively even distribution of spatially discrete small to medium sized urban centres. As a result of this polycentric settlement pattern there is not one main focal point and instead the transport network is characterised by a series of interurban corridors and strategic routes criss-crossing the NC GTP area. The A600 and A602 provide key north-south connections between Hitchin and Stevenage while the A505 and A507 connect Hitchin, Letchworth, and Baldock to Luton in the west and the A10 corridor in the east at Royston. The A10 also links Royston to Melbourn, while the A1198 links Royston to Cambourne to the north. The area itself is bisected by the A1(M) (J7 to J10), East Coast Main Line and branch line to Royston and onwards to Cambridge.

A number of key B-road connections also exist across the area, namely the B655 from west Hitchin towards Barton-le-Clay at the A6, B600 linking Hitchin to Henlow and the A507 in the north, B656 from south Hitchin running adjacent to the A1(M) to Welwyn Garden City (and from Letchworth to Baldock along its northern section), B197 from central Stevenage running through Knebworth towards Welwyn in the south and alongside the A1(M) towards Letchworth and Baldock in the north, and the B1037 from east Stevenage towards the A507. The B197 largely follows the route of the former Great North Road, which was downgraded after construction of the A1. As such, this route is of an unusually high standard for a B category road.

Other key connections include Sperberry Hill/Stevenage Road connecting the B656 with Fisher's/Symonds Green, Hitchin Road/Graveley Lane connecting the B197 north of Stevenage with east Hitchin, and Park Lane/Watton Road connecting the B656 southwest of Stevenage with the A602. Figure 2 shows the coverage of the GTP area and the linked South Central GTP area.



**Figure 2 - GTP Areas**

The NC GTP Context Paper is available for more in-depth analysis of towns and infrastructure in this area.



# Vision and Objectives

# 03

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## 3. Vision and Objectives

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The Vision describes a positive future scenario for personal travel within the plan area following successful implementation of intervention packages arising from NC GTP.

### The NC GTP Vision

Significant changes to the way Hertfordshire grows and develops, have transformed the way we people move around within and beyond the county. This transformation has affected growth and transport throughout the county, irrespective of travel mode. All new developments are designed with sustainability 'built-in'. High speed broadband in every new home allows more people to work from home, reducing their need to travel. Major new development is located in highly accessible locations and is fully integrated into its surrounding transport networks, with connections to walking and cycling routes and public transport services. Sustainability is at the forefront of design thinking in every new development, which includes provision for cycle parking and charging points for electric vehicles. While this growth places new pressures on transport networks (as the population is set to grow by over 20%) many new homes and employment areas have been built close to rail stations and existing bus routes, integrated with surrounding active travel networks, and designed with facilities that enable a shift in county-wide travel patterns.

Considerable measures have been undertaken to enable a travel behaviour shift towards more sustainable modes, which would improve societal health and wellbeing.

Greater priority has been given to improving conditions for pedestrians. This has led to new and improved footways and safer crossings (including dropped kerbs with tactile paving, and traffic signals to give people sufficient time to cross the road), providing enhanced links and a safer and more pleasant environment for those travelling on foot, particularly in and around urban centres and major employment areas.

Green corridors connect principal towns, forming the spine of a safe, direct, and convenient inter-urban cycle network. Better urban cycle infrastructure, as well as the provision of more cycle parking and ancillary facilities such as changing rooms and showers at workplaces, has led to cycling becoming a safer, more attractive, and widely adopted transport mode.

Travel plans are adopted by all types of development, including workplaces and schools, and improvements in technology including real-time and integrated transport information better inform people to make smarter travel choices. As a result, an increasing number of people now choose to walk or cycle for shorter trips or take public transport for longer journeys.

Advancements in technology and expansion of the sharing economy also provide greater travel choice, including car and cycle sharing, community transport options, demand responsive transit services and emerging autonomous vehicles. Improved choices have particularly improved connections on the first and last mile of journeys, improving accessibility and enabling more sustainable travel habits.

Bus services and infrastructure have been improved, and priority measures have been introduced. Improved bus services, integrated with north-south rail services, enable faster, more reliable journeys across the NC GTP area. These investments in passenger transport have helped increase patronage and decrease private car use, allowing operators to

increase frequencies, provide better journey time reliability, and enhance accessibility, which is especially beneficial for Hertfordshire's ageing population. As a result of substantial modal shift, air pollution and greenhouse gas emissions have been reduced considerably, further improving the environment of local places. HCC, together with local authority partners, bus operators and airport operators, is exploring opportunities to further improve passenger transport connectivity for bus, coach and express coach services from areas without direct rail access as part of LTP4. Provision of bus corridors will need to be considered in development master planning, in line with the transport user hierarchy as set out in LTP4 (Policy 1).

Rail connections between towns in North Central Hertfordshire have been further strengthened with integrated public transport and ticketing, improved pedestrian and cycle links between urban centres and railway stations and increased rail capacity and service frequencies. These improvements have also enhanced the area's connectivity with London, and as a result train travel continues to be a popular choice for commuters to and from Central London, as well as becoming an increasingly popular mode for travel between towns within the NC GTP area, and to/from other areas including Central Bedfordshire and Cambridgeshire.

Parking measures and restrictions in town and neighbourhood centres are developed and enforced, supporting the use of sustainable transport modes and improving the quality of urban space within the towns. These improvements in transport options support a wider effort to increase positive social interaction in urban spaces.

Many people continue to travel by private modes of transport, although the lower priority placed on highway upgrades coupled with demand management measures such as parking charges mean this may no longer be the most attractive transport option. Improvements to highway capacity and safety have been implemented, including targeted junction improvements along the Strategic Road Network to serve more sustainable modes and to help facilitate new development.

Thus, significant opportunities exist for a step change in the uptake of sustainable travel behaviours, enabling people to lead healthier, better connected, happier, and more environmentally friendly lives. Successful delivery of the vision and objectives will be dependent on HCC maintaining and enhancing partnerships with a wide range of stakeholders including the local planning authorities, neighbouring authorities outside of the GTP area, the LEP, National Highways (formerly Highways England), Network Rail, train operating companies, bus and coach operators, local businesses, parish councils as well as community groups and user groups.

## Objectives

The NC GTP Vision sets out how the transport network could appear and the opportunities it could provide in the future. From the NC GTP Vision six key objectives are identified. In order for each of the identified interactions in the NC GTP area to meet the Vision, they will need to meet one or more of these objectives. Further discussion about the relevance of these objectives to each interaction is discussed in section 5 of this paper. The six objectives provide direction and guidance as to what the NC GTP should aim to achieve. It should be noted that the description of these objectives has been refreshed to reflect more recent HCC policies and priorities.

## 1. Connected

The Connected objective is focussed on:

- Improved transport connections between and within urban and rural locations and services to support economic activity;
- Education;
- Access to services and the development of new jobs and homes

This objective is focussed on providing viable mode options for regular trips, which are convenient to use due to their affordability, reliability, safety and accessibility. This will also be dependent on and linked to many of the remaining objectives below.

## 2. Reliable

The Reliable objective is focussed on:

- Improved network resilience and journey time reliability for all users, so that transport networks and services provide consistent and dependable journeys throughout the day.

This is about ensuring reliable journey times across the transport network by minimising the risks of disruption. This encompasses all modes of transport, not just highways. Risks can be planned or unplanned and associated with anything from roadworks and signal failures to collisions and extreme weather events. Planning for and designing the system, and the services that use it, to be able to cope and respond efficiently to these events, will help to minimise their risk and improve the reliability in journey time.

## 3. Accessible

The accessible objective is focussed on:

- Improved transport networks by all modes, including public transport services; to increase the choice available to transport users; and reduce barriers to prosperity, development and growth.

This is about making urban areas and key services accessible to all residents and future development areas, particularly those in more remote areas. Improvements in geographical coverage, infrastructure and frequency of bus and coach services should be prioritised for those areas most lacking in transport options and areas designated for development, where there is stronger potential for modal shift and where services could be commercially viable. In more rural areas, where there is unlikely to be the demand to support conventional bus services, more innovative solutions will be required.

## 4. Attractive and Sustainable Places

The Attractive and Sustainable Place objective is focussed on:

- Enhancing the function and character of North Central Hertfordshire's neighbourhoods and public locations to support vibrant communities; and
- Preserving and enhancing the local environment and quality of life.

Whilst this is traditionally a role for urban design and place-making initiatives, it is now more widely understood that transport has a big role to play in creating attractive and sustainable places as it forms much of the built environment within urban areas.

The Healthy Streets approach<sup>1</sup> developed by Transport for London is a useful framework for understanding the impact of transport on places, and the scoring of place in the Growth and Transport Plans reflects the Healthy Streets criteria. Specifically, the attractive places are defined as those where streets are easy to cross for pedestrians, where places to stop are provided with shade and shelter, which are not too noisy and where people feel safe.

Hertfordshire County Council, North Hertfordshire District Council and Stevenage Borough Council have all declared a climate emergency and in doing so, reaffirmed the councils' commitments to tackling climate change. In addition, the councils have prepared Climate Change Strategies<sup>2</sup>.

Improved infrastructure for walking and for cycling is important, in order to promote physical activity and reduce emissions which lead to poor air quality. These aspects are considered in Objective 5 and Objective 6.

## 5. Efficient

The Efficient objective is focussed on:

- Make the most efficient use of resources and technology by reducing the need to travel and enabling a shift to more sustainable modes of travel.

The focus of this objective is to use the existing network in the most efficient way, by both reducing demand and consolidating trips, through reducing the need to travel and encouraging car sharing and freight consolidation. It can also mean encouraging a modal shift away from private vehicles to more sustainable modes like walking, cycling and using public transport, through smarter travel initiatives.

Technology will also have an increasing role in facilitating improved network efficiency, through fast incident response and management, urban traffic management control systems (UTMC) in traffic signal networks, real time travel information for roads and public transport, both online, at stops and through variable message signage on the highway.

Emerging innovations in transport technology such as driverless vehicles, low emission vehicles and demand responsive transport are also being explored at a county and national level, which are expected to provide vast improvements in network efficiency, safety and air quality in the longer-term future.

## 6. Healthy and Safe

The Healthy and Safe objective is focussed on:

- Promoting measures to improve safety and reduce the negative impacts of motorised travel, in particular private car travel;
- Reducing the harm caused to public health and the environment; and
- Minimising safety risks.

This is linked to several of the previous objectives above in that many of them will lead to improved health and safety outcomes. However, community health and safety and transport's impact upon this is equally important in its own right. Current safety issues should be addressed through infrastructure improvements for walking and cycling, ongoing highway maintenance and local targeted road safety campaigns. The design of new infrastructure

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<sup>1</sup> Healthy Streets <https://healthystreets.com/>

<sup>2</sup> Stevenage Borough Council Climate Change Strategy 2020 <http://www.stevenage.gov.uk/climate-change/>;

North Hertfordshire District Council Climate Change Strategy 2020 <https://www.north-herts.gov.uk/council-approves-furtheractions-tackle-climate-change>; Sustainable Hertfordshire Strategy

<https://www.hertfordshire.gov.uk/microsites/sustainablehertfordshire/sustainable-hertfordshire.aspx>

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and services should focus to support the Hertfordshire Public Health Service Strategy (2017-21).



# Method Overview

# 04

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## 4. Method Overview

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This section provides a brief overview of the method used to develop the intervention packages.

Interventions have been identified in line with LTP4 and take into account those which have already been identified in other local transport strategies and/or are already in development. It is acknowledged that in some cases short-term interventions could be the means to immediate mitigation of transport challenges, however high-level interventions need to be prioritised in order to facilitate growth.

A range of source documents have been used to highlight interventions which have already been identified. It is important for the GTP to be broadly consistent with other local transport plans and strategies. In the NC GTP area these include the North Hertfordshire Transport Strategy and the Stevenage Mobility Strategy.

Local Cycling and Walking Infrastructure Plans (LCWIPs) are a new approach to identifying cycling and walking improvements required at a local level. They enable a long-term approach to developing local cycling and walking networks over a 10-year period and form an important part of the Government's strategy to increase the number of trips made on active travel modes and achieve sustainable objectives. An LCWIP has already been developed for Stevenage and one is currently being prepared for the North Hertfordshire towns. The LCWIP presents an opportunity to further develop cycling and walking concepts identified through the GTP process. LCWIPs are intended to identify infrastructure measures which will need to be developed in line with LTN 1/20 Cycle Infrastructure Design.<sup>3</sup>

All interventions which are put forward in the GTP need to be in line with the transport user hierarchy as set out in LTP4 (Policy 1), which provides the highest priority to those policies which encourage people not to travel or make unnecessary journeys. Pedestrians, cyclists and vulnerable road users then have the next level of priority, followed by public transport and finally motorised vehicles. This hierarchy has been recognised and followed to ensure that sustainable interventions are chosen where these are feasible and appropriate to address particular issues.

The approach presented in the NC GTP includes but is not limited to: no increase in highway capacity (unless required to reduce strategic traffic routing through urban areas or on inappropriate country roads); improved walking routes between urban centres and transport hubs; a comprehensive cycle network suitable for all abilities, including inter-urban routes; and bus priority infrastructure and improved information. Interventions and packages of interventions have been formulated with this mind as well as the objectives and the shortfalls which are in their geographic area.

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<sup>3</sup> LTN 1/20 Cycle Infrastructure Design 2020

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf)

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In addition to LTP4, Hertfordshire's Rail Strategy<sup>4</sup> assists in ensuring the railway in Hertfordshire can support economic growth and development. It supports the LTP4, which sets out the policies and measures required to improve transport across all modes. The Rail Strategy details aspirations which are categorised into the following headings:

- Franchises
- Service Levels
- Fares and Ticketing
- Stations
- Accessibility
- Passenger information
- Freight
- Passenger Safety

Strategic projects which are currently under construction in Hertfordshire include High Speed 2, East West Rail and the Luton Airport DART.

Following this information gathering and optioneering process, interventions were categorised as either smaller projects (and linked project groups), or larger, more complex, multi-faceted schemes by objective interaction shortfalls they met. The exercise has not been used to prioritise or sift existing infrastructure lists from other policy documents as it has been assumed that they have already undergone some form of sifting and prioritisation in order to feature in those documents.

The interactions were used as a base for organising the interventions into general geographic groupings, and understanding which shortfalls needed to be met. These were then further narrowed down with the additional considerations of development and dependencies on each other to form packages.

The focus for this GTP has been to devise a range of intervention packages, each aimed at addressing a particular challenge or set of challenges in a distinct area of a town or corridor between towns. The NC GTP consists of fifteen packages. Some of the packages are within towns, some between towns, and they are not necessarily mode-specific although in some situations they are focussed towards prioritising the needs of particular users on the transport network. The GTP also considers the impact of strategic network interventions.

## Place and Movement

Hertfordshire's highway network includes a wide variety of roads with different purposes, each carrying varying levels of traffic, with different levels and standards of provision for users of the highway network be it motorists, pedestrians and cyclists and diverse surrounding land uses which influence how roads are used, including shops, homes, schools and countryside.

With significant planned levels of housing and employment growth coming forward, the network faces a complex set of challenges in accommodating additional movements between places and along links. Many roads already experience significant levels of traffic

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<sup>4</sup> Hertfordshire's Rail Strategy: <https://www.hertfordshire.gov.uk/media-library/documents/highways/transport-planning/local-transport-plan-live/rail-strategy.pdf>

congestion, and this can have negative implications on surrounding communities. If congestion levels continue to increase, this may force people to find alternative and less suitable routes which can have negative impacts on communities.

Defining the intended function of highway links can help to inform the process of appraising the appropriateness of proposed infrastructure interventions and identify alternative interventions which can reinforce intended functions or seek to reprioritise routes for the betterment of communities.

The purpose of defining the network hierarchy is to identify links or junctions where there is considered to be a 'clash' between different functions which could potentially impact on particular users in a positive or negative way.

A set of nine road types have been defined as shown in the figure below Figure 3. These road types sit within a matrix which qualitatively assesses Place and Movement from low significance to high significance.

**Place** relates to those functions that are specific to and happen in particular places, including residential and retail. Roads have an impact economically as well as on quality of life, with place-making an increasingly important element in local policy making. Roads are also the foreground to the built environment, and the most successful streets are those that respect and refer to it.

**Movement** relates to the moving functions across different modes. Roads perform a wide range of movement functions from roads carrying very high volumes and mixes of vehicular traffic and people, to urban streets which only have a local movement function and could give greater priority to the needs of pedestrians and cyclists.

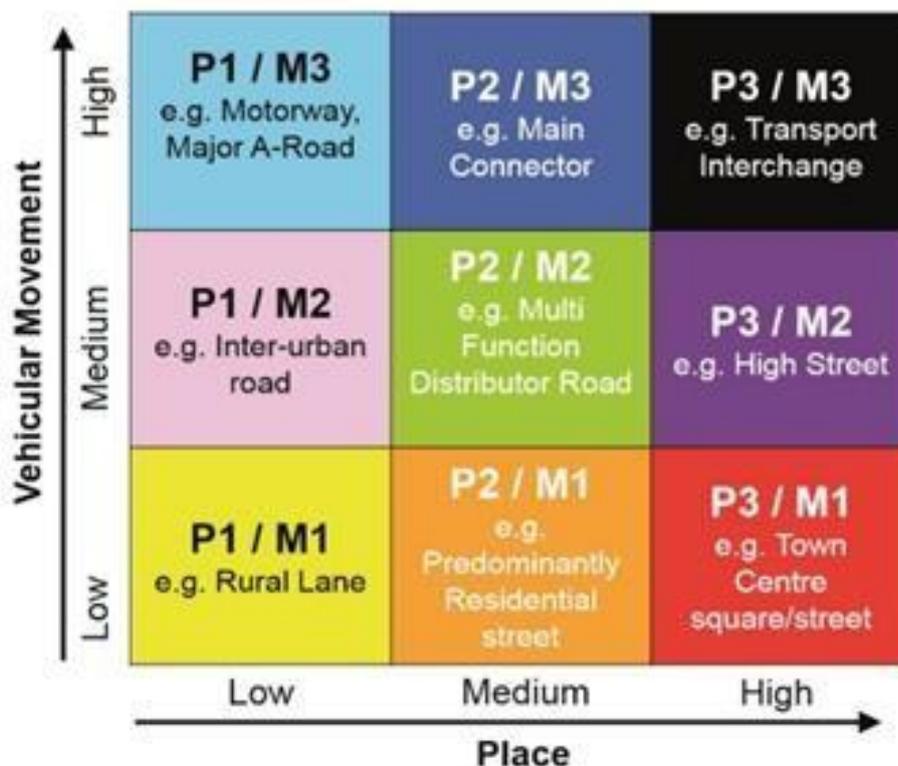
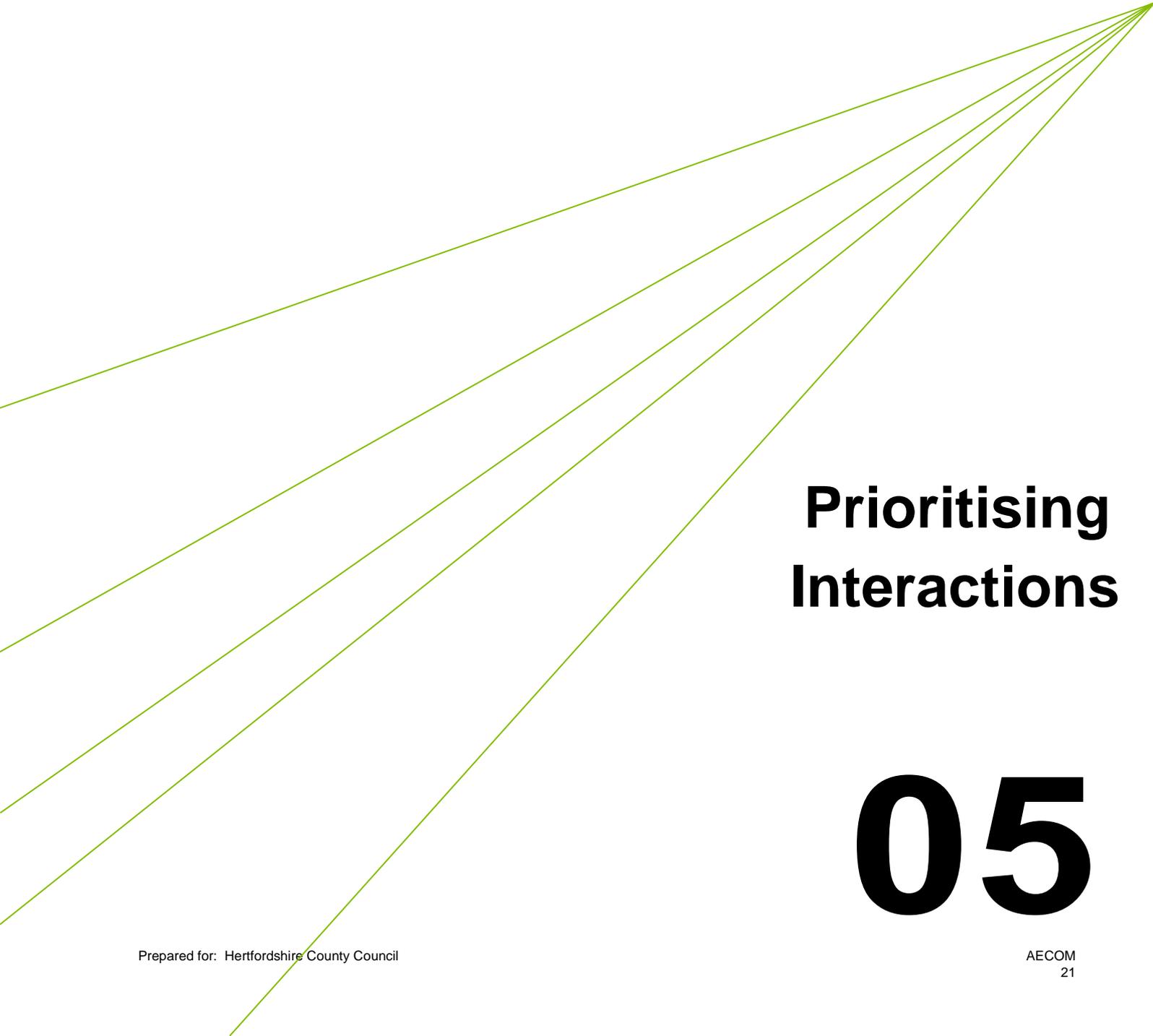


Figure 3 - Place and Movement Road Types

Place and Movement maps are included in Appendix A and how this method has been interpreted for roads within the NC GTP area.



# Prioritising Interactions

# 05

## 5. Prioritising Interactions

### Radar Plot Scoring

An interaction is a relationship between two locations which can vary based on travel demand and is used to assess accessibility and future travel demand between those locations. The process of establishing these interactions can be seen in more detail in the Stage 1 Evidence paper.

The current and future conditions of interactions have been considered qualitatively, informed by evidence compiled in Stage 1, town-based Evidence Packs and local knowledge, using radar plots. Shortfalls on interactions were identified using these plots which also visually plots the NC GTP vision and allows comparisons to be made between current conditions and the vision. The radar plots have been scored based on the six GTP objectives which are laid out earlier in this paper. An example radar plot showing the score of an existing interaction versus the vision is shown below. The process of scoring the radar plots can be seen in more detail in the Stage 2 Strategy paper.

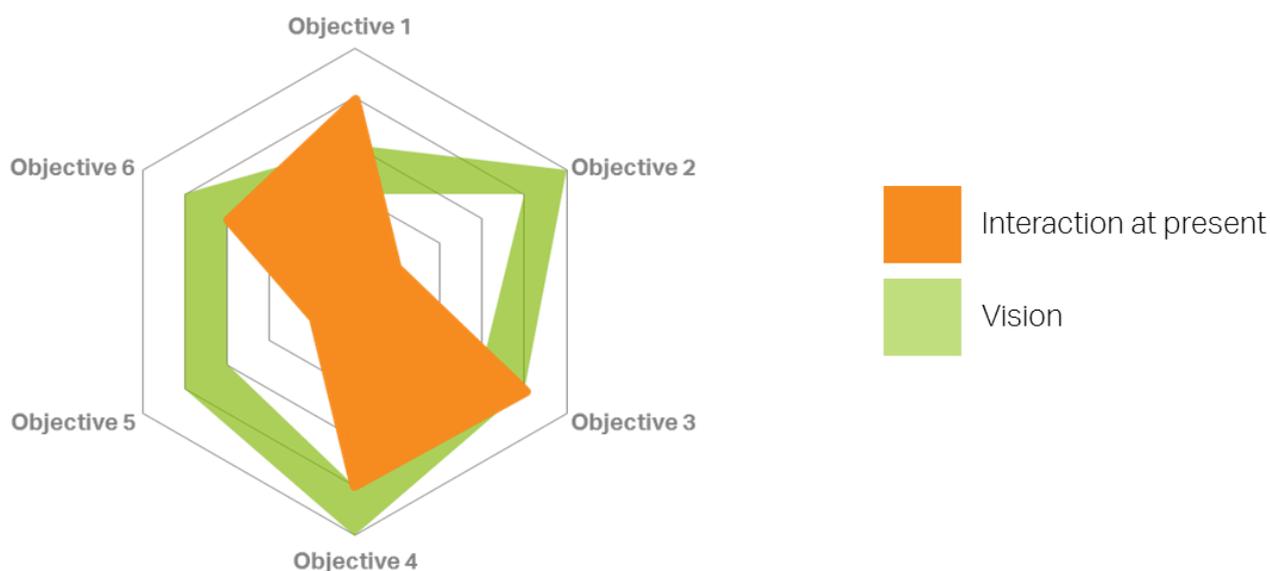


Figure 4 - Radar Plot Example

### Priority Interactions

A process of prioritisation of interactions has been developed to understand where interventions could be more of a priority. This could be used by decision makers to identify which interventions or packages could come forward first if a choice needs to be made.

Shortfalls on the interactions have been identified using the radar plots. The interurban and local radar plot scores are given in Table 1 and Table 2 overleaf. Individual objective scores are summed to provide a total score for each interaction. The shortfall against the vision score for each interaction is also listed, including both the shortfall for each objective and for the total score against the total vision score. The worst performing interactions are located towards the top of the tables, while the best ones are towards the bottom.

The prioritisation of the interactions allows them to be compared and highlights potential opportunities where more than one interaction shortfall could be addressed by a single intervention or shared package of interventions if they suffer from the same shortfalls. With this order, interventions can address the highest shortfalls first and work down the list. Prioritising interactions ensure that the objectives which score poorly against the vision can be addressed with relevant interventions.

## Interurban Interactions

Interurban interactions are between two urban areas. These are important in ensuring sustainable accessibility for the residents of new developments and existing residents between towns. The data used in reviewing these interactions are derived from the Census 2011 journey to work data because commuting makes up a large proportion of peak period travel (when the transport network is under most stress). It is also recognised that other journey purposes such as education are also relevant when considering network stress. More detail can be found in the Stage 1 Evidence paper.

**Table 1 - Interurban Interaction Prioritisation**

Interactions	Connected	Reliable	Accessible	Place	Efficient	Healthy and Safe	TOTAL
Hitchin, Stevenage and Letchworth to Luton	-2	-4	-1	-1	-2	-3	<b>-13</b>
Royston to Letchworth, Baldock, Hitchin and Stevenage	-2	-1	-2	0	-2	-3	<b>-10</b>
Stevenage to Hitchin	-2	-4	1	-1	-2	-1	<b>-9</b>
Stevenage to Welwyn Garden City and Hatfield	0	-3	0	-1	-2	-3	<b>-9</b>
Letchworth to Hitchin and Baldock	-2	-1	-1	0	-2	-2	<b>-8</b>
Shefford, Arlesey and Stotfold to Hitchin and Letchworth Garden City	-1	-1	-2	1	-2	-2	<b>-7</b>
Letchworth and Baldock to Stevenage	1	-3	-1	0	-2	-1	<b>-6</b>

The table above indicates that the Luton-Hitchin corridor experiences the highest level of shortfalls when evaluated against the NC GTP vision scores. The scores are however closely spaced between all of the inter-urban interactions with issues of reliability, efficiency and healthy and safe links being more common areas of concern.

## Local Interactions

Local interactions occur within one urban area and these were categorised into zones, residential, employment and town centres. This helps explore the various interactions at a local level. More detail on these can be found in the Stage 1 Evidence paper.

**Table 2 – Local Interaction Prioritisation**

Interaction	Connected	Reliable	Accessible	Place	Efficient	Healthy and Safe	TOTAL
Chells to North Gunnels Wood	-1	-2	-3	-4	-3	-2	<b>-15</b>
Chells to South Gunnels Wood	-1	-2	-3	-2	-3	-2	<b>-13</b>
Hitchin Town to Hitchin Employment	-2	-1	-4	-2	-1	-2	<b>-12</b>
Bedwell to Gunnels Wood North	-1	-2	-3	-3	-1	-2	<b>-12</b>
East Stevenage to North Gunnels Wood	0	-2	-3	-3	-2	-2	<b>-12</b>
Purwell and Walsworth to Hitchin Town Centre	-1	-2	-3	-2	-2	-1	<b>-11</b>
Hitchin to Hitchin Rail station	-1	-2	-3	-2	-1	-2	<b>-11</b>
Stevenage Old Town to North Gunnels Wood	0	-2	-2	-3	-2	-2	<b>-11</b>
North Stevenage to South Gunnels Wood	0	-2	-2	-3	-2	-2	<b>-11</b>
East Stevenage to South Gunnels Wood	-1	-2	-2	-2	-2	-2	<b>-11</b>
East Stevenage to Town Centre	0	-2	-1	-3	-2	-2	<b>-10</b>
Bedwell to South Gunnels Wood	0	-2	-2	-3	-1	-2	<b>-10</b>
Shepall to South Gunnels Wood	0	-2	-2	-3	-1	-2	<b>-10</b>
Internal movements within Royston	-1	-2	-3	-1	-1	-2	<b>-10</b>
Hitchin to Hitchin Town Centre	-1	-2	-2	-2	0	-2	<b>-9</b>
Baldock to Letchworth and Letchworth Town Centre	-1	-3	-1	-2	-2	0	<b>-9</b>
South Letchworth to Town Centre	0	-2	-2	-1	-2	-1	<b>-8</b>
Letchworth to Letchworth Employment area	-1	0	-2	-1	-2	-2	<b>-8</b>
Symonds Green to North Gunnels Wood	0	0	-1	-3	-1	-2	<b>-7</b>
North Stevenage to Town Centre	0	-2	0	-2	-1	-2	<b>-7</b>
Bedwell to Town Centre	0	-2	-1	-2	0	-2	<b>-7</b>
Letchworth West to Town Centre	0	-1	-2	-1	-1	-1	<b>-6</b>
Letchworth Norton to Town Centre	0	0	-2	-1	-1	-1	<b>-5</b>

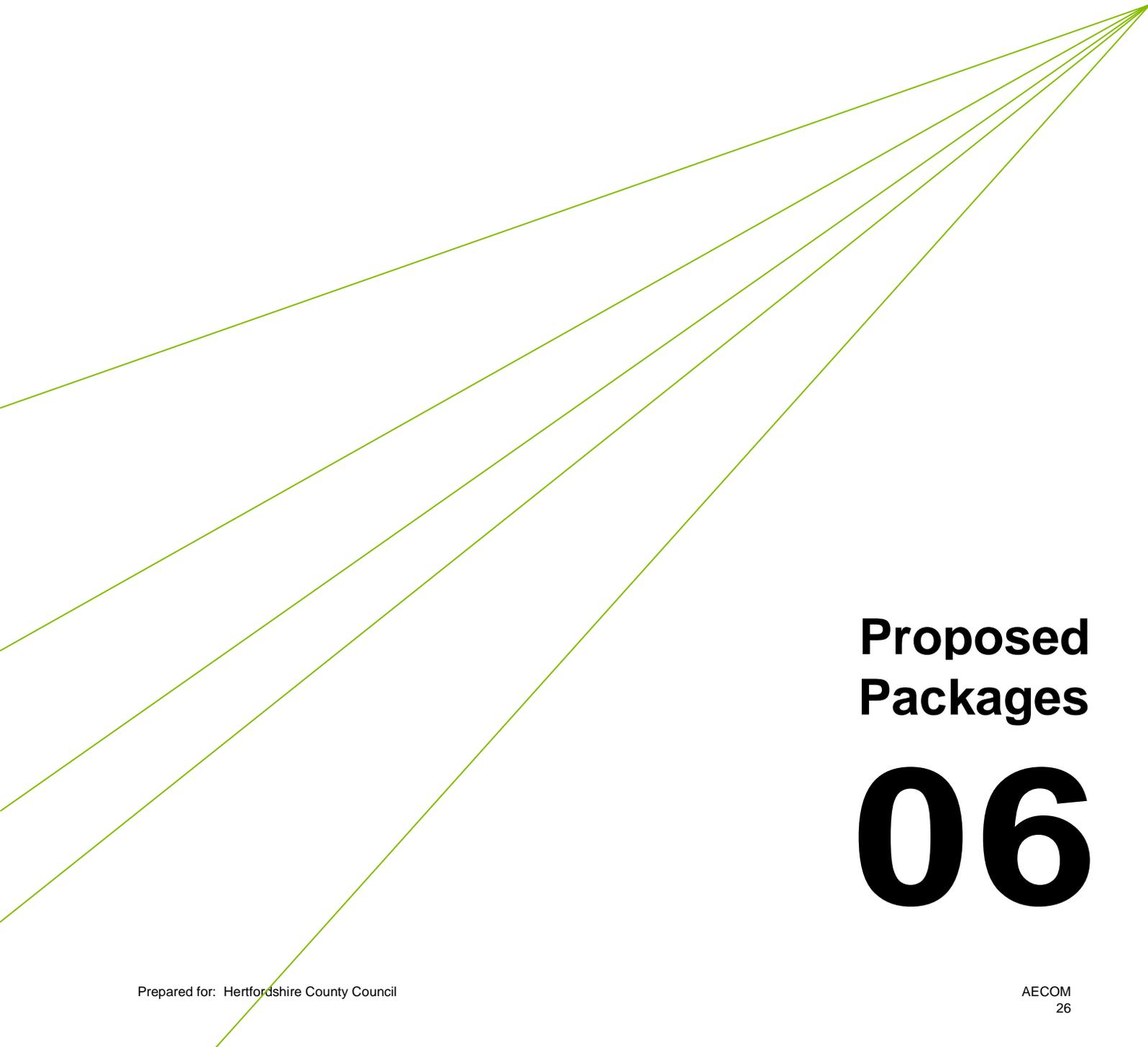
The level of shortfalls is fairly evenly matched between many of the local (urban) interactions. Those within Stevenage and in Hitchin rank more poorly compared with those in Letchworth, Baldock and Royston.

The areas which suffer from the highest shortfalls are in Stevenage Chells area, here there are issues with the high level of traffic using motorised vehicle as their primary mode. This causes a low efficiency score; other issues are in both place and accessibility.

The lowest shortfalls are primarily in Letchworth, where there is a considerable number of wide, tree-lined streets leading to a high active transport modal split. There is also little congestion in the area as well as having many routes, the only area it lacks in is accessibility

which is not significant. The reasons they fare so well compared to the vision is because of (comparatively speaking) their high percentage of active trips, connectedness and quality/level of infrastructure. Nevertheless, despite the scores, urban centres will remain the focal point for employment, retail and leisure uses, and where transport networks are likely to be most intensively used by different users, all of whom are competing for what might be quite constrained space. It is important therefore that these urban centres are not overlooked when considering potential interventions.

More information on this can be found in the Stage 2 Paper Strategy Paper.



# Proposed Packages

# 06

## 6. Proposed Packages

The challenges identified during the process of developing the NC GTP can be addressed in many different ways. To an extent, over time the challenges will be influenced by wider trends and changes in travel behaviour which can affect people’s decisions to use particular modes of transport, the route they take, the time of day they travel, even where they live, work and participate in leisure activities.

However, we cannot rely on wider influences and factors alone to either address a challenge or assume it will reduce in scale of impact over time. A coordinated and smart approach is needed to tackle challenges through a wide range of physical interventions, some small and some large in scale, which are targeted at addressing a challenge symptom or more critically the underlying cause(s).

Hertfordshire County Council and partners have a toolkit of approaches to help influence transport and travel behaviour. This includes both infrastructure interventions and so-called ‘soft measures’, these being behaviour change initiatives such as promotion of bus services, travel planning for new developments, cycling training and exploring opportunities for integrated ticketing. Figure 5 illustrates the range of interventions available to influence travel choices and behaviour.

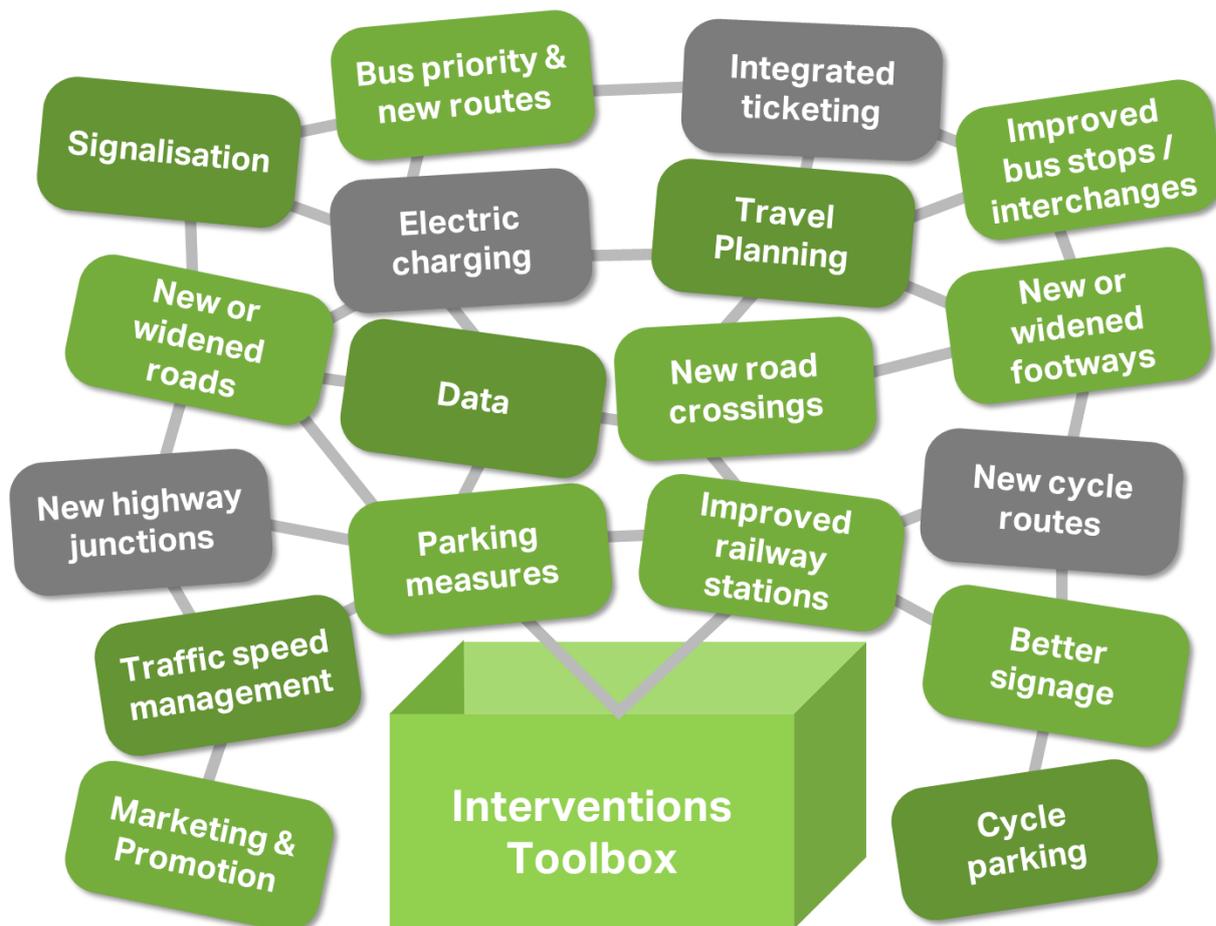


Figure 5 - Current Toolbox of Interventions

All of the packages of interventions identified in this Prospectus should be complemented by a range of supporting interventions and initiatives, which should be considered and rolled out consistently across the GTP area. These area-wide interventions and measures are described later in this section of the report.

## Future Trends

The world of transport is expected to undergo a profound transformation in the coming years and decades. New technologies could change how we travel and also how frequently. Over time new technology and other initiatives could supplement or replace tools which are currently available to Hertfordshire County Council and partners to address transport issues.

Research has shown that the younger population is increasingly favouring access over ownership. Faced with increasing costs of ownership, they prefer pay-per-use or renting of everyday items such as smart phones but also cars. Those aged between 18 and 35 are 40% more likely than other age groups to move to leasing as opposed to ownership of cars, certainly if costs continue to rise<sup>5</sup>.

Mobility as a Service (MaaS) describes a shift away from personally owned modes of transportation and towards mobility solutions that are consumed as a service, paid for on demand through connected technologies. Research undertaken by Transport Systems Catapult (now Connected Places Catapult)<sup>6</sup> envisages that MaaS could change our travel behaviour. It could result in more journeys and distances travelled by car (or potentially less); it could enable policy makers and transport planners to have a greater influence on managing travel demand and responding to changing travel behaviours; and it could affect the transport industry with car makers and transport operators moving away from a business to consumer model.

For MaaS to be successful and offer flexibility to customers, a wide range of integrated transport services will be needed. As part of a public transport package sitting alongside rail services and traditional bus services (those running on fixed, timetabled routes), there are examples of Demand Responsive Transit (DRT) services emerging across the country in both rural and urban areas.

DRT “provides transport ‘on demand’ from passengers using fleets of vehicles scheduled to pick up and drop off people in accordance with their needs”<sup>7</sup>. DRT services tend to use smaller buses or minibuses and provide variable routes which are tailored to the users’ needs. DRT services such as ArrivaClick enable passengers to order and track a DRT vehicle from an app, which will also tell them the name of the driver and allow them to choose a pick-up point and reserve a seat.

The system is powered by technology which uses complex algorithms to match passengers travelling in the same direction, dynamically routing vehicles in real-time to determine the optimal route for their trip. The system calculates the shortest and fastest routes, with a guaranteed fare and real-time information on time of departure and arrival is provided.

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<sup>5</sup> ABN Amro (August 2016) ‘On The Road To The Circular Car’, <https://www.circle-economy.com/thecircularcar>

<sup>6</sup> Transport Systems Catapult (July 2016) ‘Mobility as a Service – Exploring the Opportunity for Mobility as a Service in the UK’, [https://ts.catapult.org.uk/wp-content/uploads/2016/07/Mobility-as-a-Service\\_Exploring-the-Opportunity-for-MaaS-in-the-UK-Web.pdf](https://ts.catapult.org.uk/wp-content/uploads/2016/07/Mobility-as-a-Service_Exploring-the-Opportunity-for-MaaS-in-the-UK-Web.pdf)

<sup>7</sup> Mageeanand Nelson (2003) as cited by Laws and Potter (2009) “Demand responsive transport: A review of Schemes in England and Wales”, *Journey of Public Transportation*, 12, 1, 2009. <https://oro.open.ac.uk/18426/1/JPT12-1Laws.pdf>

Passengers are then picked up and dropped off by the bus in the order most convenient for them. Opportunities for establishing DRT services in Hertfordshire are currently being investigated.

How cars are powered is changing. Electric vehicles are increasing in popularity and it is predicted that even if fuel efficiency improves in more traditional petrol- and diesel-powered vehicles, electric vehicles will be cheaper to own than conventional vehicles by 2022<sup>8</sup>. Substantial investment will be needed in supporting infrastructure, most notably additional charging points at key destinations including employment areas, town centres, retail parks, supermarkets, within modified petrol filling stations or dedicated electric vehicle charging forecourts. In 2018, the UK Government launched its Road to Zero Strategy<sup>9</sup> which sets out the ambition for at least 50% of new car sales to be ultra-low emission by 2030 alongside up to 40% of new vans. Hertfordshire County Council is currently developing an Electric Vehicle Charging Implementation Strategy<sup>10</sup> to identify how to work with districts and boroughs to increase the provision of charging points.

The government expects the transition to ultra-low emission vehicles to be industry and consumer led, supported by a range of government-led measures including increasing the supply and sustainability of low carbon fuels; taking steps to accelerate the adoption of fuel efficient motoring by company car drivers, businesses operating fleets and private motorists; consulting on reforms to the Vehicle Excise Duty to incentivise van drivers to make the cleanest choices when purchasing a new van; working with industry to develop an ultra-low emission standard for trucks; and investment in research and development including the next generation battery technology.

New cars entering the market today already incorporate ever more advanced technology – sensors, parking assist systems, automatic braking – and manufacturers are exploring increased connectivity so that a vehicle's navigation system can detect available parking spaces and can communicate with traffic signals to optimise traffic flow.

Autonomous, driverless vehicle technology is being investigated across the world. The UK Government is actively exploring the potential opportunities and risks posed by this new technology. There have been several rounds of government funding in its Connected Autonomous Vehicles (CAV)<sup>11</sup>. Trials to test driverless cars on the streets are currently underway in places such as Milton Keynes and in Greenwich (London). Autonomous vehicles will help support the MaaS concept and could greatly increase social mobility particularly for those who cannot afford to own a car. The potential effects on mass transport, in particular local bus services, is unknown, and concerns about the technology's resilience, safety and insurance is still to be fully understood.

This all presents significant uncertainties going forward and clearly poses risks in terms of decisions that are made today, such as the type of transport improvements which are implemented, later becoming obsolete if technology influences how people travel to such an extent that those transport improvements are no longer required or (conversely) are insufficient to meet future needs.

However, whilst it is important to ensure transport infrastructure is future proofed as far as possible, it is not feasible to hold off important decisions today and wait for new technologies

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<sup>8</sup> Egerton-Read, S. (March 2016) Circulate News <http://circulatenews.org/2016/03/electric-cars-will-be-cheaper-thanconventional-cars-by-2022-new-report-predicts/>

<sup>9</sup> The Road to Zero – Next steps towards cleaner road transport and delivering our Industrial Strategy (2018) [www.gov.uk](http://www.gov.uk)

<sup>9</sup>

<sup>10</sup> Electric Vehicle Strategy Consultation | North Hertfordshire District Council ([north-herts.gov.uk](http://north-herts.gov.uk))

<sup>11</sup> UK Centre for Connected and Autonomous Vehicles <https://www.gov.uk/government/organisations/centre-for-connected-andautonomous-vehicles>

to fully emerge and be adopted. Our current understanding of the impact and potential of new technologies is ever-changing. There is a need therefore to continue to plan based on the current toolkit of transport infrastructure intervention types.

## Identifying Interventions

A hierarchical approach to defining interventions has been adopted for this GTP. This means that small interventions are distinguished from large interventions. This is important because each intervention is likely to involve a different amount of work to take it from concept (today) to implementation (in the future). They may also present varying level of risks and therefore need different approaches to planning. The scale of impact may also vary which needs to be highlighted at this early stage.

It is also necessary to recognise how different interventions may relate to one another, how they may complement each other and how it may be necessary to deliver them in a particular sequence for reasons such as engineering feasibility, impact on people and places or obtaining funding.

Each intervention must not therefore be considered in isolation. Such an approach is overly simplistic as it could overlook or mask an important decision that needs to be made. For example, if 'Intervention X' is delivered ahead of 'Intervention Y', it may not be possible to implement 'Intervention Y' without 'Intervention X' needing to be removed or rebuilt which would be wasteful in terms of public resources, and disruptive to people's lives. Moreover, linkages between interventions and existing travel networks will be made at the time of delivery to ensure that isolated provision is minimised.

It is important to bear in mind that this is a strategic spatial transport plan. Interventions are identified at a very broad, conceptual level of detail. In practice, the composition of interventions and packages which are set out in this GTP may eventually be influenced by other factors which cannot be identified at this time.

This GTP however provides a broad framework for how a set of interventions could or should in principle be brought forward, and how and why they complement each other in terms of their intention to address a challenge.

## The Intervention Hierarchy

Interventions are defined as Projects, Linked Project Groups or Schemes, which are combined into challenge-focussed Packages. Larger-scale Strategic Interventions which originate from outside of the GTP itself are also considered as they may influence the Packages put forward. Packages are bundled together to form a Scenario as shown in Figure 6 below.

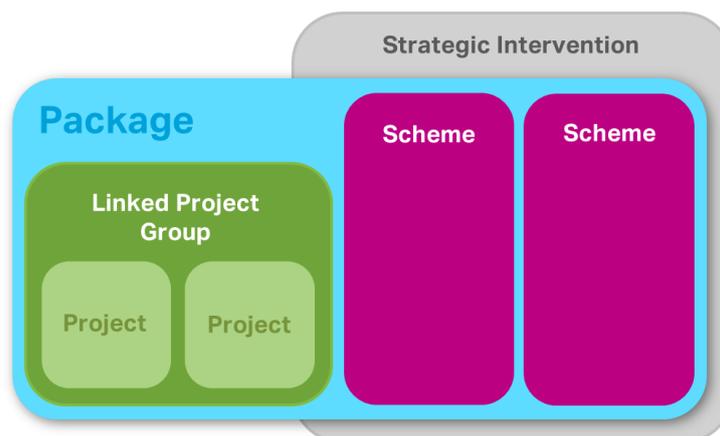


Figure 6 - Intervention Hierarchy

### Project

A Project represents an individual, smaller-scale intervention that would impact quite a localised, distinct geographical area or apply to multiple geographical areas in a relatively minor way. For example, a Project could include:

- *A discrete section of cycleway*
- *A new signalised crossing*
- *Minor road or junction redesign*
- *Additional bus stop/facility or cycling infrastructure points*

### Linked Project Group

A Linked Project Group represents a geographically related group of Projects that may impact a broader geographical area than an individual Project. The groups have flexibility in so much that Projects can be brought forward in isolation, in a programmed sequence, or at the same time. If individual projects are dropped, the overarching aim of the Linked Project Group would be weakened, however there should remain some benefit in bringing forward the remaining elements of the Linked Project Group, i.e. they are not so closely entwined that one Project cannot occur without another.

Linked Project Group examples could include:

- *A collection of cycleway projects forming a network*
- *A set of non-motorised and public-transport interventions at a particular junction or along a distinct stretch of road*
- *A series of minor motorway junction redesigns at successive junctions.*

### Scheme

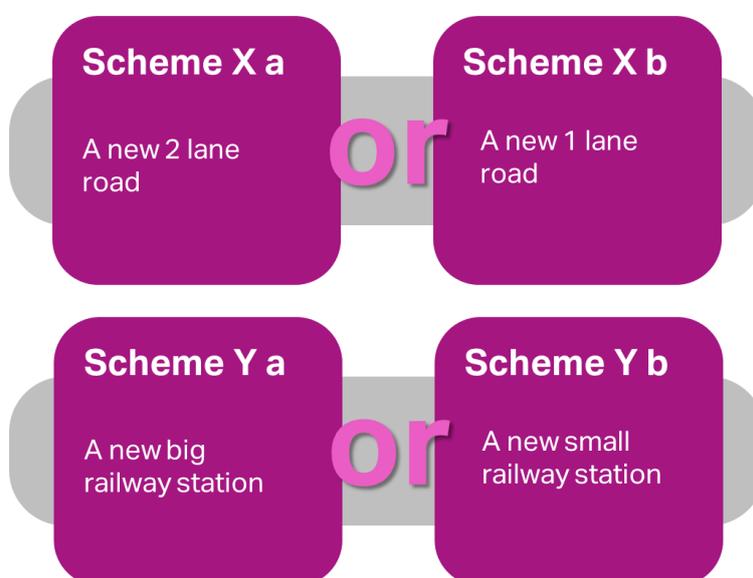
A Scheme is a medium-to-large scale intervention or study that would most likely impact a broader geographical area than a Project or apply to multiple geographical areas in a more significant way than a Linked Project Group. A Scheme could comprise of a single large intervention or a closely related set of measures which would not be deliverable as separate projects. Scheme examples could include:

- *Station redesigns or relocations with a less than major impact on the surrounding geographical area*
- *Town-wide bus service reconfigurations*
- *Long route or major road redesign*
- *Full motorway junction redesigns.*

## Scheme Approaches

There are important choices to be made, not only about whether or not a particular intervention is required and the type of intervention, but also the potential different approaches that could be taken to address the challenge.

There may be more than one approach to dealing with a particular challenge (see Figure 7). An Approach represents an alternative option for the implementation of a Scheme (or Strategic Intervention) and this therefore influences the combination of interventions within Packages.



**Figure 7 - Example Scheme Approaches**

### Package

A Package represents a collection of Schemes and Linked Project Groups, often within distinct geographical areas, that seek to solve or mitigate against a specific GTP challenge group. Schemes and Linked Project Groups may be assembled into packages for one or more overarching purpose related to the challenge groups, such as:

- *Improving connectivity between two towns*
- *Generating more transport links along a particular corridor*
- *Reducing congestion within a town centre, neighbourhood or sub-area of a town such as a business park.*

## Strategic Interventions

Strategic Interventions are related to major decisions points. A number of prospective major, county-significant infrastructure interventions with the potential to affect North Central Hertfordshire and beyond are defined exclusively at this level. These interventions are not specifically proposed or endorsed as part of the GTP, however they are highlighted at this level because it is recognised that if they were taken forward through other plans such as the LTP or by bodies including National Highways (previously Highways England) and Network Rail, they could significantly influence decision making through the GTP.

### Strategic Interventions and Corridors

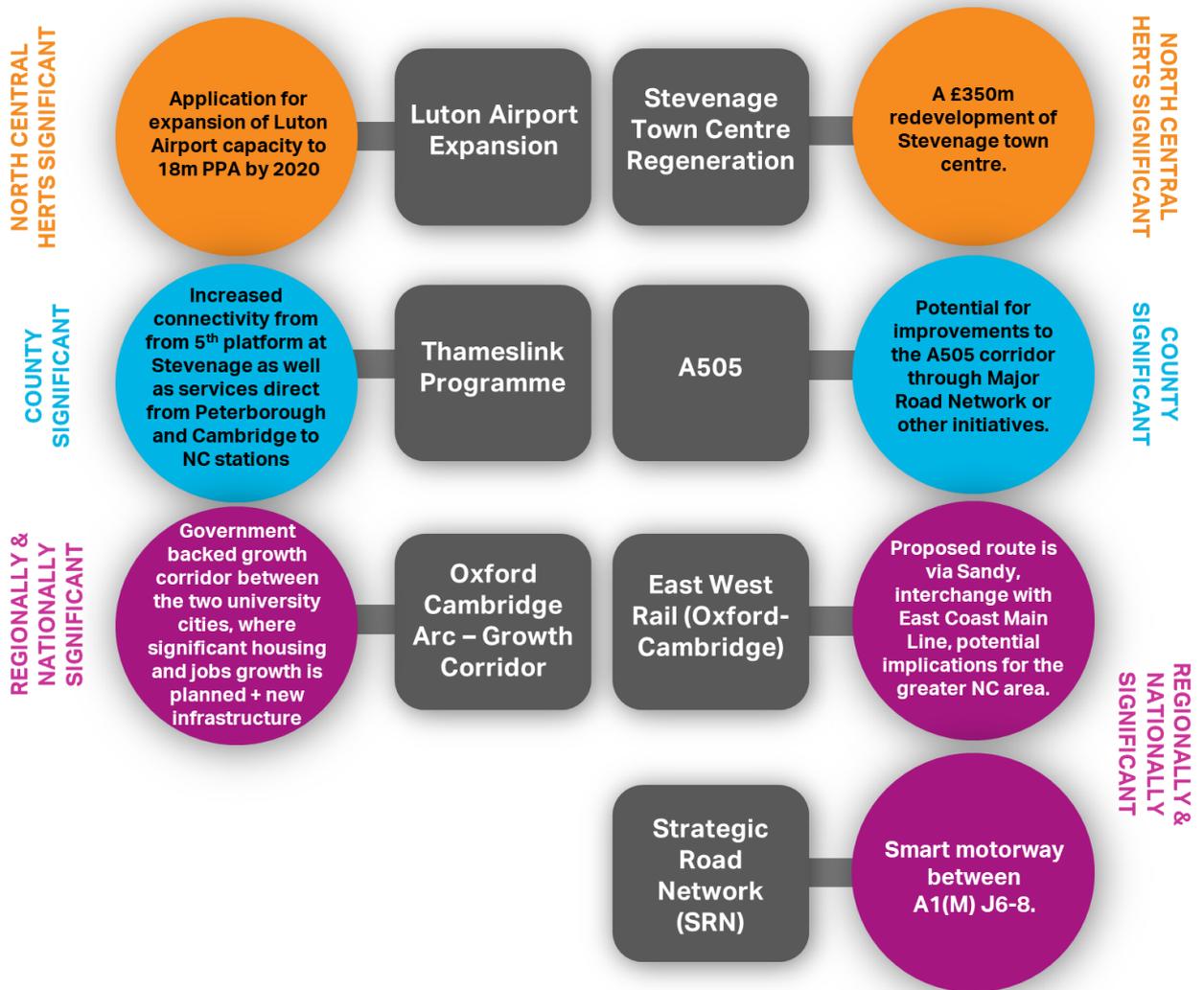


Figure 8 - Strategic Interventions

### Luton Airport Expansion

Luton Airport is an important employment destination as well as being an important travel hub. The expansion of London Luton Airport to accommodate initially up to 19m passengers per year (from the 18m currently permitted) and to a potential 32m in the longer term, will increase demand for travel from the NC GTP area. This presents an opportunity to improve public transport links to Luton Airport.

While no decision on any strategic intervention has been prescribed by the GTP, thinking around the future possibilities and opportunities of these interventions and initiatives have guided or influenced discussions on the optioneering and prioritisation of interventions and packages.

### **Stevenage Town Centre Regeneration**

Stevenage is a town with huge potential and is host to numerous large businesses. The town faces a number of challenges, like many of its era, and an ambitious regeneration project has been planned for its town centre. A £350m redevelopment of Stevenage town centre which includes new shops, bars, restaurants, more than 1,000 homes, a park and a council building. Transport will play a key role in delivering this vision, as more demand on the network will be caused by the proposal. The regeneration proposals have been fully absorbed into this GTP in order to provide sustainable options for the new trips to this area.

### **Thameslink**

Between 2018 and 2020, local rail services operating along the East Coast Main Line were significantly overhauled and now form part of an extended Thameslink network. New services operate from Hertfordshire direct to places such as Brighton, Horsham and Gatwick Airport via central London. A new timetable is gradually being introduced, which will culminate in 24 trains per hour (tph) passing through the Thameslink Core section within central London. Around 8tph will route to/from the East Coast Main Line, while, for comparison, at the time of writing, 4tph are routed along the East Coast Main Line.

A new platform opened at Stevenage station in August 2020. This has provided more capacity for improved train services. Providing good access to railway stations from towns within the GTP will therefore be an important part of the strategy.

### **A505 and the Major Road Network (MRN)**

In 2017/18, the DfT consulted on a potential new designation of road - MRN - which will sit between the local road network (managed here by HCC) and the strategic road network (managed by National Highways). This designation has now been adopted. The MRN now includes the A505 east of the A1(M) Junction 9, the A602 between A1(M) Junction 8 and Hitchin and the A602 between Stevenage and the A10.

A separate A505 Corridor Study is investigating current and future transport related challenges and opportunities between Leighton Buzzard, Dunstable, Luton, Hitchin, Stevenage, Letchworth, Baldock and Royston. Packages put forward in the NC GTP and proposals put forward in the North Hertfordshire Transport Strategy will be integrated with the A505 Corridor Study which will also look at potential longer-term measures, including Interurban Bus Rapid Transit, that may be required to support potential development growth beyond what is set out in North Hertfordshire District Council's and Stevenage Borough Council's Local Plan documents.

Considerable traffic movements, generated by new employment areas across the county, could put a strain on the existing road network. The A505 Corridor Study will also investigate the possibility of creating alternative routes for this commercial traffic, which will reduce congestion in and around town centres.

### **Oxford-Cambridge Arc – Growth Corridor**

Oxford, Milton Keynes and Cambridge are growing fast in a region renowned for innovation where there are plans for a substantial increase in jobs and housing. East-west transport connectivity between these areas is however quite poor. Improvements to rail and road links are being considered (including East West Rail – see below).

The NCGTP area is on the fringes of what is being considered as part of the Arc and clearly any improvements to road and rail infrastructure as well as additional growth across Central Bedfordshire, South Cambridgeshire and Cambridge City could have implications in terms of additional travel movements.

### **East West Rail (Oxford-Cambridge)**

With the potential of a new railway alignment passing close to Hertfordshire, new links will be made available in the NC GTP area. The new railway alignment is likely to go via Tempsford near Sandy (Central Bedfordshire) which will become an east-west and north-south interchange. The scheme will be entirely outside of the GTP area as alternative options via Hitchin have now been discounted. But there could be some implications for the NC GTP area in terms of broader connectivity between the NC GTP area and the wider Oxford-Cambridge arc. HCC's Rail Strategy<sup>12</sup> also puts forward an aspiration for a new Stevenage-Luton (Airport) rail link between the East Coast Main Line and Midland Main Line.

### **National Highways Road Investment Strategy**

National Highways is investing significantly in maintaining and improving the strategic road network (all motorways and major A-roads). The A1(M) Junction 6-Junction 8 All Lane Running scheme is one of many examples across the country of significant National Highways projects aimed at increasing capacity and improving network performance and resilience. The Junction 6-Junction 8 All Lane Running (Smart Motorway) scheme involves replacing existing hard-shoulders with running lanes.

This should increase traffic throughput and it is anticipated that it will reduce congestion which is frequently experienced on this section of the A1(M) through Hertfordshire. If further investment comes forward on other parts of the A1(M)/A1 corridor further north in the future, which is not currently planned by National Highways, this could have further implications on the North Central area in terms of the attractiveness of the A1(M) for undertaking journeys.

It is acknowledged that increasing capacity on the A1(M) could create additional traffic flows on the adjoining local road network. Moreover, it should be noted that improvements to junctions along the A1(M) corridor are not proposed as part of the All Lane Running (Smart Motorway) scheme. It is at these junctions where the strategic road network interacts closely with the local road network, which is managed by Hertfordshire County Council.

Local road network impacts occurring as a result of the smart motorway scheme could be mitigated by interventions proposed in this GTP.

## **Proposals**

Before introducing the proposed intervention packages, which make up a large part of the GTP, it is important not to overlook the broader set of principles or measures which will be required to help ensure the hard infrastructure type interventions put forward in this GTP are successful.

A set of area wide interventions and principles are described below. These are considered to be essential accompaniments to the (mostly) hard infrastructure interventions which make up the Packages described later in this paper. These behavioural change measures are aimed at supporting the delivery of positive change on Hertfordshire's transport network,

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<sup>12</sup> Hertfordshire's Rail Strategy: <https://www.hertfordshire.gov.uk/media-library/documents/highways/transport-planning/local-transport-plan-live/rail-strategy.pdf>  
Prepared for: Hertfordshire County Council

helping to maximise the use of planned new infrastructure while addressing current and future growth and transport challenges.

## Sustainable Travel Towns

The sustainable travel town programme is introduced in LTP4. This is a comprehensive package of schemes and behaviour change initiatives aimed at achieving a significant modal shift to non-car modes and reduction in single occupancy car use. Improvements could include improved cycling, walking and passenger transport infrastructure and service levels, in combination with initiatives such as travel planning and marketing. The application of Park and Ride and other parking demand management approaches, including resident-only parking permits where appropriate (and agreed in discussion with local residents), should also be considered as these would complement other improvements in passenger transport, and improved provision for sustainable modes in the towns. Within LTP4, there are key objectives with evidence detailed. Examples of objectives within different themes are detailed below:

- Enhance connectivity between urban areas in Hertfordshire
- Enhance journey reliability and network resilience across Hertfordshire
- Reduce carbon emissions
- Make journeys and their impact safer and healthier
- Improve access and enable participation in everyday life through transport

Many of the packages put forward in this GTP align with the Sustainable Travel Town concept and will need to be accompanied by broader measures rolled out across the GTP area to encourage behaviour change.

Local Planning Authorities will liaise with HCC and bid for towns in their authority areas to become Sustainable Travel Towns. It is possible that one or more of the towns in the NC GTP area will become a Sustainable Travel Town in the future.

The following set of area-wide interventions is for guidance only, to be considered in conjunction with Local Plan and LTP policies.

## Local Cycling and Walking Infrastructure Plans

The Department for Transport (DfT) sets out technical guidance for Local Authorities on Local Cycling and Walking Infrastructure Plans<sup>13</sup>. The key outputs of LCWIPs are:

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

Local Authorities are required to develop a LCWIP for their area in line with the LCWIP Technical Guidance for Local Authorities. At the time of writing St Albans District and Welwyn Hatfield Borough are producing LCWIPs in discussion with HCC. It is expected that these LCWIPs will draw from but also add to walking and cycling proposals set out in this GTP.

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<sup>13</sup> Local Cycle and Walking Infrastructure Plans -

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/908535/cycling-walking-infrastructure-technical-guidance-document.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908535/cycling-walking-infrastructure-technical-guidance-document.pdf)

LCWIPs are intended to identify infrastructure measures, which will need to be developed in line with LTN 1/20 Cycle Infrastructure Design.<sup>14</sup>

## Enhanced Bus Partnership

The Intalink Enhanced Partnership involves bus companies and local authorities working more closely together to improve the bus networks within and between the Hertfordshire towns. Key plans for the partnership include giving buses priority on congested roads and measures such as:

- Prioritising bus and coach services in traffic
- Improving the image of bus travel
- Upgrading bus infrastructure
- More closely integrating the bus network
- Making smarter use of data and information

The Enhanced Partnership builds on the work done by the existing Intalink Partnership, a unique collaboration between Hertfordshire County Council, bus and rail operators and local districts and councils. It has been established in Hertfordshire for over 20 years. The partnership has been successful in improving the experience of bus passengers and in making public transport a more attractive option by delivering a range of publicity and information, digital communications including a website, mobile ticket app and multi-operator ticketing schemes.

Hertfordshire County Council has published its Intalink Bus Strategy<sup>15</sup> and Bus Service Improvement Plan<sup>16</sup> which sets out the county council's proposals to prioritise bus services in traffic, improve the image of bus travel, upgrade bus infrastructure, better integrate the network and apply a smarter approach to the use of data and information.

Given the importance of bus services in the local area, further investigations are likely to be required to identify wider scale improvements along corridors and across towns in the NC GTP area. An Enhanced Partnership bus priority feasibility study has already commenced for St Albans, and the towns of Welwyn Garden City and Hatfield are also considered key priorities for similar studies in the future. Specific interventions which may have an influence on bus services in these towns which are presented in this GTP will need to be considered in the context of any future feasibility study or studies to be undertaken in line with the Enhanced Partnership's aims and objectives.

## Area Wide Interventions

Area wide interventions, especially in relation to behavioural change, are required for a more cohesive delivery of sustainable and accessible development. The following interventions are considered to support the GTP.

### Ensure sustainable transport access to developments

New developments should be designed in line with Local Plan policies to support travel by walking, cycling and public transport. Direct walking and cycle routes should be included to connect to existing and planned walking and cycle routes on the fringes of the development site, knitting new development into existing active travel infrastructure. In larger

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<sup>14</sup> LTN 1/20 Cycle Infrastructure Design 2020 -

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf)

<sup>15</sup> Hertfordshire County Council – Intalink Bus Strategy <https://www.hertfordshire.gov.uk/media-library/documents/about-the-council/consultations/intalink-bus-strategy-september-2019.pdf>

<sup>16</sup> <https://www.intalink.org.uk/bus-service-improvement-plan>

developments, a suitable corridor for bus access should be provided, designed to harmonise with existing and planned bus services. Consultation with bus operators will be required in ensuring that the highway network within the development facilitates efficient bus service performance. Any changes or improvements to bus services need to be developed in line with the Intalink Bus Strategy and BSIP, and will most likely require monetary contributions from developers. Walking and cycling routes should be as direct as possible to existing key services, schools, shops and local public transport services.

## **Develop a network of electric vehicle charging points**

Towns and neighbourhood centres within the plan area should develop a network of public electric vehicle charging points in line with projected demand, in order to enable the uptake of electric vehicles. The location and number of sites required will require further study into likely demand patterns, which may be undertaken in cooperation with vehicle charging network operators. Hertfordshire County Council is currently developing an Electric Vehicle Charging Infrastructure Strategy and will work with the local authorities and with the industry to monitor the uptake of electric vehicles across the county and identify where the provision of additional charging points can be optimised.

## **Car clubs**

The provision of car clubs, including car clubs using electric vehicles and floating car clubs, is to be developed to encourage HCC to require them for developments in all locations where there is likely to be sufficient demand from residents and employees. Car clubs play an important role in enabling sustainable travel choices by reducing the need for vehicle ownership. Reduced vehicle ownership allows residents greater flexibility in travel mode choice by reducing sunk costs for travel. Existing car clubs such as the University of Hertfordshire's CarPlus-BikePlus scheme and Herts Liftshare could be used as templates for expansion or replication in other parts of the county. The provision of car clubs should be considered in conjunction with current parking standards and provision.

## **Area-wide wayfinding**

Encourage and adopt coherent wayfinding strategies and programmes across town centres, neighbourhoods and key movement corridors with the aim of promoting walking and cycling trips and improved, more sustainable access to public transport services

## **Improved information and wayfinding at bus stops**

Work with operators to provide improved information at bus stops; including real time information, route maps and local area maps (if appropriate) in order to make it easier for bus users to navigate. Any measures should align with the Actions set out in HCC's Intalink Bus Strategy, in particular Actions 7, 11 and 12.

## **Integrated Transport Planning**

Support the establishment of a London Capital Region Transport Body, or other administrative structure which will allow greater integration of transport and land use planning between Local Authorities, support multi-modal planning and enable integrated ticketing across Hertfordshire and surrounding areas, including London. In addition, create an integrated ticket area with London to allow easier interchange between modes.

The County Council and the majority of Bus Operators in Hertfordshire have been members of a voluntary quality partnership, Intalink, for 20 years. This partnership has led to various achievements, including multi-operator ticketing and extensive roadside publicity covering

almost all bus stops in the county, some of which also have real time passenger information displays utilising data from Bus Operators' systems. Following new powers introduced by the 2000 Act (as amended by the 2017 Act), the partnership has been extended into an Enhanced Partnership which now offers the benefits to the travelling public and wider community which could not be achieved with a voluntary arrangement. The principal objectives will be those contained in the Enhanced Partnership Plan and Scheme, in support of its LTP4 include prioritising bus and coach services in traffic; improving the image of bus travel; upgrading bus infrastructure; closer integration of the bus network; and smarter use of data and information<sup>17</sup>. HCC is also working in close collaboration with Intalink partners in identifying bus-priority interventions on key routes.

## **Town Bike Share Schemes**

Implement bike share schemes in larger towns with bike locations at train stations and town centres. HCC is looking for a single provider that could enable inter-urban journeys by bike.

## **Temporary Road Closures**

Implement temporary closures of roads to coincide with special events or to promote more sustainable travel behaviour. Liaise with the emergency services, local communities and bus/coach operators prior to implementing temporary closures.

## **Parking at railway stations**

There should be a presumption against additional car parking at railway stations except where a need has been demonstrated with evidence and agreed between all relevant stakeholders. Any additional parking should incorporate dedicated spaces for electric vehicles and potentially high occupancy vehicle spaces if sufficient monitoring systems can be put in place. The current extent and effectiveness of Controlled Parking Zones around stations needs to be reviewed in the context of potential increases in travel demand. (See LTP4 Policy 4: Demand Management). The local authorities will need to work with Network Rail and the train operating companies to investigate any changes to parking at stations.

## **Parking in new developments**

The number of parking spaces to be provided within new developments needs to be in line with the standards set out in local guidance. Where practical and appropriate to do so, a reduced number of spaces should be considered, particularly in developments close to town centre locations. Any proposals to change parking, notably at public car parks, would need to be discussed and agreed by North Hertfordshire District Council and Stevenage Borough Council as they have responsibility for setting parking standards.

## **Parking in Town Centres**

Many town centres depend on sufficient provision of car parking to cater for visitors and employees. Any proposals to increase overall provision of spaces should however take into account the future demand for car travel as well as the relationship to other GTP proposals which aim to encourage more sustainable travel. Car park tariffs are also a key consideration which can influence when and where people choose to park. Any proposals to change parking, notably at public car parks, would need to be discussed and agreed by North

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<sup>17</sup> Intalink Enhanced Partnership Plan and Scheme and Bus Service Improvement Plan, Hertfordshire County Council - <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/planning-in-hertfordshire/transportplanning/transport-policy-and-supporting-strategies.aspx> and <https://www.intalink.org.uk/bus-service-improvement-plan>  
Prepared for: Hertfordshire County Council

Hertfordshire District Council and Stevenage Borough Council as they manage the majority of public car parks.

## **Parking on roads**

There should be a presumption against providing additional parking on roads. Where there is opportunity to re-evaluate the place and movement function of a road or corridor, consideration could be given to reviewing the provision of on-road parking spaces in consultation with local residents and businesses. Where any reduction in on-road parking provision is proposed, consideration should be given to the opportunities this could afford to improving conditions for cyclists, pedestrians and the efficient movement of bus services. The details of such measures, however, are not included in this GTP and will be considered as part of other mechanisms, such as the Hertfordshire Local Cycling and Walking Infrastructure Plan (LCWIP)<sup>14</sup> and Sustainable Travel Town Programme (STT).

## **Parking Surveys**

Review the role/use of residents parking zones for Monday-Friday 9-5 working hours to support local businesses; on nearby streets where on street parking loss on main routes is proposed to achieve more reliable bus journeys/active travel, to see how proposed interventions will impact current and future parking conditions within the NC GTP area.

## **20mph speed limits**

The introduction of 20mph areas has been shown to encourage the uptake of active travel within an area and Hertfordshire County Council's adopted Speed Management Strategy (SMS) sets out a framework to identify areas which may be suitable for 20mph limits and additional funding has been secured to implement these more widely across the county. The SMS also states that 20mph speed limit areas will be implemented, if the environment allows, where new schools are proposed and states that the physical design of new residential developments should encourage motorists to drive at 20mph or less.

## **Active Travel Infrastructure**

Active travel encourages the movement of pedestrians through physical activity, such as walking and cycling, to travel between places as an alternative to motorised transport. The encouragement of active travel will improve health, quality of life, and the environment in the areas it is implemented. Active travel is encouraged by maintaining existing and providing additional pedestrian facilities, such as widened footways, pedestrian crossings, safe and secure cycle storage, and other measures to ensure pedestrians have safe and accessible travel routes.

Hertfordshire's Rights of Way network will continue to play a vital role in connecting places and enabling people to walk. Hertfordshire County Council is developing a new Active Travel Strategy and the Rights of Way Improvement Plan sets out the county's approach to retaining and improving the Public Rights of Way Network<sup>18</sup>.

Stevenage Borough Council prepared its LCWIP in 2019<sup>19</sup> and this provides a consistent methodology and plan for improving the cycling network; identifying and prioritising walking opportunities to increase the number of walking trips to local destinations; ensuring that new development complements and connects to the existing and planned walking and cycling

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<sup>18</sup> Rights of Way Improvement Plan 2017 – Hertfordshire County Council - <https://www.hertfordshire.gov.uk/services/recyclingwaste-and-environment/planning-in-hertfordshire/transport-planning/transport-policy-and-supporting-strategies.aspx>

<sup>19</sup> Stevenage LCWIP 2019 - <http://www.stevenage.gov.uk/149690/planning-policy/90175/90178/90200/>

network; and helping Stevenage to bid for funding to make improvements to the network. North Hertfordshire District Council is preparing its own LCWIP document.

## **Travel Planning**

Travel Plans are an important tool in Hertfordshire County Council's strategy to achieve the goals and objectives set out in Local Transport Plan 4. Travel Plans are required by planning authorities for a wide range of development proposals, including commercial, educational institutional and residential developments.

A Travel Plan is a long-term management strategy for an organisation or site which seeks to deliver sustainable transport objectives, and which is regularly reviewed. Travel Plans are unique to each development and identify a package of measures for a specific location to improve accessibility and encourage use of sustainable modes of travel.

Travel Plan implementation is an ongoing process requiring regular monitoring, review and adjustment to ensure agreed objectives are delivered.

Travel Plans should be produced to support all developments generating significant amounts of movement and/or where other local circumstances make one necessary. Travel Plans may also be advantageous for changes in occupier or land-use involving a new set of travel patterns, particularly where the previous occupants did not have a Travel Plan. They can also be prepared on a voluntary basis.

Travel Plans will be required for all development proposals exceeding the county council's thresholds<sup>20</sup>, and in other circumstances where local factors make one necessary.

Travel Plan measures could include incentives for people to travel more sustainably including free bus tickets for a limited period and vouchers towards the purchase of cycle equipment, as well as provision of information including cycle maps.

### **Development Travel Planning**

Travel plans will be required for new developments following HCC guidance.

### **School Travel Planning**

School travel plans are a proven method to achieve reduced car use and increase active travel among young people. They can be voluntary or secured through the planning process. However, increase in journey length for education trips is making it harder to achieve modal shift away from cars.

Nevertheless, it should remain a priority to continue and enhance school travel planning across the plan area. Particular emphasis should be placed on travel planning for schools in the local vicinity of the interventions listed below which have a focus upon improving walking, cycling and public transport routes.

Particular attention should also be given to engaging with secondary schools, including those with large catchment areas, to determine how the proportion of pupils travelling to/from school on foot, by bike, by bus as part of a car share (as opposed to travelling individually by car) can be encouraged and linked to the educational programme. Travel plan guidance for schools is currently being updated.

Travel Plans could also be considered alongside measures such as increased parking restrictions (whilst ensuring sufficient spaces are retained for disabled people), reduction in speed limits, banned turns for vehicles during school opening and closing times etc. (See

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<sup>20</sup> Hertfordshire County Council Travel Plan Guidance – March 2020  
Prepared for: Hertfordshire County Council

LTP4 Policy 3: Travel Plans and Behavioural Change). Additional school travel planning interventions and successful case studies are set out in Hertfordshire's Sustainable Modes of Travel Strategy (SMoTS) for schools and colleges.

## Local Priorities

### North Hertfordshire Sustainable Spine

A 'Sustainable Spine' is proposed in the North Hertfordshire Transport Strategy along the A505. Measures are proposed to maximise the use of the existing infrastructure to move people efficiently between Baldock and Hitchin, also considering connections to Royston, Cambridge and Luton.

These measures include improved crossing facilities for people walking and cycling; the provision of continuous routes along the corridor which can improve the attractiveness and convenience of walking and cycling, whilst ensuring safety with adequate segregation from heavy goods vehicles; technology to provide better information to travellers; improved bus passenger infrastructure and bus priority; enhanced bus services; improved rail travel between towns; cycling routes; speed management and reduction of the road space allocated to general motorised traffic. Improvements related to the North Hertfordshire Sustainable Spine will be coordinated with the A505 Corridor Study.

### Stevenage Cycle Network

The Stevenage Cycle Strategy describes the steps required to redevelop the town's cycleways for the 21st century and make it a world class cycling town. Improvements to the Stevenage cycle network are required in order to ensure that cycle routes are conspicuous, safe, have priority over general traffic when crossing minor roads, and prevent blockage of routes by parked vehicles. The strategy sets out priorities for improving the Stevenage cycleway network, including the need to undertake feasibility studies to identify necessary improvements to the network. Therefore, this plan does not identify specific locations for improvements to the Stevenage cycleway network. It is also recognised that ongoing maintenance of routes, including surfacing and cutting back overhanging vegetation is also vital to attracting people to use the cycle network.

## North Central GTP Packages

A total of fifteen packages are proposed in this GTP, each containing one or more interventions. For ease of reference, packages are introduced town-by-town with firstly the overarching package aim of the package, followed by some of the key features which the package comprises of, the schedule of interventions within that package, and lastly a simplistic map providing a general indication of the location of package interventions.

A more general discussion is provided at the end of each town section.

Packages are introduced in a broadly clockwise fashion, commencing in Stevenage, then moving to Hitchin, Letchworth Garden City, Baldock and finally Royston. Some packages relate to corridors between towns.

The potential implications of the GTP proposals on the current and future place and movement functions of the highway network are also discussed in relation to each town or corridor. The Packages are described in Table 3 below.

**Table 3 – North Central GTP Packages**

<b>Area</b>	<b>Package ID</b>	<b>Package Name</b>
Stevenage	PK1	Gunnels Wood and Town Centre
Stevenage	PK2	North and West Stevenage
Stevenage	PK3	East and South East Stevenage
Stevenage connections to other towns	PK4	Stevenage to Welwyn Garden City
Stevenage connections to other towns	PK5	Stevenage to Hitchin, Luton and Luton Airport
Stevenage connections to other towns	PK6	Stevenage to Letchworth
Hitchin	PK7	Hitchin Centre Including Rail Station
Hitchin	PK8	North Hitchin and Employment Area
Hitchin	PK9	West Hitchin
Hitchin connections to other towns	PK10	Hitchin to Letchworth/Baldock
Letchworth	PK11	Letchworth Centre and Employment
Letchworth	PK12	North Letchworth
Baldock	PK13	Baldock connectivity, rail station and
Connections to Central Bedfordshire towns	PK14	Shefford, Arlesey and Stotfold to Hitchin and Letchworth Garden City
Royston	PK15	Royston

## Stevenage

### Package 1 - Gunnels Wood and Town Centre

The overarching aim of Package 1 is:

## To facilitate access by sustainable modes to Gunnels Wood Road employment area and the town centre.

The Package consists of:

- Cycle routes connecting new development in north Stevenage to the town centre and Gunnels Wood employment area via the cycleway network;
- Improvements to Stevenage rail station including improved cycle parking facilities and a new bus station;
- North-South high-quality bus corridors to support fast, frequent and reliable journeys; and
- Reconfiguration of the Old Town gyratory to reduce congestion and encourage sustainable travel.

The full schedule of interventions is shown in the table below.

**Table 4 - PK1 - Stevenage Gunnels Wood and Town Centre**

ID	Name	Direction
<b>SM3</b>	New bus interchange	Support delivery of the new bus station and interchange with the rail station to support regeneration of central Stevenage.
<b>SM4</b>	Stevenage Rail Station Improvement	Support proposals within the Stevenage Local Plan for an improved and enlarged rail station accessible from both Stevenage town centre and leisure park. It is important that works to provide a fifth platform are progressed in the shortest feasible time, in order to maintain ridership on the Hertford Loop Line.
<b>SM5</b>	Stevenage North-South Bus Corridor	Examine feasibility of Stevenage North-South high-quality bus routes linking new development to the north and south of Stevenage to Lister Hospital and the Old Town, new bus and rail interchange, Gunnels Wood employment area and the GSK campus. These routes could provide segregated bus priority where congestion affects bus service reliability and may require reduction of capacity for private cars during peak hours in order to make the most efficient use of highway capacity for the movement of people.

<b>SM6</b>	Old Town Centre Gyratory improvements	Investigate the reconfiguration of the old town gyratory to reduce congestion and encourage sustainable travel. The scheme will investigate improvements of pedestrian and cycling infrastructure.
<b>SM9</b>	Cycle hub at Stevenage Rail Station	A dedicated cycle hub as part of the regeneration of Stevenage Rail Station, providing services including secure cycle parking, cycle hire, and repair facilities.
<b>SM96</b>	Changes to the function of Lytton Way	Support proposals within the Stevenage Local Plan for changes to the function of Lytton Way with the removal of the Lytton Way/Six Hills Way roundabout to support a new development site, improvements in the east-west corridor between the Town Centre Gardens and the Leisure Park to reduce severance and re-classification of A602/Glaxo roundabout in order to improve multimodal access between the rail station, Gunnels Wood Road employment area, the new bus station and town centre.
<b>PR10</b>	Cycle hire	A cycle hire scheme covering the whole town. A hire arrangement lowers the barriers to entry into cycling and allows people who do not currently cycle to explore new and improved cycleways. Cycle hire therefore has the potential to increase take-up of cycling and acceptance of investment in the cycleway network.
<b>PR97</b>	Walking and cycling access to the town centre	Infrastructure changes to make it easier to access Stevenage town centre at street level across St George's Way. Changes to Lytton Way and Gunnels Wood Road will also improve walking and cycling access to the town centre.

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

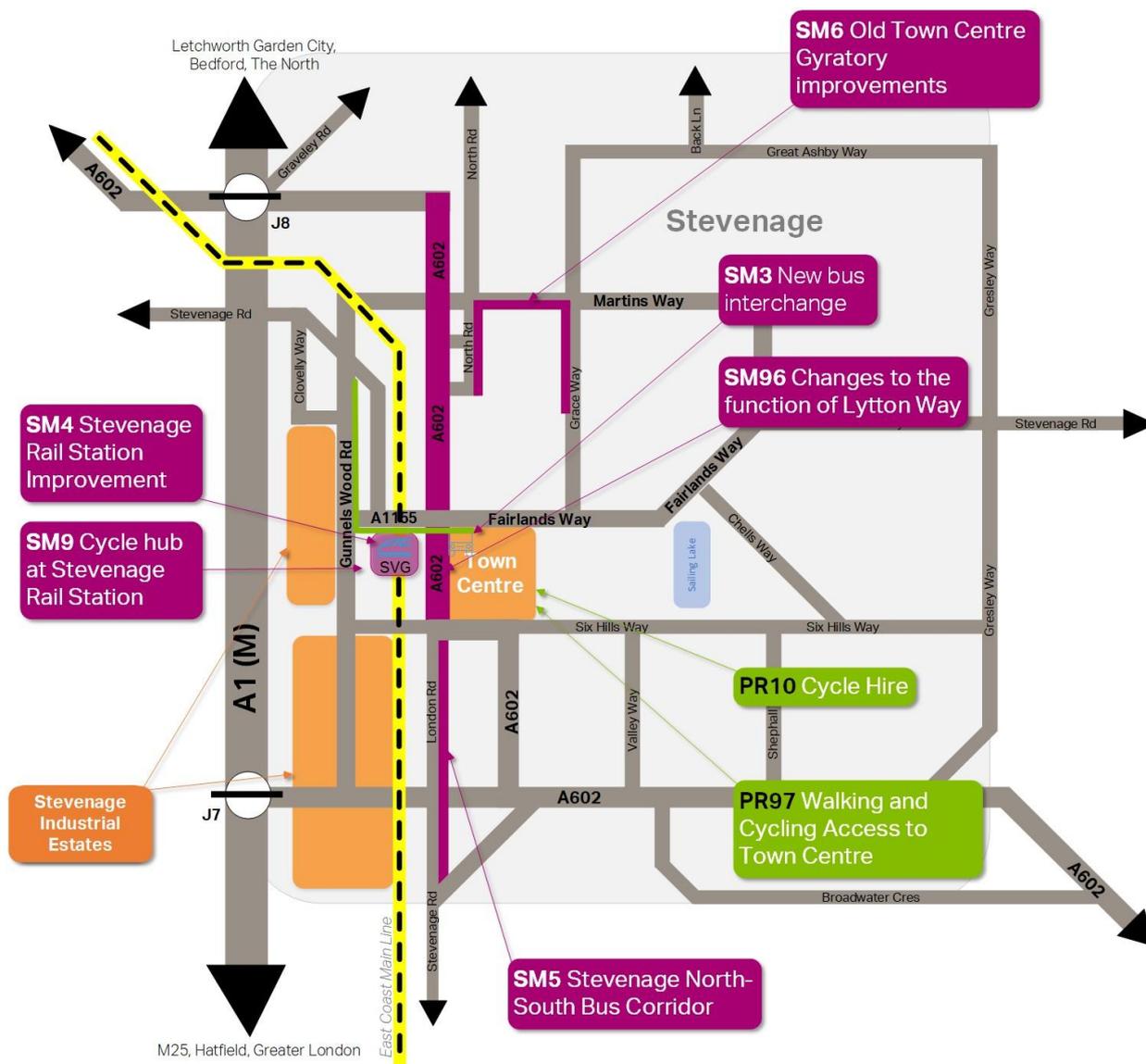


Figure 9 - Package 1 Stevenage Town Centre and Employment Area Bus and Rail

## Package 2 – North and West Stevenage

The overarching aim of Package 2 is:

**To facilitate access by sustainable modes between new development in north and west Stevenage, and the town centre and business parks.**

The Package consists of:

- Provision of new, high quality cycle routes connecting new development in north Stevenage to the town centre which are fully integrated with the town-wide cycle network; and
- Improvements to bus services between new development sites and the town centre, including bus priority infrastructure on key routes and at junctions.

The full schedule of interventions is shown in the table below.

**Table 5 - PK2 - North and West Stevenage**

	<b>ID</b>	<b>Name</b>	<b>Direction</b>
<b>LP1</b>	<b>PR98</b>	Cycle connections to development allocations to the north and west of Stevenage	Connect new developments in the north (Great Ashby 1 and 2) and west (North Herts 1) of Stevenage to the cycleway network (in keeping with high-quality cycle routes) via cycle routes attractive to people of all cycling abilities.
<b>LP1</b>	<b>PR99</b>	Bus services to development allocations to the north and west of Stevenage	Ensure that new development to the north and west of Stevenage is connected to the town centre and rail station by a frequent and direct bus service with bus priority as appropriate. Continue discussions to establish developer commitment on bus priority and bus only access measures.

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

The above Projects have been combined into a single Linked Project Group to highlight that, whilst they could come forward independently of one another, through more detailed investigations around their design, feasibility and implementation, there may be a need to consider how cycle and bus improvements need to interact and complement each other, for example where appropriate the design of junction improvements would need to incorporate both bus priority and improved cycle infrastructure to help ensure there are no abortive works.



Figure 10 - Package 2 North and West Stevenage

### Package 3 – East and South East Stevenage

The overarching aim of Package 3 is:

**To facilitate access by sustainable modes between east and southeast Stevenage, and the town centre and business parks.**

The Package consists of:

- Cycle routes connecting new development in east and southeast Stevenage to the town centre via cycleway network.

The full schedule of interventions is shown in the table below.

**Table 6 - PK3 - East and Southeast Stevenage**

	<b>ID</b>	<b>Name</b>	<b>Direction</b>
<b>LP2</b>	<b>PR100</b>	Cycle connections to new development to the east and south-east of Stevenage.	Connect new development to the east and southeast of Stevenage to the Stevenage cycleway network via cycle routes attractive to people cycling of all abilities, including appropriate junction treatment. Cycle route connections should provide access via the most direct route to Stevenage town centre and rail station.
<b>LP2</b>	<b>PR101</b>	Bus services to development allocations to the east and southeast of Stevenage.	Ensure that new development to the east and southeast of Stevenage is connected to the town centre and rail station by a frequent and direct bus service with bus priority as appropriate.
			PR100 and PR101 are very closely linked, and it is recommended that they are implemented in combination

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

The above Projects have been combined into a single Linked Project Group to highlight that, whilst they could come forward independently of one another, through more detailed investigations around their design, feasibility and implementation, there may be a need to consider how cycle and bus improvements need to interact and complement each other, for example where appropriate the design of junction improvements would need to incorporate both bus priority and improved cycle infrastructure to help ensure there are no abortive works.

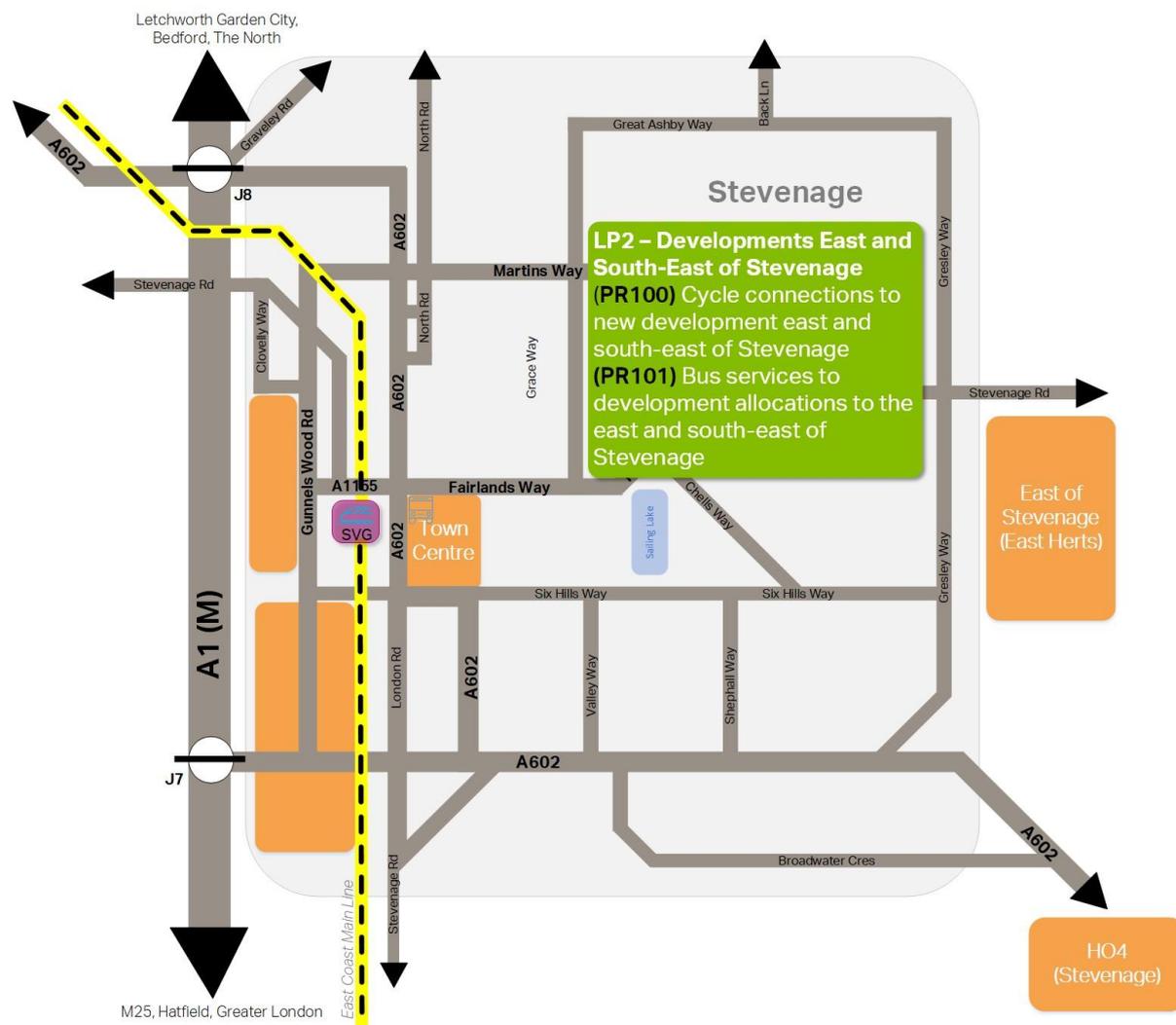


Figure 11 - Package 3 East Stevenage

Stevenage has a high capacity highway network in relation to its population density, due to its New Town layout. Despite this it is still congested in key locations due to high car use.

The town also has a well-designed network of segregated cycleways. The Stevenage Cycle Strategy seeks to redevelop the town’s cycleways to serve as an alternative active travel network that can attract all ages to cycle.

Stevenage has a well-developed and popular bus network, with connections to adjacent towns – although bus services are affected by congestion on key routes into the town and business parks. The large area of land given over to highway in the town is an opportunity, and provision of dedicated bus lanes and bus priority at junctions should be considered.

Redevelopment of the central area of Stevenage is central to the town’s future vision, and improved multi-modal links the redevelopment area will support this. Local Plan allocations identify new developments to the north and north-east of Stevenage (in North Herts District); Land East of Stevenage (in East Herts District); and Land South East of Stevenage (in Stevenage Borough Council). These new developments will increase demand on transport links to central Stevenage as well as to neighbouring settlements. Timely provision of transport infrastructure and services to support walking, cycling and public transport will reduce the impact of these developments on the local road network.

The outcome of this approach may mean that conditions for travel by private car are not substantially improved over the coming years. However, it will result in greater choice between modes, and seeks to manage congestion in the town during peak periods.

The Stevenage Cycling Strategy identifies priorities for improving the cycleway network in Stevenage. Within the emerging Stevenage Cycle Strategy priority for cyclists at key junctions has been identified and will be considered.

A study of cycle parking demand will identify how much parking is required and where it would be best to locate it (PR10). Active transport improvements are encouraged to be implemented with a series of bus and cycle prioritisation at key junctions.

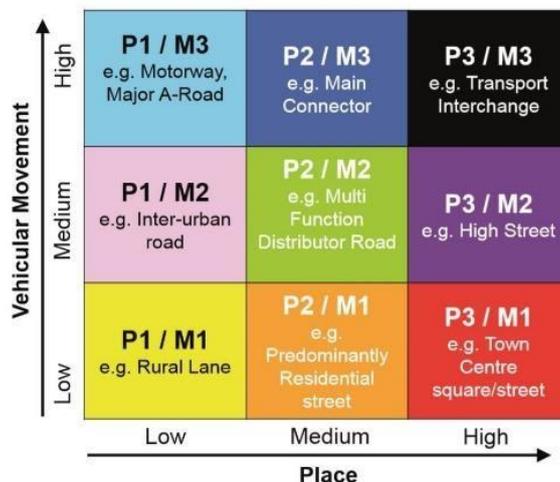
This set of packages includes a new bus station and improvements to the rail station. This would be the improvement of a key corridor between the town centre and the rail station (SM3) (SM4). Changes to Lytton Way are to be considered to allow level access between the train station and the town centre and reduce severance in the east-west corridor (SM96). To complement these interventions a north-south bus quality corridor should be considered, with bus priority through congested junctions and links between key employment areas, Lister Hospital and the town centre which would provide an attractive alternative to current car use (SM5). Reconfiguration of the Old Town gyratory to improve pedestrian and cycling infrastructure, especially at the north-western corner, would contribute in reducing the number of vehicles entering the centre of the Old Town and would encourage sustainable travel. A cycle hub at Stevenage Rail station could act as a focal point for promoting cycling in the town (SM9). LTP4 highlights the potential for a new rail station to the south of Stevenage to promote better links to other towns and provide an alternative to the car. Extensions to bus services into planned new development areas will also be critical.

LTP4 raises the potential for a passenger transport hub close to either A1(M) Junction 8 or A1(M) Junction 7. A transport hub near either junction has the potential to enable transfer between private car and local or dedicated bus services. This could reduce the number of vehicle trips made into the centre of Stevenage and Hitchin, with benefits for congestion and air quality. In order to attract users, a Park and Ride service would need to support a frequent bus service throughout the day and the journey into town via Park and Ride would need to be cheaper or quicker than by car considering prevailing congestion and parking charges. Effective bus priority measures will need to be put in place to enable buses to easily access and leave the hub and achieve reduced journey times. A hub could also provide interchange between local buses and interurban coach services. Therefore, if future North Herts or Stevenage Local Plans support substantially increased numbers of people working and living in town centres, or if improved interurban bus or coach services (including express coach services) are brought forward, it may be appropriate to consider a location for a passenger transport hub.

Stevenage has the propensity to increase the proportion of internal trips made by walking, cycling and public transport, and this set of packages builds on the Stevenage Cycling Strategy and Stevenage Mobility Strategy to support these modes. Cycle hire has a number of benefits, including increasing flexible access to a bicycle for when a user needs it, and also offering people who would not usually cycle a chance to experience the good quality local infrastructure (PR10). The remaining projects involve completing the missing links in the Stevenage walking and cycling networks by providing direct surface level access across roads surrounding the town centre (PR97) and ensuring that new developments on the outskirts of Stevenage are connected to the town's walking and cycling networks (LP1 and LP2).

## Place and Movement in Stevenage

Maps showing the place and movement functions of roads in Stevenage are included in Appendix A.



Lytton Way is currently a dual carriageway route through Stevenage. Walking or cycling access between Stevenage rail station and the town centre or bus station is by an elevated walkway. As a **P2/M2 Multi-Function Distributor Road**, the function of Lytton Way is to enable multi-modal access between different parts of the town. Proposed improvements to Lytton Way will necessitate a reconsideration of the way in which the current layout serves this function. Consideration will need to be given to providing walking and cycling crossing facilities at surface level, as well as more direct access for bus services. This fits with the planned regeneration of Stevenage town centre and renovation of the rail and bus stations.

It is expected that the place and movement function of Lytton Way may change as a result of these improvements, to become either a **P2/M1 Town Centre Street** or **P3/M3 Transport Interchange**.

Although the Stevenage cycleway network follows many of the **P2/M2 Multi-Function Distributor Roads** in Stevenage, there are still a number of routes which do not offer the same level of perceived safety and attractiveness for cyclists or indeed pedestrians. Along these routes, improvements are proposed to enhance **P2/M2 Multi-Function Distributor Roads** which support travel through the town by walking, cycling and bus as well as by private motorised vehicles. This is particularly important on routes connecting new development to the town centre and employment areas.

This is unlikely to provoke a change to the place and movement functions but improvements which seek to provide greater priority and quality of service to modes other than the private car could refine **P2/M2 Multi-Function Distributor Roads** in Stevenage as more inclusive, multi-modal routes which connect different parts of the town and serve multiple purposes and users.

## Stevenage – Key connections to other towns

### Package 4 - Stevenage to Welwyn Garden City

The overarching aim of Package 4 is:

**To improve reliability and enable faster journey times for public transport along the B197 from Welwyn to Stevenage.**

The Package consists of:

- Seeking the upgrade of the 301 bus service;
- Journey time reliability with the reduction of on-street parking;
- Development of a cycling route along the B197 corridor;
- New sustainable connections from planned housing development to Knebworth station.

The full schedule of interventions is shown in the table below.

**Table 7 - PK4 - Stevenage to Welwyn Garden City**

	ID	Name	Direction
LP3	PR27	Interurban bus route improvements	Work with partners on bus service improvements between Stevenage, Welwyn Garden City/Hatfield and St Albans.
LP3	PR28	Journey Time Reliability through Knebworth London Road/High Street	Highway layout changes on Knebworth high street (B197 London Road) in order to improve bus journey time reliability. Removing on-street parking would positively impact bus journey times and would result in wider footways and improved crossings. However, as parking in Knebworth is limited, including spaces for disabled road users and cyclists, this intervention will not consider removing all on-street parking. Bus priority could also be considered if this is feasible.  Consideration needs to be given to the Knebworth Neighbourhood Plan <sup>21</sup>
			PR27 and PR28 are very closely linked, and it is recommended that they are implemented in combination

<sup>21</sup> <https://www.knebworthparishcouncil.gov.uk>  
Prepared for: Hertfordshire County Council

	<b>SM93</b>	B197 Sustainable Travel Corridor	<p>Development of a sustainable transport corridor along the B197, within the timeline of the planned smart motorway improvements, which will include cycleway/footway improvements, traffic calming, additional or improved crossings (at key locations close to schools, shops and new housing developments) and bus priority measures where possible along the corridor, including the B197 and adjoining/parallel routes. The aim should be to provide high-quality sustainable travel options along the B197 between Welwyn Garden City and Stevenage; discourage the use of the B197 for longer distance inter-urban travel through the use of signage, reduction in permitted traffic speed and other physical changes to road layout which enhance facilities for pedestrians and cyclists; provide better access from the villages (including Welwyn North and Knebworth) to railway stations by more sustainable forms of transport, such as cycling and pedestrian infrastructure; and provide safer and more sustainable travel access options to local schools.</p> <p>Speed limit reduction and traffic calming measures will be put in place where possible, and in accordance with the Speed Management Strategy standards, on roads around Knebworth.</p> <p>NOTE: SM93 is identified as SC-SM98 in the South Central Hertfordshire GTP (Package 15)</p>
	<b>SM94</b>	Connections to Knebworth development	<p>Ensure direct and attractive cycling and walking routes are provided from new development surrounding Knebworth to the rail station, bus services and Stevenage to Welwyn Garden City cycle route.</p> <p>The existing constrained access to Knebworth rail station is acknowledged and improving access to the station will be investigated alongside SM93. This will be done in collaboration with Knebworth Parish Council and Network Rail to ensure a widely acceptable solution is provided.</p>

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

The Projects defined in this package have been combined into a single Linked Project Group to highlight that, whilst they could come forward independently, they would complement each other and PR27 may not be achieved without PR28.

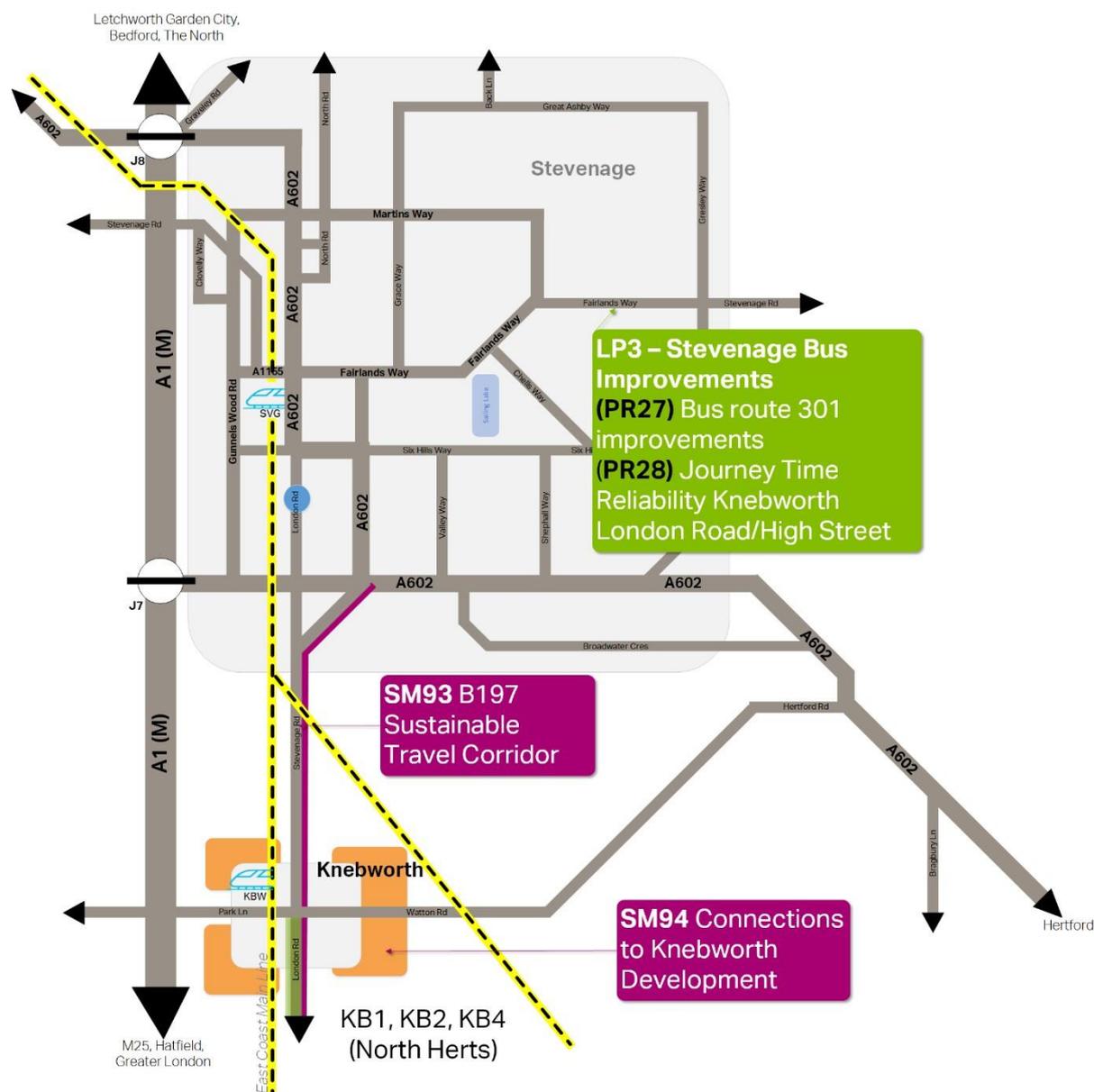


Figure 12 - Package 4 Stevenage to Welwyn Garden City

### Package 5 - Stevenage to Hitchin, Luton and Luton Airport

The overarching aim of Package 5 is:

**To develop a multimodal corridor between Stevenage, Hitchin and Luton Airport that supports public transport and cycling through improvement of existing infrastructure.**

The Package consists of:

- Development of the Stevenage-Hitchin-Luton Airport bus corridor considering bus priority and capacity improvements to key junctions.

- Improved pedestrian accessibility between Stevenage and Hitchin with the creation of an inter-urban cycleway.

The full schedule of interventions is shown in the table below.

**Table 8 - PK5 - Stevenage to Hitchin, Luton and Luton Airport**

ID	Approach	Name	Description
<b>SM29</b>	-	Stevenage to Hitchin Cycle Route	Cycling route between Hitchin and Stevenage via Little Wymondley and Lister Hospital, including improved crossing facilities at A1(M) J8. This will be considered in conjunction to the SM84 bus priority scheme.
<b>SM36</b>	-	Signalisation and Bus Priority - A602 Little Wymondley priority Tjunction	Introduce traffic signals at the A602/Little Wymondley priority T-junction, including bus priority, in order to reduce delays to bus route 101 and improve public transport access to Little Wymondley, including any potential new development.
<b>SM47</b>	-	A602/B656 Hitchin Hill Roundabout	Signalised junction improvement to reduce congestion at Hitchin Hill Roundabout. This would also provide the opportunity for improved pedestrian crossing facilities and bus journey time reliability.
<b>SM48</b>	-	A505/Pirton Road/Upper Tilehouse Street	Signalise A505 Pirton Road and A602/A505 junctions. This would reduce congestion and would also provide the opportunity for improved pedestrian crossing facilities.
<b>SM84</b>	<b>a</b>	A1(M) J8 Capacity	A1(M) junction 8 capacity improvements: increase junction capacity for general traffic. Improvement in journey time reliability expected for all vehicles, reducing as trips are attracted to the improved route. Scheme to include safe and attractive pedestrian and cyclist crossing facilities for A1(M) J8. Any improvement will need to be investigated and developed in conjunction with National Highways.
<b>SM84</b>	<b>b</b>	A1(M) J8 Capacity and Bus Priority	Improvement of A1(M) J8 with a focus on reducing bus journey times, as this junction forms part of an important corridor for bus services between Stevenage and Hitchin. In addition to this scheme, safe and attractive pedestrian and cycle crossing facilities at A1(M) J8, as proposed in SM29, will be considered to improve the A602 cycle route via Little Wymondley and Lister Hospital. Any improvement will need to be investigated and developed in conjunction with National Highways.  NOTE: SM84 is linked to SM82 of Package 6, and together improve North-South connectivity and provide a link to the Stevenage cycle route network.

<p><b>PR57</b></p>	<p>Stevenage – Luton / Luton Airport Bus</p>	<p>Work with partners to further improve the quality of bus routes between Stevenage and Luton, considering opportunities on infrastructure changes and bus priority measures to improve journey time reliability, upgrade vehicle and stop quality and span. This will be considered further as part of the A505 Corridor study.</p> <p>Investigate the possibility of providing a bus service that links areas in the south of Letchworth and Baldock to Hitchin and Luton. This would make Luton and Luton Airport accessible to people in Letchworth and Baldock via more sustainable modes.</p>
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Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

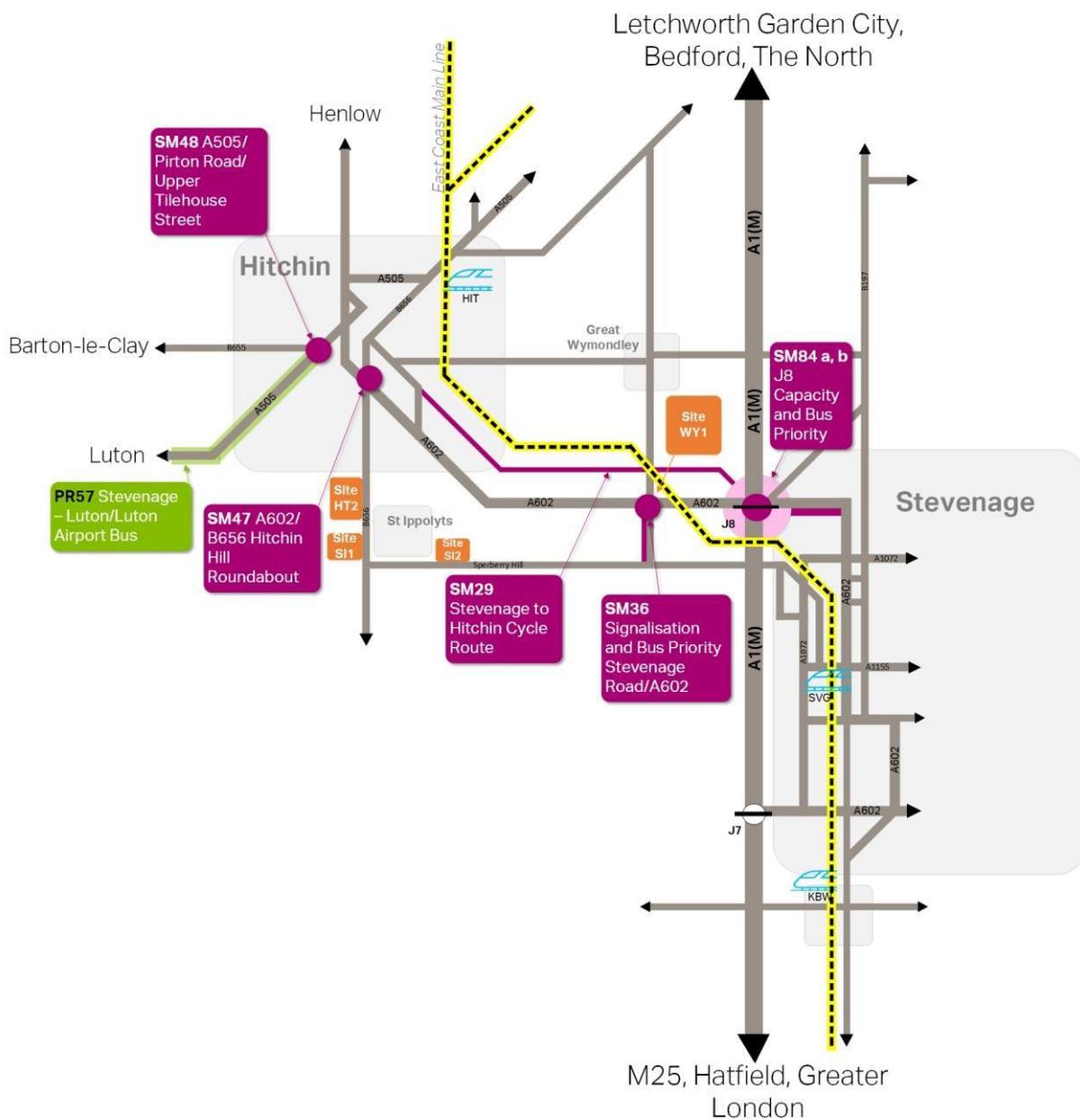


Figure 13 - Package 5 Stevenage to Hitchin

## Package 6 - Stevenage to Letchworth

The overarching aim of Package 6 is:

**To form a sustainable corridor between Stevenage and Letchworth by upgrading existing cycling infrastructure, improving the public realm in villages on the B197 as well as ensuring bus priority.**

The Package consists of:

- Reconfigure B197/A505 junction to reduce bus journey times.
- Upgrade current National Cycle Route 12 between Letchworth and Stevenage

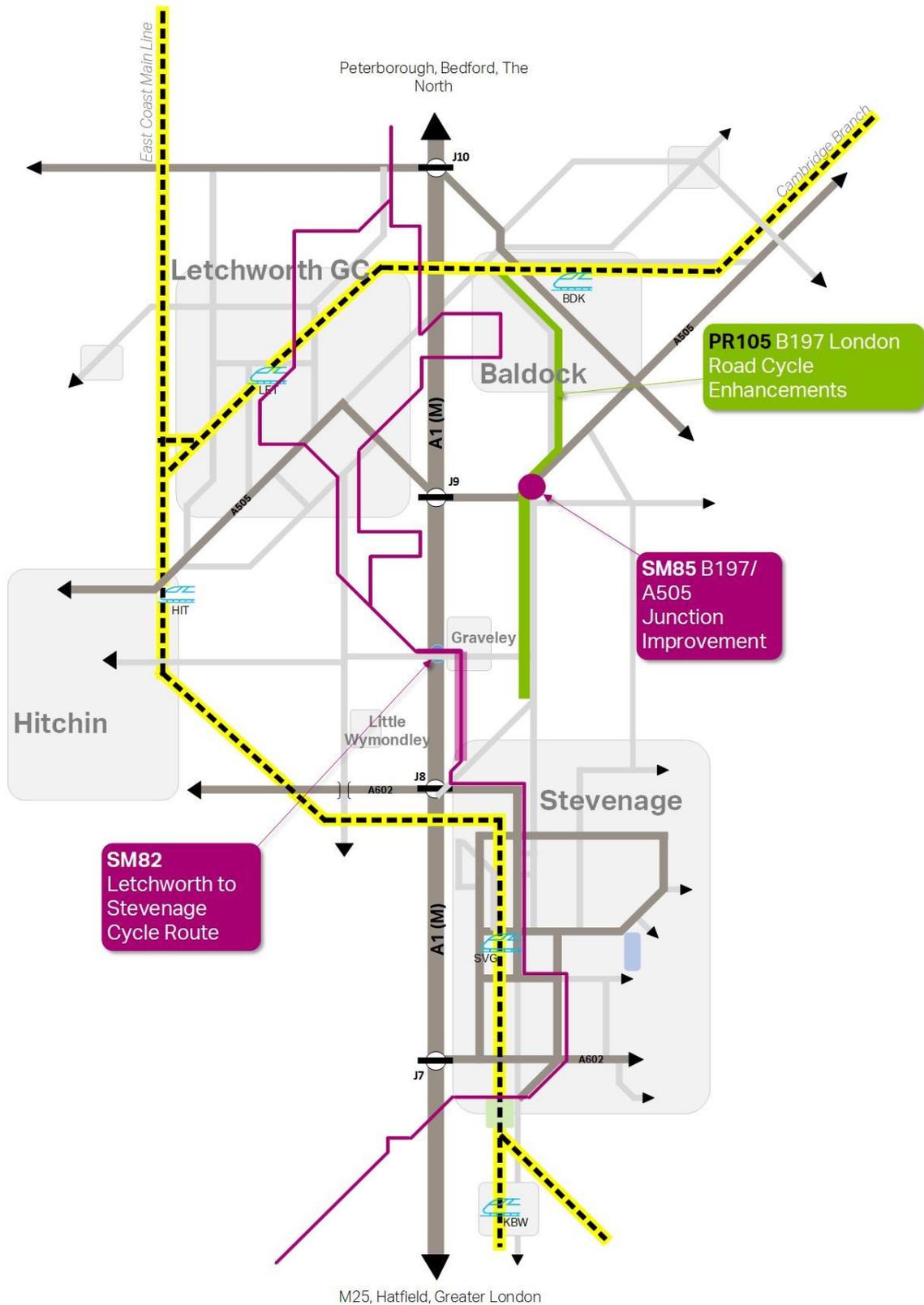
The full schedule of interventions is shown in the table below.

**Table 9 - PK6 Stevenage to Letchworth**

ID	Name	Description
<b>SM82</b>	Letchworth to Stevenage Cycle Route	<p>Upgrade existing National Cycle Route 12 between Letchworth and Stevenage considering improved surfacing, wayfinding, lighting and promotion. Any improvements need to consider not only the needs of cyclists but also pedestrians and equestrians who will be using parts of the route or could be crossing the route. Traffic calming measures and infrastructure changes along the cycle route will be considered to provide a safer environment for sustainable travels. These will be in line with the Speed Management Strategy standards.</p> <p>Further interventions at Willian village will be investigated to encourage sustainable travels and make cycling and walking safer and more convenient.</p> <p>NOTE: SM82 is linked to SM84 of Package 5, and together improve North-South connectivity and provide a link to the Stevenage cycle route network.</p>

<p><b>SM85</b></p>	<p>B197/A505 junction improvement</p>	<p>Introduce traffic signal control incorporating a bus-only right turn lane from the A505 west (A1(M) Junction 9) into the B197 Graveley Road which will reduce bus journey times. Other traffic routing from A1(M) Junction 9 towards the B197 Graveley Road will continue to route northwards via the A505-B197 London Road roundabout in order to access the B197 Graveley Road.</p> <p>Incorporate pedestrian and cyclist crossing facilities within the traffic signal-controlled junction to improve connectivity (replacing the existing uncontrolled crossing), linking in with shared use footway and cycleway on the north-western side of the A505. This will require that pedestrian and cycling paths are adequately segregated from motorised vehicles to ensure safety.</p> <p>Signalisation of the B197 exit onto the A505, including a review of the approach geometry as may be necessary to be considered as part of the scheme.</p>
<p><b>PR105</b></p>	<p>B197 London Road cycle enhancements</p>	<p>Introduce cycle route facilities along the B197 London Road between the A505 roundabout and the centre of Baldock, as well as south of the A505 roundabout along the B197 High Street towards Stevenage. Consideration could be given to either improving the existing footway to facilitate shared use if this is feasible; introducing on-road cycle lanes in both directions (replacing the existing edge-of-road hardstrips and narrowing of lanes); or a combination of both.</p>

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.



**Figure 14 - Package 6 Stevenage to Letchworth**

Between Letchworth GC and Stevenage, the B197 runs broadly parallel with the A1(M) between Junctions 9 and 8. It is considered to be used by motorists as a rat-running route to avoid congestion on the A1(M) and at Junction 9 in particular. As a consequence, this has a negative knock-on effect on the village of Graveley which is dissected by the B197. The B197 is more suited to carrying local trips to/from Graveley and surrounding rural areas.

Connectivity between Letchworth GC and Stevenage is reduced due to the A505, and a number of interventions have been identified in this GTP to help reduce severance between the two towns. Although some are discussed here (SM82) (SM84) (SM85), others are presented and discussed in later packages (SM62).

An upgrade to the existing national cycle route with improved wayfinding, hard surfacing, cycling priority and lighting is proposed (SM82), which should increase numbers of active travel trips. The reconfiguration of the A505/B197 (to/from Graveley) T-junction to remove the need for buses to route northwards via the A505/B197 London Road roundabout would make the bus route more competitive (SM85) in terms of journey time. This would be achieved with a signal-controlled right turn facility for buses only. The junction can also incorporate a signal-controlled crossing for pedestrians and cyclists, linking it with the existing cycle route which heads towards the B197 London Road (Baldock). This route can then be extended on and/or off-road along London Road into the centre of Baldock (PR105).

It is recognised that there are no direct bus services between Baldock and Stevenage via either Letchworth or Graveley. Additional growth around Baldock and to the north of Stevenage could support additional services in the future.

This package provides a suggested course of improvements, which has the ability to make sustainable modes more attractive. By investing in sustainable infrastructure this enhancement would show that there are other options other than private vehicle.

These packages support cycling and public transport between Stevenage and Welwyn Garden City. There is no direct cycle route however the corridor could encourage a modal shift to cycling (as well as bus travel and walking for shorter journeys) (SM93) which would be along the B197 with links to Knebworth and surrounding new developments (SM94). The expansion of the B197 sustainable travel corridor north of Stevenage will also be investigated, as it is essential to promote sustainable transport and reduce through traffic.

A1(M) Junctions 8 and 9 and adjoining roads form a major congestion hotspot. The A1(M) mainline carriageway also experiences congestion during weekday peak periods especially south of Junction 8. Improvements planned by National Highways should help to ease pressure on the A1(M) mainline between Junctions 6 and 8. However, congestion at Junction 9 is expected to continue. Existing congestion at this location has a significant influence on travel behaviour and route choice between Stevenage and the North Hertfordshire towns.

Network Rail has identified the Welwyn viaduct which carries the East Coast Main Line between Stevenage and Welwyn Garden City as a major constraint<sup>22</sup>. It is understood that no solutions are being taken forward at this current time. Changes to the highway layout on Knebworth high street (B197 London Road) should be investigated to improve journey time reliability, in particular for buses. Any scheme in this area should support local businesses as well as public transport service through Knebworth. (LP3).

Further improvements to the B197 corridor through Woolmer Green and Oaklands and the B656 through Codicote are put forward under the South Central Hertfordshire Growth and Transport Plan (Package 15).

Between Hitchin and Stevenage, congestion at junction 8 of the A1 (M) is a significant issue. A cycle route, via Little Wymondley and Lister Hospital, would facilitate journeys by bike which are not currently possible (SM29). The journey time of buses could be improved with

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<sup>22</sup> Network Rail, Options for Potential Capacity and Connectivity Enhancements to the Existing Network. A report for the Department for Transport, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/253467/possibleenhancements-to-rail-network.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/253467/possibleenhancements-to-rail-network.pdf)  
Prepared for: Hertfordshire County Council

bus priority introduced at the junction of Stevenage Road / A602 and at A1 (M) junction 8 (SM84) (SM36). There may also be opportunity to incorporate better facilities for pedestrians and cyclists crossing the road through the junction. Work in partnership with operators could build on these infrastructure upgrades and bus priority measures to deliver a reliable and comfortable bus service between Stevenage, Hitchin and Luton (PR57). This package supports improved public transport access to the possible future expansion of Luton Airport, which is further investigated in the A505 Corridor Study.

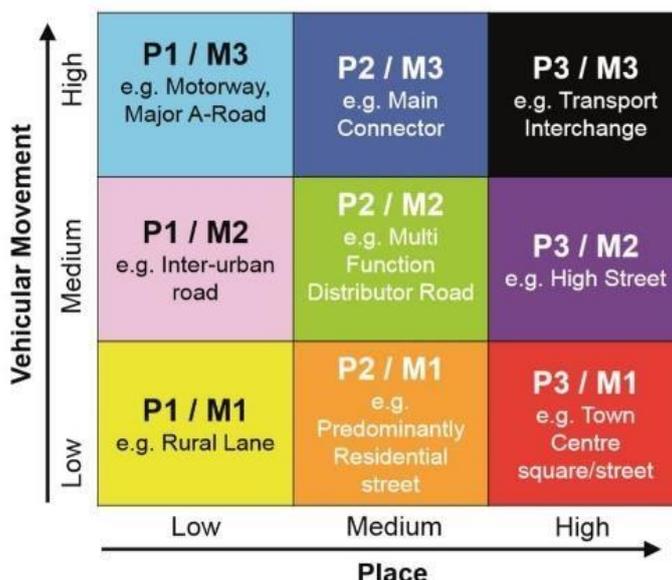
A series of junction improvements in southern Hitchin (SM47 and SM48) would provide short/medium term relief to traffic congestion which could also help to tackle air quality issues along the corridor. Proposed improvement at the Hitchin Hill roundabout could improve conditions for pedestrians and cyclists as well as increase bus journey time reliability. This would be particularly important given the new developments which are proposed in the North Hertfordshire Local Plan (draft) around Little Wymondley and St Ippolys.

For the Hitchin-Luton corridor, while it has complex congestion issues, these are addressed in the Hitchin Town set of packages which are discussed above. To improve the availability of options on this corridor a primarily public transport related package is proposed comprising of support for improved bus services to Luton and also assisted by bus priority and capacity improvements where it is feasible. The A505 Corridor Study is further investigating possibilities of improved public transport connections between Hitchin, Luton and Stevenage.

HCC's Rail Strategy (2020)<sup>12</sup> sets out an aspiration for a new rail link between Stevenage and Luton (a distance of only 15 miles by road). It is unlikely to form part of the East West Rail scheme which is expected to take a more northerly alignment via Tempsford, Bedfordshire.

## Place and Movement between Stevenage and other towns

Maps showing the place and movement functions of roads between Stevenage and other towns are included in [Appendix A](#).



The interventions discussed here are not expected to substantially change the place and movement function of roads, however it is observed that some roads linking towns in this

area are more intensively used by traffic than what is desired, typically during times of the day when the main routes such as the A602 and A1(M) are congested. Examples include the B197 Graveley Road which within the rural areas is categorised as a **P1/M2 Interurban Road** but within the village of Graveley is categorised as a **P2/M2 Multi-Function Distributor Road**.

It is important to stress that the B197 sustainable travel corridor will be considered in its entirety and in combination with adjacent roads before putting forward interventions such as speed limit reduction and traffic calming measures. This in turn may have an impact on the local road environment and may require substantial changes to the place and movement nature of existing routes, however it would be essential to ensure the safety of users including pedestrians and cyclists.

Heavy traffic movements detract from the surroundings and cause a range of issues including severance, noise and pollution which can affect local communities. The interventions put forward seek to preserve these more local routes between towns for access and for sustainable travel modes which should be more fitting for the current place and movement functions.

## Hitchin

### Package 7 - Hitchin Centre Including Rail Station

The overarching aim of Package 7 is:

**To encourage use of public transport through support for services and creation of a safe and attractive corridor in which to take advantage of the services within Hitchin Centre and Rail Station**

The Package consists of:

- Development and promotion of an on-street bus interchange with improved information in Hitchin town centre, with support for exiting services.
- New eastern entrance to the rail station to facilitate multimodal trips.
- Improved pedestrian and cyclist accessibility to Hitchin Station including a new pedestrian priority corridor along the B656, combined with improved facilities at Hitchin Station.
- Parking restrictions around Hitchin station to encourage active transport (whilst ensuring there are sufficient spaces for disabled users as close as possible to the station).

The full schedule of interventions is shown in the table below.

**Table 10 - PK7 - Hitchin Centre (including rail station)**

ID	Name	Direction
PR32	Bus service improvements to Hitchin Station	Review bus services to Hitchin Station and facilitation of improvements with the bus operators and the Enhanced partnership. Also explore opportunities for introducing bus priority (where appropriate) to aid reliability of services, through work with the Enhanced Partnership to provide appropriate studies and feasibility of such measures.
PR37	Hitchin Station Parking Management	Implement parking management measures and cycle infrastructure improvements, including cycle parking, at and around Hitchin Station in order to ensure that cycle routes on surrounding streets are not obstructed.
PR39	Bus service improvements	Through the Enhanced Partnership, work with partners to improve the frequency and reliability bus services between Letchworth/Stevenage/Hitchin and Luton.

<b>PR40</b>	On-street bus Interchange in Hitchin	Explore options to improve interchange between buses in Hitchin (to facilitate travel between Baldock, Letchworth, Hitchin, Stevenage and Luton), improve information and pedestrian access to bus stops.
<b>PR41</b>	Cycle Facilities at Hitchin Station	Increase cycle parking provision at Hitchin Rail Station.
<b>SM38</b>	B656 Walsworth Road Pedestrian Priority Corridor	Provide a pedestrian priority corridor between Hitchin Rail Station and the town centre, including measures to improve pedestrian priority along the corridor, footway widening as appropriate and wayfinding.
<b>SM39</b>	Eastern Entrance to Rail Station	Provide an eastern entrance to the rail station in Hitchin, in order to make walking and cycling from eastern Hitchin more attractive, including safe and well signposted connections to an improved cycle network and cycle parking. Consider options to improve pedestrian connectivity through the station.

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

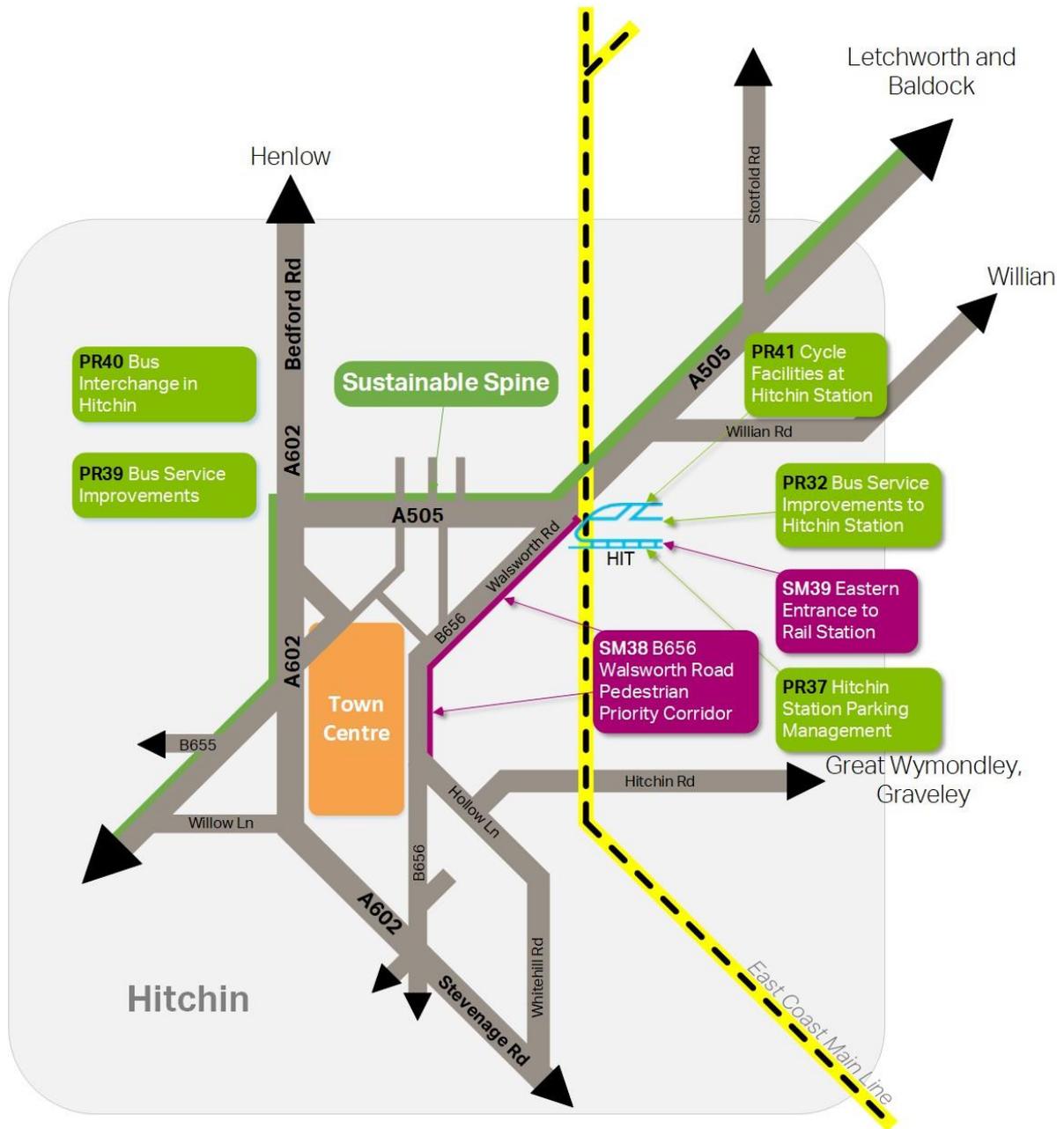


Figure 15 - Package 7 Hitchin Centre

## Package 8 – North Hitchin and Employment Area

The overarching aim of Package 8 is:

### To build connections to the development site HT1 and employment area with public transport and increased links to active transport infrastructure

The Package consists of:

- New and improved active infrastructure links from the employment area and new development to the rail station;
- Bus services to new development.

The full schedule of interventions is shown in the table below.

**Table 11 - PK8 – North Hitchin and Employment Area**

ID	Name	Description
PR50	Employment Area access	Improve infrastructure where rail lines cross Grove Road and Woolgrove Road, with priority given to pedestrian and cycling infrastructure. Investigate possibility of providing an eastern access to Hitchin railway station to encourage sustainable travel.
PR51	Hitchin northern loop bus services	Work with partners to consider bus priority measures and potential to improve bus services.
SM91	Employment Area connectivity	Improved access options to the employment area to be investigated as part of the A505 Corridor Study. This will include an assessment of the movement of commercial vehicles to/from the employment area to better understand the needs for improved or potentially additional accesses for all users and the installation of signposts to indicate those accesses.
SM52	North Hitchin Cycle Route	Continuous cycle routes with junction treatments to be provided from the Wilbury Employment Area and from NHDC Local Plan allocation HT1 to the rail station, including links to schools in the area and links to the A505 North Hertfordshire Sustainable Spine (including towards Letchworth (Letchworth Greenway) and Baldock).

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

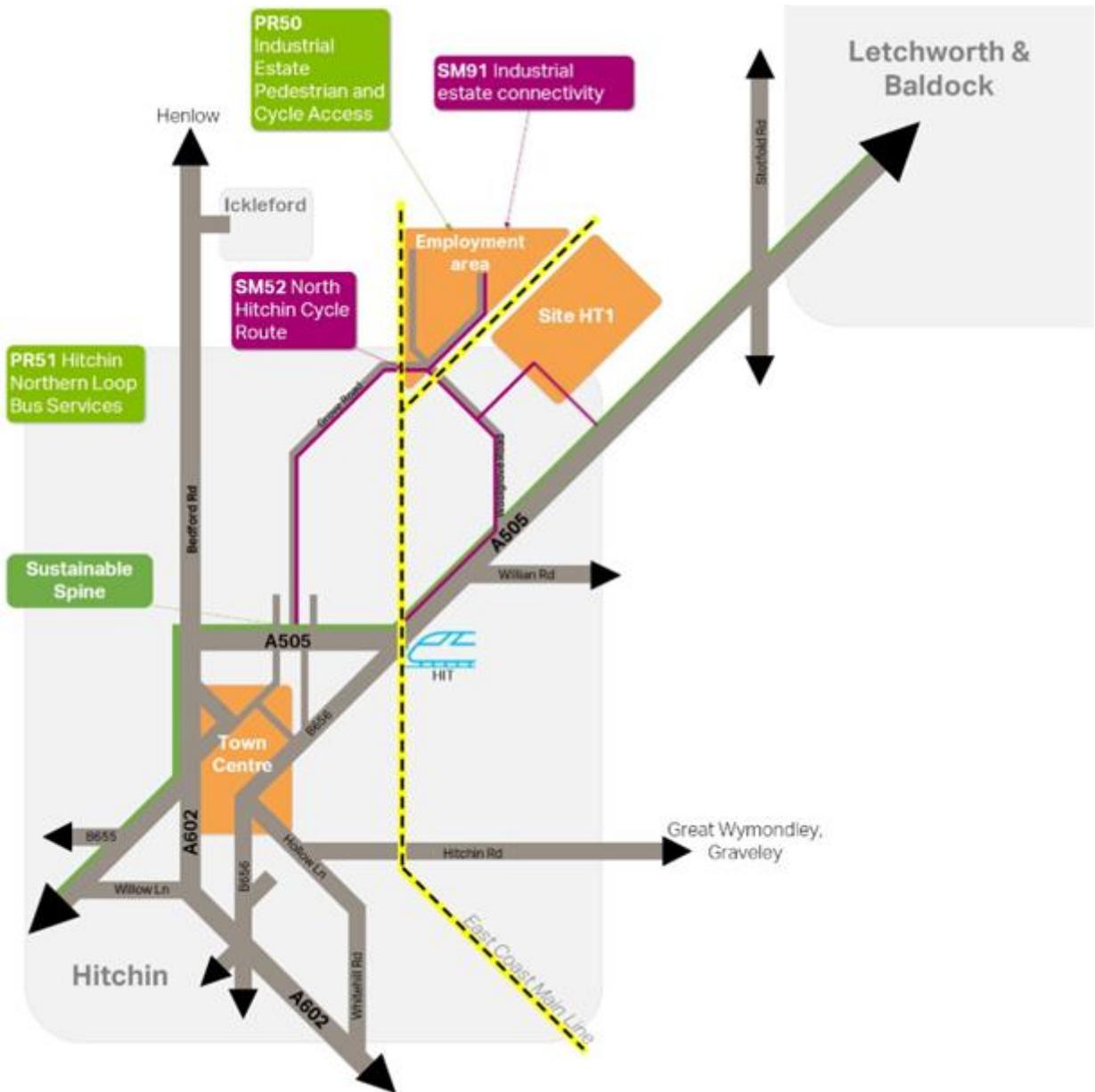


Figure 16 - Package 8 Hitchin Walsworth and Employment Area

## Package 9 – West Hitchin

The overarching aim of Package 9 is:

**To unlock the potential for active trips with high quality improvements to pedestrian and cycling infrastructure from Hitchin Westmill and Bearton areas to the town centre.**

The Package consists of:

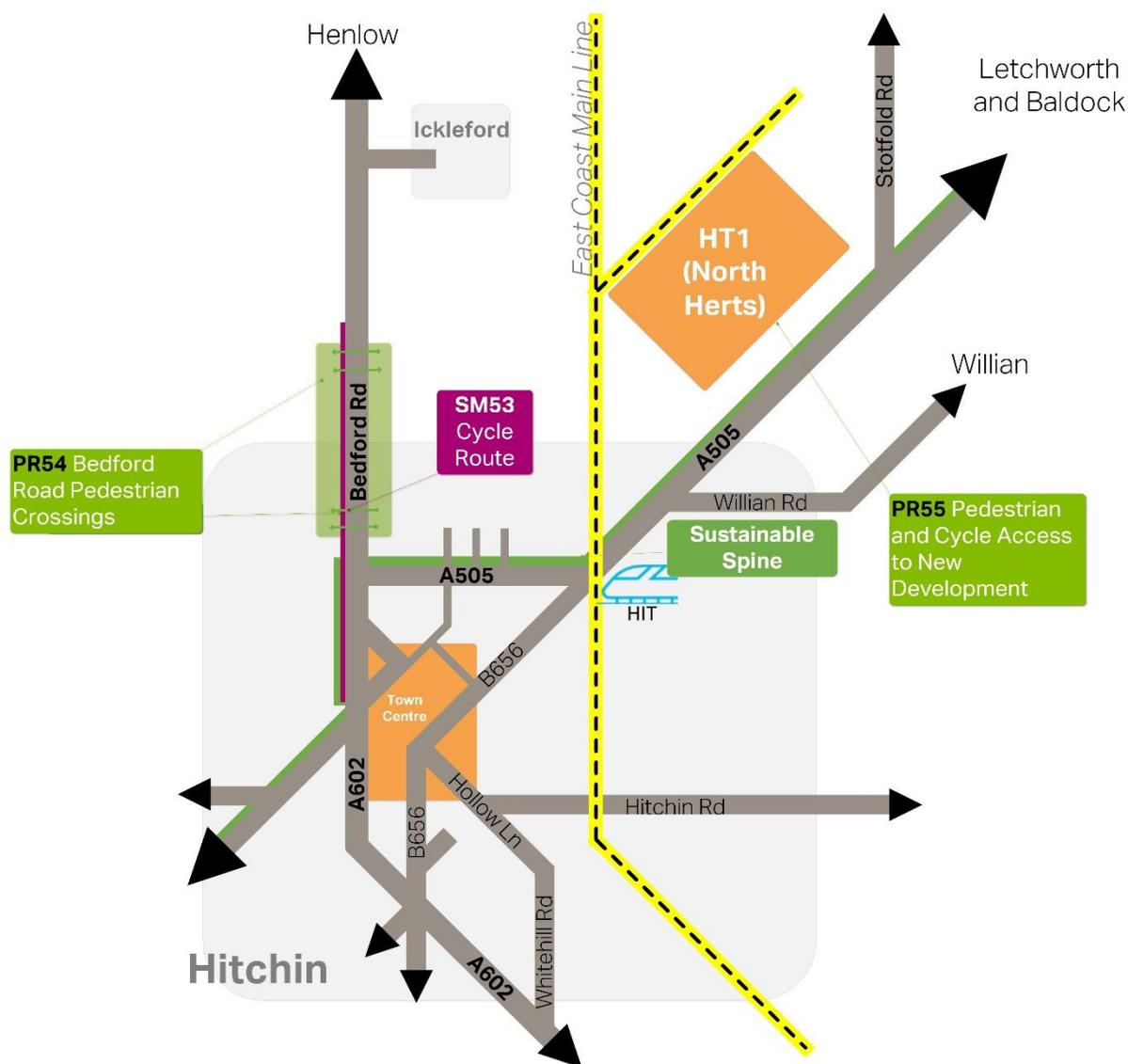
- High-quality access to the new development;
- New cycle infrastructure to link Westmill and Bearton areas to the town centre.

The full schedule of interventions is shown in the table below.

**Table 12 - PK9 – West Hitchin**

ID	Name	Description
<b>SM53</b>	Cycle Route	On-carriageway cycle route along Bedford Road between the town centre and northern Hitchin, serving local schools.  Improve road surfaces and street lighting on adjacent roads to provide safer access onto the Bedford Road cycle route and increase sustainable journeys.
<b>PR54</b>	Bedford Road Pedestrian Crossings	Pedestrian crossings on Bedford Road at Redhill Road/Bearton Road, at bus stops and Westmill Lane.
<b>PR55</b>	Access to new development north of Hitchin	Ensure high-quality pedestrian and cycle access is provided through new development to the north of Hitchin to connect with routes to station, employment area, town centre and A505 North Hertfordshire Sustainable Spine (for onward connections to Letchworth and Baldock). Continue discussions with developers regarding bus priority and bus only access measures.

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.



**Figure 17 - Package 9 West Hitchin Westmill and Bearton**

Several key movements converge in Hitchin. There are delays and congestion throughout the town but significantly in the west where the A505 and A602 converge. Congestion affects motorised vehicles, public transport and is perceived to deter active transport users. Many of the routes to access the town suffer from poor pedestrian and cyclist accessibility and rely primarily on motorised vehicles to access the rail station and town centre, which can be seen in its high private vehicle modal split. There are two Air Quality Management Areas which are directly related to the congestion issues at the junctions.

On-road parking can be a hindrance to pedestrians and cyclists, especially where parking encroaches on the footway and also where parking creates potential hazards for pedestrians crossing the road and cyclists routing along roads. Parking could be managed more effectively in some locations to enable more space to be opened up for walking and cycling (PR37).

A core scheme which could introduce active trips is to create a corridor between the town centre and the rail station which would allow a more multi-modal aspect to current journeys (SM38). At the rail station, cycling facilities can be improved as well as priority access from the sustainable spine (PR41). Further to this, a second entrance on the eastern side would facilitate active trips to the rail station. Cycle parking would be provided on this side as well

(SM39). To support the residential areas of Hitchin, cycle routes should be provided to the new development areas, school as well as to the Westmill and Bearton areas (SM52) (SM53) (PR55). To allow for commuters to have a modal choice the employment area and the rest of the town should be linked by prominent cycle and pedestrian routes (PR50). Finally, severance from the A505 and Bedford road will be addressed with high-quality pedestrian crossings (PR54). The implementation of these interventions will be subject to detailed proposals which will need to comply with LCWIP proposals and design standards.

Interventions relating to cyclists and pedestrians will be linked to Rights of Way Footpaths across Hertfordshire to improve cycling and pedestrian accesses to Hitchin town centre, North Hitchin and West Hitchin.

In Hitchin town centre there is a need for improved information on bus services to facilitate interchange, in particular between local and interurban routes (PR40). To facilitate the ease of taking public transport further, support for the frequency of bus services, especially in areas of new development (PR39) (PR51) and a review of bus services to the station and facilitation of improvements with the providers (PR32) will be required.

While these schemes would enable sustainable trips to happen, it is in conjunction with removing traffic from the town that the majority of the trips will be unlocked. An option for this can be to reduce freight trips through improved access options to employment area, to be investigated as part of the A505 Corridor Study (SM91).

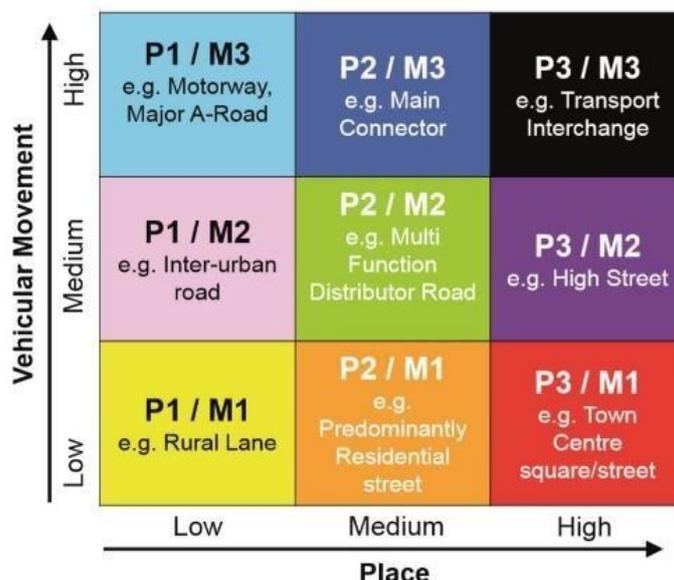
To achieve a reduction in motorised traffic a new distributor road to the south of Hitchin may be required to remove through trips from the town, however, this would be a long-term intervention which is not highlighted as a priority in LTP4 or North Hertfordshire's Local Plan. In consideration of this longer-term solutions should be revisited as the traffic within Hitchin worsens and in conjunction with future growth proposals.

With these packages there is potential to help reimagine Hitchin as a walking and cycling friendly town by re-optimising road space and giving greater priority to those who want to make shorter distance intra-urban journeys on foot and by bike. The continuation of the A505 corridor Sustainable Spine as well as prioritising travel made by bus ensures there are options for those who need to travel farther afield.

These sustainable transport options will support modal shift. In the longer term, a reduction in through traffic may be necessary to improve air quality and manage congestion. This may only be possible by providing a new and direct route which avoids the urban area of Hitchin.

## Place and Movement in Hitchin

Maps showing the place and movement functions in Hitchin are included in [Appendix A](#).



The place and movement assessment defines Walsworth Road (B656) as a **P2/M2 Multi-Function Distributor Road**. It is the most direct walking route between Hitchin rail station and the town centre. Improvements are proposed to this route to give priority to people walking.

This may have the potential to change the function of this road in the longer term, however it is recognised that it also facilitates inter-urban trips between parts of Hitchin and Letchworth.

Any radical change in place and movement function which seeks to discourage traffic from using it may as a result have negative impact and increase traffic movements on other distributor routes crossing Hitchin, for example A505 Nightingale Road. It is likely therefore that Walsworth Road will remain a **P2/M2 Multi-Function Distributor Road** however interventions put forward in the GTP seek to encourage more sustainable trips along this road therefore it should become more multi-modal and multi-use in function, giving greater priority for pedestrians and cyclists.

Improvements are also proposed to make **P2/M2 Multi-Function Distributor Roads** more multi-modal, including connections to Letchworth Garden City.

Improved access arrangements to Hitchin employment area seek to reduce the levels of motor traffic around the rail station and work together with improvements to walking and cycling access to the station which should reinforce its function as a **P3/M3 Transport Interchange**.

## Hitchin – connections to other towns

### Package 10 - Hitchin to Letchworth/Baldock

The overarching aim of Package 10 is:

**To enhance cycling infrastructure between Hitchin, Letchworth and Baldock; and make it a safe and attractive option for sustainable trips.**

The Package consists of:

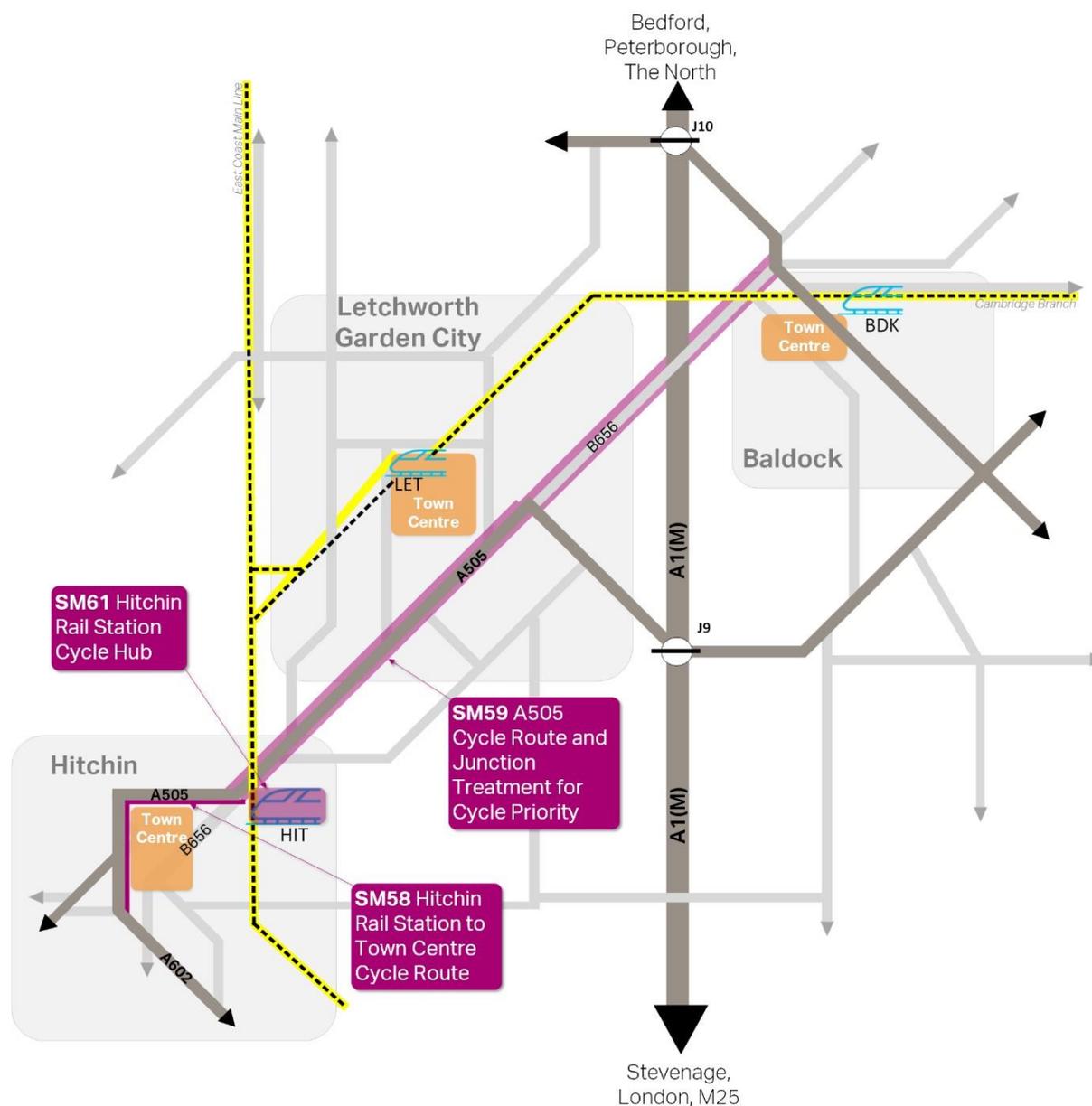
- Creation of a continuous cycle network along the A505 with cycle priority at junctions; and
- Create a cycle hub at Hitchin rail station with improved facilities and increased cycle parking.

The full schedule of interventions is shown in the table below.

**Table 13 - PK10 - Hitchin to Letchworth/Baldock**

ID	Name	Description
<b>SM58</b>	Hitchin Rail Station to Town Centre Cycle Route	Cycle route from Hitchin Rail Station to the town centre.
<b>SM59</b>	A505 and B656 cycle route and junction treatment for cycle priority	Continuous cycle route along the A505 Sustainable Spine and B656 to Baldock with new and improved junction/crossing facilities for cyclists. Necessary measures will be taken to ensure that cyclists are adequately segregated from vehicles to ensure safety.
<b>SM61</b>	Hitchin Rail Station Cycle Hub	Provide a cycle hub at Hitchin Rail Station including cycle repair facilities, secure cycle parking and cycle hire.

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.



**Figure 18 - Package 10 Hitchin to Letchworth/ Baldock**

Between Hitchin and Letchworth unconnected and poor-quality infrastructure can be perceived as a barrier to cycling as a viable, safe and attractive option for making intra- and inter-urban journeys.

Hitchin to Letchworth is a movement which is reasonably short and therefore considered to be within scope to become a high-quality cycling and walking corridor, which is reflected in Package 10. The foundation of this package is the creation of cycle route that extends along the A505 from Hitchin town centre to Letchworth and the B656 to Baldock. This would include cycle priority (SM58) (SM59) and will require that pedestrian and cycling routes are adequately segregated from road traffic to ensure safety. To complement this scheme a cycle hub at Hitchin rail station needs to be provided as well as parking at the station (SM61). A cycle hub has no set definition, but they can cater for all types of bikes and can have bike maintenance tools as well as lighting and CCTV.

In summary, Letchworth to Hitchin has the potential to be used for as a cycling corridor for a majority of short trips to key areas such as the rail station. Improvements to bus services from Hitchin to Luton will make public transport a more competitive means of travel.

## Letchworth

### Package 11 - Letchworth Centre and Employment Area

The overarching aim of Package 11 is:

## To increase active transport provision between Letchworth Centre and Employment Area by providing a signposted and connected active transport network and to improve access to Letchworth Garden City rail station.

The Package consists of:

- A cycle route which connects the main employment areas to Baldock and the rail station and links to a signed network;
- Linking the current cycle network to new routes combined with town centre cycle parking to ensure access to key areas; and
- Improving access of Letchworth Garden City rail station via sustainable travel modes and enabling easy interchange between active travel and bus services.

The full schedule of interventions is shown in the table below.

**Table 14 - PK11 - Letchworth Centre and Employment Area**

ID	Name	Description
<b>PR63</b>	Pedestrian and Cycle network improvements	Improve pedestrian and cycle infrastructure and review cycle network signage on routes to Letchworth train station and town centre. Provide signage on key routes where this is not already provided.
<b>PR65</b>	Letchworth town centre cycle parking	Ensure appropriate on-street cycle parking provision in Letchworth town centre, at neighbourhood retail centres and other key service locations.
<b>PR71</b>	A505 Pedestrian Crossings	Investigate options to provide pedestrian crossings to reduce severance effect of the A505 at linking local schools, shops and leisure destinations on either side of the road.
<b>SM62</b>	Baldock to Letchworth Cycle Route	Cycle route from and through employment area to Letchworth rail station and Broadway.

<p><b>SM63</b></p>	<p>Letchworth Garden City rail station access and interchange</p>	<p>Improve pedestrian and cycling infrastructure around Station Place to improve access and encourage sustainable travel to Letchworth Garden City rail station.</p> <p>Enable interchange between pedestrian and cycling facilities and bus services to increase opportunities for sustainable travel from North Letchworth to the rail station. This will be considered in conjunction with other cycling interventions (PR68, SM69 and SM62) and bus route interventions (SM66).</p>
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Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

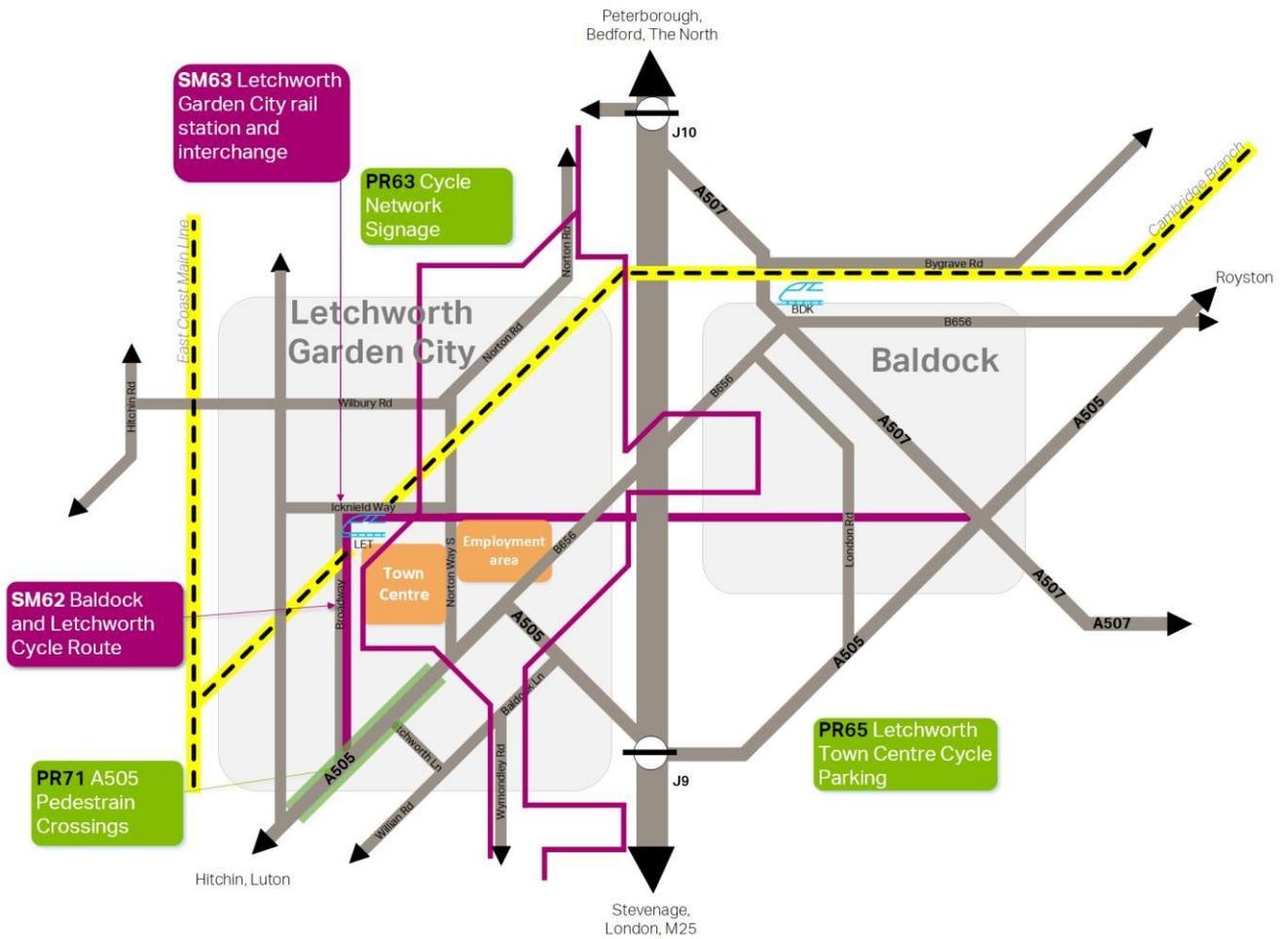


Figure 19 - Package 11 Letchworth Centre and Employment Area

## Package 12 - North Letchworth

The overarching aim of Package 12 is:

**To provide improved sustainable connections by supporting a more frequent bus connection as well as a cycling facility between north Letchworth and the town centre.**

The Package consists of:

- Sustainable access to the development with bus, cycle and pedestrian options;
- Ensuring there are links between northern Letchworth and town centre by bike, as well as providing bike parking at the station.

The full schedule of interventions is shown in the table below.

**Table 15 - PK12 - North Letchworth**

ID	Name	Description
<b>PR68</b>	Letchworth rail station cycle parking – cycle hub	Work with partners to provide additional cycle parking as part of a new Cycle Hub at Letchworth station in line with demand.
<b>SM66</b>	Bus Access to Development - Letchworth North	Work with partners to improve bus services to the development sites.
<b>SM67</b>	Connections for North Letchworth development sites	Link existing routes and sustainable spine through the Grange estate and the Garden City cycle route from Norton common eastwards to the main employment area and provide improved access to the LG1, LG3 development sites and other smaller sites north of Letchworth.
<b>SM69</b>	North Letchworth cycling connections	Improve cycling routes through north Letchworth, considering off-road cycle tracks and junction treatments.

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

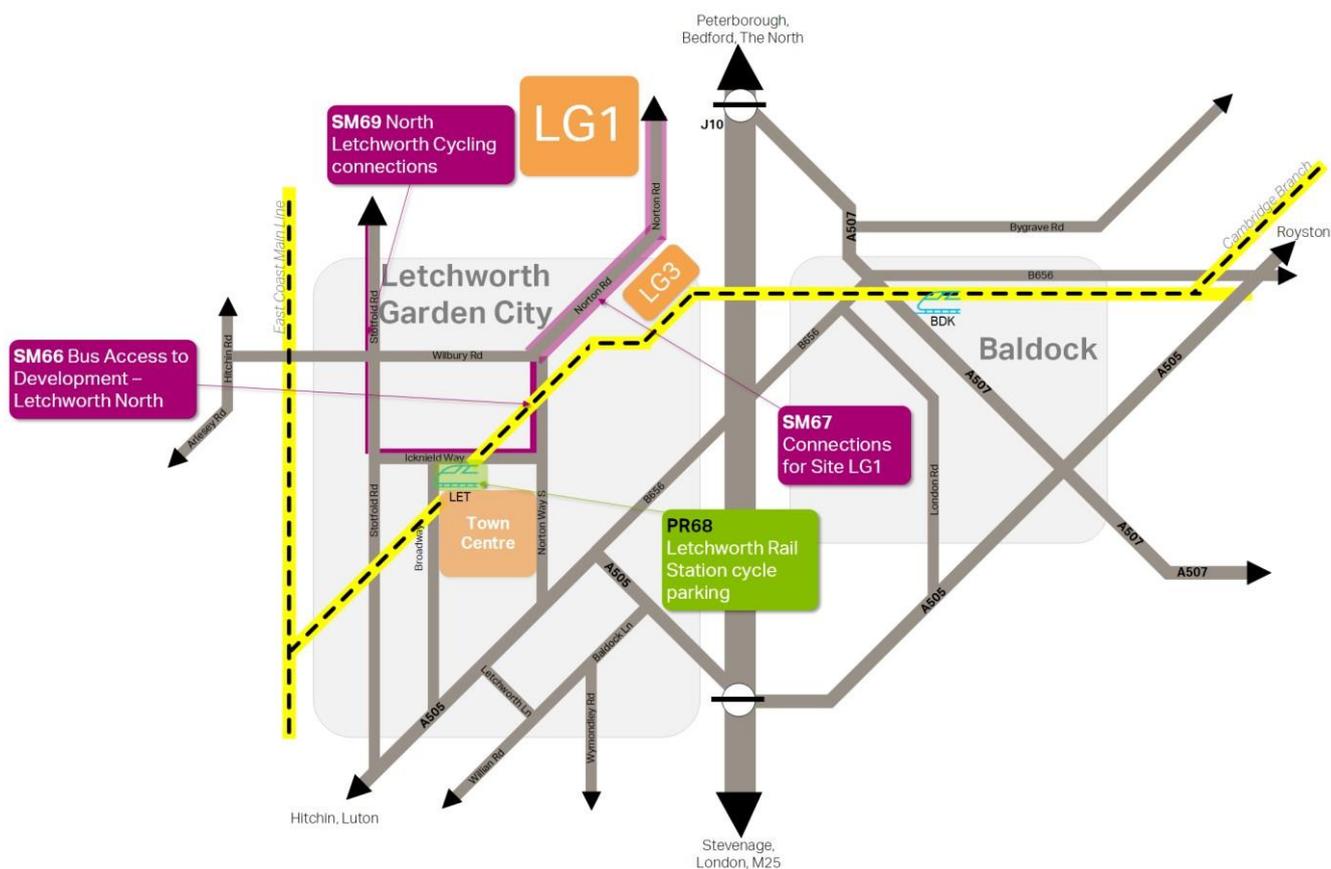


Figure 20 - Package 12 North Letchworth

Letchworth Garden City (LGC) is a well-connected and accessible area for motorised vehicles. This has led to its high modal share of car use, especially to the employment areas. There are some issues with reliability as congestion affects inter-urban traffic. There is also some severance caused by the rail line and A505 internally which dissect the town and do not allow for seamless travel by walking and cycling from one side of the town to the other.

LGC employment is primarily concentrated in a large employment area located on the eastern edge of the town, close to the town centre and the railway station. This is bound by the railway line to the north and by the A1(M) to the east. The A505 forms the main access to the employment area from the A1(M). It is a destination for trips both locally and countywide. There is currently little walking and cycling infrastructure to the area, which is perceived to be affecting current active trips. As a consequence, private car is the dominant mode of travel into and out of the employment area by employees.

The Stage 2 analysis of interactions determined that the residential areas of LGC generally have fewer shortfalls compared with other towns, although in some areas there is room for improvement particularly in relation to *accessibility* and *efficiency*. The issues with *efficiency* are caused by few people using active and sustainable modes to travel and having a reliance on the car. There are potential opportunities however to increase infrastructure and to encourage travel which is sustainable for both the environment and the public health of LGC.

A significant increase in the current cycling infrastructure to increase connectivity across the town with links to Baldock and Hitchin and the town's employment area, will encourage this as a viable commuting option. The reinvented cycle network will be complemented by cycle

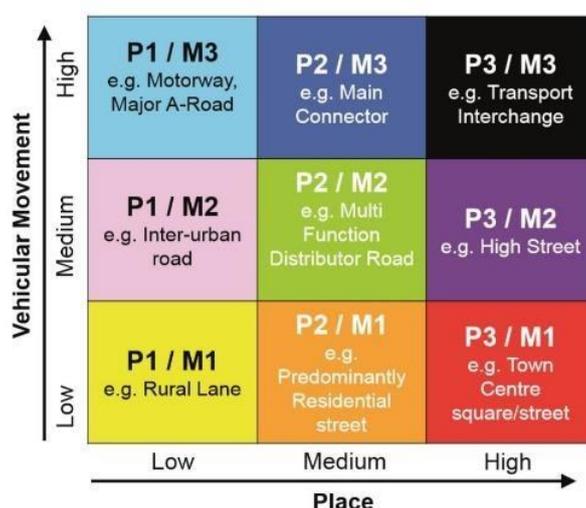
network signage (PR63) and town centre and rail station cycle parking (PR68) (PR65) which will encourage trips between all areas on the new infrastructure. The new cycling infrastructure will be provided across the corridor creating links from the employment area to the town centre and LGC rail station, ensuring the possibility of a multi modal or active commute for more people.

Links to the sustainable spine are pivotal to ensuring joined up infrastructure that will facilitate seamless, safe and comfortable journeys on foot and by bike. Within LGC the creation of links from the residential areas to the town centre and sustainable spine (SM62) (SM67) (SM69), will encourage active trips from residential areas to the town centre, commuting inter-urban or part of a multimodal longer trip (e.g. accessing the station to then take a train to another town). Connectivity will be further improved by ensuring adequate pedestrian crossings (PR71) along the A505, whilst making linkages to Rights of Way Footpaths across Hertfordshire and ensuring adequate segregation from road traffic for increased safety. Bus services should extend to the planned new development at housing site LG1 on the north east side of LGC as well as being improved (SM66). Easy interchange between pedestrian and cycling facilities and bus services and improved access of the station will encourage sustainable travel to LGC rail station (SM63). Measures in Package 14 also compliment these interventions as they seek to encourage a shift toward sustainable travel modes on routes to Central Bedfordshire.

With these improvements LGC can move towards a much higher proportion of internal and some external journeys being undertaken by more sustainable modes of travel. The employment zone will be accessible by everyone, as will the town centre and rail station.

## Place and Movement in Letchworth

Maps showing the place and movement functions of roads in Letchworth are included in Appendix A.



Letchworth is unique in terms of the layout and aesthetics of its highway network. The interventions put forward in this GTP seek to reinforce the characteristics of the Garden City as opposed to changing them

Improvements are proposed to make **P2/M2 Multi-Function Distributor Roads** multi-modal such as the A505, and reduce the severance caused by the A505 by providing additional pedestrian crossings and routes.

Improved walking and cycling connections to Letchworth and Central Bedfordshire are also proposed.

As with Hitchin, the interventions are unlikely to result in a significant change in place and movement function, however the definition of **P2/M2 Multi-Function Distributor Roads** is likely to evolve as routes which give greater priority for pedestrians, cyclists and buses and reduces the dominance of private vehicle traffic.

## Baldock

### Package 13 - Baldock connectivity, rail station and development

The overarching aim of Package 13 is:

**To make Baldock a safe, convenient and attractive place to make sustainable transport trips through improvements to cycling and walking infrastructure and facilities as well as public transport journeys.**

The Package consists of:

- Provide an improved link to Clothall Common from the rail station with cycle parking at the station.
- Create active transport links between new development around Baldock to the sustainable spine;
- Support current bus routes' level of service.

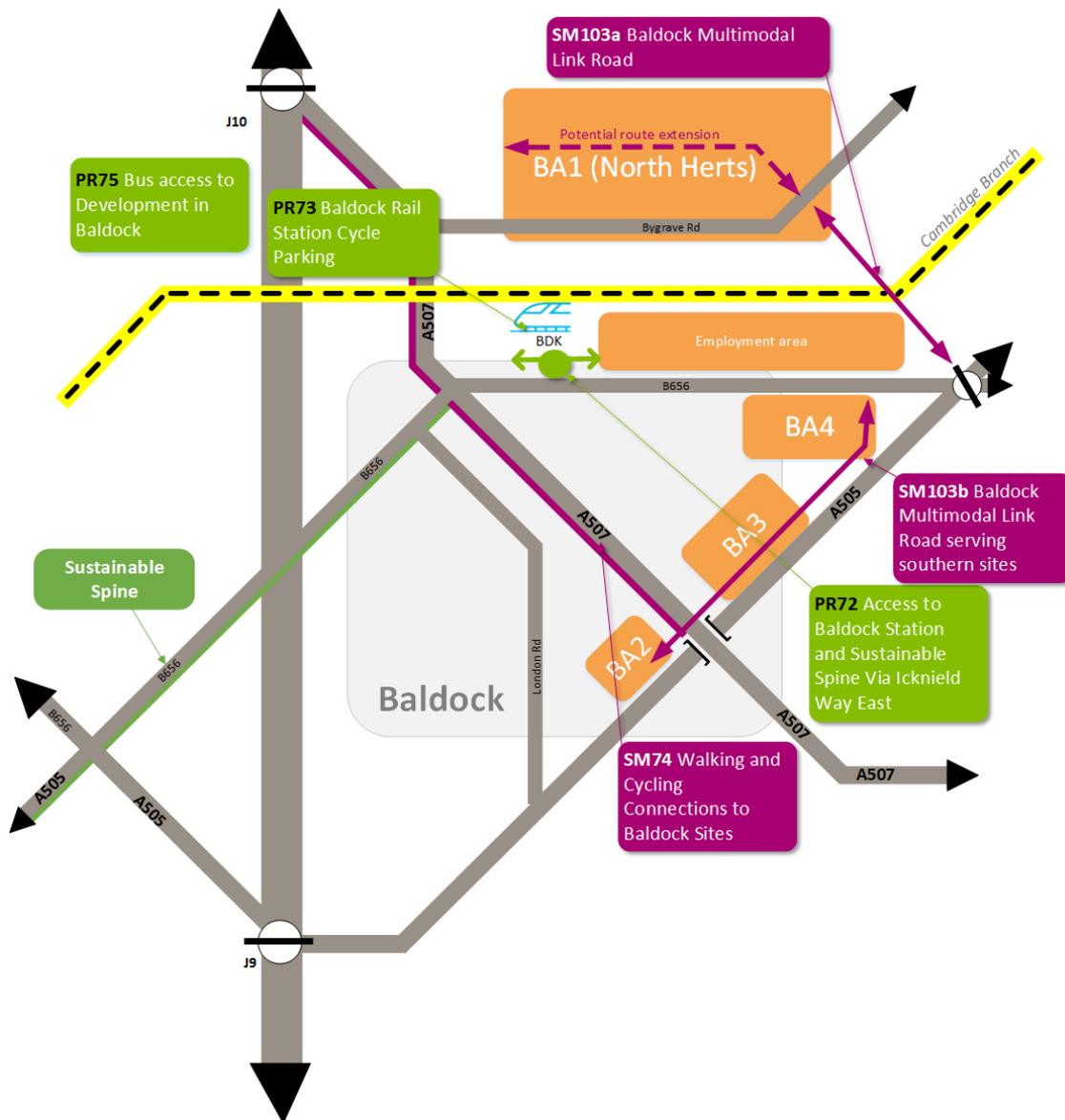
The full schedule of interventions is shown in the table below.

**Table 16 - PK13 - Baldock**

ID	Name	Description
<b>PR72</b>	Access to Baldock Station and Sustainable Spine via Icknield Way East.	Provide an improved cycling and walking route from Clothall Common to Baldock Station, via improved crossing at Icknield Way East.
<b>PR73</b>	Baldock rail station cycle parking	Work with partners to provide additional cycle parking at Baldock station in line with demand and to improve cycling access for developments to the north.
<b>PR75</b>	Bus Access to Development in Baldock	Work with partners to support high quality bus services to new residential development in Baldock.
<b>SM74</b>	Walking and cycling connections to Baldock- Site BA1	Ensure links to sustainable spine infrastructure, including walking and cycling routes across the rail line.
<b>SM103a</b>	Baldock Multimodal Link Road North	The new road bridge over the railway, linking Bygrave/Ashwell Road and the B656 at the A505 interchange, to be delivered as part of Local Plan site allocation BA1, will be specified to enable it to serve a strategic function. Any proposed extension of this link to the A507 as a strategic route (relief road) will be evidenced and tested as part of masterplanning the BA1 strategic site allocation.

<b>SM103b</b>	Baldock Multimodal Link Road South	New access links to the southern development sites (BA2, BA3, BA4) incorporating high-quality cycle infrastructure.
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Indicative cost range estimates and timescales for these interventions are contained in Appendix B.



**Figure 21 - Package 13 Baldock Connectivity rail station and development**

Baldock is located to the east of Letchworth Garden City and to the north of Stevenage. It suffers from congestion issues on the B656 in the AM and PM peaks which restricts reliability. This is coupled with issues of freight routing through the centre of the town, which is perceived to discourage active trips from taking place.

Land for new developments is allocated in the North Herts Local Plan to the north and to the south of Baldock. These sites will form a substantial extension to the existing area of Baldock and will benefit from being within easy reach of Baldock railway station, town centre and the A505 and A507 inter-urban corridors. They bring opportunities to change the current

traffic dominated infrastructure to a more sustainable modal split. The design of the link roads through these developments set out in the Local Plan will be important in reducing traffic through Baldock town centre, as well as supporting access to the development by walking, cycling and bus.

Package 13 consists of improvements to the overall connectivity of Baldock. This addresses the connectivity of Baldock by sustainable options like cycling and walking. Because it is a small town, the large town centre supermarket, the high street and local schools should all be within easy reach on foot and by bike. Another important aspect of this package is to ensure bus access to the new development from the centre of Baldock as well as from Hitchin and Letchworth.

Substantial links to the east of Baldock connecting to the development forms the anchor of this scheme (SM74). This would be achieved by ensuring walking and cycling links to the new sustainable spine on the A505 and B656 through Letchworth and Baldock. Cooperation with Network Rail and the rail network operator would be sought to deliver ample cycle parking at the rail station (PR73) and an improved cycle and a walking route to Clothall Common (PR72). The North Hertfordshire Local Plan sets out requirements for link roads connecting through development sites BA1, BA2, BA3 and BA4. This plan suggests that these roads should be designed to facilitate safe and comfortable access by walking and cycling, as well as bus access and private vehicles (SM103). These schemes would allow the ease of pedestrian and cycling access to inter-urban and local routes.

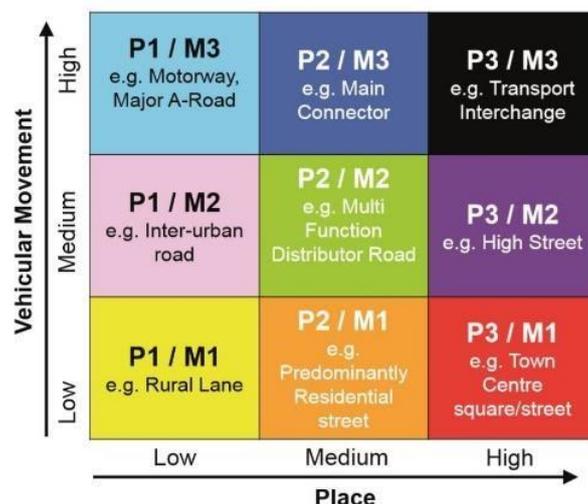
By ensuring changes to links which improve active facilities road space can be re-prioritised, therefore discouraging HGV's from using central routes. In order to maximise the new and improved cycling and walking links bus access to BA1 (PR75) would be extended. A phased approach to implementing new link roads through and/or around development to the north of Baldock is currently being considered by the local authorities. Any phasing needs to ensure the appropriate strategic route function of the new links is provided at the appropriate time in the context of development in Baldock and the wider A507 corridor.

There are currently pinch points at the B656/A507 signal-controlled crossroads in the centre of Baldock, as well as the London Road/South Road roundabout and South Road/Wallington Road roundabout. Improvements to make the A1(M) a Smart Motorway (All Lanes Running) will reduce through traffic through the town centre. Baldock Link Road will also reduce traffic in the town centre as people will be able to get onto the A505 almost directly from the A1(M).

Between Baldock and Royston, there will be a need for resilience improvements to the A505 including measures to improve safety. These improvements will be investigated by Hertfordshire County Council.

## **Place and Movement in Baldock**

Maps showing the place and movement functions of roads in Baldock are included in Appendix A.



Improvements are proposed to make **P2/M2 Multi-Function Distributor Roads** more multimodal, in particular those providing access to new developments. A potential significant change is to the existing A507 North Road and Clothall Road through Baldock. If a new link road is implemented to help facilitate the proposed Baldock North (which itself could be categorised as a **P2/M2 Multi-Function Distributor Road** if it is integral to the surrounding residential development, or potentially a **P1/M2 Interurban Road** if it functions more as a bypass) this could necessitate a change in function to the existing A507 running through the town. There is potential for this road to become a **P2/M1 Predominantly Residential Street**, certainly between the B656/A507 crossroads and the A505, depending somewhat on the configuration of a new development link road and the interventions needed to discourage traffic from routeing through Baldock on the existing A507 Clothall Road instead of using the new development link road.

## Connections between Central Bedfordshire and the North Central area

Substantial housing and employment growth is proposed within Central Bedfordshire to the north of Hitchin, Letchworth Garden City and Baldock. This growth has the potential to add pressure to the A1(M) and to local roads including the A600 (through Hitchin), A507 (through Baldock), and Stotfold Road (through Letchworth).

Package 14 focuses on how to manage the potential transport implications of this growth within the NC GTP area.

### Package 14 - Shefford, Arlesey and Stotfold to Hitchin and Letchworth Garden City

The overarching aim of Package 14 is:

**To encourage a modal shift in trips from Central Bedfordshire to Hertfordshire through support for development trips to use sustainable modes as well as creation of inter-urban cycling and walking routes.**

The Package consists of:

- Encouragement of Central Beds to further promote Arlesey railway station and rail services for trips to Stevenage and Hitchin from Henlow, Camp and Stotfold as an alternative to using the car;
- Upgrade of existing active infrastructure to promote a modal shift from Henlow Camp and Stotfold.

The full schedule of interventions is shown in the table below.

**Table 17 - PK14 - Connections to Arlesey, Stotfold and Shefford**

ID	Name	Description
<b>PR76</b>	Sustainable access to Hitchin, Letchworth and Stevenage from eastern A507 corridor.	Work together with Central Bedfordshire Council to encourage use of Arlesey station for trips to Hitchin and Stevenage, in order to mitigate the impact of substantial new development along the eastern A507 corridor on routes into North Herts (Baldock Road, Hitchin Road, and Stotfold Road) and wider area.

<p><b>SM95</b></p>	<p>Cycle Routes to Henlow Camp and Stotfold.</p>	<p>Upgrade existing footpaths to provide cycling connections to new residential and employment development in Central Beds. Coordinate with Central Bedfordshire Council and Hertfordshire County Council to provide door to door routes to new developments. Links into proposed North Letchworth developments should also be considered.</p>
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Indicative cost range estimates and timescales for these interventions are contained in Appendix B.



**Figure 22 - Package 14 Connections to Arlesley, Stotfold and Shefford**

There are very good transport links for movements between Central Bedfordshire and Hertfordshire. These links are predominantly car-based with the A1(M), A507 and A600 being the key inter-urban roads. Rail also features, with the East Coast Main Line directly connecting Hitchin and Stevenage with the towns of Sandy and Biggleswade.

Substantial housing-led growth is proposed across Central Bedfordshire, with large concentrations of planned development clustered around the A507 in the vicinity of Arlesley

and Henlow. A small railway station is located in Arlesey. Bus services connect these areas with Hitchin to the south and Bedford to the north. Not all of this planned growth will be within easy access of Arlesey station, therefore for future residents who need to make a journey into Hertfordshire including the retail and restaurant offer in Hitchin, and employment located across the North Central area in particular in Stevenage, they may choose to travel by car for its perceived door-to-door convenience.

This could place strain on the local road network in the North Central area. Whilst National Highways's planned improvements to the A1(M) between Junctions 6 and 8 are expected to relieve some congestion, some people from Central Bedfordshire may still prefer to use the local roads which lead into Hitchin, Letchworth and Baldock.

For a relatively short distance journey by train from Arlesey station to Hitchin, Stevenage or further south in Hertfordshire, the journey to the station would need to be short and quick otherwise the perceived penalty for interchanging between modes will be heightened. Therefore, for planned new development clustered around the A507, good quality cycle routes and bus services will be required to making getting from home to the station as simple and convenient as possible. The Packages proposed in Hitchin and Stevenage are similarly aimed at making the 'last mile' of a journey as convenient as possible.

The issues in this area identified at Stage 2 consist of a lack of *efficiency* meaning people are choosing to take modes that are not sustainable and therefore placing too much reliance on a constrained network (notably the A1(M)). While there is a good train route from Central Bedfordshire villages into north Hertfordshire towns the rural origins do not encourage travelling to rail stations.

There are opportunities to work with Central Bedfordshire to encourage the use of Arlesey station for trips to Hitchin and Stevenage and the use of the A507 (PR76). In order to further encourage use of sustainable modes, cycle and walking routes are proposed to create new connections between the new residential and employment areas in Central Bedfordshire and with the towns of Hitchin, Letchworth and Baldock in North Hertfordshire (SM95).

Whilst new development from Central Bedfordshire will impact the network, these packages proposals is expected to contribute towards a sustainable modal shift and relieve congestion through encouragement of more integrated multi-modal sustainable journeys.

## Place and Movement

Improvements are proposed to improve multi-modal travel on inter-urban roads as the distances for cycling are realistic and the terrain is mostly flat. This may not result in any change in place and movement function, but as with the other parts of the North Central GTP area already discussed, existing place and movement functions may evolve so that the dominance of private vehicle traffic is potentially reduced and greater priority is given to the movement of pedestrians, cyclists and buses, particularly in urban areas where the place function is of greater significance.

# Royston Connections

## Package 15 - Royston

The overarching aim of Package 15 is:

**To transform Royston into a town that facilitates safe, attractive and convenient journeys by active and sustainable transport modes.**

The Package consists of:

- Cycling connections across the A505 to the Melbourn Greenway;
- Development of cycling network along radial routes combined with cycle parking at the station;
- Improved connectivity to the employment area;
- Improved facilities and information at Royston bus station.

The full schedule of interventions is shown in the table below.

**Table 18 - PK15 - Royston**

ID	Name	Description
<b>PR77</b>	Cycle parking	Ensure appropriate on-street cycle parking provision in Royston town centre, at neighbourhood retail centres and other key service locations.
<b>PR79</b>	Royston Cycling Network	Provide a network of high-quality radial routes, with orbital connectivity along residential streets. Explore opportunities to make improvements to PRoW to facilitate walking and cycling into the surrounding countryside and other settlements.
<b>PR80</b>	Royston bus Interchange and improvement	Work with partners to improve bus facilities and information, improve bus access to the railway station and maintain or improve bus services, including working with bus operators and neighbouring local authorities to investigate improving frequency of services towards Buntingford, Melbourn and Cambridge.
<b>PR104</b>	Industrial estate connectivity	Improved connections to the employment area which includes upgraded pedestrian infrastructure with more frequent crossings as well as pedestrian and cyclist wayfinding from the town centre and rail station.
<b>SM81</b>	Melbourn Greenway connection to Royston	Continue to work with the Greater Cambridge Partnership to extend the Melbourn Greenway route across the A505 into Royston. Wayfinding to rail station, employment area, and Royston town centre.

Indicative cost range estimates and timescales for these interventions are contained in Appendix B.

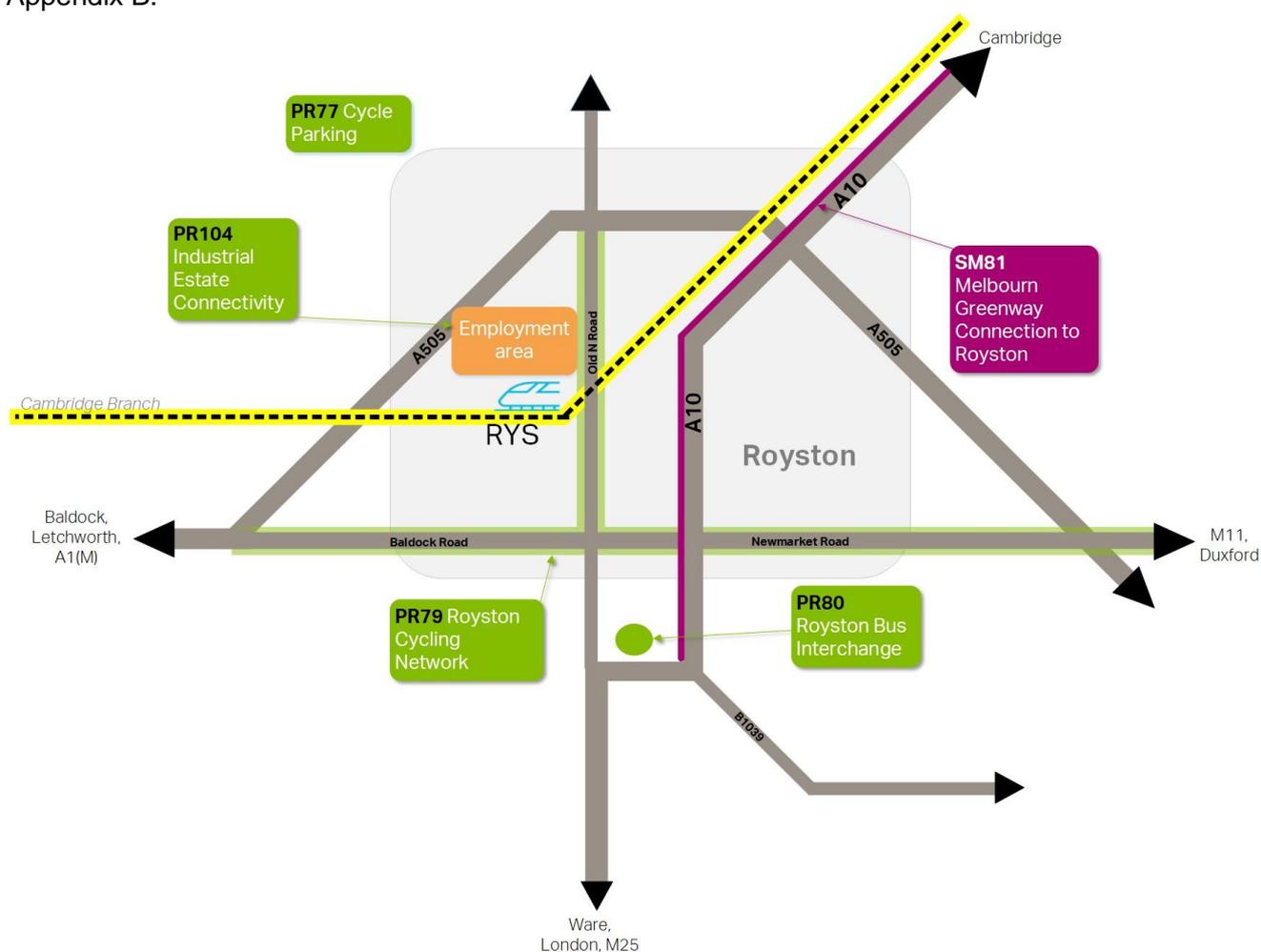


Figure 23 - Package 15 Royston

The size of Royston means that there is the potential for more journeys to be made by sustainable modes than occur at present, without any impact to journey times. The main issues which affect Royston primarily relate to *reliability* and *accessibility*, the former being affected by intersection of the A10 broadly north-south through the town, and the latter from the limited cycle infrastructure as well as the rail line imposing severance, with only 3 crossings, and also the A505 being a barrier to more sustainable journeys.

Package 15 ensures that the active travel is a means of sustainable transport within Royston. Connectivity by bridge over the A505 to the proposed Melbourn Greenway (SM81) (which is taken forward in collaboration with the Greater Cambridge Partnership) will be an important link to the economic sector in Cambridge (as well as to smaller employment clusters in between including the Melbourn Science Park) but also support Hertfordshire towards becoming a destination for leisure cycling. In conjunction with this, supporting the creation of cycle priority and lanes on arterial routes, schools and employment with creation of appropriate parking at the rail station, town centre and key service locations will encourage trips to be taken by bike (PR77) (PR79).

*Reliability* has been identified as an issue, with parking highlighted as a particular concern. An improved bus interchange could encourage trips to switch to public transport, therefore reducing traffic, which should occur in conjunction with testing demand responsive buses in

this area, to endeavour finding a way to tackle lack of services (PR80). The possibility of providing bus infrastructure in proximity to Royston railway station will be considered, as this would improve inter-connectivity in Royston and would make interchange between sustainable modes more efficient.

The final aspect of this package is the connectivity to the employment area of the town. This is significant as with the expansion of Royston with more housing development, more issues may arise here so there is opportunity to improve connectivity with new signage to make routes more visible and encourage pedestrian trips with improved pavements and crossings (PR104).

With this package there is an opportunity for an increased proportion of users travelling on foot and by bike, particularly those travelling between home and the town centre and railway station, and to the main employment area. The size of Royston allows this to be a possibility with the right infrastructure and connectivity to employment areas in place. Inter-urban trips to and from Royston to Cambridge can be facilitated by increased access to the rail station as well as the bus interchange improvements, which combined create options for sustainable travel.

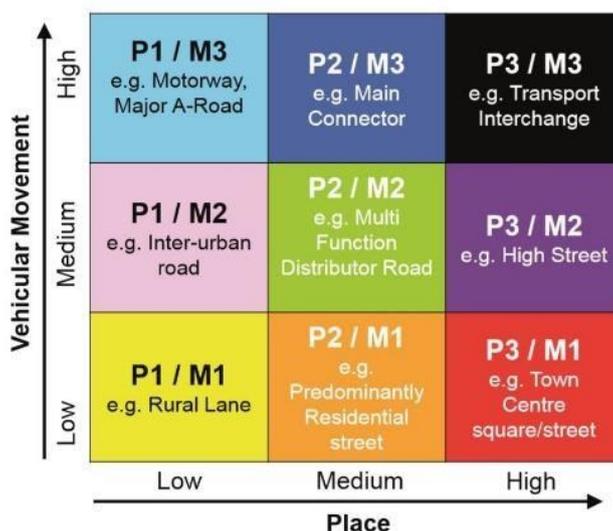
Royston's size means that most journeys within the town could be made in less than 15 minutes by cycle. Therefore, there is an opportunity to increase the cycling mode share within the town by providing a network of high-quality radial routes, with orbital connectivity along residential streets.

Between Royston and Baldock, there will be a need for resilience improvements to the A505 including measures to improve safety. These improvements will be investigated by Hertfordshire County Council.

Bus priority measures, and challenges generated from other interventions, will be considered as part of the A505 Corridor Study which will also look at potential longer-term measures that may be required to support potential development growth beyond what is set out in North Hertfordshire District Council's and Stevenage Borough Council's Local Plan documents.

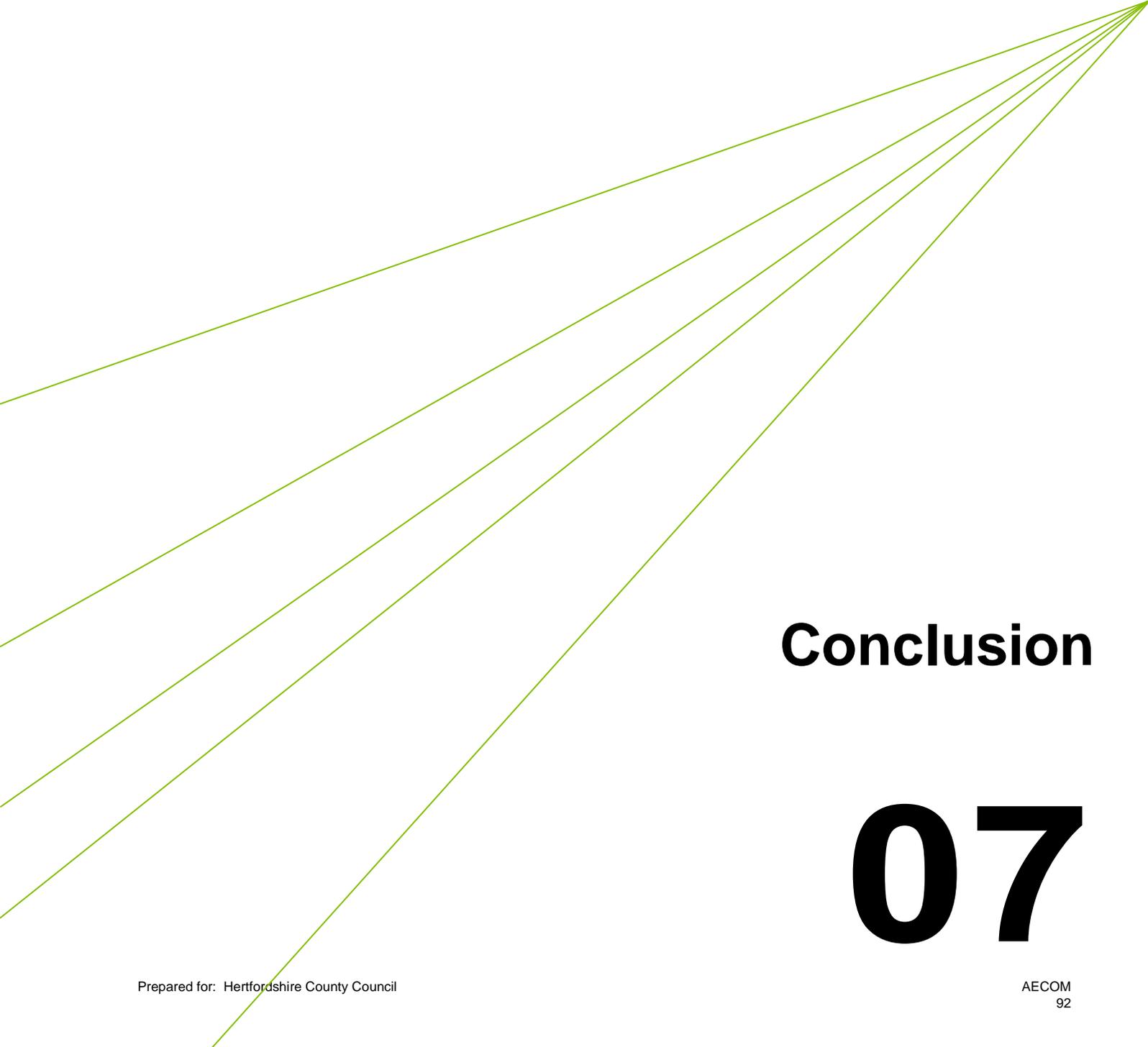
## Place and Movement

Maps showing the place and movement functions of roads in Royston are included in Appendix A.



Improvements are proposed to make **P2/M2 Multi-Function Distributor Roads** more user friendly for pedestrians and cyclists accessing the rail station and employment area.

The place and movement functions may not change; however, the definition of a **P2/M2 Multi-Function Distributor Road** could evolve over time as greater priority is given to the movement of pedestrians, cyclists and buses within the urban area.



# Conclusion

# 07

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## 7. Conclusion

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The provision of high-quality transport infrastructure and services is an essential component in the functioning of urban and rural areas, and in the delivery of sustainable and accessible development. Transport helps facilitate journeys from home to work, to school, for leisure purposes and for access to vital services such as healthcare.

Businesses are reliant upon an efficient, safe and reliable transport system in order to attract employees and customers, as well as for the transport of goods and services to different places. As well as catering for existing requirements, transport (or a lack thereof) can also help unlock or be a constraint on new opportunities, both for economic development and for individual wellbeing.

Good planning practices can help identify the conditions needed to operate an efficient transport system and facilitate development growth proposals. If the process of planning is not equipped to deal with these requirements, the delivery of sustainable development could be delayed or even prevented, and this could therefore have lasting negative consequences on towns and communities.

Hertfordshire is facing significant levels of housing and employment growth which are expected to have an impact on the county's local and strategic transport systems and networks in the short, medium and long term. In a post-recession economy, delivering economic growth has become one of the UK Government's main priorities. However, this is set against a backdrop of increasing competition for funding to help invest in new infrastructure, with less money available for local authorities to spend today than perhaps in the past.

The transport needs of large-scale residential and employment development coming forward within Hertfordshire and surrounding areas may be reliant upon seeking vital funding from Central Government and elsewhere, and this funding may only be obtained if a good case is made for investment which is based on robust evidence and positive collaborative planning.

A variety of other mechanisms are also in place for further developing schemes. Some of the mechanisms that are linked to planned housing and employment developments (and included in the Local Plan Infrastructure Delivery Plans) highlight that developers would be expected to develop the proposals and provide funding. More general cycling and walking measures within the urban areas will be developed further as part of the ongoing Local Cycling and Walking Infrastructure Plans (LCWIPs). The Sustainable Travel Towns programme also provides an opportunity to progress schemes, including some of the Area Wide Interventions.

With this in mind, Hertfordshire County Council has developed a fresh approach to planning for the short, medium- and long-term transport needs.

The Growth and Transport Plan ('GTP') is a new approach to sub-county transport planning. A GTP is a strategic spatial transport plan developed by Hertfordshire County Council in partnership with key stakeholders, including District/Borough councils and the Local Enterprise Partnership, for the purpose of applying LTP policies and objectives to a growth focussed sub-area within Hertfordshire. The North Central GTP is one of a suite of new GTPs and covers the towns of Stevenage, Hitchin, Letchworth Garden City and Royston. It also considers travel between this area and Luton, including to Luton Airport.

The GTP provides an opportunity to plan for the cumulative transport needs of planned development growth and recognise this in conjunction with much broader needs to maintain and improve the quality of life of residents, employees and visitors to the area.

The North Central GTP puts forward a schedule of transport interventions which have been formulated in response to a range of challenges and in line with a set of robust and forward-looking objectives. Interventions are defined as Projects – which are arranged into complementary Linked Project Groups - and Schemes, and in turn these have been assembled into fifteen Packages. The Packages are geographically aligned with the challenges and reflect key movements, current and future pressures on the transport system, and/or opportunities arising from planned future development. A full list of the proposed interventions is included in Appendix B.

It is not intended for the GTP to prescribe a rigid forward programme of works but to act as a decision-making guide to steer future direction of investment and prioritisation in transport. It is envisaged that only by implementing all of the interventions within a Package will the overall benefits that the GTP aspires to be unlocked. However, it is recognised that interventions are only defined at a broad, conceptual level of detail and therefore more detailed work may reveal important changes to interventions, or alternative interventions that could also achieve the same aim and goals of each Package.

There are many unknowns which will influence the implementation of the GTP's proposals and vision: the availability of funding; scale, location and build-out of planned development; travel behaviour; development and take-up of innovative new transport technologies; local and macro-social, economic and environmental factors. These could all exert an influence on future decision making. As far as possible, the GTP provides a flexible decision-making framework built upon currently available evidence and forecasts which could and should evolve in response to changing factors.

## Next Steps

The GTP is a high-level transport strategy, based on evidence and local knowledge, which identifies what types of potential interventions and packages required to:

- help support new housing and employment developments;
- address existing or future issues on the transport network (including poor facilities for pedestrians and cyclists); and
- ensure that the transport network is better aligned with the key policies of HCC's LTP, the districts' Local Plans and wider Government policies and aims.

The high-level nature of the GTP, where interventions are conceptual and not (in the majority of cases) defined in detail means that further work will inevitably be required to develop them further. This further work, which will follow the adoption of the GTP, is likely to include surveys and design/engineering feasibility studies and will determine whether the interventions are feasible; how they might look; when they could be implemented; who they may impact (and therefore what scale of local consultation with residents and businesses will be needed); and how much they are likely to cost. This will also inform what funding is required and where this funding is most likely to come from, which could include contributions from nearby proposed housing and employment developments.

The current assumption is that where, through more detailed work, it can be demonstrated with evidence that an intervention is necessary to make the development acceptable in planning terms, the developer will contribute towards the cost. This will be, as appropriate, either by way of a Section 106 monetary contribution, which will be passed to the local

authorities to help fund the improvement; or through a Section 278 agreement, whereby the developer/promotor of a site is required to fund and implement an intervention in its entirety; or through the Community Infrastructure Levy (CIL) or any successor arrangement. Other sources of funding may need to be sought to help support the delivery of interventions, certainly where contributions from developers may fall short.

The GTP has not indicated a prioritisation of interventions or packages. Prioritisation over such a large area covering multiple towns and districts is challenging. The need for interventions is likely to evolve; the form in which interventions take could change; and the ability to fund interventions will also evolve and at this present time it is difficult to fully account for these variables. The build-out and delivery of developments will however be a major driver for bringing forward interventions, and HCC working in partnership with the local planning authorities will assess development planning applications to identify opportunities to bring forward appropriate mitigation which could include interventions set out in the GTP.

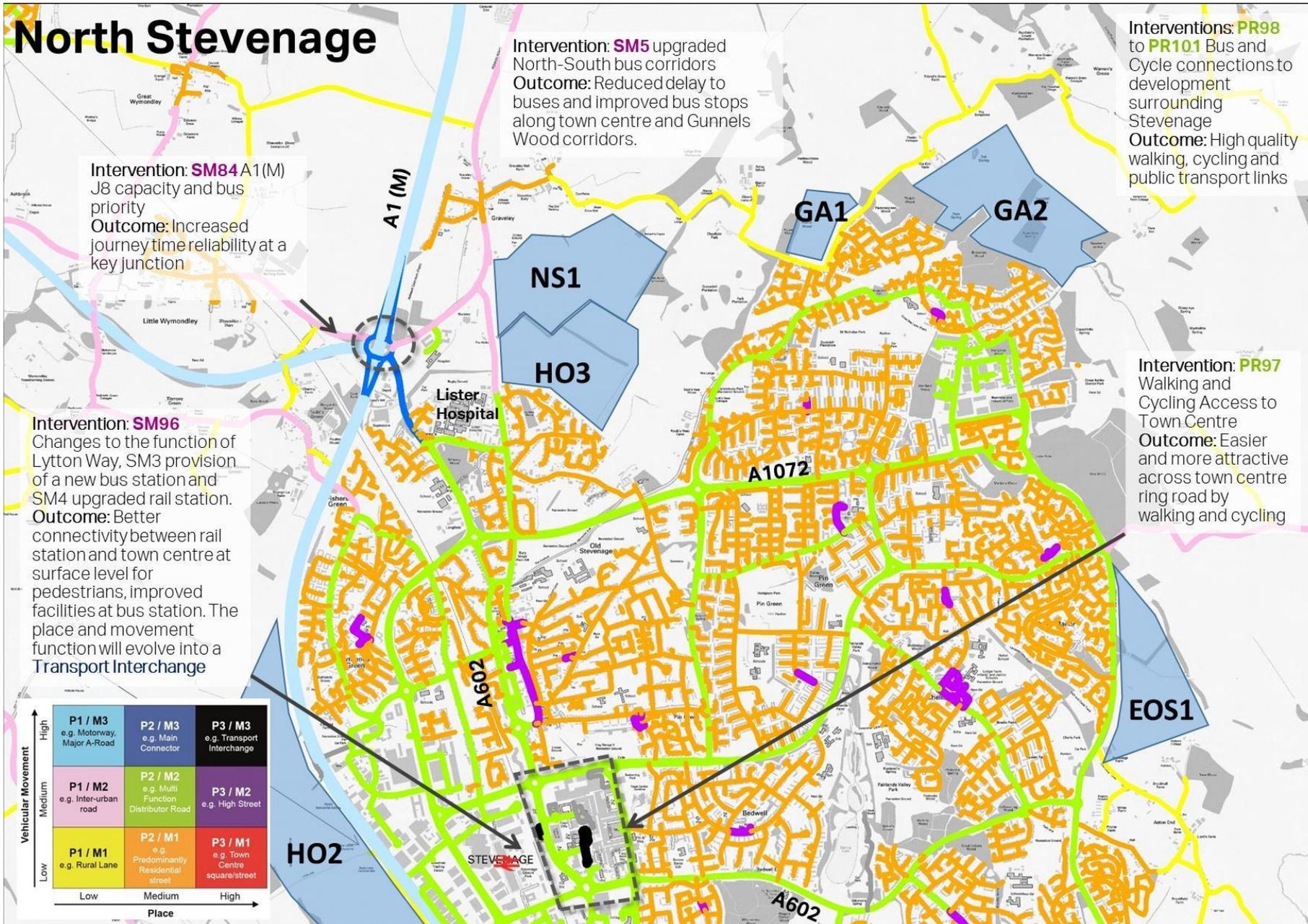
Furthermore, HCC as highway authority will need to consider priorities at a county level including interventions from the GTPs as well as other strategy and planning processes including Local Plans Infrastructure Delivery Plans.

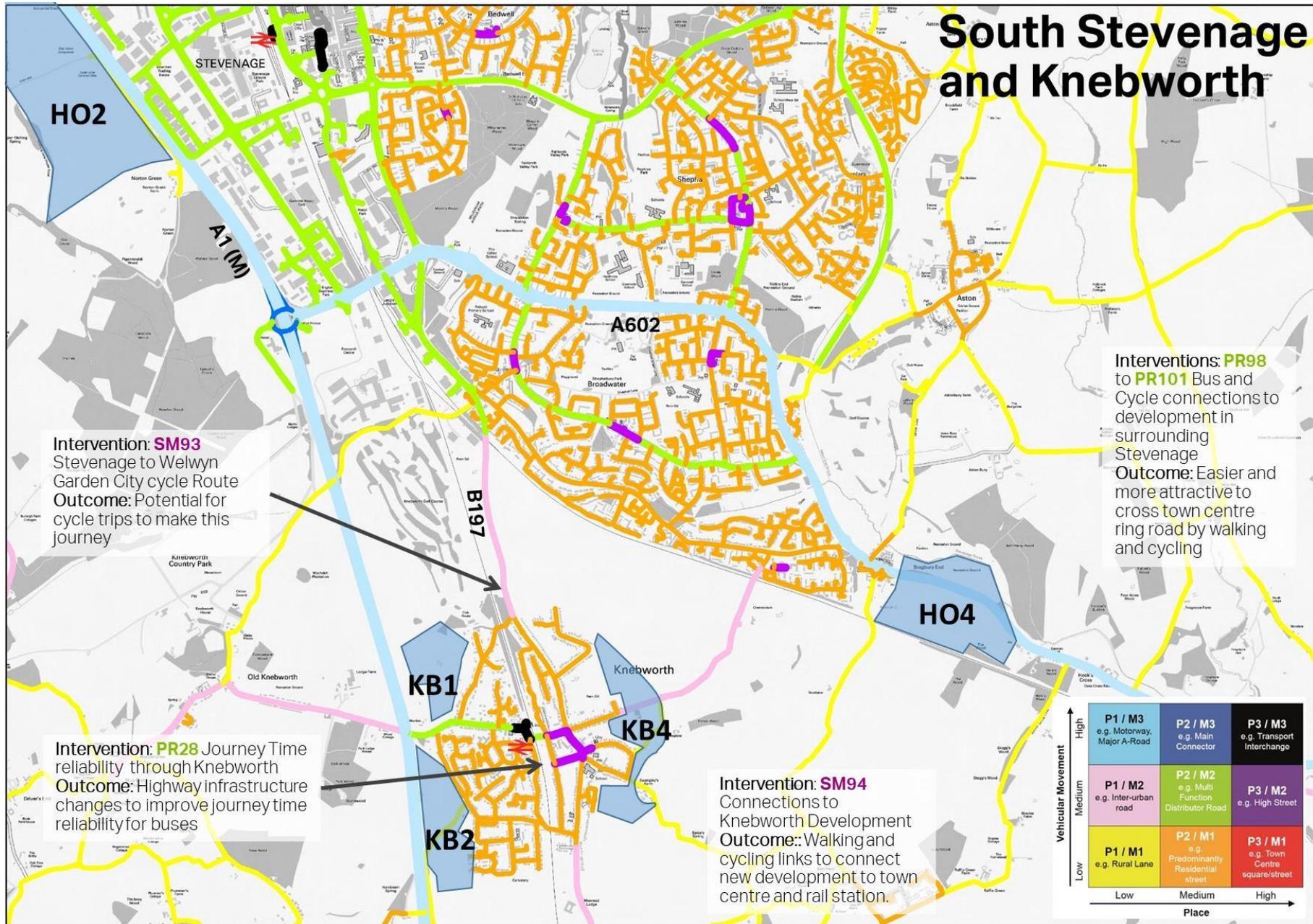
The interventions presented in this GTP have been subject to optioneering, and alternative interventions have been considered but then dismissed prior to finalising the packages because either the interventions have been considered to be unfeasible or would work against local policies and priorities.

This GTP should not be set in stone indefinitely therefore it is recognised that a periodic update will be required, especially where there is a significant change in local circumstances which may warrant a re-evaluation of growth and transport challenges and opportunities. For example, Local Plans will undergo reviews which may identify new growth priorities which in turn trigger the need to consider how the transport network needs to cater for the increased growth. In this way, the GTP will respond to an ever-changing development context and provide a robust framework for strategic spatial transport planning today and into the future.

# Appendix A

## Place and Movement Maps





# Hitchin

**Interventions: SM53  
PR54** Bedford Road  
Pedestrian Crossings  
and Cycle Route  
**Outcome:** Safer and  
more attractive walking  
and cycling route,  
including to schools.

**Intervention: SM38**  
B656 Walsworth Road  
Pedestrian Priority  
Corridor  
**Outcome:** More  
attractive walking route  
between the rail station  
and town centre.

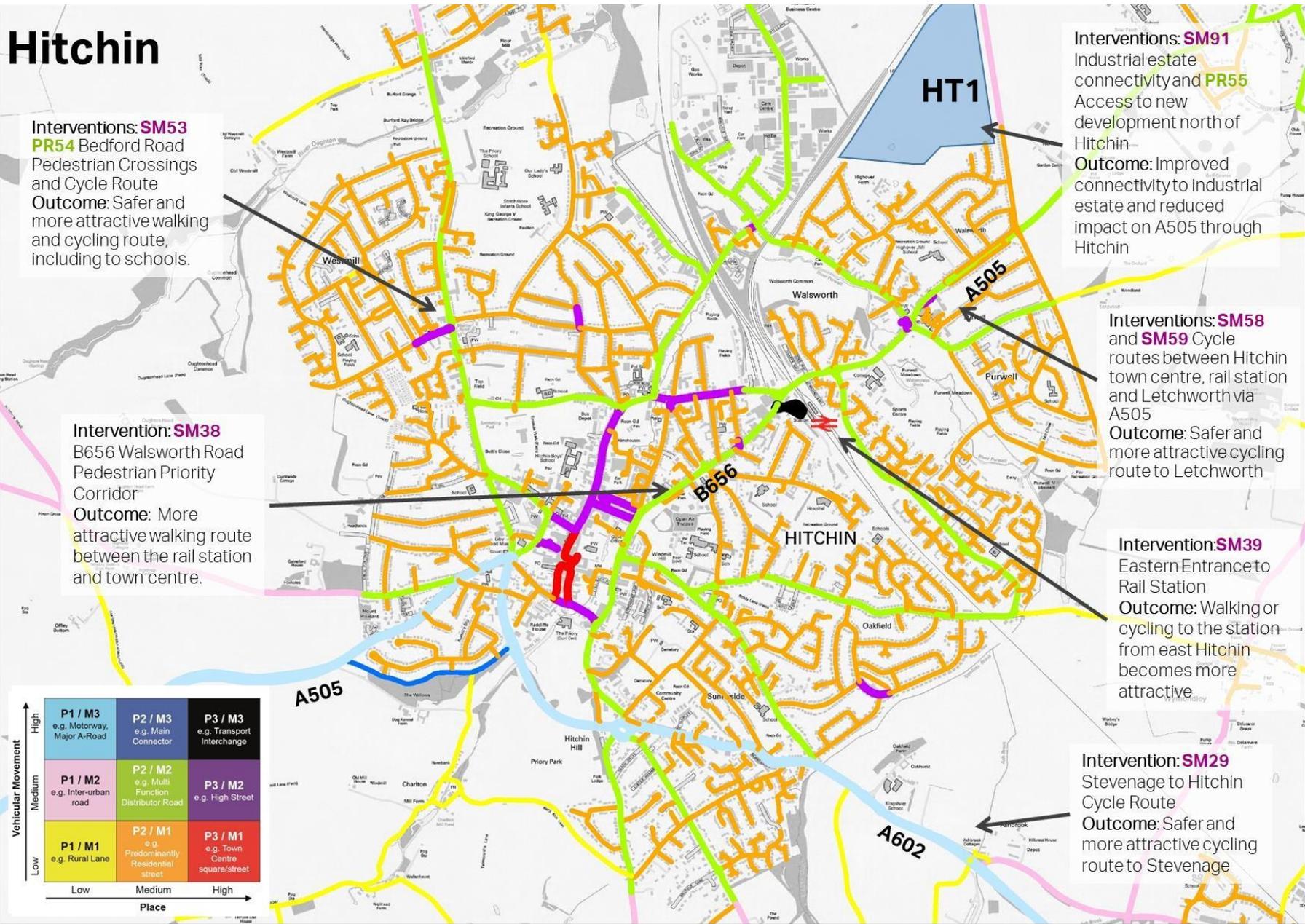
**Interventions: SM91  
PR55**  
Industrial estate  
connectivity and  
Access to new  
development north of  
Hitchin  
**Outcome:** Improved  
connectivity to industrial  
estate and reduced  
impact on A505 through  
Hitchin

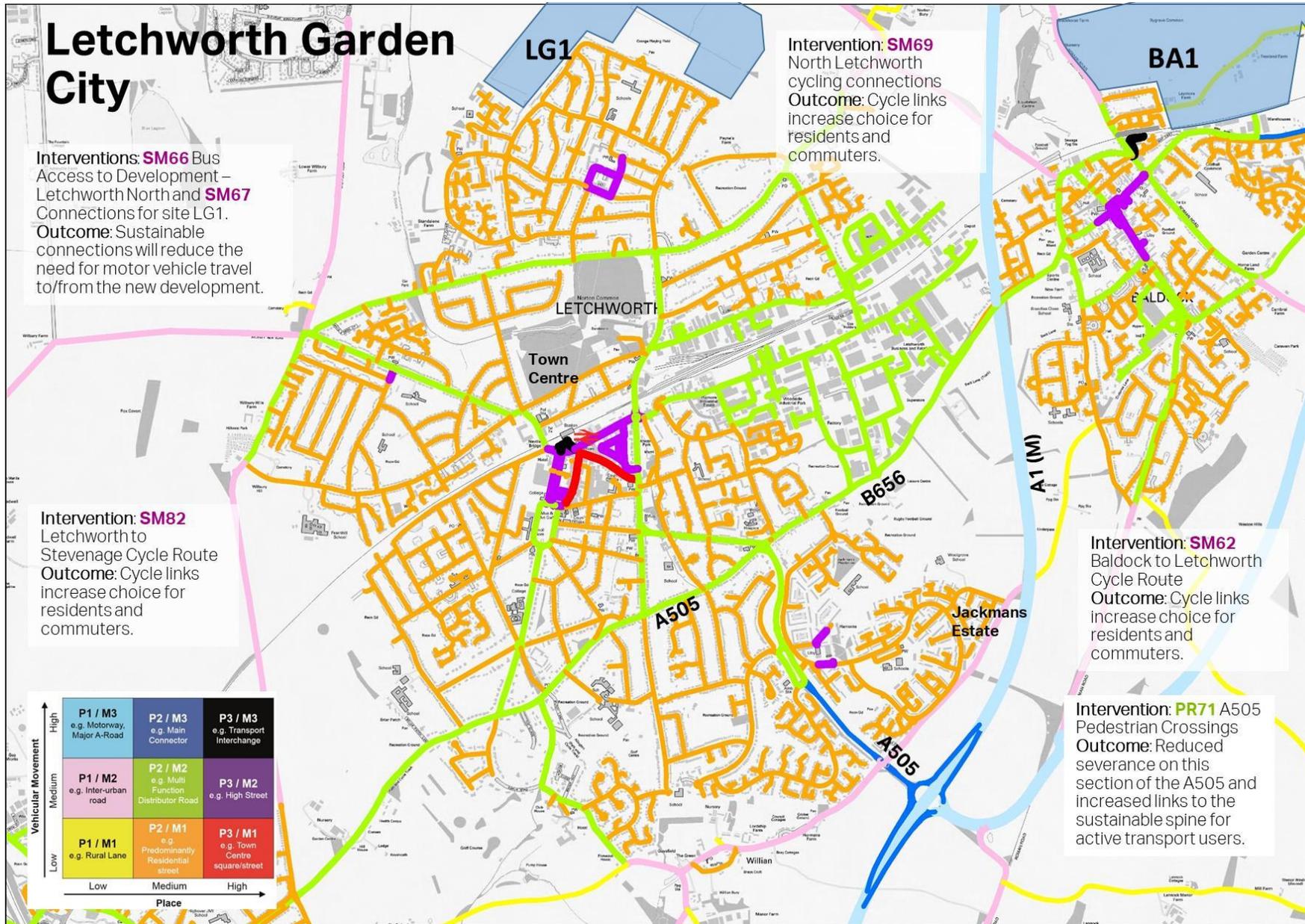
**Interventions: SM58  
and SM59** Cycle  
routes between Hitchin  
town centre, rail station  
and Letchworth via  
A505  
**Outcome:** Safer and  
more attractive cycling  
route to Letchworth

**Intervention: SM39**  
Eastern Entrance to  
Rail Station  
**Outcome:** Walking or  
cycling to the station  
from east Hitchin  
becomes more  
attractive

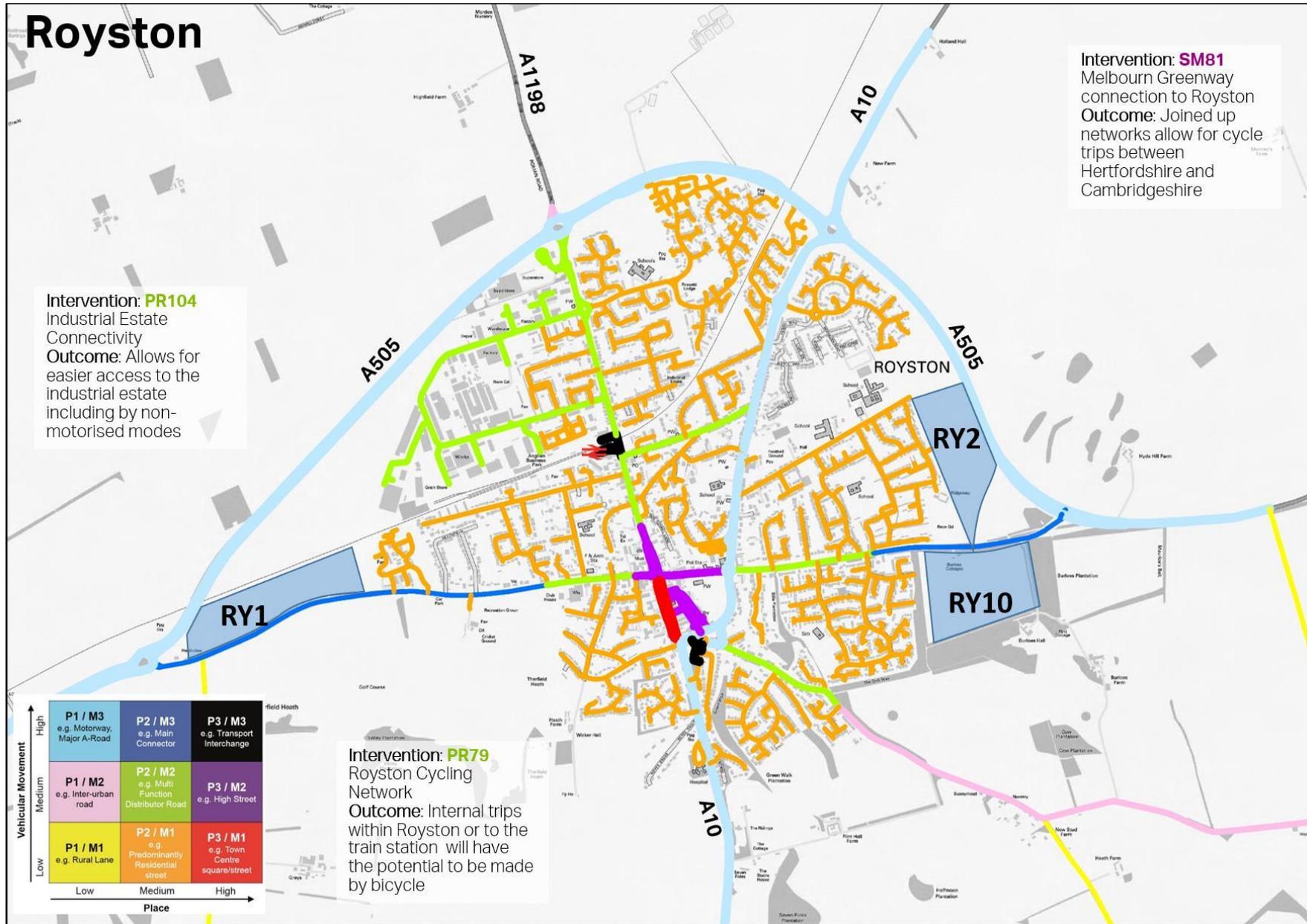
**Intervention: SM29**  
Stevenage to Hitchin  
Cycle Route  
**Outcome:** Safer and  
more attractive cycling  
route to Stevenage

Vehicular Movement	High	<b>P1 / M3</b> e.g. Motorway, Major A-Road	<b>P2 / M3</b> e.g. Main Connector	<b>P3 / M3</b> e.g. Transport Interchange
	Medium	<b>P1 / M2</b> e.g. Inter-urban road	<b>P2 / M2</b> e.g. Multi- Function Distributor Road	<b>P3 / M2</b> e.g. High Street
	Low	<b>P1 / M1</b> e.g. Rural Lane	<b>P2 / M1</b> e.g. Predominantly Residential street	<b>P3 / M1</b> e.g. Town Centre square/street
		Low	Medium	High
		Place		









## Appendix B

A full list of the interventions identified through the NC GTP process is provided below.

Fifteen packages of schemes and projects, concerning areas in North Central Hertfordshire, were identified.

Cost ranges for each intervention are included in the table. However, it should be noted that these are indicative and were based on typical costs of similar implemented interventions (linked with documents referenced).

Similarly, reported timescales relate to past experience based on timescales of typical and implemented interventions, if these were to be delivered in isolation with no third-party involvement, land acquisition difficulties and other constraints.

Interactions with other planned interventions are also considered.

This list provides the basis of an ongoing implementation plan, where costs and timescales will be refined, and delivery mechanisms identified as part of further work.

Intervention ID	Package	Scheme Approach ID / Project	Intervention Name	District(s)	Cost Range	Timescale if delivered in isolation	Interactions
<b>SM3</b>	<b>PK1</b>	-	New bus interchange	Stevenage	£5m-£10m	2-5 years	SVGtc 15SVGtc, 16SVGtc, 17SVGtc,
<b>SM4</b>	<b>PK1</b>	-	Stevenage Rail Station Improvement	Stevenage	£10m-£50m	2-5 years	2LET_SVG, 3SVG_HIT, 5SVG_WH, 15SVGtc, 16SVGtc, 17SVGtc
<b>SM5</b>	<b>PK1</b>	-	Stevenage North-South Bus Corridor	Stevenage	£5m-£10m	5-10 years	2LET_SVG, 3SVG_HIT, 5SVG_WH, 15SVGtc, 16SVGtc, 17SVGtc
<b>SM6</b>	<b>PK1</b>	-	Old Town Centre Gyrotory improvements	Stevenage	£1m-£2.5m	0-2 years	
<b>SM9</b>	<b>PK1</b>	-	Cycle hub at Stevenage Rail Station	Stevenage	£0-£500k	2-5 years	2LET_SVG, 3SVG_HIT, 5SVG_WH, 10SVGe1, 11SVGe1, 12SVGe1, 13SVGe1, 14SVGe1, 15SVGtc, 16SVGtc, 17SVGtc, 18SVGe2, 19SVGe2
<b>SM96</b>	<b>PK1</b>	-	Changes to the function of Lytton Way	Stevenage	£10m-£50m	5-10 years	SVGtc

<b>PR10</b>	<b>PK1</b>	-	Cycle hire	Stevenage	£0-£500k	0-2 years	SVGtc
<b>PR97</b>	<b>PK1</b>	-	Walking and cycling access to the town centre	Stevenage	£1m-£2.5m	0-2 years	SVGtc
<b>PR98</b>	<b>PK2</b>	-	Cycle connections to development allocations to the north and west of Stevenage	Stevenage	£5m-£10m	2-5 years	SVGr6
<b>PR99</b>	<b>PK2</b>	-	Bus services to development allocations to the north and west of Stevenage	Stevenage	£5m-£10m	2-5 years	SVGr6
<b>PR100</b>	<b>PK3</b>	-	Cycle connections to new development to the east and southeast of Stevenage.	Stevenage	£5m-£10m	2-5 years	SVGr4, SVGr5, SVGr7
<b>PR101</b>	<b>PK3</b>	-	Bus services to development allocations to the east and south-east of Stevenage.	Stevenage	£0-£500k	2-5 years	SVGr4, SVGr5
<b>PR27</b>	<b>PK4</b>	-	Bus route 301 improvements	Stevenage, Welwyn Hatfield	£0-£500k	0-2 years	17SVGtc
<b>PR28</b>	<b>PK4</b>	-	Journey Time Reliability through Knebworth London Road/High Street	North Hertfordshire	£500k-£1m	0-2 years	5SVG_WH

<b>SM93</b>	<b>PK4</b>	-	B197 Sustainable Travel Corridor	Stevenage, Welwyn Hatfield	£5m-£10m	2-5 years	5SVG_WH
<b>SM94</b>	<b>PK4</b>	-	Connections to Knebworth development	North Hertfordshire	£500k-£1m	2-5 years	5SVG_WH
<b>SM29</b>	<b>PK5</b>	-	Stevenage to Hitchin Cycle Route	Stevenage, North Hertfordshire	£5m-£10m	2-5 years	HITer1, SVGr2
<b>SM36</b>	<b>PK5</b>	-	Signalisation and Bus Priority - A602 Little Wymondley priority Tjunction	North Hertfordshire	£1m-£2.5m	0-2 years	3SVG_HIT
<b>SM47</b>	<b>PK5</b>	-	A602/B656 Hitchin Hill Roundabout	North Hertfordshire	£500k-£1m	2-5 years	4HIT_LUT
<b>SM48</b>	<b>PK5</b>	-	A505/Pirton Road/Upper Tilehouse Street	North Hertfordshire	£500k-£1m	2-5 years	HITer1
<b>SM84</b>	<b>PK5</b>	<b>a</b>	A1(M) J8 Capacity	Stevenage	£10m-£50m	5-10 years	3SVG_HIT
<b>SM84</b>	<b>PK5</b>	<b>b</b>	A1(M) J8 Capacity and Bus Priority	Stevenage	£10m-£50m	5-10 years	3SVG_HIT
<b>PR57</b>	<b>PK5</b>	-	Stevenage-Luton/Luton Airport Bus	Stevenage, North Hertfordshire, Luton	£0-£500k	0-2 years	15SVGtc, HITer1

<b>SM82</b>	<b>PK6</b>	-	Letchworth to Stevenage Cycle Route	North Hertfordshire	£500k-£1m	2-5 years	2LET_SVG
<b>SM85</b>	<b>PK6</b>	-	B197/A505 junction improvement	North Hertfordshire	£1m-£2.5m	2-5 years	2LET_SVG
<b>PR105</b>	<b>PK6</b>	-	B197 London Road cycle enhancements	North Hertfordshire	£1m-£2.5m	0-2 years	LETr4
<b>PR32</b>	<b>PK7</b>	-	Bus service improvements to Hitchin Station	North Hertfordshire	£0-£500k	0-2 years	HITer1, HIsTs, 4HITts
<b>PR37</b>	<b>PK7</b>	-	Hitchin Station Parking Management	North Hertfordshire	£0-£500k	0-2 years	HITts
<b>PR39</b>	<b>PK7</b>	-	Bus service improvements	North Hertfordshire	£0-£500k	0-2 years	HITer1, HITr4
<b>PR40</b>	<b>PK7</b>	-	On-street bus Interchange in Hitchin	North Hertfordshire	£0-£500k	0-2 years	HITer1, HITr4
<b>PR41</b>	<b>PK7</b>	-	Cycle Facilities at Hitchin Station	North Hertfordshire	£0-£500k	0-2 years	HITer1, HIsTs, 4HITts
<b>SM38</b>	<b>PK7</b>	-	B656 Walsworth Road Pedestrian Priority Corridor	North Hertfordshire	£500k-£1m	5-10 years	HITer1, 4HITts

<b>SM39</b>	<b>PK7</b>	-	Eastern Entrance to Rail Station	North Hertfordshire	£500k-£1m	2-5 years	4HITts, HITts
<b>PR50</b>	<b>PK8</b>	-	Employment Area pedestrian and cycle access	North Hertfordshire	£0-£500k	0-2 years	HITe1, 1HITe1, HITr4
<b>PR51</b>	<b>PK8</b>	-	Hitchin northern loop bus services	North Hertfordshire	£0-£500k	0-2 years	1HITe1, HITts
<b>SM91</b>	<b>PK8</b>	-	Employment Area connectivity	North Hertfordshire	£500k-£1m	5-10 years	HITe1, 1HITe1
<b>SM52</b>	<b>PK8</b>	-	North Hitchin Cycle Route	North Hertfordshire	£1m-£2.5m	2-5 years	1HITe1, 2HITtc, 3HITtc, 4HITs
<b>SM53</b>	<b>PK9</b>	-	Cycle Route	North Hertfordshire	£1m-£2.5m	2-5 years	HITer1, HITr2, HITr4
<b>PR54</b>	<b>PK9</b>	-	Bedford Road Pedestrian Crossings	North Hertfordshire	£500k-£1m	2-5 years	HITer1, HITr2, HITr4
<b>PR55</b>	<b>PK9</b>	-	Access to new development north of Hitchin	North Hertfordshire	£1m-£2.5m	2-5 years	HITer1, HITr3, 3HITtc, HITr4
<b>SM58</b>	<b>PK10</b>	-	Hitchin Rail Station to Town Centre Cycle Route	North Hertfordshire	£1m-£2.5m	5-10 years	4HITts

<b>SM59</b>	<b>PK10</b>	-	A505 and B656 cycle route and junction treatment for cycle priority	North Hertfordshire	£1m-£2.5m	5-10 years	HITer1, HITr3, 3HITtc, LETr5
<b>SM61</b>	<b>PK10</b>	-	Hitchin Rail Station Cycle Hub	North Hertfordshire	£500k-£1m	2-5 years	HITts
<b>PR63</b>	<b>PK11</b>	-	Pedestrian and Cycle network improvements	North Hertfordshire	£500k-£1m	0-2 years	LETr5, 9LETe1
<b>PR65</b>	<b>PK11</b>	-	Letchworth town centre cycle parking	North Hertfordshire	£500k-£1m	0-2 years	LETtc
<b>PR71</b>	<b>PK11</b>	-	A505 Pedestrian Crossings	North Hertfordshire	£500k-£1m	2-5 years	LETr5
<b>SM62</b>	<b>PK11</b>	-	Baldock to Letchworth Cycle Route	North Hertfordshire	£500k-£1m	5-10 years	1, 1LET_HIT, 2LET_SVG, 3SVG_HIT, 4HIT_LUT,
<b>SM63</b>	<b>PK11</b>	-	Letchworth Garden City rail station access and interchange	North Hertfordshire	£0-£500k	2-5 years	LETtc
<b>PR68</b>	<b>PK12</b>	-	Letchworth rail station cycle parking – cycle hub	North Hertfordshire	£500k-£1m	2-5 years	LETtc
<b>SM66</b>	<b>PK12</b>	-	Bus Access to Development - Letchworth North	North Hertfordshire	£500k-£1m	0-2 years	5LETtc, 6LETtc, 7LETtc, 8LETe1, 9LETe1

<b>SM67</b>	<b>PK12</b>	-	Connections for North Letchworth development sites	North Hertfordshire	£500k-£1m	Dependent on the timescales for the proposed development	5LETtc, 6LETtc, 7LETtc, 8LETe1, 9LETe1
<b>SM69</b>	<b>PK12</b>	-	North Letchworth cycling connections	North Hertfordshire	£500k-£1m	0-2 years	LETr5, 9LETe1
<b>PR72</b>	<b>PK13</b>	-	Access to Baldock Station and Sustainable Spine via Icknield Way East.	North Hertfordshire	£500k-£1m	2-5 years	3HITtc, 4HITts
<b>PR73</b>	<b>PK13</b>	-	Baldock rail station cycle parking	North Hertfordshire	£500k-£1m	0-2 years	5LETtc, 6LETtc, 7LETtc, 8LETe1, 9LETe1
<b>PR75</b>	<b>PK13</b>	-	Bus Access to Development in Baldock	North Hertfordshire	£500k-£1m	Dependent on the timescales for the proposed development	5LETtc, 6LETtc, 7LETtc, 8LETe1, 9LETe1
<b>SM74</b>	<b>PK13</b>	-	Walking and cycling connections to Baldock-Site BA1	North Hertfordshire	£500k-£1m	Dependent on the timescales for the proposed development	5LETtc, 6LETtc, 7LETtc, 8LETe1, 9LETe1
<b>SM103</b>	<b>PK13</b>	-	Baldock Multimodal Link Roads	North Hertfordshire	£1m-£2.5m	Dependent on the timescales for the proposed development	6, 7, 5LETtc, 6LETtc, 7LETtc, 8LETe1, 9LETe1
<b>PR76</b>	<b>PK14</b>	-	Sustainable access to Hitchin, Letchworth and Stevenage from eastern A507 corridor.	North Hertfordshire, Stevenage	£500k-£1m	Dependent on the timescales for the proposed development	7SHE_HIT

<b>SM95</b>	<b>PK14</b>	-	Cycle Routes to Henlow Camp and Stotfold.	North Hertfordshire, Central Bedfordshire	£1m-£2.5m	Dependent on the timescales for the proposed development	7SHE_HIT
<b>PR77</b>	<b>PK15</b>	-	Cycle parking	North Hertfordshire	£0-£500k	0-2 years	1HITe1, 2HITtc, 3HITtc
<b>PR79</b>	<b>PK15</b>	-	Royston Cycling Network	North Hertfordshire	£1m-£2.5m	2-5 years	35ROYint
<b>PR80</b>	<b>PK15</b>	-	Royston bus Interchange and improvement	North Hertfordshire	£0-£500k	2-5 years	35ROYint
<b>PR104</b>	<b>PK15</b>	-	Industrial estate connectivity	North Hertfordshire	£0-£500k	2-5 years	ROYe1
<b>SM81</b>	<b>PK15</b>	-	Melbourn Greenway connection to Royston	North Hertfordshire	£5m-£10m	0-2 years	35ROYint

