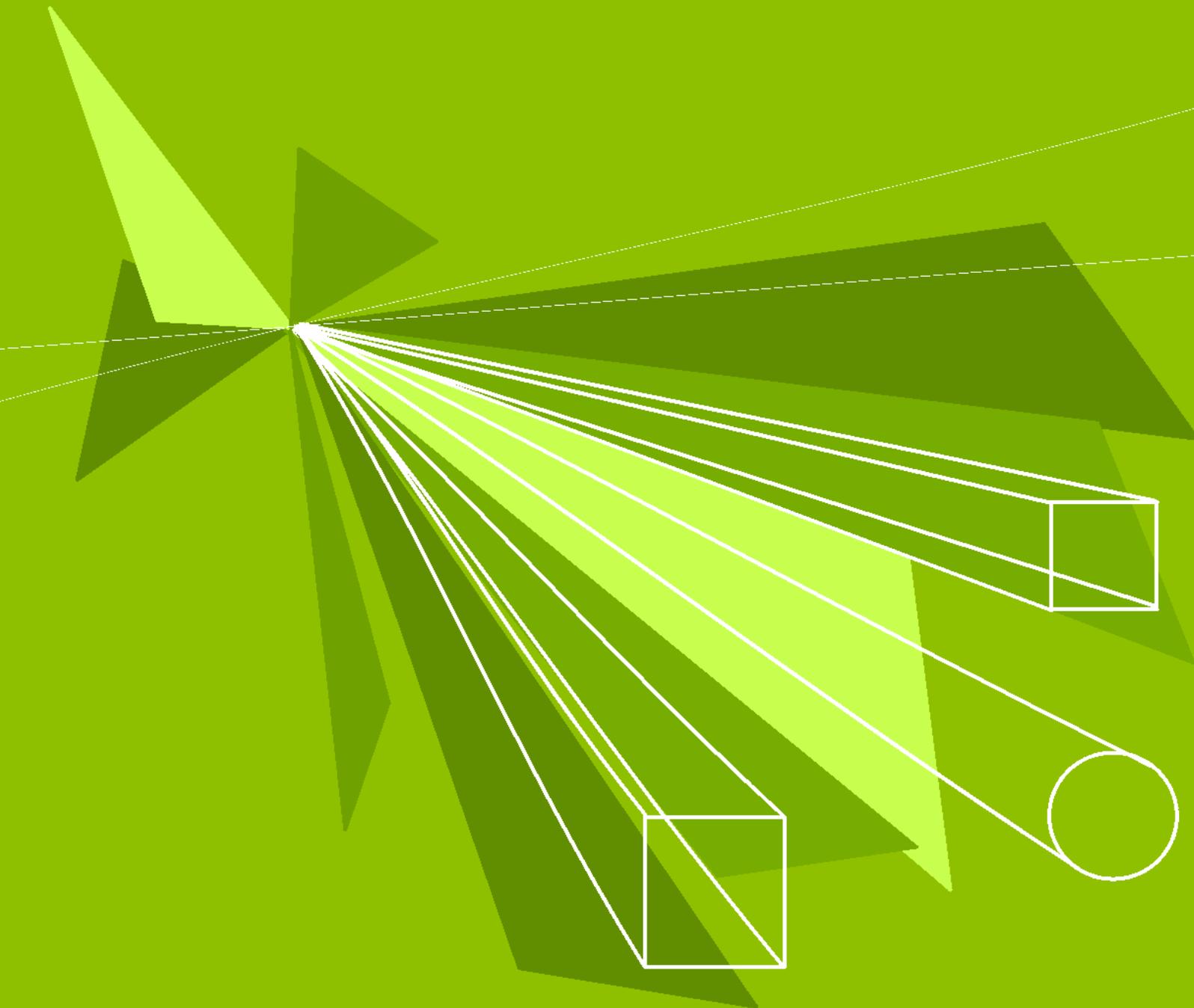


# South East Hertfordshire Growth and Transport Plan Stage 3 Interventions Paper

May 2022



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# 1. Introduction

High quality transport infrastructure and services are not only essential components of both urban and rural functioning communities but are also 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 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 Hertfordshire's fourth Local Transport Plan (LTP4). A GTP is a strategic spatial transport plan developed by Hertfordshire County Council in partnership with key stakeholders, including East Herts District Council, Broxbourne 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 South East Hertfordshire Growth and Transport Plan (SE GTP). The SE GTP area consists of the southern portion of the A10 and West Anglia Main Line corridor and includes the towns of Hertford, Ware, Hoddesdon, Broxbourne, Cheshunt, Waltham Cross and surrounding areas including Goffs Oak and Cuffley. The study area also extends out of the Hertfordshire County boundary to include interactions with Harlow and Enfield<sup>1</sup>.

As shown in Figure 1 this is the third paper within the SE GTP. This paper provides an in-depth description of the proposed intervention packages developed based on analysis of the existing

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<sup>1</sup> The SE GTP area overlaps with the Eastern Area GTP, which is being developed in parallel. E GTP largely consists of detailed interactions within the towns of Bishop's Stortford and Sawbridgeworth, and including inter-urban interactions between Bishop's Stortford, Sawbridgeworth, Harlow, Stansted Airport, Cambridge, Hertford, Ware and others.

evidence base and assessment of transport networks and services against the SE GTP objectives undertaken at Stage 2.

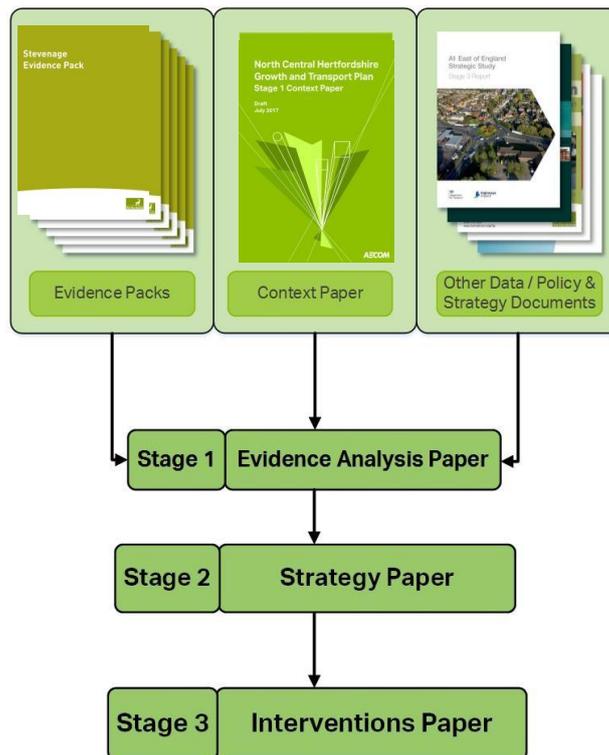


Figure 1 - GTP Stages

## Report Structure

This report is composed of the following sections:

**Section 2** provides a spatial portrait of South East Hertfordshire (discussed in more detail in the Stage 0 context paper) and refers to the inter-urban and local interactions within the area.

**Section 3** describes the local policies and objectives from Hertfordshire County Council’s Local Transport Plan 4 which provides the backdrop to the GTP.

**Section 4** summarises the method used in identifying interventions (a more detailed description is provided in the Appendix).

**Section 5** summarises the twenty-three categories of interventions used in this GTP (a more detailed description of each category is contained in the Appendix).

**Section 6** summarises the GTP Intervention Hierarchy which is used to distinguish smaller/simpler interventions from larger/complex ones and discusses the influence of potential strategic interventions on the GTP area – these are not specifically proposed in the GTP but could prove critical in the successful delivery of GTP packages of interventions - and presents the GTP proposals which are presented in the form of forty-one packages.

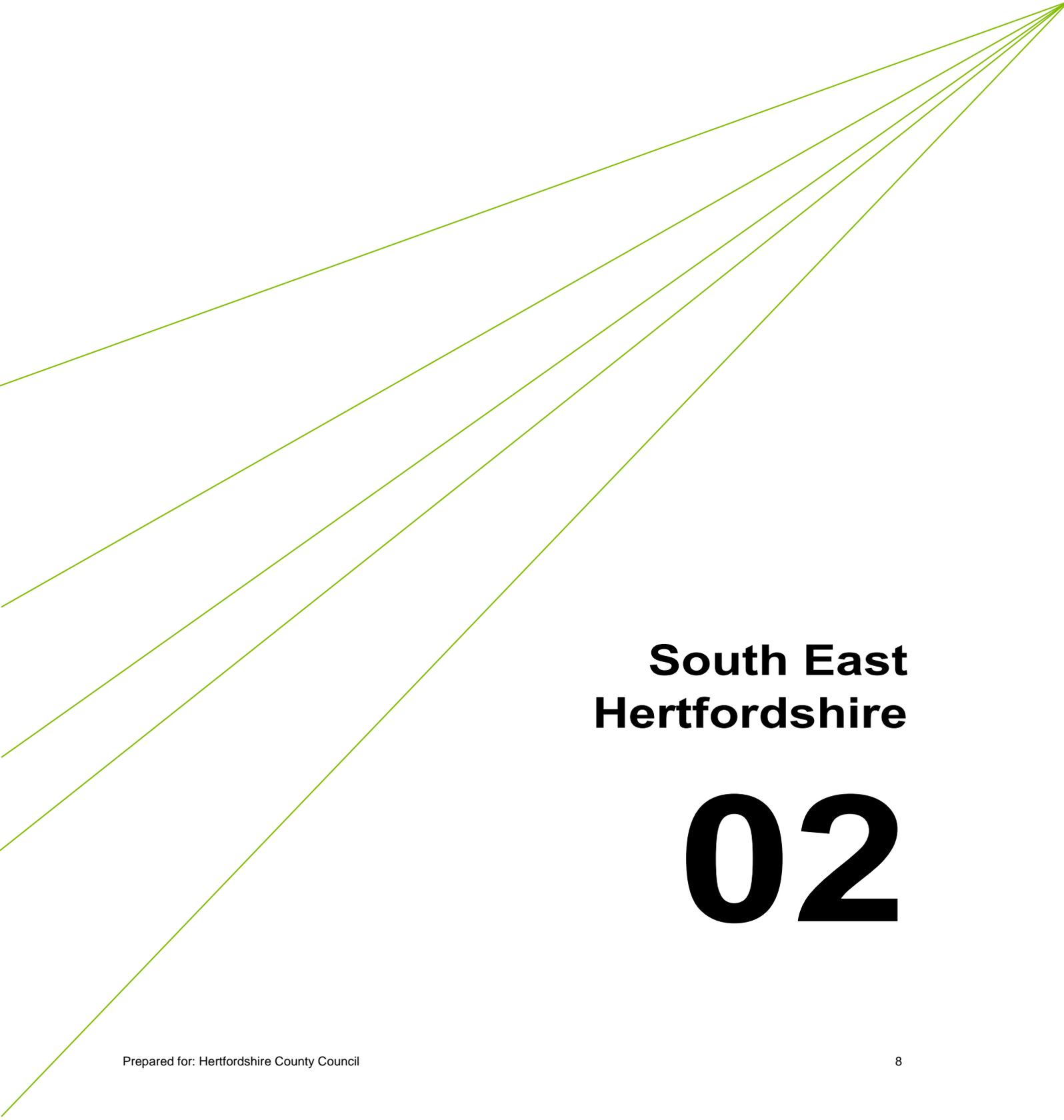
**Section 7** considers how the GTP proposals could change the form and function of roads, and how it is important that in delivering LTP4 policies, the importance of place is not ignored in favour of prioritising the movement of traffic.

**Section 8** concludes the GTP.

**Appendix A** contains a detailed description of the methodology including the intervention categories.

**Appendix B** contains a table with important details for each intervention including early indicative cost range estimate.

**Appendix C** includes a ranking assessment of each intervention against LTP4 objectives.



# South East Hertfordshire

# 02

## 2. South East GTP

The SE GTP area includes Hertford, Ware, Harlow, Hoddesdon, Broxbourne, Cheshunt, Waltham Cross, Cuffley, Goffs Oak and extends out of the Hertfordshire area to include Harlow. Overall, the SE GTP area represents approximately 10% of Hertfordshire's total population and consists of a mixture of dense urban settlements in Broxbourne along the A10 corridor, standalone towns (such as Hertford and Ware) and countryside clustered around strong north-south transport corridors including the A10, West Anglia Main Line (and the adjoining Southbury and Hertford East branch lines) as well as the Lee Valley Park which forms an eastern buffer to the Broxbourne towns. Towards the northern part of the GTP area, the A414 is a dominant east-west highway route which runs through the middle of Hertford and connects Hertfordshire and Essex.

The SE GTP is strongly influenced by Harlow and London, with many of the existing transport links connecting to these destinations, due to their large employment base. Many of the towns within the SE GTP area have areas of employment including: Mead Lane Business Area and Foxholes Business Park (Hertford), Hertfordshire County Council and East Herts District Council (Hertford), Marsh Lane Business Area (Ware), Hoddesdon Business Park, Brookfield Retail Park and Park Plaza (Cheshunt). Each area serves as important employment providers for the surrounding area. More generally, the town centres also provide a source of employment.

Several major strategic transport corridors are in close proximity to the SE GTP area, including the M25 London orbital, M11 London-Cambridge motorway and A1(M).

There are several congestion hotspots on key highway connections. The most notable occur on the roads intersecting the A414 and A10 such as the A10/M25 Junction 25, A10/B198, and A414 Amwell roundabout. Traffic congestion is prevalent in Hertford where the A414 runs through the middle of the town, and this also leads to air quality issues and creates severance between different parts of the town. As such, the A414 (Gascoyne Way) has been determined by East Herts District Council as an Air Quality management area (AQMA).

While the SE GTP area is relatively compact spatially and served by main line rail services linking to London as well as Stevenage and Cambridge, most trips are made in a private vehicle and motor traffic has a dominant impact on how residents make use of public space. For instance, in the case of Hertford and Ware, the dominant mode of travel to work is car trips (accounting for around 66% of commuting trips)<sup>2</sup>.

The county town of Hertford benefits from good rail and road connections. Hertford has two railway stations, Hertford North located in the western part of the town on Great Northern Hertford Loop line which connects to Stevenage to the north and Greater London to the south and Hertford East which is located closer to the town centre on the branch line which connects into the West Anglia Main Line, which routes via the Broxbourne Towns towards Greater London.

Hertford is dominated by the presence of the heavily trafficked A414 east-west highway corridor. This largely comprises a dual carriageway road and separates the northern and southern parts of the town (the town centre lies to the north of the A414). Other key road links include A119 linking Hertford to Ware in the east, and Watton-at-Stone to the north; the B1000 linking Hertford with Welwyn Garden City; and the B158 which links Hertford with Brookmans Park. The strategic A10 route connecting Cambridge with North East London runs to the east of the town. Both the River Beane and River Lea run through Hertford.

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<sup>2</sup> Figure from HCC Hertford & Ware Evidence Pack (2018)

Ware benefits from good transport connections to both local and wider destinations. The station is south east of the town and is served by the West Anglia Main Line, running between Hertford East and London Liverpool Street. There are a number of buses connecting to other urban areas in Hertfordshire, including, but not limited to: Stevenage, Royston, Hatfield, Hertford and Cheshunt.

Ware is bounded by the A414 to the south of the town and the A10 to the west. The River Lea runs through the centre of the town. While there is little formal cycling provision in the town centre, part of the National Cycle Route 61 runs south of Lea Valley linking to St Albans.

Harlow has a strong influence on the SE GTP in terms of employment and transportation. Harlow has well connected and frequent bus services running through the town centre, with a bus network that consists of over 300 bus stops. The town is served by two rail stations – Harlow Town and Harlow Mill stations, which are both on the West Anglia Main Line.

A key north-south route in Harlow is the M11 motorway east of the town, that connects to the A414 at Junction 7. The A414 also runs east-west connecting to A1184 and other parts of Hertfordshire such as Hertford and Hatfield. The east-west route A1025 and north-south route A1019 both run to the town centre, while the A1169 is an east-west route that passes through Lister Medical Centre and Staple Tye shopping centre. Harlow has good cycling provisions with a number of local cycle routes and the National Cycle Route 11 passing around and through the city. The national cycle route runs approximately east-west in Harlow and has a combination of off-road and on-road routes.

The road network in Hoddesdon consists of the A1170 a north-south route that links to Ware, Broxbourne and Amwell village and passes through central Hoddesdon. High Street is the main north-south road passing through the town centre and Dinant Link Road is an important east-west connection to the A10.

Hoddesdon is served by Rye House rail station, which is on the Hertford East branch line of the West Anglia Main Line. Broxbourne station is an alternative to Rye House station and is also on the West Anglia Main Line. Both stations have services that link to London Liverpool Street and Hertford East. There are limited bus services and cycling facilities with the main cycling route south of the town centre disjointed along the A1170. The National Cycle Route 1 pass east of Hoddesdon near River Lea and Lee Valley Park and the National Cycle Route 61 passes through Rye House station. The Hertford South Circular cycle route also passes west of Hoddesdon along Lord Street and Rose Vale/Park View.

Broxbourne is traversed by the A10, a major north-south corridor of a dual 2-lane carriageway for much of its length. The road comprises a major barrier for the town, as there are very few opportunities to avoid joining the A10 if travelling east-west across Broxbourne.

Broxbourne is served by a single railway station on the West Anglia Main Line and has connections to London Liverpool Street, Hertford East, Bishop's Stortford and Cambridge. It has a limited number of bus services and cycling facilities with the main cycling route disjointed along the A1170. The National Cycle Route 1, however, passes east of Broxbourne near River Lea.

Cheshunt is bounded by the West Anglia Main Line to the east and the A10 Great Cambridge Road in the west. The main routes through the town include Windmill Lane that leads east to Cheshunt rail station, B198 east that intercepts the A10 and B176 Turners Hill that connects to the town of Waltham Cross and Theobald Grove station.

Cheshunt has direct services to London Liverpool Street and London Stratford, as well as to Cambridge, Harlow, Hertford (East) and Stansted Airport to the north. Bus services in Cheshunt are of variable frequency, while cycling infrastructure consists of the National Cycle Route 1 that runs east of the town in a north-south direction and a combination of dedicated and shared use cycle lanes.

Waltham Cross is bypassed by the A1010/A121 Monarchs Way urban dual carriageway which connects into the A10 to the northwest of Waltham Cross. The M25 motorway runs east-west along

the southern edge of Waltham Cross and reduces severance for people travelling between Waltham Cross and the London Borough of Enfield.

The figure overleaf provides a broad indication of the SE GTP area.

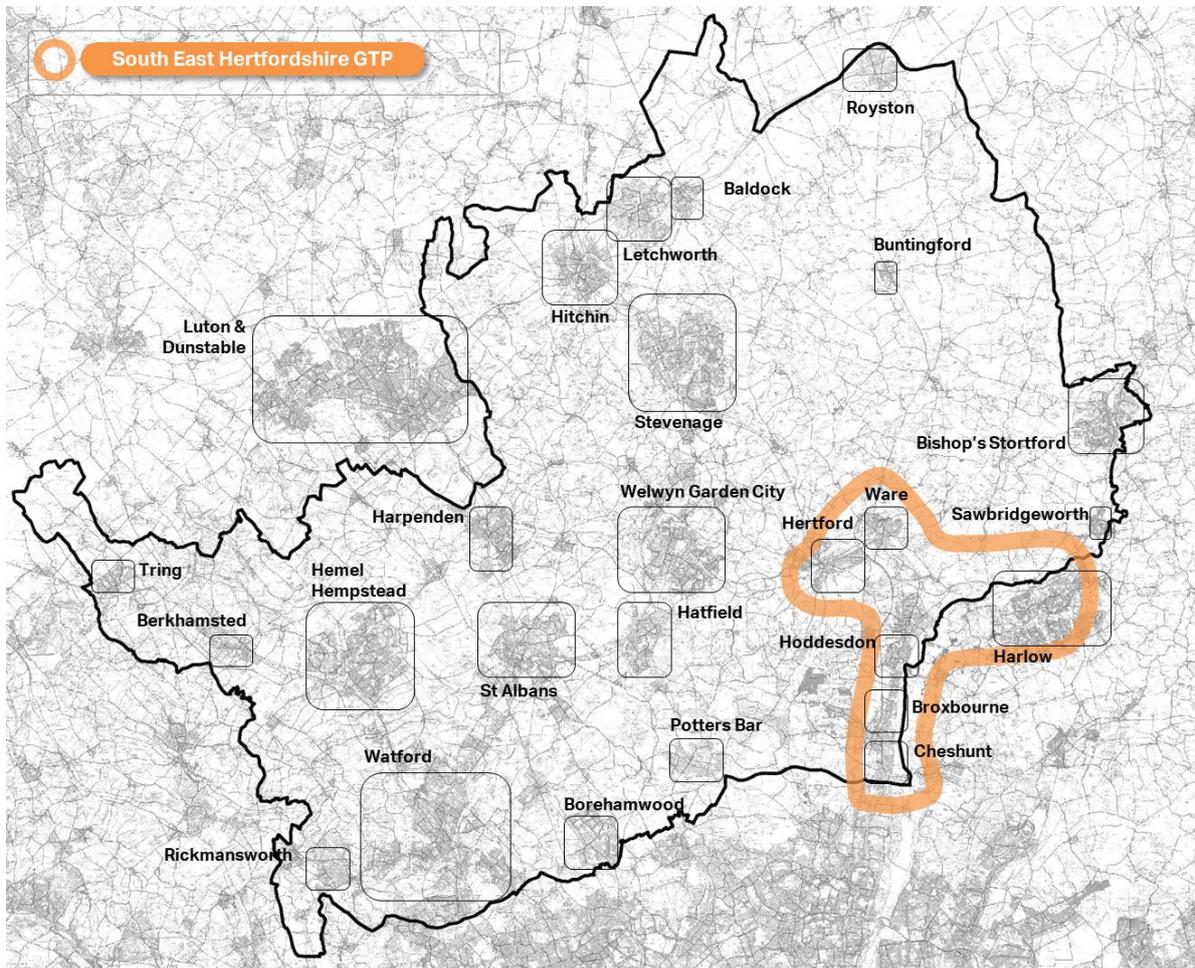
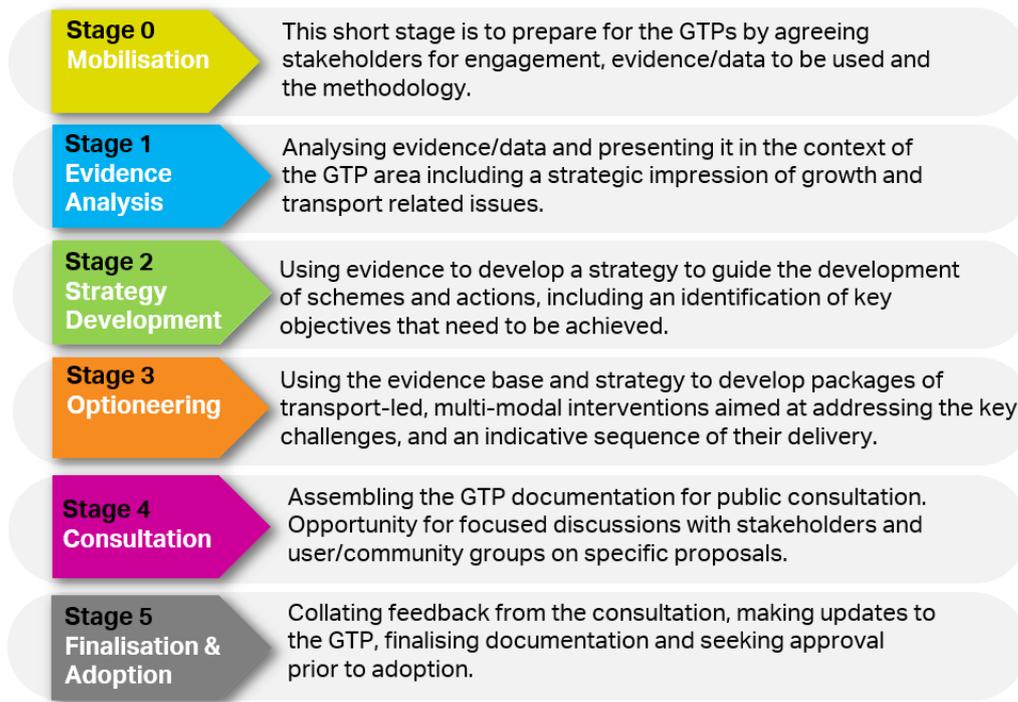


Figure 2 – SE GTP Area

The SE GTP has been developed over a series of stages as listed below:



**Figure 3 - Stages of developing a GTP**

This report covers Stage 3 – Optioneering and should be read in conjunction with the following:

- **Stage 0 Context Paper** – this paper sets the scene in terms of what the GTP is aiming to achieve, and policy and growth context for the area
- **Stage 1 Evidence Analysis Paper** – this paper summarises the evidence which has been analysed to determine what are the key challenges. This paper identifies the more important local urban and inter-urban transport routes which form the structure for identifying priorities and interventions. These transport routes are referred to as Interactions.
- **Stage 2 Strategy Paper** – this paper considers the priorities for each Interaction and considers the impact on place and movement.

Together with the Stage 3 Interventions Paper, these documents form the GTP portfolio.

This stage covers the development of Interventions for inter-urban and local interactions identified during Stage 1 and assessed during Stage 2.

## Interurban Interactions

Interurban interactions represent travel corridors between two urban areas through countryside. The data used in reviewing these interactions is 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.

Below is the list of 7 inter-urban interactions of the SE GTP. These are not listed in order of priority:

- 1 Hertford ↔ Ware
- 2 Hertford/Ware ↔ Broxbourne Towns
- 3 Welwyn Garden City/Hatfield ↔ Hertford/Ware
- 4 Stevenage ↔ Hertford/Ware
- 5 Bishop's Stortford/Sawbridgeworth/Harlow ↔ Hertford/Ware

- 6 Bishop's Stortford/Sawbridgeworth/Harlow ↔ Broxbourne Towns
- 7 Broxbourne Towns ↔ Enfield

## Local Interactions

Local interactions cover short distance movements occurring within one urban area and these were categorised into zones, residential, employment and town centres. More detail on these can be found in the Stage 1 Evidence paper.

Below is the list of 21 local (urban) interactions of the SE GTP. These are not listed in order of priority:

- 1 Ware West
- 2 Ware North
- 3 Ware Town Centre
- 4 Between Ware and Hertford
- 5 Hertford Town Centre
- 6 A414 through Hertford
- 7 Hertford West
- 8 Hertford North
- 9 Hertford South
- 10 Stanstead Abbots and St Margarets
- 11 Hoddesdon North
- 12 Hoddesdon East
- 13 Broxbourne North
- 14 Broxbourne South
- 15 Theobalds Grove
- 16 Cheshunt East
- 17 Cheshunt West
- 18 Hammond Street
- 19 Brookfield
- 20 Goffs Oak and Cuffley
- 21 Waltham Cross

These inter-urban and local interactions within the GTP area provided the basis for the identification of relevant interventions that would best serve the key movements across the GTP area. More details on the way these interactions were identified and scored can be found in the Stage 1 Evidence paper and Stage 2 Strategy paper. The methodology that was followed, as well as the description of each of the proposed interventions are presented in subsequent sections of this report.



## **Policy Context**

# **03**

### 3. Policy Context

The purpose of the GTP is to identify interventions which could deliver the policies set out in HCC’s Local Transport Plan 4 (LTP4).

The local planning authorities’ Local Plans are also important to acknowledge. Local Plans set out where new homes and jobs will be located and identify what type of infrastructure is needed to help facilitate growth.

Below is a brief summary of some of the key objectives and policies in LTP4 which form a backdrop for the types of proposals put forward in this GTP.

LTP aims to deliver nine transport objectives which contribute strongly to the Place, Prosperity and People elements of the vision. Cutting across the objectives are four principles guiding activity, which should be features common to activities to manage and improve the transport system.

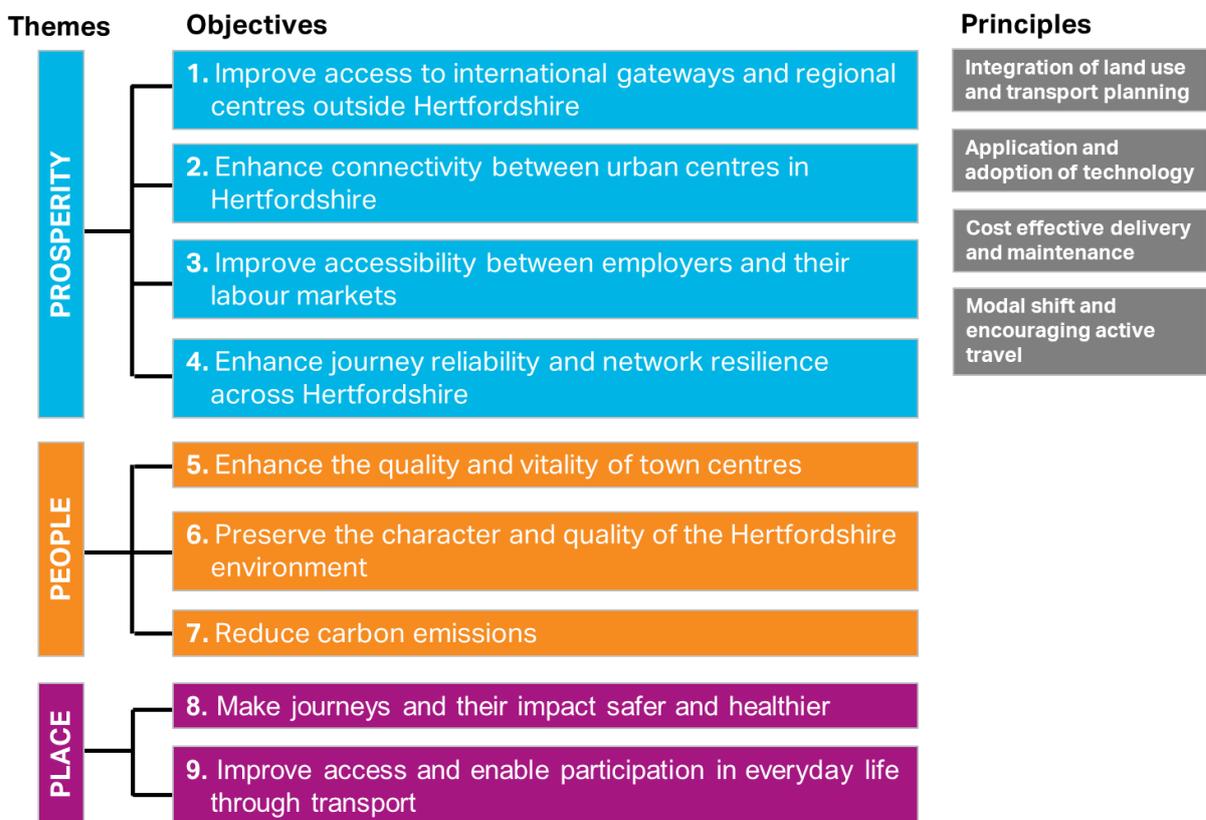
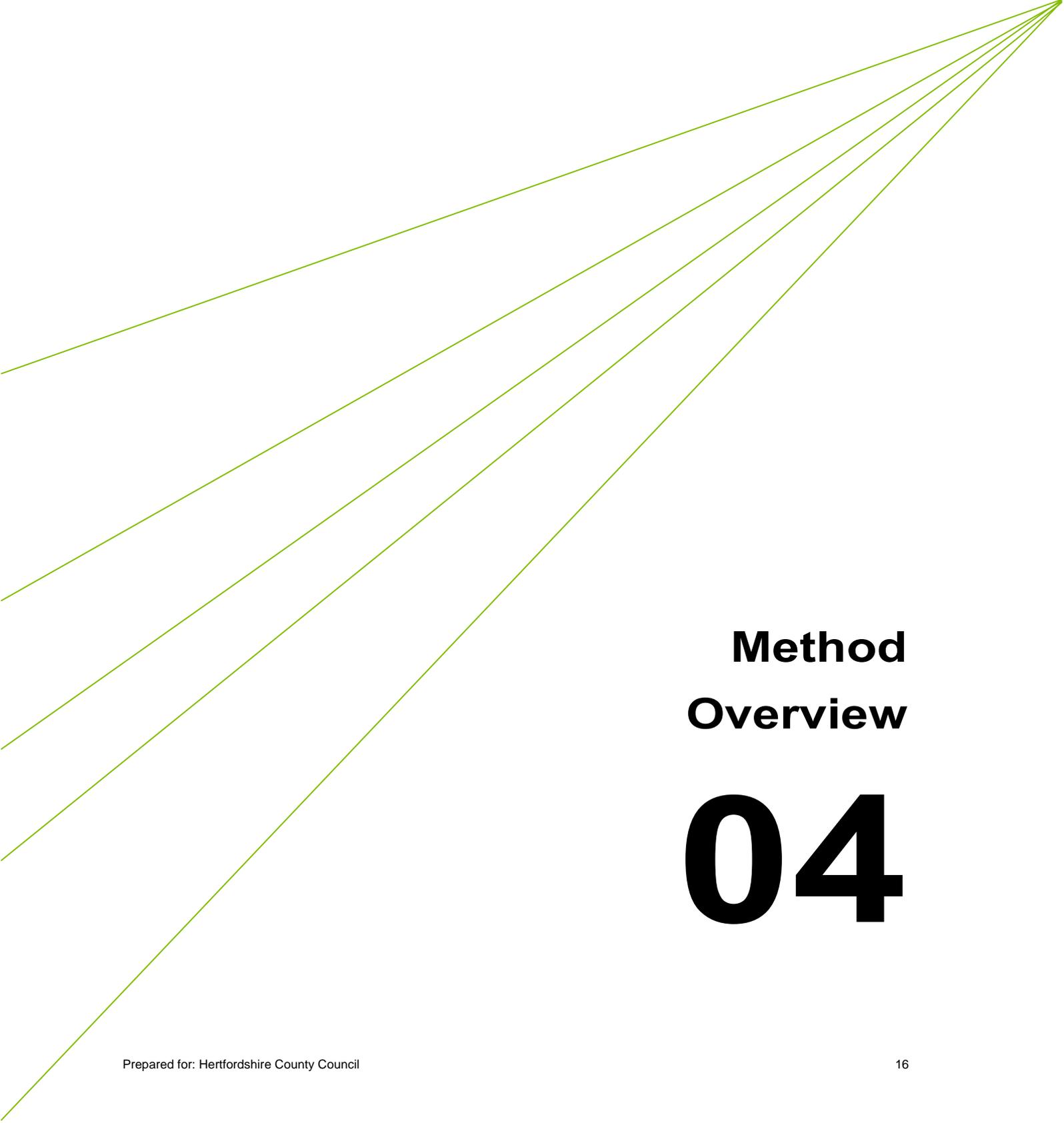


Figure 4 - Hertfordshire LTP4 Objectives and Principles

These objectives and principles are translated into a series of policies in LTP4. Reference should be made to LTP4 for a more detailed discussion of all policies.



# Method Overview

# 04

## 4. Method Overview

This section of the report briefly summarises the methodology that has been followed to identify the proposed Packages of Interventions. A more detailed description of the methodology is contained in the Appendix.

### Task 1 – Previously Identified Interventions

A series of studies and strategies have already been developed in the GTP area which have identified transport interventions that are required. It is important to recognise these in order to ensure that additional interventions identified through the GTP are compatible and they will help to deliver local policies and priorities. Reference has been made to a range of documents including the Broxbourne Transport Strategy and local planning authorities' Infrastructure Delivery Plans.

### Task 2 – Newly Identified Interventions

This task has involved a process of optioneering new interventions in line with the evidence presented at Stage 1 and the priorities and broad strategies for each Interaction presented at Stage 2. Reference should be made to the Stage 1 Evidence Analysis paper and Stage 2 Strategy paper accordingly.

Interventions are aligned to one of 23 intervention categories, the purpose of which is to simplify and standardise the optioneering process, and therefore be clearer how interventions can help meet local policies and priorities. The intervention categories are described in Section 0 of this report.

Each intervention category is scored according to the HCC User Hierarchy (Policy 1 of LTP4), with a higher score given to categories of interventions which favour pedestrians, cyclists and public transport users, and a lower score given to categories of interventions which favour motorists. The purpose of the scoring is to guide the development of options and ensure that more emphasis is placed on sustainable travel choices, where this is a feasible option, as this will better align with local policy.

Interventions are defined as non-detailed concepts. The reason for this is to recognise that more detailed investigations and consultations with local people will need to take place after completion of the GTP, and that this process can in some cases take several years. This means that the GTP does not present drawings to indicate what the intervention will look like or the precise area of land it will occupy.

Interventions have been categorised according to a GTP Intervention Hierarchy. This is intended to distinguish larger and more complex interventions which take longer to develop and deliver, from smaller and simpler interventions which could be developed and delivered in a much shorter timeframe. The purpose of this is to help HCC and the local planning authorities understand and plan future priorities and programmes of work.

An indicative cost range estimate is also identified for each intervention. The cost ranges are intentionally large to allow for the level of uncertainty around many of the interventions.

An indicative timeframe is also identified for each intervention. This is intended to provide a broad indication of how long it may take for an intervention to be developed and implemented. It is not intended to indicate for certain when an intervention will be implemented.

The intervention hierarchy is described in Section 4 of the report.

## Task 3 Correspondence Checks and Packaging

The lists of previously identified Interventions (Task 1) and newly identified Interventions (Task 2) are compared to check if they complement or clash with one another. This process would then lead to changes being made to newly identified Interventions, either by changing their scope or removing them altogether.

A process of Packaging the interventions into groups has then occurred. These Packages are intended to highlight the shared objectives and combined benefits that may be generated if interventions are delivered together.

Each intervention has been assessed against LTP4 objectives. This provides an indication as to what extent the county council's overarching objectives could be achieved and highlight where objectives could be negatively impacted, in which case this may need to be investigated further when/if interventions are taken forward.

Reference should be made to **Appendix A** which provides a more detailed description of the methodology followed.

## Place and Movement

Hertfordshire's highway network includes a wide variety of different types of roads with different purposes, each carrying different levels of traffic, with different standards of provision for different users of the highway network and different surrounding land uses which influence how roads are used.

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 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 overleaf.

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.

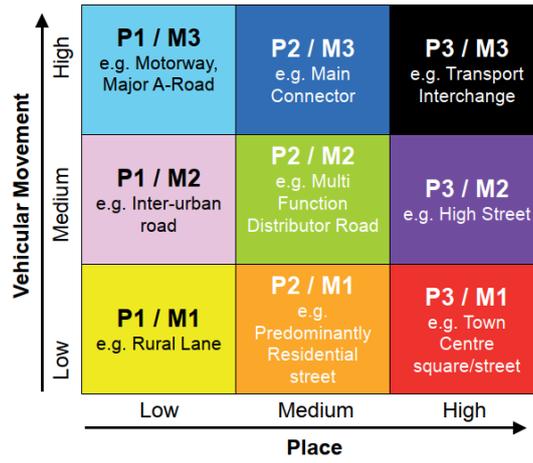
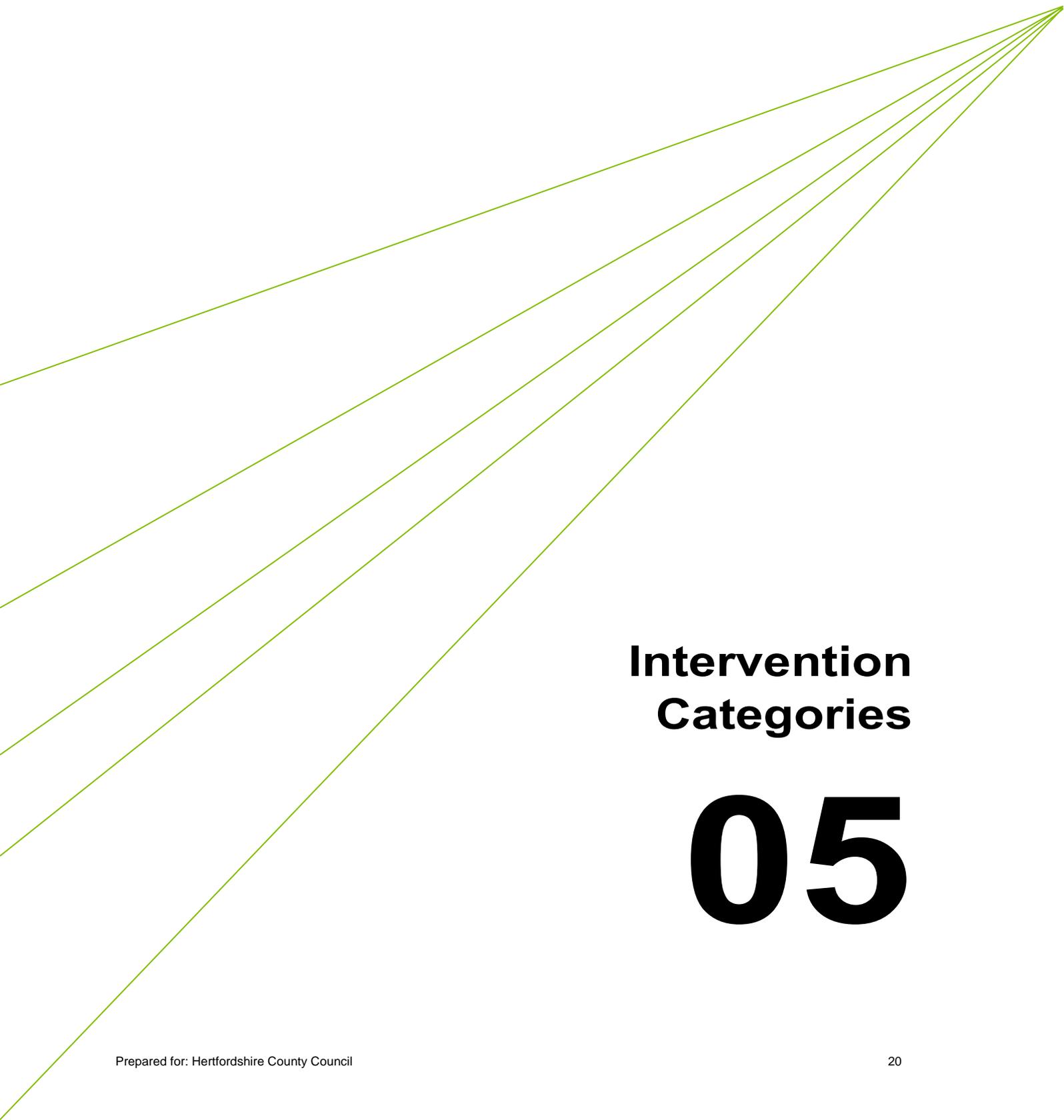


Figure 5 - Hertfordshire Place and Movement Matrix



# **Intervention Categories**

# **05**

# 5. Intervention Categories

A set of 23 categories of interventions have been defined for the GTP. The categories represent ‘toolbox’ of interventions which local authorities such as HCC could use to address a particular problem today. In the future, as technology, governance and travel behaviours evolve, new categories of interventions could become available to HCC, including those which respond to the development of autonomous vehicles, faster broadband speeds etc, and this may warrant a reappraisal of options at a later point in time.

Each category has been scored according to how they align with LTP4 Policy 1 User Hierarchy with a higher score indicating a better alignment with policy:

**Table 1 - LTP4 Policy 1 User Hierarchy**

Rank	User Hierarchy	Score
1	Opportunities to reduce travel demand and the need to travel	5
2	Vulnerable road user needs (such as pedestrians and cyclists)	4
3	Passenger transport user needs	3
4	Powered two-wheeler (mopeds and motorbikes) user needs	2
5	Other motor vehicle user needs	1

Each category of interventions is summarised in the table below. A more detailed description of these intervention categories is provided in the Appendix.

**Table 2 - GTP Intervention Hierarchy**

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
5	Policy Parking management	Parking management can help to deal with traffic, improve air quality, ensure better road safety and increase utility of the land resource, and it can further encourage trips by public transport, active modes and manage/reduce travel demand. Public revenue from parking fee can help cross-subsidize non-car modes.	IC14
5	Policy - Sustainable transport upgrade/ plan	Sustainable transport upgrades can include strategies that are aimed at promoting sustainable travel, improving safety, shared mobility and increased accessibility whilst it can help reduce congestion, increase air quality, influence	IC15

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		travel behaviour and reduce car dependence. Such plans can also manage/ reduce travel demand.	
5	Travel demand management - Speed limit review and improve active travel	Introducing revised speed limits and improving infrastructure for active travel along a corridor/ area may attract more people towards active travel and increase active travel mode share and can manage/ reduce travel demand. It will improve safety of cyclists and pedestrians.	IC21
4	Cycle Parking	This category of interventions would provide sufficient cycle parking at an activity centre or transport interchange, which may increase cyclist's confidence on availability of safe, secure parking at their destination. This is essential to enable people to make more trips by cycle and may help increase mode share of cycle alongside other improvements to cycle routes.	IC2
4	Junction Improvements - walking and cycling/ new bridge	This intervention would increase access and safety of pedestrians and cyclists at junctions, along with improved mobility and accessibility. It may reduce public concerns/ fear of being involved in a collision, long waiting time at junctions and confronted with traffic.	IC9
4	Walking and Cycling Network Improvement	Improvement in walking and cycling infrastructure in a corridor/ area will improve safety of cyclists and pedestrians. This could increase attractiveness of active travel and increase active travel mode share. Interventions in residential area, town centres, access routes of transport interchanges and schools would help local interactions and modal shift towards active modes.	IC22
4	Wayfinding/ Signage	This intervention would increase wayfinding for pedestrians and cyclists. This may reduce journey time of active modes, increase their comfort and make them more attractive.	IC23
3	Junction Improvement – bus	Bus priority at junctions would decrease bus journey time and would make bus travel more attractive. This can lead to increase in bus patronage.	IC6
3	Multi-modal interchange improvement	Improved multimodal interchanges may have widespread impacts of improving accessibility for both inter-urban and local trips. It would increase journey time reliability, inter-modality and interoperability. Urban realm/ placemaking	IC10

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		interventions at the interchange may improve a bus and rail interchange's physical and aesthetic condition, which would influence travel choices and make public transport a more attractive choice.	
3	Policy - Marketing	Marketing/ communication strategy can facilitate project delivery, keeps stakeholders and customers informed, prioritize investments, build trust with community and in the long run can help investment in sustainable transport. It can help promote and encourage the use of public transport, walking and cycling.	IC12
3	Policy Ticketing <sup>3</sup>	Mobile/ online ticketing of public transport services can reduce boarding time, increase reliability of the system, increase customer satisfaction and reduce cash handling.	IC13
3	Policy - Travel Plans	Travel Plans can reduce cost of travel, reduce journey times and help deliver travel demand management benefits. It can help promote and encourage the use of public transport, walking and cycling.	IC16
3	Public Transport - Bus Stop Upgrades	Bus Stop Upgrades would improve the perception and image of bus services, whilst improving comfort level of bus users when they wait for buses at bus stop. It will have potential to affect many local interactions across the GTP area. This intervention has the potential to attract people towards bus service and increase user satisfaction.	IC17
3	Public transport – Bus Service Improvement	Bus service improvement can improve the provision of bus services. This may include introducing a new bus service, re-routing an existing bus service, increasing the frequency of an existing service or implementing bus priority measures to improve bus journey times. These types of measures would potentially increase bus patronage and have a positive impact on air quality if there is a significant mode shift to bus.	IC18
3	Public Transport -	Rail improvement in terms of increased capacity may help reduce crowding in rail, increase user comfort/ satisfaction and enable mode shift to rail. This can reduce	IC19

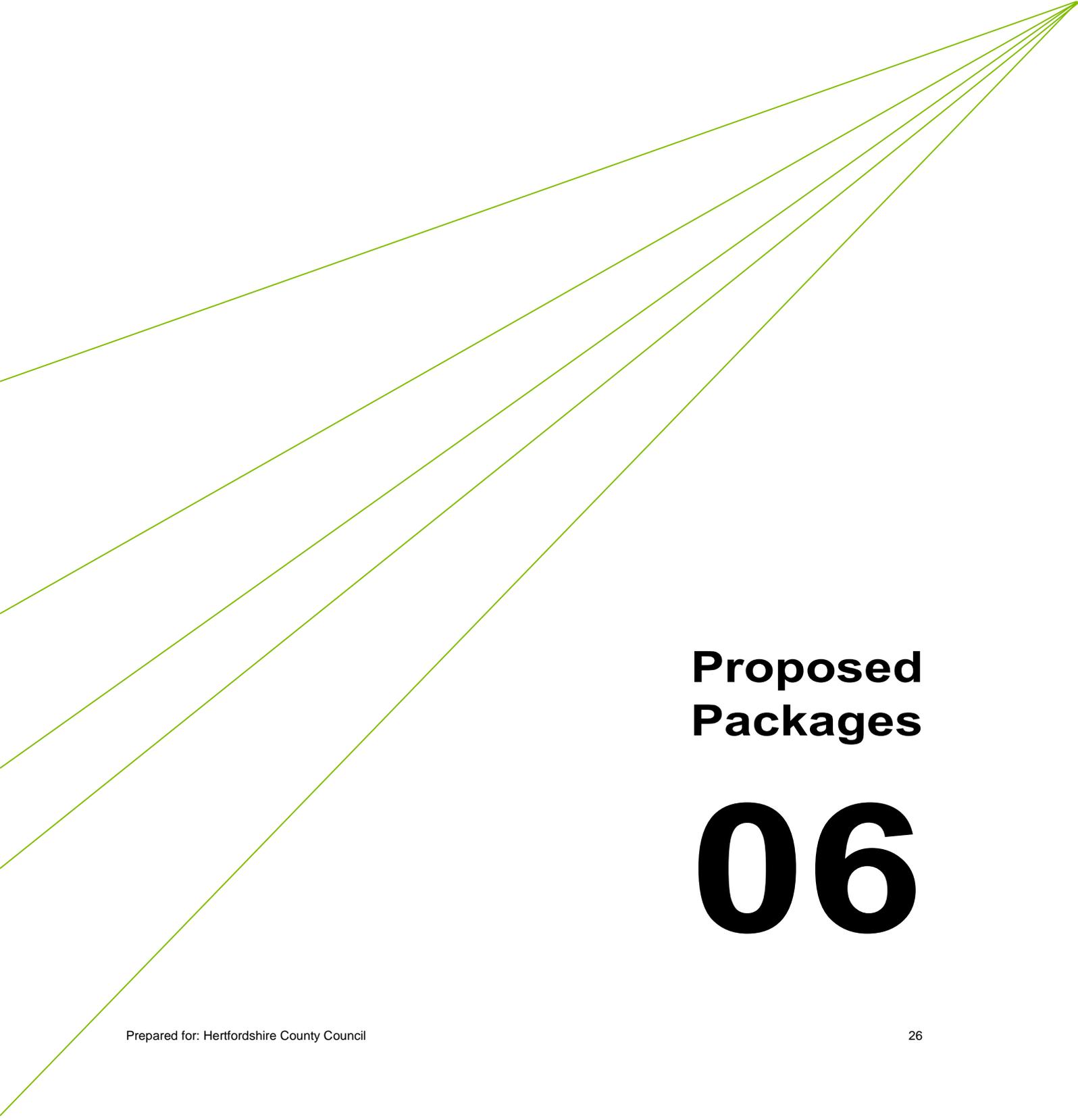
<sup>3</sup> This category is currently included in the packaging of newly developed Task 2 interventions. However, at a later stage these ticketing interventions could be removed from the packages and treated separately as area-wide interventions that may also help in achieving Ticketing Policy objectives of integrated ticketing/ E-ticketing for improved inter-modality (transfer tickets).

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
	Rail Improvement	car dependence as rail may become more attractive than car.	
3	Public transport - Real Time Information	This category of interventions can potentially increase reliability of public transport and help in journey planning.	IC20
1/2/4	Highway, Walking and Cycling Network Improvement	This intervention would increase capacity, improve the flow of traffic; increase access and improve safety of pedestrians and cyclists along a route, with improved mobility and accessibility.	IC4
1/2/4	Junction Improvements - Highway, walking and cycling	This intervention would increase capacity and improve the flow of traffic; and increase access and safety of pedestrians and cyclists at junctions, along with improved mobility and accessibility.	IC8
1	Car Park - Real Time Information	This category of interventions can potentially have positive effects on local traffic as it would mitigate traffic rat running to find parking. It can help save journey time, reduce congestion and may influence travel choices in longer term.	IC1
1	Highway Improvement - New road link	New road links can facilitate strategic development and gain access to an important inter-urban corridor and provides link to Local Interactions. They can help in improving connectivity in an area, reducing journey time and increasing network capacity. They can mitigate impacts on some existing roads if they can successfully reduce rat-running.	IC3
1	Highways Improvement	This intervention would increase capacity and improve the flow of traffic. Increased traffic capacity may increase car dependency and could adversely impact air quality and increase associated externalities.	IC5
1	Junction Improvement - Highway	Highway focused junction improvement will increase capacity and improve the flow of traffic at junctions. It would reduce journey time of vehicles and possibly increase car dependence, which can reduce air quality and increase associated externalities.	IC7

<b>HCC user hierarchy score</b>	<b>Intervention Category</b>	<b>Significance/ Comments</b>	<b>IC No.</b>
1	Policy Electric Vehicle Charging Points <sup>4</sup>	This may help promote electric vehicles and may help improve air quality in the longer-term.	IC11

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<sup>4</sup> This category was considered under HCC user hierarchy of '1' (largely electric car), based on the interventions. However, this category is considered under HCC user hierarchy of '1' and '2' (electric two-wheelers and car).



# Proposed Packages

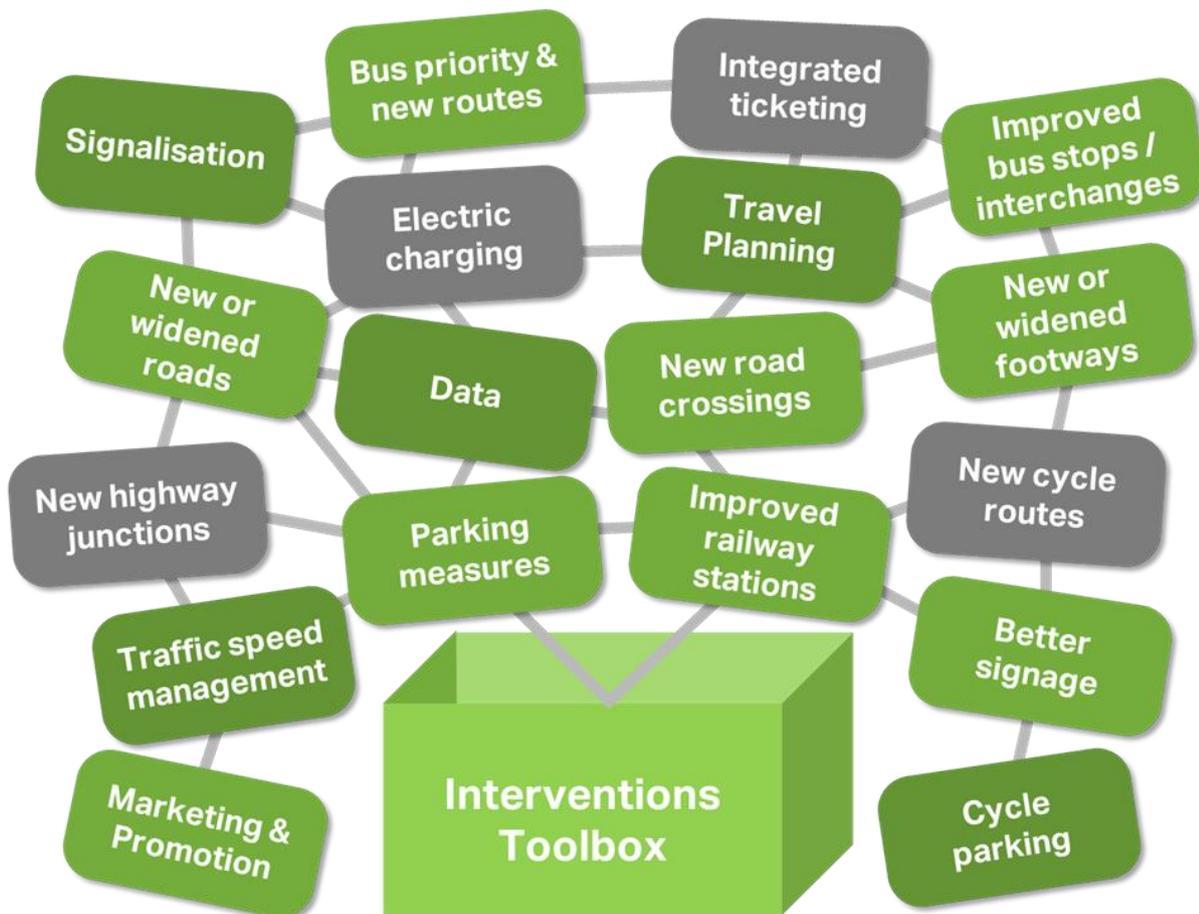
# 06

## 6. South East GTP Proposed Packages

The challenges identified during the process of developing the EA 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 6 illustrates the range of interventions available to influence travel choices and behaviour.



**Figure 6 - Current Toolbox of Interventions**

All of the packages of interventions identified in this Prospectus should be completed 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 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 drivers are 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. According to the British Vehicle Rental and Leasing Association (as cited in the Financial Times), in 2019, car leasing increased in the UK by 14% and there are currently approximately 5 million leased cars on the road.<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 Ipsos MORI, on behalf of the Department for Transport in the UK,<sup>6</sup> has shown that MaaS has the potential, not only to reduce car ownership, but also to have a positive environmental effect by attracting more users towards shared modes. 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 is an on-demand service that sits in between a traditional bus and a taxi and adjusts its route and schedule dynamically to fulfil passenger trip requests<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 HertsLynx 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. 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 in the future.

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<sup>5</sup> Financial Times (2020) 'Car finance: is leasing the model choice?', <https://www.ft.com/content/5bade183-622d-4e43-ab6f-62a8f92cf531>

<sup>6</sup> Ipsos MORI (April 2020) 'Mobility as a Service – Acceptability Research', [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/925323/Mobility-as-a-Service-Acceptability-Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/925323/Mobility-as-a-Service-Acceptability-Report.pdf)

<sup>7</sup> Intelligent Transport (Oct 2021) 'Delivering Demand-Responsive Transport in the West Midlands', <https://www.intelligenttransport.com/transport-articles/128710/demand%E2%80%91responsive-transport-west-midlands/>

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 2021, the UK Government published its Net Zero Strategy: Build Back Greener<sup>8</sup>, which sets out the ambition to end the sale of new petrol and diesel cars and vans from 2030 and for all new cars and vans to be zero emission at the tailpipe from 2035. Hertfordshire County Council is developing an Electric Vehicle Strategy<sup>9</sup> to identify how to work with district and borough councils 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>10</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 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 (described in Section 5). 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

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<sup>8</sup> Net Zero Strategy: Build Back Greener (Oct 2021)  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1033990/net-zero-strategy-beis.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf)

<sup>9</sup> Electric Vehicle Strategy Consultation | North Hertfordshire District Council ([north-herts.gov.uk](http://north-herts.gov.uk))

<sup>10</sup> UK Centre for Connected and Autonomous Vehicles <https://www.gov.uk/government/organisations/centre-for-connected-and-autonomous-vehicles>

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.

## GTP Intervention Hierarchy

For consistency with the other GTPs, proposed Interventions are categorised according to the GTP Intervention Hierarchy.

This distinguishes interventions as Projects, Linked Project Groups or Schemes which are combined together into Packages. Larger-scale Strategic Interventions which originate from outside of the GTP process are also considered as they may influence the Packages put forward.

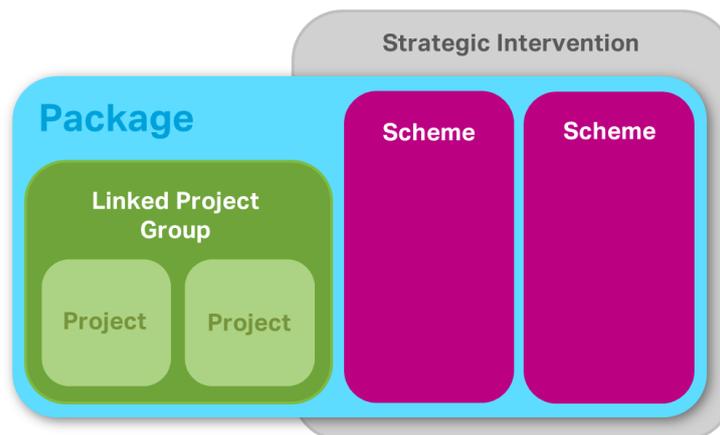


Figure 7 - GTP Intervention Hierarchy

## 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.

## Package

A Package represents a collection of Schemes and Projects/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 very large interventions or major decisions points. Several prospective major, county-significant infrastructure interventions with the potential to affect the GTP area 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 Highways England and Network Rail, they could significantly influence decision making through the GTP.

Strategic Interventions are discussed in more detail next.

## Strategic Interventions

In addition to the packages of interventions, there are several Strategic Interventions which are related to major decisions points which could be of local, regional or national significance.

Several prospective major, county-significant infrastructure interventions with the potential to affect the South East Hertfordshire GTP area and beyond are defined 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 Highways England, Transport for London, DfT and Network Rail, they will significantly influence decision making through the GTP.

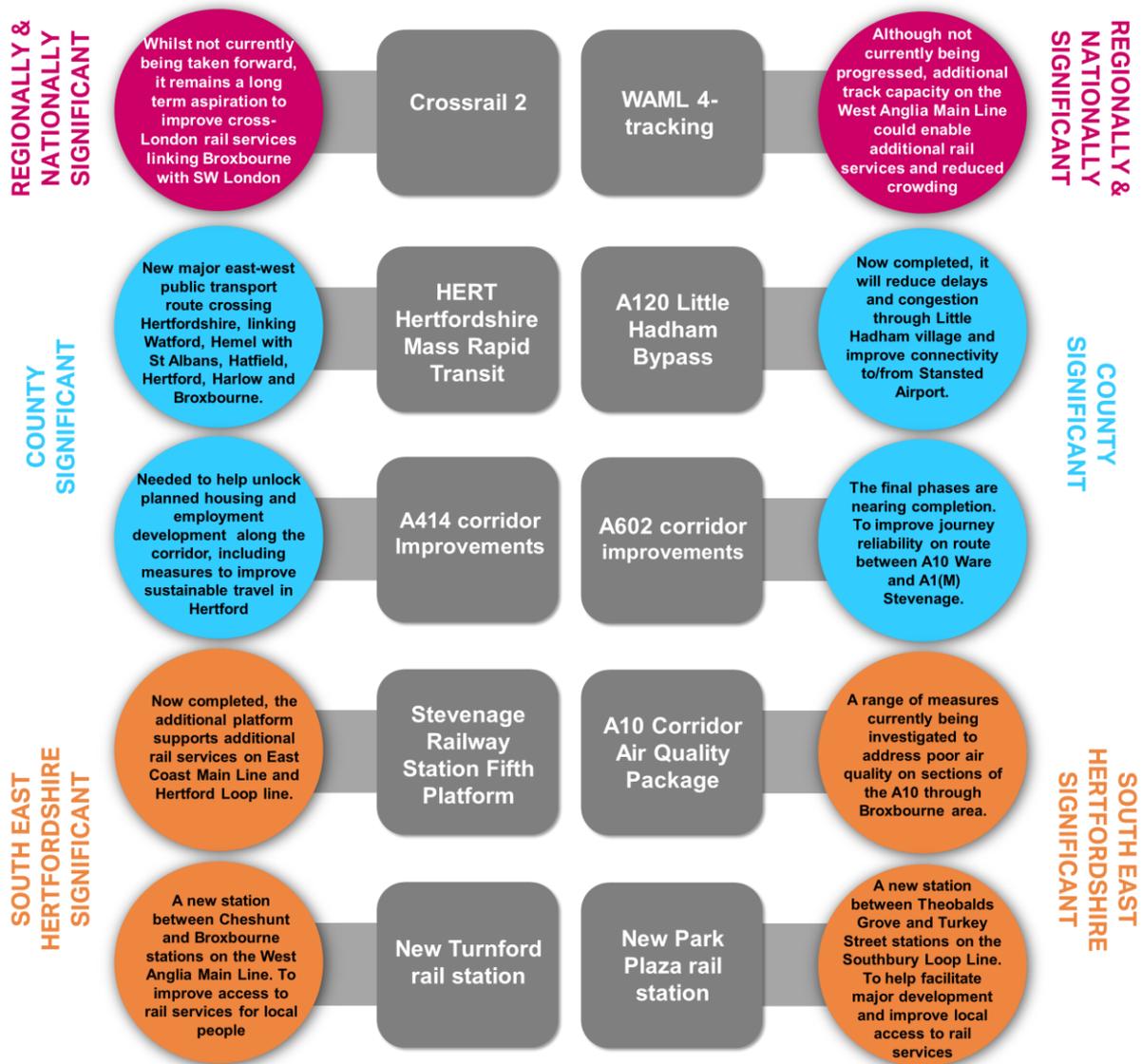


Figure 8 - Strategic Interventions

## Nationally Significant Interventions

**West Anglia Main Line 4-tracking** and **Crossrail 2** are separate but closely related interventions. The West Anglia Main Line currently comprises mainly 2 tracks between Cambridgeshire and Greater London, and this is considered to constrain capacity making it difficult to provide additional rail services, including faster express-type services which could shorten travel times between towns in Hertfordshire and London.

A West Anglia Task Force had been established to look at improving connections to Stansted Airport and Cambridge from Liverpool Street and Stratford. In collaboration with Network Rail, TfL has been undertaking a high-level business case and technical review of potential interventions, including four-tracking, that could improve frequencies, reliability and journey times to unlock housing, jobs and economic growth along the West Anglia Main Line. This work informed the Anglia Route Strategic Plan published in 2018.

The case for investment in four-tracking the West Anglia Main Line had been seen to be an essential early stage of delivering Crossrail 2. It is understood this project is not currently being progressed however it remains a longer-term aspiration for TfL.

Crossrail 2 would support the regeneration and development of up to 200,000 new homes across London and the South East, and support around 60,000 new jobs across the UK supply chain while under construction and 200,000 jobs across London and the South East once operational. It has been envisaged that Crossrail 2 would serve stations throughout the South East, linking south west and north east London, as well as destinations across Surrey and Hertfordshire. It would help relieve congestion on busy routes into central London and support economic development in and around the capital, specifically targeting some key opportunity areas, such as the Upper Lea Valley, Victoria and Euston and St Pancras.

In the longer term, Harlow Council has ambitions for the emerging Crossrail 2 scheme to be extended as far as Harlow. Therefore, the GTP should aim to ensure that any scheme coming forward should not predicate the potential for four-tracking of the West Anglia Main Line as far as Harlow Town if this goal is to be achieved in the future.

It could also create better connections across the South East region, with a new Euston / St Pancras station providing direct access to the planned High Speed 2 line, Thameslink and Eurostar services. It is understood that the Crossrail 2 project is not being progressed at present.

## County Significant Interventions

These interventions represent those which are regarded as significant to the whole of Hertfordshire or multiple districts within Hertfordshire and neighbouring authority areas.

The **A120 Little Hadham Bypass** is completed and has helped remove through traffic and improve journey time reliability on the A120, while improving environmental and air quality in Little Hadham between the A10 at Puckeridge and Bishop's Stortford. The **A602 corridor improvements** are now in their final phase of completion and will reduce congestion and improve journey time reliability between Ware, Watton-at-Stone and Stevenage.

In parallel with this GTP, HCC developed an **A414 Corridor Strategy** to identify the priorities for future transport investment along the key east-west corridor spanning the whole of Hertfordshire. The A414 crosses through the South East GTP area and is currently a very car dominated corridor.

The strategy is seeking has identified opportunities to improve alternative modes of travel, including investigations into a new cross-county **mass rapid transit system (HERT)** linking Watford, Hemel Hempstead, St Albans, Hatfield, Welwyn Garden City, Hertford, Ware, the Broxbourne Towns and Harlow. This new public transport route is needed because there is a lack of east-west public transport services therefore people needing to make journeys across Hertfordshire without using a car would need to use at

least one bus service or take train services via London. The HERT system is currently being investigated further by Hertfordshire County Council with the development of an initial business case. This work will include a consideration of the infrastructure required to enable reliable journey times on the system, including in congested locations such as Hertford.

## South East Hertfordshire Significant Interventions

**New railway stations at Turnford and Park Plaza** are being promoted by Broxbourne Borough Council and in the early stages of study. These stations are not dependent upon WAML four-tracking or Crossrail 2, but are seen as being locally important in providing better access to rail services and supporting housing and employment development in the borough.

In 2018, the Pollution Climate Mapping (PCM) national model identified that **a section of the A10 in Broxbourne Borough** is projected to have an exceedance of the annual mean EU Limit Value of  $40\mu\text{g}/\text{m}^3$  for nitrogen dioxide (NO<sub>2</sub>). The section of the A10 in question is from its junction with B198 to the slip road leading towards the A1170/B156 roundabout. The government's Joint Air Quality Unit (JAQU), a joint unit of the DfT and the Department for Environment, Food and Rural Affairs, is leading the Government's aim to ensure the UK is compliant with EU limit values for nitrogen dioxide in the shortest time possible. Work has been carried out to identify the type and scale of mitigation measures needed to address air quality along the A10, with a package of 'softer' measures including improved bus stop facilities, public transport ticket improvements and a traffic anti-idling campaign.

**Harlow and Gilston Garden Town** is a strategically significant sustainable development being brought forward in the South East of the county, designated as a Garden Town by the Ministry for Homes, Communities and Local Government in January 2017. It will when completed include the development of 23,000 new homes, including 11,000 in East Herts. Hertfordshire County Council have been working with Harlow Council, East Herts District Council, Epping Forest District Council, Essex County Council and Homes England to develop the Garden Town proposals and ensure it meets the ambitious targets of 60% sustainable modal share.

## 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, 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 this 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>11</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 only Broxbourne Borough Council has published an LCWIP. Harlow and Gilston Garden Town draft LCWIP went through public consultation in 2021. It is expected that LCWIPs will draw from but also add to walking and cycling proposals set out in this GTP. LCWIPs are intended to identify infrastructure measures, which will need to be developed in line with LTN 1/20 Cycle Infrastructure Design.<sup>12</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

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<sup>11</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)

<sup>12</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)

- 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>13</sup> and Bus Service Improvement Plan<sup>14</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 this GTP area. The Enhanced Partnership has conducted a series of bus priority feasibility studies in the area. 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

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, 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

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<sup>13</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>14</sup> <https://www.intalink.org.uk/bus-service-improvement-plan>

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) 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>15</sup>. HCC is also working in close collaboration with Intalink partners in identifying bus-priority interventions on key routes.

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<sup>15</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>

## **Town Bike Share Schemes**

**Implement bike share schemes in larger towns with bike locations at train stations and town centres. HCC are now working with districts and boroughs to identify suitable local solutions. 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 Broxbourne 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 consider 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 Broxbourne 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 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 16.

## 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>17</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.

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<sup>16</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>17</sup> Hertfordshire County Council Travel Plan Guidance – March 2020

## **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. 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 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.

## SE GTP Proposals

This section of the report describes the Interventions put forward in the SE GTP. This is the culmination of Tasks 2, 3 and 4 described in Section 3 of the report.

The table below provide a brief snapshot of the Interventions and Packages proposed.

**Table 3 - SE GTP number of interventions and packages**

<b>Projects</b>	<b>76</b>
<b>Schemes</b>	<b>219</b>
<b>Linked Project Groups</b>	<b>2</b>
<b>Packages</b>	<b>41</b>

The GTP has been developed over a number of years. Both prior to and following public consultation, changes were made to the interventions, with some interventions being removed, merged with other interventions or new interventions inserted.

The 41 packages are described under the following package groups:

**Table 4 - SE GTP Package Groups**

<b>Packages</b>	<b>Package Group / Area</b>
PK1-6	Hertford
PK7-11	Ware
PK12-16	Hertford/Ware - inter-urban links to the west and north-west - overview
PK17	Hertford/Ware - inter-urban links to the south
PK18-19	Stanstead Abbots and St Margarets - overview
PK20-21	Hertford/Ware - inter-urban links to the north and east - overview
PK22-23	Harlow and Gilston
PK24-35	Broxbourne Towns
PK36-39	Western Broxbourne and Cuffley
PK40-41	Links to Enfield

Under the group headings, each package is described in turn by:

- Name
- Headline - stating what the package is intended for
- A few bullet points highlighting key features of the package

- Summary table which shows the interventions and intervention category (IC).

More detailed information of interventions including estimated costs, timescales, locations and assessment against the LTP4 objectives is contained in Appendix B.

A short discussion on the packages is provided at the end of each group section.

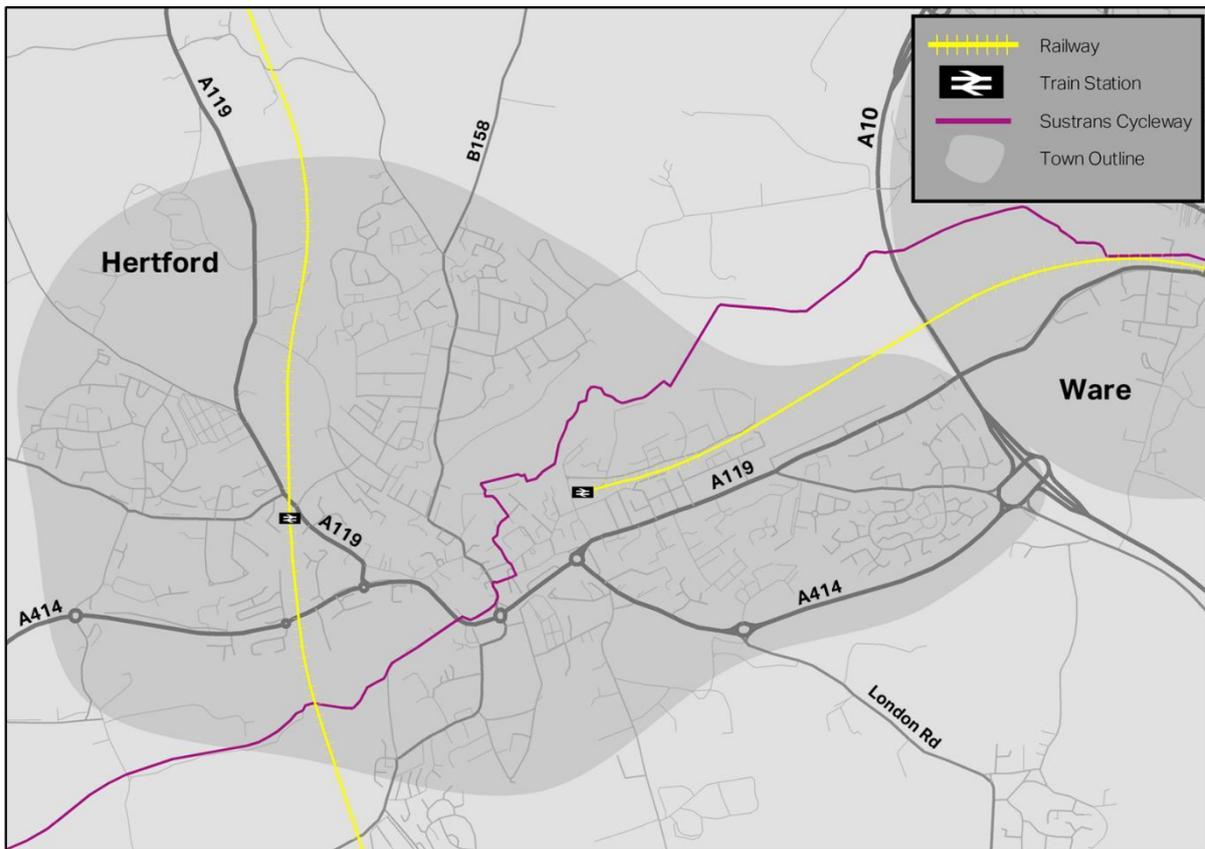
## Hertford

The following packages have been defined for the town of Hertford.

**Table 5 – Hertford Packages (PK1 - PK6)**

Packages	Package Group / Area
PK1	Hertford Town Centre
PK2	Bengeo Sustainable Travel Choices
PK3	Welwyn Road and North Road Sustainable Travel Corridors
PK4	Enhanced Footway and Cycleway Routes to Hertford East and the Town Centre
PK5	South of Hertford Sustainable Travel Choices
PK6	Town-Wide Travel Demand Management

The town of Hertford includes the Great Northern Hertford Loop via Hertford North station; Hertford East branch line (which is connected to the West Anglia Main Line); the A414 east-west highway corridor; the A119 linking Hertford to Ware in the east, and Watton-at-Stone to the north; the B1000 linking Hertford with Welwyn Garden City; and the B158 which links Hertford with Brookmans Park. The strategic A10 route connecting Cambridge with North East London runs to the east of the town.



**Figure 9 - Hertford Map**

The packages are described in turn.

## PK1 – Hertford Town Centre

The overarching aim of Package 1 is:

**A range of measures to facilitate more convenient journeys on foot and by bike within Hertford town centre, including considerations from the Hertford Urban Design Strategy (HUDS).**

The Package consists of:

- Improvements to footways and crossing facilities at key junctions
- Additional electric vehicle charging points
- Improved pedestrian and cycle connections to other parts of Hertford and the surrounding area

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

**Table 6 – PK1 – Hertford Town Centre**

Linked Projects	ID	Name	Description
	<b>SM57</b>	A414/A119 Bluecoats roundabout	Improvements to the operation of the A119 / A414 (Bluecoats junction) for all users including pedestrians, cyclists and buses. (IC8)
	<b>SM500</b>	Hertford Town Centre traffic reduction	Measures to reduce the dominance of traffic movements in the town centre, on roads such as Fore Street, Railway Street, B158 and Bircherley Street to facilitate a greater uptake in active and sustainable travel. (IC4)
	<b>SM501</b>	Hertford Bus Station improvements	Improve access to Hertford Bus Station by sustainable modes of travel, including linkages to Hertford town centre. (IC22)
	<b>SM502</b>	Hertford Town Centre public realm improvements	Consider any further opportunities to improve the public realm in Hertford Town Centre, for example along Fore Street between Market Street and South Street. (IC10)
	<b>SM503</b>	Hertford Town Centre walking and cycling improvements	Improved walking and cycling provision in Hertford Town Centre and connections to the rest of Hertford. (IC22)
	<b>SM504</b>	Walking and cycling connectivity to River Lea	Improve active travel connections between Hertford Town Centre and the River Lea, through measures such as improved wayfinding. (IC22)
	<b>SM505</b>	Electric vehicle charging points in Hertford Town Centre	Help enable the improved provision of electric vehicle charging points at key locations in Hertford Town Centre to promote an uptake in

Linked Projects	ID	Name	Description
			electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy. (IC11)
	<b>SM526</b>	A414/B158 Parliament Square roundabout	Improvements to the operation of the A414 / B158 (Parliament Square junction) for all users including pedestrians, cyclists and buses. (IC8)

## PK2 - Bengeo Sustainable Travel Choices

The overarching aim of Package 2 is:

**A range of measures to facilitate more convenient journeys by bike, on foot within and between Bengeo and other parts of Hertford including the town centre and railway stations.**

The Package consists of:

- Improving the Old Cross Junction for pedestrian and bus accessibility
- Footway and crossing improvements on quieter roads
- Discouraging pavement parking where feasible

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

**Table 7 – PK2 – Bengeo Sustainable Travel Choices**

Linked Projects	ID	Name	Description
	<b>PR4</b>	Micromobility Parking and Charging Facilities in Bengeo	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities in the north of Hertford to promote cycling uptake. Key locations include the schools in Bengeo, proposed housing development sites, Sainsbury's superstore, near the Co-op/the post office on Bengeo Street and at the parade of shops on The Avenue. (Note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	<b>PR5</b>	Bus stop improvements in Bengeo	Upgrade bus stop facilities to improve safety and access to bus services in the north of Hertford. (IC18)

Linked Projects	ID	Name	Description
	<b>SM1</b>	Old Cross Junction improvements	Improvements to the Old Cross signalised junction, including incorporation of bus detection technology and crossing improvements on the Old Cross arm to reduce crossing distances (reduction in vehicle lanes at the stop line). (IC7)
	<b>SM2</b>	Bengeo bus connectivity improvements	Consider increasing the frequency of bus services in the evening peak period and potential extension to Hertford East railway station. Proposals to improve capacity in the Old Cross junction could improve bus journey reliability along B158 Port Hill/Bengeo Street. (IC18)
	<b>SM3</b>	Walking and cycling connectivity to Hertford North station	Identify a few safe routes, such as Nelson Street, Bye Street and Wellington Street, for pedestrians and cyclists through Bengeo (and across the B158) for future residents of the North of Hertford development to use to reach Hertford North railway station. Consider measures to discourage pavement parking (such as introducing formalised parking bays where appropriate), additional dropped kerbs, new informal crossings, potentially wayfinding signs and a formal crossing at the Bengeo Street/Warren Park Road junction. (IC15)
	<b>SM506</b>	Bengeo through traffic reduction	Discourage through traffic in Lower Bengeo routing towards Port Hill/Old Cross and Hertford North Station (e.g. via Port Vale and Bye Street) including for example kerb build-outs incorporating crossing facilities and traffic calming measures (if feasible and appropriate in line with HCC's Speed Management Strategy), to allow for an improved provision and environment for active travel. (IC21)
	<b>SM507</b>	Walking and cycling connectivity to Hertford town centre	Improve cycling and walking provision in Bengeo and between Bengeo and Hertford town centre to promote walking and cycling uptake. (IC22)

## PK3 - Welwyn Road and North Road Sustainable Travel Corridors

The overarching aim of Package 3 is:

### Measures to improve local sustainable travel connections in western Hertford

The Package consists of:

- New footway/cycleway routes to the proposed Hertford West development
- Bus stop improvements on Welwyn Road
- Access improvements at Hertford North

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

**Table 8 – PK3 – Welwyn Road and North Road Sustainable Travel Corridors**

Linked Projects	ID	Name	Description
	<b>PR10</b>	Micromobility Parking and Charging Facilities in the west of Hertford	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities in the west of Hertford to promote cycling uptake. Key locations include Hertford North railway station, proposed development sites, outside the schools in Sele Farm and on Fleming Crescent, the shopping parade at the southern end of Fleming Crescent, and the Sele Farm Community Centre. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	<b>SM6</b>	Hertford North interchange improvements	Sustainable access improvements at Hertford North railway station to include an improved bus interchange. (IC10)
	<b>SM7</b>	Walking and cycling routes and wayfinding in the west of Hertford	Pedestrian/cycle routes and wayfinding between Hertford West site, Thieves Lane site, Perrett Gardens (North of Welwyn Road site only) to Hertford North station and Hertford town centre and new shared footway/cycleway along Welwyn Road. (IC22)
	<b>SM8</b>	Welwyn Road bus measures	Enhanced passenger transport services to include new bus stops on B1000 Welwyn Road. (IC17)
	<b>SM9</b>	Traffic management in light of changes to the A414	Ensure any changes made to the A414 do not have an adverse impact on the B1000 and A119,

Linked Projects	ID	Name	Description
			for example generating additional traffic along these more local routes. (IC5)
	<b>SM524</b>	A414 Hertford footway and cycle route improvements	Make improvements to the existing footway alongside the A414 through Hertford, including (if space permits) the provision of a new footway between Hale Road and London Road (or improvements to the existing route via All Saints' Churchyard). (IC22)

## PK4 - Enhanced Footway and Cycleway Routes to Hertford East and the Town Centre

The overarching aim of Package 4 is:

**Measures to enhance footway and cycleway routes on the north eastern side of Hertford, including around Hertford East station and the Meads area.**

The Package consists of:

- Improved footways on Mead Lane
- Improved footways and pedestrian priority across side-roads along Railway Street
- Further pedestrianisation of some streets in the town centre

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

**Table 9 – PK4 – Enhanced Footway and Cycleway Routes to Hertford East and the Town Centre**

Linked Projects	ID	Name	Description
	<b>PR13</b>	Micromobility Parking and Charging Facilities in Hertford town centre	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in the centre of Hertford to promote active travel uptake. Key locations include Hertford East railway station, within the town centre e.g. on Fore Street or Bull Plain, Tesco superstore and Hertford Theatre. (Note - at the time of writing, e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)

Linked Projects	ID	Name	Description
	<b>PR15</b>	A414 north-south pedestrian permeability	Improvements to the A414 pedestrian subways, such as maintenance to prevent flooding, and potential additional at-grade crossing across the A414 to improve north-south connectivity in Hertford. (IC22)
	<b>PR16</b>	Hertford East walking and cycling connectivity	Improve the public realm, reduce traffic dominance and improve walking and cycling connectivity to Hertford East railway station through walking and cycling provision on Railway Street, for example junction entry treatments including raised tables for pedestrians crossing the road, potentially reduced speed limits if in accordance with the Speed Management Strategy and wayfinding. (IC22)
	<b>SM11</b>	Mead Lane walking and cycling improvements	Upgrade existing footways on Mead Lane to 3m pedestrian/cycleway to the south side of Mead Lane in addition to improvements to the towpath and links with the adjoining area and the town centre (in particular addressing links to Hartham Common and Kings Meads). (IC22)
	<b>SM12</b>	Marshgate Drive access arrangements	The widening of Marshgate Drive to allow for improved vehicular and pedestrian access and car parking/car share scheme to be delivered within a Green Streets approach. (IC15)
	<b>SM14</b>	Pedestrianisation of Hertford town centre	Consider further pedestrianisation of the town centre, e.g. on Fore Street, Market Place and Salisbury Street, to link up with Maidenhead Street, including installing additional seating facilities. Ensure that access to Folly Island is adequately maintained. (IC15)
	<b>SM524</b>	A414 Hertford footway and cycle route improvements	Make improvements to the existing footway alongside the A414 through Hertford, including (if space permits) the provision of a new footway between Hale Road and London Road (or improvements to the existing route via All Saints' Churchyard). (IC22)

## PK5 - South of Hertford Sustainable Travel Choices

The overarching aim of Package 5 is:

### Measures to encourage walking, cycling and travelling by bus in southern Hertford, including to/from County Hall

The Package consists of:

- Parking management at key large employment sites
- Designation of off-road cycle route along Pegs Lane and link into County Hall

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

**Table 10 – PK5 – South of Hertford Sustainable Travel Choices**

Linked Projects	ID	Name	Description
	PR20	Micromobility Parking and Charging Facilities in the south of Hertford	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in the south of Hertford to promote cycling uptake. Key locations include large employment centres such as Hertfordshire County Council and East Herts Council offices, local shops (e.g. corner of Hornsmill Road and Brickendon Lane), Hornsmill Community Centre, and the schools in the south of Hertford. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	PR21	Bus stop improvements in the south of Hertford	Upgrade bus stop facilities to improve safety and access to bus services in the south of Hertford. (IC18)
	SM17	Bus connectivity to schools in the south of Hertford	Improve bus services for students attending the local schools in the south of Hertford. (IC18)
	SM18	Parking management in the south of Hertford	Work with operators and local authorities to manage car parking provision at key locations in the south of Hertford through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, activity centres and large employment sites. (IC12)

Linked Projects	ID	Name	Description
	SM19	Walking and cycling improvements in the south of Hertford	Upgrade the existing footway to incorporate a shared use cycleway/footway (subject to suitability) along the B158 Pegs Lane connecting to the rear entrance of Hertfordshire County Council. Create cycle route facilities along Brickendon Lane (parallel residential road), Highfield Road, Queen's Road, Hagsdell Road and Mangrove Road, and improved crossing facilities at the B158 Bullocks Lane/Morgan's Road junction and the B158 Pegs Lane/Hale Road mini-roundabout junction. Also, improve cycling provision on Horns Road and West Street Road, connecting with National Cycle Route 61. (IC22)

### PK6 - Town-Wide Travel Demand Management

The overarching aim of Package 6 is:

**A wide range of measures to encourage sustainable travel including parking management, travel planning, marketing and more effective provision of travel information**

The Package consists of:

- Additional electric vehicle charging points
- A series of area-wide travel plans
- Monolith information panels to assist wayfinding for visitors and local people

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

**Table 11 – PK5 – Town-Wide Travel Demand Management**

Linked Projects	ID	Name	Description
	PR24	Promote available sustainable travel options in Hertford	Promote the available public transport services and active travel routes in Hertford to encourage an uptake in sustainable travel. (IC12)
	PR27	Hertford travel planning	Develop travel plans to reduce travel demand and encourage sustainable travel that target key actors in Hertford. Key actors include large employers, Hertford East and Hertford North railway stations, schools, proposed developments

Linked Projects	ID	Name	Description
			and households (this could potentially be targeted at particular neighbourhoods). (IC16)
	<b>PR28</b>	Real time information at bus stops in Hertford	Provide real time information at public transport stops in Hertford to facilitate better journey planning and reliability. (IC20)
	<b>PR30</b>	Wayfinding - Hertford	Improve the wayfinding (for example "monoliths" information panels) for key locations in Hertford, particularly for walking, cycling and public transport routes. Key locations include historic, cultural and natural assets, Hertford East and Hertford North railway stations, the River Lea towpath and the town centre. (IC23)
	<b>SM22</b>	Hertford Sustainable Travel Improvements	Linked to intervention Hertford Strategic Solution, to provide a step change in sustainable travel connectivity across Hertford through the provision of high-quality pedestrian and cycle routes, crossings and public transport which could ultimately be linked to or become part of the proposed HERT mass rapid transit system. (IC15)
	<b>SM23</b>	Electric vehicle charging points in Hertford	Help enable the improved provision of electric vehicle charging points at key locations in Hertford to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy. (IC11)
	<b>SM26</b>	Parking management - Hertford	Work with operators and local authorities to manage car parking provision at key locations in Hertford through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, the stations, the town centre, activity centres and large employment site. (IC12)
	<b>SM29</b>	Reduce speed limits in Hertford	Reduce speed limits in key areas to improve safety for pedestrians and cyclists. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel. (IC21)

## **Packages 1-6 Hertford – overview**

A wide range of proposed interventions are put forward in Hertford, which have been assembled into five packages. The overarching aim of these interventions is to make travelling within Hertford more convenient on foot, by bike and by bus.

Hertford suffers from significant traffic congestion, especially weekday morning and evening peak periods, and at other times. The A414 is also used as an alternative route to the M25 when the motorway is experiencing incidents and closures.

Much of the town's traffic congestion and air quality issues are focused on the A414 corridor (and adjoining roads) which is already in part designated as an Air Quality Management Area (AQMA) runs east-west through the middle of the town. It is impossible to avoid the A414 if travelling north-south across Hertford.

Unlocking all of the planned housing growth and delivering attractive sustainable travel alternatives to the car will in the long term require a strategic intervention. This could take the form of a new public transport route such as the proposed HERT Mass Rapid Transit system with further assessment to be undertaken on what other interventions (e.g. bus priority measures and/or a bypass) would be required to enable this. A strategic intervention will be complex and will therefore take longer to bring forward. This should not however deter efforts to introduce improvements to footways, cycle routes and bus services which can deliver positive change in the short term and become part of the longer-term system.

Many of the proposals put forward in these packages could be delivered in the shorter-term period, subject to more detailed development work, consultation with local people and funding being available.

A focus should be on improving sustainable routes through residential areas such as Bengoe to the stations and town centre making them easier to follow and more attractive for pedestrians and cyclists; providing additional cycle parking; and reviewing car parking facilities.

Clearly if the A414 corridor continues to dominate the town, this could eventually constrain opportunities to fully transform Hertford into a sustainable travel town which delivers the objectives and policies of LTP4 to their fullest potential.

A strategic intervention which can remove traffic from the centre of Hertford will create opportunities to provide much improved facilities for pedestrians, cyclists and buses. For example, the dual carriageway could have sections of priority lanes for buses which could potentially ultimately be used by the HERT Rapid Transit system, and pedestrian subways could be replaced with at-grade crossings.

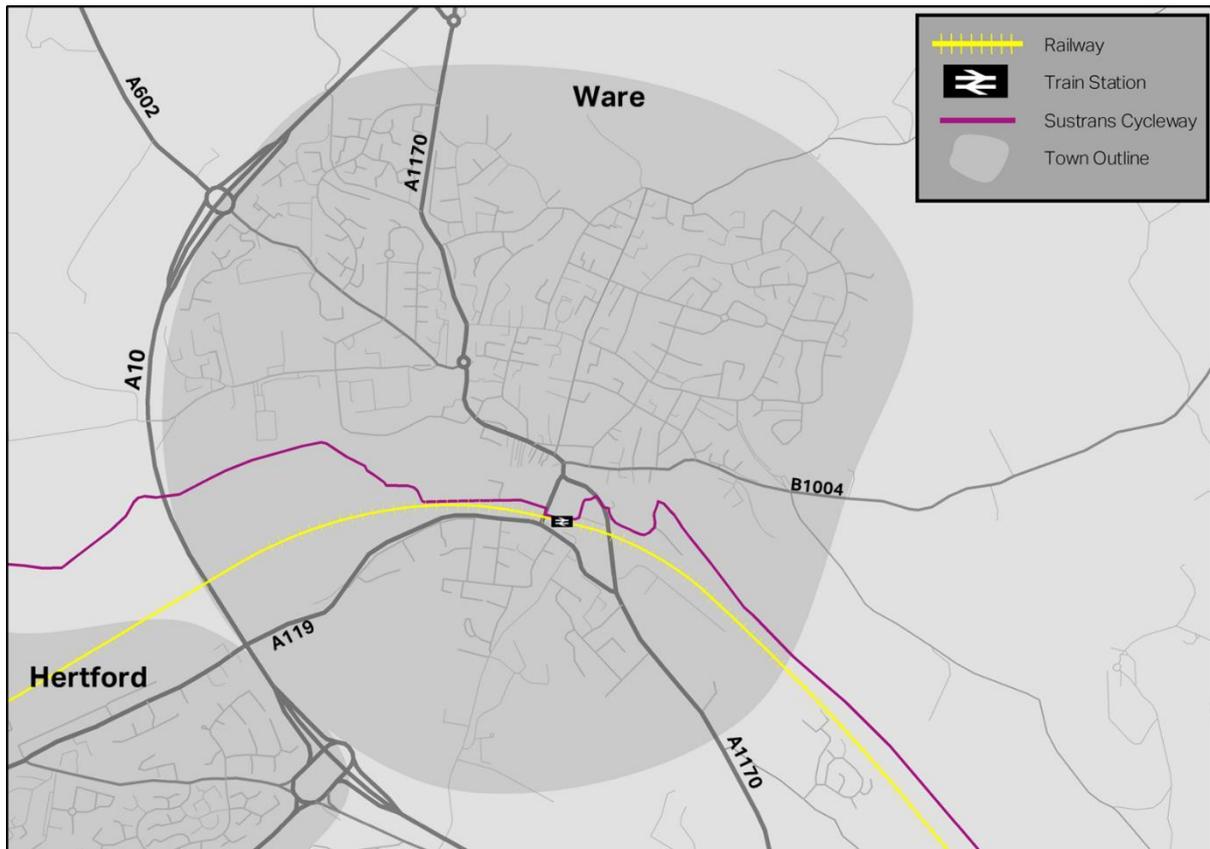
## Ware

The following packages have been defined for the town of Ware.

**Table 12 – Ware Packages (PK7 - PK11)**

Packages	Package Group / Area
PK7	Ware Town Centre
PK8	Ware North and East Sustainable Travel Choices
PK9	Watton Road and Park Road Sustainable Travel Corridors
PK10	Ware Station Accessibility and Connectivity
PK11	Town-Wide Travel Demand Management

The town of Ware lies around 2 miles to the east of Hertford. It is bypassed by the north-south A10 dual carriageway; is served by the Hertford East branch line; the A119 connects into the southern part of the town and links Ware to Hertford in the west; the A1170 which runs broadly north-south through the town centre linking to the A10 in the north and Amwell, the A414 and Hoddesdon in the south; the B1004 links to villages in the east (and eventually Bishop’s Stortford); and Westmill Road/Watton Road connects Ware with the A10 and A602. Also of note is that the River Lea runs through the centre of Ware with only one highway crossing point in the town centre (which straddles both side of the river). Commercial land uses lie on the western side of town (north of the river, including GSK’s campus) and on the south-eastern edge of town (south of the river).



**Figure 10 - Ware Map**

## PK7 – Ware Town Centre

The overarching aim of Package 7 is:

**A range of measures to facilitate more convenient journeys by sustainable modes within Ware town centre.**

The Package consists of:

- Review of traffic speed limits to improve safety for pedestrians and cyclists
- Measures to improve bus journey time reliability along Ware high street
- Improvements to footways and public realm to provide a more attractive environment for pedestrians

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

**Table 13 – PK7 – Ware Town Centre**

Linked Projects	ID	Name	Description
	<b>SM530</b>	Review speed limits in Ware Town Centre	Review and reduce speed limits if appropriate in key areas to improve safety for pedestrians and cyclists and encourage an increase in sustainable travel. Reference should be made to the Speed Management Strategy which provides guidance on the appropriate measures that can be introduced to manage traffic speeds. (IC21)
	<b>SM531</b>	Ware Town Centre walking improvements	Improved provision for pedestrians on Ware High Street, Amwell End and Star Street to enable greater uptake in walking to and within the town centre. Measures could include, but not be limited to, improved crossing facilities and wider pavements. (IC22)
	<b>SM532</b>	Ware Town Centre public realm improvements	Improve the public realm in Ware Town Centre, particularly on Ware High Street, West Street and East Street, including considerations for greater opportunities for 'café culture'. (IC10)
	<b>SM533</b>	Ware Town Centre bus measures	Improve bus journey time reliability for services utilising Ware High Street, Viaduct Road and Amwell End through measures such as bus priority (at junctions) and reductions in motor traffic volumes (through separate complementary measures set out in the package). (IC18)

## PK8 - Ware North and East Sustainable Travel Choices

The overarching aim of Package 8 is:

### Measures to improve connectivity in north-eastern Ware, including to/from the proposed urban extension

The Package consists of:

- New/improved pedestrian crossings on A1170 Wadesmill Road and High Street
- Improved walking and cycling facilities on Musley Hill / New Road
- New/enhanced bus service linking to the new development

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

**Table 14 – PK8 – Ware North and East Sustainable Travel Choices**

Linked Projects	ID	Name	Description
	<b>PR35</b>	Wadesmill Road and High Street sustainable travel improvements	Investigate options to mitigate against through-traffic utilising Ware High Street to enable greater uptake in active and sustainable travel, including a review of the speed limit and additional pedestrian crossing points. (IC22)
	<b>SM31</b>	Link Road to development	Provision of new link road to serve expected development: Spine Road (Widbury Hill to A1170/A10). (IC3)
	<b>SM32</b>	Enhanced bus services to development	Provision of new or enhanced bus services to serve the expected development in the northeast of Ware, linking with key destinations such as the town centre and Ware train station. (IC18)
	<b>SM33</b>	Walking and cycling improvements	Provision of high-quality walking and cycling facilities throughout the North and East of Ware proposed development to facilitate active travel including at key access points (including those exclusively for sustainable travel modes) which link the expected development and the existing urban area. (IC9)
	<b>SM37</b>	Wadesmill Road/High Street/Star Street bus corridor	Improve sustainable travel provision on key routes most likely to provide the most convenient and shortest route on foot and by bike between the North and East of Ware development and the town centre and railway station. This includes Musley Hill / New Road, Bowling Road and Cromwell Road. In addition, connectivity with employment sites on Park Road should also be

Linked Projects	ID	Name	Description
			improved including via Collet Road, The Bourne and A1170 Baldock Street. Measures could include widened footways, dropped kerbs with tactile paving, additional crossing points, signage and side road entry treatments with potentially priority given to pedestrians crossing the road. (IC22)
	<b>SM38</b>	Wadesmill Road/High Street/Star Street bus measures	Improve bus stop facilities along the A1170 Wadesmill Road, High Street and Star Street in Ware, including (where not already provided) Real Time Information panels and raised Kassel Kerbs, and a review of on-street parking where it may obstruct the movement of buses. (IC22)
	<b>SM39</b>	Review speed limits	Review appropriate speed limits in the west, north and northeast of Ware to improve safety for pedestrians and cyclists. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel. (IC21)

## PK9 - Watton Road and Park Road Sustainable Travel Corridors

The overarching aim of Package 9 is:

### Improvements to walking, cycling and bus services in the Watton Road and Park Road area of western Ware

The Package consists of:

- Better footway routes to schools on Watton Road
- Measures to support bus service reliability on Watton Road

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

**Table 15 – PK9 – Town-Wide Travel Demand Management**

Linked Projects	ID	Name	Description
	<b>PR40</b>	Watton Road pedestrian improvements	Improve pedestrian facilities on Watton Road, including key crossing points. (IC22)
	<b>SM39</b>	Review speed limits	Review appropriate speed limits in the west, north and northeast of Ware to improve safety for pedestrians and cyclists. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel. (IC21)
	<b>SM41</b>	Watton Road cycling provision	Improve cycling provision on Watton Road. (IC22)
	<b>SM42</b>	Park Road walking and cycling provision	Improve walking and cycling provision on Park Road, particularly for trips to and from the schools and key employment sites such as GSK. (IC22)
	<b>SM43</b>	Watton Road bus measures	Improve bus journey times on Watton Road through targeted bus priority measures. (IC18)
	<b>SM508</b>	Improved walking and cycling connectivity to Ware Town Centre	Improved walking and cycling provision between Park Road, Watton Road, Harris's Lane, Priory Street and the town centre and Ware Station, to facilitate a greater uptake in active travel between these areas. Measures can include widened footways and improved surfacing, and additional crossing points incorporating dropped kerbs with tactile paving. (IC22)

## PK10 - Ware Station Accessibility and Connectivity

The overarching aim of Package 10 is:

### Measures to improve walking, cycling and bus connections to Ware station

The Package consists of:

- Improved crossing facilities on Station Road
- Improved wayfinding signs around the station indicating routes and walk times to town centre and other key locations

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

**Table 16 – PK10 – Ware Station Accessibility and Connectivity**

Linked Projects	ID	Name	Description
	PR44	Wayfinding - Ware railway station to bus stops	Improve wayfinding/signage between Ware railway station and the station bus stops. (IC23)
	PR45	Station Road pedestrian crossing improvements	Improve pedestrian crossing facilities on Station Road. (IC22)
	PR47	Micromobility Parking and Charging Facilities in Ware	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in Ware to promote cycling uptake. Key locations include the town centre (e.g. outside Ware Museum and on Tudor Square), the railway station, large employment sites on Park Road and Marsh Lane) and local shopping parades such as at Kingshill, on Cromwell Road and on King George Road. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	SM46	Bus connectivity to Ware station	Improve bus access to Ware railway station. (IC18)
	SM509	Improved walking and cycling connectivity to Ware Station	Improved provision for and connections by active travel to Ware Station from southern Ware, including Hertford Regional College (Ware campus), Marsh Lane industrial area, Hertford Rugby Football Club and residential streets. (IC22)

## PK11 - Town-Wide Travel Demand Management

The overarching aim of Package 11 is:

### A range of measures to encourage more sustainable travel behaviour in Ware

The Package consists of:

- Additional electric vehicle charging points
- Parking management measures to ensure efficient use of existing parking facilities
- Bus stop enhancements including real time information

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

**Table 17 – PK11 – Town-Wide Travel Demand Management**

Linked Projects	ID	Name	Description
	PR47	Micromobility Parking and Charging Facilities in Ware	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in Ware to promote cycling uptake. Key locations include the town centre (e.g. outside Ware Museum and on Tudor Square), the railway station, large employment sites on Park Road and Marsh Lane) and local shopping parades such at Kingshill, on Cromwell Road and on King George Road. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	PR49	Promote available sustainable travel options in Ware	Promote the available public transport services and active travel routes in Ware to encourage an uptake in sustainable travel. (IC12)
	PR53	Bus stop improvements in Ware	Upgrade bus stop facilities to improve safety and access to bus services in Ware. (IC18)
	PR54	Real time information at bus stops in Ware	Provide real time information at public transport stops in Ware to facilitate better journey planning and reliability. (IC20)
	PR55	Wayfinding – Ware	Improve the wayfinding between key locations in Ware, particularly for walking, cycling and public transport routes. (IC23)

Linked Projects	ID	Name	Description
	<b>SM48</b>	Electric vehicle charging points - Ware	Help enable the improved provision of electric vehicle charging points at key locations in Ware to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy. (IC11)
	<b>SM51</b>	Parking management in Ware	Work with operators and local authorities to manage car parking provision at key locations in Ware through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, the station, town centre, activity centres and large employment sites. (IC12)

## **Packages 7-11 Ware – overview**

A range of proposed interventions are put forward in Ware, which have been assembled into four packages. The main aim of these interventions is to make travelling within Ware more convenient on foot and by bike, taking advantage of the relative compactness of the town with a centrally located railway station and shopping area.

Ware is bypassed by the A10, although roads like the A119 (linking to Hertford) and A1170 (linking north to the A10 and south towards the A414 and Hoddesdon) carry a lot of local / shorter distance trips as well as some longer distance through trips.

Ware is well served by rail and by bus, however it is widely acknowledged that these services could be improved. Therefore measures should seek to address those issues and focus on improving connections to the town centre and railway station. Of particular significance will be the planned housing development which will extend the town's footprint north-eastwards.

It will be essential that this development is well connected to the rest of the town. Whilst it will be the responsibility for the developer / promotor of new housing to provide sufficient transport links and ensure the development is properly integrated with the wider town, the GTP puts forward proposals to ensure there are adequate links through Ware for people wanting to walk and cycle. This will help ensure that driving a car does not become the default choice of travel mode.

Many of the proposals put forward in these packages could be delivered in the shorter-term period.

With potential transformational changes coming forward to the west in Hertford following implementation of a strategic intervention, this could have knock-on benefits to Ware especially where improved east-west public transport connections can be provided. It will be important therefore that the centre of Ware is well connected with the rest of the town, and that opportunities for people to walk, cycle or take a bus are made more convenient than driving a car.

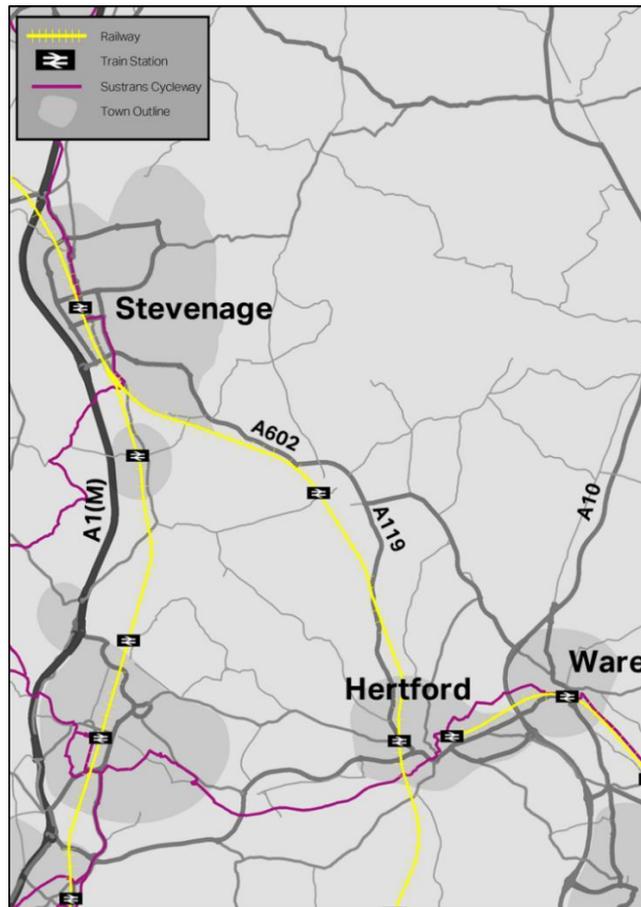
## Hertford and Ware – inter-urban links to the west and north-west

The following packages have been defined for inter-urban routes to the west and north-west of Hertford and Ware.

**Table 18 – Hertford and Ware Inter-Urban packages to the west and north-west Packages (PK12 - PK16)**

Packages	Package Group / Area
PK12	Local Journeys on the A119 - Waterford
PK13	Hertford - Ware Sustainable Travel Corridor
PK14	Stevenage - Hertford / Ware Corridor
PK15	Welwyn Garden City / Hatfield - Hertford / Ware Highway Improvements
PK16	Welwyn Garden City / Hatfield - Hertford / Ware Sustainable Travel Corridor

Hertford and Ware are located around 2 miles apart. They are linked together by public transport (rail and bus), road, river and cycle/footway links. Looking north-westwards, both towns are linked to surrounding countryside, villages and other towns including notably Welwyn Garden City, Hatfield and Stevenage, via the A414 major east-west highway corridor, the A119, A602 and the more minor routes, specifically the B1000 and B158. Local bus services link the towns and the Hertford Loop railway line connects Stevenage with Hertford North station (but not to Ware). National Cycle Route 61 ‘The Cole Green Way’ utilises a former railway line and connects Hertford with Welwyn Garden City.



**Figure 11 - Map of Hertford/Ware links to north and north-west**

The packages are described in turn.

## PK12 - Local Journeys on the A119 - Waterford

The overarching aim of Package 12 is:

### Improvements on the A119 corridor in Waterford between Ware and Hertford

The Package consists of:

- A new crossing facility in Waterford village
- Enhancements to footways within Waterford village and along the A119 towards Hertford.

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

**Table 19 – PK12 – Local Journeys on the A119 - Waterford**

Linked Projects	ID	Name	Description
	<b>PR454</b>	Waterford footway improvements	Maintain and improve footway along the A119 including through Waterford village. (IC22)
	<b>PR455</b>	Waterford bus stop crossing	Introduce a new crossing facility in Waterford adjacent to St Michael and All Angels Church. (IC23)

## PK13 - Hertford - Ware Sustainable Travel Corridor

The overarching aim of Package 13 is:

### A wide range of measures to improve sustainable travel connections between Hertford and Ware

The Package consists of:

- Improved/additional crossing facilities along the A119
- Additional cycle parking at key locations in Hertford and Ware
- Parking management along the A119

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

**Table 20 – PK13 – Hertford - Ware Sustainable Travel Corridor**

Linked Projects	ID	Name	Description
	<b>PR60</b>	A119 pedestrian crossing improvements	Improve or provide new pedestrian crossing facilities on the A119 between Ware and Hertford, such as raised entry treatments, dropped kerbs or other such measures. (IC22)

Linked Projects	ID	Name	Description
	<b>PR63</b>	Improved bus stop access at London Road/A414 junction	Improve access to the bus stops on London Road at the A414 roundabout. (IC17)
	<b>PR66</b>	Promote available sustainable travel options between Hertford and Ware	Promote the available public transport services and active travel routes between Hertford and Ware to encourage an uptake in sustainable travel. (IC12)
	<b>PR69</b>	Bus stop improvements between Hertford and Ware	Upgrade bus stop facilities serving routes between Hertford and Ware to improve safety and access to bus services. (IC18)
	<b>PR71</b>	Real time information at bus stops between Hertford and Ware	Provide real time information at public transport stops to facilitate better journey planning and reliability between Hertford and Ware. (IC20)
	<b>PR72</b>	Micromobility Parking and Charging Facilities between Hertford and Ware	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in Stanstead Abbots and St Margarets to promote cycling uptake. Key locations include the railway station, on the High Street (or potentially within the public car park, adjacent to the playground) and Stanstead Innings car park (Lee Valley Regional Park). (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	<b>PR73</b>	Reduce travel demand between Hertford and Ware	Develop travel plans to reduce travel demand and encourage sustainable travel that target key actors between Hertford and Ware including single occupancy vehicles. Key actors include large employers, Hertford East railway station and households (this could be targeted at particular neighbourhoods). (IC16)
	<b>PR74</b>	Wayfinding between Hertford and Ware	Improve the wayfinding (for example "monoliths" information panels) for key locations between Hertford and Ware, particularly for walking, cycling and public transport routes. Key locations include historic, cultural and natural assets, Hertford East railway station, the River

Linked Projects	ID	Name	Description
			Lea towpath and the town centres of Hertford and Ware. (IC23)
	<b>SM58</b>	A119 and A414 bus priority measures	Bus priority measures along A119 and A414 to decrease bus journey time and make buses more attractive. Measures could include signalised vehicle detection and a priority gate installed on the A414 approach of the A119 Ware Road / Mill Road junction, parking restrictions and others in line with the Intalink Bus Priority study. (IC6).
	<b>SM59</b>	Hertford East interchange improvements	Improve the public realm, reduce traffic dominance and improve walking and cycling connectivity to Hertford East railway station through walking and cycling provision on Railway Street, for example junction entry treatments including raised tables for pedestrians crossing the road, potentially reduced speed limits if in accordance with the Speed Management Strategy and wayfinding. (IC22)
	<b>SM61</b>	A119 cycle safety improvements	Improve cycle safety on the A119 between Ware and Hertford. (IC22)
	<b>SM62</b>	Traffic management - north east development site in Ware	Manage the traffic impact of new development to the north east of Ware on the A119 and off Mead Lane. (Hertford) (IC21)
	<b>SM64</b>	Walking and cycling junction improvements	Improve walking and (where permitted) cycling provision on routes linking Hertford and Ware, including the A119 (where improvements to junctions would promote safety and access for pedestrians and cyclists), public footpaths 32 and 35, and the River Lea towpath. (IC9)
	<b>SM65</b>	Electric vehicle charging points between Hertford and Ware	Help enable the improved provision of electric vehicle charging points at key locations between Hertford and Ware to promote an uptake in electric vehicle use. (IC11)
	<b>SM68</b>	Parking management between Hertford and Ware	Work with operators and East Hertfordshire District Council to review on and off-street car parking provision at key locations between Hertford and Ware through paid parking, parking limitations and other measures. Consider

Linked Projects	ID	Name	Description
			alteration of on-street parking where there are opportunities to widen footways and improve crossing facilities, with the aim to shift people toward sustainable travel. With a focus in particular on A119 Ware Road/Hertford Road and B1502 Stanstead Road. (IC12)
	<b>SM94</b>	National Cycle Network 61 improvements	Improvements to National Cycle Network 61 cycle route into and through Hertford, including surfacing improvements to the Cole Green Way and Hertford to Ware towpath to make it an all-year round utility route and improved connections to Hertford North station, Hertford Town Centre and Hertford East station. (IC22)
	<b>SM523</b>	Cole Green Way to A1000 and Hatfield town centre	Provide improved active travel connections from the Cole Green Way to the A1000 and Hatfield town centre. (IC22)

## PK14 - Stevenage - Hertford / Ware Corridor

The overarching aim of Package 14 is:

### Multi modal improvements to the A119, A602 and Hertford Loop railway to improve connectivity between Hertford, Ware and Stevenage

The Package consists of:

- Improvements to bus services between Hertford, Ware and Stevenage, including bus stop improvements
- Promotion of available sustainable travel options along this corridor

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

**Table 21 – PK14 – Stevenage - Hertford / Ware Corridor**

Linked Projects	ID	Name	Description
	PR78	Promote available sustainable travel options between Stevenage and Hertford/Ware	Promote the available public transport services and active travel routes between Stevenage and Hertford / Ware to encourage an uptake in sustainable travel. (IC12)
	PR82	Bus stop improvements between Stevenage and Hertford/Ware	Upgrade bus stop facilities serving routes between Stevenage - Hertford / Ware to improve safety and access to bus services. (IC18)
	PR84	Real time information at bus stops between Stevenage and Hertford/Ware	Provide real time information at public transport stops to facilitate better journey planning and reliability between Stevenage - Hertford / Ware. (IC20)
	SM83	Improve bus provision between Stevenage and Hertford/Ware	Improve the bus service provision between Stevenage - Hertford / Ware to encourage more public transport use. (IC18)

## PK15 - Welwyn Garden City / Hatfield - Hertford / Ware Highway Improvements

The overarching aim of Package 15 is:

### A series of improvements to reduce delay, incorporate better facilities for pedestrians and cyclists, and to facilitate development.

- The A414 is a key strategic traffic route and part of the Major Road Network. There are a number of key junctions along it and this package identifies potential improvement measures to encourage traffic to stay on this route rather than routing to less suitable roads.
- In the longer term there are proposals for the HERT mass rapid transit system to run along this corridor, so any changes need to be complementary to this aim.

The Package consists of:

- Alterations to roundabouts on the A414 to facilitate new development and the proposed HERT mass rapid transit system
- Improvements to A1(M) junctions to improve inter-urban travel between Hertfordshire towns and to reduce severance for active and sustainable travel

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

**Table 22 – PK15 – Welwyn Garden City / Hatfield - Hertford / Ware Highway Improvements**

<b>Linked Projects</b>	<b>ID</b>	<b>Name</b>	<b>Description</b>
	<b>PR92</b>	Holwell Lane/A414 roundabout improvements	Holwell Lane/A414 roundabout improvements to facilitate new development. Improvements to include appropriate sustainable transport provision. (IC7)
	<b>SM86</b>	A414/B195 Birchall Lane/ Cole Green Lane Roundabout improvements	A414/B195 Birchall Lane/ Cole Green Lane Roundabout improvements to facilitate new development. Improvements to include appropriate sustainable transport provision. (IC7)
	<b>SM87</b>	A1(M) Junction 4 – ‘Jack Oldings’ roundabout improvement	A1(M) Junction 4 – ‘Jack Oldings’ roundabout improvement, including improvement of facilities for active travel. (IC7)
	<b>SM88</b>	A1(M) Junction 6 roundabout improvements	A1(M) Junction 6 including Clock Roundabout - improvements to the 4 roundabouts comprising this junction, including measures to reduce rat running onto the B197 and improved active travel facilities. (IC7)
	<b>SM89</b>	Comet Way/Wellfield Road junction signalisation	Upgrade the Comet Way roundabout to incorporate signals for congested approaches and changes to approach lane layout. (IC7)
	<b>SM91</b>	Birchall Lane roundabout improvements	Improvements to the Birchall Lane roundabout to help facilitate new development. Improvements to include appropriate sustainable transport provision. (IC7)
	<b>SM523</b>	Cole Green Way to A1000 and Hatfield town centre	Provide improved active travel connections from the Cole Green Way to the A1000 and Hatfield town centre. (IC22)

## PK16 - Welwyn Garden City / Hatfield - Hertford / Ware Sustainable Travel Corridor

The overarching aim of Package 16 is:

**Improve cycling and public transport links in combination with management of parking to encourage sustainable travel between Welwyn Garden City/Hatfield and Hertford**

The Package consists of:

- Improvements to local bus services, including upgraded bus stops and marketing

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

**Table 23 – PK16 – Welwyn Garden City / Hatfield - Hertford / Ware Sustainable Travel Corridor**

Linked Projects	ID	Name	Description
	<b>PR97</b>	Promote available sustainable travel options between Welwyn Garden City/Hatfield and Hertford/Ware	Promote the available public transport services and active travel routes between Welwyn Garden City / Hatfield and Hertford / Ware to encourage an uptake in sustainable travel. (IC12)
<b>LP4</b>	<b>PR101</b>	Bus stop improvements between Welwyn Garden City/Hatfield and Hertford/Ware	Upgrade bus stop facilities serving routes between Welwyn Garden City / Hatfield - Hertford / Ware to improve safety and access to bus services. (IC18)
<b>LP4</b>	<b>PR103</b>	Real time information at bus stops between Welwyn Garden City/Hatfield and Hertford/Ware	Provide real time information at public transport stops to facilitate better journey planning and reliability between Welwyn Garden City / Hatfield - Hertford / Ware. (IC20)
	<b>SM94</b>	National Cycle Network 61 improvements	Improvements to National Cycle Network 61 cycle route into and through Hertford, including surfacing improvements to the Cole Green Way and Hertford to Ware towpath to make it an all-year round utility route and improved connections to Hertford North station, Hertford Town Centre and Hertford East station. (IC22)
	<b>SM96</b>	Electric vehicle charging points between Welwyn Garden City/Hatfield and Hertford/Ware	Help enable the improved provision of electric vehicle charging points at key locations between and within Welwyn Garden City / Hatfield and Hertford / Ware to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy. (IC11)
	<b>SM99</b>	Parking management between Welwyn Garden	Work with operators and local authorities to manage car parking provision at key locations

Linked Projects	ID	Name	Description
		City/Hatfield and Hertford/Ware	between Welwyn Garden City / Hatfield - Hertford / Ware through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, stations, town centres, activity centres and large employment sites. (IC15)
	<b>SM102</b>	Improved bus provision between Welwyn Garden City/Hatfield and Hertford/Ware	Improve bus service provision between Welwyn Garden City, Hatfield, Hertford and Ware through better coordination of bus service timetables to improve service frequency (as identified in HCC's Bus Service Improvement Plan) to encourage more public transport use. (IC18)

### Packages 12-16 Hertford/Ware – inter-urban links to the west and north-west - overview

Five packages relate to transport links between the towns of Hertford and Ware and those to neighbouring towns to the west and north-west, primarily Hatfield, Welwyn Garden City and Stevenage.

These towns are well-linked by road, including the A414, A119 and A602. The A414 is formed of a dual carriageway and sections of the A602 have been subject to improvement works in recent years which are now in the final phase of completion. Hertford and Ware are well connected by road and public transport including rail and bus. Hertford is connected to Stevenage by rail. Neither Hertford or Ware are connected by rail to Welwyn Garden City or Hatfield (the former railway line closed many decades ago and now functions as part of the National Cycle Network).

Recognising the current provision of transport, including the dominance of traffic, the proposed interventions seek to improve facilities for pedestrians and cyclists as well as improve bus service provision for journeys taking place between these towns, including to/from the rural area and smaller villages in between.

The GTP places emphasis on a range of interventions which could be simpler to deliver in the short to medium term. There is clearly a strategic gap in fast, frequent, high quality public transport provision between Hertford and Welwyn Garden City / Hatfield which the GTP's proposals do not fully seek to address.

Through the A414 Corridor Strategy, proposals have been put forward for a cross-county Mass Rapid Transit system which could take the form of an express bus or tram/light rail which could plug this gap.

With housing growth coming forward in each of these towns (and across wider Hertfordshire), such an intervention is considered critical as it will provide people with an attractive alternative to the car for making journeys between towns across Hertfordshire. It could also help to mitigate the impact of increasing traffic flows in the future.

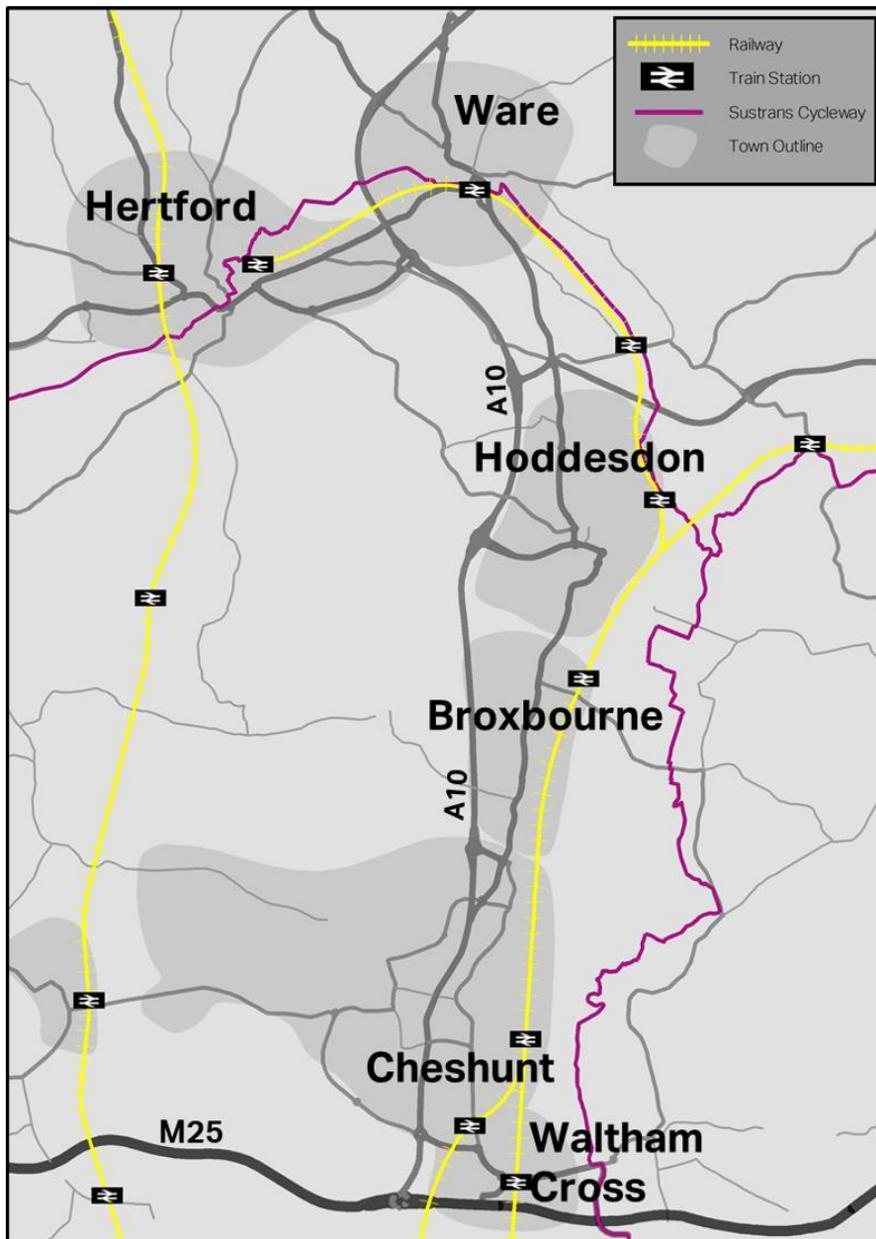
## Hertford/Ware – inter-urban links to the south

The following packages have been defined for the inter-urban routes to the south of Hertford and Ware.

**Table 24 – Hertford/Ware – inter-urban links to the south Package (PK 17)**

Packages	Package Group / Area
PK17	Hertford/Ware - Broxbourne Towns Sustainable Travel Corridor

Hertford and Ware are linked to countryside, villages and other towns to the south, including Hoddesdon, Broxbourne, Cheshunt and Waltham Cross, via the A10 dual carriageway highway corridor and the more minor A1170 and B176 local routes. The River Lea also connects these areas with various sections of towpaths facilitating active travel. Local bus services also link the towns although the rail is the major public transport link with the Hertford East branch line railway connecting into the West Anglia Main Line.



**Figure 12- Map of Hertford/Ware links to the south**

## PK17 – Hertford/Ware – Broxbourne Towns Sustainable Travel Corridor

The overarching aim of Package 17 is:

**A wide range of measures to encourage sustainable travel including parking management, travel planning, marketing and more effective provision of travel information**

The Package consists of:

- Improved local connections to the Lee Valley Cycle Route
- Improved bus connections between Hertford/Ware and Broxbourne
- Improvements to the A10/A414 Rush Green roundabout

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

**Table 25 – PK17 – Hertford/Ware – Broxbourne Towns Sustainable Travel Corridor**

Linked Projects	ID	Name	Description
	<b>SM58</b>	A119 and A414 bus priority measures	Bus priority measures along A119 and A414 to decrease bus journey time and make buses more attractive. Measures could include signalised vehicle detection and a priority gate installed on the A414 approach of the A119 Ware Road / Mill Road junction, parking restrictions and others in line with the Intalink Bus Priority study. (IC6).
	<b>SM104</b>	Broxbourne Towns east-west cycle connectivity	Improve east-west cycle provision connecting Broxbourne towns to Lee Valley Cycle Route. (IC22)
	<b>SM527</b>	Rush Green Roundabout pedestrian and cycle crossings	Improvements to address traffic congestion on the entries and exits to/from the roundabout and provision of an upgraded, signal-controlled set of crossings for pedestrians and cyclists on the south-western side of the Rush Green Roundabout between the B1502 (Hertford) and B1502 (Rush Green/Great Amwell). Also required are sections of upgraded footway and off-road cycleway leading to the crossings on either side of the roundabout. (IC22)

## **Package 17 Hertford/Ware – inter-urban links to the south - overview**

A single package has been formed which addresses inter-urban links between Hertford, Ware and areas to the south including primarily Hoddesdon, Broxbourne, Cheshunt and Waltham Cross.

As well as roads including the A10, A414, A1170, B1502 and B1197, these towns are also connected by rail services (direct trains running from Hertford East via Ware through the Broxbourne towns towards London) and local bus services (including services via Hertford Heath).

Package 17 seeks to build upon these connections by implementing bus priority to improve the reliability of bus services at the busy A10/A414 Rush Green roundabout between Hertford and Ware and implement better cycle connections within the Broxbourne towns.

## Stanstead Abbots, St Margarets and Great Amwell

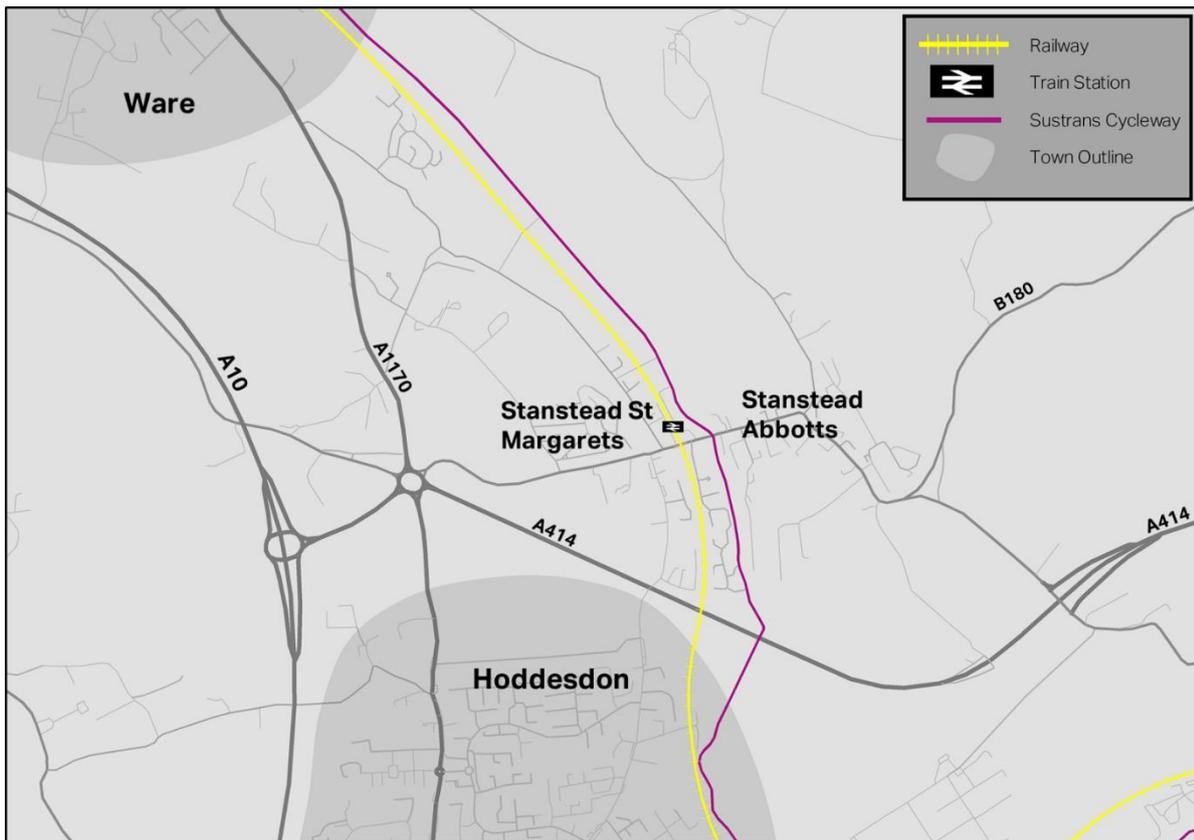
The following packages have been defined for area of Stanstead Abbots, St Margarets Great Amwell and surrounding villages.

**Table 26 – Stanstead Abbots, St Margarets and Great Amwell Packages (PK18 and PK19)**

Packages	Package Group / Area
PK18	Stanstead Abbots and St Margarets Traffic Management
PK19	Stanstead Abbots, St Margarets and Great Amwell Sustainable Travel Choices

Two packages have been created which cover the villages of Great Amwell, Stanstead Abbots and St Margarets which are located between Ware and Hoddesdon. Stanstead Abbots and St Margarets benefit from a railway station on the Hertford East branch line with direct train services to Hertford, Ware, the Broxbourne towns and London. Great Amwell is located less than a kilometre to the north west. The villages also benefit from bus connections including services north to Ware, south towards Waltham Cross via Hoddesdon and east towards Harlow.

The interventions put forward aim to improve local connectivity by bus, on foot and by bike, in particular to St Margarets railway station and along the high street which runs through the villages. The packages also aim to reduce the impact of traffic, including through traffic which has neither an origin or destination within the villages, for example people driving between Ware and Harlow which are avoiding the A414.



**Figure 13 - Map of Stanstead St Margarets and Stanstead Abbots**

The packages are described in turn.

## PK18 – Stanstead Abbots and St Margarets Traffic Management

The overarching aim of Package 18 is:

### Management of traffic through Stanstead Abbots and St Margarets

The Package consists of:

- Measures to manage any knock-on traffic impact of NE Ware development
- Signage which aims to discourage rat-running through the villages to avoid congestion at the Amwell Roundabout and for routing towards Harlow Pinnacles area

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

**Table 27 – PK18 – Stanstead Abbots and St Margarets Traffic Management**

Linked Projects	ID	Name	Description
	SM107	Stanstead St Margarets traffic management	Manage the traffic impact of the new development to the north east of Ware which could generate some new traffic on roads in Stanstead St Margarets. (IC21)
	SM108	Manage through traffic in Stanstead St Margarets	Discourage through traffic in Stanstead St Margarets routing towards Harlow (including the Pinnacles employment area). (IC21)

## PK19 – Stanstead Abbots, St Margarets and Great Amwell Sustainable Travel Choices

The overarching aim of Package 19 is:

### Measures to improve sustainable travel to, from and within Stanstead Abbots and Stanstead St Margarets villages.

The Package consists of:

- Improved crossing facilities on the B181 in Stanstead St Margarets
- Marketing and promotion of existing sustainable travel measures
- Bus stop improvements

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

**Table 28 – PK19 – Stanstead Abbots, St Margarets and Great Amwell Sustainable Travel Choices**

<b>Linked Projects</b>	<b>ID</b>	<b>Name</b>	<b>Description</b>
	<b>PR109</b>	B181 pedestrian crossing facilities	Improve pedestrian crossing facilities on the B181 in Stanstead St Margarets. (IC22)
	<b>PR111</b>	Micromobility Parking and Charging Facilities in Stanstead Abbots and St Margarets	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations between Hertford and Ware to promote cycling uptake. Key locations include the town centre, e.g. on Fore Street or Bull Plain, Hertford East railway station, Tesco Superstore, and Sainsbury's. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	<b>PR112</b>	Bus priority measures - Stanstead Abbots and St Margarets	Install bus priority measures in key junctions in Stanstead Abbots and St Margarets to improve bus journey times and reliability. (IC6)
	<b>PR115</b>	Promote available sustainable travel options in Stanstead Abbots and St Margarets	Promote the available public transport services and active travel routes in Stanstead Abbots and St Margarets to encourage an uptake in sustainable travel. (IC12)
<b>LP5</b>	<b>PR119</b>	Bus stop improvements in Stanstead Abbots and St Margarets	Upgrade bus stop facilities to improve safety and access to bus services in Stanstead Abbots and St Margarets. (IC18)
<b>LP5</b>	<b>PR121</b>	Real time information at bus stops in Stanstead Abbots and St Margarets	Provide real time information at public transport stops to facilitate better journey planning and reliability, in Stanstead Abbots and St Margarets. (IC20)
	<b>PR122</b>	Wayfinding - Stanstead Abbots and St Margarets	Improve the wayfinding between key locations, particularly for walking, cycling and public transport routes. (IC23)
	<b>PR501</b>	A1170 Great Amwell pedestrian crossing	Improved crossing facilities for pedestrians and cyclists on the A1170 Pepper Hill north of the Amwell Roundabout (near to the bus stops). (IC22)

Linked Projects	ID	Name	Description
	<b>SM110</b>	Stanstead St Margarets cycling improvements	Improve cycle safety in Stanstead St Margarets. (IC22)
	<b>SM113</b>	Interchange improvements - Stanstead Abbots and St Margarets	Improve access between sustainable travel modes at key interchange locations in Stanstead Abbots and St Margarets. (IC10)
	<b>SM114</b>	Electric vehicle charging points in Stanstead Abbots and St Margarets	Help enable the improved provision of electric vehicle charging points at key locations in Stanstead Abbots and St Margarets to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy. (IC11)
	<b>SM528</b>	Great Amwell A1170-B181 footway and cycle route upgrade	Upgrade to the existing footway to facilitate the movement of pedestrians and cyclists between Gypsy Lane and B181 High Street. (IC22)
	<b>SM529</b>	New River Path Ware to Stanstead St Margarets upgrade	Upgrade of the existing New River Path including (where feasible) widening and improved surfacing to improve access and connectivity for pedestrians and cyclists between Ware (Viaduct Road) and St Margarets (B181) High Street). (IC22)

### Packages 18-19 Stanstead Abbots, St Margarets and Great Amwell - overview

Two packages have been created which cover the villages of Stanstead Abbots, St Margarets and Great Amwell, which are located between Ware and Hoddesdon. The villages benefit from a railway station with direct train services to Hertford, Ware, the Broxbourne towns and London.

The interventions put forward aim to improve local connectivity by bus, on foot and by bike, to St Margarets railway station, along the high street, and between Great Amwell and Stanstead Abbots/St Margarets for people travelling on foot and by bike, including how they cross the A1170 Pepper Hill. The packages also aim to reduce the impact of traffic, including through traffic which has neither an origin or destination within the villages, for example people driving between Ware and Harlow which are avoiding the A414.

## Hertford/Ware – inter-urban links to the north and east

The following packages have been defined for Hertford and Ware inter-urban links to the north and east.

**Table 29 – Hertford/Ware interurban links to the north east Packages (PK20 and PK21)**

Packages	Package Group / Area
PK20	North and north-eastern inter-urban connections (Hertford / Ware - Bishop's Stortford, Sawbridgeworth and Buntingford)
PK21	Eastern and south-eastern inter-urban connections (Hertford / Ware - Harlow and Broxbourne towns)

Hertford and Ware are linked to countryside, villages and other towns to the north and east-west, including Buntingford, Bishop’s Stortford and Harlow, via key transport links including the A10, A414 and West Anglia Main Line/Hertford East branch line. Bishop’s Stortford can be reached via the cross-country B1004 route. The A120 links the A10 and Bishop’s Stortford and includes the recently completed Little Hadham Bypass.



**Figure 14 - Map of Hertford/Ware links to the east**

The packages are described in turn.

**PK20- North and north-eastern inter-urban connections (Hertford / Ware - Bishop's Stortford, Sawbridgeworth and Buntingford)**

The overarching aim of Package 20 is:

**A range of measures to improve multi-modal travel between Hertford/Ware and towns to the north and north-east**

The Package consists of:

- Improved local bus services with additional marketing and promotion
- Highway improvements including duelling of the A10 south of Buntingford

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

**Table 30 – PK20 – North and north-eastern inter-urban connections (Hertford / Ware - Bishop's Stortford, Sawbridgeworth and Buntingford)**

<b>Linked Projects</b>	<b>ID</b>	<b>Name</b>	<b>Description</b>
	<b>PR129</b>	Promote available sustainable travel options between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	Promote the available public transport services and active travel routes between Bishop's Stortford / Sawbridgeworth / Harlow and Hertford / Ware to encourage an uptake in sustainable travel. (IC12)
<b>LP5</b>	<b>PR132</b>	Bus stop improvements between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	Upgrade bus stop facilities serving routes between Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware to improve safety and access to bus services. (IC18)
<b>LP5</b>	<b>PR133</b>	Real time information at bus stops between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	Provide real time information at public transport stops to facilitate better journey planning and reliability between Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware. (IC20)
	<b>SM123</b>	A10/London Road junction improvements, Buntingford	Improvements at or close to the A10/London Road roundabout, Buntingford, to provide facilities for pedestrians and cyclists. (IC22)
	<b>SM124</b>	A10 southbound dualling, south of Buntingford	Dualling of A10 southbound to improve journey time reliability, including for public transport and to facilitate improvements for active travel. (IC18)
	<b>SM126</b>	Improved bus connectivity between Hertford and Bishop's Stortford	Improve bus connectivity between Hertford and Bishop's Stortford, including consideration to extend provision of the

Linked Projects	ID	Name	Description
			Herts Lynx DRT service into the Hertford and Ware area to fill gaps in service. (IC18)
	<b>SM127</b>	Improved bus connectivity between Ware and Bishop's Stortford	Improve bus connectivity between Ware and Bishop's Stortford. (IC18)
	<b>SM128</b>	Electric vehicle charging points between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	Help enable the improved provision of electric vehicle charging points at key locations between Bishop's Stortford / Sawbridgeworth / Harlow and Hertford / Ware to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy. (IC11)
	<b>SM134</b>	Parking management between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	Work with operators and local authorities to manage car parking provision at key locations in/between Hertford, Ware, Sawbridgeworth and Bishop's Stortford through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel along the interaction. Key locations include car parks, stations, town centres, activity centres and large employment sites. (IC12)
	<b>SM527</b>	Rush Green Roundabout pedestrian and cycle crossings	Improvements to address traffic congestion on the entries and exits to/from the roundabout and provision of an upgraded, signal-controlled set of crossings for pedestrians and cyclists on the south-western side of the Rush Green Roundabout between the B1502 (Hertford) and B1502 (Rush Green/Great Amwell). Also required are sections of upgraded footway and off-road cycleway leading to the crossings on either side of the roundabout. (IC22)

**PK21 – Eastern and south-eastern inter-urban connections (Hertford / Ware - Harlow and Broxbourne towns)**

The overarching aim of Package 21 is:

**A range of measures to improve multi-modal travel between Hertford/Ware and towns to the east and south-east**

The Package consists of:

- Improvements to the Amwell Roundabout
- Improvements in direct public transport links between Hertford, Ware and Harlow
- Electric vehicle charging at key locations along the corridor

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

**Table 31 – PK21 – Eastern and south-eastern inter-urban connections (Hertford / Ware - Harlow and Broxbourne towns)**

Linked Projects	ID	Name	Description
	SM125	Amwell Roundabout improvement	Improvements to the Amwell Roundabout to facilitate sustainable travel including the proposed HERT mass rapid transit system and provide improved crossing provision for pedestrians and cyclists, in particular between the A1170 north and south and between the B1502 and A1170 south arms to improve active travel connectivity between Great Amwell and Hoddesdon. (IC8)
	SM135	Improved sustainable transport provision between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	Improve local bus and rail service provision between Bishop's Stortford, Sawbridgeworth, Harlow and the Broxbourne Towns to encourage an uptake in sustainable travel, reduce car journeys and improve air quality. (IC15)
	SM136	Parking management between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	Work with operators and local authorities to manage car parking provision at key locations in/between Bishop's Stortford, Sawbridgeworth, St Margarets and Stansted Abbots through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel along the interaction. Key locations include car parks, stations, town centres, activity centres and large employment sites. (IC12)

Linked Projects	ID	Name	Description
	SM140	Electric vehicle charging points between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	Help enable the improved provision of electric vehicle charging points at key locations between Bishop's Stortford / Sawbridgeworth / Harlow and Broxbourne Towns to promote an uptake in electric vehicle use, in line with the HCC's emerging EV Charging Infrastructure Strategy. (IC11)
	SM525	Stansted to Rye House strategic cycle route	Cycle provision connecting key locations between Lea Valley, Harlow and Stansted as identified as part of the Stansted to Rye House strategic cycle route. (IC22) (referenced as SM280 in the Eastern Area GTP)

### Packages 20-21 Hertford/Ware – inter-urban links to the north and east - overview

Public transport provision between Hertford, Ware and Bishop’s Stortford is fairly limited and therefore people place more reliance upon using a car. For example, to travel by train, a passenger will need to change trains at Broxbourne station. There is a choice of road links, with the dual carriageway A10 providing a fast-moving route and the A120 more recently having been improved with the opening of the Little Hadham bypass.

The small but expanding town of Buntingford lies almost 10 miles to the north of Hertford and Ware. The A10 is the main transport route and whilst direct bus services link the towns, they are not very frequent. There is no railway line (which closed in the mid-1960s). People typically travel out from Buntingford in many different directions for work and leisure, including south towards Hertford and Ware but also east towards Bishop’s Stortford and Stansted Airport, north towards Royston and Cambridge, and west towards Stevenage. Car is the dominant form of transport for trips between Buntingford and other towns, although the recently introduced HertsLynx Demand Responsive Transit service now provides a flexible, public transport service for people travelling in and around the town.

Recognising the difficulty of providing conventional public transport services to so many destinations, a Demand Responsive Transport scheme (HertsLynx) has recently been launched to fill gaps in service provision and it is suggested that the operating area is extended to provide links to Hertford and Ware.

The emphasis in these packages is to build upon existing public transport services and address areas of highway congestion between these towns.

## Harlow and Gilston

The following packages have been defined for Harlow and Gilston.

**Table 32 – Harlow and Gilston Packages (PK22 and PK23)**

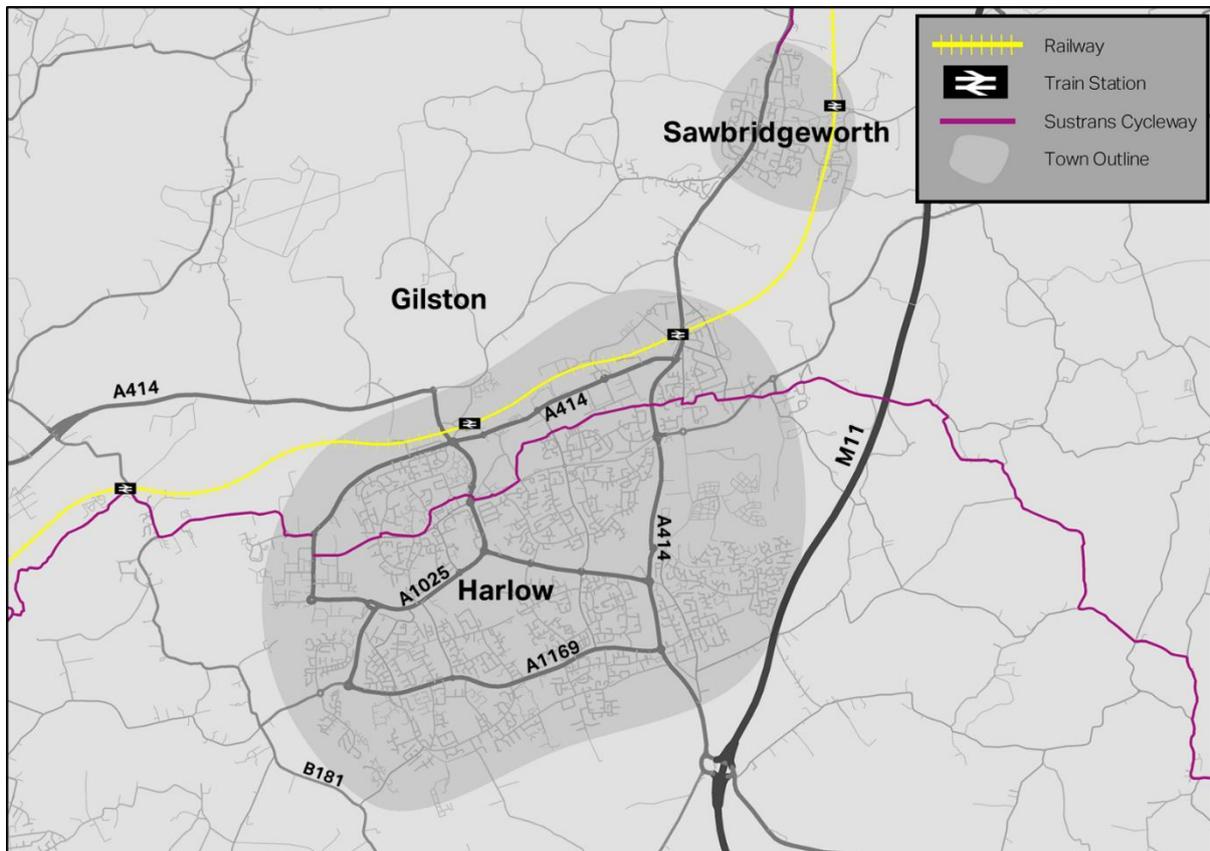
Packages	Package Group / Area
PK22	Harlow Highway Measures
PK23	Harlow Sustainable Travel Measures

The two packages of interventions put forward for Harlow and Gilston Garden Town highlight the importance of transport infrastructure to support major Garden Town development. There is significant opportunity to build-in sustainable travel behaviour from ‘day one’ of residents moving into the new Garden Town with high quality bus links, footways and cycle routes.

Key infrastructure includes sustainable transport corridors into Harlow town, including the town centre and railway station as well as some local highway improvements being brought forward by Essex County Council.

This is not intended to represent a full schedule of transport infrastructure as further interventions will be promoted by the Garden Town Steering Group.

The proposed HERT east-west mass rapid transit system is proposed to link Harlow-Gilston with Hertford, Ware, Welwyn Garden City, Hatfield and beyond. This potential new public transport route is currently being developed by Hertfordshire County Council.



**Figure 15 - Map of Harlow and Gilston**

The packages are described in turn.

## PK22 – Harlow Highway Measures

The overarching aim of Package 22 is:

**A range of highway improvements to reduce congestion and improve connectivity in northern Harlow (including measures promoted by Essex County Council and those associated with the planned Gilston Park development)**

The Package consists of:

- A new River Stort crossing
- Widening of the existing Fifth Avenue river crossing to incorporate bus priority

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

**Table 33 – PK22 – Harlow Highway Measures**

Linked Projects	ID	Name	Description
	<b>SM141</b>	Widening of River Stort Central crossing	Widening of Central crossing over River Stort from Eastwick Roundabout to Burnt Mill Roundabout to provide a sustainable travel corridor between the Gilston Park development and Harlow. (IC7) (SM275 in the EA GTP)
	<b>SM142</b>	Edinburgh Way/Howard Way junction improvement	A414 Edinburgh Way/Howard Way improvement scheme. (IC5)
	<b>SM143</b>	Edinburgh Way/Retail Park junction improvement	A414 Edinburgh Way/Retail Park junction improvement. (IC5)
	<b>SM144</b>	Gilston development access arrangements	Gilston development access arrangements, including provisions for active and sustainable travel. (IC5)
	<b>SM510</b>	New River Stort crossing	New Second Stort Crossing to the east of the existing crossing to reduce through-traffic within Harlow and to provide additional access, including provision for active and sustainable travel, to the Gilston Park Development. (IC7) (SM276 in the EA GTP)
	<b>SM511</b>	M11 Junction 7 upgrade	M11 Junction 7 upgrade scheme to reduce congestion, improve air quality and facilitate growth delivered as part of Harlow-Gilston Garden Town – delivered in conjunction with the new Junction 7a. (IC7) (SM291 in the EA GTP)

## PK23 – Harlow Sustainable Travel Measures

The overarching aim of Package 23 is:

### A range of sustainable travel measures to support the Garden Town masterplan, including the Gilston Park development

The Package consists of:

- New north-south and east-west Sustainable Travel Corridors incorporating bus priority and improved walking/cycling links
- Improved access to Harlow Town railway station, including a new northern access

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

**Table 34 – PK23 – Harlow Sustainable travel measure**

Linked Projects	ID	Name	Description
	<b>PR502</b>	Cycle parking at key destinations in Harlow	Work with Essex County Council (as scheme promoter) to improve cycle parking provision at key locations in Harlow to promote cycling uptake. Key locations include Harlow Mill station, Riverside Way Industrial Estate, retail parks along Edinburgh Way and Old Harlow town centre and Mark Hall Sports Centre. (IC2) (PR283 in the EA GTP)
	<b>SM145</b>	North-south and east-west sustainable travel corridors	Work with Essex County Council to increase PT and active travel mode share through a framework of North-south and east-west sustainable transport corridors, including connections to the proposed HERT mass rapid transit system. (IC22)
	<b>SM146</b>	Workplace parking levy	Work with Essex County Council (as scheme promoter) to review options for the implementation of a Workplace Parking Levy. (IC14)
	<b>SM147</b>	Park and Ride	Work with Essex County Council to review options for a Park and Ride facility which links to the proposed HERT mass rapid transit system. (IC14)
	<b>SM148</b>	Harlow station access arrangements	Work with Essex County Council to review options for improved access to Harlow Town Station and adjoining Areas. (IC10)

Linked Projects	ID	Name	Description
	<b>SM512</b>	Lea Valley/Harlow/Stansted cycle route	Work with Essex County Council to investigate cycle provision connecting key locations between Lea Valley, Harlow and Stansted, complementary to the Stansted to Rye House strategic cycle route. (IC22) (SM280 in the EA GTP)
	<b>SM513</b>	Harlow Enterprise Zone rail accessibility	Work with Essex County Council, operators and Network Rail to improve rail accessibility to the Harlow Enterprise Zone sites (Templefields, Kao Park and Science Park). (IC18) (SM282 in the EA GTP)

## Packages 22-23 Harlow and Gilston - overview

The two packages of interventions put forward for Harlow and Gilston Garden Town highlight the importance of transport infrastructure to support major Garden Town development. There is significant opportunity to build-in sustainable travel behaviour from 'day one' of residents moving into the new Garden Town with high quality bus links, footways and cycle routes.

Key infrastructure includes sustainable transport corridors into Harlow town, including the town centre and railway station as well as some local highway improvements being brought forward by Essex County Council.

This is not intended to represent a full schedule of transport infrastructure as further interventions will be promoted by the Garden Town Steering Group.

The proposed HERT east-west mass rapid transit system is proposed to link Harlow-Gilston with Hertford, Ware, Welwyn Garden City, Hatfield and beyond. This potential new public transport route is currently being developed by Hertfordshire County Council.

## Broxbourne Towns

The following packages have been defined for Broxbourne Towns.

**Table 35 – Broxbourne Town Packages (PK24 - PK35)**

<b>Packages</b>	<b>Package Group / Area</b>
PK24	Old A10 Corridor Sustainable Travel Corridor
PK25	Hoddesdon Northern Sustainable Travel Corridors
PK26	Prioritising Pedestrians and Cyclists in Hoddesdon Town Centre
PK27	Brookfield Connectivity
PK28	Broxbourne Public Transport Improvements
PK29	Cheshunt Employment Sites
PK30	Road Improvements across Broxbourne
PK31	Enhancement for Pedestrians and Cyclists across Broxbourne
PK32	Prioritising Pedestrians and Cyclists across Cheshunt
PK33	Prioritising Pedestrians and Cyclists across Waltham Cross
PK34	Broxbourne Towns Travel Demand Management
PK35	Broxbourne Towns Parking Management

Broxbourne borough comprises a series of interlocking towns including Hoddesdon, Broxbourne, Cheshunt and Waltham Cross. The A10 runs through Broxbourne giving it direct links with the M25 and London. The West Anglia Main Line and adjoining Southbury Loop also run through the area, connecting to Greater London, Hertford, Ware, Harlow, and Cambridge. The A1170 (old A10 route) and B176 form the key local distributor route through the Broxbourne towns. The area is bounded to the east by the Lea Valley Park.

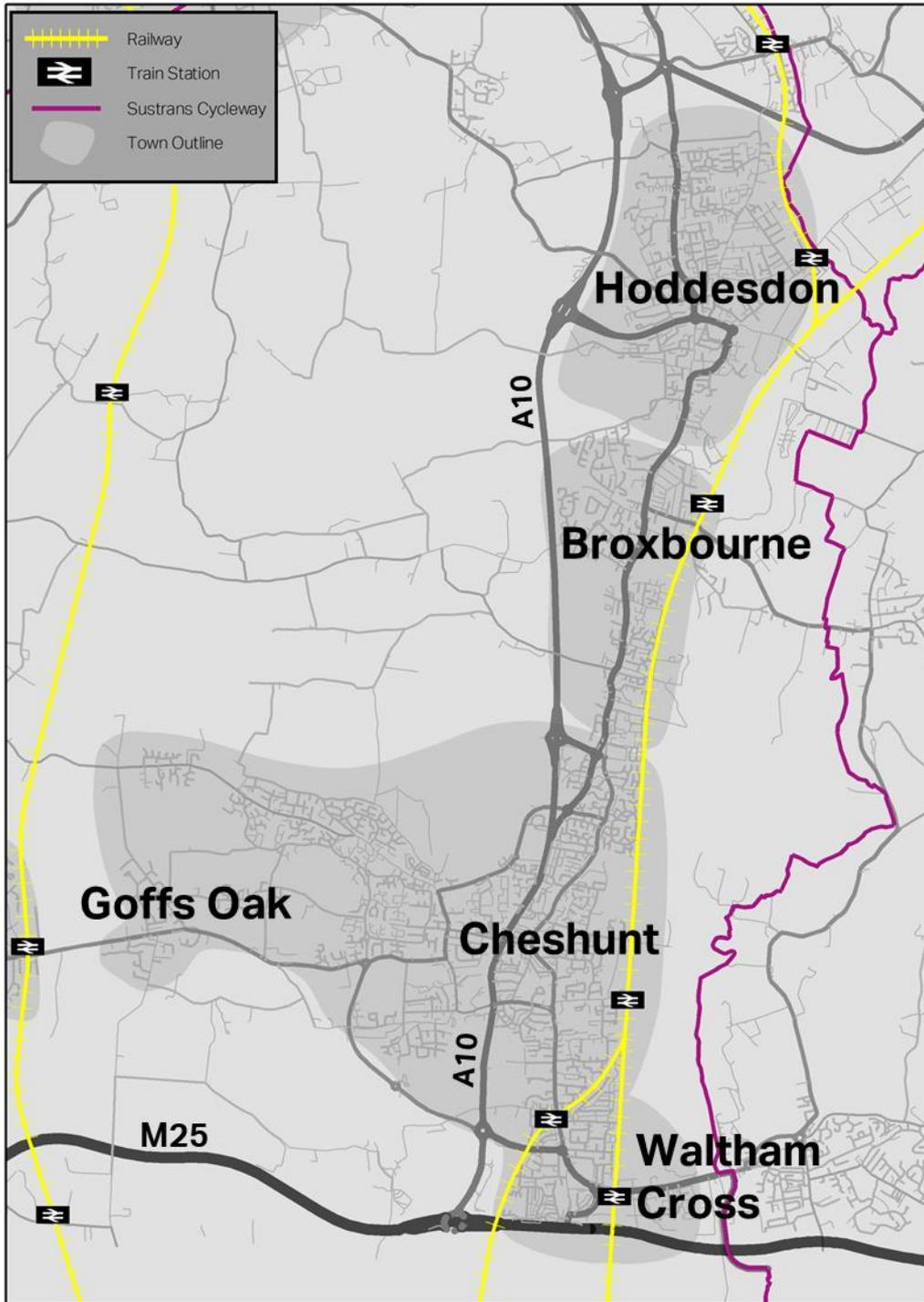


Figure 16 - Map of the Broxbourne Towns

The packages are described in turn.

## PK24 – Old A10 Corridor Sustainable Travel Corridor

The overarching aim of Package 24 is:

**To create a sustainable travel corridor on the Old A10 (A1170, B176, Stansted Road) to facilitate greater levels of sustainable travel north-south within Broxbourne.**

The Package consists of:

- Improved walking and cycling facilities on the Old A10 corridor
- Measures to improve bus journey reliability

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

**Table 36 – PK24 – Old A10 Corridor Sustainable Travel Corridor**

Linked Projects	ID	Name	Description
	<b>SM179</b>	B176 walking and cycling improvements	Walking & Cycling enhancements along B176 and to Station Road/B194. (IC22)
	<b>SM190</b>	A1170/B176 walking and cycling junction improvements	On-road pedestrian/cycle improvements to A1170/B176. (IC22)
	<b>SM260</b>	A1170 (Old A10)- 20mph speed limit	20mph speed limits on the corridor in order to discourage through-traffic. This offers an opportunity to provide a safer on-road environment for cyclists, replacing the existing narrow cycle lanes. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel. (IC21)
	<b>SM391</b>	Selective Vehicle Detection systems	Introduce Selective Vehicle Detection systems to provide priority for buses along the old A10 at (i) Junction of Station Road / High Road, Broxbourne, (ii) Vancouver Road / A1170, Turnford, (iii) Church Lane / Turners Hill, Cheshunt, and (iv) Old Pond, Cheshunt. (IC6)
	<b>SM514</b>	Old A10 walking improvements	Introduce measures to encourage more walking along and across the old A10, including raised tables, improved crossing facilities, widening of footways, and a review of speed limits. (IC22)

Linked Projects	ID	Name	Description
	<b>SM515</b>	Old A10 cycling improvements	Introduce measures to encourage more cycling along and across the old A10, including considerations to improve existing advisory cycle lanes to a safer standard. (IC22)
	<b>SM516</b>	Improved connectivity to Old A10 corridor	Improved sustainable connectivity along the old A10 (including A1170) corridor from existing and future developments resulting from the Broxbourne Local Plan. (IC15)

## PK25 – Hoddesdon Northern Sustainable Travel Corridors

The overarching aim of Package 25 is:

### New and improved walking, cycling and bus links in Hoddesdon

The Package consists of:

- New and improved cycle route facilities including on Ware Road and Stanstead Road
- Improved walking facilities on A1170 Ware Road

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

**Table 37 – PK25 – Measures Hoddesdon Northern Sustainable Travel Corridors**

Linked Projects	ID	Name	Description
	<b>PR151</b>	Pedestrian crossing improvements in Hoddesdon	Improve pedestrian crossing facilities on the A1170 Ware Road, Stanstead Road and Rye Road in Hoddesdon. (IC22)
	<b>SM149</b>	Stanstead Road speed restrictions	Speed restrictions and better cycle signage on Stanstead Road could encourage cycle trips to school on this key route through Rye Park between Hoddesdon Town Centre and the school and John Warner sports centre/swimming pool. (IC21)
	<b>SM150</b>	Hoddesdon North cycle routes	New and improved cycle routes on roads running through northern Hoddesdon towards the town centre, including Stanstead Road, Ware Road, Dorchester Avenue/Middlefield Avenue and Tregelles Road/Fairfield Road. (IC22)

Linked Projects	ID	Name	Description
	<b>SM152</b>	Cycle safety improvements in Hoddesdon	Improve cycle safety on the A1170 Ware Road, Stanstead Road and Rye Road in Hoddesdon. (IC22)
	<b>SM153</b>	Bus connectivity to Hoddesdon station and residential area in the north	Improve bus provision to the railway station and to the residential area in the north of Hoddesdon. (IC18)
	<b>SM517</b>	Bus priority measures - Hoddesdon	Install bus priority measures at key junctions in northern Hoddesdon, including on the A1170, to improve journey time reliability. (IC6)

## PK26 – Prioritising Pedestrians and Cyclists in Hoddesdon Town Centre

The overarching aim of Package 26 is:

### Walking and Cycling route improvements in Hoddesdon Town Centre

The Package consists of:

- New River shared cycle/footway extensions to Essex Road
- New at-grade crossings on A1170 Charlton Way

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

**Table 38 – PK26 - Prioritising Pedestrians and Cyclists in Hoddesdon Town Centre**

Linked Projects	ID	Name	Description
	<b>PR500</b>	Bell Lane quiet route	Provide for a 'quiet' cycle route along Bell Lane to facilitate cycling between Hoddesdon Town Centre and A1170 Charlton Way. (IC22)
	<b>SM161</b>	Wayfinding and cycle parking - Hoddesdon	Improved cycle parking and foot/cycle signage in Hoddesdon town centre. (IC23)
	<b>SM162</b>	Charlton Way at-grade crossings	At-grade crossings of Charlton Way to supplement and where possible remove existing underpasses connecting Lampits and the town centre, including the underpass beneath Brewery Road. (IC9)
	<b>SM163</b>	Lord Street foot and cycle improvements	Lord Street foot and cycle improvements. (IC22)

Linked Projects	ID	Name	Description
	SM518	Charlton Way walking and cycling improvements	Improved cycling and walking facilities on A1170 Charlton Way between Essex Road and Brewery Road (Hoddesdon) to facilitate a greater uptake in active travel. (IC22)
	SM519	Dinant Link Road walking and cycling improvements	Improved cycling and walking facilities on Dinant Link Road, including potential raised entry treatment at the junction of Burford Street, to facilitate a greater uptake in active travel. (IC22)
	SM520	Haslewood Avenue walking and cycling improvements	Improved cycling and walking facilities on Haslewood Avenue to facilitate a greater uptake in active travel. (IC22)
	SM522	Essex Road to Rye House walking and cycling improvements	Improved cycling and walking provision between Essex Road to Rye House station, including on (but not limited to) Stortford Road and Rye Road, to provide a connection between Rye House and Hoddesdon town centre. (IC22)

## PK27 – Brookfield Connectivity

The overarching aim of Package 27 is:

**To provide transport improvements to encourage more trips by sustainable travel modes and better connectivity and access between major growth planned at Brookfield and the wider Broxbourne area.**

The Package consists of:

- New site accesses to the proposed Brookfield Garden Village development
- Junction improvements in the area to address congestion and to support growth by mitigating the impacts of additional traffic in the area
- Pedestrians and cyclists' improvements from Longfield Lane into Brookfield Riverside and Halfhide Lane

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

**Table 39 – PK27 – Brookfield Connectivity**

<b>Linked Projects</b>	<b>ID</b>	<b>Name</b>	<b>Description</b>
	<b>PR191</b>	Wayfinding - Brookfield Lane footbridge	Existing Brookfield Lane footbridge signposted from B176. (IC23)
	<b>PR192</b>	Signalised pedestrian/cycling crossing on Brookfield Lane West	Signalised pedestrian/cycling crossing on Brookfield Lane West. (IC9)
	<b>SM188</b>	Longfield Lane to Brookfield Riverside cycle route	Create a new a pleasant, safe, off-road route from Longfield Lane into Brookfield Riverside for pedestrians and cyclists. (IC22)
	<b>SM189</b>	New River off-road walking and cycling route	Segregated off-road cycle/footway along New River as described in Broxbourne Borough Council's Draft Cycling and Walking Infrastructure Plan. (IC22)
	<b>SM190</b>	A1170/B176 walking and cycling junction improvements	Provide safe pedestrian and cycle links along the A1170/B176 including at key junctions. (IC22)
	<b>SM193</b>	Active mode route improvements to New River tunnel beneath A10, Turnford	Improvements to the walking and cycling route alongside the New River beneath and on approaches to the existing tunnels under A10 in Turnford. (IC22)
	<b>SM195</b>	Halfhide Lane walking and cycling route	Segregated on-road cycle/footway along Halfhide Lane into Riverside. (IC22)
	<b>SM196</b>	Walking and cycling routes to Brookfield development	Two segregated on-road cycle/footpaths connecting to the proposed local plan growth locations. (IC22)
	<b>SM197</b>	Brookfield Lane West/Halfhide Lane bus service provision	Improve bus service provision to the shops on the B156 Brookfield Lane W/Halfhide Lane. (IC18)
	<b>SM385</b>	Waltham Cross Station to Brookfield bus service	Provide a new bus service running every 20 minutes between Waltham Cross Station and via Cheshunt Station, Delamare Road and Hertford Regional College. (IC18)
	<b>SM430</b>	Turnford Link Road	Construction of a Halfhide Lane to Turnford Interchange Link Road, together with provision of a new western arm at the A10 Turnford

Linked Projects	ID	Name	Description
			Interchange, including provision for active and sustainable travel. (IC3)
	<b>SM432</b>	Garden Village Distributor Road	Provision of new distributor road to serve the new Brookfield development, including provision for active and sustainable travel. (IC3)
	<b>SM433</b>	Brookfield junction improvements	Reconfiguration of the 4-arm signalised junction on Halfhide Lane at junction with The Links and the access road into Brookfield Retail Park, by removing access to/from The Links and allowing only movements into (and not out of) the Retail Park, including provision for active and sustainable travel. (IC7)

## PK28 – Broxbourne Public Transport Improvements

The overarching aim of Package 28 is:

**To provide a range of enhancements to public transport services and infrastructure which encourage a modal shift from private car for journeys within, into and out of the Broxbourne area**

The Package consists of:

- New and re-routed bus services crossing the Broxbourne area, including between the Park Plaza employment area, Brookfield and Waltham Cross
- Provide a complementary set of enhancements including real time information and integrated ticketing

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

**Table 40 – PK28 – Broxbourne Public Transport Improvements**

Linked Projects	ID	Name	Description
	<b>PR392</b>	Waltham Cross bus station shelters	Provision of new and improved bus shelters at Waltham Cross Train station to be served by extension of existing services from Waltham Cross Bus Station. (IC17)
	<b>SM165</b>	Improved accessibility to stations	Increase accessibility of stations on the main rail network into London. This includes the development of multi-modal interchanges at Broxbourne, Cheshunt and Waltham Cross Stations. (IC10)

<b>Linked Projects</b>	<b>ID</b>	<b>Name</b>	<b>Description</b>
	<b>SM166</b>	A1170 bus priority measures	Junction improvements to give priority to buses. (IC6)
	<b>SM167</b>	Improved access to Broxbourne station	Junction enhancements to improve access to Broxbourne Station by sustainable modes of travel. (IC6)
	<b>SM168</b>	Review bus services to Broxbourne station	Review bus services to Broxbourne railway station to identify opportunities for an increase in frequency of individual services. This intervention is likely to have a more widespread effect on local interactions surrounding Broxbourne. (IC18)
	<b>SM384</b>	High Leigh to Broxbourne bus service	Provide a new bus service running every 30 minutes between High Leigh and Broxbourne Station via Hoddesdon Town Centre. (IC18)
	<b>SM385</b>	Waltham Cross Station to Brookfield bus service	Provide a new bus service running every 20 minutes between Waltham Cross Station and via Cheshunt Station, Delamare Road and Hertford Regional College. (IC18)
	<b>SM386</b>	Park Plaza to Waltham Cross Station bus service	Provide a new bus service running every 15 minutes between Park Plaza and Waltham Cross Station via Waltham Cross Town Centre. (IC18)
	<b>SM387</b>	Re-routing of the bus	Re-route the existing bus service between Potters Bar and Waltham Cross into the Rosedale Park North development site to provide a service every 30 minutes. (IC18)
	<b>SM390</b>	Broxbourne bus stop upgrades	Provide new and upgraded bus stops across the Borough including shelters, seating, lighting, raised kerbs, and timetables. (IC17)
	<b>SM391</b>	Selective Vehicle Detection systems	Introduce Selective Vehicle Detection systems to provide priority for buses along the old A10 at (i) Junction of Station Road / High Road, Broxbourne, (ii) Vancouver Road / A1170, Turnford, (iii) Church Lane / Turners Hill, Cheshunt, and (iv) Old Pond, Cheshunt. (IC6)
	<b>SM394</b>	Real time bus information	Provide real time information displays at bus stops on all commercial routes and in areas which generate a large number of trips (i.e.

Linked Projects	ID	Name	Description
			doctors surgeries, shopping centres and train stations). (IC20)
	<b>SM396</b>	Broxbourne integrated ticketing	Promotion of the existing Intalink mobile app and development of an integrated BUSnet ticket for Broxbourne, in line with the Bus Service Improvement Plans (BSIP). (IC13)
	<b>SM402</b>	Cheshunt Station to bus stop route improvements	Improve pedestrian links between Cheshunt Station and bus stops being provided as part of the Delamare Road development. (IC22)

## PK29 – Cheshunt Employment Sites

The overarching aim of Package 29 is:

**To provide a combination of highway and public transport improvements to facilitate planned employment-led development within Cheshunt, including at Park Plaza.**

The Package consists of:

- New railway stations at Turnford and Park Plaza
- New pedestrian and cycle bridges over the railway lines to reduce severance
- Highway improvements to help facilitate planned employment development

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

**Table 41 – PK29 – Cheshunt Employment Sites**

Linked Projects	ID	Name	Description
	<b>SM169</b>	Waltham Cross to Park Plaza bus service	New bus service between Park Plaza and Waltham Cross Station. (IC18)
	<b>SM170</b>	Waltham Cross to Park Plaza cycle route	Improved cycle links from Waltham Cross to Park Plaza, including consideration for improved provision alongside Winston Churchill Way. (IC22)
	<b>SM409</b>	Park Lane bridge	Provide a pedestrian / cycle bridge at Park Lane to cross the railway line and allow access into Park Plaza North. (IC9)

Linked Projects	ID	Name	Description
	<b>SM410</b>	Park Plaza bridge	Provide a pedestrian / cycle bridge over the A10 between Park Plaza North and Park Plaza West. (IC9)
	<b>SM423</b>	A10 junction improvements	Modify existing 3-arm junction on A10 to provide an at-grade 4-arm junction for access into Park Plaza North & West, including provisions for active and sustainable travel. (IC7)
	<b>SM424</b>	A10/A121 junction improvements	Provide a 'hamburger' style signalised junction with N/S priority at the intersection of the A10 junction with the A121 Monarch's Way and B198 Lieutenant Ellis Way (Park Plaza junction) with facilities for active travel to improve air quality and alleviate congestion. (IC7)
	<b>SM425</b>	Lieutenant Ellis Way junction	New 4-arm junction on Lieutenant Ellis Way to the north of Park Plaza, including provisions for active and sustainable travel. (IC7)

### PK30 – Road Improvements across Broxbourne

The overarching aim of Package 30 is:

**To improve the local highway network across Broxbourne to help manage traffic congestion and support sustainable economic growth**

The Package consists of:

- Junction improvements to the north of Hoddesdon Town Centre
- Access improvements to Broxbourne station
- Junction improvements on the A10 through Cheshunt

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

**Table 42 – PK30 – Road Improvements across Broxbourne**

Linked Projects	ID	Name	Description
	<b>PR393</b>	Broxbourne Station access improvements	Junction improvements on Station Road to improve access/egress into Broxbourne Station. (IC6)

Linked Projects	ID	Name	Description
	PR398	Dinant Link Road/Essex Road roundabout improvements	Signalised crossing on western arm of Dinant Link Road / Essex Road roundabout for Walking & Cycling. (IC9)
	PR400	Dinant Link Road/Amwell Street junction improvements	At grade signalised crossing of Dinant Link Road at junction with Amwell Street. (IC9)
	PR401	Lord Street widened footway	Treatment of Lord Street to widened footway and remove conflicts with parked cars along its length. (IC22)
	PR428	Church Lane/High Street Cheshunt roundabout improvements	Reconfiguration of Church Lane / High Street, Cheshunt roundabout to provide signalised junction and crossing points for pedestrians. (IC7)
	PR429	Church Lane / Flamstead End Road roundabout improvements	Reconfiguration of Church Lane / Flamstead End Road roundabout to provide signalised junction and crossing points for pedestrians. (IC7)
	PR435	Goffs Lane Reconfiguration	Reconfiguration of Newgatestreet Road / Cuffley Hill / Goffs Lane junction give way to provide signalised junction with crossing points for pedestrians. (IC8)
	PR438	Hertford Road/Ware Road roundabout improvements	Hertford Road / Ware Road roundabout improvements to provide improved facilities for pedestrians and cyclists. (IC9)
	PR453	Dinant Link Road/Ware Road roundabout improvements	Sun roundabout improvements (junction of Dinant Link Road and Ware Road) to provide improved facilities for pedestrians and cyclists. (IC9)
	SM171	Junction signalisation	Replacement of mini-roundabouts with signal-controlled junctions in several locations on the local road network to provide more efficient management of traffic flows and incorporating safer crossing facilities for pedestrians. (IC7)
	SM172	Church Lane/High Street junction improvement	Improvements to the Church Lane / High Street mini roundabout junction in Cheshunt to incorporate better crossing facilities for pedestrians. (IC7)
	SM426	College Road / A10 junction improvements	At grade improvement at College Road / A10 junction, providing a new southbound left filter

Linked Projects	ID	Name	Description
			lane into College Road, and improved facilities for active travel to address congestion and air quality issues at this location.(IC7)
	<b>SM427</b>	Church Lane / A10 junction improvements	At grade highway capacity improvement at Church Lane / A10 junction, providing improved facilities for active travel and banning all right turns onto the A10 to reduce congestion and improve air quality. (IC7)
	<b>SM455</b>	Update network signage	Update the network signage across the Broxbourne of Borough to reflect the new access arrangements on/off the A10 at Church Lane. (IC23)
	<b>SM456</b>	New A10 secondary school access	Provision of a new access into the secondary school site from the A10 spur road to the south. (IC3)

### **PK31 – Enhancement for Pedestrians and Cyclists across Broxbourne**

The overarching aim of Package 31 is:

**Provide enhanced connectivity for pedestrians and cyclists making local journeys within the Broxbourne towns through the provision of new/improved, attractive walking and cycling routes**

The Package consists of:

- Improvements along the A1170 (old A10) including widened footways and a review of speed limits
- Cycle network improvements across Broxbourne, including the provision of a high-quality cycle route along the New River

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

**Table 43 – PK31 – Enhancement for Pedestrians and Cyclists across Broxbourne**

Linked Projects	ID	Name	Description
	<b>PR399</b>	Charlton Way walking and cycling improvements	Improve walking and cycling facilities along western side of Charlton Way between Haslewood Avenue and Dinant Link Road. (IC22)

Linked Projects	ID	Name	Description
	<b>PR403</b>	Old Pond Junction Improvements	Reconfiguration of Old Pond junction to provide signalised junction and crossing points for pedestrians. (IC9)
	<b>SM174</b>	New River Path improvements	Priority sections from College Road to the M25 to link development sites with Enfield Borough Council's New River proposals; the approaches to Brookfield Riverside from north and south as far north as Church Lane Wormley to provide access to the proposed secondary school site; and implementation of current proposals at Broxbourne station. (IC5)
	<b>SM175</b>	Hoddesdon to Waltham Cross cycle route	Working with the Park Authority to provide the 'missing links' in an off-road summertime alternative to the old A10 from Hoddesdon to Waltham Cross, including Spitalbrook and Britannia Nurseries. (IC22)
	<b>SM176</b>	Wayfinding - Broxbourne School	Better signposting of walking routes through the residential estates surrounding the Broxbourne School. (IC23)
	<b>SM178</b>	Waltham Cross Town Centre Improvements	Improvements to Waltham Cross Town Centre including a 'flexible' High Street with alterations to vehicle access and modal priority; improvements to pedestrian and cycle facilities including a new crossing at the Monarchs Way-High Street junction and a new cycle route along the western side of Monarchs Way. (IC22)
	<b>SM179</b>	B176 walking and cycling improvements	Walking & Cycling enhancements along B176 and to Station Road/B194 (IC22)
	<b>SM180</b>	New River cycling improvements	Cycle link improvements along New River to Broxbourne station. (IC22)
	<b>SM181</b>	Windmill Lane walking and cycling improvements	Improvements to walking and cycling facilities along Windmill Lane to provide better connectivity to Cheshunt Station, including additional signal-controlled pedestrian crossings (in particular between Roundmoor Drive and the rail station) and side road entry treatments including raised tables and tactile paving. (IC22)

Linked Projects	ID	Name	Description
	<b>PR182</b>	A10/Church Lane junction improvement	A10 / Church Lane Junction including pedestrian/cycle crossing signal phase. (IC9)
	<b>SM183</b>	Core Walking Zones - Hoddesdon, Waltham Cross, Cheshunt Old Pond and Brookfield	Improvements to 'Core Walking Zones as defined by BBC in Hoddesdon, Waltham Cross, Cheshunt Old Pond and Brookfield, and comprising of high-quality public realm, secure cycle parking, foot/cycle signposting. (IC22)
	<b>SM184</b>	A121 Monarchs Way-Eleanor Cross Road (KFC) Roundabout improvements for buses	Improvements to the roundabout and approaching arms (including the exit onto Eleanor Cross Road from the bus station) which improve the flow of bus services, e.g. bus priority. (IC6)
	<b>SM404</b>	Broxbourne cycle network improvements	Improve walking and cycling network facilities, including new routes to create a more connected and coherent network across Broxbourne. This includes a new segregated off-road cycle/footway along New River with connections to Brookfield Riverside and Garden Village development and new schools, in line with Broxbourne Borough Council's Draft Local Cycling and Walking Infrastructure Plan. (IC22)
	<b>SM405</b>	Broxbourne signage upgrades	Provide end to end signage of key routes and destinations. (IC23)
	<b>SM406</b>	Broxbourne routing improvements (use of A10 for walking/cycling)	Introduce measures to encourage more walking and cycling along the A1170 (old A10) including raised tables, widening of footways, and a review of speed limits. (IC22)
	<b>SM411</b>	Broxbourne crossing improvements	Identify pedestrian crossing points where tactile paving and dropped kerbs are missing and identify opportunities to improve them. (IC22)
	<b>SM459</b>	Provision of cycle parking	Provide significant increases in the volume of cycle parking at key trip generators within Broxbourne, such as town centres, train stations, employment centres, educational and recreational facilities. (IC5)

## PK32 – Prioritising Pedestrians and Cyclists across Cheshunt

The overarching aim of Package 32 is:

### New and improved walking and cycling links across Cheshunt, including to the planned Cheshunt Lakeside development

The Package consists of:

- Improved public realm, cycle hub, local shops and facilities around Cheshunt Station
- Windmill Lane pedestrian and cycle enhancements
- Pedestrian/cycle route improvements along the B176 Turners Hill

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

**Table 44 – PK32– Prioritising Pedestrians and Cyclists across Cheshunt**

Linked Projects	ID	Name	Description
	<b>PR209</b>	A10/Church Lane at-grade crossing	Reconfiguration of the Church Lane/A10 junction to create a safe at-grade crossing of the A10 for cyclists and pedestrians. (IC9)
	<b>SM210</b>	Cheshunt station area improvements	Provide improved sustainable travel facilities, including a new cycle hub, improved bus stops, pedestrian facilities, public realm (including around the adjacent shopping parade and links into River Lee Country Park. (IC15)
	<b>SM211</b>	Haileybury Turnford School walking and cycle connectivity	Improved active travel links to Haileybury Turnford school, including better crossing facilities on the B176 High Street and across Turnford Brook and Nightleys Playing Fields. (IC22)
	<b>SM212</b>	New River cycle route	A cycle route along the New River would provide connections from the existing St. Mary’s cycle route to the south (connection with Waltham Cross) and provide safe access from the Council Offices to the north. The potential for a new zebra crossing on College Road should be investigated. (IC22)
	<b>SM213</b>	Windmill Lane walking, cycling and public realm improvements	Windmill Lane pedestrian and cycle enhancements realm enhancements, cycle parking and signage. (IC22)
	<b>SM214</b>	Forest Way/Roundmoor Drive wayfinding	Possible signposted foot and cycle link via Forest Way/Roundmoor Drive. (IC23)

Linked Projects	ID	Name	Description
	<b>SM215</b>	B176 pedestrian/cycle improvements	Improvements to pedestrian and cyclist facilities along the B176 High Street in Cheshunt, including footway widening and public realm enhancements outside the shopping parade between Wycliffe Close and Cadmore Lane and at Clarendon Parade; side road entry treatments to improvement crossing facilities at priority give-way junctions such as Forest Road. (IC22)
	<b>SM216</b>	Turners Hill/Church Lane junction improvements	Improvements at the mini-roundabout junction of Turners Hill/ Church Lane to incorporate better pedestrian crossing facilities. (IC4)
	<b>SM217</b>	Old Pond enhancements	Public realm enhancements and improved provision of secure and accessible cycle parking and potentially e-bike and e-scooter charging facilities around the Old Pond junction to promote active travel uptake. (Note - at the time of writing, e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters). (IC2)
	<b>SM218</b>	A10/College Road reconfiguration	Reconfiguration of the A10/College Road junction to provide improved pedestrian and cycle crossing facilities. (IC22)
	<b>SM219</b>	Improvements to pedestrian and cycle facilities along Flamstead End Road and Churchgate	Improve crossing facilities for pedestrians including at the mini roundabout junctions with Brookfield Lane West, Church Lane and Goffs Lane and on the sections in between, and potentially traffic calming measures (if feasible and appropriate in line with HCC's Speed Management Strategy), to allow for an improved provision and environment for active travel. (IC22)

### **PK33 – Prioritising Pedestrians and Cyclists across Waltham Cross**

The overarching aim of Package 33 is:

#### **Walking and cycling route improvements, cycle parking and crossings in Waltham Cross**

The Package consists of:

- New foot/cycle bridges over the A10

- Cycle hub at Waltham Cross Station
- Cycle route improvements along Monarchs Way

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

**Table 45 – PK33– Prioritising Pedestrians and Cyclists across Waltham Cross**

Linked Projects	ID	Name	Description
	<b>PR233</b>	Pedestrian crossing improvements - Theobalds Grove station	Improve pedestrian crossing facilities near Theobalds Grove railway station. (IC22)
	<b>PR225</b>	Cycle hub - Waltham Cross station	Increase in cycle parking provision at Waltham Cross Station from current 26 spaces including a safe area for cyclists to dismount/enter the carriageway. Could potentially be located within the car park or taking one of the 'on-street parking bays south of the disabled bays on the industrial estate access road leading off Station Approach. (IC2)
	<b>SM220</b>	New River walking and cycling route	New River shared foot/cycle path just west of Park Plaza West site. (IC22)
	<b>SM221</b>	A10 walking and cycling bridges	New foot/cycle bridges over the A10 at Great Eastern Way and over railway to provide a link between Waltham Cross and Park Plaza. (IC22)
	<b>SM222</b>	A121/Monarchs Way (Fishpools) Roundabout reconfiguration	A121/Monarchs Way (Fishpools) junction redesign to incorporate safe crossing for cyclists and pedestrians. (IC9)
	<b>SM226</b>	Eleanor Cross Road cycle route extension	Eleanor Cross Road cycle route extended to Waltham Abbey. (IC22)

## **PK34 – Broxbourne Towns Travel Demand Management**

The overarching aim of Package 34 is:

**Travel Plans, marketing and other complementary initiatives to encourage more sustainable travel behaviour across the borough of Broxbourne**

The Package consists of:

- Develop, implement and monitor Station Travel Plans at Broxbourne, Cheshunt and Waltham Cross Stations.
- A new car share scheme
- Create School Safety Zones at appropriate locations within the Borough

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

**Table 46 – PK34- Broxbourne Towns Travel Demand Management**

Linked Projects	ID	Name	Description
	<b>SM253</b>	Workplace travel planning	Develop, implement and monitor a series of Area Wide Travel Plans with employers in Hoddesdon, Waltham Cross, Brookfield and Park Plaza. (IC16)
	<b>SM254</b>	Station travel planning	Develop, implement and monitor school Travel Plans at all appropriate locations across the Borough, including Rye House and Theobalds Grove stations. (IC16)
	<b>SM255</b>	School travel planning	Develop, implement and monitor school Travel Plans at appropriate locations across the Borough. (IC16)
	<b>SM256</b>	Personalised journey planning	Undertake a programme of Personalised Journey Planning with target groups. (IC16)
	<b>SM257</b>	Broxbourne Towns communications strategy for transport interventions	Produce and implement a Communications Strategy associated with all measures to be delivered through the Strategy. (IC12)
	<b>SM258</b>	Car share scheme	Develop and promote a car share scheme. (IC16)
	<b>SM259</b>	Broxbourne Towns School Safety Zones	Create School Safety Zones, including consideration of advisory 20mph speed limits, at appropriate locations within the Borough, to prioritise pedestrians and other vulnerable road users over general traffic. (IC22)
	<b>SM260</b>	A1170 corridor Speed Limit Review	Review speed limits along the A1170 through Broxbourne with a view to potentially reducing them or implementing appropriate measures to reduce traffic speeds in accordance with HCC's Speed Management Strategy. A focus could be on section adjacent to parades of shops, for

Linked Projects	ID	Name	Description
			example between St Michaels Road and Station Road. (IC21)

## PK35 – Broxbourne Towns Parking Management

The overarching aim of Package 35 is:

### Measures to manage car parking and facilitate electric vehicle charging

The Package consists of:

- On street parking charges and restrictions in areas around Stations
- Residents parking permit schemes

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

**Table 47 – PK35 - Broxbourne Towns Parking Management**

Linked Projects	ID	Name	Description
	<b>SM261</b>	Parking management at stations	Work with Broxbourne Borough Council to introduce on street parking charges and restrictions in areas around Stations to tackle long stay commuter parking related problems. (IC14)
	<b>SM262</b>	Residents parking permit schemes	Work with Broxbourne Borough Council to introduce residents parking permit schemes in areas of high parking demand. (IC14)
	<b>SM263</b>	Broxbourne Towns electric vehicle charging points	Work with Broxbourne Borough Council to provide a network of charging points for electric vehicles, in line with guidance set in the EV Charging Strategy. (IC11)

## Packages 24-35 Broxbourne Towns - overview

A comprehensive range of interventions are proposed across the towns of Hoddesdon, Broxbourne, Cheshunt and Waltham Cross. Most of these interventions were originally identified in the Broxbourne Transport Strategy (2017) and accompanying Cycling and Walking Infrastructure Plan (2017) prepared by Broxbourne Borough Council. Some additional interventions have been identified by HCC for this GTP. The formation of packages has also been undertaken by HCC as an indication of how interventions could be grouped and delivered together.

The overarching aim of the interventions within this package group is to encourage sustainable travel within and between Hoddesdon, Broxbourne, Cheshunt and Waltham Cross. The towns are situated close together, which means travelling on foot and by bike could be feasible for shorter distance journeys if safe and attractive facilities are available. It is already possible to travel by bus and train between the towns and to other places outside the local area.

Some of the interventions aim to make walking and cycling easier including new crossings on busy roads, cycle routes and cycle parking. These interventions aim to improve sustainable travel connections to the various town centres and railway stations as well as reducing severance caused by busy roads like the A10, which are more difficult to cross on foot and by bike.

Local bus services are also important, and the Broxbourne Transport Strategy has identified a series of measures to improve bus stop facilities. These include Real Time Information displays to inform passengers when a bus is expected to arrive and bus priority measures including technology to detect buses approaching busy junctions to prioritise their movement. Local highway measures have also been identified in the Broxbourne Transport Strategy, including junction improvements on the A10.

Complementing the physical infrastructure measures, the Broxbourne Transport Strategy has also identified measures to manage travel demand, including workplace, station and school travel plans (which incorporate measures to encourage people to travel more sustainably), a car share scheme and reduced speed limits on certain roads, many of which will be part of broader programmes across Hertfordshire.

## Western Broxbourne and Cuffley

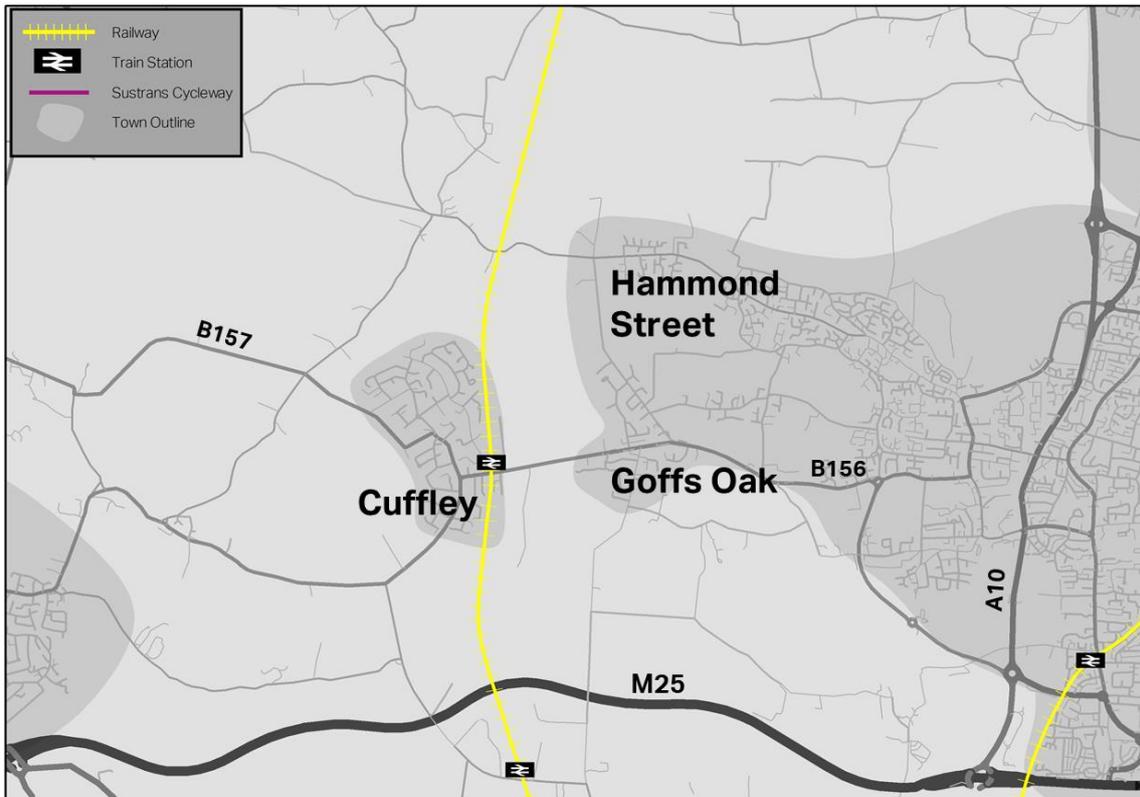
The following packages have been defined for Western Broxbourne and Cuffley.

**Table 48 – Western Broxbourne and Cuffley Packages (PK36 - PK39)**

Packages	Package Group / Area
PK36	Flamstead End and Hammond Street Sustainable Travel Choices
PK37	Goffs Oak and Cuffley Prioritising Pedestrians and Cyclists
PK38	Improved Accessibility and Connectivity at Cuffley Station
PK39	Cuffley Traffic Management

This area comprises a series of suburbs of Broxbourne and separate villages interspersed with countryside. Cuffley is a village in the Welwyn Hatfield area of south east Hertfordshire, sitting between Potters Bar and Cheshunt. The B156 and B157 runs east-west linking Cuffley with Goffs Oak. Hammondstreet and Flamstead End lie to the north west of Cheshunt. The A10 runs north-south to the east of this area, and the M25 runs east-west to the south. The Hertford Loop branch line railway connects Cuffley with Hertford and Stevenage to the north, and Greater London to the south.

Several future development sites are also proposed in the Western Broxbourne and Cuffley area, in line with the area's growth strategy. Residential site allocations in Western Broxbourne are planned in Goffs Oak and concern the North of Goffs Lane, South of Goffs Lane, Newgatestreet Road and North of Cuffley Hill. Residential site allocations in Cuffley, such as Land at The Meadway, Land south of Northaw Road East, Land north of Northaw Road East and Wells Farm, Northaw Road East, is expected to be delivered within the next 10 years.



**Figure 17 - Map of Cuffley and Goffs Oak**

The packages are described in turn.

## PK36 – Flamstead End and Hammond Street Sustainable Travel Choices

The overarching aim of Package 36 is:

### Walking, cycling and public transport improvements in Flamstead End and Hammond Street areas of Cheshunt

The Package consists of:

- New and improved cycle and walking routes to/from Rosendale Park
- Improved pedestrian crossing facilities on St James Road, Rosedale Way, Longfield Lane/Hammond Street and Newgate Street

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

**Table 49 – PK36 - Flamstead End and Hammond Street Sustainable Travel Choices**

Linked Projects	ID	Name	Description
	<b>PR206</b>	Hammond Street and Goffs Oak area pedestrian crossings	Improve pedestrian crossing facilities on key roads through Hammond Street and Goffs Oak, including St James Road, Rosedale Way, Longfield Lane/Hammond Street and Newgate Street Road. (IC22)
	<b>SM199</b>	Rosedale Park to Longfield Lane cycle route	Linking Rosedale Park to Longfield Lane and joining up with the Brookfield Riverside route along Cheshunt Reservoir. (IC22)
	<b>SM200</b>	Goffs Academy cycle connectivity	There are two north-south paths through the residential area of Rosedale from the north which could be converted into cycle routes from the Hammond Street area and Rosedale Park as well as the Andrews Lane Priority Cycle Corridor, subject to resolution of any community safety issues. Dark Lane provides an existing cycle route from Bury Green to the south. (IC22)
	<b>SM201</b>	Rosedale Park at-grade crossings	Underpass removal and alternative at-grade crossings at Rosendale Park. (IC22)
	<b>SM202</b>	School walking and cycling connectivity	Possible foot and cycle link to Goffs School 3. (IC9)
	<b>SM203</b>	Restrict access to Andrews Lane	Andrews Lane area for foot/cycle local access only (no through-traffic). (IC21)

Linked Projects	ID	Name	Description
	<b>SM204</b>	Rosendale Park walking and cycling connectivity	New cycle/footpath links to the new primary school centre and sports ground at Rosendale Park. (IC22)
	<b>SM207</b>	Hammond Street and Goffs Oak area cycle facilities	Improve cycle facilities on St James Road, Rosedale Way, Longfield Lane/Hammond Street and Newgatestreet Road. Improvements could include additional signage, segregated/off-road cycle route facilities (where space is available, including potentially sections of Newgatestreet Road) and designation of Quietways such as St James's Road incorporating enhanced gateways and signage. (IC22)
	<b>SM208</b>	Hammond Street and Goffs Oak area bus services	Improve bus service provision and facilities in the Hammond Street and Goffs Oak area to encourage an uptake in bus travel, including improvements to bus stops. (IC15)
	<b>SM209</b>	Reduce speed limits in the Hammond Street area	Reduce speed limits to improve safety for pedestrians and cyclists in the Hammond Street area Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel. (IC21)

### **PK37 - Goffs Oak and Cuffley Prioritising Pedestrians and Cyclists**

The overarching aim of Package 37 is:

#### **Measures to improve the convenience and attractiveness of walking and cycling in Goffs Oak and Cuffley**

The Package consists of:

- Improved crossing point at Goffs Oak village centre in conjunction with public realm improvements and junction upgrades
- Improved cycle parking provision at key locations in Cuffley to promote cycling uptake, including along the high street

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

**Table 50 – PK37 - Goffs Oak and Cuffley Prioritising Pedestrians and Cyclists**

Linked Projects	ID	Name	Description
	PR238	Newgatestreet Road pedestrian crossing	Pedestrian crossing on Newgatestreet Road adjacent to planned new public open space ('GO4' as identified in the Local Plan) south of St James's Road. (IC9)
	PR241	Micromobility Parking and Charging Facilities in Cuffley	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in Cuffley to promote cycling uptake. Key locations include the station, Station Road/Maynard Place shopping parades and sports facilities located off B156 Northaw Road East. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters) (IC2)
	PR242	Wayfinding - Cuffley	Improve the wayfinding between key locations in Cuffley, particularly for walking, cycling and public transport routes. (IC23)
	SM235	Wayfinding - Jones Road/Silver Street leisure route	Signage of Jones Road/Silver Street leisure route to Bury Green/Cheshunt and Burnt Farm Ride to Crews Hill. (IC23)
	SM236	Goffs Oak walking and cycling enhancements	Improved crossing point at Village centre in conjunction with public realm improvements and junction upgrades. (IC9)
	SM237	Wayfinding - Andrews Lane leisure route	Signage of Andrews Lane leisure route to Cheshunt/A10. (IC23)
	SM239	Wayfinding - Goffs Oak village centre and Woodside Primary School	Improved signage to Goffs Oak village centre and Woodside Primary school to encourage more trips on foot. (IC23)
	SM240	Reduced speed limits - Goffs Oak and Cuffley	Reduce speed limits in appropriate locations to improve safety for pedestrians and cyclists. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which

Linked Projects	ID	Name	Description
			could encourage an increase in sustainable travel. (IC21)

### PK38 - Improved Accessibility and Connectivity at Cuffley Station

The overarching aim of Package 38 is:

#### Improved sustainable travel mode access to Cuffley Station from Cuffley village and Goffs Oak

The Package consists of:

- Improved walk/cycle route between Goffs Oak and Cuffley Station
- Improved pedestrian crossing facilities around Cuffley railway station

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

**Table 51 – PK38- Improved Accessibility and Connectivity at Cuffley Station**

Linked Projects	ID	Name	Description
	<b>SM243</b>	Walking and cycling route between stations in Goffs Oak and Cuffley	Improved segregated walk/cycle route between Goffs Oak and Cuffley Station. (IC22)
	<b>PR244</b>	Cuffley station crossing improvements	Improve pedestrian crossing facilities around Cuffley railway station. (IC22)
	<b>SM245</b>	Cuffley station bus service enhancement	Improve bus services to Cuffley railway station. (IC18)
	<b>SM246</b>	Cuffley Station bus interchange improvements	Enhancements to bus interchange facilities at Cuffley Station, for example an updated and larger shelter. (IC10)
	<b>SM247</b>	Improved ticketing experience - Cuffley	Consider opportunities to improve the customer experience when purchasing public transport tickets in Cuffley. (IC15)

### PK39 - Cuffley Traffic Management

The overarching aim of Package 39 is:

#### A range of transport improvements in Cuffley including on-going monitoring of traffic usage on the B156 in times of incidents and congestion on the M25

The Package consists of:

- Provision of electric vehicle charging points at key locations
- Promotion of public transport services

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

**Table 52 – PK39 - Cuffley Traffic Management**

Linked Projects	ID	Name	Description
	<b>PR250</b>	Promote available sustainable travel options in Cuffley	Promote the available public transport services and active travel routes in Cuffley to encourage an uptake in sustainable travel. (IC12)
	<b>SM249</b>	Electric vehicle charging points - Cuffley	Help enable the improved provision of electric vehicle charging points at key locations in Cuffley to promote an uptake in electric vehicle use, in line with HCC’s emerging EV Charging Infrastructure Strategy. (IC11)
	<b>SM251</b>	Parking management in Cuffley	Work with operators and local authorities to manage car parking provision at key locations in Cuffley through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, the station, town centre, activity centres and large employment sites. (IC12)

### **Packages 36-39 West Broxbourne and Cuffley - overview**

Packages of interventions are proposed with the aim of improving access to Cuffley station (on the railway line linking Stevenage, Hertford North and London), making walking and cycling easier for shorter distance trips within the area, and reducing the impact of traffic on roads through Cuffley and Goffs Oak. Unlike most of the other towns in Broxbourne borough, these smaller and more dispersed settlements lie entirely to the west of the A10.

Whilst people may need to travel to surrounding areas for some trips including to their place of work, larger shopping destination, leisure and education, there are local destinations within the local area which require better connections for cyclists and pedestrians, including local schools and Cuffley town centre.

It is also recognised that some roads running through the area provide access to other towns such as Potters Bar and are used by people whose journeys neither begin nor end locally. Some of the interventions therefore aim to make improvements to pedestrian and cycle facilities, including potential Quiet Way routes as well as local bus services.

## Links to Enfield

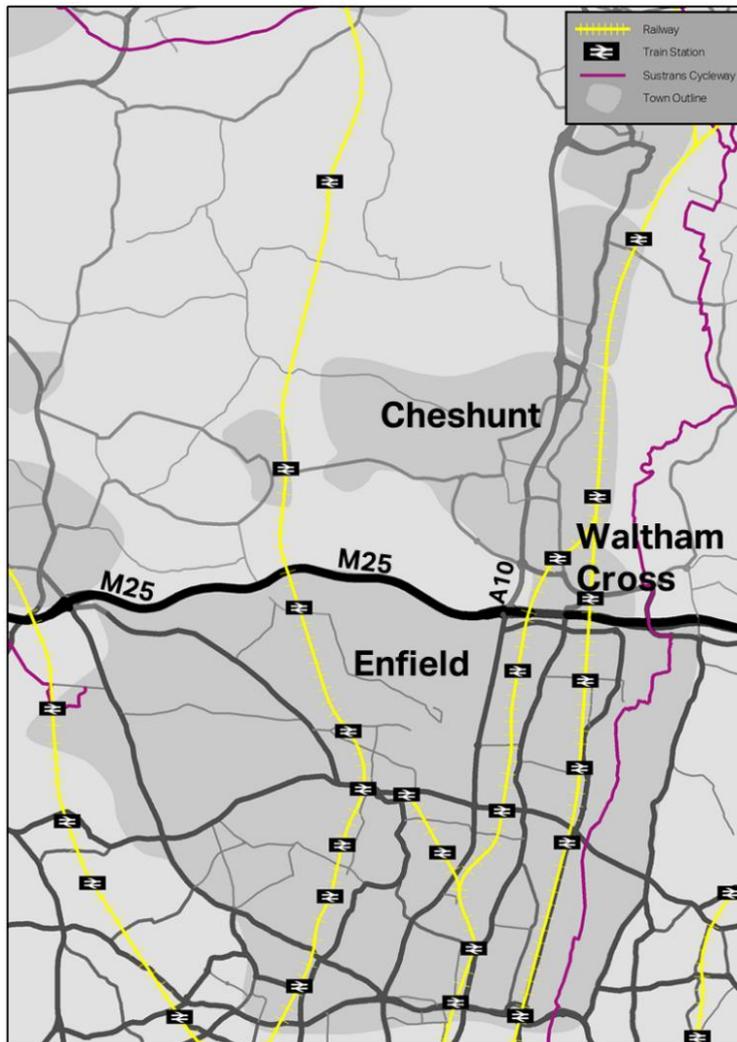
The following packages have been defined for links between Broxbourne and Enfield.

**Table 53 – Links to Enfield Packages (PK40)**

Packages	Package Group / Area
PK40	Broxbourne Towns - Enfield Corridor

The interventions put forward in the two packages are intended to improve transport links between Enfield and Broxbourne, particularly by public transport. In addition, because of traffic congestion on the A10 which links the two areas, road capacity improvements are also put forward. The New River path is also identified as an alternative transport route for pedestrians and cyclists, away from busy roads, particularly for leisure trips.

London Borough of Enfield and Transport for London are responsible for identifying transport infrastructure needs in London, therefore proposals in the GTP have not been identified. Revised and additional interventions are expected to be identified by these authorities through Enfield's new Local Plan which is under development at the time of writing.



**Figure 18 - Map of Enfield and southern Broxbourne area**

The packages are described in turn.

## PK40 - Broxbourne Towns – Enfield Corridor

The overarching aim of Package 40 is:

**A range of measures to improve connectivity between Broxbourne Towns and Enfield with an emphasis on encouraging the use of public transport and improvements to the M25**

The Package consists of:

- M25 Junction 25 upgrade to reduce congestion
- New walking/cycling route over the M25

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

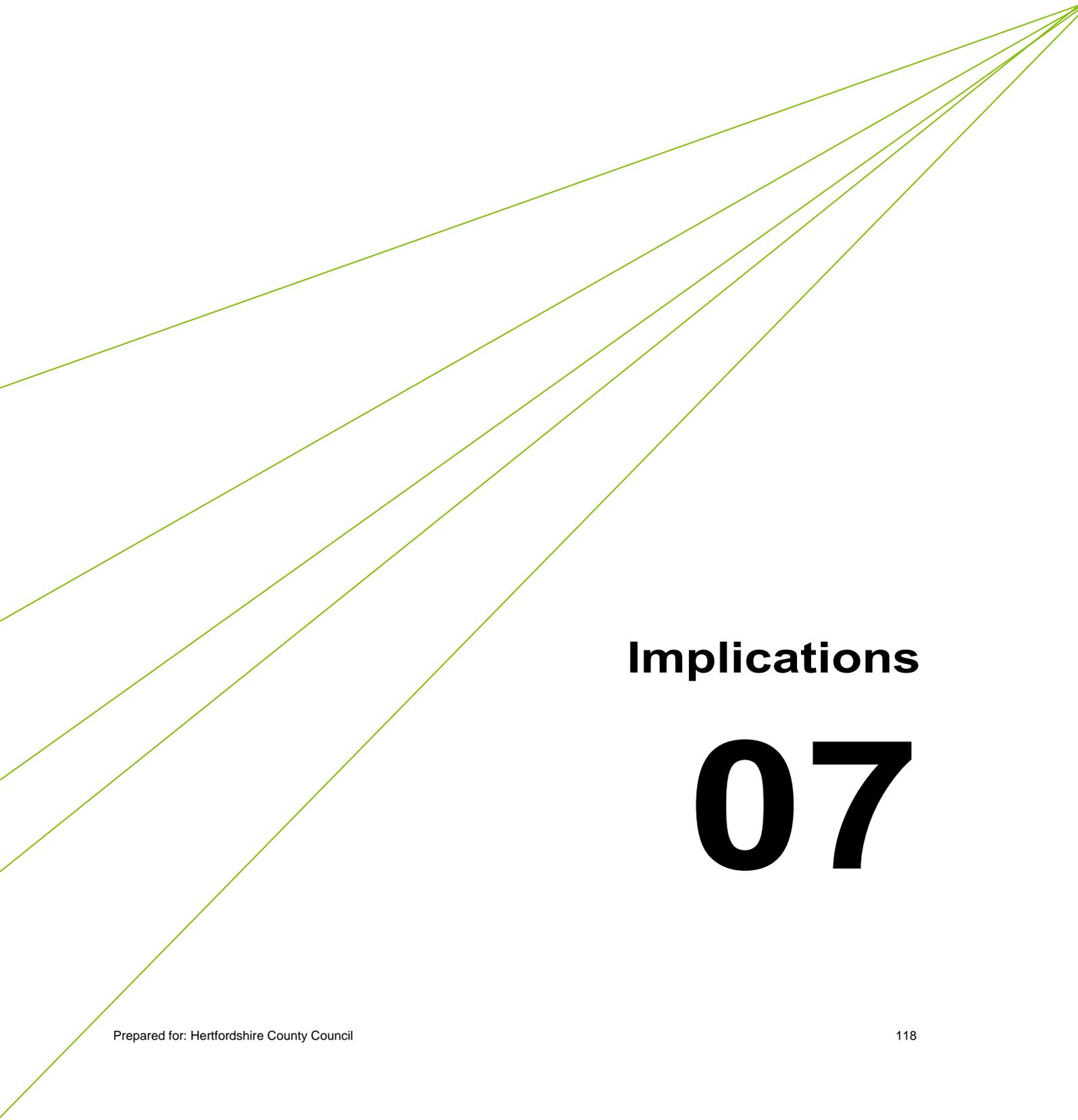
**Table 54 – PK40 - Broxbourne Towns – Enfield Corridor**

Linked Projects	ID	Name	Description
	<b>SM264</b>	Improved pedestrian and cycling connections to Enfield	Improved or new links to Enfield and the wider cycle and pedestrian network, including at M25 Junction 25, along the New River, River Lea, Small River Lea (if feasible) and potential improvements to Public Rights of Way including Northaw 006 and Cheshunt 070 (Burntfarm Ride) which link Cuffley and Goffs Oak to Crews Hill. (IC22)
	<b>SM266</b>	Parking management between Broxbourne Towns and Enfield	Work with operators and local authorities to manage car parking provision at key locations in Hoddesdon, Brookfield and Enfield through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel along the interaction. Key locations include car parks, stations, town centres, activity centres and large employment sites. (IC12)
	<b>SM267</b>	Improved bus and rail service links between Broxbourne Towns and Enfield	Improve bus and rail service provision between Broxbourne Towns and Enfield, working with bus and train operators and TfL. Measures should focus on service frequencies, access and reliability. The aim will be to encourage an uptake in public transport usage, reduce reliance on private car and improve air quality. (IC15)
	<b>SM268</b>	Improved bus provision between Broxbourne Towns and Enfield	Improve the bus service provision between Broxbourne Towns -Enfield to encourage more public transport use. (IC18)

## **Packages 40-41 Links to Enfield - overview**

The interventions put forward in the two packages are intended to improve transport links between Enfield and Broxbourne, particularly by public transport. In addition, because of traffic congestion on the A10 which links the two areas, road capacity improvements are also put forward. The New River path is also identified as an alternative transport route for pedestrians and cyclists, away from busy roads, particularly for leisure trips.

London Borough of Enfield and Transport for London are responsible for identifying transport infrastructure needs in London, therefore proposals in the GTP have not been identified. Revised and additional interventions are expected to be identified by these authorities through Enfield's new Local Plan which is under development at the time of writing.



## Implications

# 07

## 7. Implications on Place and Movement

The Hertfordshire Place and Movement Assessment road categories were defined at Stage 1 of developing the GTP and consideration was given to whether the current road functions are appropriate at Stage 2.

The interventions put forward in the GTP could have implications on how the road network functions in the future. A large proportion of the Interventions seek to give a greater level of priority to particular users of the network by addressing a current shortfall in provision.

The general conclusion reached at Stage 2 was that the Place and Movement functions defined today are likely to be appropriate in the future however there is opportunity to improve facilities for a greater range of users than what is currently provided.

Therefore, where a section of road is functioning today as a **P2/M2 Multi Function Distributor Road** and this is considered to be an appropriate function to maintain in the future, this does not imply that there is no opportunity or a need to make improvements to facilities which seek to give more priority to particular users.

A **P2/M2 Multi Function Distributor Road** is a prime example where there needs to be equality between Place and Movement functions. To reinforce this function in the future, an **P2/M2 Multi Function Distributor Road** which currently prioritises traffic would benefit in improved pedestrian and cyclist facilities such as new crossings.

A less common outcome is where the Place and Movement function will change as a result of a single Intervention or Package of Interventions. A change in function is likely to be more transformative and would also need to involve a change in surrounding land use.

Where such change is likely to occur is within the locations of new housing and employment developments, particularly those being constructed outside of existing settlements. In these locations, where a road outside of a town may be currently categorised as a **P1/M2 Interurban Road** or **P1/M1 Rural Lane**, the implementation of a new development will change the character and function of a road as new houses are built adjacent to it, new footways, street lighting and other 'urban features' are introduced such as additional signage, road markings and manmade landscaping, and a more appropriate reduced speed limit is introduced. The function may therefore change to a **P2/M2 Multi Function Distributor Road** or **P2/M1 Predominantly Residential Street**.

Intensification of land uses or the introduction of additional 'urban features' could change the function of a P2/M3 Main Connector to a P2/M2 Multi Function Distributor Road.

Set out below are sections of road where there is considered to be the strongest potential for change as a consequence of the proposed interventions and/or proposed developments.

**Table 55 – Place and Movement Function Changes**

Road/ Road Section and Location	Current Function	Potential Future Function	Comment
<p>B1000 Welwyn Road</p> <p>B158 Wadesmill Road/North Road</p> <p>Fanhams Hall Road</p>	<p>B1000 Welwyn Road between Bentley Road and Thieves Lane – P2/M3 Main Connector</p> <p>P2/M3 Main Connector</p> <p>P1/M2 Interurban Road</p>	<p>B1000 Welwyn Road between Bentley Road and Thieves Lane – P2/M2 Multi Function Distributor Road</p> <p>P2/M2 Multi Function Distributor Road</p> <p>P2/M2 Multi Function Distributor Road or P2/M3 Main Connector</p>	<p>Proposed developments to the west and north of Hertford, and north of Ware will create a more urban environment and potentially new urban features will be added on or adjacent to the highway including new and improved footways, reduced speed limit and pedestrian crossings. Such features should reduce the movement function and may increase the place function.</p>
<p>B156 Station Road/Cuffley Hill, Cuffley</p>	<p>B156 Station Road: Centre of Cuffley – P3/M2 High Street</p> <p>B156 Station Road: Approaching Centre of Cuffley – P2/M2 Multi Function Distributor Road</p> <p>B156 Cuffley Hill – P2/M3 Main Connector</p>	<p>B156 Station Road: Centre of Cuffley – P3/M2 High Street</p> <p>B156 Station Road: Approaching Centre of Cuffley – P2/M2 Multi Function Distributor Road</p> <p>B156 Cuffley Hill – P2/M2 Multi Function Distributor Road</p>	<p>Proposed interventions in Cuffley seek to enhance facilities and safety for pedestrians and cyclists along the B156. Some Interventions will reinforce the intended Place and Movement function category. The biggest potential for change is expected to occur as a consequence of planned housing development. Where the B156 currently enters the village as a High Road, the presence of new homes in close proximity to the road and the inclusion of new urban features including footways will signify a reduction in the movement function.</p>
<p>A414 Hertford town centre</p>	<p>P1/M3 Motorway/Major A-road</p>	<p>P2/M2 Multi Function Distributor Road</p>	<p>HCC is currently exploring options for a Strategic Intervention within Hertford to help relieve traffic congestion and increase mode choice. The Draft A414 Corridor Strategy put forward suggested</p>

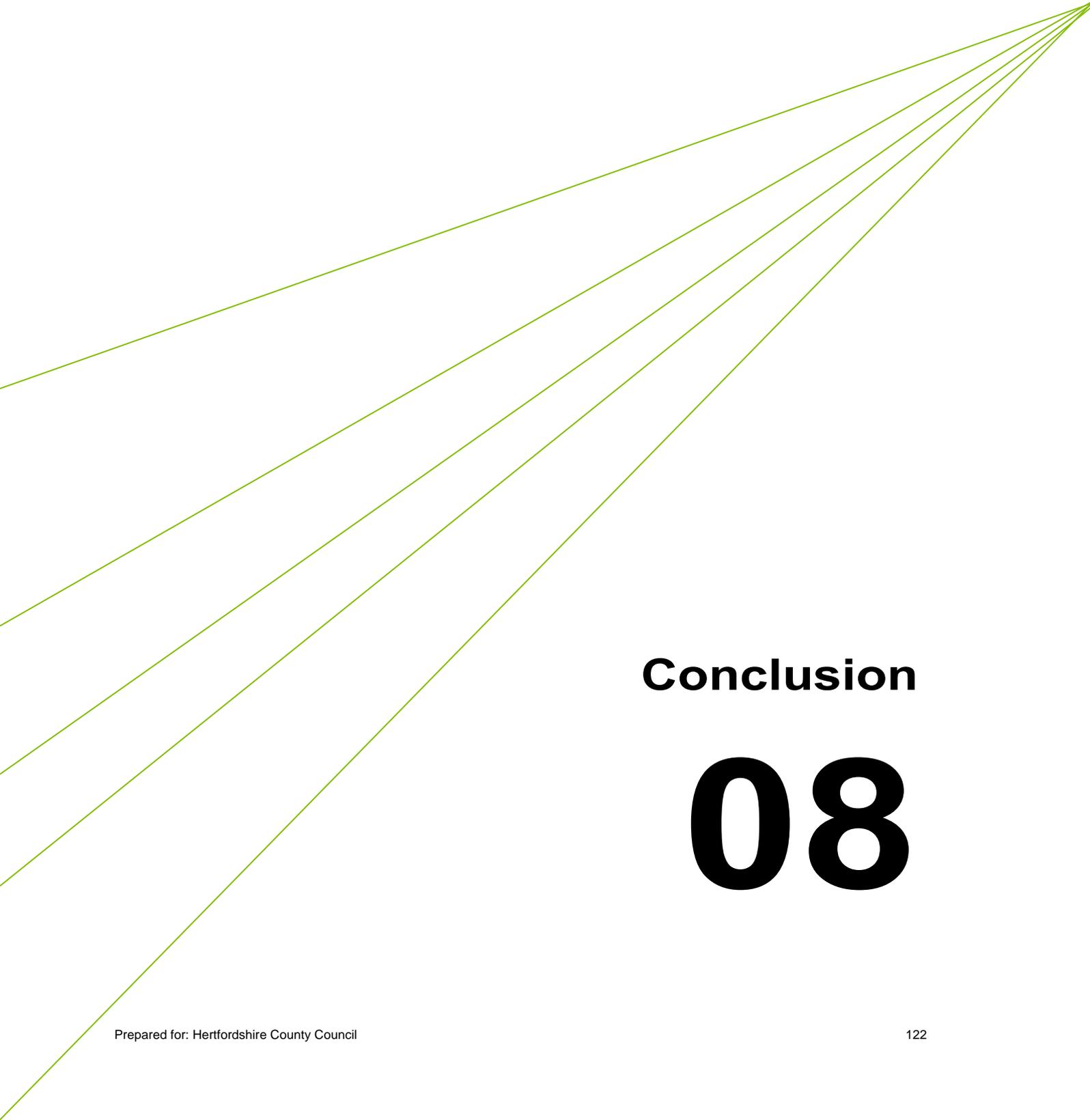
Road/ Road Section and Location	Current Function	Potential Future Function	Comment
			<p>proposals for a bus-based Mass Rapid Transit System in addition to a bypass. These are not confirmed proposals and at the time of writing are subject to more detailed investigations. If these types of Interventions were brought forward, or any Intervention which seeks to significantly reduce the severance caused by the heavily traffic A414, this could result in a reduction in the Movement function and a possible increase in the Place function. An Urban Distributor Road for instance would provide better facilities for all modes of travel.</p>

As highlighted above, in Cuffley, Ware and Hertford, the creation of new developments could lead to a change in function of surrounding roads. Other developments across the SE GTP area may also influence the Place and Movement functions of the highway network.

There may be instances where developments do not trigger any change to the surrounding network, such as the proposed Brookfield Garden Village which would feed into the existing network without any major alteration of roads.

In some cases however, development could pose a risk to the current intended function and this should be examined as part of the development management process to ensure appropriate measures are put in place (e.g. secured through S278 or CIL/S106 agreements) to mitigate any impacts.

In far fewer cases, the current function of a road may not change as a consequence of surrounding development, even if the function is not entirely compatible with the development coming forward. A key example of this is the Gilston development north of Harlow, where the A414 will continue to function as a Major Interurban Road and therefore the increased travel demand between the Gilston development and Harlow, for example the movement of pedestrians and cyclists to/from Harlow station, will need to be segregated through the provision of an overbridge.



## **Conclusion**

# **08**

## 8. Conclusion

The provision of reliable, safe and high-quality transport infrastructure and services is essential in the functioning of towns and rural areas, and in the delivery of sustainable housing and employment 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.

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-focused sub-area within Hertfordshire.

The South East Hertfordshire GTP is one of a suite of new GTPs and covers the towns of Hertford, Ware, Hoddesdon, Broxbourne, Cheshunt and Waltham Cross, smaller villages including Cuffley and Stanstead Abbots, and the connections to neighbouring towns and areas including London Borough of Enfield and Harlow.

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 South East 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 forty Packages. The Packages are geographically aligned to address a range of challenges and to delivery LTP4 policies along key travel movements ('interactions') as well as opportunities arising from planned future development.

It is not intended for the GTP to prescribe a rigid forward programme of works but to act as a decision-making guide to help steer future direction of investment and prioritisation in transport. It is envisaged that only by implementing all the interventions within a Package will the overall benefits that the GTP aspires to can 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: the availability of funding; scale, location and build-out of planned housing and employment development; changes in people's travel behaviour and options; development and take-up of innovative new transport technologies (for example autonomous transport, access to a car by subscription as opposed to ownership; demand responsive public transport); 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.

The next step in implementing the GTP will be to develop and assess the proposals in more detail and align them with potential funding opportunities coming forward.

There will also need to be a process of assessing proposals in more detail using existing or new evidence tools including transport models. This will help to refine and validate proposals in the local and wider geographical context.

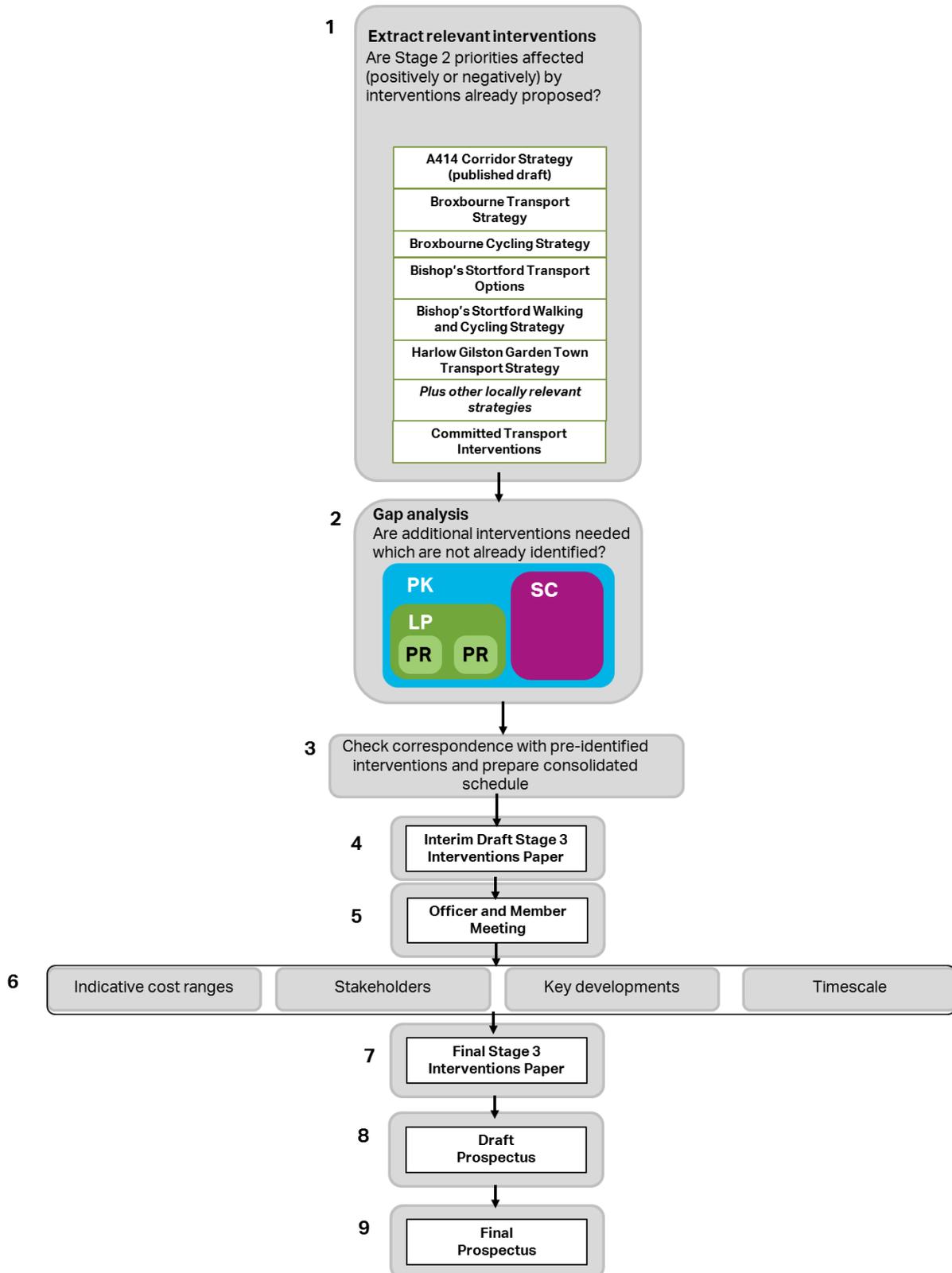
The schedule of interventions will also be adopted by HCC and entered into their established ranking processes and forward programme of works. The scoring and ranking of interventions presented in this GTP is only an initial guide. Future prioritisation of interventions will highlight if/when more detailed work needs to be carried out to eventually implement interventions.

Continual recognition and monitoring of potential funding opportunities is critical. For major investment in transport, Local Authorities are increasingly reliant upon making bids to Central Government. It is important therefore that a robust case can be put forward for successfully obtaining funds. The GTP in conjunction with other supporting strategies and policies including Hertfordshire's Local Transport Plan and the district/borough Local Plans, will form the necessary foundation for presenting a robust narrative for why awarding funds to support Hertfordshire's transport needs represents good value for money.

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 require 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. 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 - Methodology

Stage 3 of developing the GTP has been broken into a series of tasks. These tasks are shown in the figure below.



## Task 1 – Previously Identified Interventions

Task 1 has involved identification of Interventions from existing/adopted plans and strategies. The following documents were referred to under this task (in no particular order):

1. Broxbourne Transport Strategy 2017 (Broxbourne Borough Council)
2. Broxbourne Draft Local Cycling and Walking Infrastructure Plan 2017 (Broxbourne Borough Council)
3. Draft A414 Corridor Strategy (Hertfordshire County Council)
4. East Herts Infrastructure Delivery Plan (East Herts District Council)
5. Enfield Infrastructure Delivery Plan 2014 (Enfield Borough Council)
6. Epping Forest District Council Infrastructure Delivery Plan 2017 (Epping Forest District Council)
7. Harlow Gilston Transport Strategy (Harlow Council, Epping Forest District Council and East Herts District Council)
8. Hertfordshire Local Transport Plan 4 (Hertfordshire County Council)
9. Welwyn Hatfield Draft Infrastructure Delivery Plan 2016 (Welwyn Hatfield Borough Council)

A total of 201 Interventions were identified based on the recommendations mentioned in the above documents. Each intervention was expanded to describe its details, location and its level of impact on or relevance to each of the Interactions defined earlier in Stages 1 and 2 of developing this GTP. In summary, the following steps were taken:

1. All the Interventions were assessed qualitatively to show their impact on each of the 7 Inter-Urban Interactions and 21 Local Interactions. The impact or relevance of an Intervention on an Interaction was qualitatively judged as a 'positive', 'negative' or 'no impact' – comments/justification of this were mentioned for each intervention (an example shown in Table 57).
2. Interventions were defined according to 23 categories based on their type (e.g. mode of travel) and potential impact. The list of categories is presented in Table 58.
3. The 23 different intervention categories were scored based on the user hierarchy of HCC's LTP4 they best align with, as set out in Table 58. HCC's User Hierarchy list is presented in Table 59.
4. The number of identified Interventions for each interaction were counted against their relevant HCC LTP4 User Hierarchy (Table 59) to draw overall conclusions on the interventions' relevance to HCCs' key policy.
5. All the Inter-Urban Interactions, Local Interactions and Interventions were geo-tagged using GIS software, to consider the spatial impact of Interactions, identification of any missing types of interventions for Interactions (Task 2) and linked observations.

**Table 56 – Example of Previously Identified Intervention from Task 1**

Location	Intervention - Category	Intervention Description	Source	Comments / Justification
Park Plaza and Waltham Cross	Walking and Cycling Network Improvement	Improved cycle links from Waltham Cross to Park Plaza	Broxbourne Draft Local Cycling and Walking Infrastructure Plan (2017)	This intervention would increase access and safety of pedestrians and cyclists.

**Table 57 – The 23 Intervention Categories (for both Task 1 and Task 2)**

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
5	Policy – Parking management	<p><b>Description / Example Interventions:</b> This intervention category will comprise a review of parking supply which could result in a change to the amount of and/or location of parking. The intention is to improve local highway operation, reduce congestion and encourage modal shift where feasible, but also improve the supply of parking where it is most needed, which could also involve increasing disabled parking bays and reviewing the layout of car parking to improve safety and security (alignment with Park Mark - Safer Parking Scheme).</p>  <p><b>Significance / Comments:</b> Parking management can help to deal with traffic, improve air quality, ensure better road safety and increase utility of the land resource, and it can further encourage trips by public transport, active modes and manage/reduce travel demand. Public revenue from parking fee can help cross-subsidize non-car modes.</p> <p><b>Selection Criteria:</b> None</p>	IC14
5	Policy – Sustainable transport upgrade / plan	<p><b>Description / Example Interventions:</b> This intervention category comprises further study to identify sustainable travel initiatives in more detail. The reason why further study may be required is that more focused surveys and engagement with local communities and user groups will be required in order to identify appropriate actions and interventions needed to encourage sustainable travel.</p>	IC15

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p><b>Significance / Comments:</b> Sustainable transport upgrades can include strategies that are aimed at promoting sustainable travel, improving safety, shared mobility and increased accessibility whilst it can help reduce congestion, increase air quality, influence travel behaviour and reduce car dependence. Such plans can also manage/ reduce travel demand.</p> <p><b>Selection Criteria:</b> None</p>	
5	<p>Travel demand management – Speed limit review and improve active travel</p>	<p><b>Description / Example Interventions:</b> This intervention category can comprise changes to speed limits or measures to influence traffic speeds where there is opportunity to enhance the attractiveness of walking and cycling. It should be noted that HCC's Speed Management Strategy sets out guidance governing in what situations a change in speed limit should be considered. Measures to change traffic speeds could include road humps, chicanes and gateways.</p>  <p><b>Significance / Comments:</b> Introducing revised speed limits and improving infrastructure for active travel along a corridor/ area may attract more people towards active travel and increase active travel mode share and can manage/ reduce travel demand. It will improve safety of cyclists and pedestrians.</p> <p><b>NOTE:</b> This type of intervention could increase journey time of vehicles, including buses (if they route on the corridor), which may decrease their mode share and possibly increase emissions within the corridor/ area. Any consideration of speed limit changes needs to refer to HCC's Speed Management Strategy.</p> <p><b>Selection criteria:</b> Demand management measures, such as decreasing speed limits, may have adverse effects on bus journey times along Interurban Interactions</p>	IC21
4	Cycle Parking	<p><b>Description / Example Interventions:</b> Cycle parking can take different forms. It could comprise more traditional Sheffield stands for a limited number of bicycles, or a larger facility, potentially covered, which could accommodate 10+ bicycles. Cycle parking could be located close to key facilities on the footway where there is sufficient space available so as not to disrupt the movement of pedestrians. In conjunction, consideration would need to be given</p>	IC2

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p>to the access routes to cycle parking, for example lining and signing, ramps from the road carriageway onto the footway. Where space is more limited, consideration could be given to replacing a car parking space with cycle parking which could accommodate around 10 bicycles.</p>  <p><b>Significance / Comments:</b> This category of interventions would provide sufficient cycle parking at an activity centre or transport interchange, which may increase cyclist's confidence on availability of safe, secure parking at their destination. This is essential to enable people to make more trips by cycle and may help increase mode share of cycle alongside other improvements to cycle routes.</p> <p><b>NOTE:</b> whilst generally a positive measure, cycle parking should not be provided in locations where cyclists or other transport users including pedestrians are put at risk, for example, an increase in cyclists routing on pavements.</p> <p><b>Selection Criteria:</b> Only recommend cycle parking for Interurban Interactions that take 30min or less to cycle</p>	
4	Junction improvements – walking and cycling/new bridge	<p><b>Description / Example Interventions:</b> This intervention category is intended to improve connectivity for pedestrians and cyclists and could comprise a new bridge over a river, railway or road, or an 'at-grade' crossing on a road. At-grade crossings could comprise uncontrolled crossings including new dropped kerbs with tactile paving, installation of traffic islands incorporating pedestrian/cyclist refuge facilities and signal-controlled crossings including Toucan crossings which enable pedestrians and cyclists to cross.</p> 	IC9

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p><b>Significance / Comments:</b> This intervention would increase access and safety of pedestrians and cyclists at junctions, along with improved mobility and accessibility. It may reduce public concerns/ fear of being involved in a collision, long waiting time at junctions and confronted with traffic.</p> <p><b>NOTE:</b> This type of intervention may increase wait time at junctions of vehicles, including buses (if they route on the corridor).</p> <p><b>Selection Criteria:</b> Only recommend for Interurban Interactions that has journey time of up to 30min</p>	
4	Walking and cycling network improvements	<p><b>Description / Example Interventions:</b> This intervention category comprises improvements to existing footways and cycle routes and/or the creation of new footways and cycle routes across a network. This could also include additional and improved crossing facilities, wayfinding signage, improvements in surfacing (in line with HCC's standard approach to prioritising maintenance of the footway network)</p> <p><b>Significance / Comments:</b> Improvement in walking and cycling infrastructure in a corridor/ area will improve safety of cyclists and pedestrians. This could increase attractiveness of active travel and increase active travel mode share. Interventions in residential area, town centres, access routes of transport interchanges and schools would help local interactions and modal shift towards active modes.</p> <p><b>Selection criteria:</b> No Interurban Interactions with journey time on over 30mins reasonable cycling distance between key locations were identified as missing proposed interventions for walking and cycling network improvements</p>	IC22
4	Wayfinding / Signage	<p><b>Description / Example Interventions:</b> This intervention category includes new and improved signs which indicate pedestrian and cycle routes and predicted journey times/lengths to key destinations. This category can also comprise broader place-making initiatives including plinths which provide a range of local area information.</p> 	IC23

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p><b>Significance / Comments:</b> This intervention would increase wayfinding for pedestrians and cyclists. This may reduce journey time of active modes, increase their comfort and make them more attractive.</p> <p><b>Selection criteria:</b> Only recommend Wayfinding/Signage for Interurban Interactions with cycle routes that can be cycled in 30 minutes or less</p>	
3	Junction improvement - bus	<p><b>Description / Example Interventions:</b> This intervention category comprises highway improvements which incorporate bus priority or measures to ease the movement of buses at or close to highway junctions. This could comprise installation of traffic signals and bus lanes on the approach to junctions to give priority to buses over private vehicles, bus detection signals (linked to a bus GPS tracking system) and alteration to bus stops/lay-bys to ease the movement of buses into/out of the bus stop or removing the layby to make it easier for buses to resume a journey after passengers board/alight.</p>  <p><b>Significance / Comments:</b> Bus priority at junctions would decrease bus journey time and would make bus travel more attractive. This can lead to increase in bus patronage.</p> <p><b>NOTE:</b> this type of intervention may have potential negative impact on car and other vehicles as it would increase their waiting time at junction, though this may further help modal shift of car users to bus.</p> <p><b>Selection Criteria:</b> Only recommended bus priority measures for interactions that have a bus frequency of at least 4/hr</p>	IC6
3	Multi-modal interchange improvement	<p><b>Description / Example Interventions:</b> This intervention category comprises an improvement to an existing multi-modal transport interchange for example a bus or rail station, or the development of a new multi-modal interchange which could also include cycle parking, cycle hire/docking, waiting facilities and taxi rank, and car drop off/pick up area. The improvement could comprise new public realm in the form of new landscaping, planting, signage, seating and lighting.</p>	IC10

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p><b>Significance / Comments:</b> Improved multimodal interchanges may have widespread impacts of improving accessibility for both inter-urban and local trips. It would increase journey time reliability, inter-modality and interoperability. Urban realm/ placemaking interventions at the interchange may improve a bus and rail interchange's physical and aesthetic condition, which would influence travel choices and make public transport a more attractive choice.</p> <p><b>Selection Criteria:</b> None</p>	
3	Policy - Marketing	<p><b>Description / Example Interventions:</b> This intervention category comprises marketing initiatives aimed at encouraging sustainable travel. This could involve marketing an existing bus service through a poster campaign or letter drop. The marketing initiative should ideally be targeted, for example residents of a neighbourhood who live within easy of a bus service. Cooperation with bus operators through the Interlink Partnership will be required.</p> <p><b>Significance / Comments:</b> Marketing/ communication strategy can facilitate project delivery, keeps stakeholders and customers informed, prioritize investments, build trust with community and in the long run can help investment in sustainable transport. It can help promote and encourage the use of public transport, walking and cycling.</p> <p><b>Selection Criteria:</b> None</p>	IC12
3	Policy - Ticketing <sup>18</sup>	<p><b>Description / Example Interventions:</b> The Intalink Partnership is actively seeking ways to improve customer experience therefore countywide initiatives are already likely to be underway. This intervention category however requires more focused attention on a particular area or bus service, where additional engagement may be required to ensure that passengers on that bus service route have as many or all of the potential options available to obtain tickets and enhance the experience of taking a bus. Cooperation with bus operators through the Interlink Partnership will be required.</p>	IC13

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<sup>18</sup> This category is currently included in the packaging of newly developed Task 2 interventions. However, at a later stage these ticketing interventions could be removed from the packages and treated separately as area-wide interventions that may also help in achieving Ticketing Policy objectives of integrated ticketing/ E-ticketing for improved inter-modality (transfer tickets)

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		 <p><b>Significance / Comments:</b> Mobile/ online ticketing of public transport services can reduce boarding time, increase reliability of the system, increase customer satisfaction and reduce cash handling.</p> <p><b>NOTE:</b> transport operators would need to be fully on-board to make this type of intervention viable. Coordination between operators would also be required.</p> <p><b>Selection Criteria:</b> None</p>	
3	Policy – Travel Plans	<p><b>Description / Example Interventions:</b> This intervention category involves development of travel plans which could cover neighbourhoods, discrete developments or specific properties, and could involve personalised travel planning. The travel plan should include targets for reducing car travel and increasing sustainable travel, and may include incentives such as free bus travel, as well as information on travel options</p> <p><b>Significance / Comments:</b> Travel Plans can reduce cost of travel, reduce journey times and help deliver travel demand management benefits. It can help promote and encourage the use of public transport, walking and cycling.</p> <p><b>NOTE:</b> The effectiveness of Travel Plans can reduce over time especially if there is a reduction in funding, there is no robust monitoring being undertaken, and no mechanisms in place to address any issues which may be identified.</p> <p><b>Selection Criteria:</b> None</p>	IC16
3	Public Transport – Bus Stop Upgrades	<p><b>Description / Example Interventions:</b> This intervention category comprises making improvements to an existing bus stop, the relocation of an existing stop or the creation of a new bus stop. Improvements could involve installation of a bus shelter, improved lighting, step-free access, removal of a bus lay-by (where this might help buses re-enter general traffic flow) and renewal of the bus flag and road markings. Cooperation with bus operators through the Interlink Partnership will be required.</p>	IC17

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		 <p><b>Significance / Comments:</b> Bus Stop Upgrades would improve the perception and image of bus services, whilst improving comfort level of bus users when they wait for buses at bus stop. It will have potential to affect many local interactions across the GTP area. This intervention has the potential to attract people towards bus service and increase user satisfaction.</p> <p><b>NOTE:</b> Bus stop upgrades may not be feasible in all locations. For example, limited footway width may limit the opportunity to introduce a shelter.</p> <p><b>Selection Criteria:</b> None</p>	
3	Public Transport – Bus Service Improvements	<p><b>Description / Example Interventions:</b> This intervention category can comprise increasing bus service frequencies, changing service routes to increase patronage and/or avoid traffic congestion and thus improve journey times. It could also comprise improvements to bus vehicles including fleet upgrades and improved onboard facilities. Cooperation with bus operators through the Interlink Partnership will be required.</p>  <p><b>Significance / Comments:</b> Bus service improvement can improve the provision of bus services. This may include introducing a new bus service, re-routing an existing bus service, increasing the frequency of an existing service or implementing bus priority measures to improve bus journey times. These types of measures would potentially increase bus patronage and have a positive impact on air quality if there is a significant mode shift to bus.</p> <p><b>NOTE:</b> Whilst this is not a primary concern, increases in bus services could have a negative impact on existing traffic conditions (disruption caused by stopping buses). The local</p>	IC18

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p>transport operator would need to be engaged in any proposals to alter bus services.</p> <p><b>Selection Criteria:</b> No Interurban Interactions were missing proposed interventions for bus service improvements</p>	
3	Public transport – Rail improvement	<p><b>Description / Example Interventions:</b> This intervention category comprises can include increasing rail frequencies at stations, train lengthening and station enhancements. Engagement with the relevant train operators, Network Rail and DfT would be required and any substantial improvements are less likely to be managed by HCC.</p> <p><b>Significance / Comments:</b> Rail improvement in terms of increased capacity may help reduce crowding in rail, increase user comfort/ satisfaction and enable mode shift to rail. This can reduce car dependence as rail may become more attractive than car.</p> <p><b>NOTE:</b> the operation and performance of rail services is managed and monitored at a national level with reduced input at a local level. Improvements to the rail network, in particular rolling stock, is subject to longer term planning and decision-making made at a national level in discussion with train operators. In the GTP are, the rail network is already undergoing significant investment in new train rolling stock on both the Hertford Loop branch of the Great Northern rail service, and on the West Anglia Main Line.</p> <p><b>Selection Criteria:</b> None</p>	IC19
3	Public transport – Real Time Information	<p><b>Description / Example Interventions:</b> This intervention category comprises provision of real time information panels at bus stops, interchanges and other key locations for example shopping centres and hospitals. The provision of real time information on buses and rail through apps should also be promoted.</p>  <p><b>Significance / Comments:</b> This category of interventions can potentially increase reliability of public transport and help in journey planning.</p>	IC20

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p><b>NOTE:</b> The increasing use of smartphone apps means that the provision of real time information at bus stops may no longer be required. It will need to be ensured the information being fed through travel apps is relevant and up to date.</p> <p><b>Selection Criteria:</b> None</p>	
1/2/4	Highway, Walking and Cycling Network Improvements	<p><b>Description / Example Interventions:</b> This intervention category comprises highway network improvements (i.e. along multiple roads or inter-urban road corridor, multiple junctions) which are intended to benefit vehicles, but can also incorporate improvements to pedestrian and cyclist facilities. This could involve a series of junction improvements such as road widening, extending lane flaring, installation of traffic signals, incorporating a right turn facility, as well as associated lining, signing and road surfacing improvements.</p>  <p><b>Significance / Comments:</b> This intervention would increase capacity, improve the flow of traffic; increase access and improve safety of pedestrians and cyclists along a route, with improved mobility and accessibility.</p> <p><b>Selection Criteria:</b> Improvements to highways infrastructure does not represent a key priority in the LTP4 User Hierarchy. Therefore, recommendations will be focused on sustainable transport users - walking and cycling interventions is covered under separate category.</p>	IC4
1/2/4	Junction improvements – Highway walking and cycling	<p><b>Description / Example Interventions:</b> This intervention category comprises an alteration to an existing junction which can benefit multiple users including vehicles and non-motorised users. The aim is likely to reduce congestion and increase traffic throughput, but could also address a safety issue and improve connectivity for pedestrians and cyclists. The improvement could comprise installation of new traffic signals, improved traffic signals (e.g. MOVA or SCOOT - dynamic systems which respond to fluctuations in traffic flow), a new or improved crossing facility, conversion from one form of junction to another, provision of additional lanes, widening of lanes on the approach to junctions,</p>	IC8

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p>cycle lanes, increase lane flares, and lining/signing to improve how the junction operates.</p> <p><b>Significance / Comments:</b> This intervention would increase capacity and improve the flow of traffic; and increase access and safety of pedestrians and cyclists at junctions, along with improved mobility and accessibility.</p> <p><b>Selection Criteria:</b> Improvements to highways infrastructure does not represent a key priority in the LTP4 User Hierarchy. Therefore, recommendations will be focused on sustainable transport users - walking and cycling interventions is covered under separate category.</p>	
1	Car Park - Real Time Information	 <p><b>Description / Example Interventions:</b> This intervention category can comprise Variable Message Signs (VMS) indicating where parking spaces are available. These VMS signs can be positioned close to car park entrances and also further away on key roads leading towards car parks. The intention would be to inform motorists of available spaces as early as possible to reduce the disruption which may be caused by motorists queuing to enter a car park or travelling around to find an available parking space. There is a potential risk that VMS signs could become more redundant in future years as in-car technology improves and becomes more commonplace, in which drivers could get notification on their dashboard of where spaces are available. It is uncertain however how quickly this technology will become commonplace and the feasibility of linking up different car parks owned/managed by different organisations. VMS signs therefore continue to serve an important function in the short to medium term. Consideration could also be given to app-based systems and providing real time indication of available parking on car parking websites.</p> <p><b>Significance / Comments:</b> This category of interventions can potentially have positive effects on local traffic as it would mitigate traffic rat running to find parking. It can help save journey time, reduce congestion and may influence travel choices in longer term.</p> <p><b>NOTE:</b> The location of real time information signs could have an impact on the aesthetics of the local environment. Consideration will also need to be given to any potential knock-on effects of traffic re-routing to car parks. New cars coming onto the market are increasingly likely to include enhanced technology and</p>	IC1

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p>connectivity features which could in the longer term reduce the need for road-side real time information.</p> <p><b>Selection Criteria:</b> Improvements to highways infrastructure does not represent a key priority in the LTP4 User Hierarchy. Therefore, recommendations will be focused on sustainable transport users.</p>	
1	Highway Improvement – New road link	<p><b>Description / Example Interventions:</b> This intervention category covers entirely new road links for the purpose of facilitating some element of general traffic movements but could also be used to facilitate other modes. These could be new road links in urban areas or bypasses around villages and towns where a road link does not currently exist. In the case of bypasses, the road which is being 'replaced' by the bypass would be subject to mitigation works to discourage traffic and improve facilities for pedestrians, cyclists and buses.</p>  <p><b>Significance / Comments:</b> New road links can facilitate strategic development and gain access to an important inter-urban corridor and provides link to Local Interactions. They can help in improving connectivity in an area, reducing journey time and increasing network capacity. They can mitigate impacts on some existing roads if they can successfully reduce rat-running.</p> <p><b>NOTE:</b> This type of intervention can increase car dependence, could induce traffic and lead to traffic re-routing which could adversely affect communities.</p> <p><b>Selection Criteria:</b> Improvements to highways infrastructure does not represent a key priority in the LTP4 User Hierarchy. Therefore, recommendations will be focused on sustainable transport users. (This excludes a new road link for strategic/ economic link which is not been suggested as part of this exercise).</p>	IC3
1	Highways Improvements	<p><b>Description / Example Interventions:</b> This intervention category comprises highway improvements (i.e. along a single section of road with a few junctions) which are primarily intended to benefit vehicles. This could involve road widening, extending lane flaring, installation of traffic signals, incorporating a right turn facility, as</p>	IC5

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p>well as associated lining, signing and road surfacing improvements.</p>  <p><b>Significance / Comments:</b> This intervention would increase capacity and improve the flow of traffic. Increased traffic capacity may increase car dependency and could adversely impact air quality and increase associated externalities.</p> <p><b>NOTE:</b> If this is not accompanied with pedestrian and cycle infrastructure improvements, then this intervention could increase travel time of active modes and may adversely impact their mode share.</p> <p><b>Selection Criteria:</b> Improvements to highways infrastructure does not represent a key priority in the LTP4 User Hierarchy. Therefore, recommendations will be focused on sustainable transport users</p>	
1	Junction improvement - Highway	<p><b>Description / Example Interventions:</b> This intervention category comprises an alteration to an existing junction primarily for the benefit of vehicles. The aim is likely to reduce congestion and increase traffic throughput, and therefore the improvement could comprise installation of new traffic signals, improved traffic signals (e.g. MOVA or SCOOT - dynamic systems which respond to fluctuations in traffic flow), conversion from one form of junction to another, provision of additional lanes, widening of lanes on the approach to junctions, increase lane flares, and lining/signing to improve how the junction operates.</p>  <p><b>Significance / Comments:</b> Highway focused junction improvement will increase capacity and improve the flow of traffic at junctions. It would reduce journey time of vehicles and possibly</p>	IC7

HCC user hierarchy score	Intervention Category	Significance/ Comments	IC No.
		<p>increase car dependence, which can reduce air quality and increase associated externalities.</p> <p><b>NOTE:</b> If this is not accompanied with pedestrian and cycle infrastructure improvements, then this intervention would increase travel time of active modes and may adversely impact their mode share.</p> <p><b>Selection criteria:</b> Improvements to highways infrastructure does not represent a key priority in the LTP4 User Hierarchy. Therefore, recommendations will be focused on sustainable transport users</p>	
1	Policy – Electric Vehicle Charging Points <sup>19</sup>	<p><b>Description / Example Interventions:</b> This intervention category comprises the installation of new electric vehicle charging points. These could be installed along the public highway (roadside, with designated parking bays) or within car parks. This could be a council-led initiative or involve engagement with private organisations to seek installation of charging points at key destinations including major employers, privately managed publicly accessible car parks or at service areas including petrol filling stations.</p>  <p><b>Significance / Comments:</b> This may help promote electric vehicles and may help improve air quality in the longer-term.</p> <p><b>NOTE:</b> consideration would need to be given to the turnover of spaces, the location and long-term need (in light of the likely increasing uptake in electric vehicles)</p> <p><b>Selection Criteria:</b> This intervention is included even when it falls under HCC user hierarchy 1 as it would help in decarbonization of transport system.</p>	IC11

<sup>19</sup> This category was considered under HCC user hierarchy of '1' (largely electric car), based on the interventions. However, this category is considered under HCC user hierarchy of '1' and '2' (electric two-wheelers and car).

**Table 58 – HCC’s LTP4 User Hierarchy**

No (#)	Description	Score
User Hierarchy #1	Opportunities to reduce travel demand and the need to travel	5
User Hierarchy #2	Vulnerable road user needs (such as pedestrians and cyclists)	4
User Hierarchy #3	Passenger transport user needs	3
User Hierarchy #4	Powered two-wheeler (mopeds and motorbikes) user needs	2
User Hierarchy #5	Other motor vehicle user needs	1

**Table 59 – Task 1 - Summary of Intervention Hits by Type (HCC’s LTP4 User Hierarchy)**

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Interurban	Hertford - Ware	6	1	1	1	0	3
Interurban	Hertford / Ware - Broxbourne Towns	40	3	7	12	0	18
Interurban	Welwyn Garden City / Hatfield - Hertford / Ware	14	1	1	1	0	11
Interurban	Stevenage - Hertford / Ware	5	1	1	0	0	3
Interurban	Bishop’s Stortford / Sawbridgeworth / Harlow - Hertford / Ware	23	3	5	2	0	16
Interurban	Bishop’s Stortford / Sawbridgeworth / Harlow - Broxbourne Towns	45	4	9	12	0	23

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Interurban	Broxbourne Towns -Enfield	50	2	14	18	0	17
Local	Ware West	0	0	0	0	0	0
Local	Ware North	4	0	2	1	0	1
Local	Ware Town Centre	1	0	0	0	0	1
Local	Between Ware and Hertford	2	1	0	0	0	1
Local	Hertford Town Centre	6	1	3	0	0	3
Local	A414 through Hertford	4	1	0	1	0	2
Local	Hertford West	5	1	2	1	0	1
Local	Hertford North	3	1	0	0	0	2
Local	Hertford South	2	1	0	0	0	1
Local	Stanstead Abbots and St Margarets	0	0	0	0	0	0
Local	Hoddesdon North	44	9	21	8	0	7
Local	Hoddesdon East	51	9	27	8	0	7
Local	Broxbourne North	37	8	16	11	0	3
Local	Broxbourne South	37	8	16	8	0	6
Local	Theobalds Grove	37	8	16	11	0	3
Local	Cheshunt East	60	8	32	12	0	9
Local	Cheshunt West	64	8	30	12	0	15

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Local	Hammond Street	32	6	15	9	0	3
Local	Brookfield	64	8	29	13	0	15
Local	Goffs Oak and Cuffley	34	6	19	7	0	3
Local	Waltham Cross	57	8	32	14	0	7
	TOTAL Inter-Urban Interactions		15	38	46	0	91
	TOTAL Local Interactions		92	260	116	0	90
	TOTAL all Interactions		107	298	162	0	181
	TOTAL Inter-Urban Interactions %		8%	20%	24%	0%	48%
	TOTAL Local Interactions %		16%	47%	21%	0%	16%
	TOTAL all Interactions %		14%	40%	22%	0%	24%

Note:

1. User Hierarchy #4 - 'Powered two-wheeler (mopeds and motorbikes) user needs' has not been scored as there were no specific recommendations for two wheeler (such as a policy to implement/ support electric two wheelers). However, it is to be noted that majority of 'User Hierarchy #5' interventions would impact 'User Hierarchy #4'.
2. Two Intervention Categories (see tab Intervention Categories) of - 'Highway, Walking and Cycling Network Improvement' and 'Junction Improvements - Highway, walking and cycling' impact User Hierarchy #2 and User Hierarchy #5. Thus, interventions under these two Categories have been counted for both User hierarchies. This is reflected in the above table 'Summary of Intervention hits by type (HCC LTP4 User Hierarchy)'.

Based on the analysis shown in Table 59, it can be confirmed that a range of Interventions have been proposed in previously developed plans and strategies in the GTP area which fall within the geographic scope of many of the Local and Inter-urban Interactions.

The assessment suggests that more interventions align with the Local Interactions which is to be expected given the detailed work undertaken for the Broxbourne Transport Strategy and the Broxbourne Walking and Cycling Strategy.

Fewer Interventions have been identified for the Inter-Urban Interactions, with Inter-urban Interactions 1.1 (Hertford-Ware) and 1.4 (Stevenage-Hertford/Ware) having fewer Interventions.

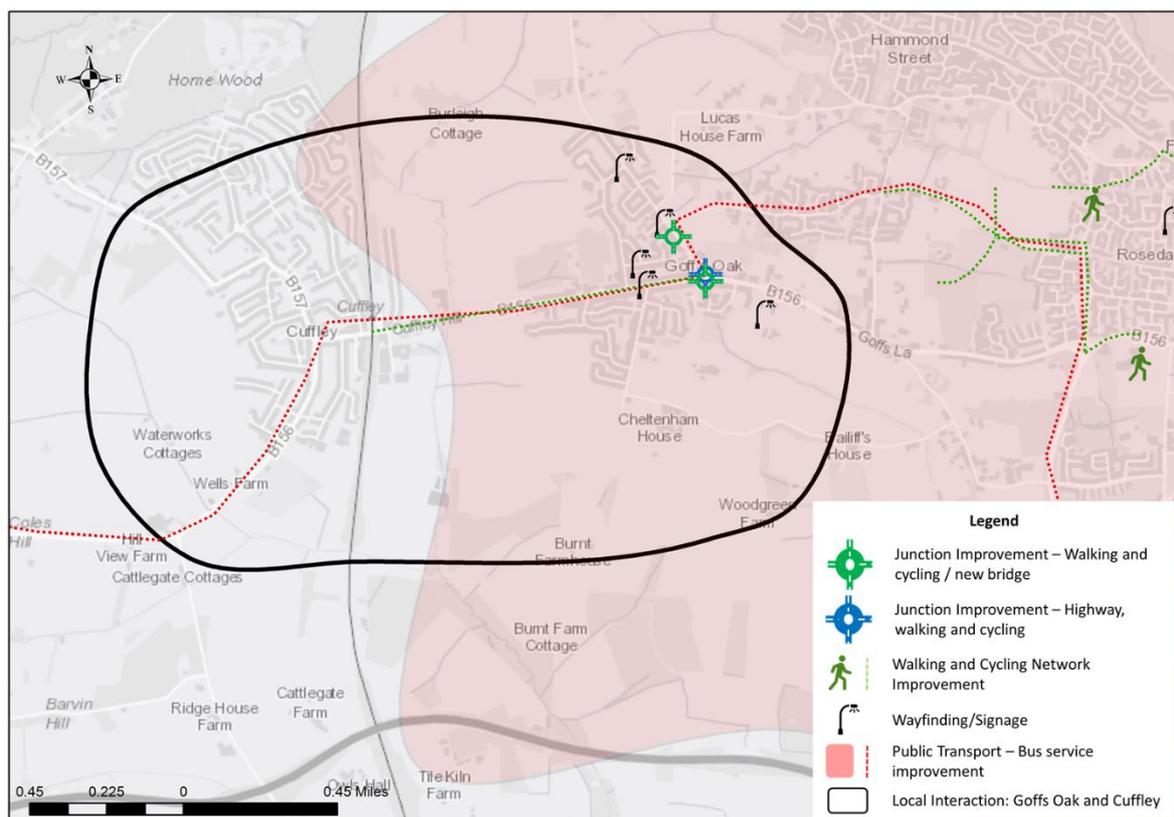
A large proportion of Interventions at a Local Interaction level align with User Hierarchy #2 (walking and cycling) however at the Inter-urban Interaction level, nearly half of the Interventions align with User Hierarchy #5 (motorised vehicles). There are no Interventions identified for two-wheelers users.

Based on the analysis, in the recommendations taken forward to Task 2 (identifying new interventions) more attention was to be focused on Interactions 1.1, 1.3, 1.4 and 1.5. Particular attention would be focused on User Hierarchy #3 (passenger transport) which represents a smaller proportion of the Intervention types compared against User Hierarchy #5 (motorised vehicles). At the Local Interaction level, more attention would need to be focused upon Hertford and Ware. Furthermore, consideration would be given to the Hertford Sustainable Travel Town initiative which is a pilot for a county-wide programme identified in the Local Transport Plan.

## Mapping

Figure 19 below shows the local interaction of Goffs Oak and Cuffley and the interventions identified as part of Task 1 (those from previously developed plans and strategies). This is an example of the output of the GIS mapping exercise. A similar exercise has been done for all the Inter-urban Interactions and local Interactions.

The boundary of the Interaction is not intended to be a hard boundary but instead provides a broad impression of the geographic area of interest. Interventions which sit outside but close to the boundary shown may also be relevant to the Interaction.



**Figure 19 - Task 1 Interventions – Goffs Oak and Cuffley, Local Interaction**

## Task 2 - Identifying New Interventions Based on Gap Analysis

Task 2 involves identification of new Interventions for all Inter-Urban and Local Interactions.

A process of gap analysis has been conducted to identify new interventions under each interaction. The following approach was adopted for this:

1. Stage 2 Strategy Paper of SE GTP was reviewed to identify and develop new interventions. For example, if Stage 2 Strategy Paper identifies a priority as:

*“Hertford cycle routes are not of a high standard and not well connected”*

...the above priority was then developed into an Intervention, as:

*‘Improve quality of cycling infrastructure in Hertford’.*

This process has led to 108 new interventions being identified from the Stage 2 Strategy Paper.

- Following the similar process of Task 1, all these 108 interventions have been:
  - Assessed qualitatively to show their impact on each of the 7 Inter-Urban interactions and 21 Local Interactions. The impact or relevance of an intervention on an interaction has been qualitatively judged as a ‘positive’, ‘negative’ or ‘no impact’ – comments/ justification of this were mentioned for each Intervention.
  - Interventions are categorised into the 23 aforementioned categories based on their type and potential impact.
  - The 23 different categories have been scored based on the user hierarchy of HCC's LTP4 they best align with.
  - The number of Interventions for each Interaction have been counted for each HCC LTP4 User Hierarchy.
  - All the Inter-Urban Interactions, Local Interactions and Interventions were geo-tagged using GIS mapping software.
- 2. ‘Gap analysis’ has been conducted to identify if there are Interactions (Inter-Urban/ Local) which do not have any Interventions in any of the 23 Intervention categories. This analysis is based on the combined number of interventions from the ‘Stage 2 Strategy Paper’ and ‘Task 1 of Stage 3 - identifying previously-developed Interventions from documents/ reports’ for each Interaction.
  - The aforementioned GIS-based gap analysis has helped identify ‘gaps’ in each interaction for each of the 23 intervention categories and further for the User Hierarchy of HCC's LTP4. Consideration has been given to whether the gap is relevant to prevent inappropriate Interventions being identified that serve no real purpose.
  - Interventions in line with User Hierarchies 1-4 were prioritised for the Interaction “gaps”. The Intervention categories that fall within User Hierarchy 5 were purposefully excluded from this optioneering exercise since these may support and/or increase car dependency. Thus, an approach was taken that follows the sustainable agenda laid out in LTP4.

- These newly identified Interventions have been:
    - Assessed qualitatively to show their impact on each of the 7 Inter-Urban Interactions and 21 Local Interactions. The impact of an Intervention on an Interaction has been qualitatively judged as a 'positive', 'negative' or 'no impact' – comments/ justification of this have been noted for each Intervention.
    - Categorised into 23 different categories based on their type and impact.
    - The 23 different categories have been scored based on the user hierarchy of HCC's LTP4 they best align with.
    - The number of Interventions for each Interaction have been counted for each HCC LTP4 User Hierarchy.
    - All the Inter-Urban Interactions, Local Interactions and Interventions have been geo-tagged using GIS software.
  - It is to be noted that new Interventions from this 'gap analysis' exercise are intentionally non-detailed as they are based on 23 intervention categories that are described in broad terms. The intention is to provide stakeholders including HCC flexibility to carry out more detailed investigations to determine how a particular intervention category could be delivered to suit the individual circumstances of each Intervention location. An example of an analysis method for narrowing down the 'gap analysis' interventions discussed at the end of this Chapter.
3. Three sets of interventions were geo-tagged: "Task 1" previously developed Interventions, "Stage 2 Strategy Paper" priorities which have been converted into new Interventions and "Optioneering based on gap analysis" new Interventions. These Interventions were compiled along with the "Place and Movement" assessment database, proposed housing/ employment developments and the SE GTP Interactions (both Inter-Urban and Local). The GIS database was prepared in ArcGIS and was used to identify new Interventions by spatially assessing whether Interventions were missing in each of the Interactions. The GIS based analysis followed the same approach as the previous gap analysis:
- Interventions were developed in line with User Hierarchies 1-4. The intervention categories that fall within User Hierarchy 5 were purposefully excluded from this optioneering exercise since these may support and/or increase motor vehicle dependency. Thus, an approach that follows the sustainable agenda laid out in LTP4 was followed.
  - These newly identified interventions were developed and were:
    - Assessed qualitatively to show their impact on each of the 7 Inter-Urban Interactions and 21 Local Interactions. The impact of an intervention on an interaction was qualitatively judged as a 'positive', 'negative' or 'no impact' – comments/ justification of this were mentioned for each intervention.
    - Categorised into 23 different categories based on their type and impact.
    - The 23 different categories have been scored based on the user hierarchy of HCC's LTP4 they best align with.
    - The number of interventions for each Interaction have been counted for each HCC LTP4 User Hierarchy.

- All the Inter-Urban Interactions, Local Interactions and Interventions were geo-tagged.

Overall, 220 new interventions have been identified based on three sets of 'new Interventions':

1. Directly informed by 'Stage 2 Strategy Paper': 108 Interventions
2. From 'Gap analysis': 95 Interventions
3. From 'GIS based assessment': 17 Interventions

As mentioned previously, all 23 intervention categories (described earlier) have been included in the new interventions identified from 'Stage 2 Strategy Paper', whereas only interventions that may help promote sustainable travel have been identified in the 'gap analysis' and 'GIS based assessment'. This supports the sustainable agenda laid out in the LTP4. Table 60 details how the 23 intervention categories have been used in Task 2.

**Table 60 – Approach to Intervention Categories in Task 2**

IC No.	Intervention Category	Application – new interventions	Notes
IC1	Car Park - Real Time Information	Only 'Stage 2 Strategy Paper'	This intervention category includes improvements to highways infrastructure which does not represent a key priority in the LTP4 User Hierarchy.  <b>RECOMMENDATION:</b> Therefore, recommendations will be focused on sustainable transport users.
IC2	Cycle Parking	All	This intervention category includes cycle parking provision at key locations to promote cycling uptake. Key locations include stations, town centres, activity centres and large employment sites.  <b>RECOMMENDATION:</b> Cycle parking is only recommended for interactions where the journey takes 30 minutes or less to cycle.
IC3	Highway improvement - New road link	Only 'Stage 2 Strategy Paper'	This intervention category includes improvements to highways infrastructure which does not represent a key priority in the LTP4 User Hierarchy.  <b>RECOMMENDATION:</b> Recommendations will be focused on sustainable transport users. (This excludes a new road link for strategic/economic reasons which has not been suggested as part of this exercise).
IC4	Highway, Walking and Cycling Network Improvement	Only 'Stage 2 Strategy Paper'	This intervention category includes improvements to highways infrastructure which does not represent a key priority in the LTP4 User Hierarchy.  <b>RECOMMENDATION:</b> Recommendations will be focused on sustainable transport users - walking and

IC No.	Intervention Category	Application – new interventions	Notes
			cycling interventions are covered under a separate category.
IC5	Highways Improvement	Only 'Stage 2 Strategy Paper'	<p>This intervention category includes improvements to highways infrastructure which does not represent a key priority in the LTP4 User Hierarchy.</p> <p><b>RECOMMENDATION:</b> Recommendations will be focused on sustainable transport users</p>
IC6	Junction improvement - bus	All	<p>This intervention category includes installation of bus priority measures in key junctions to improve bus journey times and reliability</p> <p><b>RECOMMENDATION:</b> This intervention category is only recommended for interactions that have a bus frequency of at least 4/hr in the peak.</p>
IC7	Junction Improvement - Highway	Only 'Stage 2 Strategy Paper'	<p>This intervention category includes improvements to highways infrastructure which does not represent a key priority in the LTP4 User Hierarchy.</p> <p><b>RECOMMENDATION:</b> Recommendations will be focused on sustainable transport users</p>
IC8	Junction Improvements - Highway, walking and cycling	Only 'Stage 2 Strategy Paper'	<p>This intervention category includes improvements to highways infrastructure which does not represent a key priority in the LTP4 User Hierarchy.</p> <p><b>RECOMMENDATION:</b> Recommendations will be focused on sustainable transport users - walking and cycling interventions are covered under a separate category.</p>
IC9	Junction Improvements - walking and cycling/ new bridge	All	<p>This intervention category includes walking and cycling provision in key junctions to promote safety and access for pedestrians and cyclists.</p> <p><b>RECOMMENDATION:</b> it is only recommended for interactions where the journey takes 30 minutes or less to cycle</p>
IC10	Multi-modal interchange improvement	All	This intervention category includes improved access between sustainable travel modes at key interchange locations.

IC No.	Intervention Category	Application – new interventions	Notes
IC11	Policy - Electric Vehicle Charging Points	All	This intervention category includes provision of electric vehicle charging points at key locations to promote an uptake in electric vehicle use
IC12	Policy - Marketing	All	This intervention category is aimed to promote the available public transport services and active travel routes to encourage an uptake in sustainable travel
IC13	Policy - Ticketing	All	This intervention category encourages consideration of opportunities to improve the customer experience when purchasing public transport tickets
IC14	Policy - Parking management	All	This intervention category includes improved management of the parking provision at key locations through paid parking, parking limitations and other measures with the aim to shift people to sustainable travel. Key locations include car parks, stations, town centres, activity centres and large employment sites
IC15	Policy - Sustainable transport upgrade/ plan	All	This intervention category includes sustainable transport provision to encourage an uptake in sustainable travel and improve air quality
IC16	Policy - Travel Plans	All	This intervention category encourages consideration of opportunities to reduce travel demand
IC17	Public Transport - Bus Stop Upgrades	All	This intervention category includes upgrades to bus stop facilities to improve safety and access to bus services.  <b>RECOMMENDATION:</b> this intervention category is only recommended for interactions that have a bus frequency of at least 4/hr in the peak.
IC18	Public Transport - Bus Service Improvement	All	This intervention category includes bus service provision between key locations to encourage more public transport use. Key locations include stations, town centres, activity centres and large employment sites.
IC19	Public transport - Rail improvement	All	This intervention category includes rail service provision to increase rail mode share.

IC No.	Intervention Category	Application – new interventions	Notes
			<b>RECOMMENDATION:</b> this intervention category is only recommended for inter-urban interactions.
IC20	Public transport - Real Time Information	All	This intervention category includes provision of real time information at bus stops to facilitate better journey planning and reliability
IC21	Travel demand management - Speed limit and improve active travel	All	This intervention category includes travel demand measures, such as traffic calming and speed limits, to increase active travel mode share. It has been combined with the Place and Movement framework to assess where such measures should be implemented.  <b>RECOMMENDATION:</b> it is only recommended for local interactions since interurban interactions have more of a movement function where the priority may be to improve bus journey times.
IC22	Walking and Cycling Network Improvement	All	This intervention category includes walking and cycling provision to promote active travel use.  <b>RECOMMENDATION:</b> it is only recommended for interactions where the journey takes 30 minutes or less to cycle.
IC23	Wayfinding/ Signage	All	This intervention category improves the wayfinding between key locations, particularly for walking, cycling and public transport routes.  <b>RECOMMENDATION:</b> it is only recommended for interactions where the journey takes 30 minutes or less to cycle.

## Reducing Travel Demand

As indicated in Table 60, both intervention categories of “Policy – Travel Plans” and “Travel demand management” have been used in Task 2 to recommend reduction in travel/ trips, shifting to sustainable modes and decarbonising transport modes.

‘Policy – Travel Plans’ and ‘Travel demand management’ interventions would aim to influence people’s travel behaviour to encourage them to travel less, both in terms of time and distance, for example through ‘work from home’ policies and improving jobs and housing balance in neighbourhoods.

Additionally, these interventions would aim to shift trips to sustainable modes and decarbonise existing transport systems, for example by improving emissions standards and encouraging the use of public transport, active travel and electric vehicles. Doing so could help alleviate or manage any increase in traffic congestion, decrease dependence on motorised traffic, improve air quality,

decrease journey times, reduce emissions, potentially redistribute land use to its best use, improve access to goods and services, and improve both health and quality of life<sup>20</sup>.

Policies to influence travel behaviour through travel demand management measures can be largely divided into three measures:

1. **Improve Mobility Options**  
This type of measure improves the availability, comfort, speed, convenience and security of mobility options.
2. **Economic Measures**  
This type of measure encourages travellers to use the most efficient trip option.
3. **Smart Growth – Land Use Policies**  
This type of measure affects travel behaviour by creating more accessible, compact and multi-modal communities.

To successfully influence travel demand, a strategy including all three types of measures should be developed. In narrowing down specific interventions for reducing travel demand, it can be helpful to think of travel demand management measures as having either a ‘pull’ or ‘push’ effect (also often referred to as ‘carrots’ and ‘sticks’).

‘Push’ measures negatively incentivise people to change their behaviour, for example by increasing the parking fee and implementing congestion charging, whereas ‘pull’ measures have a positive incentive, such as improving the cycling infrastructure and public transport network. Table 6 gives an overview of possible interventions under each category of measure, giving examples of interventions with both push and pull effects.

This approach will require coordination of transport and land-use planning by the local authorities and other stakeholders.

**Table 61 – Travel Demand Management Measure**

<b>Type of Travel Demand Management Measure</b>	<b>Example 1 of Intervention</b>	<b>Example 2 of Intervention</b>
<b>Improve Mobility Options ('Pull')</b>	Improve local walking and cycling routes, for example to schools, shops, activity centres and employment.	Encourage local businesses to support flexible working, including working from home.
<b>Economic Measures ('Push')</b>	Workplace parking levy.	Congestion charging.
<b>Smart Growth – Land Use Policies ('Push and Pull')</b>	Locate new residential developments in areas with existing facilities, such as schools and shops.	Implement a 20mph zone.

<sup>20</sup> Based on ‘Transportation Demand Management’ by GTZ ([https://www.sutp.org/files/contents/documents/resources/H\\_Training-Material/GIZ\\_SUTP\\_TM\\_Transportation-Demand-Management\\_EN.pdf](https://www.sutp.org/files/contents/documents/resources/H_Training-Material/GIZ_SUTP_TM_Transportation-Demand-Management_EN.pdf)); and ‘The future of travel demand and the implications for policy and planning’ by the Commission on Travel Demand ([http://www.demand.ac.uk/wp-content/uploads/2018/04/FutureTravel\\_report\\_final.pdf](http://www.demand.ac.uk/wp-content/uploads/2018/04/FutureTravel_report_final.pdf))

Planning for the unknown and uncertain sits at the core of transport planning, and even though the unexpected wasn't considered prior to the pandemic, COVID-19 has served as a great reminder to decision makers that travel choices can change overnight. Local and national lockdowns imposed movement restrictions that were followed by changes in travel choices relating to people working from home, home schooling, changes in how people shop (increasingly online), and modal choices, for example using public transport less and the private car more.

A dramatic reduction in commuting trips caused a shift in the peak-hours, as people were adjusting to the "new normal" of working from home. Schools were also closed during the pandemic and pupils were attending home schooling, an activity that fell on the shoulders of parents for the most part. Retail activities no longer took place on the high streets and online shopping saw a rise in home deliveries with light vehicle goods vehicles undertaking multiple destination journeys.

Travelling by public transport was replaced by the use of cars, cycling and micromobility. Specifically, active travel demand increased, as cycling and walking not only were they considered a safer travel choice for social distancing, but they were also used as a means of maintaining physical and mental health. Local authorities, including Hertfordshire County Council, implemented Experimental Traffic Orders to take advantage of changing travel behaviours, by closing roads to vehicles and creating more space for pedestrians and cyclists.

The above changes have, to some extent, influenced an environmental change, with improved air and water quality and reduced transport noise. Nonetheless, as lockdowns and restrictions are being lifted, so are some previous travel habits returning, including car reliance. Looking ahead, it is uncertain whether travel choices will revert back to what was considered normal prior to COVID-19. Businesses could be expecting that their employees will be choosing home working at least for part of the week, which will result in the appearance of new peak-hours during the days and new busy days during the week. Schooling has largely returned back to the classrooms, but parents/guardians may have preference to transport their children by car as opposed to by public transport. Retail activities of individuals will continue being undertaken from the comfort of one's home and van deliveries will continue rising to serve private homes and stores. Changes in transport infrastructure might, therefore, be unavoidable, which would result in new opportunities in transport planning. For example, transport policies could change and funding for active travel and micromobility infrastructure could increase, while the construction of highway infrastructure could become of secondary priority.

## **New Interventions**

The approach discussed in the above section results in identifying new Interventions in addition to the Interventions identified through Task1.

Table 62 shows a summary of new interventions based on HCC's LTP4 User Hierarchy.

**Table 62 – Task 2 - Summary of Intervention Hits by Type (HCC’s LTP4 User Hierarchy)**

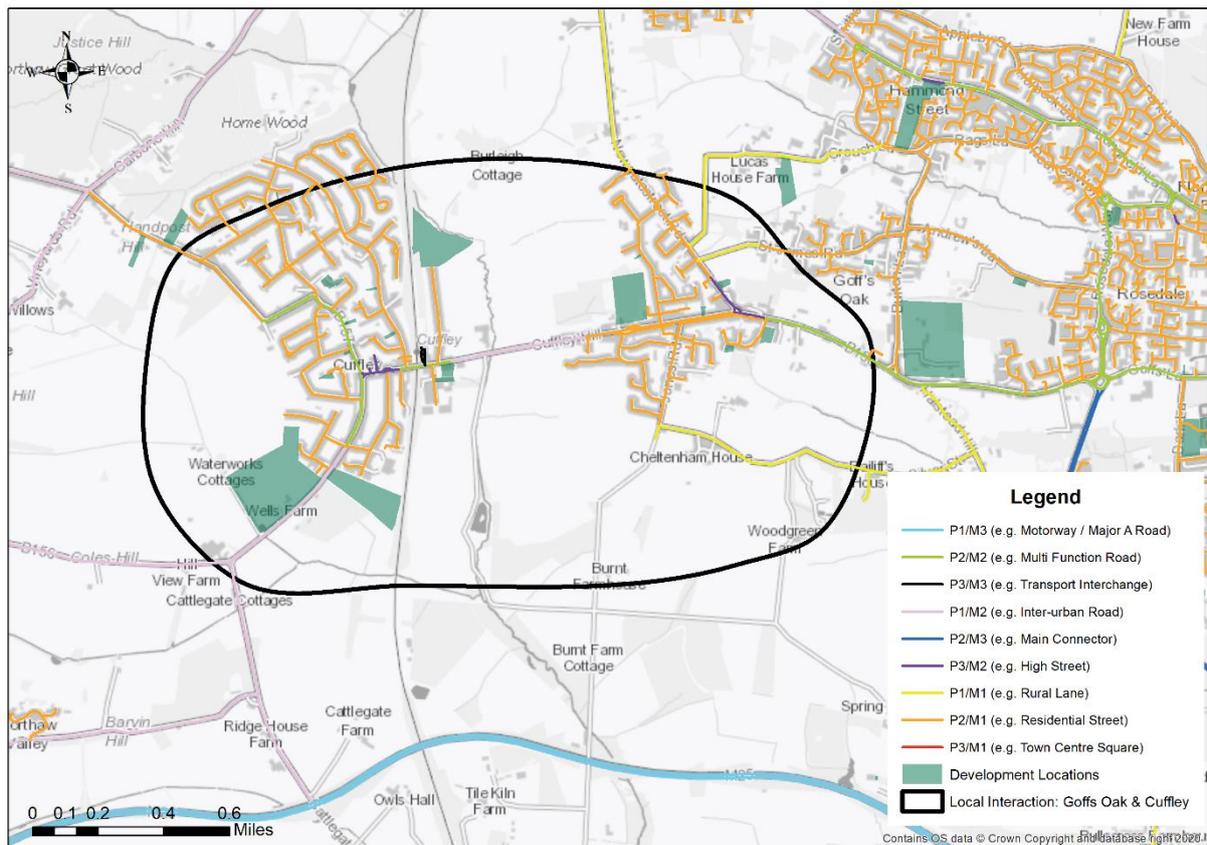
Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Interurban	Hertford - Ware	20	2	4	10	0	4
Interurban	Hertford / Ware - Broxbourne Towns	9	1	2	1	0	5
Interurban	Welwyn Garden City / Hatfield - Hertford / Ware	12	2	0	8	0	2
Interurban	Stevenage - Hertford / Ware	10	2	0	7	0	1
Interurban	Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware	14	2	0	7	0	5
Interurban	Bishop's Stortford / Sawbridgeworth / Harlow - Broxbourne Towns	10	2	0	3	0	5
Interurban	Broxbourne Towns -Enfield	5	2	0	1	0	2
Local	Ware West	15	3	5	6	0	1
Local	Ware North	16	4	5	6	0	1
Local	Ware Town Centre	17	3	6	7	0	1
Local	Between Ware and Hertford	12	1	4	6	0	1
Local	Hertford Town Centre	13	2	5	4	0	2
Local	A414 through Hertford	13	2	2	7	0	2
Local	Hertford West	14	2	5	5	0	2

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Local	Hertford North	15	3	5	6	0	1
Local	Hertford South	14	3	5	5	0	1
Local	Stanstead Abbots and St Margarets	18	4	4	8	0	2
Local	Hoddesdon North	6	2	3	1	0	0
Local	Hoddesdon East	4	2	2	0	0	0
Local	Broxbourne North	5	2	2	1	0	0
Local	Broxbourne South	3	1	1	1	0	0
Local	Theobalds Grove	6	1	3	2	0	0
Local	Cheshunt East	3	1	2	0	0	0
Local	Cheshunt West	5	1	3	1	0	0
Local	Hammond Street	5	2	2	1	0	0
Local	Brookfield	5	2	2	1	0	0
Local	Goffs Oak and Cuffley	14	3	4	5	0	2
Local	Waltham Cross	4	1	1	2	0	0
	TOTAL Inter-Urban Interactions		13	6	37	0	24
	TOTAL Local Interactions		45	71	75	0	16
	TOTAL all Interactions		58	77	112	0	40
	TOTAL Inter-Urban Interactions %		16%	8%	46%	0%	30%

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
	TOTAL Local Interactions %		22%	34%	36%	0%	8%
	TOTAL all Interactions %		20%	27%	39%	0%	14%

## Mapping

Figure 20 and Figure 21 display the Local Interaction of Goffs Oak and Cuffley as an example to show the mapping process used for identification, categorisation and documentation of new Interventions. This includes using the Place and Movement assessment and a map database of proposed new housing/ employment developments. The same exercise has been carried out for all the Inter-Urban and Local Interactions. More detail on Place and Movement is provided in section 4 of this report.



**Figure 20 - Place and Movement Assessment and Proposed Development Locations – Goffs Oak and Cuffley, Local Interaction**

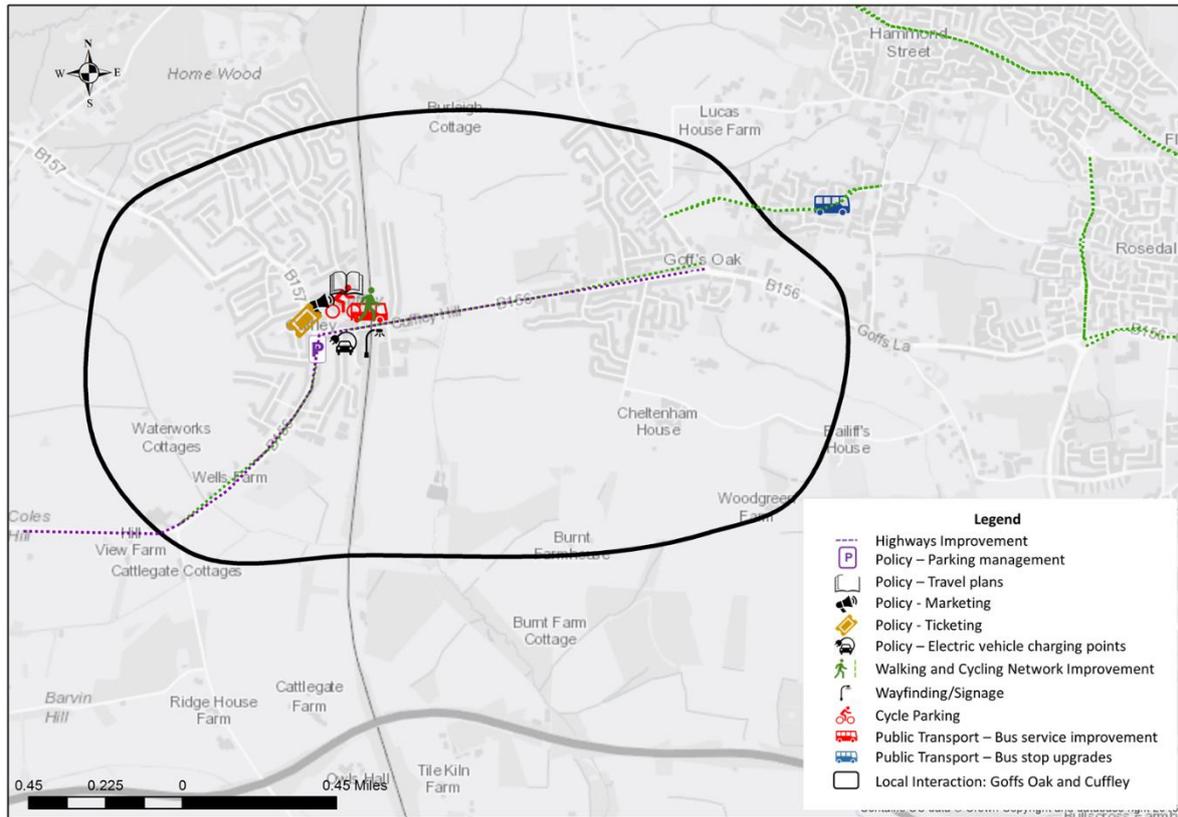


Figure 21 - Task 2 Interventions – Goffs Oak and Cuffley, Local Interaction

### ‘Gap analysis’ interventions example

A newly identified Intervention from ‘gap analysis’ can be narrowed down further to suggest its intended location and purpose through further investigations subsequent to the GTP process.

Such assessment has been completed for the local interaction of Goffs Oak and Cuffley as an example, however it is not the intention for the GTP to be overly prescriptive because it enables HCC and local partners to conduct more detailed investigations in line with relevant guidance. The GTP therefore identifies the type of Intervention and, more importantly, its purpose and intended outcome.

The following is intended to provide an example of how a type of Intervention as defined in the GTP could be developed in more detail. This assessment and its method adopted is presented below according to its intervention category:

- **Multi-modal interchange improvement**

Figure 22 displays Cuffley Railway Station which is located around a 3-minute walk from the centre of Cuffley. It has two platforms, served by trains to and from London Moorgate, Hertford North, Watton-at-Stone and Stevenage. The station can be accessed on foot, by bike, bus and car, with an estimated daily footfall of just under 2,000<sup>21</sup>. A pedestrian-only access route is provided via Tolmers Road.

The existing cycle parking can accommodate 18 cycles which caters for around 2% of the 1,000 passengers entering the station. The bus stop is located outside the station, and served by buses

<sup>21</sup> Based on 2017/2018 annual footfall data from the Office of Rail and Road: <https://orr.gov.uk/statistics/published-stats/station-usage-estimates>

242, 308 and 380, all of which serve an east-west corridor between Potters Bar, Cheshunt and Waltham Cross.

Real time information is available both inside the railway station and at the bus stop, and so are waiting facilities. However, no toilets are available. Accessibility is also poor, with no step free access to the train platforms<sup>22</sup>.

Provision of public toilets and step free access to the train platforms are recommended to improve the access, comfort and safety of passengers, particularly for people with disabilities. Increase in cycle parking is also recommended, depending on the policy objective for cycle mode share to/from the station.

More detailed investigations would be required to identify where there would be sufficient space to accommodate step free access; for the local authorities to liaise with the train operator GTR and Network Rail to discuss feasibility and deliverability issues related to installing step free access; and to explore funding arrangements with the DfT, Network Rail and potential other stakeholders including the LEP and private developers.

- **Travel demand management and sustainable transport upgrade**

As can be seen in Figure 20, Cuffley is predominantly made up of Urban Distributor Roads, Predominantly Residential Streets and a High Street in the centre of the village. The current speed limit is 30mph throughout the village. The B156 Station Road which goes through the village centre comprises two lanes for motorised traffic, no designated cycle provision, and footways on both sides of the road, separated from the road by guard railing and bollards (Figure 23).

The Place and Movement assessment can be used to determine which streets are most suitable for travel demand management measures; the higher the place function of a given street, the greater the need or potential to measures which give greater priority to pedestrians in particular, and less priority to vehicles. To improve the safety of both pedestrians and cyclists, it is recommended that traffic calming measures are introduced on the high street section of the village centre. If such measures are introduced, it may be possible to remove the pedestrian guard railing along the high street, since guard railing introduces additional risk to cyclists and blocks pedestrian desire lines<sup>23</sup>.

It is also understood that Cuffley can be susceptible to through-traffic which is either avoiding congestion on the M25 or because it may be regarded as the most direct and convenient route between particular parts of settlements, for example Potters Bar and Cheshunt.

More detailed investigations by the local authorities would be required to identify which type of traffic calming and/or place-making measures would be appropriate; to consider what benefits and possible dis-benefits the introduction of such measures might have in the context of the wider road network; and to explore funding arrangements.

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<sup>22</sup> Cuffley station facilities: <https://www.nationalrail.co.uk/stations/cuf/details.html>

<sup>23</sup> Guidelines on pedestrian guard railing from Manual for Streets 2 (<https://www.gov.uk/government/publications/manual-for-streets-2>) and Local Transport Note 2/09 Pedestrian Guardrailing ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/328996/ltn-2-09\\_Pedestrian\\_guardrailing.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/328996/ltn-2-09_Pedestrian_guardrailing.pdf))



**Figure 22 - Cuffley Railway Station – Goffs Oak and Cuffley, Local Interaction**

Google Earth Pro™ imagery in the form of Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google



**Figure 23 - B156 Station Road in the centre of Cuffley – Goffs Oak and Cuffley, Local Interaction**

Google Earth Pro™ imagery in the form of Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google

## Task 3 – Consolidated List of Interventions

Task 3 involves combining the Task 1 and Task 2 interventions to form a consolidated list of interventions which can be categorised according to the GTP Intervention Hierarchy and Packaged together.

### Duplicates

There may be occurrences of duplication between the South East GTP and Eastern Area GTP in terms of their considered geographical area and the newly identified interventions. For example, the EA GTP contains two newly developed interventions targeting the town centres of Ware and Hertford respectively, both of which are represented as Local Interactions in the SE GTP and thus will be analysed in more detail in this GTP. At a later stage as GTP proposals are developed, HCC can consolidate/ resolve this duplicity to ensure that the two GTP areas complement each other.

There may be duplication between interventions identified in previous plans and strategies at Task 1, and those identified at Task 2. In these instances, often it would be assumed that the Task 1 intervention takes priority and should be retained, and the Task 2 intervention is discarded.

There may also be occurrences where newly identified interventions duplicate or clash with transport infrastructure interventions being put forward by private developers as part of their private housing and employment projects that have not been identified as part of this GTP. It is recommended in these situations that the local authorities review the GTP alongside developer-led proposals to determine the appropriate set of mitigation measures required to bring forward development in line with local policies.

**Table 63 – Task 1 - Summary of Intervention Hits by Type (HCC's LTP4 User Hierarchy)**

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Interurban	Hertford - Ware	18	3	2	8	0	3
Interurban	Hertford / Ware - Broxbourne Towns	37	1	3	15	0	14
Interurban	Welwyn Garden City / Hatfield - Hertford / Ware	20	1	1	8	0	9
Interurban	Stevenage - Hertford / Ware	11	1	0	6	0	3

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Interurban	Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware	26	3	1	8	1	10
Interurban	Bishop's Stortford / Sawbridgeworth / Harlow - Broxbourne Towns	49	5	3	17	1	18
Interurban	Broxbourne Towns -Enfield	53	3	9	19	0	15
Local	Ware West	14	2	5	6	0	1
Local	Ware North	18	2	7	7	0	2
Local	Ware Town Centre	14	1	5	7	0	1
Local	Between Ware and Hertford	15	3	4	6	0	1
Local	Hertford Town Centre	15	5	4	4	0	2
Local	A414 through Hertford	13	3	2	6	0	1
Local	Hertford West	14	3	3	6	0	2
Local	Hertford North	14	4	2	6	0	2
Local	Hertford South	13	3	3	6	0	1
Local	Stanstead Abbots and St Margarets	17	3	4	8	0	2
Local	Hoddesdon North	46	4	21	15	0	6
Local	Hoddesdon East	50	4	26	14	0	6
Local	Broxbourne North	37	3	13	18	0	3

Type of Interaction	Interactions	Total Number of Interventions	Number of Interventions in User Hierarchy #1	Number of Interventions in User Hierarchy #2	Number of Interventions in User Hierarchy #3	Number of Interventions in User Hierarchy #4	Number of Interventions in User Hierarchy #5
Local	Broxbourne South	36	3	13	14	0	6
Local	Theobalds Grove	37	3	14	16	0	3
Local	Cheshunt East	60	6	27	16	0	9
Local	Cheshunt West	66	4	29	17	0	14
Local	Hammond Street	35	5	15	11	1	3
Local	Brookfield	66	5	26	17	0	15
Local	Goffs Oak and Cuffley	45	5	20	16	1	5
Local	Waltham Cross	58	4	30	18	3	7
	TOTAL Inter-Urban Interactions	17	19	81	2	72	17
	TOTAL Local Interactions	75	273	234	5	92	75
	TOTAL all Interactions	92	292	315	7	164	92
	TOTAL Inter-Urban Interactions %	9%	10%	42%	1%	38%	9%
	TOTAL Local Interactions %	11%	40%	34%	1%	14%	11%
	TOTAL all Interactions %	11%	34%	36%	1%	19%	11%

# Appendix B – Intervention Schedule



Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK1	Junction Improvements - Highway, walking and cycling	IC8	A414/A119 Bluecoats roundabout	SM57	Improvements to the operation of the A119 / A414 (Bluecoats junction) for all users including pedestrians, cyclists and buses.	A119		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	£0.5m-£1m	2-5 years
PK1	Highway, Walking and Cycling Network Improvement	IC4	Hertford Town Centre traffic reduction	SM500	Measures to reduce the dominance of traffic movements in the town centre, on roads such as Fore Street, Railway Street, B158 and Bircherley Street to facilitate a greater uptake in active and sustainable travel.	Hertford Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK1	Walking and Cycling Network Improvement	IC22	Hertford Bus Station improvements	SM501	Improve access to Hertford Bus Station by sustainable modes of travel, including linkages to Hertford town centre.	Hertford Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK1	Multi-modal interchange improvement	IC10	Hertford Town Centre public realm improvements	SM502	Consider any further opportunities to improve the public realm in Hertford Town Centre, for example along Fore Street between Market Street and South Street.	Hertford Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK1	Walking and Cycling Network Improvement	IC22	Hertford Town Centre walking and cycling improvements	SM503	Improved walking and cycling provision in Hertford Town Centre and connections to the rest of Hertford.	Hertford Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK1	Walking and Cycling Network Improvement	IC22	Walking and cycling connectivity to River Lea	SM504	Improve active travel connections between Hertford Town Centre and the River Lea, through measures such as improved wayfinding.	Hertford Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK1	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points in Hertford Town Centre	SM505	Help enable the improved provision of electric vehicle charging points at key locations in Hertford Town Centre to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy.	Hertford Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK1	Junction Improvements - Highway, walking and cycling	IC8	A414/B158 Parliament Square roundabout	SM526	Improvements to the operation of the A414 / B158 (Parliament Square junction) for all users including pedestrians, cyclists and buses.	Hertford		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK2	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Bengeo	PR4	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities in the north of Hertford to promote cycling uptake. Key locations include the schools in Bengeo, proposed housing development sites, Sainsbury's superstore, near the Co-op/the post office on Bengeo Street and at the parade of shops on The Avenue. (Note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters).	Hertford, north		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK2	Public transport – Bus Service Improvement	IC18	Bus stop improvements in Bengeo	PR5	Upgrade bus stop facilities to improve safety and access to bus services in the north of Hertford.	Hertford, north		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK2	Junction Improvement - Highway	IC7	Old Cross Junction improvements	SM1	Improvements to the Old Cross signalised junction, including incorporation of bus detection technology and crossing improvements on the Old Cross arm to reduce crossing distances (reduction in vehicle lanes at the stop line).	Hertford, Old Cross junction		Task 1	East Herts IDP	East Herts	LRN	Unknown*	2-5 years
PK2	Public transport – Bus Service Improvement	IC18	Bengeo bus connectivity improvements	SM2	Consider increasing the frequency of bus services in the evening peak period and potential extension to Hertford East railway station. Proposals to improve capacity in the Old Cross junction could improve bus journey reliability along B158 Port Hill/Bengeo Street.	Hertford, North		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	£0.5m-£1m	2-5 years
PK2	Policy - Sustainable transport upgrade/ plan	IC15	Walking and cycling connectivity to Hertford North station	SM3	Identify a few safe routes, such as Nelson Street, Byde Street and Wellington Street, for pedestrians and cyclists through Bengeo (and across the B158) for future residents of the North of Hertford development to use to reach Hertford North railway station. Consider measures to discourage pavement parking (such as introducing formalised parking bays where appropriate), additional dropped kerbs, new informal crossings, potentially wayfinding signs	Hertford, between Bengeo and Hertford North railway station		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					and a formal crossing at the Bengo Street/Warren Park Road junction.								
PK2	Travel demand management - Speed limit review and improve active travel	IC21	Bengeo through traffic reduction	SM506	Discourage through traffic in Lower Bengo routing towards Port Hill/Old Cross and Hertford North Station (e.g. via Port Vale and Bye Street) including for example kerb build-outs incorporating crossing facilities and traffic calming measures (if feasible and appropriate in line with HCC's Speed Management Strategy), to allow for an improved provision and environment for active travel.	Bengeo		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK2	Walking and Cycling Network Improvement	IC22	Walking and cycling connectivity to Hertford town centre	SM507	Improve cycling and walking provision in Bengo and between Bengo and Hertford town centre to promote walking and cycling uptake.	Bengeo		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK3	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in the west of Hertford	PR10	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities in the west of Hertford to promote cycling uptake. Key locations include Hertford North railway station, proposed development sites, outside the schools in Sele Farm and on Fleming Crescent, the shopping parade at the southern end of Fleming	Hertford, west		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					Crescent, and the Sele Farm Community Centre. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters).								
PK3	Multi-modal interchange improvement	IC10	Hertford North interchange improvements	SM6	Sustainable access improvements at Hertford North railway station to include an improved bus interchange.	Hertford, Hertford North railway station		Task 1	East Herts IDP	East Herts	LRN	Unknown*	5-10 years
PK3	Walking and Cycling Network Improvement	IC22	Walking and cycling routes and wayfinding in the west of Hertford	SM7	Pedestrian/cycle routes and wayfinding between Hertford West site, Thieves Lane site, Perrett Gardens (North of Welwyn Road site only) to Hertford North station and Hertford town centre and new shared footway/cycleway along Welwyn Road.	Hertford, West		Task 1	East Herts IDP	East Herts	LRN	Unknown*	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK3	Public Transport - Bus Stop Upgrades	IC17	Welwyn Road bus measures	SM8	Enhanced passenger transport services to include new bus stops on B1000 Welwyn Road.	Hertford, B1000 Welwyn Rd		Task 1	East Herts IDP	East Herts	LRN	Unknown*	2-5 years
PK3	Highways Improvement	IC5	Traffic management in light of changes to the A414	SM9	Ensure any changes made to the A414 do not have an adverse impact on the B1000 and A119, for example generating additional traffic along these more local routes.	A414		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Unknown*	2-5 years
PK4	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Hertford town centre	PR13	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in the centre of Hertford to promote active travel uptake. Key locations include Hertford East railway station, within the town centre e.g. on Fore Street or Bull Plain, Tesco superstore and Hertford Theatre. (Note - at the time of writing, e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters).	Hertford, town centre		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK4	Walking and Cycling Network Improvement	IC22	A414 north-south pedestrian permeability	PR15	Improvements to the A414 pedestrian subways, such as maintenance to prevent flooding, and potential additional at-grade crossing across the A414 to improve	Hertford, A414		Task 2.5	Optioneering based on Hertford vision	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					north-south connectivity in Hertford.								
PK4	Walking and Cycling Network Improvement	IC22	Hertford East walking and cycling connectivity	PR16	Improve the public realm, reduce traffic dominance and improve walking and cycling connectivity to Hertford East railway station through walking and cycling provision on Railway Street, for example junction entry treatments including raised tables for pedestrians crossing the road, potentially reduced speed limits if in accordance with the Speed Management Strategy and wayfinding.	Hertford, Railway Street		Task 2.5	Optioneering based on Hertford vision	East Herts	LRN	Less than £500k	Less than 2 years
PK4	Walking and Cycling Network Improvement	IC22	Mead Lane walking and cycling improvements	SM11	Upgrade existing footways on Mead Lane to 3m pedestrian/cycleway to the south side of Mead Lane in addition to improvements to the towpath and links with the adjoining area and the town centre (in particular addressing links to Hartham Common and Kings Meads).	Hertford, Mead Lane Area		Task 1	East Herts IDP	East Herts	LRN	Unknown*	Less than 2 years
PK4	Policy - Sustainable transport upgrade/ plan	IC15	Marshgate Drive access arrangements	SM12	The widening of Marshgate Drive to allow for improved vehicular and pedestrian access and car parking/car share scheme to be delivered within a Green Streets approach.	Hertford, Marshgate Drive		Task 1	East Herts IDP	East Herts	LRN	Unknown*	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK4	Policy - Sustainable transport upgrade/ plan	IC15	Pedestrianisation of Hertford town centre	SM14	Consider further pedestrianisation of the town centre, e.g. on Fore Street, Market Place and Salisbury Street, to link up with Maidenhead Street, including installing additional seating facilities. Ensure that access to Folly Island is adequately maintained.	Hertford, town centre		Task 2.5	Optioneering based on Hertford vision	East Herts	LRN	Less than £500k	2-5 years
PK5	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in the south of Hertford	PR20	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in the south of Hertford to promote cycling uptake. Key locations include large employment centres such as Hertfordshire County Council and East Herts Council offices, local shops (e.g. corner of Hornsmill Road and Brickendon Lane), Hornsmill Community Centre, and the schools in the south of Hertford. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters).	Hertford, south		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK5	Public transport – Bus Service Improvement	IC18	Bus stop improvements in the south of Hertford	PR21	Upgrade bus stop facilities to improve safety and access to bus services in the south of Hertford.	Hertford, south		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK5	Public transport – Bus Service Improvement	IC18	Bus connectivity to schools in the south of Hertford	SM17	Improve bus services for students attending the local schools in the south of Hertford.	Hertford, South		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	£0.5m-£1m	2-5 years
PK5	Policy - Marketing	IC12	Parking management in the south of Hertford	SM18	Work with operators and local authorities to manage car parking provision at key locations in the south of Hertford through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, activity centres and large employment sites.	Hertford, South		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	2-5 years
PK5	Walking and Cycling Network Improvement	IC22	Walking and cycling improvements in the south of Hertford	SM19	Upgrade the existing footway to incorporate a shared use cycleway/footway along the B158 Pegs Lane connecting to the rear entrance of Hertfordshire County Council. Create cycle route facilities along Brickendon Lane (parallel residential road), Highfield Road, Queen's Road, Hagsdell Road and Mangrove Road, and improved crossing facilities at the B158 Bullocks Lane/Morgan's Road junction and the B158 Pegs	Hertford, South		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					Lane/Hale Road mini-roundabout junction. Also, improve cycling provision on Horns Road and West Street Road, connecting with National Cycle Route 61.								
PK6	Policy - Marketing	IC12	Promote available sustainable travel options in Hertford	PR24	Promote the available public transport services and active travel routes in Hertford to encourage an uptake in sustainable travel.	Hertford		Task 2	Optioneering based on gap analysis	East Herts	Other/Rail	Less than £500k	Less than 2 years
PK6	Policy - Travel Plans	IC16	Hertford travel planning	PR27	Develop travel plans to reduce travel demand and encourage sustainable travel that target key actors in Hertford. Key actors include large employers, Hertford East and Hertford North railway stations, schools, proposed developments and households (this could potentially be targeted at particular neighbourhoods).	Hertford		Task 2	Optioneering based on gap analysis	East Herts	Other/Rail	Less than £500k	Less than 2 years
PK6	Public transport - Real Time Information	IC20	Real time information at bus stops in Hertford	PR28	Provide real time information at public transport stops in Hertford to facilitate better journey planning and reliability.	Hertford		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK6	Wayfinding/ Signage	IC23	Wayfinding - Hertford	PR30	Improve the wayfinding (for example "monoliths" information panels) for key locations in Hertford, particularly for walking, cycling and public transport routes. Key locations include	Hertford		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					historic, cultural and natural assets, Hertford East and Hertford North railway stations, the River Lea towpath and the town centre.								
PK6	Policy - Sustainable transport upgrade/ plan	IC15	Hertford Sustainable Travel Improvements	SM22	Linked to intervention Hertford Strategic Solution, to provide a step change in sustainable travel connectivity across Hertford through the provision of high-quality pedestrian and cycle routes, crossings and public transport which could ultimately be linked to or become part of the proposed HERT mass rapid transit system.	Hertford		Task 1	A414 Corridor Strategy	East Herts	LRN	Less than £500k	5-10 years
PK6	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points in Hertford	SM23	Help enable the improved provision of electric vehicle charging points at key locations in Hertford to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy.	Hertford		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK6	Policy - Marketing	IC12	Parking management - Hertford	SM26	Work with operators and local authorities to manage car parking provision at key locations in Hertford through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, the stations, the town centre, activity centres and large employment site.	Hertford		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK6	Travel demand management - Speed limit review and improve active travel	IC21	Reduce speed limits in Hertford	SM29	Reduce speed limits in key areas to improve safety for pedestrians and cyclists. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel.	Hertford		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK7	Travel demand management - Speed limit review and improve active travel	IC21	Review speed limits in Ware Town Centre	SM530	Review and reduce speed limits if appropriate in key areas to improve safety for pedestrians and cyclists and encourage an increase in sustainable travel. Reference should be made to the Speed Management Strategy which provides guidance on the appropriate measures that can be introduced to manage traffic speeds.	Ware Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK7	Walking and Cycling Network Improvement	IC22	Ware Town Centre walking improvements	SM531	Improved provision for pedestrians on Ware High Street, Amwell End and Star Street to enable greater uptake in walking to and within the town centre. Measures could include, but not be limited to, improved crossing facilities and wider pavements.	Ware Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK7	Multi-modal interchange improvement	IC10	Ware Town Centre public realm improvements	SM532	Improve the public realm in Ware Town Centre, particularly on Ware High Street, West Street and East Street, including considerations for greater	Ware Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					opportunities for 'café culture'.								
PK7	Public transport – Bus Service Improvement	IC18	Ware Town Centre bus measures	SM533	Improve bus journey time reliability for services utilising Ware High Street, Viaduct Road and Amwell End through measures such as bus priority (at junctions) and reductions in motor traffic volumes (through separate complementary measures set out in the package).	Ware Town Centre		New	New intervention - post public consultation optioneering	East Herts	LRN	£0.5m-£1m	5-10 years
PK8	Walking and Cycling Network Improvement	IC22	Wadesmill Road and High Street sustainable travel improvements	PR35	Investigate options to mitigate against through-traffic utilising Ware High Street to enable greater uptake in active and sustainable travel, including a review of the speed limit and additional pedestrian crossing points.	Ware, A1170		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK8	Highway Improvement - New road link	IC3	Link Road to development	SM31	Provision of new link road to serve expected development: Spine Road (Widbury Hill to A1170/A10).	Ware, Widbury Hill to A10A1170 junction		Task 1	East Herts IDP	East Herts	LRN	£5m-£10m	5-10 years
PK8	Public transport – Bus Service Improvement	IC18	Enhanced bus services to development	SM32	Provision of new or enhanced bus services to serve the expected development in the northeast of Ware, linking with key destinations such as the town centre and Ware train station.	Ware, northeast		Task 1	East Herts IDP	East Herts	LRN	Unknown*	5-10 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK8	Junction Improvements - walking and cycling/ new bridge	IC9	Walking and cycling improvements	SM33	Provision of high-quality walking and cycling facilities throughout the North and East of Ware proposed development to facilitate active travel including at key access points (including those exclusively for sustainable travel modes) which link the expected development and the existing urban area.	Ware, northeast		Task 1	East Herts IDP	East Herts	LRN	Less than £500k	5-10 years
PK8	Walking and Cycling Network Improvement	IC22	Wadesmill Road/High Street/Star Street bus corridor	SM37	Improve sustainable travel provision on key routes most likely to provide the most convenient and shortest route on foot and by bike between the North and East of Ware development and the town centre and railway station. This includes Musley Hill / New Road, Bowling Road and Cromwell Road. In addition, connectivity with employment sites on Park Road should also be improved including via Collet Road, The Bourne and A1170 Baldock Street. Measures could include widened footways, dropped kerbs with tactile paving, additional crossing points, signage and side road entry treatments with potentially priority given to pedestrians crossing the road.	Ware, Musley Hill		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK8	Walking and Cycling Network Improvement	IC22	Wadesmill Road/High Street/Star Street bus measures	SM38	Improve bus stop facilities along the A1170 Wadesmill Road, High Street and Star Street in Ware, including (where not already provided) Real Time Information panels and raised Kassel Kerbs, and a review of on-street parking where it may obstruct the movement of buses.	Ware, A1170		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	£0.5m-£1m	2-5 years
PK9	Walking and Cycling Network Improvement	IC22	Watton Road pedestrian improvements	PR40	Improve pedestrian facilities on Watton Road, including key crossing points.	Ware, Watton Road		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK9	Walking and Cycling Network Improvement	IC22	Watton Road cycling provision	SM41	Improve cycling provision on Watton Road.	Ware, Watton Road		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK9	Walking and Cycling Network Improvement	IC22	Park Road walking and cycling provision	SM42	Improve walking and cycling provision on Park Road, particularly for trips to and from the schools and key employment sites such as GSK.	Ware, Park Road		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK9	Public transport – Bus Service Improvement	IC18	Watton Road bus measures	SM43	Improve bus journey times on Watton Road through targeted bus priority measures.	Ware, Watton Road		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	£0.5m-£1m	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK9	Walking and Cycling Network Improvement	IC22	Improved walking and cycling connectivity to Ware Town Centre	SM508	Improved walking and cycling provision between Park Road, Watton Road, Harris's Lane, Priory Street and the town centre and Ware Station, to facilitate a greater uptake in active travel between these areas. Measures can include widened footways and improved surfacing, and additional crossing points incorporating dropped kerbs with tactile paving.	Ware		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK10	Wayfinding/ Signage	IC23	Wayfinding - Ware railway station to bus stops	PR44	Improve wayfinding/signage between Ware railway station and the station bus stops.	Ware, Station		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK10	Walking and Cycling Network Improvement	IC22	Station Road pedestrian crossing improvements	PR45	Improve pedestrian crossing facilities on Station Road.	Ware, Station Road		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK10	Public transport – Bus Service Improvement	IC18	Bus connectivity to Ware station	SM46	Improve bus access to Ware railway station.	Ware		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	£0.5m-£1m	2-5 years
PK10	Walking and Cycling Network Improvement	IC22	Improved walking and cycling connectivity to Ware Station	SM509	Improved provision for and connections by active travel to Ware Station from southern Ware, including Hertford Regional College (Ware campus), Marsh Lane industrial area, Hertford	Ware		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					Rugby Football Club and residential streets.								
PK11	Policy - Marketing	IC12	Promote available sustainable travel options in Ware	PR49	Promote the available public transport services and active travel routes in Ware to encourage an uptake in sustainable travel.	Ware		Task 2	Optioneering based on gap analysis	East Herts	Other/Rail	Less than £500k	Less than 2 years
PK11	Public transport – Bus Service Improvement	IC18	Bus stop improvements in Ware	PR53	Upgrade bus stop facilities to improve safety and access to bus services in Ware.	Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK11	Public transport - Real Time Information	IC20	Real time information at bus stops in Ware	PR54	Provide real time information at public transport stops in Ware to facilitate better journey planning and reliability.	Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK11	Wayfinding/ Signage	IC23	Wayfinding – Ware	PR55	Improve the wayfinding between key locations in Ware, particularly for walking, cycling and public transport routes.	Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK11	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points - Ware	SM48	Help enable the improved provision of electric vehicle charging points at key locations in Ware to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy.	Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK11	Policy - Marketing	IC12	Parking management in Ware	SM51	Work with operators and local authorities to manage car parking provision at key locations in Ware through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, the station, town centre, activity centres and large employment sites.	Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK12	Walking and Cycling Network Improvement	IC22	Waterford footway improvements	PR454	Maintain and improve footway along the A119 including through Waterford village.	Stevenage - Hertford / Ware		Task 2	GIS based assessment	Multi District	LRN	Less than £500k	Less than 2 years
PK12	Wayfinding/ Signage	IC23	Waterford bus stop crossing	PR455	Introduce a new crossing facility in Waterford adjacent to St Michael and All Angels Church.	Stevenage - Hertford / Ware		Task 2	GIS based assessment	Multi District	LRN	Less than £500k	Less than 2 years
PK13	Walking and Cycling Network Improvement	IC22	A119 pedestrian crossing improvements	PR60	Improve or provide new pedestrian crossing facilities on the A119 between Ware and Hertford, such as raised entry treatments, dropped kerbs or other such measures.	A119 between Hertford and Ware		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK13	Public Transport - Bus Stop Upgrades	IC17	Improved bus stop access at London Road/A414 junction	PR63	Improve access to the bus stops on London Road at the A414 roundabout.	London Road/A414 roundabout		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK13	Policy - Marketing	IC12	Promote available sustainable travel options between Hertford and Ware	PR66	Promote the available public transport services and active travel routes between Hertford and Ware to encourage an uptake in sustainable travel.	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	Other/Rail	Less than £500k	Less than 2 years
PK13	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Hertford and Ware	PR69	Upgrade bus stop facilities serving routes between Hertford and Ware to improve safety and access to bus services.	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK13	Public transport - Real Time Information	IC20	Real time information at bus stops between Hertford and Ware	PR71	Provide real time information at public transport stops to facilitate better journey planning and reliability between Hertford and Ware.	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK13	Cycle Parking	IC2	Micromobility Parking and Charging Facilities between	PR72	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
			Hertford and Ware		Stanstead Abbots and St Margarets to promote cycling uptake. Key locations include the railway station, on the High Street (or potentially within the public car park, adjacent to the playground) and Stanstead Innings car park (Lee Valley Regional Park). (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters).								
PK13	Policy - Travel Plans	IC16	Reduce travel demand between Hertford and Ware	PR73	Develop travel plans to reduce travel demand and encourage sustainable travel that target key actors between Hertford and Ware including single occupancy vehicles. Key actors include large employers, Hertford East railway station and households (this could be targeted at particular neighbourhoods).	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	Other/Rail	Less than £500k	Less than 2 years
PK13	Wayfinding/ Signage	IC23	Wayfinding between Hertford and Ware	PR74	Improve the wayfinding (for example "monoliths" information panels) for key locations between Hertford and Ware, particularly for walking, cycling and public transport routes. Key locations include historic, cultural and natural assets,	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					Hertford East railway station, the River Lea towpath and the town centres of Hertford and Ware.								
PK13	Walking and Cycling Network Improvement	IC22	Hertford East interchange improvements	SM59	Improve the public realm, reduce traffic dominance and improve walking and cycling connectivity to Hertford East railway station through walking and cycling provision on Railway Street, for example junction entry treatments including raised tables for pedestrians crossing the road, potentially reduced speed limits if in accordance with the Speed Management Strategy and wayfinding.	Hertford, Hertford East station		Task 1	East Herts IDP	East Herts	LRN	Unknown*	5-10 years
PK13	Walking and Cycling Network Improvement	IC22	A119 cycle safety improvements	SM61	Improve cycle safety on the A119 between Ware and Hertford.	Between Hertford and Ware		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK13	Travel demand management - Speed limit review and improve active travel	IC21	Traffic management - north east development site in Ware	SM62	Manage the traffic impact of new development to the north east of Ware on the A119 and off Mead Lane. (Hertford)	Hertford - Ware		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK13	Junction Improvements - walking and cycling/ new bridge	IC9	Walking and cycling junction improvements	SM64	Improve walking and (where permitted) cycling provision on routes linking Hertford and Ware, including the A119 (where improvements to junctions would promote safety and access for pedestrians and cyclists), public footpaths 32 and 35, and the River Lea towpath.	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	5-10 years
PK13	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Hertford and Ware	SM65	Help enable the improved provision of electric vehicle charging points at key locations between Hertford and Ware to promote an uptake in electric vehicle use.	Hertford - Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK13	Policy - Marketing	IC12	Parking management between Hertford and Ware	SM68	Work with operators and East Hertfordshire District Council to review on and off-street car parking provision at key locations between Hertford and Ware through paid parking, parking limitations and other measures. Consider alteration of on-street parking where there are opportunities to widen footways and improve crossing facilities, with the aim to shift people toward sustainable travel. With a focus in particular on A119 Ware Road/Hertford Road and B1502 Stanstead Road.	Hertford - Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK14	Policy - Marketing	IC12	Promote available sustainable travel options between	PR78	Promote the available public transport services and active travel routes between Stevenage and Hertford /	Stevenage - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	Other/Rail	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
			Stevenage and Hertford/Ware		Ware to encourage an uptake in sustainable travel.								
PK14	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Stevenage and Hertford/Ware	PR82	Upgrade bus stop facilities serving routes between Stevenage - Hertford / Ware to improve safety and access to bus services.	Stevenage - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	Less than 2 years
PK14	Public transport - Real Time Information	IC20	Real time information at bus stops between Stevenage and Hertford/Ware	PR84	Provide real time information at public transport stops to facilitate better journey planning and reliability between Stevenage - Hertford / Ware.	Stevenage - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK14	Public transport – Bus Service Improvement	IC18	Improve bus provision between Stevenage and Hertford/Ware	SM83	Improve the bus service provision between Stevenage - Hertford / Ware to encourage more public transport use.	Stevenage - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	£1m-£2.5m	2-5 years
PK15	Junction Improvement - Highway	IC7	Holwell Lane/A414 roundabout improvements	PR92	Holwell Lane/A414 roundabout improvements to facilitate new development. Improvements to include appropriate sustainable transport provision.	Hatfield, Holwell Lane/A414 roundabout		Task 1	Welwyn Hatfield Draft IDP	Welwyn Hatfield	MRN	Less than £500k	2-5 years
PK15	Junction Improvement - Highway	IC7	A414/B195 Birchall Lane/ Cole Green Lane Roundabout improvements	SM86	A414/B195 Birchall Lane/ Cole Green Lane Roundabout improvements to facilitate new development. Improvements to include appropriate sustainable transport provision.	Welwyn Garden City, A414/B195 roundabout		Task 1	East Herts IDP	East Herts	MRN	£1m-£2.5m	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK15	Junction Improvement - Highway	IC7	A1(M) Junction 4 – ‘Jack Oldings’ roundabout improvement	SM87	A1(M) Junction 4 – ‘Jack Oldings’ roundabout improvement, including improvement of facilities for active travel.	A1(M)/A414/A 6129 junction		Task 1	East Herts IDP	East Herts	SRN	£250m	5-10 years
PK15	Junction Improvement - Highway	IC7	A1(M) Junction 6 roundabout improvements	SM88	A1(M) Junction 6 including Clock Roundabout - improvements to the 4 roundabouts comprising this junction, including measures to reduce rat running onto the B197 and improved active travel facilities.	A1(M) Junction 6		Task 1	Welwyn Hatfield Draft IDP	Welwyn Hatfield	SRN	£0.5m-£1m	2-5 years
PK15	Junction Improvement - Highway	IC7	Comet Way/Wellfield Road junction signalisation	SM89	Upgrade the Comet Way roundabout to incorporate signals for congested approaches and changes to approach lane layout.	Hatfield, Comey Way Roundabout		Task 1	Welwyn Hatfield Draft IDP	Welwyn Hatfield	LRN	Less than £500k	2-5 years
PK15	Junction Improvement - Highway	IC7	Birchall Lane roundabout improvements	SM91	Improvements to the Birchall Lane roundabout to help facilitate new development. Improvements to include appropriate sustainable transport provision.	Hertford, Birchall Lane/A414 roundabout		Task 1	Welwyn Hatfield Draft IDP	Multi District	MRN	£1m-£2.5m	2-5 years
PK16	Policy - Marketing	IC12	Promote available sustainable travel options between Welwyn Garden City/Hatfield and Hertford/Ware	PR97	Promote the available public transport services and active travel routes between Welwyn Garden City / Hatfield and Hertford / Ware to encourage an uptake in sustainable travel.	Welwyn Garden City / Hatfield - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	Other/Rail	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK16	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Welwyn Garden City/Hatfield and Hertford/Ware	PR101	Upgrade bus stop facilities serving routes between Welwyn Garden City / Hatfield - Hertford / Ware to improve safety and access to bus services.	Welwyn Garden City / Hatfield - Hertford / Ware	LP4	Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	Less than 2 years
PK16	Public transport - Real Time Information	IC20	Real time information at bus stops between Welwyn Garden City/Hatfield and Hertford/Ware	PR103	Provide real time information at public transport stops to facilitate better journey planning and reliability between Welwyn Garden City / Hatfield - Hertford / Ware.	Welwyn Garden City / Hatfield - Hertford / Ware	LP4	Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK16	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Welwyn Garden City/Hatfield and Hertford/Ware	SM96	Help enable the improved provision of electric vehicle charging points at key locations between and within Welwyn Garden City / Hatfield and Hertford / Ware to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy.	Welwyn Garden City / Hatfield - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK16	Policy - Sustainable transport upgrade/ plan	IC15	Parking management between Welwyn Garden City/Hatfield and Hertford/Ware	SM99	Work with operators and local authorities to manage car parking provision at key locations between Welwyn Garden City / Hatfield - Hertford / Ware through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, stations, town centres, activity centres and large employment sites.	Welwyn Garden City / Hatfield - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK16	Public transport – Bus Service Improvement	IC18	Improved bus provision between Welwyn Garden City/Hatfield and Hertford/Ware	SM102	Improve bus service provision between Welwyn Garden City, Hatfield, Hertford and Ware through better coordination of bus service timetables to improve service frequency (as identified in HCC's Bus Service Improvement Plan) to encourage more public transport use.	Welwyn Garden City / Hatfield - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	£1m-£2.5m	Less than 2 years
PK17	Walking and Cycling Network Improvement	IC22	Broxbourne Towns east-west cycle connectivity	SM104	Improve east-west cycle provision connecting Broxbourne towns to Lee Valley Cycle Route.	Between Broxbourne Towns and Lee Valley		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Broxbourne	LRN	Less than £500k	Less than 2 years
PK18	Travel demand management - Speed limit review and improve active travel	IC21	Stanstead St Margarets traffic management	SM107	Manage the traffic impact of the new development to the north east of Ware which could generate some new traffic on roads in Stanstead St Margarets.	Stanstead St Margarets, B181		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	2-5 years
PK18	Travel demand management - Speed limit review and improve active travel	IC21	Manage through traffic in Stanstead St Margarets	SM108	Discourage through traffic in Stanstead St Margarets routing towards Harlow (including the Pinnacles employment area).	Stanstead St Margarets, B181		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	2-5 years
PK19	Walking and Cycling Network Improvement	IC22	B181 pedestrian crossing facilities	PR109	Improve pedestrian crossing facilities on the B181 in Stanstead St Margarets.	Stanstead St Margarets, B181		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK19	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Stanstead Abbots and St Margarets	PR111	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations between Hertford and Ware to promote cycling uptake. Key locations include the town centre, e.g. on Fore Street or Bull Plain, Hertford East railway station, Tesco Superstore, and Sainsbury's. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters).	Stanstead Abbots and St Margarets		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK19	Junction Improvement – bus	IC6	Bus priority measures - Stanstead Abbots and St Margarets	PR112	Install bus priority measures in key junctions in Stanstead Abbots and St Margarets to improve bus journey times and reliability.	Stanstead Abbots and St Margarets		Task 2	Optioneering based on gap analysis	East Herts	LRN	£1m-£2.5m	5-10 years
PK19	Policy - Marketing	IC12	Promote available sustainable travel options in Stanstead Abbots and St Margarets	PR115	Promote the available public transport services and active travel routes in Stanstead Abbots and St Margarets to encourage an uptake in sustainable travel.	Stanstead Abbots and St Margarets		Task 2	Optioneering based on gap analysis	East Herts	Other/Rail	Less than £500k	Less than 2 years
PK19	Public transport – Bus Service Improvement	IC18	Bus stop improvements in Stanstead Abbots and St Margarets	PR119	Upgrade bus stop facilities to improve safety and access to bus services in Stanstead Abbots and St Margarets.	Stanstead Abbots and St Margarets	LP5	Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK19	Public transport - Real Time Information	IC20	Real time information at bus stops in Stanstead Abbots and St Margarets	PR121	Provide real time information at public transport stops to facilitate better journey planning and reliability, in Stanstead Abbots and St Margarets.	Stanstead Abbots and St Margarets	LP5	Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK19	Wayfinding/ Signage	IC23	Wayfinding - Stanstead Abbots and St Margarets	PR122	Improve the wayfinding between key locations, particularly for walking, cycling and public transport routes.	Stanstead Abbots and St Margarets		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years
PK19	Walking and Cycling Network Improvement	IC22	A1170 Great Amwell pedestrian crossing	PR501	Improved crossing facilities for pedestrians and cyclists on the A1170 Pepper Hill north of the Amwell Roundabout (near to the bus stops).	Great Amwell		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £100k	2-5 years
PK19	Walking and Cycling Network Improvement	IC22	Stanstead St Margarets cycling improvements	SM110	Improve cycle safety in Stanstead St Margarets.	Stanstead St Margarets, B181		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	East Herts	LRN	Less than £500k	Less than 2 years
PK19	Multi-modal interchange improvement	IC10	Interchange improvements - Stanstead Abbots and St Margarets	SM113	Improve access between sustainable travel modes at key interchange locations in Stanstead Abbots and St Margarets.	Stanstead Abbots and St Margarets		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	5-10 years
PK19	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points in Stanstead Abbots and St Margarets	SM114	Help enable the improved provision of electric vehicle charging points at key locations in Stanstead Abbots and St Margarets to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy.	Stanstead Abbots and St Margarets		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK19	Walking and Cycling Network Improvement	IC22	Great Amwell A1170-B181 footway and cycle route upgrade	SM528	Upgrade to the existing footway to facilitate the movement of pedestrians and cyclists between Gypsy Lane and B181 High Street.	Great Amwell		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK19	Walking and Cycling Network Improvement	IC22	New River Path Ware to Stanstead St Margarets upgrade	SM529	Upgrade of the existing New River Path including (where feasible) widening and improved surfacing to improve access and connectivity for pedestrians and cyclists between Ware (Viaduct Road) and St Margarets (B181) High Street).	Ware-St Margarets		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years
PK20	Policy - Marketing	IC12	Promote available sustainable travel options between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	PR129	Promote the available public transport services and active travel routes between Bishop's Stortford / Sawbridgeworth / Harlow and Hertford / Ware to encourage an uptake in sustainable travel.	Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	Other/Rail	Less than £500k	Less than 2 years
PK20	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	PR132	Upgrade bus stop facilities serving routes between Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware to improve safety and access to bus services.	Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware	LP5	Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK20	Public transport - Real Time Information	IC20	Real time information at bus stops between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	PR133	Provide real time information at public transport stops to facilitate better journey planning and reliability between Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware.	Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware	LP5	Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK20	Walking and Cycling Network Improvement	IC22	A10/London Road junction improvements, Buntingford	SM123	Improvements at or close to the A10/London Road roundabout, Buntingford, to provide facilities for pedestrians and cyclists.	Buntingford, A10/London Rd roundabout		Task 1	East Herts IDP	East Herts	LRN	£1m-£2.5m	2-5 years
PK20	Public transport – Bus Service Improvement	IC18	A10 southbound dualling, south of Buntingford	SM124	Dualling of A10 southbound to improve journey time reliability, including for public transport and to facilitate improvements for active travel.	Buntingford, A10 SB		Task 1	East Herts IDP	East Herts	MRN	Unknown*	More than 10 years
PK20	Public transport – Bus Service Improvement	IC18	Improved bus connectivity between Hertford and Bishop's Stortford	SM126	Improve bus connectivity between Hertford and Bishop's Stortford, including consideration to extend provision of the Herts Lynx DRT service into the Hertford and Ware area to fill gaps in service.	Between Hertford and Bishop's Stortford		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Multi District	LRN	£1m-£2.5m	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK20	Public transport – Bus Service Improvement	IC18	Improved bus connectivity between Ware and Bishop's Stortford	SM127	Improve bus connectivity between Ware and Bishop's Stortford.	Between Ware and Bishop's Stortford		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Multi District	LRN	£1m-£2.5m	2-5 years
PK20	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	SM128	Help enable the improved provision of electric vehicle charging points at key locations between Bishop's Stortford / Sawbridgeworth / Harlow and Hertford / Ware to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy.	Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK20	Policy - Marketing	IC12	Parking management between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	SM134	Work with operators and local authorities to manage car parking provision at key locations in/between Hertford, Ware, Sawbridgeworth and Bishop's Stortford through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel along the interaction. Key locations include car parks, stations, town centres, activity centres and large employment sites.	Bishop's Stortford / Sawbridgeworth / Harlow - Hertford / Ware		Task 2	GIS based assessment	Multi District	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK21	Junction Improvements - Highway, walking and cycling	IC8	Amwell Roundabout improvement	SM125	Improvements to the Amwell Roundabout to facilitate sustainable travel including the proposed HERT mass rapid transit system and provide improved crossing provision for pedestrians and cyclists, in particular between the A1170 north and south and between the B1502 and A1170 south arms to improve active travel connectivity between Great Amwell and Hoddesdon.	Amwell roundabout		Task 1	East Herts IDP	East Herts	MRN	£2.5m-£5m	5-10 years
PK21	Policy - Sustainable transport upgrade/ plan	IC15	Improved sustainable transport provision between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	SM135	Improve local bus and rail service provision between Bishop's Stortford, Sawbridgeworth, Harlow and the Broxbourne Towns to encourage an uptake in sustainable travel, reduce car journeys and improve air quality.	Bishop's Stortford / Sawbridgeworth / Harlow - Broxbourne Towns		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK21	Policy - Marketing	IC12	Parking management between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	SM136	Work with operators and local authorities to manage car parking provision at key locations in/between Bishop's Stortford, Sawbridgeworth, St Margarets and Stansted Abbots through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel along the interaction. Key locations include car parks, stations, town centres, activity centres and large employment sites.	Bishop's Stortford / Sawbridgeworth / Harlow - Broxbourne Towns		Task 2	GIS based assessment	Multi District	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK21	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	SM140	Help enable the improved provision of electric vehicle charging points at key locations between Bishop's Stortford / Sawbridgeworth / Harlow and Broxbourne Towns to promote an uptake in electric vehicle use, in line with the HCC's emerging EV Charging Infrastructure Strategy.	Bishop's Stortford / Sawbridgeworth / Harlow - Broxbourne Towns		Task 2	GIS based assessment	Multi District	LRN	Less than £500k	2-5 years
PK21	Walking and Cycling Network Improvement	IC22	Stansted to Rye House strategic cycle route	SM525	Cycle provision connecting key locations between Lea Valley, Harlow and Stansted as identified as part of the Stansted to Rye House strategic cycle route. (IC22) (referenced as SM280 in the Eastern Area GTP)	Broxbourne - East Herts		New	New intervention - post public consultation optioneering	Broxbourne/East Herts/Harlow	LRN	£0.5m-£1m	2-5 years
PK22	Junction Improvement - Highway	IC7	Widening of River Stort Central crossing	SM141	Cycle provision connecting key locations between Lea Valley, Harlow and Stansted as identified as part of the Stansted to Rye House strategic cycle route. (IC22) (referenced as SM280 in the Eastern Area GTP)	Harlow, River Stort crossing		Task 1	East Herts IDP	East Herts	MRN	£5m-£10m	5-10 years
PK22	Highways Improvement	IC5	Edinburgh Way/Howard Way junction improvement	SM142	Widening of Central crossing over River Stort from Eastwick Roundabout to Burnt Mill Roundabout to provide a sustainable travel corridor between the Gilston Park development and Harlow. (IC7) (SM275 in the EA GTP)	Harlow, A414 Edinburgh Way/Howard Way junction		Task 1	East Herts IDP	East Herts	LRN	£5m-£10m	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK22	Highways Improvement	IC5	Edinburgh Way/Retail Park junction improvement	SM143	New Second Stort Crossing to the east of the existing crossing to reduce through-traffic within Harlow and to provide additional access, including provision for active and sustainable travel, to the Gilston Park Development. (IC7) (SM276 in the EA GTP)	Harlow, A414 Edinburgh Way/Retail Park junction		Task 1	East Herts IDP	East Herts	LRN	£1m-£2.5m	2-5 years
PK22	Highways Improvement	IC5	Gilston development access arrangements	SM144	M11 Junction 7 upgrade scheme to reduce congestion, improve air quality and facilitate growth delivered as part of Harlow-Gilston Garden Town – delivered in conjunction with the new Junction 7a. (IC7) (SM291 in the EA GTP)	Harlow, Eastwick roundabout		Task 1	East Herts IDP	East Herts	LRN	Unknown*	5-10 years
PK22	Junction Improvement - Highway	IC7	New River Stort crossing	SM510	Work with Essex County Council to improve cycle parking provision at key locations in Harlow to promote cycling uptake. Key locations include Harlow Mill station, Riverside Way Industrial Estate, retail parks along Edinburgh Way and Old Harlow town centre and Mark Hall Sports Centre. (IC2) (PR283 in the EA GTP)	Harlow and Gilston		New	New intervention - post public consultation optioneering	East Herts	LRN	£50m	5-10 years
PK22	Junction Improvement - Highway	IC7	M11 Junction 7 upgrade	SM511	M11 Junction 7 upgrade scheme to reduce congestion, improve air quality and facilitate growth delivered as part of Harlow-Gilston Garden Town – delivered in conjunction with	Harlow and Gilston		New	New intervention - post public consultation optioneering	East Herts	LRN	Unknown*	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					the new Junction 7a. (IC7) (SM291 in the EA GTP)								
PK23	Cycle Parking	IC2	Cycle parking at key destinations in Harlow	PR502	Work with Essex County Council (as scheme promoter) to improve cycle parking provision at key locations in Harlow to promote cycling uptake. Key locations include Harlow Mill station, Riverside Way Industrial Estate, retail parks along Edinburgh Way and Old Harlow town centre and Mark Hall Sports Centre. (IC2) (PR283 in the EA GTP)	Bishop's Stortford - Harlow / Sawbridge-worth		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	Less than 2 years
PK23	Walking and Cycling Network Improvement	IC22	North-south and east-west sustainable travel corridors	SM145	Work with Essex County Council to increase PT and active travel mode share through a framework of North-south and east-west sustainable transport corridors, including connections to the proposed HERT mass rapid transit system.	Harlow and Gilston		Task 1	Harlow Gilston Transport Strategy	Multi District	LRN	Less than £500k	More than 10 years
PK23	Policy Parking management	IC14	Workplace parking levy	SM146	Work with Essex County Council (as scheme promoter) to review options for the implementation of a Workplace Parking Levy. (IC14)	Harlow and Gilston		Task 1	Harlow Gilston Transport Strategy	Multi District	LRN	Less than £500k	More than 10 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK23	Policy Parking management	IC14	Park and Ride	SM147	Work with Essex County Council to review options for a Park and Ride facility which links to the proposed HERT mass rapid transit system. (IC14)	Harlow and Gilston		Task 1	Harlow Gilston Transport Strategy	Multi District	LRN	Less than £500k	5-10 years
PK23	Multi-modal interchange improvement	IC10	Harlow station access arrangements	SM148	Work with Essex County Council to review options for improved access to Harlow Town Station and adjoining Areas. (IC10)	Harlow, Harlow Town station		Task 1	East Herts IDP	East Herts	LRN	£1m-£2.5m	5-10 years
PK23	Walking and Cycling Network Improvement	IC22	Lea Valley/Harlow/Stansted cycle route	SM512	Work with Essex County Council to investigate cycle provision connecting key locations between Lea Valley, Harlow and Stansted, complementary to the Stansted to Rye House strategic cycle route. (IC22) (SM280 in the EA GTP)	Stansted - Harlow - Lea Valley		New	New intervention - post public consultation optioneering	Multi-District	LRN	£0.5m-£1m	5-10 years
PK23	Public transport – Bus Service Improvement	IC18	Harlow Enterprise Zone rail accessibility	SM513	Work with Essex County Council, operators and Network Rail to improve rail accessibility to the Harlow Enterprise Zone sites (Templefields, Kao Park and Science Park). (IC18) (SM282 in the EA GTP)	Harlow and Gilston		New	New intervention - post public consultation optioneering	Other	LRN	£10m-£25m	2-5 years
PK24	Walking and Cycling Network Improvement	IC22	Old A10 walking improvements	SM514	Introduce measures to encourage more walking along and across the old A10, including raised tables, improved crossing facilities, widening of footways, and a review of speed limits.	Broxbourne		New	New intervention - post public consultation optioneering	Broxbourne	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK24	Walking and Cycling Network Improvement	IC22	Old A10 cycling improvements	SM515	Introduce measures to encourage more cycling along and across the old A10, including considerations to improve existing advisory cycle lanes to a safer standard.	Broxbourne		New	New intervention - post public consultation optioneering	Broxbourne	LRN	Less than £500k	2-5 years
PK24	Policy - Sustainable transport upgrade/ plan	IC15	Improved connectivity to Old A10 corridor	SM516	Improved sustainable connectivity along the old A10 (including A1170) corridor from existing and future developments resulting from the Broxbourne Local Plan.	Broxbourne		New	New intervention - post public consultation optioneering	Broxbourne	LRN	Less than £500k	2-5 years
PK25	Walking and Cycling Network Improvement	IC22	Pedestrian crossing improvements in Hoddesdon	PR151	Improve pedestrian crossing facilities on the A1170 Ware Road, Stanstead Road and Rye Road in Hoddesdon.	Hoddesdon, A1170/ Stanstead Road/Rye Road		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Broxbourne	LRN	Less than £500k	Less than 2 years
PK25	Travel demand management - Speed limit review and improve active travel	IC21	Stanstead Road speed restrictions	SM149	Speed restrictions and better cycle signage on Stanstead Road could encourage cycle trips to school on this key route through Rye Park between Hoddesdon Town Centre and the school and John Warner sports centre/swimming pool.	Hoddesdon Town Centre - John Warner School - Sports centre/swimming pool, Hoddesdon		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Broxbourne	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK25	Walking and Cycling Network Improvement	IC22	Hoddesdon North cycle routes	SM150	New and improved cycle routes on roads running through northern Hoddesdon towards the town centre, including Stanstead Road, Ware Road, Dorchester Avenue/Middlefield Avenue and Tregelles Road/Fairfield Road.	High Leigh Garden Village and Hoddesdon		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK25	Walking and Cycling Network Improvement	IC22	Cycle safety improvements in Hoddesdon	SM152	Improve cycle safety on the A1170 Ware Road, Stanstead Road and Rye Road in Hoddesdon.	Hoddesdon, A1170/ Stanstead Road/Rye Road		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK25	Public transport – Bus Service Improvement	IC18	Bus connectivity to Hoddesdon station and residential area in the north	SM153	Improve bus provision to the railway station and to the residential area in the north of Hoddesdon.	Hoddesdon, North		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	£0.5m-£1m	2-5 years
PK25	Junction Improvement – bus	IC6	Bus priority measures - Hoddesdon	SM517	Install bus priority measures at key junctions in northern Hoddesdon, including on the A1170, to improve journey time reliability.	Hoddesdon		New	New intervention - post public consultation optioneering	Brox-bourne	LRN	Less than £500k	2-5 years
PK26	Walking and Cycling Network Improvement	IC22	Bell Lane quiet route	PR500	Provide for a 'quiet' cycle route along Bell Lane to facilitate cycling between Hoddesdon Town Centre and A1170 Charlton Way.	Bell Lane		New	New intervention - post public consultation optioneering	Brox-bourne	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK26	Wayfinding/ Signage	IC23	Wayfinding and cycle parking - Hoddesdon	SM161	Improved cycle parking and foot/cycle signage in Hoddesdon town centre.	Hoddesdon Town Centre		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK26	Junction Improvements - walking and cycling/ new bridge	IC9	Charlton Way at-grade crossings	SM162	At-grade crossings of Charlton Way to supplement and where possible remove existing underpasses connecting Lampits and the town centre, including the underpass beneath Brewery Road.	Hoddesdon Town Centre		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK26	Walking and Cycling Network Improvement	IC22	Lord Street foot and cycle improvements	SM163	Lord Street foot and cycle improvements.	Hoddesdon Town Centre		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK26	Walking and Cycling Network Improvement	IC22	Charlton Way walking and cycling improvements	SM518	Improved cycling and walking facilities on A1170 Charlton Way between Essex Road and Brewery Road (Hoddesdon) to facilitate a greater uptake in active travel.	Charlton Way		New	New intervention - post public consultation optioneering	Brox-bourne	LRN	Less than £500k	2-5 years
PK26	Walking and Cycling Network Improvement	IC22	Dinant Link Road walking and cycling improvements	SM519	Improved cycling and walking facilities on Dinant Link Road, including potential raised entry treatment at the junction of Burford Street, to facilitate a greater uptake in active travel.	Dinant Link Road		New	New intervention - post public consultation optioneering	Brox-bourne	LRN	Less than £500k	2-5 years
PK26	Walking and Cycling Network Improvement	IC22	Haslewood Avenue walking and cycling improvements	SM520	Improved cycling and walking facilities on Haslewood Avenue to facilitate a greater uptake in active travel.	Haslewood Avenue		New	New intervention - post public consultation optioneering	Brox-bourne	LRN	Less than £500k	2-5 years

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PK26	Walking and Cycling Network Improvement	IC22	Essex Road to Rye House walking and cycling improvements	SM522	Improved cycling and walking provision between Essex Road to Rye House station, including on (but not limited to) Stortford Road and Rye Road, to provide a connection between Rye House and Hoddesdon town centre.	Essex Road		New	New intervention - post public consultation optioneering	Brox-bourne	LRN	Less than £500k	2-5 years
PK27	Wayfinding/ Signage	IC23	Wayfinding - Brookfield Lane footbridge	PR191	Existing Brookfield Lane footbridge signposted from B176.	Brookfield Lane		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK27	Junction Improvements - walking and cycling/ new bridge	IC9	Signalised pedestrian/cycling crossing on Brookfield Lane West	PR192	Signalised pedestrian/cycling crossing on Brookfield Lane West.	Brookfield Lane		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK27	Walking and Cycling Network Improvement	IC22	Longfield Lane to Brookfield Riverside cycle route	SM188	Create a new a pleasant, safe, off-road route from Longfield Lane into Brookfield Riverside for pedestrians and cyclists.	Longfield Lane - Brookfield Riverside, Cheshunt		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK27	Walking and Cycling Network Improvement	IC22	New River off-road walking and cycling route	SM189	Segregated off-road cycle/footway along New River as described in Broxbourne Borough Council's Draft Cycling and Walking Infrastructure Plan.	New River - Longfield Lane		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years

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PK27	Walking and Cycling Network Improvement	IC22	Active mode route improvements to New River tunnel beneath A10, Turnford	SM193	Improvements to the walking and cycling route alongside the New River beneath and on approaches to the existing tunnels under A10 in Turnford.	A10 - north and south of Canada Fields		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK27	Walking and Cycling Network Improvement	IC22	Halfhide Lane walking and cycling route	SM195	Segregated on-road cycle/footway along Halfhide Lane into Riverside.	Halfhide Lane - Riverside		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK27	Walking and Cycling Network Improvement	IC22	Walking and cycling routes to Brookfield development	SM196	Two segregated on-road cycle/footpaths connecting to the proposed local plan growth locations.	Brookfield		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK27	Public transport – Bus Service Improvement	IC18	Brookfield Lane West/Halfhide Lane bus service provision	SM197	Improve bus service provision to the shops on the B156 Brookfield Lane W/Halfhide Lane.	Brookfield, B156		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	£1m-£2.5m	2-5 years
PK27	Highway Improvement - New road link	IC3	Turnford Link Road	SM430	Construction of a Halfhide Lane to Turnford Interchange Link Road, together with provision of a new western arm at the A10 Turnford Interchange, including provision for active and sustainable travel.	Halfhide Lane - Turnford Interchange Link Road, Turnford		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£5m-£10m	2-5 years
PK27	Highway Improvement - New road link	IC3	Garden Village Distributor Road	SM432	Provision of new distributor road to serve the new Brookfield development, including provision for active and sustainable travel.	Brookfield Retail Park, Turnford		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£5m-£10m	5-10 years

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PK27	Junction Improvement - Highway	IC7	Brookfield junction improvements	SM433	Reconfiguration of the 4-arm signalised junction on Halfhide Lane at junction with The Links and the access road into Brookfield Retail Park, by removing access to/from The Links and allowing only movements into (and not out of) the Retail Park, including provision for active and sustainable travel.	Brookfield Retail Park, Turnford		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK28	Public Transport - Bus Stop Upgrades	IC17	Waltham Cross bus station shelters	PR392	Provision of new and improved bus shelters at Waltham Cross Train station to be served by extension of existing services from Waltham Cross Bus Station.	Waltham Cross Train station		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK28	Multi-modal interchange improvement	IC10	Improved accessibility to stations	SM165	Increase accessibility of stations on the main rail network into London. This includes the development of multi-modal interchanges at Broxbourne, Cheshunt and Waltham Cross Stations.	Broxbourne, Cheshunt and Waltham Cross Stations.		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK28	Junction Improvement – bus	IC6	A1170 bus priority measures	SM166	Junction improvements to give priority to buses.	A1170 - Station Road		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years

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PK28	Junction Improvement – bus	IC6	Improved access to Broxbourne station	SM167	Junction enhancements to improve access to Broxbourne Station by sustainable modes of travel.	Station Road jn (access to Broxbourne)		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK28	Public transport – Bus Service Improvement	IC18	Review bus services to Broxbourne station	SM168	Review bus services to Broxbourne railway station to identify opportunities for an increase in frequency of individual services. This intervention is likely to have a more widespread effect on local interactions surrounding Broxbourne.	Broxbourne, North		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	£1m-£2.5m	2-5 years
PK28	Public transport – Bus Service Improvement	IC18	High Leigh to Broxbourne bus service	SM384	Provide a new bus service running every 30 minutes between High Leigh and Broxbourne Station via Hoddesdon Town Centre.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£2.5m-£5m	Less than 2 years
PK28	Public transport – Bus Service Improvement	IC18	Park Plaza to Waltham Cross Station bus service	SM386	Provide a new bus service running every 15 minutes between Park Plaza and Waltham Cross Station via Waltham Cross Town Centre.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£2.5m-£5m	2-5 years

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PK28	Public transport – Bus Service Improvement	IC18	Re-routing of the bus	SM387	Re-route the existing bus service between Potters Bar and Waltham Cross into the Rosedale Park North development site to provide a service every 30 minutes.	Large part of study area		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Unknown*	2-5 years
PK28	Public Transport - Bus Stop Upgrades	IC17	Broxbourne bus stop upgrades	SM390	Provide new and upgraded bus stops across the Borough including shelters, seating, lighting, raised kerbs, and timetables.	Large part of study area		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£0.5m-£1m	Less than 2 years
PK28	Public transport - Real Time Information	IC20	Real time bus information	SM394	Provide real time information displays at bus stops on all commercial routes and in areas which generate a large number of trips (i.e. doctors surgeries, shopping centres and train stations).	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK28	Policy Ticketing	IC13	Broxbourne integrated ticketing	SM396	Promotion of the existing Intalink mobile app and development of an integrated BUSnet ticket for Broxbourne, in line with the Bus Service Improvement Plans (BSIP).	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	Other/Rail	Less than £500k	2-5 years
PK28	Walking and Cycling Network Improvement	IC22	Cheshunt Station to bus stop route improvements	SM402	Improve pedestrian links between Cheshunt Station and bus stops being provided as part of the Delamare Road development.	Delamare Road, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years

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PK29	Public transport – Bus Service Improvement	IC18	Waltham Cross to Park Plaza bus service	SM169	New bus service between Park Plaza and Waltham Cross Station.	Park Plaza and Waltham Cross		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	£0.5m-£1m	2-5 years
PK29	Walking and Cycling Network Improvement	IC22	Waltham Cross to Park Plaza cycle route	SM170	Improved cycle links from Waltham Cross to Park Plaza, including consideration for improved provision alongside Winston Churchill Way.	Park Plaza and Waltham Cross		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK29	Junction Improvements - walking and cycling/ new bridge	IC9	Park Lane bridge	SM409	Provide a pedestrian / cycle bridge at Park Lane to cross the railway line and allow access into Park Plaza North.	Park Ln, Waltham Cross		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£1m-£2.5m	5-10 years
PK29	Junction Improvements - walking and cycling/ new bridge	IC9	Park Plaza bridge	SM410	Provide a pedestrian / cycle bridge over the A10 between Park Plaza North and Park Plaza West.	A10-Park Plaza, Waltham Cross		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	MRN	£1m-£2.5m	5-10 years
PK29	Junction Improvement - Highway	IC7	A10 junction improvements	SM423	Modify existing 3-arm junction on A10 to provide an at-grade 4-arm junction for access into Park Plaza North & West, including provisions for active and sustainable travel.	A10, Waltham Cross		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	MRN	£0.5m-£1m	2-5 years
PK29	Junction Improvement - Highway	IC7	A10/A121 junction improvements	SM424	Provide a 'hamburger' style signalised junction with N/S priority at the intersection of the A10 junction with the A121 Monarch's Way and B198 Lieutenant Ellis Way (Park Plaza junction) with facilities for active travel to improve air quality and alleviate congestion.	A10, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	MRN	£5m-£10m	2-5 years

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PK29	Junction Improvement - Highway	IC7	Lieutenant Ellis Way junction	SM425	New 4-arm junction on Lieutenant Ellis Way to the north of Park Plaza, including provisions for active and sustainable travel.	A10, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	MRN	£0.5m-£1m	2-5 years
PK30	Junction Improvement – bus	IC6	Broxbourne Station access improvements	PR393	Junction improvements on Station Road to improve access/egress into Broxbourne Station.	Station Road, Broxbourne		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	2-5 years
PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Dinant Link Road/Essex Road roundabout improvements	PR398	Signalised crossing on western arm of Dinant Link Road / Essex Road roundabout for Walking & Cycling.	Dinant Link Road - Essex Road, Hoddesdon		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	5-10 years
PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Dinant Link Road/Amwell Street junction improvements	PR400	At grade signalised crossing of Dinant Link Road at junction with Amwell Street.	Dinant Link Road - Amwell Street, Hoddesdon		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	5-10 years
PK30	Walking and Cycling Network Improvement	IC22	Lord Street widened footway	PR401	Treatment of Lord Street to widened footway and remove conflicts with parked cars along its length.	Lord Street, Hoddesdon		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	Less than 2 years
PK30	Junction Improvement - Highway	IC7	Church Lane/High Street Cheshunt roundabout improvements	PR428	Reconfiguration of Church Lane / High Street, Cheshunt roundabout to provide signalised junction and crossing points for pedestrians.	Church Lane - High Street, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	MRN	Less than £500k	2-5 years
PK30	Junction Improvement - Highway	IC7	Church Lane / Flamstead End Road roundabout improvements	PR429	Reconfiguration of Church Lane / Flamstead End Road roundabout to provide signalised junction and crossing points for pedestrians.	Church Lane - Flamstead End Road, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	2-5 years

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PK30	Junction Improvements - Highway, walking and cycling	IC8	Goffs Lane Reconfiguration	PR435	Reconfiguration of Newgatestreet Road / Cuffley Hill / Goffs Lane junction give way to provide signalised junction with crossing points for pedestrians.	Newgatestreet Road - Cuffley Hill - Goffs Lane, Goffs Oak		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Hertford Road/Ware Road roundabout improvements	PR438	Hertford Road / Ware Road roundabout improvements to provide improved facilities for pedestrians and cyclists.	Hertford Road - Ware Road, Hoddesdon		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Dinant Link Road/Ware Road roundabout improvements	PR453	Sun roundabout improvements (junction of Dinant Link Road and Ware Road) to provide improved facilities for pedestrians and cyclists.	Dinant Link Road - Ware Road, Hoddesdon		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK30	Junction Improvement - Highway	IC7	Junction signalisation	SM171	Replacement of mini-roundabouts with signal-controlled junctions in several locations on the local road network to provide more efficient management of traffic flows and incorporating safer crossing facilities for pedestrians.	Large part of study area		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£0.5m-£1m	2-5 years
PK30	Junction Improvement - Highway	IC7	Church Lane/High Street junction improvement	SM172	Improvements to the Church Lane / High Street mini roundabout junction in Cheshunt to incorporate better crossing facilities for pedestrians.	Church Lane - High Street, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK30	Junction Improvement - Highway	IC7	College Road / A10 junction improvements	SM426	At grade improvement at College Road / A10 junction, providing a new southbound left filter lane into College Road, and improved facilities for active travel	A10-College Rd, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	MRN	£1m-£2.5m	2-5 years

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PK30	Junction Improvement - Highway	IC7	Church Lane / A10 junction improvements	SM427	At grade highway capacity improvement at Church Lane / A10 junction, providing improved facilities for active travel and banning all right turns onto the A10 to reduce congestion and improve air quality.	A10-Church Ln, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	MRN	£1m-£2.5m	2-5 years
PK30	Wayfinding/ Signage	IC23	Update network signage	SM455	Update the network signage across the Broxbourne of Borough to reflect the new access arrangements on/off the A10 at Church Lane.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK30	Highway Improvement - New road link	IC3	New A10 secondary school access	SM456	Provision of a new access into the secondary school site from the A10 spur road to the south.	Brookfield		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	MRN	£0.5m-£1m	2-5 years
PK31	Walking and Cycling Network Improvement	IC22	Charlton Way walking and cycling improvements	PR399	Improve walking and cycling facilities along western side of Charlton Way between Haslewood Avenue and Dinant Link Road.	Charlton Way, Hoddesdon		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK31	Junction Improvements - walking and cycling/ new bridge	IC9	Old Pond Junction Improvements	PR403	Reconfiguration of Old Pond junction to provide signalised junction and crossing points for pedestrians.	Old Pond, Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£2.5m-£5m	5-10 years

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PK31	Highways Improvement	IC5	New River Path improvements	SM174	Priority sections from College Road to the M25 to link development sites with Enfield Borough Council's New River proposals; the approaches to Brookfield Riverside from north and south as far north as Church Lane Wormley to provide access to the proposed secondary school site; and implementation of current proposals at Broxbourne station.	College Road - M25		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	£0.5m-£1m	2-5 years
PK31	Walking and Cycling Network Improvement	IC22	Hoddesdon to Waltham Cross cycle route	SM175	Working with the Park Authority to provide the 'missing links' in an off-road summertime alternative to the old A10 from Hoddesdon to Waltham Cross, including Spitalbrook and Britannia Nurseries.	Old A10 - Hoddesdon - Waltham Cross,		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK31	Wayfinding/ Signage	IC23	Wayfinding - Broxbourne School	SM176	Better signposting of walking routes through the residential estates surrounding the Broxbourne School.	Residential estates surrounding the Broxbourne School, Broxbourne		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK31	Walking and Cycling Network Improvement	IC22	Waltham Cross Town Centre Improvements	SM178	Improvements to Waltham Cross Town Centre including a 'flexible' High Street with alterations to vehicle access and modal priority; improvements to pedestrian and cycle facilities including a new crossing at the	Large part of study area		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					Monarchs Way-High Street junction and a new cycle route along the western side of Monarchs Way.								
PK31	Walking and Cycling Network Improvement	IC22	New River cycling improvements	SM180	Cycle link improvements along New River to Broxbourne station.	New River		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK31	Walking and Cycling Network Improvement	IC22	Windmill Lane walking and cycling improvements	SM181	Improvements to walking and cycling facilities along Windmill Lane to provide better connectivity to Cheshunt Station, including additional signal-controlled pedestrian crossings (in particular between Roundmoor Drive and the rail station) and side road entry treatments including raised tables and tactile paving.	Windmill Lane		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK31	Junction Improvements - walking and cycling/ new bridge	IC9	A10/Church Lane junction improvement	PR182	A10 / Church Lane Junction including pedestrian/cycle crossing signal phase.	Cheshunt		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	MRN	Less than £500k	5-10 years
PK31	Walking and Cycling Network Improvement	IC22	Core Walking Zones - Hoddesdon, Waltham Cross, Cheshunt Old Pond and Brookfield	SM183	Improvements to 'Core Walking Zones as defined by BBC in Hoddesdon, Waltham Cross, Cheshunt Old Pond and Brookfield, and comprising of high-quality public realm, secure cycle parking, foot/cycle signposting.	Hoddesdon/Cheshunt Old Pond/Brookfield/Waltham Cross		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK31	Junction Improvement – bus	IC6	A121 Monarchs Way-Eleanor Cross Road (KFC) Roundabout	SM184	Improvements to the roundabout and approaching arms (including the exit onto Eleanor Cross Road from the bus station) which improve	KFC Roundabout		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
			improvements for buses		the flow of bus services, e.g. bus priority.								
PK31	Walking and Cycling Network Improvement	IC22	Broxbourne cycle network improvements	SM404	Improve walking and cycling network facilities, including new routes to create a more connected and coherent network across Broxbourne. This includes a new segregated off-road cycle/footway along New River with connections to Brookfield Riverside and Garden Village development and new schools, in line with Broxbourne Borough Council's Draft Local Cycling and Walking Infrastructure Plan.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	£5m-£10m	Less than 2 years
PK31	Wayfinding/ Signage	IC23	Broxbourne signage upgrades	SM405	Provide end to end signage of key routes and destinations.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	Less than 2 years
PK31	Walking and Cycling Network Improvement	IC22	Broxbourne routing improvements (use of A10 for walking/cycling)	SM406	Introduce measures to encourage more walking and cycling along the A1170 (old A10) including raised tables, widening of footways, and a review of speed limits.	Old A10		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	£1m-£2.5m	Less than 2 years
PK31	Walking and Cycling Network Improvement	IC22	Broxbourne crossing improvements	SM411	Identify pedestrian crossing points where tactile paving and dropped kerbs are missing and identify opportunities to improve them.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK31	Highways Improvement	IC5	Provision of cycle parking	SM459	Provide significant increases in the volume of cycle parking at key trip generators within Broxbourne, such as town centres, train stations, employment centres, educational and recreational facilities.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	Less than 2 years
PK32	Junction Improvements - walking and cycling/ new bridge	IC9	A10/Church Lane at-grade crossing	PR209	Reconfiguration of the Church Lane/A10 junction to create a safe at-grade crossing of the A10 for cyclists and pedestrians.	Andrews Lane-Church Lane, Cheshunt		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Broxbourne	MRN	Less than £500k	5-10 years
PK32	Policy - Sustainable transport upgrade/ plan	IC15	Cheshunt station area improvements	SM210	Provide improved sustainable travel facilities, including a new cycle hub, improved bus stops, pedestrian facilities, public realm (including around the adjacent shopping parade and links into River Lee Country Park.	Cheshunt Station		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Broxbourne	LRN	Less than £500k	5-10 years
PK32	Walking and Cycling Network Improvement	IC22	Haileybury Turnford School walking and cycle connectivity	SM211	Improved active travel links to Haileybury Turnford school, including better crossing facilities on the B176 High Street and across Turnford Brook and Nightleys Playing Fields.	Lee Valley Park - Haileybury Turnford Academy		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Broxbourne	LRN	Less than £500k	Less than 2 years
PK32	Walking and Cycling Network Improvement	IC22	New River cycle route	SM212	A cycle route along the New River would provide connections from the existing St. Mary's cycle route to the south (connection with Waltham Cross) and provide safe access from the Council Offices to the north. The potential for a new zebra crossing on College Road should be investigated.	St. Mary's cycle route - Cheshunt School - Council Offices		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Broxbourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK32	Walking and Cycling Network Improvement	IC22	Windmill Lane walking, cycling and public realm improvements	SM213	Windmill Lane pedestrian and cycle enhancements realm enhancements, cycle parking and signage.	Cheshunt Lakeside		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK32	Wayfinding/ Signage	IC23	Forest Way/Roundmoor Drive wayfinding	SM214	Possible signposted foot and cycle link via Forest Way/Roundmoor Drive.	Cheshunt Lakeside		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK32	Walking and Cycling Network Improvement	IC22	B176 pedestrian/cycle improvements	SM215	Improvements to pedestrian and cyclist facilities along the B176 High Street in Cheshunt, including footway widening and public realm enhancements outside the shopping parade between Wycliffe Close and Cadmore Lane and at Clarendon Parade; side road entry treatments to improvement crossing facilities at priority give-way junctions such as Forest Road.	Cheshunt Lakeside		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK32	Highway, Walking and Cycling Network Improvement	IC4	Turners Hill/Church Lane junction improvements	SM216	Improvements at the mini-roundabout junction of Turners Hill/ Church Lane to incorporate better pedestrian crossing facilities.	Cheshunt Lakeside		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	5-10 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK32	Cycle Parking	IC2	Old Pond enhancements	SM217	Public realm enhancements and improved provision of secure and accessible cycle parking and potentially e-bike and e-scooter charging facilities around the Old Pond junction to promote active travel uptake. (Note - at the time of writing, e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters).	Cheshunt Lakeside		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK32	Walking and Cycling Network Improvement	IC22	A10/College Road reconfiguration	SM218	Reconfiguration of the A10/College Road junction to provide improved pedestrian and cycle crossing facilities.	A10/Church Lane junction and A10/College Road junction		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK32	Walking and Cycling Network Improvement	IC22	Improvements to pedestrian and cycle facilities along Flamstead End Road and Churchgate	SM219	Improve crossing facilities for pedestrians including at the mini roundabout junctions with Brookfield Lane West, Church Lane and Goffs Lane and on the sections in between, and potentially traffic calming measures (if feasible and appropriate in line with HCC's Speed Management Strategy), to allow for an improved provision and environment for active travel.	Cheshunt, Flamstead End Road and Churchgate		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK33	Walking and Cycling Network Improvement	IC22	Pedestrian crossing improvements - Theobalds Grove station	PR233	Improve pedestrian crossing facilities near Theobalds Grove railway station.	Theobalds Grove, Rail Station		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK33	Cycle Parking	IC2	Cycle hub - Waltham Cross station	PR225	Increase in cycle parking provision at Waltham Cross Station from current 26 spaces including a safe area for cyclists to dismount/enter the carriageway. Could potentially be located within the car park or taking one of the 'on-street parking bays south of the disabled bays on the industrial estate access road leading off Station Approach.	Waltham Cross, station		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK33	Walking and Cycling Network Improvement	IC22	New River walking and cycling route	SM220	New River shared foot/cycle path just west of Park Plaza West site.	New River, Park Plaza West		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK33	Walking and Cycling Network Improvement	IC22	A10 walking and cycling bridges	SM221	New foot/cycle bridges over the A10 at Great Eastern Way and over railway to provide a link between Waltham Cross Park Plaza.	Waltham Cross, A10		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK33	Junction Improvements - walking and cycling/ new bridge	IC9	A121/Monarchs Way (Fishpools) Roundabout reconfiguration	SM222	A121/Monarchs Way (Fishpools) junction redesign to incorporate safe crossing for cyclists and pedestrians.	Waltham Cross, fishpool junction		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK33	Walking and Cycling Network Improvement	IC22	Eleanor Cross Road cycle route extension	SM226	Eleanor Cross Road cycle route extended to Waltham Abbey.	Park Plaza and Waltham Cross		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK34	Policy - Travel Plans	IC16	Workplace travel planning	SM253	Develop, implement and monitor a series of Area Wide Travel Plans with employers in Hoddesdon, Waltham Cross, Brookfield and Park Plaza.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	Other/Rail	Less than £500k	Less than 2 years
PK34	Policy - Travel Plans	IC16	Station travel planning	SM254	Develop, implement and monitor school Travel Plans at all appropriate locations across the Borough, including Rye House and Theobalds Grove stations.	Large part of study area		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	Other/Rail	Less than £500k	Less than 2 years
PK34	Policy - Travel Plans	IC16	School travel planning	SM255	Develop, implement and monitor school Travel Plans at appropriate locations across the Borough.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	Other/Rail	Less than £500k	Less than 2 years
PK34	Policy - Travel Plans	IC16	Personalised journey planning	SM256	Undertake a programme of Personalised Journey Planning with target groups.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	Other/Rail	£0.5m-£1m	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK34	Policy - Marketing	IC12	Broxbourne Towns communications strategy for transport interventions	SM257	Produce and implement a Communications Strategy associated with all measures to be delivered through the Strategy.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	Other/Rail	Less than £500k	Less than 2 years
PK34	Policy - Travel Plans	IC16	Car share scheme	SM258	Develop and promote a car share scheme.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	Other/Rail	Less than £500k	2-5 years
PK34	Walking and Cycling Network Improvement	IC22	Broxbourne Towns School Safety Zones	SM259	Create School Safety Zones, including consideration of advisory 20mph speed limits, at appropriate locations within the Borough, to prioritise pedestrians and other vulnerable road users over general traffic.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	£1m-£2.5m	Less than 2 years
PK35	Policy Parking management	IC14	Parking management at stations	SM261	Work with Broxbourne Borough Council to introduce on street parking charges and restrictions in areas around Stations to tackle long stay commuter parking related problems.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	£0.5m-£1m	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK35	Policy Parking management	IC14	Residents parking permit schemes	SM262	Work with Broxbourne Borough Council to introduce residents parking permit schemes in areas of high parking demand.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	2-5 years
PK35	Policy Electric Vehicle Charging Points	IC11	Broxbourne Towns electric vehicle charging points	SM263	Work with Broxbourne Borough Council to provide a network of charging points for electric vehicles, in line with guidance set in the EV Charging Strategy.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Broxbourne	LRN	Less than £500k	2-5 years
PK36	Walking and Cycling Network Improvement	IC22	Hammond Street and Goffs Oak area pedestrian crossings	PR206	Improve pedestrian crossing facilities on key roads through Hammond Street and Goffs Oak, including St James Road, Rosedale Way, Longfield Lane/Hammond Street and Newgatestreet Road.	Hammond Street area		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Broxbourne	LRN	Less than £500k	Less than 2 years
PK36	Walking and Cycling Network Improvement	IC22	Rosedale Park to Longfield Lane cycle route	SM199	Linking Rosedale Park to Longfield Lane and joining up with the Brookfield Riverside route along Cheshunt Reservoir.	Longfield Lane - Brookfield Riverside - Cheshunt Reservoir, Cheshunt		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Broxbourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK36	Walking and Cycling Network Improvement	IC22	Goffs Academy cycle connectivity	SM200	There are two north-south paths through the residential area of Rosedale from the north which could be converted into cycle routes from the Hammond street area and Rosedale Park as well as the Andrews Lane Priority Cycle Corridor, subject to resolution of any community safety issues. Dark Lane provides an existing cycle route from Bury Green to the south.	Area around Goffs School		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK36	Walking and Cycling Network Improvement	IC22	Rosendale Park at-grade crossings	SM201	Underpass removal and alternative at-grade crossings at Rosendale Park.	Rosendale Park		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK36	Junction Improvements - walking and cycling/ new bridge	IC9	School walking and cycling connectivity	SM202	Possible foot and cycle link to Goffs School 3.	Rosendale Park		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK36	Travel demand management - Speed limit review and improve active travel	IC21	Restrict access to Andrews Lane	SM203	Andrews Lane area for foot/cycle local access only (no through-traffic).	Rosendale Park		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK36	Walking and Cycling Network Improvement	IC22	Rosendale Park walking and cycling connectivity	SM204	New cycle/footpath links to the new primary school centre and sports ground at Rosendale Park.	Rosendale Park		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK36	Walking and Cycling Network Improvement	IC22	Hammond Street and Goffs Oak area cycle facilities	SM207	Improve cycle facilities on St James Road, Rosedale Way, Longfield Lane/Hammond Street and Newgatestreet Road. Improvements could include additional signage, segregated/off-road cycle route facilities (where space is available, including potentially sections of Newgatestreet Road) and designation of Quietways such as St James's Road incorporating enhanced gateways and signage.	Hammond Street area		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK36	Policy - Sustainable transport upgrade/ plan	IC15	Hammond Street and Goffs Oak area bus services	SM208	Improve bus service provision and facilities in the Hammond Street and Goffs Oak area to encourage an uptake in bus travel, including improvements to bus stops.	Hammond Street		Task 2	Optioneering based on gap analysis	Brox-bourne	LRN	Less than £500k	2-5 years
PK36	Travel demand management - Speed limit review and improve active travel	IC21	Reduce speed limits in the Hammond Street area	SM209	Reduce speed limits to improve safety for pedestrians and cyclists in the Hammond Street area Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic	Hammond Street		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					speeds which could encourage an increase in sustainable travel.								
PK37	Junction Improvements - walking and cycling/ new bridge	IC9	Newgatestreet Road pedestrian crossing	PR238	Pedestrian crossing on Newgatestreet Road adjacent to planned new public open space ('GO4' as identified in the Local Plan) south of St James's Road.	Goffs Oak		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK37	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Cuffley	PR241	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in Cuffley to promote cycling uptake. Key locations include the station, Station Road/Maynard Place shopping parades and sports facilities located off B156 Northaw Road East. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC will consider the need and feasibility for charging facilities for e-scooters)	Cuffley		Task 2	GIS based assessment	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK37	Wayfinding/ Signage	IC23	Wayfinding - Cuffley	PR242	Improve the wayfinding between key locations in Cuffley, particularly for walking, cycling and public transport routes.	Cuffley		Task 2	GIS based assessment	Brox-bourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK37	Wayfinding/ Signage	IC23	Wayfinding - Jones Road/Silver Street leisure route	SM235	Signage of Jones Road/Silver Street leisure route to Bury Green/Cheshunt and Burnt Farm Ride to Crews Hill.	Goffs Oak		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK37	Junction Improvements - walking and cycling/ new bridge	IC9	Goffs Oak walking and cycling enhancements	SM236	Improved crossing point at Village centre in conjunction with public realm improvements and junction upgrades.	Goffs Oak		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK37	Wayfinding/ Signage	IC23	Wayfinding - Andrews Lane leisure route	SM237	Signage of Andrews Lane leisure route to Cheshunt/A10.	Goffs Oak		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK37	Wayfinding/ Signage	IC23	Wayfinding - Goffs Oak village centre and Woodside Primary School	SM239	Improved signage to Goffs Oak village centre and Woodside Primary school to encourage more trips on foot.	Goffs Oak		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK37	Travel demand management - Speed limit review and improve active travel	IC21	Reduced speed limits - Goffs Oak and Cuffley	SM240	Reduce speed limits in appropriate locations to improve safety for pedestrians and cyclists. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel.	Goffs Oak and Cuffley		Task 2	Optioneering based on gap analysis	Brox-bourne	LRN	Less than £500k	2-5 years
PK38	Walking and Cycling Network Improvement	IC22	Walking and cycling route between stations in Goffs Oak and Cuffley	SM243	Improved segregated walk/cycle route between Goffs Oak and Cuffley Station.	Goffs Oak		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK38	Walking and Cycling Network Improvement	IC22	Cuffley station crossing improvements	PR244	Improve pedestrian crossing facilities around Cuffley railway station.	Cuffley, Station		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK38	Public transport – Bus Service Improvement	IC18	Cuffley station bus service enhancement	SM245	Improve bus services to Cuffley railway station.	Cuffley, Station		Task 2	SE GTP Stage 2 Strategy Paper ISSUED 250419	Brox-bourne	LRN	£1m-£2.5m	2-5 years
PK38	Multi-modal interchange improvement	IC10	Cuffley Station bus interchange improvements	SM246	Enhancements to bus interchange facilities at Cuffley Station, for example an updated and larger shelter.	Goffs Oak and Cuffley		Task 2	Optioneering based on gap analysis	Brox-bourne	LRN	Less than £500k	5-10 years
PK38	Policy - Sustainable transport upgrade/ plan	IC15	Improved ticketing experience - Cuffley	SM247	Consider opportunities to improve the customer experience when purchasing public transport tickets in Cuffley.	Cuffley		Task 2	GIS based assessment	Brox-bourne	Other/Rail	Less than £500k	Less than 2 years
PK39	Policy - Marketing	IC12	Promote available sustainable travel options in Cuffley	PR250	Promote the available public transport services and active travel routes in Cuffley to encourage an uptake in sustainable travel.	Cuffley		Task 2	GIS based assessment	Brox-bourne	Other/Rail	Less than £500k	Less than 2 years
PK39	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points - Cuffley	SM249	Help enable the improved provision of electric vehicle charging points at key locations in Cuffley to promote an uptake in electric vehicle use, in line with HCC's emerging EV Charging Infrastructure Strategy.	Cuffley		Task 2	GIS based assessment	Brox-bourne	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK39	Policy - Marketing	IC12	Parking management in Cuffley	SM251	Work with operators and local authorities to manage car parking provision at key locations in Cuffley through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel. Key locations include car parks, the station, town centre, activity centres and large employment sites.	Cuffley		Task 2	GIS based assessment	Brox-bourne	LRN	Less than £500k	2-5 years
PK40	Walking and Cycling Network Improvement	IC22	Improved pedestrian and cycling connections to Enfield	SM264	Improved or new links to Enfield and the wider cycle and pedestrian network, including at M25 Junction 25, along the New River, River Lea, Small River Lea (if feasible) and potential improvements to Public Rights of Way including Northaw 006 and Cheshunt 070 (Burntfarm Ride) which link Cuffley and Goffs Oak to Crews Hill.	M25 J25		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	SRN	Less than £500k	5-10 years
PK40	Policy - Marketing	IC12	Parking management between Broxbourne Towns and Enfield	SM266	Work with operators and local authorities to manage car parking provision at key locations in Hoddesdon, Brookfield and Enfield through paid parking, parking limitations and other measures with the aim to shift people toward sustainable travel along the interaction. Key locations include car parks, stations, town centres, activity centres and large employment sites.	Broxbourne Towns - Enfield		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK40	Policy - Sustainable transport upgrade/ plan	IC15	Improved bus and rail service links between Broxbourne Towns and Enfield	SM267	Improve bus and rail service provision between Broxbourne Towns and Enfield, working with bus and train operators and TfL. Measures should focus on service frequencies, access and reliability. The aim will be to encourage an uptake in public transport usage, reduce reliance on private car and improve air quality.	Broxbourne Towns - Enfield		Task 2	Optioneering based on gap analysis	Multi District	LRN	Less than £500k	2-5 years
PK40	Public transport – Bus Service Improvement	IC18	Improved bus provision between Broxbourne Towns and Enfield	SM268	Improve the bus service provision between Broxbourne Towns -Enfield to encourage more public transport use.	Broxbourne Towns - Enfield		Task 2	Optioneering based on gap analysis	Multi District	LRN	£1m-£2.5m	2-5 years
PK10 / PK11	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Ware	PR47	The provision of secure, covered and accessible cycle parking and potentially e-bike and e-scooter charging facilities at key locations in Ware to promote cycling uptake. Key locations include the town centre (e.g. outside Ware Museum and on Tudor Square), the railway station, large employment sites on Park Road and Marsh Lane) and local shopping parades such at Kingshill, on Cromwell Road and on King George Road. (note - at the time of writing e-scooters are not permitted for use on the public highway in Hertfordshire. Should government guidance be amended in the future, HCC	Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					will consider the need and feasibility for charging facilities for e-scooters).								
PK24 / PK31	Walking and Cycling Network Improvement	IC22	B176 walking and cycling improvements	SM179	Walking & Cycling enhancements along B176 and to Station Road/B194.	B176 - Station Road/B194		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK24 / PK27	Walking and Cycling Network Improvement	IC22	A1170/B176 walking and cycling junction improvements	SM190	On-road pedestrian/cycle improvements to A1170/B176.	A1170/B176		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	Less than 2 years
PK24 / PK34	Travel demand management - Speed limit review and improve active travel	IC21	A1170 (Old A10)- 20mph speed limit	SM260	20mph speed limits on the corridor in order to discourage through-traffic. This offers an opportunity to provide a safer on-road environment for cyclists, replacing the existing narrow cycle lanes. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel.	A1170 - B176 (old A10)		Task 1	Draft Local Cycling and Walking Infrastructure Plan (2017)	Brox-bourne	LRN	Less than £500k	2-5 years
PK27 / PK28	Public transport – Bus Service Improvement	IC18	Waltham Cross Station to Brookfield bus service	SM385	Provide a new bus service running every 20 minutes between Waltham Cross Station and via Cheshunt Station, Delamare Road and Hertford Regional College.	Broxbourne of Borough		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	£5m-£10m	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK8 / PK9	Travel demand management - Speed limit review and improve active travel	IC21	Review speed limits	SM39	Review appropriate speed limits in the west, north and northeast of Ware to improve safety for pedestrians and cyclists. Reference should be made to the Speed Management Strategy which can provide guidance on the appropriate measures that can be introduced to manage traffic speeds which could encourage an increase in sustainable travel.	Ware		Task 2	Optioneering based on gap analysis	East Herts	LRN	Less than £500k	2-5 years
PK24 / PK28	Junction Improvement – bus	IC6	Selective Vehicle Detection systems	SM391	Introduce Selective Vehicle Detection systems to provide priority for buses along the old A10 at (i) Junction of Station Road / High Road, Broxbourne, (ii) Vancouver Road / A1170, Turnford, (iii) Church Lane / Turners Hill, Cheshunt, and (iv) Old Pond, Cheshunt.	Large part of study area		Task 1	Broxbourne Transport Strategy (Sept 2017)	Brox-bourne	LRN	Less than £500k	5-10 years
PK13 / PK15	Walking and Cycling Network Improvement	IC22	Cole Green Way to A1000 and Hatfield town centre	SM523	Provide improved active travel connections from the Cole Green Way to the A1000 and Hatfield town centre.	Cole Green Way		New	New intervention - post public consultation optioneering	Multi-District	LRN	Less than £500k	2-5 years
PK3 / PK4	Walking and Cycling Network Improvement	IC22	A414 Hertford footway and cycle route improvements	SM524	Make improvements to the existing footway alongside the A414 through Hertford, including (if space permits) the provision of a new footway between Hale Road and London Road (or improvements to the existing route via All Saints' Churchyard).	Hertford East		New	New intervention - post public consultation optioneering	East Herts	LRN	Less than £500k	2-5 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
PK17 / PK20	Walking and Cycling Network Improvement	IC22	Rush Green Roundabout pedestrian and cycle crossings	SM527	Improvements to address traffic congestion on the entries and exits to/from the roundabout and provision of an upgraded, signal-controlled set of crossings for pedestrians and cyclists on the south-western side of the Rush Green Roundabout between the B1502 (Hertford) and B1502 (Rush Green/Great Amwell). Also required are sections of upgraded footway and off-road cycleway leading to the crossings on either side of the roundabout.	Hertford-Rush Green		New	New intervention - post public consultation optioneering	East Herts	LRN	£1m-£2.5m	2-5 years
PK13 / PK17	Junction Improvement – bus	IC6	A119 and A414 bus priority measures	SM58	Bus priority measures along A119 and A414 to decrease bus journey time and make buses more attractive. Measures could include signalised vehicle detection and a priority gate installed on the A414 approach of the A119 Ware Road / Mill Road junction, parking restrictions and others in line with the Intalink Bus Priority study.	Hertford, A414/A119		Task 1	East Herts IDP	East Herts	LRN	Unknown*	5-10 years
PK13 / PK16	Walking and Cycling Network Improvement	IC22	National Cycle Network 61 improvements	SM94	Improvements to National Cycle Network 61 cycle route into and through Hertford, including surfacing improvements to the Cole Green Way and Hertford to Ware towpath to make it an all-year round utility route and improved connections to Hertford North station,	Welwyn Garden City, National Cycle Network 61		Task 1	East Herts IDP	East Herts	LRN	Unknown*	Less than 2 years

Package	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	Intervention Description	Location	Linked Project Group	Task	Source	District	Road Hierarchy	Cost Range	Timescale
					Hertford Town Centre and Hertford East station.								

\*Costs to be defined through next stages of development.

# Appendix C - Assessment against LTP4 Objectives

SE GTP Master List of Interventions - Assessment against LTP4 objectives

Package ID	Intervention Category Name	Intervention Category ID	Intervention Name	Intervention ID	LTP4 Theme: Prosperity Objective 1 - Improve access to international gateways and regional centres outside Hertfordshire.	LTP4 Theme: Prosperity Objective 2 - Enhance connectivity between urban centres in Hertfordshire.	LTP4 Theme: Prosperity Objective 3 - Improve accessibility between employers and their labour markets.	LTP4 Theme: Prosperity Objective 4 - Enhance journey reliability and network resilience across Hertfordshire.	LTP4 Theme: People Objective 5 - Enhance the quality and vitality of town centres.	LTP4 Theme: People Objective 6 - Preserve the character and quality of the Hertfordshire environment.	LTP4 Theme: People Objective 7 - Reduce carbon emissions.	LTP4 Theme: Place Objective 8 - Make journeys and their impact safer and healthier.	LTP4 Theme: Place Objective 9 - Improve access and enable participation in everyday life through transport.	LTP4 Total	Feasibility: Fundability	Feasibility: Relationship	Feasibility: Deliverability	Rating	Ranking
PK1	Junction Improvements - Highway, walking and cycling	IC8	A414/A119 Bluecoats roundabout	SM57	0	1	1	1	0	0	-1	0	1	3	1	0	0	4	273
PK1	Highway, Walking and Cycling Network Improvement	IC4	Hertford Town Centre traffic reduction	SM500	0	0	1	1	1	-1	1	1	1	5	1	1	0	7	129
PK1	Walking and Cycling Network Improvement	IC22	Hertford Bus Station improvements	SM501	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK1	Multi-modal interchange improvement	IC10	Hertford Town Centre public realm improvements	SM502	0	0	1	1	0	0	1	1	1	5	-1	1	0	5	228

PK1	Walking and Cycling Network Improvement	IC22	Hertford Town Centre walking and cycling improvements	SM503	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK1	Walking and Cycling Network Improvement	IC22	Walking and cycling connectivity to River Lea	SM504	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK1	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points in Hertford Town Centre	SM505	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK1	Junction Improvements - Highway, walking and cycling	IC8	A414/B158 Parliament Square roundabout	SM526	0	1	1	1	0	0	1	1	1	6	1	0	1	8	51
PK2	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Bengeo	PR4	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK2	Public transport – Bus Service Improvement	IC18	Bus stop improvements in Bengeo	PR5	0	0	1	1	1	1	0	1	1	6	0	1	1	8	51
PK2	Junction Improvement - Highway	IC7	Old Cross Junction improvements	SM1	0	1	1	1	0	0	-1	0	0	2	1	0	0	3	313

PK2	Public transport – Bus Service Improvement	IC18	Bengeo bus connectivity improvements	SM2	0	0	1	1	0	1	1	0	1	5	-1	1	0	5	228
PK2	Policy - Sustainable transport upgrade/ plan	IC15	Walking and cycling connectivity to Hertford North station	SM3	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK2	Travel demand management - Speed limit review and improve active travel	IC21	Bengeo through traffic reduction	SM506	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK2	Walking and Cycling Network Improvement	IC22	Walking and cycling connectivity to Hertford town centre	SM507	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK3	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in the west of Hertford	PR10	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK3	Multi-modal interchange improvement	IC10	Hertford North interchange improvements	SM6	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173

PK3	Walking and Cycling Network Improvement	IC22	Walking and cycling routes and wayfinding in the west of Hertford	SM7	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK3	Public Transport - Bus Stop Upgrades	IC17	Welwyn Road bus measures	SM8	0	0	1	1	0	0	1	0	1	4	0	1	0	5	228
PK3	Highways Improvement	IC5	Traffic management in light of changes to the A414	SM9	1	1	1	1	0	0	-1	0	1	4	1	0	0	5	228
PK4	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Hertford town centre	PR13	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK4	Walking and Cycling Network Improvement	IC22	A414 north-south pedestrian permeability	PR15	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK4	Walking and Cycling Network Improvement	IC22	Hertford East walking and cycling connectivity	PR16	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18

PK4	Walking and Cycling Network Improvement	IC22	Mead Lane walking and cycling improvements	SM11	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK4	Policy - Sustainable transport upgrade/ plan	IC15	Marshgate Drive access arrangements	SM12	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK4	Policy - Sustainable transport upgrade/ plan	IC15	Pedestrianisation of Hertford town centre	SM14	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK5	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in the south of Hertford	PR20	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK5	Public transport – Bus Service Improvement	IC18	Bus stop improvements in the south of Hertford	PR21	0	0	1	1	1	1	0	1	1	6	0	1	1	8	51
PK5	Public transport – Bus Service Improvement	IC18	Bus connectivity to schools in the south of Hertford	SM17	0	0	1	1	0	1	1	0	1	5	-1	1	0	5	228
PK5	Policy - Marketing	IC12	Parking management in the south of Hertford	SM18	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326

PK5	Walking and Cycling Network Improvement	IC22	Walking and cycling improvements in the south of Hertford	SM19	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK6	Policy - Marketing	IC12	Promote available sustainable travel options in Hertford	PR24	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK6	Policy - Travel Plans	IC16	Hertford travel planning	PR27	0	0	1	1	0	1	1	1	1	6	-1	1	1	7	129
PK6	Public transport - Real Time Information	IC20	Real time information at bus stops in Hertford	PR28	0	0	1	0	0	0	0	0	1	2	0	1	1	4	273
PK6	Wayfinding/ Signage	IC23	Wayfinding - Hertford	PR30	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129
PK6	Policy - Sustainable transport upgrade/ plan	IC15	Hertford Sustainable Travel Improvements	SM22	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK6	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points in Hertford	SM23	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK6	Policy - Marketing	IC12	Parking management - Hertford	SM26	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326

PK6	Travel demand management - Speed limit review and improve active travel	IC21	Reduce speed limits in Hertford	SM29	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK7	Travel demand management - Speed limit review and improve active travel	IC21	Review speed limits in Ware Town Centre	SM530	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK7	Walking and Cycling Network Improvement	IC22	Ware Town Centre walking improvements	SM531	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK7	Multi-modal interchange improvement	IC10	Ware Town Centre public realm improvements	SM532	0	0	1	1	0	0	1	1	1	5	-1	1	0	5	228
PK7	Public transport – Bus Service Improvement	IC18	Ware Town Centre bus measures	SM533	0	1	1	1	0	0	0	1	0	4	0	1	1	6	173

PK8	Walking and Cycling Network Improvement	IC22	Wadesmill Road and High Street sustainable travel improvements	PR35	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK8	Highway Improvement - New road link	IC3	Link Road to development	SM31	1	1	1	1	0	0	-1	0	1	4	1	0	0	5	228
PK8	Public transport – Bus Service Improvement	IC18	Enhanced bus services to development	SM32	0	0	1	1	0	1	1	0	1	5	-1	1	0	5	228
PK8	Junction Improvements - walking and cycling/ new bridge	IC9	Walking and cycling improvements	SM33	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK8	Walking and Cycling Network Improvement	IC22	Wadesmill Road/High Street/Star Street bus corridor	SM37	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK8	Walking and Cycling Network Improvement	IC22	Wadesmill Road/High Street/Star Street bus measures	SM38	0	0	1	1	0	1	1	0	1	5	-1	1	0	5	228

PK9	Walking and Cycling Network Improvement	IC22	Watton Road pedestrian improvements	PR40	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK9	Walking and Cycling Network Improvement	IC22	Watton Road cycling provision	SM41	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK9	Walking and Cycling Network Improvement	IC22	Park Road walking and cycling provision	SM42	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK9	Public transport – Bus Service Improvement	IC18	Watton Road bus measures	SM43	0	0	1	1	0	1	1	0	1	5	-1	1	0	5	228
PK9	Walking and Cycling Network Improvement	IC22	Improved walking and cycling connectivity to Ware Town Centre	SM508	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK10	Wayfinding/ Signage	IC23	Wayfinding - Ware railway station to bus stops	PR44	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129
PK10	Walking and Cycling Network Improvement	IC22	Station Road pedestrian crossing improvements	PR45	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18

PK10	Public transport – Bus Service Improvement	IC18	Bus connectivity to Ware station	SM46	0	0	1	1	0	1	1	0	1	5	-1	1	0	5	228
PK10	Walking and Cycling Network Improvement	IC22	Improved walking and cycling connectivity to Ware Station	SM509	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK11	Policy - Marketing	IC12	Promote available sustainable travel options in Ware	PR49	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK11	Public transport – Bus Service Improvement	IC18	Bus stop improvements in Ware	PR53	0	0	1	1	0	0	0	1	1	4	0	1	1	6	173
PK11	Public transport - Real Time Information	IC20	Real time information at bus stops in Ware	PR54	0	0	1	0	0	0	0	0	1	2	0	1	1	4	273
PK11	Wayfinding/ Signage	IC23	Wayfinding – Ware	PR55	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129
PK11	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points - Ware	SM48	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK11	Policy - Marketing	IC12	Parking management in Ware	SM51	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326

PK12	Walking and Cycling Network Improvement	IC22	Waterford footway improvements	PR454	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK12	Wayfinding/ Signage	IC23	Waterford bus stop crossing	PR455	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129
PK13	Walking and Cycling Network Improvement	IC22	A119 pedestrian crossing improvements	PR60	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK13	Public Transport - Bus Stop Upgrades	IC17	Improved bus stop access at London Road/A414 junction	PR63	0	1	1	1	0	0	0	1	1	5	0	1	1	7	129
PK13	Policy - Marketing	IC12	Promote available sustainable travel options between Hertford and Ware	PR66	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK13	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Hertford and Ware	PR69	0	1	1	1	0	0	0	1	0	4	0	1	1	6	173
PK13	Public transport - Real Time Information	IC20	Real time information at bus stops between Hertford and Ware	PR71	0	1	1	0	0	0	0	0	1	3	0	1	1	5	228

PK13	Cycle Parking	IC2	Micromobility Parking and Charging Facilities between Hertford and Ware	PR72	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK13	Policy - Travel Plans	IC16	Reduce travel demand between Hertford and Ware	PR73	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK13	Wayfinding/ Signage	IC23	Wayfinding between Hertford and Ware	PR74	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129
PK13	Walking and Cycling Network Improvement	IC22	Hertford East interchange improvements	SM59	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK13	Walking and Cycling Network Improvement	IC22	A119 cycle safety improvements	SM61	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK13	Travel demand management - Speed limit review and improve active travel	IC21	Traffic management - north east development site in Ware	SM62	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228

PK13	Junction Improvements - walking and cycling/ new bridge	IC9	Walking and cycling junction improvements	SM64	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK13	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Hertford and Ware	SM65	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK13	Policy - Marketing	IC12	Parking management between Hertford and Ware	SM68	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326
PK14	Policy - Marketing	IC12	Promote available sustainable travel options between Stevenage and Hertford/Ware	PR78	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK14	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Stevenage and Hertford/Ware	PR82	0	1	1	1	0	0	0	1	0	4	0	1	1	6	173
PK14	Public transport - Real Time Information	IC20	Real time information at bus stops between Stevenage and Hertford/Ware	PR84	0	1	1	0	0	0	0	0	1	3	-1	1	1	4	273

PK14	Public transport – Bus Service Improvement	IC18	Improve bus provision between Stevenage and Hertford/Ware	SM83	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK15	Junction Improvement - Highway	IC7	Holwell Lane/A414 roundabout improvements	PR92	1	1	1	1	0	0	-1	0	0	3	1	0	1	5	228
PK15	Junction Improvement - Highway	IC7	A414/B195 Birchall Lane/ Cole Green Lane Roundabout improvements	SM86	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK15	Junction Improvement - Highway	IC7	A1(M) Junction 4 – ‘Jack Oldings’ roundabout improvement	SM87	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK15	Junction Improvement - Highway	IC7	A1(M) Junction 6 roundabout improvements	SM88	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK15	Junction Improvement - Highway	IC7	Comet Way/Wellfield Road junction signalisation	SM89	0	1	1	1	0	0	-1	0	0	2	1	0	0	3	313

PK15	Junction Improvement - Highway	IC7	Birchall Lane roundabout improvements	SM91	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK16	Policy - Marketing	IC12	Promote available sustainable travel options between Welwyn Garden City/Hatfield and Hertford/Ware	PR97	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK16	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Welwyn Garden City/Hatfield and Hertford/Ware	PR101	0	1	1	1	0	0	0	1	0	4	0	1	1	6	173
PK16	Public transport - Real Time Information	IC20	Real time information at bus stops between Welwyn Garden City/Hatfield and Hertford/Ware	PR103	0	1	1	0	0	0	0	0	1	3	-1	1	1	4	273

PK16	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Welwyn Garden City/Hatfield and Hertford/Ware	SM96	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK16	Policy - Sustainable transport upgrade/ plan	IC15	Parking management between Welwyn Garden City/Hatfield and Hertford/Ware	SM99	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326
PK16	Public transport – Bus Service Improvement	IC18	Improved bus provision between Welwyn Garden City/Hatfield and Hertford/Ware	SM102	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK17	Walking and Cycling Network Improvement	IC22	Broxbourne Towns east-west cycle connectivity	SM104	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51

PK18	Travel demand management - Speed limit review and improve active travel	IC21	Stanstead St Margarets traffic management	SM107	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK18	Travel demand management - Speed limit review and improve active travel	IC21	Manage through traffic in Stanstead St Margarets	SM108	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK19	Walking and Cycling Network Improvement	IC22	B181 pedestrian crossing facilities	PR109	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK19	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Stanstead Abbots and St Margarets	PR111	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2

PK19	Junction Improvement – bus	IC6	Bus priority measures - Stanstead Abbots and St Margarets	PR112	0	0	1	1	0	0	1	0	0	3	0	0	1	4	273
PK19	Policy - Marketing	IC12	Promote available sustainable travel options in Stanstead Abbots and St Margarets	PR115	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK19	Public transport – Bus Service Improvement	IC18	Bus stop improvements in Stanstead Abbots and St Margarets	PR119	0	0	1	1	0	0	0	1	1	4	0	1	1	6	173
PK19	Public transport - Real Time Information	IC20	Real time information at bus stops in Stanstead Abbots and St Margarets	PR121	0	0	1	0	0	0	0	0	1	2	0	1	1	4	273
PK19	Wayfinding/ Signage	IC23	Wayfinding - Stanstead Abbots and St Margarets	PR122	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129

PK19	Walking and Cycling Network Improvement	IC22	A1170 Great Amwell pedestrian crossing	PR501	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK19	Walking and Cycling Network Improvement	IC22	Stanstead St Margarets cycling improvements	SM110	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK19	Multi-modal interchange improvement	IC10	Interchange improvements - Stanstead Abbots and St Margarets	SM113	0	0	1	1	0	0	1	1	1	5	-1	1	0	5	228
PK19	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points in Stanstead Abbots and St Margarets	SM114	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK19	Walking and Cycling Network Improvement	IC22	Great Amwell A1170-B181 footway and cycle route upgrade	SM528	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK19	Walking and Cycling Network Improvement	IC22	New River Path Ware to Stanstead St Margarets upgrade	SM529	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18

PK20	Policy - Marketing	IC12	Promote available sustainable travel options between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	PR129	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK20	Public transport – Bus Service Improvement	IC18	Bus stop improvements between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	PR132	0	1	1	1	0	0	0	1	0	4	0	1	1	6	173
PK20	Public transport - Real Time Information	IC20	Real time information at bus stops between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	PR133	0	1	1	0	0	0	0	0	1	3	0	1	1	5	228
PK20	Walking and Cycling Network Improvement	IC22	A10/London Road junction improvements, Buntingford	SM123	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273

PK20	Public transport – Bus Service Improvement	IC18	A10 southbound dualling, south of Buntingford	SM124	1	1	1	1	0	0	-1	0	1	4	0	0	0	4	273
PK20	Public transport – Bus Service Improvement	IC18	Improved bus connectivity between Hertford and Bishop's Stortford	SM126	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK20	Public transport – Bus Service Improvement	IC18	Improved bus connectivity between Ware and Bishop's Stortford	SM127	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK20	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	SM128	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129

PK20	Policy - Marketing	IC12	Parking management between Bishop's Stortford/Sawbridgeworth/Harlow and Hertford/Ware	SM134	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326
PK21	Junction Improvements - Highway, walking and cycling	IC8	Amwell Roundabout improvement	SM125	1	1	1	1	0	0	-1	0	1	4	0	0	0	4	273
PK21	Policy - Sustainable transport upgrade/ plan	IC15	Improved sustainable transport provision between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	SM135	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK21	Policy - Marketing	IC12	Parking management between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	SM136	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326

PK21	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points between Bishop's Stortford/Sawbridgeworth/Harlow and Broxbourne Towns	SM140	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK21	Walking and Cycling Network Improvement	IC22	Stansted to Rye House strategic cycle route	SM525	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK22	Junction Improvement - Highway	IC7	Widening of River Stort Central crossing	SM141	1	1	1	1	0	0	-1	0	0	3	1	1	1	6	173
PK22	Highways Improvement	IC5	Edinburgh Way/Howard Way junction improvement	SM142	1	1	1	1	0	0	-1	0	1	4	1	0	0	5	228
PK22	Highways Improvement	IC5	Edinburgh Way/Retail Park junction improvement	SM143	1	1	1	1	0	0	-1	0	1	4	1	0	0	5	228
PK22	Highways Improvement	IC5	Gilston development access arrangements	SM144	0	1	1	1	0	0	-1	0	1	3	1	0	0	4	273

PK22	Junction Improvement - Highway	IC7	New River Stort crossing	SM510	0	1	1	1	0	0	-1	0	0	2	1	0	1	4	273
PK22	Junction Improvement - Highway	IC7	M11 Junction 7 upgrade	SM511	0	1	1	1	0	0	-1	0	0	2	1	0	1	4	273
PK23	Cycle Parking	IC2	Cycle parking at key destinations in Harlow	PR502	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK23	Walking and Cycling Network Improvement	IC22	North-south and east-west sustainable travel corridors	SM145	0	0	1	1	1	-1	1	1	1	5	1	1	0	7	129
PK23	Policy Parking management	IC14	Workplace parking levy	SM146	0	1	1	1	0	0	1	0	0	4	-1	1	0	4	273
PK23	Policy Parking management	IC14	Park and Ride	SM147	0	1	1	1	0	0	1	0	0	4	-1	1	0	4	273
PK23	Multi-modal interchange improvement	IC10	Harlow station access arrangements	SM148	1	1	1	1	0	0	0	1	1	6	-1	1	0	6	173
PK23	Walking and Cycling Network Improvement	IC22	Lea Valley/Harlow/Stansted cycle route	SM512	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK23	Public transport – Bus Service Improvement	IC18	Harlow Enterprise Zone rail accessibility	SM513	0	1	1	1	0	0	0	1	0	4	0	1	1	6	173

PK24	Walking and Cycling Network Improvement	IC22	Old A10 walking improvements	SM514	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK24	Walking and Cycling Network Improvement	IC22	Old A10 cycling improvements	SM515	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK24	Policy - Sustainable transport upgrade/ plan	IC15	Improved connectivity to Old A10 corridor	SM516	0	1	1	1	0	1	1	1	1	7	-1	1	0	7	129
PK25	Walking and Cycling Network Improvement	IC22	Pedestrian crossing improvements in Hoddesdon	PR151	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK25	Travel demand management - Speed limit review and improve active travel	IC21	Stanstead Road speed restrictions	SM149	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK25	Walking and Cycling Network Improvement	IC22	Hoddesdon North cycle routes	SM150	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK25	Walking and Cycling Network Improvement	IC22	Cycle safety improvements in Hoddesdon	SM152	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51

PK25	Public transport – Bus Service Improvement	IC18	Bus connectivity to Hoddesdon station and residential area in the north	SM153	1	0	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK25	Junction Improvement – bus	IC6	Bus priority measures - Hoddesdon	SM517	0	0	1	1	0	0	1	0	0	3	0	0	1	4	273
PK26	Walking and Cycling Network Improvement	IC22	Bell Lane quiet route	PR500	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK26	Wayfinding/ Signage	IC23	Wayfinding and cycle parking - Hoddesdon	SM161	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173
PK26	Junction Improvements - walking and cycling/ new bridge	IC9	Charlton Way at-grade crossings	SM162	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK26	Walking and Cycling Network Improvement	IC22	Lord Street foot and cycle improvements	SM163	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18

PK26	Walking and Cycling Network Improvement	IC22	Charlton Way walking and cycling improvements	SM518	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK26	Walking and Cycling Network Improvement	IC22	Dinant Link Road walking and cycling improvements	SM519	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK26	Walking and Cycling Network Improvement	IC22	Haslewood Avenue walking and cycling improvements	SM520	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK26	Walking and Cycling Network Improvement	IC22	Essex Road to Rye House walking and cycling improvements	SM522	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK27	Wayfinding/ Signage	IC23	Wayfinding - Brookfield Lane footbridge	PR191	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129
PK27	Junction Improvements - walking and cycling/ new bridge	IC9	Signalised pedestrian/cycling crossing on Brookfield Lane West	PR192	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2

PK27	Walking and Cycling Network Improvement	IC22	Longfield Lane to Brookfield Riverside cycle route	SM188	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK27	Walking and Cycling Network Improvement	IC22	New River off-road walking and cycling route	SM189	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK27	Walking and Cycling Network Improvement	IC22	Active mode route improvements to New River tunnel beneath A10, Turnford	SM193	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK27	Walking and Cycling Network Improvement	IC22	Halfhide Lane walking and cycling route	SM195	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK27	Walking and Cycling Network Improvement	IC22	Walking and cycling routes to Brookfield development	SM196	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK27	Public transport – Bus Service Improvement	IC18	Brookfield Lane West/Halfhide Lane bus service provision	SM197	0	0	1	1	0	1	1	0	1	5	-1	1	0	5	228

PK27	Highway Improvement - New road link	IC3	Turnford Link Road	SM430	1	1	1	1	0	0	-1	0	1	4	1	0	0	5	228
PK27	Highway Improvement - New road link	IC3	Garden Village Distributor Road	SM432	0	1	1	1	0	0	-1	0	1	3	1	0	0	4	273
PK27	Junction Improvement - Highway	IC7	Brookfield junction improvements	SM433	0	1	1	1	0	0	-1	0	0	2	1	0	0	3	313
PK28	Public Transport - Bus Stop Upgrades	IC17	Waltham Cross bus station shelters	PR392	0	1	1	1	0	0	0	1	1	5	0	1	1	7	129
PK28	Multi-modal interchange improvement	IC10	Improved accessibility to stations	SM165	1	1	1	1	0	0	1	1	1	7	0	0	0	7	129
PK28	Junction Improvement – bus	IC6	A1170 bus priority measures	SM166	0	0	1	1	0	0	1	0	0	3	0	0	0	3	313
PK28	Junction Improvement – bus	IC6	Improved access to Broxbourne station	SM167	1	1	1	0	0	0	1	0	0	4	0	0	0	4	273
PK28	Public transport – Bus Service Improvement	IC18	Review bus services to Broxbourne station	SM168	1	0	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK28	Public transport – Bus Service Improvement	IC18	High Leigh to Broxbourne bus service	SM384	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173

PK28	Public transport – Bus Service Improvement	IC18	Park Plaza to Waltham Cross Station bus service	SM386	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK28	Public transport – Bus Service Improvement	IC18	Re-routing of the bus	SM387	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK28	Public Transport - Bus Stop Upgrades	IC17	Broxbourne bus stop upgrades	SM390	0	1	1	1	0	0	0	1	1	5	0	1	0	6	173
PK28	Public transport - Real Time Information	IC20	Real time bus information	SM394	0	1	1	0	0	0	0	0	1	3	0	1	0	4	273
PK28	Policy Ticketing	IC13	Broxbourne integrated ticketing	SM396	0	1	1	1	0	1	1	1	1	7	-1	1	0	7	129
PK28	Walking and Cycling Network Improvement	IC22	Cheshunt Station to bus stop route improvements	SM402	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK29	Public transport – Bus Service Improvement	IC18	Waltham Cross to Park Plaza bus service	SM169	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK29	Walking and Cycling Network Improvement	IC22	Waltham Cross to Park Plaza cycle route	SM170	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51

PK29	Junction Improvements - walking and cycling/ new bridge	IC9	Park Lane bridge	SM409	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK29	Junction Improvements - walking and cycling/ new bridge	IC9	Park Plaza bridge	SM410	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK29	Junction Improvement - Highway	IC7	A10 junction improvements	SM423	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK29	Junction Improvement - Highway	IC7	A10/A121 junction improvements	SM424	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK29	Junction Improvement - Highway	IC7	Lieutenant Ellis Way junction	SM425	0	1	1	1	0	0	-1	0	0	2	1	0	0	3	313
PK30	Junction Improvement - bus	IC6	Broxbourne Station access improvements	PR393	1	1	1	0	0	0	1	0	0	4	0	0	1	5	228
PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Dinant Link Road/Essex Road roundabout improvements	PR398	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2

PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Dinant Link Road/Amwell Street junction improvements	PR400	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK30	Walking and Cycling Network Improvement	IC22	Lord Street widened footway	PR401	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK30	Junction Improvement - Highway	IC7	Church Lane/High Street Cheshunt roundabout improvements	PR428	0	1	1	1	0	0	-1	0	0	2	1	0	1	4	273
PK30	Junction Improvement - Highway	IC7	Church Lane / Flamstead End Road roundabout improvements	PR429	0	1	1	1	0	0	-1	0	0	2	1	0	1	4	273
PK30	Junction Improvements - Highway, walking and cycling	IC8	Goffs Lane Reconfiguration	PR435	0	1	1	1	0	0	1	1	1	6	1	0	1	8	51
PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Hertford Road/Ware Road roundabout improvements	PR438	0	1	1	1	0	0	-1	0	0	2	1	0	1	4	273

PK30	Junction Improvements - walking and cycling/ new bridge	IC9	Dinant Link Road/Ware Road roundabout improvements	PR453	0	1	1	1	0	0	-1	0	0	2	1	0	1	4	273
PK30	Junction Improvement - Highway	IC7	Junction signalisation	SM171	0	1	1	1	0	0	-1	0	0	2	1	0	0	3	313
PK30	Junction Improvement - Highway	IC7	Church Lane/High Street junction improvement	SM172	0	1	1	1	0	0	-1	0	0	2	1	0	0	3	313
PK30	Junction Improvement - Highway	IC7	College Road / A10 junction improvements	SM426	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK30	Junction Improvement - Highway	IC7	Church Lane / A10 junction improvements	SM427	1	1	1	1	0	0	-1	0	0	3	1	0	0	4	273
PK30	Wayfinding/ Signage	IC23	Update network signage	SM455	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173
PK30	Highway Improvement - New road link	IC3	New A10 secondary school access	SM456	1	1	1	1	0	0	-1	0	1	4	1	0	0	5	228
PK31	Walking and Cycling Network Improvement	IC22	Charlton Way walking and cycling improvements	PR399	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18

PK31	Junction Improvements - walking and cycling/ new bridge	IC9	Old Pond Junction Improvements	PR403	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK31	Highways Improvement	IC5	New River Path improvements	SM174	0	1	1	1	0	0	0	1	1	5	1	0	0	6	173
PK31	Walking and Cycling Network Improvement	IC22	Hoddesdon to Waltham Cross cycle route	SM175	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK31	Wayfinding/ Signage	IC23	Wayfinding - Broxbourne School	SM176	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173
PK31	Walking and Cycling Network Improvement	IC22	Waltham Cross Town Centre Improvements	SM178	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK31	Walking and Cycling Network Improvement	IC22	New River cycling improvements	SM180	1	0	1	1	0	1	1	1	1	7	1	1	0	9	18
PK31	Walking and Cycling Network Improvement	IC22	Windmill Lane walking and cycling improvements	SM181	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51

PK31	Junction Improvements - walking and cycling/ new bridge	IC9	A10/Church Lane junction improvement	PR182	1	0	1	1	1	1	1	1	1	8	1	1	1	11	1
PK31	Walking and Cycling Network Improvement	IC22	Core Walking Zones - Hoddesdon, Waltham Cross, Cheshunt Old Pond and Brookfield	SM183	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK31	Junction Improvement – bus	IC6	A121 Monarchs Way- Eleanor Cross Road (KFC) Roundabout improvements for buses	SM184	0	1	1	1	0	0	1	1	1	6	1	0	0	7	129
PK31	Walking and Cycling Network Improvement	IC22	Broxbourne cycle network improvements	SM404	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK31	Wayfinding/ Signage	IC23	Broxbourne signage upgrades	SM405	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173

PK31	Walking and Cycling Network Improvement	IC22	Broxbourne routing improvements (use of A10 for walking/cycling)	SM406	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK31	Walking and Cycling Network Improvement	IC22	Broxbourne crossing improvements	SM411	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK31	Highways Improvement	IC5	Provision of cycle parking	SM459	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK32	Junction Improvements - walking and cycling/ new bridge	IC9	A10/Church Lane at-grade crossing	PR209	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK32	Policy - Sustainable transport upgrade/ plan	IC15	Cheshunt station area improvements	SM210	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK32	Walking and Cycling Network Improvement	IC22	Haileybury Turnford School walking and cycle connectivity	SM211	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK32	Walking and Cycling Network Improvement	IC22	New River cycle route	SM212	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51

PK32	Walking and Cycling Network Improvement	IC22	Windmill Lane walking, cycling and public realm improvements	SM213	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK32	Wayfinding/ Signage	IC23	Forest Way/Roundmoor Drive wayfinding	SM214	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173
PK32	Walking and Cycling Network Improvement	IC22	B176 pedestrian/cycle improvements	SM215	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK32	Highway, Walking and Cycling Network Improvement	IC4	Turners Hill/Church Lane junction improvements	SM216	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18
PK32	Cycle Parking	IC2	Old Pond enhancements	SM217	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK32	Walking and Cycling Network Improvement	IC22	A10/College Road reconfiguration	SM218	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51

PK32	Walking and Cycling Network Improvement	IC22	Improvements to pedestrian and cycle facilities along Flamstead End Road and Churchgate	SM219	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK33	Walking and Cycling Network Improvement	IC22	Pedestrian crossing improvements - Theobalds Grove station	PR233	1	0	1	1	0	1	1	1	1	7	1	1	1	10	2
PK33	Cycle Parking	IC2	Cycle hub - Waltham Cross station	PR225	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK33	Walking and Cycling Network Improvement	IC22	New River walking and cycling route	SM220	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK33	Walking and Cycling Network Improvement	IC22	A10 walking and cycling bridges	SM221	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK33	Junction Improvements - walking and cycling/ new bridge	IC9	A121/Monarchs Way (Fishpools) Roundabout reconfiguration	SM222	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18

PK33	Walking and Cycling Network Improvement	IC22	Eleanor Cross Road cycle route extension	SM226	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK34	Policy - Travel Plans	IC16	Workplace travel planning	SM253	0	0	1	1	0	1	1	1	1	6	-1	1	0	6	173
PK34	Policy - Travel Plans	IC16	Station travel planning	SM254	0	0	1	1	0	1	1	1	1	6	-1	1	0	6	173
PK34	Policy - Travel Plans	IC16	School travel planning	SM255	0	0	1	1	0	1	1	1	1	6	-1	1	0	6	173
PK34	Policy - Travel Plans	IC16	Personalised journey planning	SM256	0	0	1	1	0	1	1	1	1	6	-1	1	0	6	173
PK34	Policy - Marketing	IC12	Broxbourne Towns communications strategy for transport interventions	SM257	0	1	1	1	0	1	1	1	1	7	-1	1	0	7	129
PK34	Policy - Travel Plans	IC16	Car share scheme	SM258	0	0	1	1	0	1	1	1	1	6	-1	1	0	6	173
PK34	Walking and Cycling Network Improvement	IC22	Broxbourne Towns School Safety Zones	SM259	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK35	Policy Parking management	IC14	Parking management at stations	SM261	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326
PK35	Policy Parking management	IC14	Residents parking permit schemes	SM262	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326

PK35	Policy Electric Vehicle Charging Points	IC11	Broxbourne Towns electric vehicle charging points	SM263	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK36	Walking and Cycling Network Improvement	IC22	Hammond Street and Goffs Oak area pedestrian crossings	PR206	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK36	Walking and Cycling Network Improvement	IC22	Rosendale Park to Longfield Lane cycle route	SM199	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK36	Walking and Cycling Network Improvement	IC22	Goffs Academy cycle connectivity	SM200	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK36	Walking and Cycling Network Improvement	IC22	Rosendale Park at-grade crossings	SM201	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK36	Junction Improvements - walking and cycling/ new bridge	IC9	School walking and cycling connectivity	SM202	0	0	1	1	1	1	1	1	1	7	1	1	0	9	18

PK36	Travel demand management - Speed limit review and improve active travel	IC21	Restrict access to Andrews Lane	SM203	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK36	Walking and Cycling Network Improvement	IC22	Rosendale Park walking and cycling connectivity	SM204	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK36	Walking and Cycling Network Improvement	IC22	Hammond Street and Goffs Oak area cycle facilities	SM207	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK36	Policy - Sustainable transport upgrade/ plan	IC15	Hammond Street and Goffs Oak area bus services	SM208	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK36	Travel demand management - Speed limit review and improve active travel	IC21	Reduce speed limits in the Hammond Street area	SM209	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228

PK37	Junction Improvements - walking and cycling/ new bridge	IC9	Newgatestreet Road pedestrian crossing	PR238	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK37	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Cuffley	PR241	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK37	Wayfinding/ Signage	IC23	Wayfinding - Cuffley	PR242	0	0	1	0	0	0	1	1	1	4	1	1	1	7	129
PK37	Wayfinding/ Signage	IC23	Wayfinding - Jones Road/Silver Street leisure route	SM235	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173
PK37	Junction Improvements - walking and cycling/ new bridge	IC9	Goffs Oak walking and cycling enhancements	SM236	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK37	Wayfinding/ Signage	IC23	Wayfinding - Andrews Lane leisure route	SM237	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173
PK37	Wayfinding/ Signage	IC23	Wayfinding - Goffs Oak village centre and Woodside Primary School	SM239	0	0	1	0	0	0	1	1	1	4	1	1	0	6	173

PK37	Travel demand management - Speed limit review and improve active travel	IC21	Reduced speed limits - Goffs Oak and Cuffley	SM240	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK38	Walking and Cycling Network Improvement	IC22	Walking and cycling route between stations in Goffs Oak and Cuffley	SM243	1	0	1	1	0	1	1	1	1	7	1	1	0	9	18
PK38	Walking and Cycling Network Improvement	IC22	Cuffley station crossing improvements	PR244	1	0	1	1	0	1	1	1	1	7	1	1	1	10	2
PK38	Public transport – Bus Service Improvement	IC18	Cuffley station bus service enhancement	SM245	1	0	1	1	0	1	1	0	1	6	-1	1	0	6	173
PK38	Multi-modal interchange improvement	IC10	Cuffley Station bus interchange improvements	SM246	0	0	1	1	0	0	1	1	1	5	-1	1	0	5	228
PK38	Policy - Sustainable transport upgrade/ plan	IC15	Improved ticketing experience - Cuffley	SM247	0	1	1	1	0	1	1	1	1	7	-1	1	0	7	129

PK39	Policy - Marketing	IC12	Promote available sustainable travel options in Cuffley	PR250	0	1	1	1	0	1	1	1	1	7	-1	1	1	8	51
PK39	Policy Electric Vehicle Charging Points	IC11	Electric vehicle charging points - Cuffley	SM249	0	1	1	1	0	1	1	0	0	5	1	1	0	7	129
PK39	Policy - Marketing	IC12	Parking management in Cuffley	SM251	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326
PK40	Walking and Cycling Network Improvement	IC22	Improved pedestrian and cycling connections to Enfield	SM264	0	1	1	1	0	0	1	1	1	6	1	1	0	8	51
PK40	Policy - Marketing	IC12	Parking management between Broxbourne Towns and Enfield	SM266	0	0	0	1	0	0	1	0	0	2	-1	1	0	2	326
PK40	Policy - Sustainable transport upgrade/ plan	IC15	Improved bus and rail service links between Broxbourne Towns and Enfield	SM267	0	1	1	1	0	0	1	1	1	6	-1	1	0	6	173
PK40	Public transport – Bus Service Improvement	IC18	Improved bus provision between Broxbourne Towns and Enfield	SM268	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173

PK10 / PK11	Cycle Parking	IC2	Micromobility Parking and Charging Facilities in Ware	PR47	0	0	1	1	1	1	1	1	1	7	1	1	1	10	2
PK24 / PK31	Walking and Cycling Network Improvement	IC22	B176 walking and cycling improvements	SM179	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK24 / PK27	Walking and Cycling Network Improvement	IC22	A1170/B176 walking and cycling junction improvements	SM190	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51
PK24 / PK34	Travel demand management - Speed limit review and improve active travel	IC21	A1170 (Old A10)-20mph speed limit	SM260	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK27 / PK28	Public transport – Bus Service Improvement	IC18	Waltham Cross Station to Brookfield bus service	SM385	0	1	1	1	0	1	1	0	1	6	-1	1	0	6	173

PK8 / PK9	Travel demand management - Speed limit review and improve active travel	IC21	Review speed limits	SM39	0	0	0	1	0	1	0	1	1	4	0	1	0	5	228
PK24 / PK28	Junction Improvement – bus	IC6	Selective Vehicle Detection systems	SM391	0	0	1	1	0	0	1	0	0	3	0	0	0	3	313
PK13 / PK15	Walking and Cycling Network Improvement	IC22	Cole Green Way to A1000 and Hatfield town centre	SM523	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK3 / PK4	Walking and Cycling Network Improvement	IC22	A414 Hertford footway and cycle route improvements	SM524	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK17 / PK20	Walking and Cycling Network Improvement	IC22	Rush Green Roundabout pedestrian and cycle crossings	SM527	0	0	1	1	0	1	1	1	1	6	1	1	1	9	18
PK13 / PK17	Junction Improvement – bus	IC6	A119 and A414 bus priority measures	SM58	0	0	1	1	0	0	1	0	0	3	0	0	0	3	313
PK13 / PK16	Walking and Cycling Network Improvement	IC22	National Cycle Network 61 improvements	SM94	0	0	1	1	0	1	1	1	1	6	1	1	0	8	51

