## HERTFORDSHIRE COUNTY COUNCIL

### LOCAL TRANSPORT PLAN 3 2011-2031

# VOLUME 3 LOCAL TRANSPORT PLAN IMPLEMENTATION PLAN

**April 2011** 

Environment & Commercial Services 01992 588618 www.hertsdirect.org/ltp



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#### 1. Introduction

The Implementation Plan forms part of the wider Local Transport Plan (LTP) for Hertfordshire. It sets out the programme of schemes that the County Council and its partners intend to deliver over the initial two year period (2011/12 – 2012/13) of the 20 year LTP timescale, and gives an indication of the major schemes and programmes that may be delivered over the 20 year plan period.

The full Local Transport Plan can be found on the County Council's website at www.hertsdirect.org/ltp. This sets out the overall transport goals and challenges which are to be addressed by the programme of schemes and interventions.

The funding for 2010/11 suffered an in-year cut in June 2010, and significant changes to available spending levels in the future have resulted from the Government's Comprehensive Spending Review announced in October 2010. The funding levels assumed for this document are based on current budgets.

#### 2. Challenges and Targets

The schemes set out in this Implementation Plan are designed to help deliver the transport objectives and targets set by the County Council. These are covered in detail in Volume 1 of the Local Transport Plan, and are summarised below.

#### 2.1 Challenges

The Local Transport Plan has 13 challenges which are a local interpretation of national objectives. The challenges are:

- Keep the county moving through efficient management of the road network to improve journey time, reliability and resilience and manage congestion to minimise its impact on the economy.
- Support economic growth and new housing development through delivery of transport improvements and where necessary enhancement of the network capacity
- Improve accessibility for all and particularly for non car users and the disadvantaged (disabled, elderly, low income etc).
- Achieve a behavioural change as regards choice of transport mode increasing awareness of the advantages of walking, cycling and public transport, and of information on facilities and services available.
- Achieve further improvements in the provision of public transport (bus and rail services) to improve accessibility, punctuality, reliability and

transport information in order to provide a viable alternative for car users

- Improve journey experience for transport users in terms of comfort, regularity and reliability of service, safety concerns, ability to park and other aspects to improve access
- Improve the health of individuals by encouraging and enabling more physically active travel and access to recreational areas and through improving areas of poor air quality which can affect health.
- Maintain and enhance the natural, built and historic environment managing the streetscape and improving integration and connections of streets and neighbourhoods and minimising the adverse impacts of transport on the natural environment, heritage and landscape.
- Reduce the impact of transport noise especially in those areas where monitoring shows there to be specific problems for residents.
- Improve road safety in the county reducing the risk of death and injury due to the traffic accidents.
- Reduce crime and the fear of crime on the network to enable users of the network to travel safely and with minimum concern over safety so that accessibility is not compromised.
- Reduce greenhouse gas emissions from transport in the county to meet government targets through the reduction in consumption of fossil fuels.
- Design new infrastructure and the maintenance of the existing network in the light of likely future constraints and threats from changing climate, including the increasing likelihood of periods of severe weather conditions.

#### 2.2 Targets

Twenty year targets (covering the lifespan of the Local Transport Plan) have been set to ensure that progress is being made towards the challenges. The targets are set out in Table 1.

Table 1 20 Year Targets

Indicator	Actual 2009/10	2015/16	2020/21	2025/26	2030/31
NI 167 Congestion	2.87min s / mile	2.80m/mile	2.75m/mile	2.70m /mile	2.65m/mile
NI 168 % local authority principal road networks where structural maintenance should be considered	6%	No more than 6%	No more than 6%	No more than 6%	No more than 6%
NI 169 % non-principal road network where structural maintenance should be considered	11%	No more than 9%	No more than 9%	No more than 9%	No more than 9%
% Unclassified Road network where structural maintenance should be considered	13%	No more than 13%	No more than 13%	No more than 13%	No more than 13%
% of category 1, 1a and 2 Footway network where structural maintenance should be considered	26%	26%	26%	26%	26%
Accessibility of new developments – % of new developments within 30 minutes by public transport of key services	97%	>90%	>90%	>90%	>90%
NI 175 Accessibility- Percentage of people who find it easy to travel to key services	89%	91%	93%	93%	93%
% of all journeys by walking under 1 miles in length	58.9%	64%	68%	73%	77%
% of all journeys by cycling under 3 miles in length	2.7%	3%	5%	8%	11%

NI 177 Public Transport Patronage	35.4 million	36m	37m	39m	41m
NI 178 Bus punctuality	82.5%	90%	91%	91%	91%
User satisfaction with local bus services	78%	80%	82%	84%	85%
User satisfaction with Passenger Transport information	84%	85%	86%	87%	88%
NI 198 Mode share of sustainable school journeys (Aged 5-10 years)	61.7%	65%	67.5%	70%	72%
NI 198 Mode share of sustainable school journeys (Aged 11-16 years)	78.1%	78%	78%	78%	78%
Air Quality- Mean roadside Nitrogen Dioxide levels across the county	33 ug/m <sup>3</sup>	25 ug/m <sup>3</sup>	22 ug/m <sup>3</sup>	18 ug/m <sup>3</sup>	16 ug/m <sup>3</sup>
ROW - % of the total length of footpaths and other rights of way that were easy to use by members of the public	78%	74%	70%	70%	70%
Speed limit compliance – % compliance with speed limits	81%	82%	83%	84%	85%
NI 47 People Killed and Seriously Injured	413	no more than 413	no more than 413	no more than 413	no more than 413
NI 48 Children Killed and Seriously Injured	42	no more than 42	no more than 42	no more than 42	no more than 42
Total crimes per 100,000 passenger journeys at rail stations in Hertfordshire	1.62	1.62	1.62	1.62	1.62
Transport related CO <sub>2</sub> emissions per capita (Government statistics)	Not available	1.35 tns	1.27 tns	1.20 tns	1.13 tns

The Implementation Plan will be the mechanism to review the targets in the light of funding changes or other unforeseen significant influences.

#### 3. Scheme Identification

The majority of schemes will be identified through the rolling programme of urban transport plans, with the aim that all major settlements have a plan that is no more than five years old. The programme is set out in Table 2 below.

The aim of the urban transport plan process is to provide a clear definitive list of transport issues in each area and where possible the potential solutions and improvements to address them.

Schemes that fall outside of the urban areas will be identified by the planned programme of inter-urban route strategies or through other local processes. The Rural Strategy will set out the approach to delivering schemes in rural areas. This will be supported by data-led programmes (including carriageway maintenance, safety engineering and rights of way improvements) where schemes are identified through analysis of the whole network.

Major schemes (those costing more than £5 million) will be identified through urban transport plans, inter-urban route strategies and the planning system, but are only likely to be delivered when funded through new development.

The Local Transport Plan schemes, however they are identified, are prioritised against the challenges and targets. Details of this process are set out in the Highways and Transport Guidance Notes Programme Entry Volume 1 and 2 documents available on www.hertsdirect.org.

In addition to the schemes developed to meet specific LTP targets, the emerging localism agenda is likely to see an increase in demand for small scale schemes that are designed in response to community needs. This would include schemes for areas outside those covered by the urban transport plans.

Table 2: Urban Transport Plans – Endorsement and future renewal timescales

Towns	Date endorsed	Proposed renewal	Level of detail
Footows Houte in a Diabour's Otoutfound and	A = ::1 0007	date	Detailed for DC and basis
Eastern Herts inc Bishop's Stortford and	April 2007	April 2011	Detailed for BS and basic
Sawbridgeworth			for SBworth
Letchworth/Baldock	July 2007	April 2011	Detailed
West Herts inc Tring and Berkhamsted	March 2007	April 2012	Basic
Elstree & Borehamwood	July 2007	April 2012	Basic
St Albans	April 2009	April 2014	Detailed
Welwyn Garden City	January 2008	April 2014	Basic
Hatfield	January 2008	April 2014	Basic
London Colney	April 2009	April 2014	Basic
South West Herts	November 2008	April 2014	Basic
Hemel Hempstead	January 2009	April 2015	Detailed
Stevenage	September 2010	April 2016	Detailed
Harpenden	September 2011	April 2017	Basic
Royston	May 2010	April 2015	Basic
Cheshunt / Waltham Cross	September 2010	April 2016	Basic
Hitchin	March 2011	April 2016	Detailed
Hertford and Ware	November 2010	April 2016	Basic
Potters Bar	September 2011	April 2017	Basic
Hoddesdon / Broxbourne	September 2011	April 2017	Basic

#### 4. Financial Information

Funding for transport schemes comes from a variety of sources, including the following:

- Government LTP Capital Funding
- Grants (e.g. Lottery funding)
- Contributions from third parties (e.g. SUSTRANS)
- Developer Contributions (S106)
- County capital
- County revenue

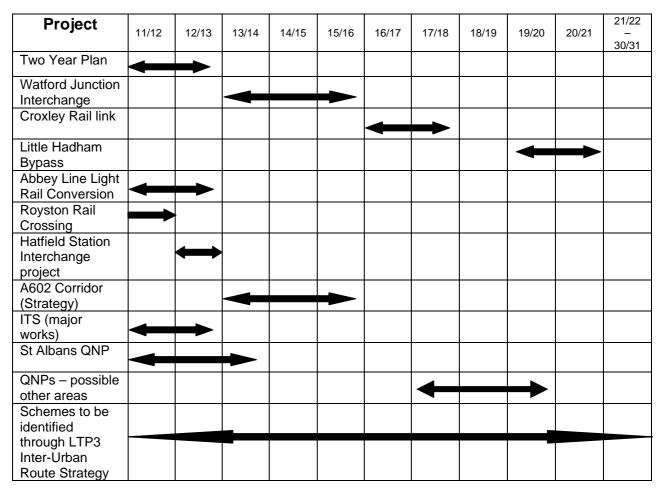
The level of funding available for the two-year programme (2011/12 and 2012/13) has been reviewed following in-year cuts from Government in 2010/11, future Government funding levels set out in the Comprehensive Spending Review 2010, and a review of the County Council's priorities.

At present, programmes are based on a working assumption of total programme values (County Council and external funding) of £56 million for 2011/12 and £52 million (County Council and external funding) for 2012/13. These values include the maintenance programme.

#### 5. Twenty Year Programme

The list of intended schemes to be carried out over the 20 year period details long term projects and schemes (Figure 1).

Figure 1 Twenty Year Programme



Schemes for the second half of the programme (2021/22 – 2030/31) will emerge once national priorities and funding mechanisms become clear, and as district Local Development Frameworks setting out future land use patterns are completed. It is expected that the developing Local Enterprise Partnerships will also influence future transport proposals.

Other schemes, such as park and ride schemes, new interchanges and potentially new road links and bypasses, will be considered during the plan period where they are thought appropriate to meet the pressures from development. Funding would need to be made available for these schemes and this would commonly be through contributions from developers. One such road link currently under consideration is the NE Hemel Hempstead Relief Road.

#### 6. Major Schemes

Major schemes are classified as those costing over £5 million. Given current Government funding levels, it is probable that only a very limited number of Major schemes will be funded during LTP3.

The three main schemes currently being developed are as follows:

#### 6.1 Croxley Rail Link

The Croxley Rail Link is the proposed extension of the London Underground Metropolitan line from Croxley, to Watford Junction via Watford High Street. The proposals include the construction of a 400 m viaduct to connect the existing Metropolitan line to the currently disused Croxley Green Branch Line, with the provision of two new stations. Ascot Road station will serve the local community and provide a valuable new transport link for businesses in the area. A second station will be sited to serve the existing Watford Hospital, the football ground and the planned Health Campus. The existing Watford Metropolitan line station will be closed.

The overall aim of the project is to improve east-west links in Watford, thereby supporting economic development and helping to reduce the strain on Watford's busy road network. It also provides better links with north-west and central London.

The County Council is starting the preparation work on the designs with a view to progressing down the appropriate planning permission channel, known as a Transport and Works Act Order, to gain the necessary powers to construct the scheme.

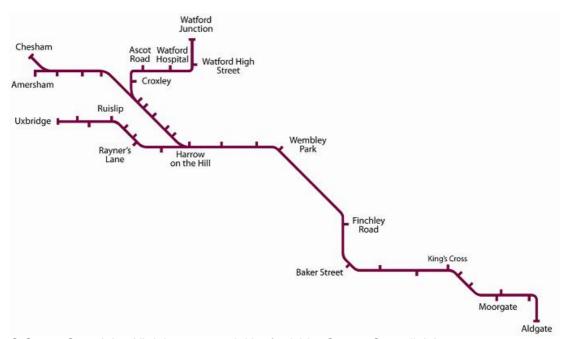


Figure 2 Proposed Metropolitan Line Route Map

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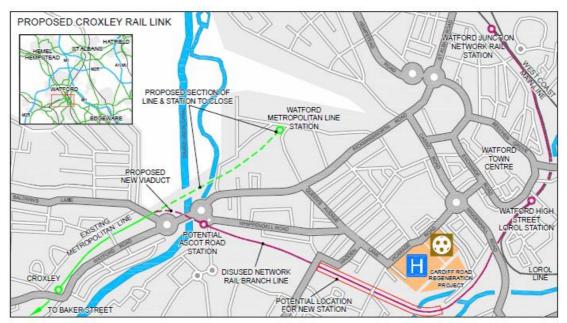


Figure 3 - Croxley Rail Link – General Scheme Outline

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The Croxley Rail Link scheme was included in both the previous LTPs and remains an existing priority, having been developed over a number of years. The scheme is outlined in the Watford Borough Council's District Plan, and was recently identified in the London Mayor's Transport Strategy as an important improvement to the London Underground network.

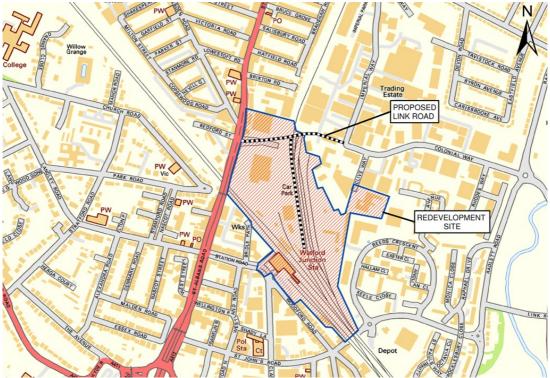
#### 6.2 Watford Junction Interchange

The County Council, Watford Borough Council and a number of landowners have been developing a plan for the comprehensive regeneration of the wider Watford Junction area, to include the delivery of the interchange scheme. The interchange scheme itself will provide a new, high quality, passenger interchange at Watford Junction rail station, including additional car parking on the eastern side of the station accessed via a new link road connecting Colonial Way with St Albans Road.

By providing more direct access from the primary route network the scheme will alleviate existing traffic congestion in the immediate vicinity of Watford Junction and within the wider area, thereby benefiting bus operations at the station as well as on the approaches to it.

The comprehensive regeneration emerged as a result of the initial development proposals which require the construction of a link road between Colonial Way and St Albans Road. In discussion with the landowners, a revised route has now been put forward which allows for the delivery of the link road and the comprehensive redevelopment of the wider site.

Figure 4 Watford Junction Interchange – General Scheme Outline
This plan shows the band of interest for Land Charge Search purposes only. The centre-line
is notional and does not indicate a County Council approved route or commit the County
Council to construct the scheme.



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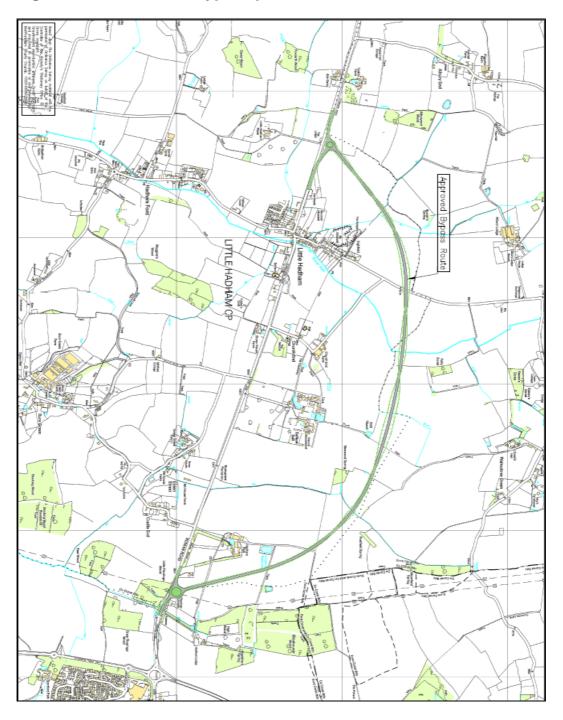
Public funding is still required to ensure delivery of the station access and interchange elements which also unlock the regeneration site. In turn, the mixed development elements will need to continue to generate funding for the land rehabilitation from old railway sidings and for the major station refurbishment.

#### 6.3 Little Hadham Bypass

The Little Hadham Bypass on the A120 will relieve congestion at a signalised junction in the village on the Primary Route Network. This will reduce traffic levels moving through the village, thereby reducing severance and accidents, and improving air quality and noise conditions. The road will be single carriageway in keeping with the standard of the current route.

The County Council has an agreed preferred route for the scheme. When funding opportunities emerge, the next stage will be to develop a business case and undertake more detailed economic and environmental evaluations.





#### 7. Other Significant named Projects/Programmes

There are a number of projects and programmes which do not fall under the major schemes category but still form an important part of delivering the Local Transport Plan. The costs and complications of these schemes require longer term planning than for the smaller schemes. Schemes include:

#### 7.1 Abbey Line Light Rail Conversion

Hertfordshire County Council and the Department for Transport are seeking to increase the frequency of services on the local rail line between Watford Junction and St Albans Abbey stations (the 'Abbey Line'). The line is currently single track, and the cost of providing a passing loop under a heavy rail regime would be disproportionate to the increase in revenue.

The proposal is to convert the Abbey Line to light rail operation, which will allow track improvements to be made to light rail rather than heavy rail standards. This will bring significant benefits to the travelling public; in particular a more frequent service and a 'clockface' timetable that is easier to remember.

The new services will use the same railway track and overhead power lines as the existing service. It will need different vehicles, which will have to be procured, and potentially some modifications to the line's infrastructure and power supply.

The intention is that services between Watford Junction and St Albans should run at least half-hourly. However, it may be possible to run them even more frequently than that, and/ or with extended operating hours.

The potential to extend the line to Watford and St Albans town centres will be considered during the plan period.

#### 7.2 Royston Rail Crossing

The Great Northern Line London-Cambridge branch in Royston is recognised as a significant barrier to pedestrians and cyclists travelling between the north and south of the town. Provision of a new crossing will assist in reducing severance for local residents; provide safe, high quality routes for pedestrians, cyclists and the mobility impaired.

Subject to the ratification of the compulsory purchase order, preparatory work could start in late 2010/11, with main construction in 2011/12.

#### 7.3 Hatfield Interchange Project

Work is ongoing to establish whether an interchange facility at Hatfield Rail Station benefiting all modes is workable in the current land available. This study will be completed during 2011 / 2012. If a scheme is workable, design and consultation work will continue. If it is deemed that further third party land is required, the County Council will review what options can be taken forward in the future, particularly in terms of land availability.

#### 7.4 A602 Corridor Strategy - Ware to Stevenage Improvements

Improvements to the A602 Ware to Stevenage road will be made as part of the A602 corridor strategy.

The A602 forms part of the Primary Route Network in Hertfordshire, providing an east - west link between the A10 Great Cambridge Road in Ware and the A1(M) Motorway in Stevenage, as well as between the A414 and the A1(M). It is the main route between Hertford, Ware and Stevenage and is predominantly a rural single carriageway, except through the urban area of Stevenage where it widens to dual two-lane carriageway.

The strategy for the corridor recognises the need to upgrade the route to an acceptable standard. The proposed improvements are designed to provide a higher quality link, to a consistent standard throughout, thereby delivering a higher service level to the public and providing a safer and more reliable corridor appropriate for a principal route on the network.

Detailed proposals are being developed, and the first phase has been developed in detail, but delivery will be subject to availability of funding.

#### 7.5 Intelligent Transport Systems (ITS)

A key element to deliver the Local Transport Plan is 'intelligent transport systems'. Measures such as optimising traffic signals and providing real-time information will help network managers and drivers make the best use of our roads. The same systems will provide up-to-the-minute information on buses and trains, encouraging motorists to consider using other forms of transport.

Work has commenced to develop a partnership to provide Automatic Vehicle Location (AVL) and Real Time Passenger Information (RTPI) systems. HCC will work with interested bus operators to install AVL on their buses, which is the first step to delivering a range of benefits to bus passengers and operators. It is anticipated that bus operators will contribute towards the costs of the AVL system through an annual membership scheme and HCC will seek contributions towards providing the initial system through the s106 agreement process.

Modern Urban Traffic Management and Control (UTMC) systems reduce congestion by optimising junction capacity and coordinating traffic lights over a wide area to keep traffic moving. UTMC can also prioritise particular types of vehicles and, for example, allow emergency vehicles to reach their destination quickly and safely or help late running buses to make up time. A key part of implementing ITS across the county will be the development of a Traffic Control Centre which brings together the necessary data to enable network managers to make co-ordinated and informed decisions to maximise efficiency and provide real-time information to all transport users.

#### 7.6 Quality Network Partnerships (QNPs)

The Transport Act 2008 offers new opportunities for local authorities to work with transport operators through the creation of QNPs. A QNP has been set up in St Albans and the partnership will start by reviewing all modes of transport in the centre and surrounding areas of St Albans to identify areas in most need of improvement. If successful, further opportunities will be explored to develop QNPs in other areas of the county.

#### 8. Other Schemes

#### 8.1 M25 Widening

The Highways Agency is widening the M25 motorway from three lanes to four between junction 16, for the M40, and junction 23, for the A1(M). The M25 is also being given an extra lane in both directions between junctions 27 and 30. Widening work began in April 2009.

A1(M) A414 M1 Hemel St Albans Hempstead Hatfield A1(M) M25 Potters M1 M25 Amersham Watford Rickmansworth A413 Gerrards M25 Junction 16 - 23 Cross Widening M40 M25 ₋ondon A312 Slough M4

Figure 6 M25 Widening Location Map

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#### 8.2 A1(M)

The A1(M) Hatfield Tunnel Refurbishment is a major maintenance scheme to replace mechanical and electrical equipment that was installed when the tunnel was constructed in the early 1980s. Safety equipment in the tunnel will be upgraded to comply with current European Standards. Construction started in June 2009 and is expected to last 2 years.

A1(M) Hatfield Tunnel refurbishment scheme

Welwyn Garden City

ST ALBANS

HATFIELD

A1(M)

A414

A1(M)

Potters

Bar

M25

Radlett

A1(M)

Figure 7 Hatfield Tunnel Location Map

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In addition to this project, the County Council would also wish to see the A1(M) capacity increased on the section between Welwyn Garden City and north Stevenage. This scheme is not currently in the Highways Agency programme.

#### 8.3 Hitchin Flyover

Network Rail is developing a scheme to remove conflicting train movements across the flat junction between the East Coast Main Line and the Cambridge branch at Hitchin. The scheme has been through public inquiry, and is scheduled to become operational in December 2013.

The County Council supports the scheme as it will improve line capacity and service reliability, but is concerned about the impact on local residents during construction.

Details of the project can be found at www.networkrail.co.uk/aspx/6397.aspx.

#### 8.4 Thameslink Project

The £5.5 billion Thameslink programme will provide increased capacity and improve journey experience on the line serving Elstree and Borehamwood, Radlett, St Albans and Harpenden. Longer trains on this route will be introduced by 2012. The second phase, due for completion by December 2016 will link the Great Northern line into the Thameslink network, allowing direct services from places such as Stevenage via St Pancras / Blackfriars to the south of London.

#### 8.5 Plugged-in Places (Electric car charging infrastructure)

The East of England's EValu8 project has secured £2.9m funding from the Office of Low Emission Vehicles to install a network of 1,200 electric car charging points across the East of England, including Hertfordshire. It is intended that the charging points could be installed in retail outlets, public car parks, railways stations, local businesses and residential streets.

#### 8.6 Further proposals

Further transport schemes and proposals exist that the Council is engaged with. These include:

- Connect 2 (cycling schemes)
- Dane Street / Station Road, Bishops Stortford
- Essex Road, Hoddesdon
- Hemel Hempstead North East Relief Road
- Watford Health Campus and Cardiff Road Link

#### 9. Ongoing Programmes

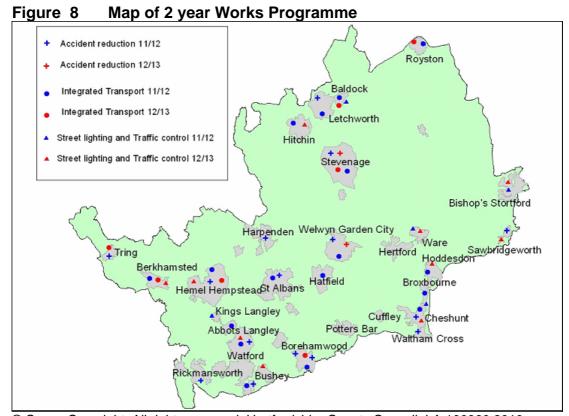
The 20 year plan also includes on-going programmes of work that deliver smaller schemes across the county, usually in response to an annual assessment of need across the network. These programmes include:

- Maintenance including reactive and planned structural maintenance of roads and footways (further details available in the Transport Asset Management Plan);
- Passenger Transport to improve bus and rail operations and access (further details available in the Bus Strategy and Rail Strategy);
- Road Safety to reduce traffic casualties (further details available in the Road Safety Strategy);
- Rights of Way programmes (further details available in the Rights of Way Improvement Plan).

These programmes are supported by a range of revenue programmes that deliver activities such as travel plans (e.g. for schools, businesses and stations), rights of way maintenance and the general promotion of sustainable transport.

#### 10. The Two-Year Programme (2011/12 – 2012/13)

The provisional two-year programme of capital schemes is set out in Appendix 1, and locations of schemes are shown in Figure 8. This list of schemes does not include maintenance schemes. Schemes in 2012/13 are particularly subject to change as designs are developed in 2011/12.



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#### 11. Future Infrastructure requirements

One of the overall aims of the LTP is to support economic growth and planned new housing development. Determining any potential infrastructure schemes required to provide this support is currently difficult due to ongoing developments in Central Government planning policy.

As part of its consideration of the impacts of growth (as understood at the time), the county and district councils jointly commissioned a study on infrastructure requirements. This study, the Hertfordshire Infrastructure and Investment Strategy (HIIS), considered the infrastructure that would be required to meet the needs of planned growth.

Where developments are carried out the county council would expect the developers to fund the required infrastructure schemes, normally through Section 106 or potentially Community Infrastructure Levy (CIL) contributions.

The HIIS study (available at www.hertsdirect.org/ltp) highlights a number of schemes which would be required for specific developments together with

'smarter choices' (sustainable modes) measures, including passenger transport schemes, and schemes to meet the infrastructure deficit not directly related to new developments. If implemented, the range of HIIS schemes would be brought forward over the LTP period as required by permitted growth and principally funded by developers.

#### 12. Monitoring

Monitoring of budgets and target delivery is key to the success of this plan. The main monitoring processes are as follows:

- Budget and target performance considered every quarter by Highways and Transport Panel.
- Before and after data for each scheme that is implemented. This will help to identify where programme changes may be required to meet targets, and show where funding can be most effectively used.
- Use of a 'balanced scorecard' (performance against targets for each indicator) to monitor indicators included in the plan.
- An Annual Progress Report will be produced setting out performance against budgets and targets.

#### **Appendix 1 - Two Year Programme (2011/12 – 2012/13)**

The provisional two-year programme of capital schemes (not maintenance) is set out below. Schemes in 2012/13 are particularly subject to change as designs are developed in 2011/12.

Year	Project Name	Nearest Town
2011-2012	Abbots Langley Safer Routes to School	Abbots Langley
2011-2012	Old Mill Road Traffic Calming	Abbots Langley
2012-2013	Watford Road nr Old Mill Road Casualty Reduction Proposals	Abbots Langley
2011-2012	Clothall Common Estate Walking / Cycling Improvements Ph 2	Baldock
2011-2012	London Rd/Nr Weston Way S177 Signal Refurbishment	Baldock
2011-2012	Hitchin St/Nr Church St S216 Signal Refurbishment	Baldock
2012-2013	London Road Pedestrian Crossing	Baldock
2011-2012	Berkhamsted Safer Routes to School	Berkhamsted
2011-2012	Berkhamsted SRTS Small Works Pilot 1	Berkhamsted
2011-2012	Berkhamsted SRTS Small Works Pilot 2	Berkhamsted
2012-2013	Kingshill Way Pedestrian Crossing	Berkhamsted
2012-2013	Kings Road Route Casualty Reduction Proposals	Berkhamsted
2012-2013	High St/Nr Swingate Lane S032 Signal Refurbishment	Berkhamsted
2012-2013	High St/Nr Chesham Rd S025 Signal Refurbishment	Berkhamsted
2011-2012	London Rd/Whittington Way S163 Signal Refurbishment	Bishops Stortford
2012-2013	London Rd Sth/Thorley Hil S155 Signal Refurbishment	Bishops Stortford
2011-2012	Stirling Way Pedestrian Improvements	Borehamwood
2011-2012	Brook Road Discretionary Scheme	Borehamwood
2012-2013	Brook Road/Nr Fairway Ave S127 Signal Refurbishment	Borehamwood
2011-2012	High Rd/Nr Laurence Drive S178 Signal Refurbishment	Broxbourne
2011-2012	High Rd/North Of Station Road S218 Signal Refurbishment	Broxbourne
2011-2012	Cheshunt Cluster 2 Safer Routes to School	Cheshunt
2011-2012	Mylne Close Pedestrian Improvements	Cheshunt
2011-2012	Turners Hill / Lynton Parade S142 Signal Refurbishment	Cheshunt
2012-2013	Great Cambridge Rd/College Rd S657 Signal Refurbishment	Cheshunt
2012-2013	Great Cambridge Rd/Church Rd S658 Signal Refurbishment	Cheshunt
2012-2013	Tower Hill/The Street Crossroads Route Casualty Reduction	Chipperfield
2011-2012	A404/M25 Interchange S331 Signal Refurbishment	Chorleywood
2011-2012	Croxley Green SRTS Small Works Pilot	Croxley Green

2011-2012	Watford Road Pedestrian Crossing Upgrades	Croxley Green
2011-2012	Centennial Park S106 - Elstree Crossroads	Elstree
2011-2012	Leighton Buzzard Road A4146 Casualty Reduction Proposals	Great Gaddesden
2011-2012	Station Road Casualty Reduction Proposals	Harpenden
2012-2013	A1081 Hillside Rd to County Boundary Casualty Reduction Proposals	Harpenden
2012-2013	St Albans Rd/Leyton Rd/Bull Rd Rbt Route Casualty Reduction	Harpenden
2011-2012	Queensway/French Horn Rbt Subway Improvements	Hatfield
2011-2012	Hatfield Area Wide Pedestrian Improvements	Hatfield
2011-2012	Great North Road A1000 Casualty Reduction Proposals	Hatfield
2012-2013	Oldings Roundabout Casualty Reduction Proposals	Hatfield
2012-2013	Cavendish Way/Queensway Rbt Casualty Reduction Proposals	Hatfield
2011-2012	Jarmans Park Pedestrian Crossing	Hemel Hempstead
2011-2012	Hemel Hempstead Town Centre Access	Hemel Hempstead
2011-2012	Maylands Avenue / Maxted Road S012 Signal Refurbishment	Hemel Hempstead
2012-2013	Maylands to Town Centre Cycle Route	Hemel Hempstead
2012-2013	London Rd/Durrants Hill Rd/Storey St Junc Casualty Reduction	Hemel Hempstead
2012-2013	Redbourn Road Crossroads Casualty Reduction Proposals	Hemel Hempstead
2012-2013	Leighton Buzzard Road Casualty Reduction Proposals	Hemel Hempstead
2012-2013	St Albans Rd/Bennetts End Rd Rbt Casualty Redn Proposals	Hemel Hempstead
2012-2013	Queensway/Nr Adeyfield Rd S235 Signal Refurbishment	Hemel Hempstead
2011-2012	Hitchin SRTS Small Works Pilot	Hitchin
2011-2012	Hitchin Covered Cycle Parking	Hitchin
2012-2013	Stotfold Road/Cambridge Road Pedestrian Crossing	Hitchin
2012-2013	Bancroft Toucan Crossing	Hitchin
2012-2013	Bedford Road/Fishponds Road Pedestrian Crossing Upgrades	Hitchin
2012-2013	Walsworth Road/Station Approach Crossing Improvements	Hitchin
2012-2013	Town Centre to Industrial Area Cycle Route 2	Hitchin
2012-2013	Charlton Road Casualty Reduction Proposals	Hitchin
2012-2013	Walsworth Road nr Station Approach S252 Signal Refurbishment	Hitchin
2011-2012	Ware Road Pedestrian Crossing	Hoddesdon
2012-2013	High St/Nr Conduit Lane S131 Signal Refurbishment	Hoddesdon
2012-2013	High St/Nr Charlton Way Slip Rd S130 Signal Refurbishment	Hoddesdon
2011-2012	Gallows Hill/Railway Bridge S010 Signal Refurbishment	Kings Langley
2012-2013	M25 Junction 20 Route Casualty Reduction Proposals	Kings Langley
2011-2012	Letchworth Railway Station to Employment Area Route Ph 2	Letchworth

2012-2013	A120 Little Hadham Bypass	Little Hadham
2011-2012	Hampermill Lane Speed Reduction	Oxhey
2011-2012	Tolpits Lane Signage	Rickmansworth
2011-2012	Arnett Hills School Discretionary Scheme	Rickmansworth
2012-2013	Hagden Lane/Tolpits Lane Casualty Reduction Proposals	Rickmansworth
2011-2012	Royston SRTS Small Works Pilot	Royston
2011-2012	Woodcock Rd Road Marking Refurbishment	Royston
2011-2012	Town Hall Rbt Road Markings	Royston
2011-2012	Fish Hill Pavement Continuation	Royston
2011-2012	Royston Bypass/Old North Rd Rbt Casualty Reduction Proposals	Royston
2012-2013	Royston Taxi Ranks Improvements	Royston
2012-2013	Old North Road Junction Modification	Royston
2012-2013	Royston Town Centre Pedestrian Signage	Royston
2012-2013	Royston Bypass/Newmarket Road Junc Casualty Redn Proposals	Royston
2012-2013	Cambridge Rd nr Leventhorpe School S150 Signal Refurbishment	Sawbridgeworth
2011-2012	London Road to City Centre Cycle Track Extension	St Albans
2011-2012	St Albans Safer Routes To Schools Small Works Pilot 1	St Albans
2011-2012	Cathedral 20mph Investigation	St Albans
2011-2012	Tippendell Lane Speed Compliance	St Albans
2011-2012	Park Street Lane Pedestrian Crossing	St Albans
2011-2012	Sandringham Crescent Speed Reduction and Pedestrian Access	St Albans
2011-2012	A414 Longabout Route Casualty Reduction Proposals	St Albans
2011-2012	Harpenden Road/Green Lane Junction Casualty Reduction Proposals	St Albans
2011-2012	Park Street A414/M10 Roundabout Casualty Reduction Proposals	St Albans
2011-2012	Hatfield Road/Harlseden Road S020 Signal Refurbishment	St Albans
2012-2013	Chequer Street Casualty Reduction Proposals	St Albans
2012-2013	London Road Casualty Reduction Proposals	St Albans
2012-2013	St Albans Road A1057 Casualty Reduction Proposals	St Albans
2012-2013	Redbourn Rd/Verulam Rd Rbt Route Casualty Redn Proposals	St Albans
2011-2012	Station Road Pedestrian Crossing	St Margarets
2011-2012	Traffic Order Review and Sign Upgrading - Stevenage	Stevenage
2011-2012	Stevenage to Walkern Footpath	Stevenage
2011-2012	Stevenage SRTS Small Works Pilot 1	Stevenage
2011-2012	Stevenage SRTS Small Works Pilot 2	Stevenage
2011-2012	Fairlands Wy/Lonsdale Rd Junc Casualty Reduction Proposals	Stevenage

2012-2013	Fairlands Way Footbridge Improvement	Stevenage
2012-2013	Trinity Road Zebra Crossing	Stevenage
2012-2013	Church Lane and High Street Traffic Study	Stevenage
2012-2013	Bulbourne Road Casualty Reduction Proposals	Tring
2012-2013	High Street Tring EPIP Point	Tring
2012-2013	Dunstable Road/Folly Bridge S231 Signal Refurbishment	Tring
2011-2012	High Rd/Nr The Butts S210 Signal Refurbishment	Turnford
2011-2012	High Rd/Nr Church St S129 Signal Refurbishment	Turnford
2011-2012	Monarchs Way Crossing and Subway	Waltham Cross
2012-2013	High Street nr Hedworth Avenue Casualty Reduction Proposals	Waltham Cross
2011-2012	Ware Railway Station Enhancement	Ware
2012-2013	High St/Nr East St S146 Signal Refurbishment	Ware
2012-2013	Hertford Rd/Nr Walton Rd S148 Signal Refurbishment	Ware
2011-2012	Schemes Arising from Watford Congestion Study	Watford
2011-2012	Clarendon Road Pedestrian Improvements	Watford
2011-2012	Watford 20mph Zone 4	Watford
2011-2012	Hempstead Road nr Ridge Lane S329 Signal Refurbishment	Watford
2012-2013	St Albans Road A412 Casualty Reduction Proposals	Watford
2012-2013	Leavesden Green Rbt Casualty Reduction Proposals	Watford
2012-2013	St Albans Rd nr Bushey Mill La Casualty Reduction Proposals	Watford
2012-2013	Hertford Road Rbt Route Casualty Reduction Proposals	Welwyn
2012-2013	Digswell Hill (Parkside) S326 Signal Refurbishment	Welwyn
2011-2012	Cycle Way - Morrisons to Mundells	Welwyn Garden City

#### **Appendix 2 - Further Information Sources**

HCC take a plan-led approach in selecting schemes for implementation. The key policies and strategies that influence the selection and development of all Highways & Transport interventions (schemes and measures) are (at present) as follows:

- Sustainable Community Strategy for Hertfordshire (SCS) http://www.hertslink.org/hertfordshireforward/15communitystrategy
- Hertfordshire County Council's Corporate Plan http://www.hertsdirect.org/yrccouncil/cpdrp/corplan
- The Local Transport Plan http://www.hertsdirect.org/ltp
- LTP Daughter Documents http://www.hertsdirect.org/ltp
- Local Development Frameworks (LDF's) (see individual District Council websites)

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