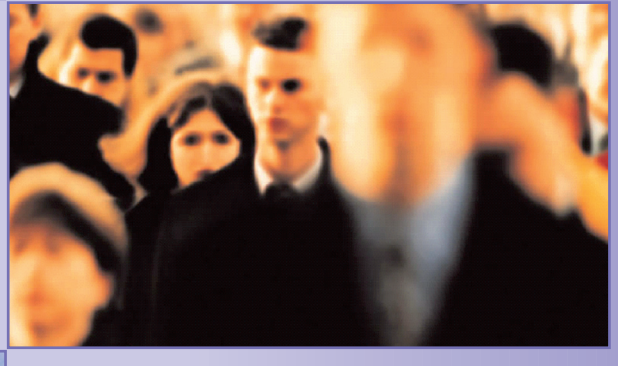
Hatfield Urban Transport Plan



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Hatfield Urban Transport Plan
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Hertfordshire

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Summary

What is the Urban Transport Plan?

The Urban Transport Plan sets out the proposed transport improvements for Hatfield within the context of the Hertfordshire Local Transport Plan 2006/07-2010/11 and the emerging Regional Transport Strategy. However, the Urban Transport Plan looks to the longer term over a twenty year period reflecting the fundamental role that transport plays in our society. The Plan has been adopted by Hertfordshire County Council in conjunction with Welwyn Hatfield Council and other local agencies and will be reviewed on a regular basis.

Problems Identified

A number of problems have been identified including poor accessibility for modes other than car, the intrusive impacts of car use (noise, severance, poorer air quality, safety concerns, parking), inadequate walking routes and limited uptake of cycling and the pressures of substantial growth in demand and land use changes. Apart from the issues associated with the town centre, residential areas have parking problems and an intermittent bus service during some periods. Other problems are associated with employment areas where traffic builds up at peak times including the areas adjacent to the University of Hertfordshire and the former Aerodrome redevelopment site.

The proximity of Hatfield to London and other centres in Hertfordshire and the location of the trunk road network and main line railway have a strong bearing on travel patterns, particularly journeys to work. The number of rail passengers has risen dramatically in recent years and capacity constraints are evident. Hatfield station is one location where demand is increasing substantially as a result of the growth in employment and education facilities in particular. On the roads, congestion is expected to feature more regularly. East-west links are important although existing road links are heavily used and have limited capacity; apart from bus links, there are no alternatives to car use. At a local level, considerable changes are taking place in the town including the redevelopment of the town centre and the former Hatfield Aerodrome site. These developments can be expected to add to the demand for travel but there is considerable scope to promote sustainable modes given the location of sites in relation to the town centre, The Galleria and rail station.

National, Regional and Local Policy Context

Government guidance on transport places a strong emphasis on sustainable modes – walking, cycling and bus and rail use. This emphasis features strongly in guidance at national, regional and county levels. The relationship between these modes and car travel and the relative demand for each is the focus for change – if more people travel by sustainable means, then there are significant economic, social and environmental benefits. Conversely, if the growth in car use continues, fuelled by land use decisions and car dependent development, then there will be significant problems of poor air quality and road safety and more regular traffic congestion. Currently around 64% of journeys to work in Welwyn Hatfield are made by car (Census 2001) and while congestion is not as severe as many other places, increased demand for car travel will inevitably result in longer journeys, less reliable journeys, higher costs and environmental damage. However, bus use is relatively poor – around 3% of journeys to work – and cycling (3%) and walking (10%) are also under-represented. The University of Hertfordshire's Uno bus service is a success with

an expanding network and high levels of use and travel plans for the university and the former Aerodrome site should help to raise the profile of sustainable modes.

The Local Transport Plan considers transport problems and solutions against key criteria – congestion, accessibility, safety, air quality and quality of life. In addressing these, considerable efforts are required to ensure that healthier and less damaging means of travel become part of people's lifestyles and culture so that car dependency is addressed for the future. The town centre and the employment areas including the former Aerodrome site ensure that there is strong demand for movement to the town from other areas. Good links with other urban centres are important and the rail and bus services that are in place provide valuable connections but are subject to capacity constraints and traffic congestion. The Local Transport Plan also includes a range of targets against which the success of the measures introduced in the Urban Transport Plan will be measured.

Emerging Issues for the Town

A number of issues are emerging in Hatfield. The **redevelopment of the town centre** will help encourage walk, cycle and bus journeys and significantly enhance the attractiveness of the area; this contrasts strongly with the current arrangements where walking routes are poor and bus facilities are marginalized. The University of Hertfordshire's two main campuses in Hatfield are a strong influence on the local economy. The core axis between the university sites, town centre and rail station is important and the local bus network provides valuable links with Hatfield rail station. At the station, the Plan supports the creation of much improved interchange arrangements to improve the quality of sustainable modes and encourage their use. This would encourage not only bus/rail trips but also promote walking and cycling to the station and create a strong gateway to the town as it develops. The proposed scheme increases the area available to buses and separates bus, taxi and car movements while providing better arrangements for people walking and cycling to the station.

A key influence is the **redeveloped Hatfield Aerodrome** site. This presents a major opportunity to promote sustainable travel given its size, location and land uses including major employers and the university's de Havilland campus. Alongside these will be further residential, leisure and other facilities adding to a major generator of demand for transport. Linking the Aerodrome site to The Galleria, town centre, rail station and other centres is vitally important to avoid creating a car dependant development. A sizable funding contribution from the developer has allowed the introduction of bus services and walking and cycling routes are in place on the site. The infrastructure measures are supported by travel plans for the occupiers to promote sustainable modes. As more developments on the site are completed, demand for travel will increase and it is important to establish viable bus services and other facilities from the outset.

Walking is considered to be a key issue with scope to extend the opportunities to walk rather than use the car for local journeys. In light of these issues, the plan proposes greater emphasis on walking with better road crossings, signing and lighting. In addition, better cycle parking facilities are proposed to encourage regular cycling alongside the extension of existing cycle routes. These should be available at the rail station, workplaces, schools and local amenities.

Further investigation of **rail users** indicated that the frequent service attracts many users and that a high proportion access Hatfield station on foot, cycle, bus and taxi. 21% of users

arrive by bus due to the interchange arrangements suggesting that considerable growth in the bus/rail market could be achieved. Hatfield is unusual in that there is a bi-directional demand with inward journeys to locations in and around the town (particularly the university and former Aerodrome) to counteract the London-bound commuting.

Although a range of **bus services** is in place, their use could be encouraged by better facilities at stops such as detailed specific information and improved interchange, particularly at Hatfield rail station.

The **East of England Plan** envisages considerable growth in housing and employment in the area and hence transport movements will be greater than at present. The challenge is to direct growth in demand to non-car modes to avoid congestion while maintaining good accessibility for all.

For the Aerodrome site, the travel plan needs to be implemented before construction is completed and include well located bus stops, priority routes and crossings for pedestrians and cyclists and constraining on-site parking.

A number of **other issues** have been investigated. Parking is a contentious issue with problems being experienced in residential areas. Further management and possible charging for short stay spaces could be considered. Data for road traffic accidents suggest that while there are no individual locations where there are clusters of serious casualties, the majority of accidents involve vehicle collisions. To address concerns over child casualties, measures could be introduced to reduce traffic speeds and promote safety. Related to this is the Safer Routes to Schools and School Travel Plan programme currently underway. This aims to improve safety but also encourage the use of sustainable modes, particularly walking, for journeys to school. Other measures that could be introduced to reduce car dependency include travel plans for workplaces, car sharing and car clubs for residential areas. Although freight movements are not intrusive, better information to hauliers could improve deliveries to retail and other locations. Cycling has been identified as an area for improvement as a healthy and attractive alternative to car use, building on the routes already in place.

The range of measures proposed addresses the difficulties identified while meeting Local Transport Plan objectives and targets to improve transport in and around the town. These have been listed in the Plan under the LTP objectives together with an indication of their likely cost and time scale.

1 Introduction

1.1 The Urban Transport Plan

1.1.1 This plan sets out the proposed transport improvements for Hatfield for the next 15 to 20 years. It is designed to meet local needs whilst also addressing the County Council's overall transport objectives and targets as set out in the Hertfordshire Local Transport Plan 2006/07 to 2010/11. Although the plan period is up to 2026, it is acknowledged that any future changes to local circumstances or countywide transport policies may require periodic reviews. The first review will take place in 2012, subject to any significant influences in the meantime.

1.1.2 This Urban Transport Plan has been adopted by Hertfordshire County Council in its role as transport authority and has been developed in conjunction with Welwyn Hatfield Council and other local agencies and through public consultation.

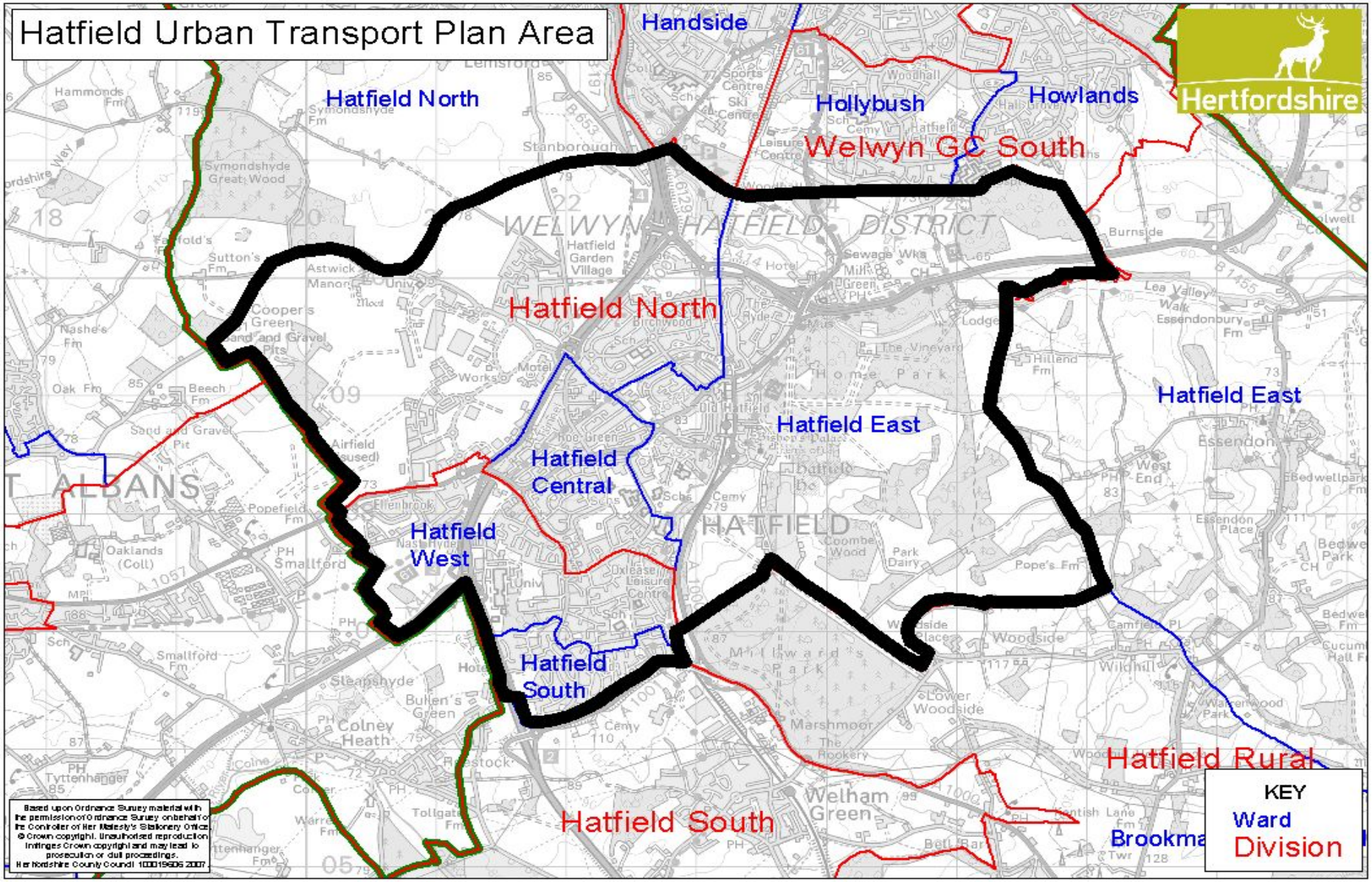
1.1.3 This document, as well as the Local Transport Plan (LTP) and Urban Transport Plans for other towns in Hertfordshire, is also available on the County Council's web site at www.hertsdirect.org/ltp.

1.2 Background to the Plan Area

1.2.1 The area covered by the plan is shown in Figure 1.1. on page 2.

1.2.2 Hatfield has a population of 27,900 and is one of a number of urban centres in mid-Hertfordshire. Links with other centres including Hertford, St Albans, Welwyn Garden City and Stevenage are important considerations. The proximity of the town to London via motorway and main line rail links also has a strong bearing on travel patterns. There are parts of the town which experience deprivation but improved employment opportunities will help overcome economic decline. The University of Hertfordshire is an important contributor to the local economy. Redevelopment of the former Hatfield Aerodrome site provides a major opportunity to expand employment, education, residential and leisure activities while the redevelopment of the town centre will help improve the town's image and prosperity.

Figure 1.1 Plan Area



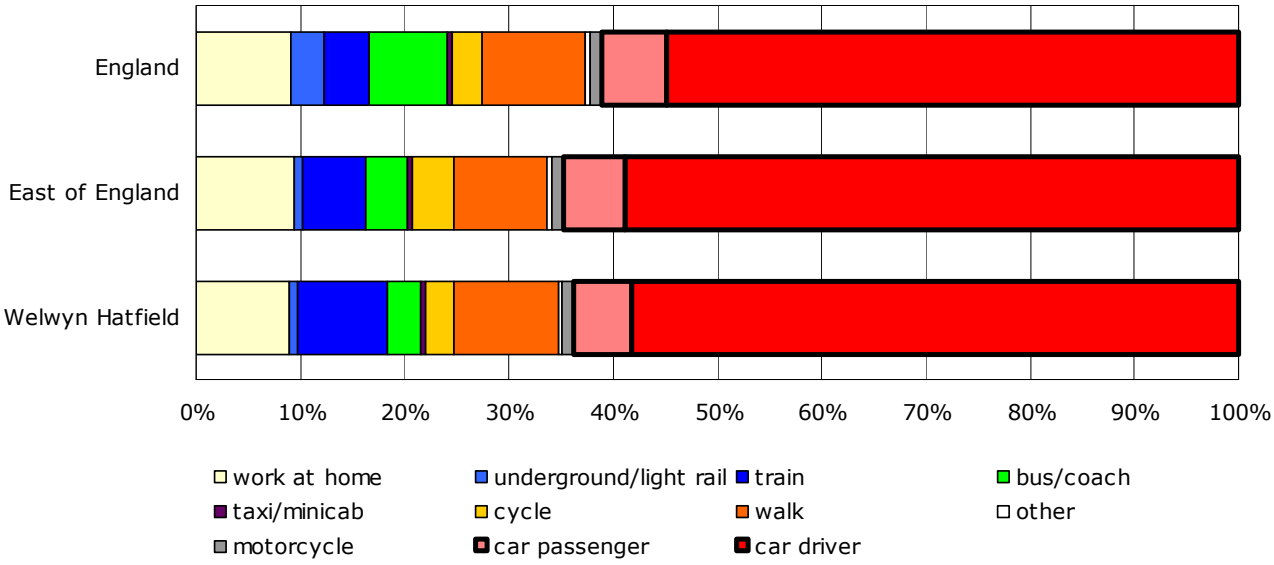
1.2.3 The main thrust of the Urban Transport Plan is to promote sustainable transport in accordance with the LTP and Government guidance. This attempts to place much stronger emphasis on walking, cycling, bus and rail use. Failure to engender a substantial shift to sustainable modes has far-reaching consequences with the negative impacts of vehicles undermining the town. This approach implies not only encouragement of sustainable modes in terms of expenditure, design, quality and maintenance to promote healthier life styles and to demonstrate how local journeys can be accommodated without car dependency.

1.2.4 Particular issues include the following:

- Accessibility – Good vehicular access precludes clear walking and cycling routes while bus services are marginalized;
- Congestion – While congestion is not widespread, traffic can be expected to increase without intervention;
- Environment – Car travel creates problems of intrusion, noise, severance and poorer air quality;
- Parking – Town centre on-street parking blights the unique environment of the central area;
- Walking – Routes involve crossing roads but barriers to movement exist including subways, poor signing and routes that are perceived to be unsafe;
- Cycling – Routes are not given priority over vehicles; and
- Safety – Road traffic is perceived to be dangerous for example for journeys to school.

1.2.5 2001 Census data indicates mode split for journeys to work (see Figure 1.2 and Tables 1.1 and 1.2). 64% of journeys to work in Welwyn Hatfield are made by car either as driver or passenger.

Figure 1.2 Mode Share for Journeys to Work of Resident Population (adjusted to exclude people not currently working, April 2001)



Source: www.statistics.gov.uk

Table 1.1 Comparison of Mode Share of Journeys to Work

	Welwyn Hatfield	East of England Region	England
Work at home	8.9	9.4	9.2
Underground, metro, light rail or tram	0.8	0.8	3.2
Train	8.6	6.1	4.2
Bus, minibus or coach	3.2	4.0	7.5
Taxi or minicab	0.5	0.5	0.5
Driving a car or van	58.3	58.9	54.9
Passenger in a car or van	5.6	5.8	6.1
Motorcycle, scooter or moped	1.0	1.1	1.1
Cycle	2.7	3.9	2.8
Walk	10.0	9.1	10.0
Other	0.4	0.5	0.5

Source: Census 2001 (www.statistics.gov.uk)

1.2.6 These figures show that while the proportion of car users for journeys to work in Welwyn Hatfield is greater than that for England as a whole, it is slightly less than that for the East of England region. However, the relatively high incomes of Welwyn Hatfield residents and the economic growth anticipated for the area can be expected to create higher levels of car ownership with the associated problems of traffic congestion.

Table 1.2 Mode Share for Welwyn Hatfield Journeys to Work

Mode	Number	Per cent excluding people not currently working
Works mainly at or from home	4,131	8.9
Underground, metro, light rail or tram	349	0.8
Train	3,990	8.6
Bus, minibus or coach	1,465	3.2
Taxi or minicab	240	0.5
Car or van driver	26,900	58.3
Car or van passenger	2,567	5.6
Motorcycle, scooter or moped	467	1.0
Cycle	1,269	2.7
Walk	4,605	10.0
Other	174	0.4
Not currently working	24,397	
Total	**70,554**	**100**

Source: Census 2001 (www.statistics.gov.uk)

1.3 Overarching Objectives and Targets

1.3.1 This Urban Transport Plan is designed to deliver solutions to transport problems that have been identified through local consultation and knowledge. However, the transport solutions and improvements also need to be set within the context of the County Council's overall transport objectives. Hatfield has also been designated as a 'transport node' in the Draft East of England Plan, the regional spatial strategy.

1.3.2 This plan has been developed with a view to delivering the following LTP targets (see Table 1.3). These are shown under the headings of the 'shared priorities' set out in the LTP.

Table 1.3 Local Transport Plan Targets

Indicator	Baseline (2003/04)	Target (2010/11)
Congestion		
Change in Area-Wide Traffic Mileage	20.7 million	22.4 million
Mode Share of Journeys to School	57.5%	60% sustainable modes
School Travel Plan	14%	83%
Accessibility		
Public Transport Patronage	31 million journeys per year	31 million journeys per year
Bus Service, User Satisfaction	55%	60% (2009/10)
Bus Punctuality	80% (2004/05)	80%
% of people who find it difficult to travel to a local hospital (Accessibility)	29%	24%
Cycling Trips	2,397 trips per day (2004/05)	2,658 (11% increase)
Passenger Transport Information, User Satisfaction	39%	50%
Rights of Way	61% (2004/05)	80%
Safety		
Killed and Seriously Injured	1,084 (1994-98)	No more than 600
Children Killed and Seriously Injured	113 (1994-98)	No more than 56
Total Slight Casualties	5,509	No more than 5,509
Speed Limit Compliance	56% (2004/05)	60%
Other		
Non-Principal Classified Road Condition	19.44%	19.44%
Unclassified Road Condition	19.29%	19.29%
Footway Condition	52%	52%

Source: LTP 2006/07-2010/11 (Table 11.1)

County Council Policies

1.3.3 In addition to these targets, the plan will also proactively deliver the following County Council policies:

- review of direction signing for all road users (primarily motorists, cyclists and pedestrians);
- review of speed limits;
- identification and promotion of pedestrian priority routes;
- reduction in congestion and the effects of the Traffic Management Act;
- reduction in street clutter through removing unnecessary signs and re-locating other street furniture;
- reviewing provision of parking facilities for cycles, two-wheelers and disabled motorists;
- ensuring that all pedestrian crossings are compliant with current Disability Discrimination Act requirements; and
- review of route hierarchy.

1.3.4 These policies serve to support the LTP objectives and measures determined through the Urban Transport Plan will need to take them into account.

1.4 Transport 'Health Check'

1.4.1 A 'Health check' was undertaken to review the position on transport and provide direction for subsequent investigations. It was designed as a means of framing the Urban Transport Plans in terms of established national, regional and local policy coupled with consideration of development opportunities and their implications for transport. This included taking a view on the many objectives presented by various policy documents and distilling these into a meaningful set of objectives for Hatfield.

1.4.2 Transport policies change over time and their scope has widened to cover emerging issues at a regional level and to provide better guidance regarding the relationship between land use and transport planning. Fundamentally, there has been a strong emphasis on reducing the impact of car travel through guidance such as Planning Policy Guidance 13: Transport.

- **Accessibility** should refer to all modes and not just provide opportunities for people who have use of a car. It should also address the opportunities to access employment, education, health and other facilities (including people who are socially excluded to facilitate access to key services);
- For the local **economy**, the long term spread of employment locations and a shift from manufacturing to service industries needs to be reflected by changes to transport networks. Also, freight movement is largely by road and hence is affected by traffic congestion;
- **Safety and security** should be improved especially the reduction of road traffic casualties, particularly those affecting children and vulnerable road users. People will

use the means of travel with which they feel safe and secure but car use has adverse affects on other people;

- **Environment and health** problems can be addressed by improving vehicle technology but mainly by reducing the use of cars and heavy commercial vehicles. Personal fitness is strongly supported by walking and cycling, habits which need to be developed through school and workplace travel initiatives;
- **Social inclusion** can be improved through targeted community transport provision and creating better opportunities to access employment by public transport; and
- **Demographic change** affects the demand for travel. Different demands of older and younger age groups need to be reconciled.

1.4.3 The health check combined the objectives into a **transport vision**: to secure an integrated, safe, sustainable, efficient, reliable and affordable transport system.

Recommended Changes

1.4.4 To meet the vision, some of the underlying principles need to be put into effect. For car travel, it should be recognized that unrestrained growth undermines the vision. To manage this, a change in emphasis is required:

- to contain car use, greater controls over car parking need to be adopted. In addition, speed management measures and enforcement in residential areas need to be in place to ensure that safety is not compromised;
- for rail, better interchange arrangements at stations are needed to provide attractive facilities to make linked journeys e.g. bus/rail or cycle/rail;
- buses must be given greater priority in the design of redevelopment sites with clear walking links to stops. Site design should focus on buses as a priority before car parking provision is determined. Commitment to revenue support is needed to maintain services when levels of demand are lower but there is a need to provide a high quality service beyond the short term;
- a safe cycle network should be evident with reallocation of road space, secure cycle parking throughout the area and complete and attractive routes. Although levels of use of the formal routes appears to be limited and hence their value for money is open to question, creating a cycling culture takes time and many less experienced cyclists are put off due to concerns about traffic. The full benefits will be realized only when the network is completed;
- walking routes should be appropriately lit, signed and include safe road crossings. Measures on routes to schools should be introduced to protect vulnerable road users including dropped kerbs and restrictions on car parking close to the school entrance; and
- travel plans for workplaces, schools and residential areas should be promoted to engender a change in travel behaviour alongside initiatives to raise awareness of transport issues e.g. the link with healthy lifestyles.

1.5 Agencies and Community Workshop

1.5.1 A workshop was held on 28 June 2007 for stakeholders to contribute to the Urban Transport Plan in terms of ideas for measures to be included for implementation. This was held at the Ramada Jarvis Hotel in the town and was chaired by Councillor Mandy Perkins (Welwyn Hatfield Council) and facilitated by MVA Consultancy (see Appendix A). The purpose and scope of the Urban Transport Plan were explained in the context of the LTP objectives and targets. Participants were invited to contribute their ideas from their own experiences of travelling to and within the town. Proposals were then considered in relation to the objectives and their possible contribution to targets.

1.5.2 The main debate was centred on accessibility objectives and possible solutions, mainly improvements for local bus services and infrastructure. The importance of bus stop facilities such as shelters and information was noted and the provision of facilities at the former Aerodrome site was questioned. Suggestions were made regarding walking facilities including crossings and to improve cycle facilities, particularly the completion of routes. Travel plans for businesses were also considered to be a means of addressing accessibility objectives.

1.5.3 Congestion was felt to be related to on-street car parking in residential areas, at Hatfield rail station and the university. Roundabouts and traffic signals were considered to cause problems as queuing is evident during peak periods. Parking charges were also raised in terms of displacing cars onto local roads.

1.5.4 A number of safety concerns were raised affecting the personal safety and space available to pedestrians and cyclists. The subways appeared to be unpopular and CCTV was suggested as a means of improving security.

1.5.5 Other suggestions included car clubs and car share schemes to reduce the number of vehicles on the network.

1.5.6 As a result of the process, a number of initiatives were proposed which have been added to those already included in the Urban Transport Plan. Other contributions have resulted from dialogue as part of the development of the plan (see Appendix B).

2 Local Problems

2.1 Local Issues

2.1.1 The transport issues for the town have been developed through local consultation and from data held by the local authorities[1]. The full set of issues that this plan needs to address is set out in the tables below. Potential solutions to these problems are indicated in Chapter 8.

Table 2.1 Local issues

Congestion	
C1	Major junctions congested at peak periods e.g. Comet Way and A1(M) Junction 3/A414.
C2	Growth in car journeys and expansion of redevelopment sites will exacerbate congestion e.g. former Aerodrome site.
C3	Conflicts between residents and student on-street parking near university's College Lane campus.
C4	Town centre parking is poorly arranged and often full.
C5	On-street parking around Hatfield rail station causes problems for local residents (although spaces are generally available in the Link Drive car park); similar problems occur in other residential areas.
C6	Demand for travel to University of Hertfordshire campuses is considerable.
C7	Lack of initiatives to influence demand for vehicle movements needed e.g. travel plans.
C8	Heavy commercial vehicle movements need to directed away from residential areas.
C9	Parking charges are being undermined by the very cheap private parking arrangements e.g. Asda and College car parking at weekends.

[1] Data reports have been provided to Hertfordshire Highways on Walking, Public Transport and Development Issues.

Accessibility	
A1	Access to rail station poor for pedestrians and cyclists and bus users.
A2	Road links form barriers to movement towards the town centre.
A3	More sustainable access to Hatfield Aerodrome redevelopment site needed. New development sites are dominated by road access and parking to the detriment of other modes despite meeting the parking standards set out by the highway authority and local planning authority.
A4	Secure cycle and powered two wheeler parking is not available at key locations.
A5	Poor walking routes to rail station and other key locations.
A6	Lack of pedestrian crossing facilities in some locations.
A7	Lack of direction signing for walking routes.
A8	Meaningful information about public transport services can be difficult to obtain and use.
A9	Growth in use of the rail station needs to be accommodated, especially bus users travelling to the university and Business Park.
A10	Improvements needed to address problems faced by people with mobility impairments.
A11	Greater awareness of bus services to QE2 hospital in Welwyn Garden City and other strategic health facilities e.g. Lister Hospital, Stevenage, GP surgeries.
A12	Poor facilities are available for cycling
A13	University of Hertfordshire attracts many trips which need to be accommodated in a sustainable way.
A14	Travel plans in schools and businesses are currently weak. New travel plans for schools and businesses are required together with stronger enforcement of existing plans.

Safety	
S1	Vulnerable road users disadvantaged
S2	Personal security concerns especially after dark.
S3	Cycling routes inconsistent especially at road crossings
S4	Comprehensive Safer Routes to Schools initiatives need infrastructure measures as well as commitment in the community, extending the current programme.
S5	Unappealing and unpopular subways.
S6	Safety concerns at some locations.

Air Quality	
AQ1	Growth in the number of vehicle movements adds to emissions.

2.2 Local Opportunities/Future Pressures

2.2.1 This plan takes into account the following known opportunities and pressures (see Table 2.2). Any significant changes will be considered in future reviews of the plan.

Table 2.2 Local Opportunities/Future Pressures

Issue	Time Scale	Effect on existing problems	Possible new problems created
Town centre redevelopment		Opportunity to create better walk, cycle and bus facilities	Need for safe crossings of roads in town centre
University expansion	Continuing	Increased demand for travel	On-street parking and additional bus and cycle facilities needed
Interchange at Hatfield Station	Growth in level of use continuing	Improvements would encourage rail/bus/taxi/cycle/walk interchange	Additional demand for peak rail travel
Major redevelopment at Hatfield Aerodrome site	Underway	Major generator of trips but greater emphasis on sustainable modes needed	Large scale car dependency

2.3 Local Objectives and Targets

2.3.1 Assessment of the current and future problems shows that the key issues to be addressed include:

- improving the walking environment so that more people will make journeys on foot rather than by car, particularly to access the redeveloped town centre and the rail station;
- working with operators to improve public transport services and infrastructure to offer a practical and attractive alternative to car use; and
- dealing with development pressures to promote sustainable transport through design.

2.3.2 All this needs to be dealt with in a co-ordinated way so that the transport system as a whole is improved. This requires an integrated approach involving a wide range of stakeholders including the local authorities, transport providers, the business community, local residents, community groups and others.

2.3.3 Given the opportunity to address these problems, the local aims for the town are:

- **Aim 1** – to create walking-friendly routes and an enhanced town centre where pedestrians have priority over traffic;

- **Aim 2** – to improve passenger transport to offer better facilities and service information, particularly the links between the Aerodrome site, university, The Galleria, town centre and rail station; and
- **Aim 3** – to ensure that development in the town centre and the Aerodrome site adopts sustainable modes.

2.3.4 These three issues – walking, public transport and development – have been the focus for the development of this plan. Other issues have also been investigated and are included. All are considered to be significant enough to warrant further detail given the scope for reducing the demand for travel, particularly by car. In combination, there is considerable scope to address the LTP objectives and targets in a meaningful way.

2.3.5 For targets to be identified and addressed, appropriate monitoring needs to be undertaken. Walking is particular difficult to monitor given the extensive range of origins and destinations while cyclists may use routes that avoid busy roads. Also, considering quality issues requires seeking the views of users which may be restricted and unrepresentative samples. The monitoring issue should be addressed with a comprehensive programme of data collection including count data, interview surveys and attitude surveys.

3 Walking

3.1 The Role of Walking

3.1.1 Walking is a key issue raised in the health check and is an important means of addressing the 'shared priorities' of the LTP:

- congestion can be addressed by encouraging walking for shorter journeys rather than car use;
- accessibility requires employment, education, health and food retail facilities to be available within walking distance where possible;
- safety and personal security can be improved by walking initiatives; and
- air quality is supported by transfer of journeys from car to walking.

3.1.2 However, the LTP does not include a specific target for walking and measurement can be difficult.

3.1.3 Travel to work data (2001 Census) indicates a walking mode share of 9% in Welwyn Hatfield compared with a national average of 10%. The Welwyn Hatfield Walking Strategy highlighted the discontinuity of routes especially in the town centre, along main roads, links to bus and rail facilities, lack of lighting, lack of signing, routes shared with cyclists and lack of routes shown on maps and street plans. The contrast between the ambient town centres during daytimes and during the evening was noted. Seating and public toilets were also recognized as being important.

3.1.4 Access to employment is also a prime reason for trip making. While the employment structure of the town was affected by the closure of the Hatfield Aerodrome, replacement activities on the site will support local jobs. However, a complex pattern of journeys to work can be expected to persist into the future with a range of destinations including London.

3.1.5 No clusters of accidents are evident suggesting that there are no locations where there is a particular conflict between pedestrians and traffic. No fatalities occurred and the number of serious casualties is small. However the majority of accidents involve people under 25. This suggests that remedial measures should be targeted towards younger age groups, particularly children under 15. The figures show that there were 18 child casualties in Hatfield in the three year period; this compares with 16 adult casualties.

3.1.6 Sample surveys have been undertaken which revealed a number of issues:

- lack of understanding of puffin signal crossings (by motorists and pedestrians);
- lack of pedestrian signing;
- unpleasantness of routes into Hatfield town centre;
- poor urban design and hostile appearance of Hatfield town centre;
- lack of clear routes to bus stops;
- limitations of street lighting, especially in the vicinity of vegetation; and
- the threatening environment in and around subways.

3.1.7 A single barrier to movement can influence the decision to walk or use another mode. The main barriers are generally roads (increasing mobility for car users but undermining the interests of pedestrians) with poor crossing facilities. Other barriers may be easily remedied such as dropped kerbs throughout routes. Interaction with road traffic may be lessened by reducing vehicle speeds and distancing pedestrians from vehicles by providing wider footways.

3.1.8 In Hatfield, the enclosure of the town centre within the road network has an isolating effect and there are few clear formal at-grade pedestrian crossing points. Better integration of the centre and the surrounding residential areas would be achieved with the introduction of better crossing arrangements.

4 Passenger Transport

4.1 Requirements of the Plan

4.1.1 The area's public transport provision is similar to that found in many parts of the UK with some strengths but a significant number of weaknesses - public transport is not meeting its potential both in terms of investment in infrastructure and services and in terms of how services are delivered. Improving the profile and attractiveness of bus services is essential if more people are to be encouraged to use them.

4.1.2 The LTP provides the main policy context. It includes a Bus Strategy to explain how the County Council intends to support non-commercial bus services and work with others to provide a bus service to meet the needs of local people. The LTP notes that bus routes focus on urban corridors and there are comparatively few east-west services. Also, there is an unusually high proportion of services that are contracted out by the County Council - 45% - as they are not considered to be commercial propositions. This suggests a very strong commitment to providing short to medium term revenue support but raises the question of how effective this approach is in the face of rising tender costs from operators and more fundamentally, the role of the local bus network itself.

4.1.3 Some of the LTP targets are specifically related to public transport while it needs to be recognized that improvements to public transport form a major part of the package of measures to address car use (and hence road safety, congestion and air quality problems). The target for public transport patronage is to maintain the 31 million passenger journeys made in 2003/04 by 2010. This is not an ambitious target as it assumes no growth at all and instead 'sets out to minimise the rate of decline'. The LTP funding commitment will not be adequate to achieve substantial change in levels of use.

4.2 Improving Accessibility

4.2.1 Improved accessibility to facilities by public transport, walking and cycling is a major component of LTPs. This can only be achieved if the whole route is considered, that is the walk to the bus stop as well as the bus journey itself. Many routes to stops are poor with isolated stops, limited facilities and poor lighting. Stops should be located at transport nodes such as the intersection of walking and cycling routes and where there is some form of activity such as a shop, petrol station or similar.

4.2.2 Accessibility to a range of facilities is at the core of the LTP. This includes equitable travel for health, employment, education and other purposes. In Hatfield, the proposed reorganization of health facilities has emphasized the need to provide strong bus links to established hospital sites at QE2 in Welwyn Garden City and the Lister Hospital in Stevenage. Other establishments such as the Royal Veterinary College site at Welham Green attract car journeys but are less attractive to bus users. Other education facilities such as the Oakland's College site at Smallford (St Albans) also attract large numbers of students and staff, many of whom travel by car. However, the University of Hertfordshire campuses at College Lane and de Havilland have an extensive range of bus services.

4.3 Bus Services

4.3.1 The Bus Strategy sets out aspirations to improve services and infrastructure against the objectives for safety, congestion management, accessibility and quality of life. Continuing fare increases are seen as a barrier to bus use. While operating costs, mainly fuel, have risen substantially, the commercial market necessitates higher fares to cover these costs. Fares tend to be complex and offer poor value in relation to the perceived cost of car use. Information provision is fundamental to expanding the use of the network and can take a number of forms, many of which are inadequately presented in the area currently.

4.3.2 There is insufficient evidence in the LTP2 about how the emphasis on bus priority measures will be taken forward in Hatfield, particularly given the fact that the area has relatively few signal controlled junctions and limited opportunities for priority measures at roundabouts without major investment. The recent Highways Agency scheme at College Lane/A1(M) Junction 3 does not include bus detection equipment with the result that buses serving the adjacent College Lane site are delayed more than previously.

4.3.3 To support non-commercial bus services, the County Council is dependant on its own revenue budget, the district council's budget and developer contributions. The Bus Strategy recognizes the role of district councils both in their advisory role and to provide funding. Developer contributions are also a means of securing bus services although funding may be subject to time limits.

4.3.4 The Mid Hertfordshire Area Transport Plan includes a Passenger Transport Strategy. For bus, this involves working with operators for improvements (particularly east-west links), introducing bus priority measures, improving waiting facilities and information and related measures. For rail, improvements to stations are supported as well as more major infrastructure schemes. As part of an integrated network, provision for taxis will be made to help address social exclusion. The plan also includes a target to reduce car mode share from 66.7% (2001) to 59.1% by 2021 of which increased bus patronage is an element. However, given the level of resources committed to passenger transport in the LTP, it appears unlikely that this target will be met.

Improving Buses

4.3.5 Throughout the country, steps are being taken to ensure that the profile of buses is raised and that more people choose to use buses. Where pro-active initiatives have been taken, significant improvements have been made.

4.3.6 It is clear that strong marketing of services is essential. This needs to cover not just routes and timetables but the wider concept of bus users, often targeted at habitual motorists and particular groups such as young people. Currently there is little evidence of this in Welwyn Hatfield, although Uno[2] is very well placed to promote bus use.

4.3.7 Partnership is also essential. An active partnership should be developing ideas to improve infrastructure and services in Welwyn and Hatfield. While there are not major congestion problems in either town, infrastructure at stops and interchanges could be improved

[2] Uno, formerly University Bus, is the bus company founded and operated by the University of Hertfordshire.

considerably and raise the profile of services. Intalink[3] provides a basis for better integration and co-operation but needs to involve more than branding and ticketing.

4.4 Rail Services

4.4.1 The rail stations in the area are served by frequent and rapid services to London and to Stevenage and the north on the East Coast Main Line. Around 79 trains serve Hatfield each way Monday to Friday. These are operated by First Capital Connect which operates services radiating from London Kings Cross. Hatfield is experiencing significant growth in demand with approximately 28,000 more fares being taken in the past two years.

4.4.2 At Hatfield station, the overall impression is that car drivers and northbound buses have priority over walkers and cyclists. While the bus stops are located immediately outside the station entrance, there are not attractive waiting facilities other than at the station itself. The station building at Hatfield is basic, despite its relatively recent construction and is to an uninspiring design. This could be improved with a combined rail/bus interchange to greatly enhance the attractiveness of the station. Such a scheme would be costly however and require the full co-operation of Network Rail (owner), First Capital Connect (leasee), HCC (highway authority) and bus operators. A workshop was held on 8 February 2007 to discuss ideas (see Appendix A) and this contributed strongly to the design for the scheme to be taken forward.

4.5 Rail Station Surveys

4.5.1 Rail services are well used and provide rapid and frequent links to Potters Bar and London Kings Cross to the south and Stevenage and East Coast Main Line destinations to the north. However, there has been little data obtained on how and why people use the stations and hence surveys were undertaken in September 2006.

4.5.2 Hatfield has a strong commuter market but also a high number of inward journeys, mainly students attending the university. This reinforces the need for clear walking routes and bus interchange arrangements at the station.

4.5.3 The majority of journeys are for commuting but around 14% of journeys to Hatfield are education related.

4.5.4 The proportion of people making regular journeys was high, as would be expected with a strong commuting route. 50% of journeys to Hatfield are made five or more times per week; 14% are made between two and four days per week. Hatfield had a relatively high proportion of first time journeys, 13%.

4.5.5 The means by which people travel from the station to their destination is important both in terms of their travel decisions and in relation to the options available and the ease with which they can be used. A high proportion of people walk from the station to their destinations. Car drop off/pick up is evident for which informal arrangements apply as there are a limited number of short stay parking spaces available.

[3] Intalink is a partnership between local authorities, bus and rail operators to achieve better travel information, awareness of services, improved co-ordination and integration and higher standards of service.

4.5.6 Buses are used by relatively small proportions of rail users - 21% - but this emphasizes the importance of bus/rail interchange at Hatfield Station. The good taxi arrangements at Hatfield also need to be maintained with any redesign of the interchange. Cycling accounted for 5% of rail users. This represents significant demand for which secure cycle parking should be available.

Follow-Up Survey

4.5.7 A follow-up survey was conducted at Hatfield station in view of the large number of daytime arrivals, mainly connected with the university. Compared with the initial survey, a larger number of respondents came from Welwyn Garden City (28% compared to 19%). London Kings Cross still remains a significant origin with 11% of journeys from here. This suggests that the higher proportions of students captured travel much shorter distances compared to commuters.

4.5.8 Walking represented the highest mode share of trips from the station (47%), 18% used the bus and cycling represented 5% of rail users. Travel by car, either as a passenger or car driver, represented 18% of rail users.

4.5.9 The majority of journeys made were either the outward (38%) or return (52%) stages of a return journey, which reflects the regular journeys made by commuters and students. The majority of trips were by bus (51%), around 30% walked and 7% cycled. Compared to the initial surveys, a smaller proportion of journeys were made by car which suggests that the higher proportion of students captured are more reliant on public transport and other non-car modes.

4.5.10 Compared to results from the initial surveys undertaken at Hatfield, a larger proportion of respondents live in a household with no car which reflects the larger sample of students surveyed. Both occupation and annual income highlight the consequence of a larger student sample: around 10% of respondents have a income below £7,000 in the follow-on survey compared to around 5% in the initial survey.

4.6 Hatfield Station Interchange

4.6.1 The station provides a natural interchange point. Considerations for improvement include walking routes and desire lines, the space available and design features. At a local scale, a simple interchange can show how public transport can be attractive provided that it is high quality and convenient. A similar theme or style could be used for all to provide consistency and identity. The station has been experiencing unprecedented growth which will become more acute as journeys to the former Aerodrome site increase in number. An additional 28,000 weekly users have been recorded in two years indicating the growth in use of the station.

4.6.2 As the surveys indicated, Hatfield Station is important both for people making outward journeys to London and elsewhere and also acting as a gateway to the town, the expanding Business Park and the University of Hertfordshire. The current arrangements at the station are unsatisfactory in that there is inadequate space for buses and conflicts between different vehicle movements, cyclists and pedestrians.

4.6.3 Hatfield Station has all the requirements to create an effective and attractive multi-modal interchange. The location brings together rail, bus, taxi, walk and cycle and this could be taken advantage of to create a truly integrated and high profile facility. The growth in use of the station and the regional context of further growth are prompting change with a fresh approach to the role of the station as a gateway to the town.

4.6.4 The current arrangements at Hatfield Station are unsatisfactory with conflicts between people and vehicles. Use of the station is growing and a revised arrangement is required to meet demand and to facilitate better interchange for rail users travelling to the station by bus, taxi, cycle on foot or as car passengers or drivers. Car parking is a dominant feature of the current layout with cars using two station car parks and also parking in nearby roads. People walking and cycling to the station are disadvantaged by poor routes and a lack of safe road crossing points.

Planning Stage

4.6.5 To encourage participation at the planning stage, a workshop was held on 8 February 2007 to bring together the stakeholders to exchange ideas to determine the most suitable layout for an improvement scheme. The objective of the workshop was both to improve the current arrangements by devising suitable scheme options and to consider how sustainable transport (rail interchange with buses, taxis, walking, cycling) could be encouraged. This workshop involved interest groups as well as transport operators and local authorities to ensure that all views were taken into account in a balanced and equitable way. Appropriate information was made available to participants who were then invited to present their experiences and opinions. They were then asked to consider how the various issues raised could be addressed and translated into possible solutions. This approach also provided a unique opportunity for participants to discuss ideas with other interested parties and exchange views on the proposals. Invitees included Network Rail, the train operator, local authorities, user groups, bus operators, taxi operators, Hatfield House, the café proprietors and others.

4.6.6 Survey work undertaken at the station had indicated that many people travelled to the station on foot, by bus and other modes as well as arriving by car. This emphasized the importance of interchange opportunities and the need to consider all modes. Hatfield station is unusual in that there are significant numbers of inbound rail users (predominantly travelling towards the University of Hertfordshire and Hatfield Business Park sites) as well as outbound journeys (mainly commuting, particularly towards London).

4.6.7 The train operator, First Capital Connect, had noted the growth in levels of use and the potential for further growth at Hatfield and the fact that the current arrangements were unlikely to meet future demands, particularly considering the growth planned for the area in the regional plan. There was the possibility that further improvements would be undertaken which required the installation of lifts to the northbound platforms which could provide an opportunity for reconstruction of the station building at some stage. Also, the possibility of a decked car park was discussed.

Participants' Views

4.6.8 Participants shared the view that improvements were desirable and should be promoted. To help inform the workshop, information was circulated regarding the user surveys, the requirements for buses and photographs of the station and its environs. The lack of space for buses and the conflicting vehicle movements with cars and taxis needed to be addressed, particularly as the number of buses serving the station is expected to increase.

4.6.9 A number of possible layouts had been considered and were presented to illustrate possible options within the space available. To achieve a better arrangement in these indicative options, part of the A1000 Great North Road was reallocated by narrowing the carriageway and transferring it for use by buses. These indicative layouts illustrated how conflicting movements could be avoided and space reallocated to ensure safety improvements and easier arrangements for all users and also identified potential difficulties. The layouts presented also allowed for a structure to provide better shelter for station users while presenting a new image for the station as a gateway to Hatfield.

4.6.10 The workshop successfully established the principles of the scheme from which possible layouts were determined. The station was considered to be an important focus for travel but presented an uninspiring facility. Many issues were common to all the stakeholders:

- creating more space for buses;
- segregating different types of users as much as possible;
- creating a new vehicular access to the south car park;
- relocate the access/exit to the north car park;
- providing better cycle parking;
- meeting the needs of people with mobility impairments including step-free paved area around the station building;
- introducing new pedestrian crossings and removal of the subway under the A1000;
- improving the walking route via the footbridge to Beaconsfield Road;
- improved personal security measures such as CCTV;
- support for more parking provision at the station which would ease pressures on surrounding roads; and
- providing shelter for taxi and bus users particularly and supporting the concept of a large canopy at the east side of the station.

4.6.11 Encouragingly, no major conflicting views were apparent. It was felt that the main feature – creating more space for buses – should accommodate bus movements in both directions within the station forecourt to avoid users having to cross the road. This element of the scheme largely determines others but is compatible with creating new arrangements for taxis, car passenger pick-up/drop-off, better cycle parking and walking routes. Bus stops could feature high kerbing to allow level boarding, improved information and better shelter while providing space for more buses to stop and to lay over as required.

4.6.12 Taxis could be relocated to the rear of the station building to attract night time station users using the platform exit although the current building may need to be altered to provide a

second exit during the daytime operational hours. Moving the taxi stand would allow car passenger drop-off/pick-up to be located outside the entrance to the station. Improved cycle parking (more space and with better facilities) should be provided, the current location being appropriate if more security is introduced.

Options to be Considered Further

4.6.13 Two options were determined on the basis of the views expressed at the workshop (see Figures 5.1 and 5.2). Option A involves a new mini-roundabout to allow southbound buses to re-join the A1000 Great North Road; this provides more space for buses, a new access to the south car park, a relocated taxi stand and car passenger drop-off/pick-up point, new crossing arrangements for the narrowed A1000 Great North Road, removal of the subway and improved footbridge together with improved secure cycle storage. Option B substitutes traffic signals and incorporates formal pedestrian crossing arrangements at the signals. An initial cost estimate suggests that either scheme could cost in the region of £600,000 to £800,000 excluding any major structures.

4.6.14 In due course, the preferred scheme options will be taken forward for delivery as part of the Local Transport Plan programme to help support its objectives and promote sustainable travel to and from Hatfield. This will involve both Hertfordshire Highways/Hertfordshire County Council and Network Rail and First Capital Connect. Consultation is expected to take place on a preferred scheme prior to detailed design being undertaken and funding sources explored. Detailed site surveys and safety audits would also need to be completed. To complete the process, monitoring will take place after construction to ensure that the scheme can be reported on for LTP purposes. The option for a canopy structure is as yet undetermined but could complement the preferred design option.

Figure 4.1 Hatfield Station Interchange Option A

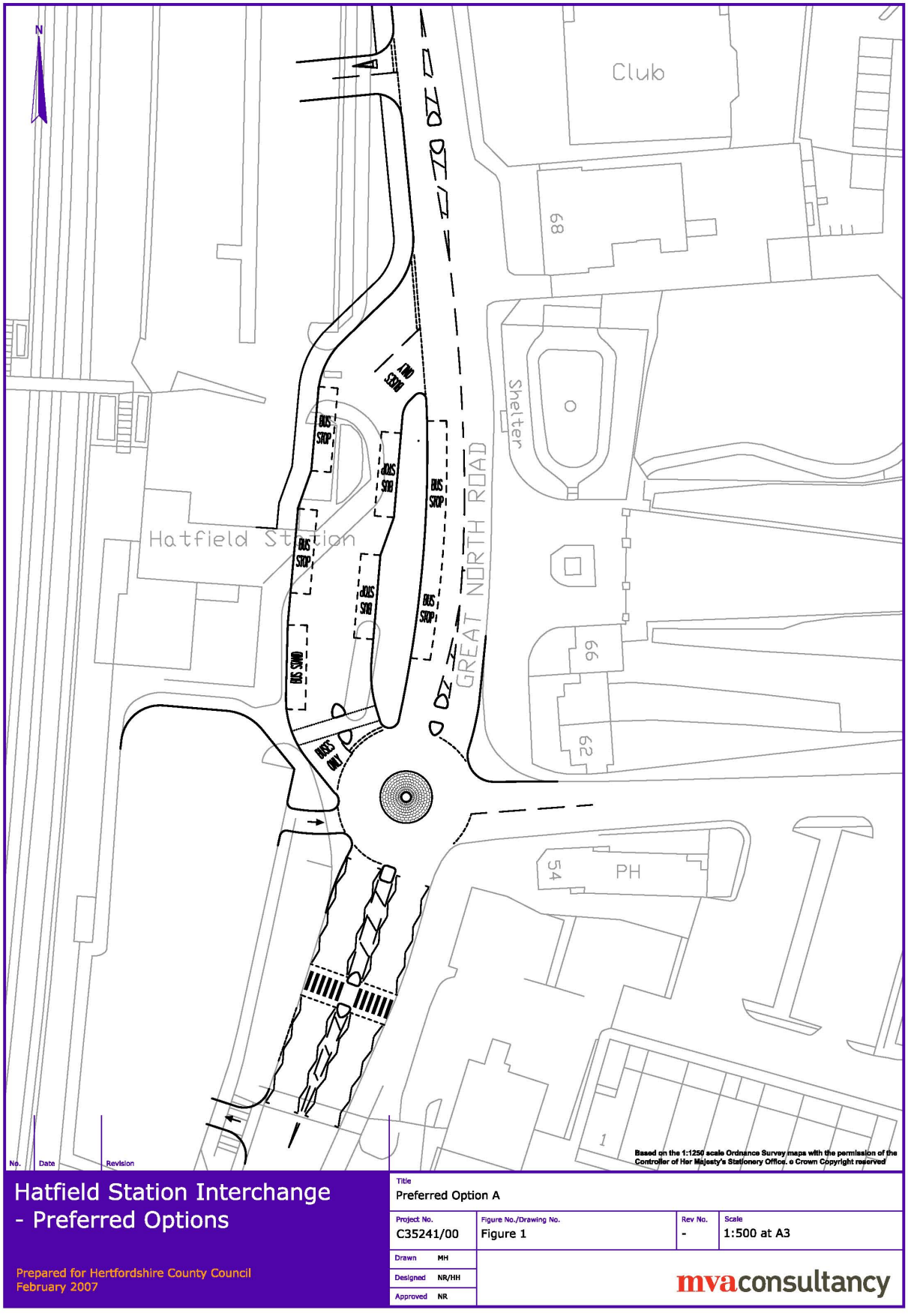
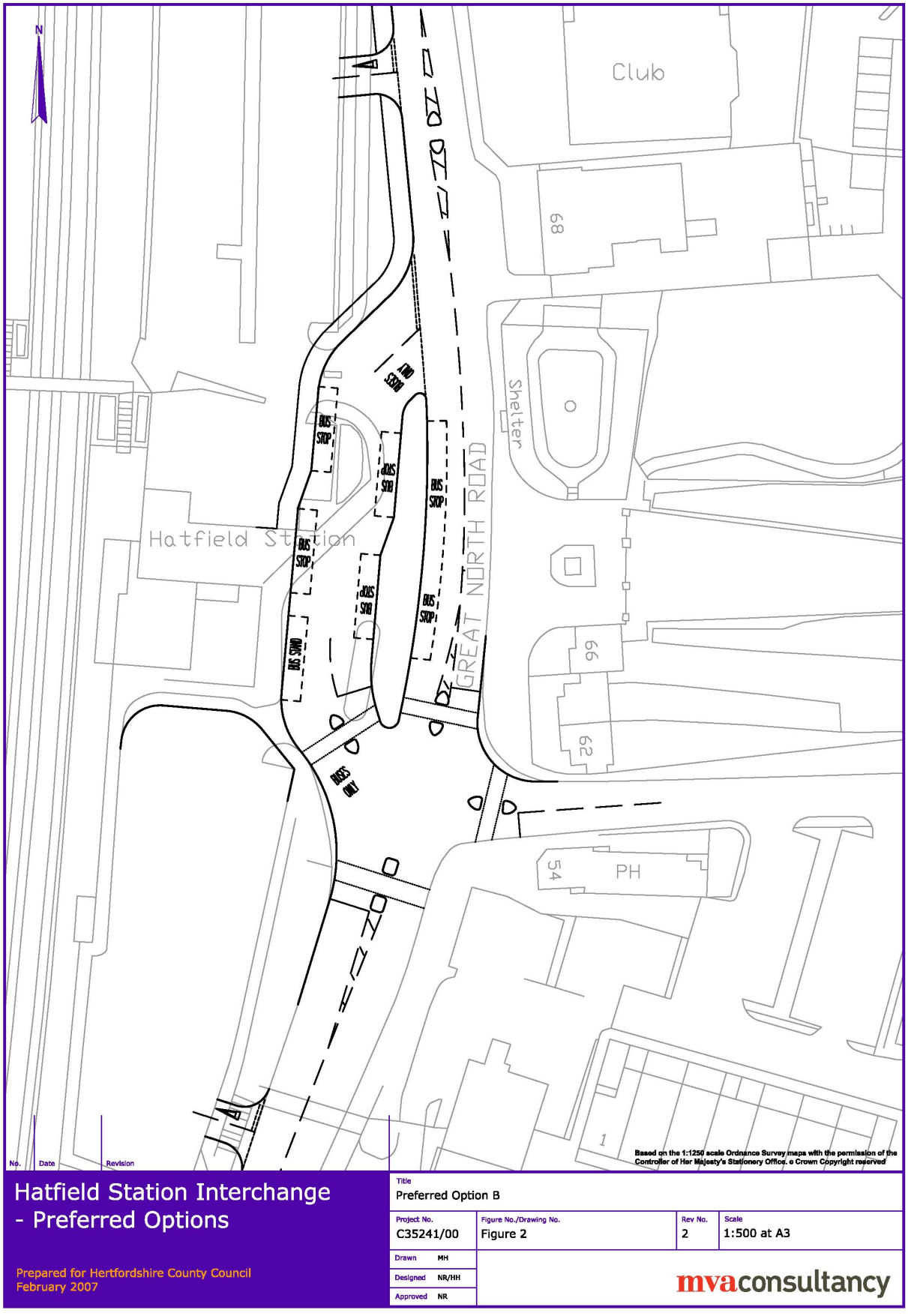


Figure 4.2 Hatfield Station Interchange Option B



4.7 University Park and Ride

4.7.1 The park and ride facility's initial success suggests that there may be opportunities to extend the service to include other users located close to the university should adequate capacity be available. Currently around 800 spaces are available with regular bus connections to the university campuses. The advantages to users of the facility should be reflected by the introduction of charges in due course.

4.8 Public Transport Action Plan

Bus Services

4.8.1 It is appropriate to establish an effective partnership involving all bus operators, Hertfordshire County Council, Welwyn Hatfield Council, developers and others to:

- introduce infrastructure improvements on- and off-street – including comprehensive upgrading of stops and bus interchanges;
- work with developers to integrate bus services with proposals at the planning stage and through to implementation – ensuring that services meet demand;
- improve vehicle presentation and customer care – although these vary, our observations suggest that there is some room for improvement;
- significantly improve information at stops, bus stations and elsewhere – using various media (web sites, telephone, real time, static);
- jointly market services under the Intalink brand;
- review current services in terms of routes and timetables – taking into account demographic and economic changes;
- commission research into demand patterns and needs of the community – adjusting the network to meet new demands such as evening and weekend services and revised routes;
- consider new fare structures and payment methods – helping to speed up journeys and encourage use;
- consider the scope for park and ride services – building on the experience of the university's scheme; and
- consider best practice from elsewhere – to introduce tried and tested initiatives.

Rail Services

4.8.2 The number of rail services available is impressive with rapid journey times to key destinations, particularly London. However, integration with other modes could be improved. More specifically:

- revised interchange arrangements should be designed at Hatfield Station to take the opportunities presented to create a high quality rail/bus/taxi/cycle/walk facility that is more representative of the user types and will attract additional rail users; and
- additional station parking could be considered at Hatfield if justified on road traffic grounds and provided that train capacity is available.

5 Development Sites

5.1 New Opportunities

5.1.1 Promotion of rail and bus journeys, walking and cycling is best achieved when the development proposals focus on these modes rather than on car movements and parking provision.

5.1.2 The District Plan[4] sets out the Council's position regarding development requirements and constraints in accordance with other planning frameworks including regional guidance and the LTP2. The Plan includes three key principles: to locate development where it is already accessible by a number of modes of transport, give priority to walking, cycling and passenger transport in the design and servicing of development and reduce car parking at accessible sites.

5.2 Regional Housing and Employment Allocations

5.2.1 The East of England Plan - the regional spatial strategy – has been subjected to an Examination in Public and the Panel has produced its report. The Panel recommends that Welwyn Hatfield's housing allocation from 2001 to 2021 should rise from 5,800 proposed in the draft plan to 10,000 dwellings and that Welwyn Garden City and Hatfield should become Key Centres for Development and Change. In addition it recommends the development of new employment sites within the borough. This could mean that approximately 190ha (470 acres) will be released from the green belt in Welwyn Hatfield alone – an area equivalent to the built-up area of the Hatfield Aerodrome site.

5.2.2 The identification in the ODPM's Sustainable Communities Plan and the regional spatial strategy of Stevenage as a Key Centre and a priority area for regeneration suggests that its role will grow relative to Welwyn Hatfield (even if substantial additional development takes place in the latter). The expansion of the Lister Hospital and retail/leisure activities will require stronger public transport links to be provided throughout the working day and during evenings and weekends also.

5.3 Development in Hatfield Town Centre

5.3.1 The town centre has experienced significant decline with competition from other centres and its infrastructure is ageing, enclosed and unappealing. Comprehensive redevelopment is planned with stronger retailing and other activities. The relationship between the town centre, The Galleria and the Aerodrome site activities also needs to be considered and the town centre will provide local facilities rather than higher order facilities. As the District Plan notes, the future vision is that 'the three centres should work together to serve Hatfield. Therefore, it is important that their services complement each other and that they are well linked by transport' (paragraph 13.45). The redevelopment has now been approved and a Section 106 agreement has been signed.

[4] Welwyn Hatfield Council (2005) *Welwyn Hatfield District Plan 2005.*

5.3.2 Measures associated with the redevelopment include walk, cycle and bus links to The Galleria and Aerodrome site, new pedestrian and cycle crossings to link the centre with surrounding residential areas and a bus interchange to consolidate bus activity. Parking management will be required to avoid overspill into adjacent areas.

5.3.3 Most of the town centre will be demolished to make way for this redevelopment area, although some buildings will just require refurbishment. An example is the White Lion House which will be refurbished and used as a mixed block. The development will be high density, which can be achieved through an increase in height and it is expected that many buildings will be between three to five storeys high around the Central Square. High quality street furniture throughout the development area and art design in the new town square is important to encourage a high quality public realm.

5.3.4 Extending the range of facilities available in the town centre will increase levels of use and therefore generate additional trips. Many of these trips will be short distance and ideally suited to walk, cycle and bus. Longer distance trips to The Galleria and other town centres will more likely be made by car.

5.3.5 It is important to capture sustainable modes with the town centre redevelopment. This requires a strong emphasis in layout and design with strong walk and cycle routes and high profile bus facilities. Centrally located and secure cycle parking will be needed and good lighting and surveillance to encourage confidence in walking.

5.3.6 The proposed bus interchange should be designed boldly and in a high profile manner. Simply providing a series of shelters arranged around a bus circulatory area will do little, if anything, to encourage people to use buses. This is a major opportunity to improve the profile of buses which will be lost if an unimaginative approach is adopted.

5.3.7 Car parking needs to be managed with good facilities located conveniently but not at the expense of other modes. The current arrangements put buses at the periphery and pedestrians and cyclists are relegated to poor access routes, often through parking areas. This should be reconsidered to give greater prominence to sustainable modes.

5.3.8 All car parks should be monitored by CCTV and have clear walking routes to the centre. A potential issue arises with the location of the Asda car park in the town centre and its relationship with other car parks – charging for council-managed car parks will need to be considered in conjunction with Asda.

5.4 Travel Plans

5.4.1 Travel plans are an effective means of promoting sustainable transport and can be applied at schools, workplaces and other locations. They involve taking a co-ordinated approach to transport problems such as lack of car parking, safety and the provision of facilities e.g. for cyclists and bus users.

5.4.2 School travel plans are being promoted through the County Council and encourage children and parents to avoid car use, primarily by walking to school but also for older children by cycling and bus use. This has the advantage of encouraging healthier lifestyles as well as reducing conflicts between children and vehicles at school times.

5.4.3 Workplace travel plans can be applied to larger employers and are often initiated through the planning process. The plans require mode share targets to be set and constraints to be placed on the amount of on-site parking provided. Although there are difficulties with enforcing travel plans, they can be effective in supporting non-car modes and providing suitable infrastructure such as safe walking routes, secure cycle parking and discounted public transport tickets. As new employment areas expand, efforts should be made to introduce travel plans either individually or in combination.

5.4.4 Similar principles can be applied to larger redevelopment sites and include residential, leisure and other land uses as well as commercial developments. A site travel plan would be appropriate for larger sites as has been demonstrated for the Hatfield Aerodrome site.

5.5 Former Hatfield Aerodrome

5.5.1 The former Hatfield Aerodrome (BAe site) is being redeveloped by Arlington Property Developments Ltd and forms the largest area of redundant industrial land in Hertfordshire. A masterplan was adopted in 1999 and has been subject to some revisions subsequently. The site covers 322 hectares, 56 hectares of which are in St Albans District. Over half of the site is designated green belt. Planned uses for the site include residential (1,600 dwellings), the University of Hertfordshire's de Havilland campus and associated student accommodation, a district centre, hotel, primary school, community facilities, substantial commercial development and employment sites (46.5ha). Some major elements are not complete including the university campus and associated residential units and parts of the residential estate.

5.5.2 One of the principal design objectives for the landscape strategy is ability to permeate the built development with clear, safe and attractive footpath and cycle links. In addition the design principles include provision for bus users. Walk and cycle paths are in place alongside the main carriageways through the site and bus shelters have been installed at stops.

Green Transport Master Plan

5.5.3 The developer has sponsored a travel plan for the site as part of the Section 106 agreement with the local planning authority. This provides a framework for the individual green travel plans for occupants, co-ordinated by a consultant. The Green Transport Master Plan[5] includes mode share targets, taking into account the infrastructure provided on site, and considers monitoring to assess the effects of the plans in place.

5.5.4 Targets for the site have been determined and aim to achieve a reduction from 90% car driver mode share in Year 1 to 70% in Year 5. This compares with 2001 Census journey to work data that indicates that the mode share of car driver was 68.2% (daytime population) and 58.3% (resident population). To ascertain the number of journeys made by each mode, further monitoring will be required as part of the travel plan. This will be required particularly to identify combined car/walk journeys, walking and cycling trips and bus journeys associated with rail journeys to Hatfield station.

5.5.5 Bus services link the site with Hatfield town centre and beyond but the bus gate onto the A1057 St Albans Road West has yet to be completed and hence the circulatory arrangement

[5] Scott Wilson ( ) *Hatfield Aerodrome Redevelopment Green Transport Master Plan*.

serving the de Havilland campus is unavailable. The design of the roads on residential parts of the site is such that full size buses cannot be used and the layout is not conducive to operating bus services.

5.5.6 The provision of bus services, funded in whole or in part by the developer, is a key feature of the plan with a large funding contribution. However, bus stops are not well located in relation to buildings and do not have natural surveillance and no bus priority measures are evident apart form the de Havilland campus link, as yet not completed. Various incentives are in place for potential users (publicity materials, interest-free loans, discounted tickets, 'work buses', bus stops and interchange facility and the provision of lap tops and mobile phones to use on journeys.

5.5.7 Parking is available on the individual occupiers' sites but parking on the access roads is rigorously prevented and enforcement is undertaken as the roads within the development site are unadopted.

5.5.8 To achieve a sustainable development, much more emphasis on the relation between land use and transport needs to be given, particularly in terms of providing clear and attractive walking and cycle routes and better design and layouts within individual sites.

5.5.9 Employer buses provide opportunities for a co-ordinated approach to bus provision. These are fully funded by employers to provide transport for their staff to meet their requirements and are generally not available for use by others and it is possible for employers to work collectively to provide buses. However, the County Council does not support employer buses except in exceptional circumstances where the local bus network does not provide the necessary services.

5.5.10 The Aerodrome site is a major influence on transport movements in the surrounding area and efforts should be made to minimize the number of car trips to and from the site with effective enforcement of travel plan measures.

University Travel Plan

5.5.11 The University of Hertfordshire is a major contributor to the site's activities. The university's travel plan sets out the current mode split and associated targets which requires a significant reduction in the proportion of car journeys and hence an increase in car sharing, cycling, walking and rail and bus use, the latter being particularly effective with the expansion of Uno. The introduction of the university's park and ride will make a difference as the site has a capacity of 800 vehicles and from the outset has been very successful.

5.5.12 The travel plan also includes initiatives that set a standard for the wider community including such features as provision for motorcycle and safety training; improved walk and cycle routes, a parking management strategy, sustainable travel for disabled users, teleworking, flexible working hours and reducing unnecessary deliveries.

Table 5.1 University of Hertfordshire Current and Target Mode Split (%)

Mode	Staff primary mode of travel	Staff target by 2007	Student primary mode of travel	Student target by 2007
Car driver	82	70	37	27
Car passenger	3		2	
Motorcycle	0.5		0.5	
Cycle	2		4	
Bus	5	30	19	73
Other	0.5		0.5	
Park and ride	-		1	
Train (+other)	1		5	
Walk	6		31	

Source: UH Travel Plan leaflet

5.5.13 The university has taken a very positive approach to transport. Cycling to the two main campuses is encouraged with progressive improvements to facilities. However, the network is not complete in that some road crossings are challenging with insufficient facilities being in place. These locations act as barriers to cycling which could be overcome by the introduction of toucan crossings. In addition, a cycle loan scheme is being considered.

5.5.14 Walking to university sites is also encouraged. College Lane has benefited from improved lighting and incidents resulting from behavioural/personal security tensions are limited in number. However, the wider walking network is hampered by a dislike of subways and lack of directional signing.

Regional Hospital

5.5.15 The proposed Hatfield Hospital (East and North Hertfordshire NHS Trust) would have provided new facilities on a 15.5 hectare site at a cost of £500 million, intended to open in 2013. It would have included a wide range of facilities including a cancer centre and be a Centre of Medical Excellence due to the proximity of the university and Eisai. However, while a final decision has yet to be made, it has been indicated that the hospital will not be developed and instead the policy will be to concentrate on established sites at other hospitals including the Lister (Stevenage) and Watford. This will require patients to continue to travel outside the area to access some health facilities.

5.5.16 The decision not to develop the Hatfield site will require longer journeys for the university's healthcare students to other sites rather than the short distance between the new hospital and the de Havilland campus. The type of land use now planned for the hospital site is unknown but may generate different types of journey, possibly more suited to car travel than sustainable modes.

Securing Sustainable Travel

5.5.17 With the bus services in place, it is important that they are used sufficiently well that they become commercially viable once the pump-priming is exhausted. Travel habits take time to become established and it is hoped that buses will be an attractive alternative to car use, particularly if on- and off-site parking is controlled.

5.5.18 The Travel Plan Co-ordinator for the site is well placed to bring together travel initiatives and encourage sustainable travel. This should include a number of elements working together including:

- car sharing:
  - setting up a convenient database for all employers;
  - providing priority spaces in car parks;
- park and ride:
  - investigating the potential for park and ride;
  - reviewing the use of the university park and ride;
- bus use:
  - full information provision for employees and visitors;
  - negotiated discounts for season tickets;
  - championing bus use;
  - considering employer-sponsored buses;
- walking:
  - supporting direct and attractive routes;
  - encouraging walking initiatives;
- cycling:
  - encouraging cycling;
  - supporting attractive cycle routes;
  - supporting the provision of secure cycle parking;
  - encouraging other facilities e.g. storage and changing areas;
- personalized travel planning – identifying sustainable travel options for individuals;
- working with transport providers to support sustainable modes; and
- co-ordinating proposals jointly with employers.

5.5.19 The travel plan should be endorsed as much as possible with strong marketing of bus services with employers and residents. Secure cycle parking facilities should be available for all occupiers and visitors in highly visible locations. Walking and cycling should be supported by appropriate road crossings and continuous routes with adequate lighting and sightlines. Also, the bus gate should be completed to allow services to operate as planned.

5.6 Impacts of Proposed Developments

5.6.1 Modelling has been undertaken to ascertain the impacts across all modes of development proposals. Individual proposals are generally required to determine Transport Assessments to demonstrate that they can be accommodated within the transport networks and outline the measures that will be introduced to ameliorate the impacts of additional demand. On this basis, the acceptability of each proposal is determined by the highway authority and the local planning authority.

5.6.2 The model requires input data to quantify the expected land uses and associated trip generation. It then calculates generated trips (with destination zones) and attracted trips (with origin zones) by time period and direction. The number of trips by mode is then determined to indicate the expected impacts on the transport networks. Car driver trips are then assigned to the local road network to show the expected impacts on highway links and junctions.

5.6.3 Inevitably each of the new developments will create additional demand for travel for a variety of purposes. However, minimizing car use is the key to reducing the impacts so that the highway network can continue to function without congestion and to reduce the negative impacts of car use – pollution, noise, safety, exclusion, cost, severance and parking provision.

5.6.4 While the majority of journeys are internal to the town, journeys to other centres are also evident. The Old Town can be expected to retain its identity and other outer parts of the town can be integrated to benefit from transport improvement schemes in the centre.

5.7 Impacts of the Developments in Combination

5.7.1 The developments in combination produce a significant number of additional trips. Many of the internal trips are within walk/cycle distance and emphasis should be given to transferring car journeys to sustainable modes. As journeys lengthen, then the range of origins and destinations widens so the opportunities to access public transport services reduce. Hence longer external trips are more likely to be car-orientated. Local external trips could be transferable to some extent to local bus services.

5.7.2 The main impacts will be from the Hatfield Aerodrome site. Although many car trips will use the main routes, particularly the A1(M) and A414, the local road network will be adversely affected. Junctions on the approach to the site, particularly A1001 Comet Way, will become more congested. Failure to address local demand for car travel will exacerbate the problems expected.

5.7.3 The Aerodrome site development is expected to dominate the generated trips in the area. To achieve the modal share proposed, the impact of walking cannot be under-estimated, as it represents one fifth to one quarter of all journeys. Rail and bus journeys need to be sustained and encouraged given the requirement to maintain bus services on a commercial basis in the longer term.

6 Other Issues

6.1 Issues Raised

6.1.1 A number of other issues have been raised during the development of the plan. All are elements of an integrated approach and are considered below.

6.2 East-West Links

6.2.1 Much of Hertfordshire suffers from poor east-west links. North-south rail and road links are generally very good with main rail lines and motorways passing close to urban centres in contrast to the poor east-west links. Where roads are available such as the A414, they are heavily used which can cause reliability problems for motorists, freight operators and inter-urban buses and scheduled coach services. Rail links are no longer available and coach connections to railheads are the only alternative to journeys into London and out again to reach many destinations. Hatfield has been identified in the draft East of England Plan as a node on a strategic east-west link.

6.2.2 The prospects of creating stronger links are limited, even with the level of growth planned. For public transport journeys, improved east-west inter-urban bus services offer the best means of making connections. However, it is difficult to balance the desire for inter-urban services against the commercial requirements of operators. To be attractive to potential users, a high frequency service is needed, particularly if traffic congestion worsens and reliability suffers. The Green Line (Arriva) 724 service provides east-west links via Hatfield to Harlow and Heathrow Airport although at its eastern end it does not serve Harlow rail station or Stansted Airport. The Regional Transport Strategy supports inter-urban bus links but does not indicate where revenue support could be sought. Constructing major new roads is not planned in the area while restoring or creating new rail links is not feasible.

6.2.3 However, despite the situation outlined above, an opportunity has arisen in connection with rail engineering works on the East Coast Main Line. The works will require East Coast users to transfer to the Midland Mainline at St Albans and use buses to access Hatfield. This might reinforce the use of the bus network for east-west links.

6.3 A1000 Great North Road

6.3.1 The A1000 Great North Road junction with the A1001 South Way to the south east of the town does not allow for turns from the A1000 to the A1001 to allow traffic to access the A1(M) at Junction 2. This results in motorists using the alternative route through the built-up area via Woods Avenue and Travellers Lane, thereby accessing the A1001 South Way.

6.3.2 A solution would be to create a new junction arrangement to allow these roads to provide a direct link to the town from the A1(M). This would require substantial alternation to the existing arrangements.

6.4 Parking

6.4.1 Parking is a significant area of concern. Off-street parking for retail and other town centre uses is being addressed with the planned redevelopment. This will replace the untidy and inefficient circulatory arrangements in the current town centre car parks and provide new parking areas in addition to that provided by the Asda superstore. It is important that there are clear, safe walking routes from the new car parks to town centre destinations. While parking availability may be desirable, it should be seen as one element of accessibility with buses, cycling and walking also having appropriate consideration. Table 6.1 shows the public off street parking in the town.

Table 6.1 Hatfield Public Parking

Location	Spaces	Type	Management
Town Centre			
Link Drive	149	Free	Welwyn Hatfield Council
The Common	187	Free*	Welwyn Hatfield Council
Kennelwood	58	Free*	Welwyn Hatfield Council
Dog Kennel Lane	64	Free	Welwyn Hatfield Council
Forum	166		
Old Hatfield			
Broadway	13	Free	Welwyn Hatfield Council
Batterdale Lower	20	Free	Welwyn Hatfield Council
Batterdale Upper	18	Free	Welwyn Hatfield Council
Salisbury Square	68	Free except for permit access only 5am to 9am	Welwyn Hatfield Council
Rail Station			
North & south car parks	227	Peak/off peak charges	First Capital Connect
Total	**970**		

* Affected by town centre redevelopment; excludes Asda superstore.

6.4.2 The Aerodrome site includes a number of car parks associated with new office and leisure developments in addition to the university and other uses. Unfortunately the private non-residential (PNR) parking areas predominate compared with access by walking and cycling routes and bus stops which appear to be a secondary consideration.

6.4.3 Controlled Parking Zones (CPZs) have been considered as a means of regulating on-street parking, particularly in the vicinity of the University of Hertfordshire's College Lane campus. The use of residential streets for student parking has generated problems which could be addressed by CPZs. The introduction of a park and ride site for the university to the south of the town has helped to alleviate the problem but some tensions still exist. CPZs here and in other parts of the town, such as close to the rail station, are effective provided that they are

properly managed and enforced. This approach would be effective where other measures such as park and ride and regulated car parks are in place. However, any resident permit scheme should be acceptable to local people in that parking problems must be so serious that they outweigh the inconvenience and cost of a permit scheme. Welwyn Hatfield Council has deferred any decisions on introducing CPZs in favour of junction protection and measures to prevent obstruction; additional parking in suitable locations will also be considered.

6.4.4 Priority areas identified include South Hatfield, the area surrounding the town centre, Old Hatfield and, to a lesser extent, the Aerospace development/Ellenbrook area.

6.4.5 Hatfield Station has two car parks managed by the train operator. However, there is evidence that significant numbers of motorists using the station park in nearby streets, thereby causing difficulty for local residents. This could be alleviated by the introduction of a CPZ but this would be most effective if further capacity is created for rail users. It has been proposed by the train operator and Network Rail that a multi-storey facility be provided at the station. This would generate extra revenue but would require additional capacity for peak travel to be made available on London-bound trains to accommodate additional users. It is expected that there will be considerable growth in the number of rail users and hence any additional capacity at the station may not be sufficient to offset the number of vehicles parked in local roads and hence a CPZ would be appropriate. Providing station car parking also emphasizes the role of the station as a hub for travel and would not cause undue pressures on the local road network if appropriate management measures are in place. It may be desirable to allocate some parking spaces for the sole use of off-peak travellers for example.

6.5 Car Clubs

6.5.1 Car clubs offer access to vehicles without the need to fully fund and accommodate ownership. Cars are pooled and booked by individual users as required with payments being based on mileage or time used. This minimizes demand for parking spaces and designated spaces may be made available on-street and in some car parks.

6.5.2 Some UK examples have emerged in recent years including schemes in Edinburgh, Bristol, Leeds, LB Sutton, Cardiff, Swansea and Leicester. Users are attracted to the scheme on grounds of cost savings and convenience. The principles of car clubs are supported both by Government transport advice and land use planning in recognition of the reduced parking requirements and environmental benefits. The concept is particularly appropriate in urban residential developments where sustainable modes are also available and where space is at a premium.

6.5.3 There may be scope to consider car clubs in Hatfield as one element of the transport package for new developments. The concept could be applied to residential sites on the Aerodrome site where there is scope for walking, cycling and bus use for journeys but a likely need for car journeys on a less regular basis. This arrangement would also help to reduce the demand for parking space and hence intensify land uses at this type of location. This would accord well with the introduction of a residential travel plan. Such a scheme could be appropriate for larger development sites or a cluster of sites.

6.6 Welwyn Hatfield Car Share Scheme

6.6.1 A scheme was introduced in February 2007 in Welwyn Garden City which includes up to 8,000 members. Co-ordinated by the district council, the car share administers a database to allow sharers to identify people with similar requirements so that car journeys can be avoided and costs and parking spaces shared. A similar scheme is expected to be introduced in Hatfield.

6.7 Road Traffic Accidents

6.7.1 The LTP provides the main policy framework for road safety in the area. Improvements in road safety are necessary to ensuring vitality and wellbeing of the population. A number of specific issues are highlighted:

- child pedestrian casualties peak at 12-15 year olds;
- despite reductions in motorcycle casualties accidents associated with moped riders have increased recently;
- 16% of KSI's involve pedestrians. High numbers of those are elderly and between the ages of 20-29; and
- exceeding the speed limit was a factor in 16% of KSI's on 30mph roads.

6.7.2 Key action areas have been determined which are:

- to continue to implement education, engineering and enforcement measures;
- to focus on target groups; and
- to set up a Road Casualty Reduction Partnership.

6.7.3 Targets relevant to safety are shown in Table 6.2.

Table 6.2 Hertfordshire LTP Safety Targets

Indicator	Baseline	Target (2010)
Number of people killed or seriously injured on roads in the authority	1084 casualties (1994-98 average)	Reduce to no more than 600 casualties
Number of children (aged 16 or less) killed or seriously injured in the authority	113 casualties (1994-98 average)	Reduce to no more than 56 casualties
Number of slight injuries (all ages)	5509 casualties (1994-98 average)	No increase in slight casualties

6.7.4 A number of other indicators link with safety and these include:

- improvements to road and footway conditions;
- school travel plans; and
- speed limit compliance.

6.7.5 The Mid Hertfordshire Area Transport Plan contains the objectives and strategies for the area. Objectives relating to safety include:

- reduce the adverse impacts of transportation on safety; and
- improve personal security and safety.

6.7.6 Strategies have been identified to achieve the objectives above:

- support and complement the countywide road safety plan to minimise the number of collisions and injuries occurring on the highway network; and
- support and help to deliver the countywide Safer Routes to School programme.

6.7.7 Accident casualty data has been provided by Hertfordshire County Council for the three year period from 1 November 2003 to 31 October 2006. This represents all personal injury accidents reported to the police.

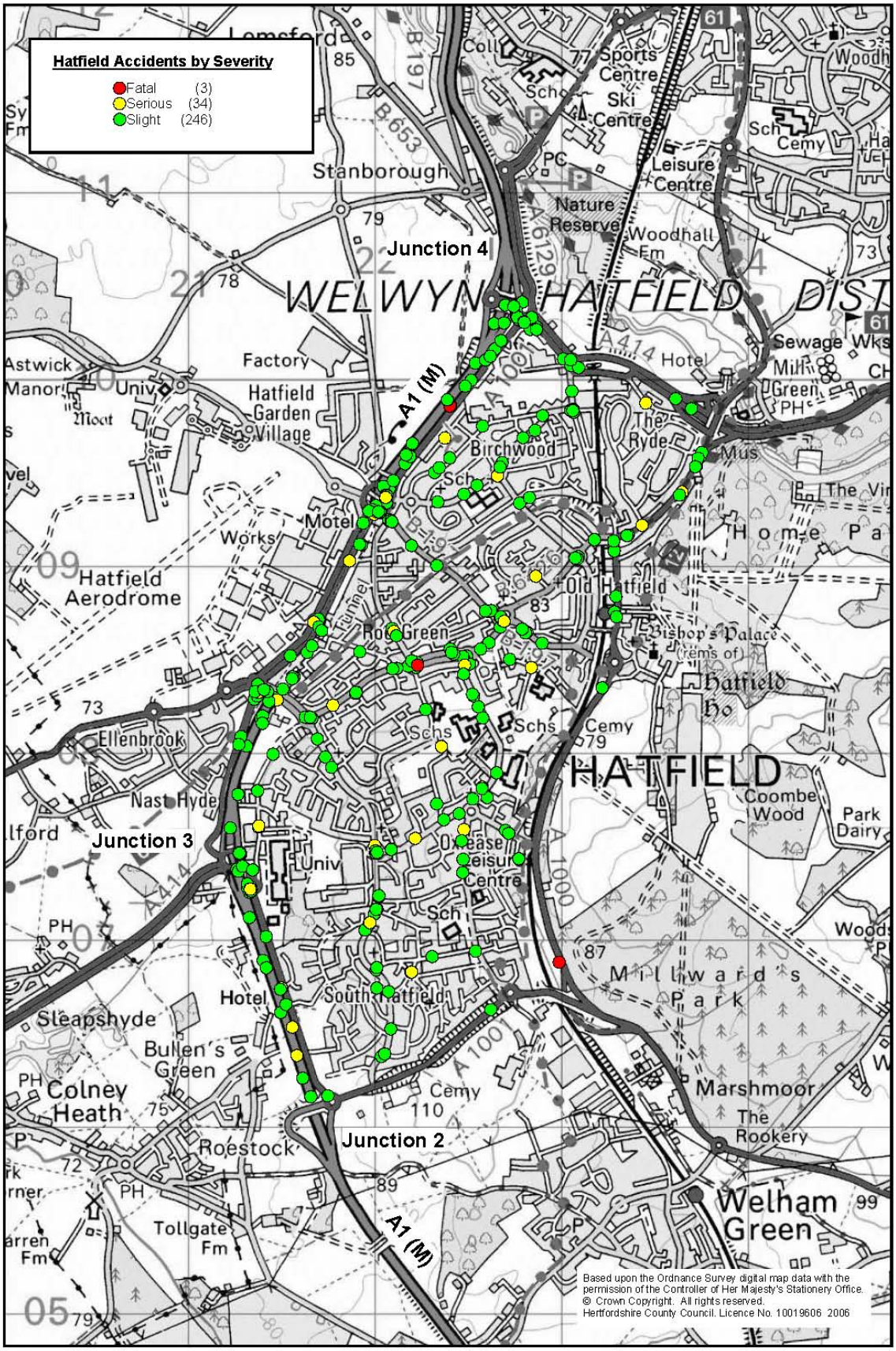
6.7.8 It should be noted that a comprehensive accident investigation study for Hatfield has not been carried out. An assessment has been made based on the information provided which has focused on analysing accident problems at a high level. Many factors can affect accident occurrences which are often numerous and not independent. A more detailed study would also require:

- traffic levels and composition for all roads;
- detailed contributory factors;
- road types and lengths; and
- detailed knowledge of road signs, layouts and markings.

6.7.9 From the data provided it has been possible to examine the pattern of accidents in terms of type and location. Contributory factors are however more difficult to ascertain as information concerning this is limited.

6.7.10 Casualty accidents by severity (slight, serious and fatal) have been plotted and are shown in Figure 6.1. As the figures highlight, 246 accidents were recorded as slight (the equivalent of 87%), 34 were serious (12%) and 3 were fatal (1%). It should be noted that a number of these accidents occurred on the A1 (M) which is outside of the area of this study and are therefore not discussed any further here.

Figure 6.1 Location of Accidents by Severity



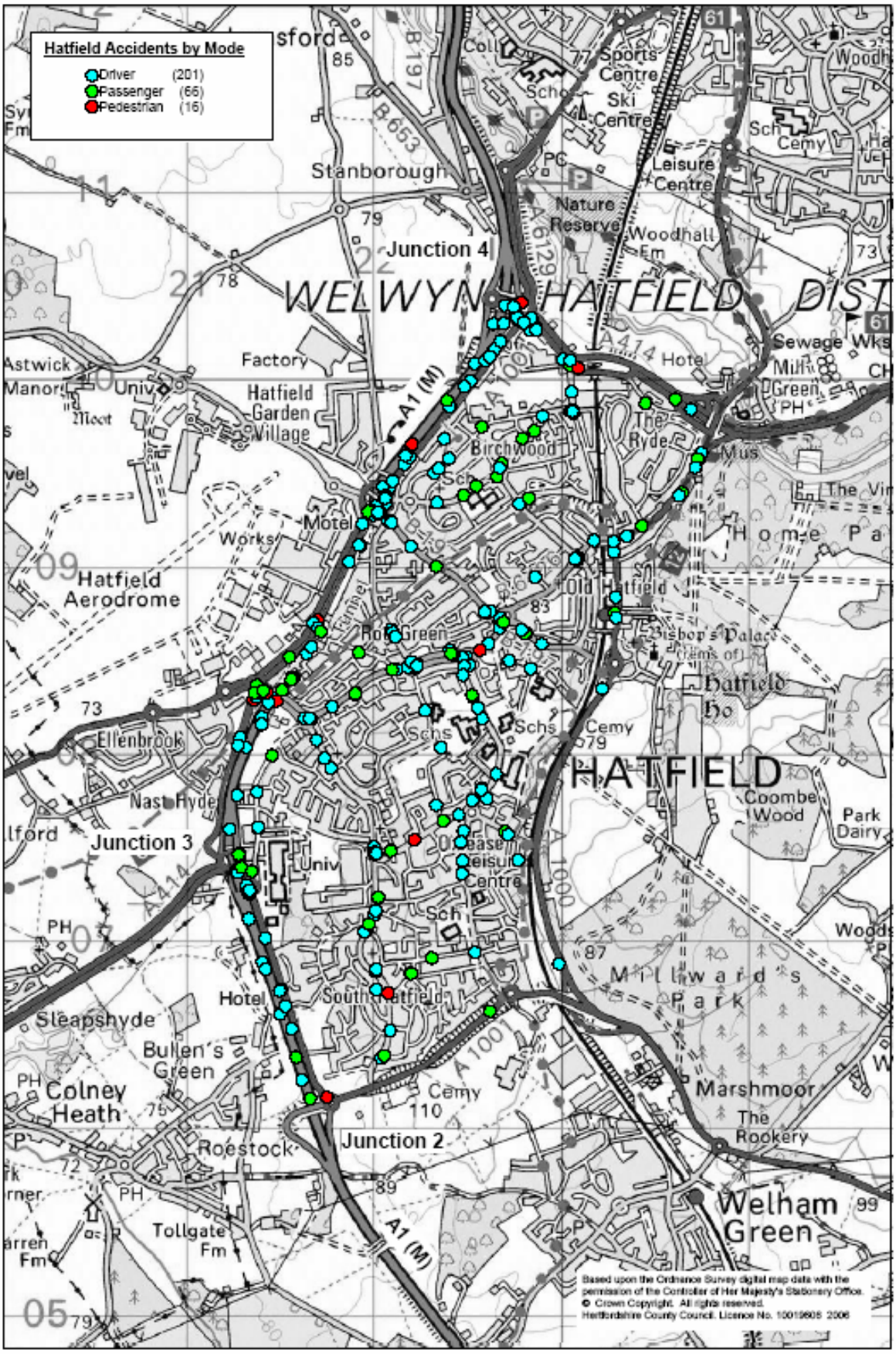
6.7.11 From the information available, it appears that the fatalities are isolated cases and it is more likely that they were attributable to human error rather than highway engineering factors.

6.7.12 The mapping shows that the distribution of serious and fatal accidents is scattered throughout the town. This suggests that there are no serious accident hotspots. However, a number of lesser accident cluster sites are evident and these include:

- Wellfield Road on its approach to the junction with Comet Way;
- Cavendish Way as it approaches Comet Way;
- at the roundabout junction of Cavendish Way and Queens Way;
- on Bishops Rise between its junctions with Lark Drive and High View; and
- on the A1001 Roehyde northbound link as it approaches the junction to Comet Way.

6.7.13 Accidents have also been plotted to show their location by mode (driver, passenger and pedestrian) and this is provided in Figure 6.2. The majority of accidents (67%) involved drivers, which is expected as they make up the largest proportion of road users. Passengers (25%) and pedestrians (7%) make up the remainder. Compared to the national average for pedestrian related accidents (12%) Hatfield is under. Although a small majority of accidents involve pedestrians they, and others such as cyclists, are the most vulnerable road users, therefore these groups should not be ignored in any safety improvement investments.

Figure 6.2 Accidents by Mode



Road Safety Action Plan

6.7.14 The data suggests that the most serious accidents (fatal and serious) are spread throughout the town which suggests that there are no major accident sites within Hatfield town. There are a number of locations which have accidents clusters and all of these are located at or near key junctions where vehicle-vehicle accidents in particular are high.

6.7.15 Based on road safety guidance[6] from the DfT the following principles may be appropriate for Hatfield based on the nature of accidents occurring.

Junctions

6.7.16 A number of factors lead to accidents at major junctions. The majority of accidents occur because vehicles are either approaching the junction at inappropriate speeds, performing dangerous overtaking manoeuvres and because road users are passing through conflicting paths. The large volume of vehicles passing through these junctions is also a major factor.

6.7.17 Reducing vehicle speeds and increasing driver awareness are the most effective measures in reducing accidents at junctions. This can be achieved in a number of ways including:

- effective signing;
- central refuges;
- vehicle-activated signs;
- the use of visual clues;
- speed cameras;
- red-light cameras; and
- MOVA signal systems.

Residential Roads

6.7.18 Contributory factors leading to accidents on residential roads can be complex, however vehicle speeds, a variety of turning movements and conflicts between different road users are principally the main causes. A number of different traffic management and engineering solutions can be used primarily aimed at reducing vehicle speeds and displacing inappropriate traffic such as through traffic. Solutions can include:

- the use of traffic calming measures;
- the introduction of 20mph zones; and
- the use of roundabouts to help break up the speed of traffic particularly at busier junctions.

6.7.19 As highlighted above, where traditional traffic management schemes are unpopular or undesirable, other means of reducing speeds may be more appropriate. Suitable measures may include:

[6] Road Safety Good Practice Guide, Department for Transport (2001)

- suitable bend treatment including the reduction of forward visibility so that drivers are encouraged to reduce vehicle speeds;
- junctions treatment; and
- the use of build-outs.

6.7.20 Non-engineering measures can also be useful and should be used as part of any engineering improvements put forward. Such measures are already well used particularly in association with school and workplace travel plans and they help to raise the profile of walking, cycling and public transport use. These measures typically include:

- training and education, for example cycle training and road safety education;
- walking buses;
- publicity campaigns; and
- Safer Routes and School Travel Plan initiatives.

6.8 Safer Routes to Schools

6.8.1 Providing children with means for safer and better access to education by walking, cycling and public transport addresses several objectives of the LTP including reductions in car traffic, improved safety and accessibility. The Safer Routes to School (SRTS) and School Travel Plan (STP) programmes are therefore essential if these objectives and associated targets are to be met.

6.8.2 Recent trends show that more and more children, especially younger children, are being escorted to school by car. The National Travel Survey (2005) indicates that between 1992/94 and 2002/03 there has been an increase of 10% and 6% in the proportion of children driven to school by car between the ages 5-10 years and 11-16 years respectively. The County Council estimates that 20% of peak hour traffic is now associated with the school run.

6.8.3 This raises a number of issues from increased traffic congestion, particularly within the vicinity of the school, creates poorer walking and cycling opportunities which can increase parental concerns about road safety, there is also the potential for children to lose mobility independence and may reduce the likelihood of them using more sustainable modes when they reach adulthood. Health benefits associated with walking and cycling are also important especially with concerns of increasing childhood obesity. It is therefore important to stop the decline so that these and other issues do not become more prevalent.

LTP Targets

6.8.4 The Hertfordshire LTP contains a number of indicators and targets relating to school travel and other associated areas as shown in Table 6.3.

Table 6.3 LTP Indicators and Objectives Relating to School Travel

LTP Indicator	Baseline (2003/04)	Target (2010/11)
Share of journeys to school by sustainable modes	57.5%	60%
Number of schools with a travel plan	14%	83%
Children Killed and seriously injured	113 (1994-98)	No more than 56
Cycling trips	2397 trips per day (2004/05)	2658 (11% increase)
Speed limit compliance	56% (2004/05)	60%

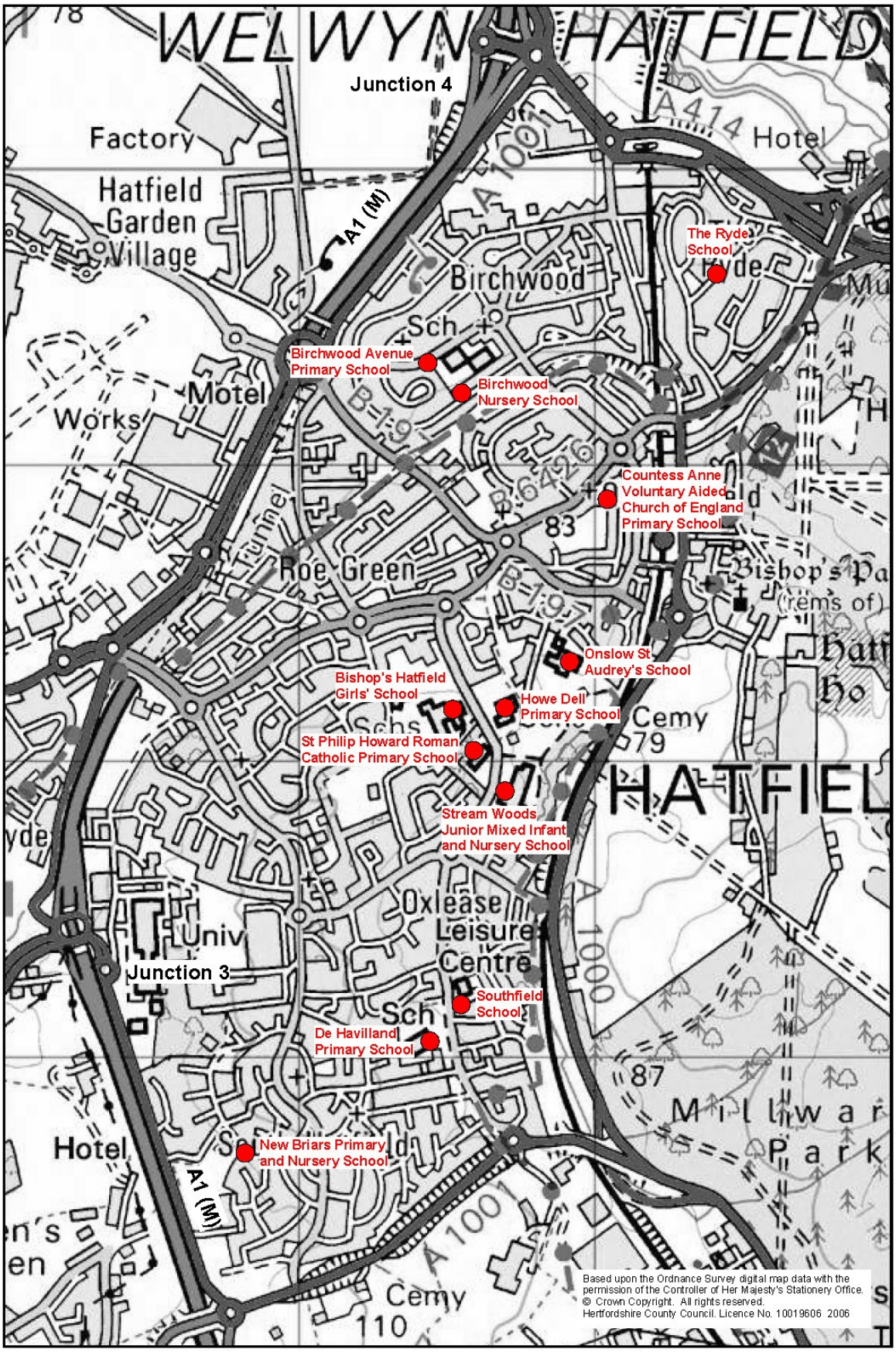
Safer Routes to School and School Travel Plan Programmes

6.8.5 The County Council's SRTS and STP initiatives are programmes designed to help bring about road safety improvements and behavioural change so that more pupils are encouraged to travel to school by non-car modes. The SRTS ranking list for 2006/07 contains details on the level of SRTS and STP take-up, casualty data and proportions of pupils using sustainable modes. Schools are also ranked in terms of measures implemented so far and accident rates.

6.8.6 Those concerning schools may include the socio-economic circumstances of parents, availability of non-car alternatives and the location and type of school. There can be a considerable variation in outcomes making it difficult to gauge the effect of measures implemented, particularly as some measures are input-led i.e. establishing the number of schools with a travel plan gives no indication of the success of initiatives.

6.8.7 The SRTS 2006/07 ranking list contains 20 schools within the Hatfield area. Two schools have a SRTS programme in place and six have a STP (Green Lanes School and Brookmans Park School have both). The equivalent of 30% of all schools within the Hatfield area therefore has a STP and these are shown in Figure 6.3. A further four schools are currently developing a STP which demonstrates that progress is being made in this area.

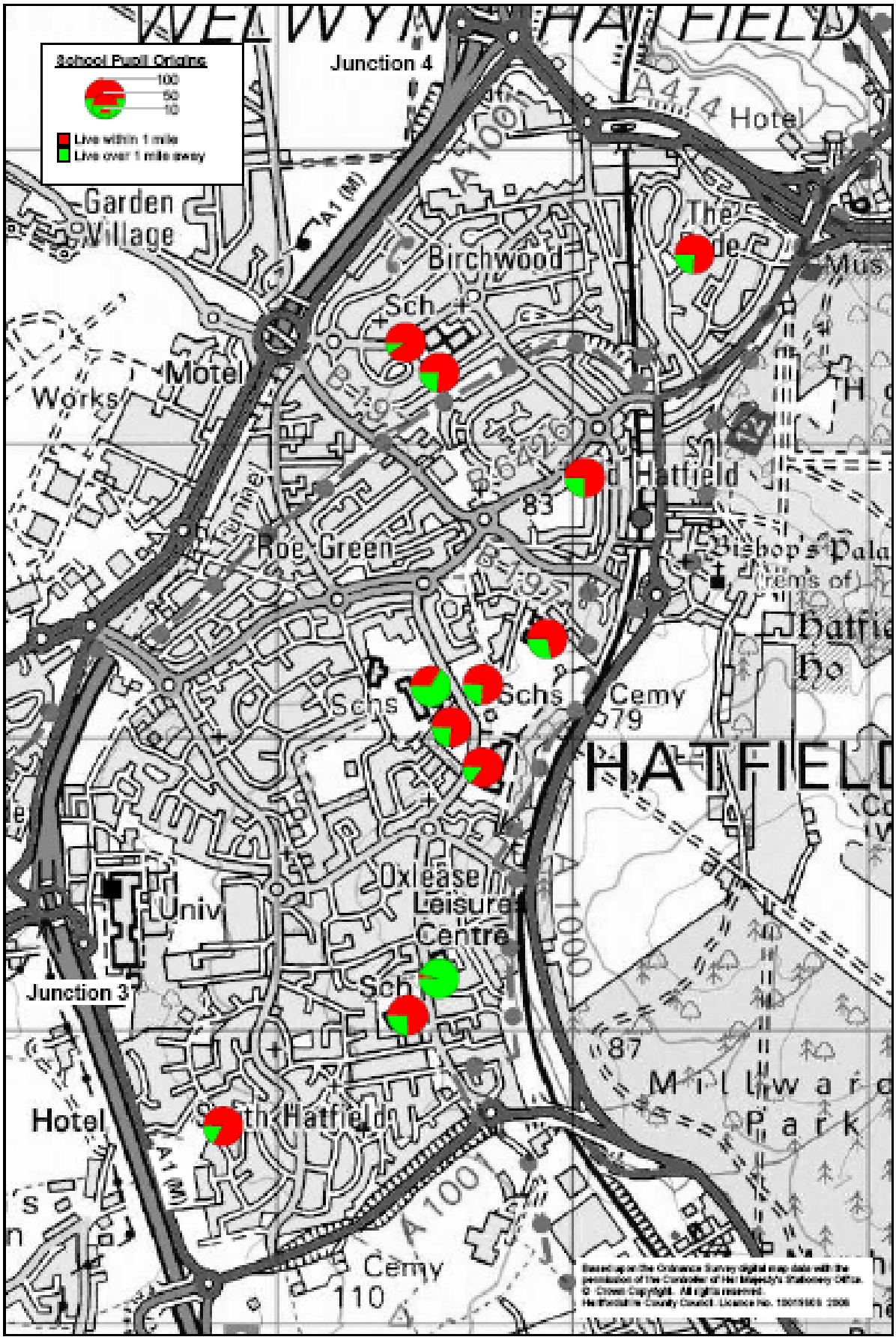
Figure 6.3 Hatfield Area Schools



6.8.8 The take-up of STPs is good but if the LTP target of 83% of all schools having a travel plan in place by 2010/11 is to be met, this needs to increase. Travel plans are fundamental in highlighting areas in need of improvement, identifying opportunities to change pupils' travel behaviour delivery of a package of school-based travel initiatives and providing a focus for resources.

6.8.9 Figure 6.4 illustrates the proportion of pupils that live within a mile of their school and where the information is available, the percentage of pupils travelling by sustainable modes (walking, cycling and public transport). A significant majority (17) have 70% or more pupils living within 1 mile which suggests that there is potential for a higher number of pupils to walk and cycle. Initiatives such as 'walking buses' have proved to be popular particularly at primary school level which there are a number of in the area. The data provided includes percentages of pupils living within a mile of their school; certain schools also have information relating to proportions of pupils who travel by sustainable modes (walk, cycle and public transport).

Figure 6.4 Proportions of Pupils within One Mile of School



6.8.10 As shown, a majority of schools have 70% or more pupils living within a mile and therefore within a distance where walking and cycle could be a realistic mode choice. The data however show that at a number of schools a high proportion of children are in fact driven to school (50% of pupils and above). This is perhaps a reflection of the urban environment around Hatfield which, compared to Welwyn Garden City for example, is less inviting to pedestrians and cyclists, particularly those who are most vulnerable (school children being one such group).

6.8.11 A total of 685 accidents are included in the SRTS ranking list for 2006/07. This relates only to casualty accidents involving pupils aged 17 years and younger. Of the accidents, 639 were slight and the remainder (46) were serious; no fatalities were recorded. Table 7.3 shows those schools within the Hatfield area that recorded more than 30 casualty accidents.

6.8.12 From the information above it is clear that a number of schools do not have a STP and/or SRTS programme despite having the highest occurrence of casualty accidents within Hatfield.

6.8.13 The SRTS ranking list ranks schools in terms of their progress of implementing the following initiatives and based on the number of casualty accidents:

- the implementation of a walking bus scheme;
- the undertaking of cycle training;
- pedestrian skills initiative;
- whether a school travel plan is in place; and
- whether the school is involved in walk to school events.

6.8.14 This ranking system does not necessarily imply that a school has or is making actual progress in terms of the number of pupils travelling to school by walking, cycling and public transport (one of the main objectives of the SRTS and STP programmes).

School Travel Plans

6.8.15 Priority should be given to encouraging the take-up of STP programmes given that only around 43% of schools in the area have one. An STP is essential in determining transport issues and encouraging pupils, parents and teachers to change their travel behaviour. Schools without one are less likely to see significant changes in terms of reduction in car travel to walking, cycling and public transport use.

6.8.16 Given that resources are likely to be limited, the plan should identify those schools that could benefit from other proposed measures e.g. road safety, public transport, walking and cycling routes.

6.8.17 Accessibility to schools for those children that have to travel further distances, but excluded from free statutory transport, should also be considered particularly in light of the LTP 'shared priority' concerning accessibility and concerns of social exclusion.

6.8.18 A perception that walking or cycling to school is unsafe contributes to increased use of cars for journeys to school. This accentuates the need for further initiatives to protect vulnerable road users and to encourage sustainable modes.

6.9 Taxis

6.9.1 Taxis provide transport for people for whom there are no alternatives including people without access to a car, visitors to the area and disabled people. Taxi journeys often occur under particular circumstances such as late night, when carrying shopping or luggage or making journeys to a rail station.

6.9.2 A number of aspects of taxi operation have been considered:

- quality of taxi service e.g. driver knowledge (for disabled users, older people, etc as well as knowledge of the town and surrounding area);
- quality of vehicles e.g. wheelchair accessible taxis;
- location of taxi ranks; and
- possible role as part of the wider transport network e.g. connecting with local bus services.

6.9.3 The district-wide Taxi Quality Partnership could be developed to provide a framework for improved customer care, providing better accessibility and better regulation.

6.10 Powered Two Wheelers

6.10.1 Motorcycles can use road space and parking spaces more efficiently than cars. Provision of secure motorcycle parking in public car parks could be extended to a wider range of destinations. However, the safety of moped users continues to be a concern and education programmes are being aimed at all road users to reduce casualties.

6.11 Freight

6.11.1 There are two forms of freight movement affecting the town – delivery vehicles such as those associated with retailing and other sites and distribution activities associated with commercial premises. There is little evidence of through freight movements due to the availability of the A1(M) and other strategic routes.

6.11.2 Retail deliveries including access to The Galleria do not appear to present problems. Other areas where commercial vehicles are evident such as the university campuses and Hatfield Business Park are located away from the town centre so few conflicts arise. A number of towns have devised a freight map for use by hauliers that identifies key delivery locations and restrictions and this could be helpful for Hatfield.

6.12 Cycling

6.12.1 LTP guidance places considerable emphasis on cycling as a safe and healthy alternative to car journeys. However, the potential has been difficult to realize despite strenuous efforts to raise the profile of cycling with the introduction of the National Cycle Network and initiatives in schools amongst other measures. Hatfield is well suited to cycling with relatively flat topography and ample road space but lacks facilities for cyclists to cross roads. While some cycle facilities are in place such as cycle lanes and cycle routes, their usefulness and safety is questionable. The only clear route is recreational although this could be expanded as part of

a wider utility network. The cycle lane around the Queensway/Lemsford Road roundabout may not help cyclists other than raise awareness of them by motorists although this type of facility has been criticised on safety grounds elsewhere.

6.12.2 However, there is considerable scope to complete a wider network of routes and secure parking facilities. A mix of on-road and off-road routes is desirable to encourage proficient and less experienced cyclists to avoid car use. The adoption of travel plans by businesses and schools also supports cycling but far greater evidence of priority for cyclists needs to be in place for the Aerodrome site. The use of roundabouts within the development area is not conducive to cycling while crossing Comet Way is unappealing.

Strategy Progress

6.12.3 It is clear that there has been a concerted effort towards improving conditions for cyclists. Since the introduction of the cycle strategy, a number of new routes have been constructed and progress has been made towards promoting cycle use and disseminating literature.

6.12.4 The cycle action plan sets out the focus for improvements over the life of the cycle strategy but from the documentation available it is apparent that progress has slipped particularly in implementing new and improved cycle routes. High quality on- and off-road cycle routes are essential if the safety concerns often associated with high vehicle speeds and volumes are to be removed and more cycling encouraged.

6.12.5 The existing cycle network coverage across the area is encouraging but greater priority should be given to routes linking residential areas to employment, education, health and other key destinations. This is important if the cycle strategy is to assist in reducing peak hour traffic flows in particular. Convenient and safe crossing points should also be a priority particularly in areas where vehicle volumes and/or speeds are higher.

6.12.6 The cycle strategy should therefore set a priority for improving routes and crossings that link residential areas to the major transport generators that include:

- Hatfield Aerodrome site;
- University of Hertfordshire;
- The Galleria; and
- schools/colleges.

6.12.7 It is acknowledged that a number of new and improved routes linking the above areas are proposed within the cycle strategy action plan. However, more effort is required to ensure that these proposals are implemented if LTP targets and local aspirations for increased cycle use and reductions in car traffic are to be met.

6.12.8 Integration with other modes is also important so cycle routes that link to bus and rail stations should be considered, particularly where there are gaps in the network such as to Hatfield Station. Cycling provides new journey opportunities when combined with public transport but secure cycle parking at the rail and bus stations and at bus stops is not apparent.

6.12.9 The lack of monitoring data for cycling is a weakness in that targets cannot be determined or existing levels of use identified as required for the LTP. Further means of acquiring cycle use

data is required. More permanent counts on cycle ways and annual records of cycle parking would be beneficial, so that progress of the strategy can be measured.

6.12.10 There are no targets for cycling contained within the cycling strategy although the latest annual progress report (2006) does state that these are to be determined in the 2006/07 progress report. A lack of suitable targets is considered a major weakness of the strategy and along with limited monitoring data it is difficult to see how the efficacy of the measures implemented and proposed are to be measured. Establishing a number of cycle targets and collection of cycle data should be seen as a priority.

6.12.11 Welwyn Hatfield Council has initiated 'Pedal Point' to provide a focus for cycling in the area, distribute route maps and information and to advise on cycle maintenance issues. This supports other initiatives to promote cycling and introduce additional facilities.

Observations

6.12.12 A number of site visits were carried out and the issues observed are provided here:

6.12.13 For accessing rail and bus services:

- cycle links to Hatfield station are considered to be poor. Direct access to the station is from the A1000 Hertford Road which has no cycle lane provision (on or off-road). Outside the station actual and perceived vehicle speeds are likely to be higher than the 30mph speed limit as the road alignment and width (particularly outside the station) is more conducive to higher vehicle speeds;
- crossing facilities outside the station are either via a subway which is likely to be unattractive or an island, which is currently sub-standard;
- demand for cycle parking at Hatfield station is high but facilities are unattractive and located to the rear of one of the station car parks which may explain why a number of cycles were observed to be locked 'illegally' to railings; and
- signing for Hatfield Station is limited. No signs were evident within close proximity of the station and only a small number of signs are marked for the Station from the town centre.

6.12.14 In the town centre, developments have become dislocated so that cycling and walking has become unattractive and car use is the preferred option. Because of the high car use and vehicle speeds, a number of cycle routes have been developed to link parts of the 'old' town centre to The Galleria and the University of Hertfordshire but these routes suffer from a lack of continuity.

Action Plan

6.12.15 In order to achieve a step change in cycle use the following requirements should be the bases of decision-making concerning cycle infrastructure improvements:

- **Coherence:** Cycle infrastructure should be complete, linking all trip origins and destinations; routes should be continuous and consistent in standard;
- **Directness:** All routes should be as direct as possible with unnecessary detours kept to minimum; routes should be based on desire lines;

- **Attractiveness:** Routes must be attractive therefore attention must be given to adequate lighting, personal safety, noise, aesthetics and integration with surrounding area;
- **Safety:** Infrastructure should be designed so that the risk of conflicts (as well as perceived risk of conflict) with other highway users is reduced; and
- **Comfort:** Cycle routes should be smooth maintained surfaces, with gentle gradients and uncomplicated manoeuvres.

6.12.16 Existing guidance[7] also recommends that whatever facilities are provided, the highway network should be made as convenient and safe as possible for cyclists. If applied this could take away the need to construct new infrastructure and it integrates well with other strategies already put forward:

- **Traffic reduction:** can traffic volumes be reduced sufficiently to achieve the desired benefits?
- **Traffic calming:** can speeds be reduced and driver behaviour modified to achieve the desired improvements?
- **Junction treatment and traffic management:** can the problems that cyclists encounter, particularly accident locations, be solved by specific junction treatment or other traffic management solution?
- **Redistribution of the carriageway:** can the carriageway be reallocated to give more space to cyclists?
- **Cycle lanes and cycle tracks:** having considered and, where possible implemented the above, what specific cycle lanes or tracks are now necessary?

6.12.17 For **cycle routes**, the prioritised programme of cycle route improvements, as contained within the Welwyn and Hatfield Cycling Strategy, should be continued with emphasis given to the above. All routes should connect residential areas with key employment, education, retail and leisure sites. A mix of on and off-road routes should be provided so that cyclists of all abilities are catered for.

6.12.18 Improved **cycle parking** should be provided outside rail stations where observations show that stands are already well used. Secure cycle parking e.g. lockers (particularly outside rail/bus stations) should be available.

6.12.19 **Pool bikes** for businesses, particularly those within the Aerodrome site, would be beneficial given the dislocated nature of the area. As well as providing means for staff to cycle to work they can also be used for local business trips and transport to local shops during staff breaks.

6.12.20 **Cycle monitoring** is essential and should be extended to cover more routes and cycle parking.

Proposed Cycle Routes

6.12.21 The Cycling Strategy proposes a number of routes to help people travel between home and work as well as for leisure and other purposes. These include:

[7] The Institute of Highways & Transportation *Cycle-Friendly Infrastructure 1996*

- town centre to Great North Way and South Hatfield (via Queensway, South Hatfield and Travellers Lane);
- Westview Link (Comet Way to Wellfield Road);
- Hertford Road to French Horn Lane (linking the Alban Way with the Great North Way and rail station);
- town centre to Howe Dell Woods (linking the town centre with the Great North Way and South Hatfield);
- town centre to Old Rectory Drive (linking the town centre with the Great North Way and North Hatfield);
- Dellsome Lane, Welham Green to Roehyde Way (linking Welham Green, Angerland park and ride and sports complex and University of Hertfordshire);
- Travellers lane to Northdown Road; and
- Mill Green to QE2 Hospital (via A414 and Gypsy Lane).

6.12.22 In addition, it is proposed that cycle parking facilities be improved in the town centre redevelopment and at Hatfield rail station.

7 Programme of Measures

7.1 Measures Identified

7.1.1 The full programme of measures needed to meet the local targets and address the problems is set out in Tables 7.1 to 7.3. Costs indicated are initial estimates and require more detailed consideration when schemes are taken forward. Changes may be necessary if greater costs are incurred as a result of the town centre's Conservation Area status for example. Costs indicated are indicative as further more detailed investigation will be required as schemes are taken forward for implementation. The lead agency for delivery is indicated but it is possible that for some schemes, partnership working will be essential. The time scales indicated – short term (up to five years), medium term (five to ten years) and long term (over ten years) do not take account of funding availability and assume that appropriate funding can be obtained.

7.1.2 The proposals relate to the objectives and targets set out in Chapter 2 and hence will contribute to established targets where robust monitoring data is available. In addition, the suggestions from the Agencies and Community Workshop of 28 June 2007 have been included.

Table 7.1 Measures Required: Congestion

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Parking						
Off-street parking or parking bays	Creating capacity to avoid on-road congestion from parked vehicles e.g. Wood Avenue [C5]	Congestion	£200,000	Hertfordshire Highways/Welwyn Hatfield Council	Short to medium term	High
Introduce Controlled Parking Zone(s) near university College Lane campus (currently deferred; subject to further consultation)	Alleviating conflict between residents and student parking – university park and ride facility effective support for CPZs [C3, C7]	Change in area-wide traffic mileage	£50,000 plus ongoing enforcement	Welwyn Hatfield Council	Medium term	High
Introduce Controlled Parking Zone(s) around rail station (subject to additional capacity provision at station) (currently deferred; subject to further consultation)	Lack of station parking but could be improved with multi-storey facility to relieve on-street pressures [C5]	Change in area-wide traffic mileage	£50,000 plus ongoing enforcement	Welwyn Hatfield Council	Medium term	High
Charging (in line with Parking Strategy)	Introduce charges for public off-street parking [C4]	Change in area-wide traffic mileage	£50,000	Welwyn Hatfield Council	Short term	Medium

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Additional park and ride capacity for university	Current site is well used and could be expanded [A13]	Changes in peak period traffic flows	£200,000	University	Short to medium term	Medium
Public Transport						
Introduce bus priority measures (bus gates, bus lanes, junction priorities) e.g. at signals from College Lane campus onto A1001 Roehyde Way	Improving bus reliability and punctuality [C2, C6]	Bus punctuality	£400,000	Hertfordshire Highways	Short to long term	High
Traffic Circulation						
Traffic signal timings e.g. Roehyde Way, A1(M) Junction 4/Tesco roundabout, A1000 Red Lion junction	Optimising signal timings [C2]	Congestion	Revenue funding	Hertfordshire Highways	Short term	Medium
Box junction markings	Avoids congestion at key junctions due to traffic blocking back [C1]	Congestion	£10,000	Hertfordshire Highways	Short term	Medium
Tesco Roundabout	Reconfigure junction to reduce movements e.g. reduce number of accesses [C2, S6]	Congestion	£30,000 feasibility study	Hertfordshire Highways	Short term	Low

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Create all-movement junction A1000 Great North Road/A1001 South Way	Unnecessary traffic movements through built-up area [C8]	Change in area-wide traffic mileage Total slight casualties	£500,000	Hertfordshire Highways	Medium to long term	Low
Distribute maps of freight destinations in the town	Lack of information on sites of shops, commercial and other sites [C7]	Change in area-wide traffic mileage	£2,000	Welwyn Hatfield Council	Short term	Low
Other						
Promote school travel plans	Safety and wellbeing of children [C2, S4, C7]	Mode share of journeys to school School travel plans	Revenue funding	Hertfordshire County Council	Short to long term	High
Improve sustainable transport opportunities at Hatfield Aerodrome site	Poor targets and lack of enforcement [C2, A3, C7]	Change in area-wide traffic mileage Public transport patronage Cycling trips	Monitoring and travel plan costs	Developer with Hertfordshire County Council and Welwyn Hatfield Council	Short to long term	Medium
Promote car share scheme (based on Welwyn Garden City scheme)	Reducing car journeys [C2, C7]	Change in area-wide traffic mileage	Administration cost	Welwyn Hatfield Council/University of Hertfordshire	Short to long term	Medium

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Strong links to University of Hertfordshire	Need to continue promoting sustainable transport [C2, A9, C7]	Change in area-wide traffic mileage Public transport patronage Cycling trips	Continue to promote	University of Hertfordshire	Short to long term	Medium
Develop car clubs	Need for car use but not on an exclusive basis [C2, C7]	Change in area-wide traffic mileage	Self-financing	Welwyn Hatfield Council/residents	Short to medium term	Medium
Congestion Total			**£1,292,000**	**Estimated public funding**		
			£200,000	**Estimated private funding**		
			£1,492,000	**Total**		

* costs are purely indicative and require further refinement and detailed consideration at a later stage.

Note: In due course, local targets will be determined to reflect the Local Transport Plan targets once the schemes are developed further (including local suggestions and petitions where appropriate).

Table 7.2 Measures Required: Accessibility

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Access to Public Transport						
Hatfield Station Interchange	Poor access by sustainable modes and scope for improved interchange [A9, C2, C5]	Public transport patronage; Bus service user satisfaction	£1,200,000	Hertfordshire Highways/Hertfordshire County Council/developer(s) with Network Rail/First Capital Connect	Short to medium term	High
Improved information at stops, major sites (phone, web site, etc) for residents, students, etc.	Unattractive public transport offer [A8] and perceptions of travel/car use	Passenger transport information user satisfaction Public transport patronage	£15,000	Hertfordshire County Council/Intalink/Welwyn Hatfield Council	Short to medium term	High
Improve signing to rail station	Low profile of access [A7]	(Increased walking)	£2,000	Hertfordshire Highways	Short term	Medium
Routes to rail station	Poor walking routes in need of upgrading (signing, lighting, etc) [A1, S2]	(Increased walking)	£20,000	Hertfordshire Highways/Network Rail	Medium to long term	Medium
Better walk links to bus stops	Isolated and unattractive stop locations [A6, S2]	Public transport patronage	£10,000	Hertfordshire Highways	Short to medium term	Medium

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Improved subway at The Galleria/at-grade crossing	Bus users need safe and secure crossing [A6]	Public transport patronage	£50,000	Hertfordshire Highways	Short term	Medium
Improve bus presentation and staff	Mixed presentation currently; need for low floor buses throughout [A10]	Public transport patronage; Bus service user satisfaction	Fleet renewal and ongoing maintenance	Bus operators	Short to medium term	Medium
'Plus Bus' facility	Lack of awareness of 'Plus Bus' scheme [A10]	Public transport patronage	£1000	Hertfordshire County Council/operators	Short term	Medium
Bus fare initiatives for young people	Need to encourage younger age groups to use buses regularly [A14]	Public transport patronage	Revenue funding	Operators/Hertfordshire County Council	Short term	Medium
Bus shelters on former Aerodrome site	Stop facilities lacking at present [A3]	Public transport patronage	Funded by development	Developer	Short term	High
Bus real time information system e.g. The Galleria, town centre, former Aerodrome, university campuses, residential areas	Reliable service information required [A8]	Public transport patronage	£1 million minimum	Hertfordshire County Council/operators	Medium term	Low

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Additional parking at station	Insufficient spaces presents parking problems in surrounding area [C5]	Public transport (rail) patronage	£500,000	Network Rail/First Capital Connect	Medium to long term	Low
Walking						
New and improved pedestrian crossings with facilities for cyclists e.g. Cavendish Way, A1(M) Junction 3 to university, Ellenbrook	Avoids use of subways [A2, S2]	(Increased walking)	£400,000	Hertfordshire Highways	Medium term	High
Overcome incomplete walk/cycle routes by introducing safe road crossings	Lack of continuity creates barriers to safe movement [A1, A2, S3]	(Increased walking) Cycling trips	£200,000	Hertfordshire Highways	Short to medium term	High
Improved subways where they are to be retained e.g. Queensway, French Horn Lane	Sightlines, lighting, surveillance and personal security [A2, S5]	(Increased walking)	£200,000	Hertfordshire Highways	Medium term	High
Signing	Lack of pedestrian direction signing and signed cycle routes [A7, A12]	(Increased walking)	£10,000	Hertfordshire Highways	Short term	High

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Dropped kerbs	Complete installation programme [A10]	(Increased walking)	£20,000	Hertfordshire Highways	Short to medium term	High
Improved visibility of street furniture	Needs of visually impaired people [A10, S1]	(Increased walking)	£5,000	Hertfordshire Highways	Short term	Medium
More seating	Meeting needs of older and disabled people/carers [A10, S1]	(Increased walking)	£10,000	Welwyn Hatfield Council	Short term	Medium
Lighting	Inconsistent street lighting [A10, S2]	(Increased walking) Cycling trips	£50,000	Hertfordshire Highways	Short to medium term	Medium
Pedestrian access at St Alban's Road West/Ellenbrook Lane	Lack of walking route [A5]	(Increased walking)	£1,000	Hertfordshire Highways/developer	Short term	Medium
Information pillars e.g. town centre, rail station	Poor signing [W3]	(Increased walking)	£20,000	Welwyn Hatfield Council	Short term	Low

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Cycling						
Secure cycle parking at a range of locations e.g. rail and bus stations, employment sites, retail centres, etc	Lack of secure parking [A4]	Cycling trips	£50,000	Hertfordshire Highways and Welwyn Hatfield Council/First Capital Connect	Short to medium term	High
Woods Avenue cycle route	Need for shared walk/cycle route [A12]	Cycling trips	£10,000	Hertfordshire Highways	Short term	Medium
Access to Key Destinations						
Access to major health facilities	Improve buses to QE2 Hospital in Welwyn Garden City and other strategic health facilities [A11, A10]	% of people who find it difficult to travel to a local hospital	Promotion of existing services	Bus operators	Short term	High
Access to Hatfield Aerodrome redevelopment sites	Car dependency of developments on the site [A3, C2, A9]	Public transport patronage (Increased walking) Cycling trips	Included in s106 agreements	Developer with Hertfordshire Highways and Welwyn Hatfield Council	Short to long term	High

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Access to town centre redevelopment	Additional retail development [A2, C2]	Public transport patronage (Increased walking) Cycling trips	Dependant on proposals	Developer	Medium term	Medium
Taxi customer care	Needs of particular users require sensitive handling by taxi drivers e.g. disabilities [A10]	(Taxi use)	Ongoing training	Welwyn Hatfield Council/ taxi operators	Short term	Medium
Travel plan enforcement	Existing travel plans need to be both monitored and enforced [A14]	Change in area-wide traffic mileage Changes in peak period traffic flows	£30,000	Welwyn Hatfield Council/ Hertfordshire Highways	Short to medium term	Medium
Develop new travel plans including monitoring and enforcement	Town-wide travel plan or plans for new businesses and residential areas [A14]	Change in area-wide traffic mileage Changes in peak period traffic flows	£10,000	Welwyn Hatfield Council/employers/others	Short to medium term	Medium
Car clubs and car share schemes	Reduce car ownership but	Change in area-wide traffic	£30,000	Welwyn Hatfield Council/others	Short to medium term	Medium

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
	maintain accessibility [A14]	mileage Changes in peak period traffic flows				
Accessibility Total			**£3,344,000**	**Estimated public funding**		
			£500,000	**Estimated private funding**		
			£3,844,000	**Total**		

* costs are purely indicative and require further refinement and detailed consideration at a later stage.

Note: In due course, local targets will be determined to reflect the Local Transport Plan targets once the schemes are developed further (including local suggestions and petitions where appropriate).

Table 7.3 Measures Required: Safety

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Safer Routes to Schools e.g. walking buses with continuing review of programme	Reduce car journeys for journeys to school [S4]	Mode share of journeys to school School travel plan	£500,000	Hertfordshire County Council	Short term	High
Safe road crossings especially at roundabouts e.g Cavendish Way	Severance created by road layout [S1, A2]	(Increased walking)	£200,000	Hertfordshire Highways	Medium term	High
Safety education for vulnerable road users	Casualty records for children and younger age groups [S1, S4]	Children killed and seriously injured Total slight casualties	Ongoing	Hertfordshire Highways	Short to medium term	High
Removal of overhanging vegetation and obstructive signs	Obstructions to pedestrians, cyclists and wheelchair users [S1, S2]	Total slight casualties	Revenue funding	Hertfordshire Highways	Short term	High
Improve subways e.g. The Galleria, Queensway	Poor maintenance, lighting, cleaning, etc [S2]	(Increased walking)	Revenue funding	Hertfordshire Highways	Short term	Medium
Extension of CCTV provision e.g. new town centre	Personal security [S2]	(Increased walking)	£250,000	80% Welwyn Hatfield Council and 20% local businesses	Short to medium term	Medium

Measure	Issues Addressed	Targets Addressed	Estimated Cost*/ Lead	Lead	Time Scale	Indicative Priority
Routes to car parks	Good walk links to car parks with lighting and personal security features [S2]		£10,000	Hertfordshire Highways and Welwyn Hatfield Council	Short to medium term	Medium
Safety concerns at some locations	Investigate particular locations e.g. A1001 Welham Green, Tesco R'bt [S6]	Killed and seriously injured Total slight casualties	Revenue funding	Hertfordshire Highways	Short term	Medium
Improve road markings and signing e.g. at roundabouts, Tesco roundabout, St Alban's Road West roundabout, Woods Avenue	Remove overgrown vegetation, improve street furniture maintenance and markings for carriageways and cycleways [S6]	Killed and seriously injured Total slight casualties	Revenue funding	Hertfordshire Highways	Short to medium term	Medium
Response to changing social patterns e.g. licensing hours	Consider security issues and transport provision	Public transport patronage	Administrative cost	Welwyn Hatfield Council and Police	Short to medium term	Low
Total Safety			**£910,000** **£50,000** **£960,000**	**Estimated public funding** **Estimated private funding** **Total**		

* costs are purely indicative and require further refinement and detailed consideration at a later stage. Note: In due course, local targets will be determined to reflect the Local Transport plan targets once the schemes are developed further (including local suggestions and petitions where appropriate).

7.1.3 In summary, the above measures total around £6.4 million as shown in Table 7.4. While this appears to be a substantial sum, over the longer term various sources can be used including the LTP, local authority revenue budgets and developer contributions.

Table 7.4 Summary of Measures

Measure	Estimated Public Funding*	Estimated Private Funding*	Total Cost*
Congestion	£1,292,000	£200,000	**£1,492,000**
Accessibility	£3,344,000	£500,000	**£3,844**
Safety	£910,000	£50,000	**£960,000**
Total	**£5,546,000**	**£750,000**	**£6,296,000**

* costs are purely indicative and require further refinement and detailed consideration at a later stage

7.2 Five Year Delivery Programme

7.2.1 The measures outlined above may be delivered through a variety of funding mechanisms. Some schemes will only be delivered in conjunction with private sector development in the town while others will be included in the LTP programme funded by the Department for Transport via the County Council.

7.2.2 Currently, around £3.4 million of developer contributions is allocated for sites in Hatfield, much of it as a result of the development of the former Hatfield Aerodrome site. This provides funding for a variety of improvements for bus users, pedestrians and cyclists and can be used supplement LTP funding. This is a significant amount and can be deployed to introduce schemes that improve facilities for bus users and create better walking and cycling routes. Some developer funding has been directed towards bus operating costs and it is important that once this funding source is expired that services can continue to operate commercially, having attracted a sufficient number of users. Bus services need to be in place from the outset so that people can plan their journeys without relying on car use and introducing good services is essential to meet their requirements.

7.3 Monitoring and Date of Plan Review

7.3.1 A report on the schemes delivered and progress towards the local targets will be published annually. This is similar to the arrangements for LTP monitoring required by the Department for Transport to ensure that schemes are being delivered as planned and that good value for money is being achieved.

7.3.2 The plan will be reviewed after five years (2012) and a modified plan will be published. The five year review will allow for new targets to be added if appropriate and for the current targets to be modified if unforeseen pressures have arisen.

8 Conclusions and Recommendations

8.1 The Plan Area

8.1.1 Hatfield provides a focus for travel as one of a number of centres in mid-Hertfordshire, particularly with the presence of the University of Hertfordshire and the emerging activities associated with the Hatfield Aerodrome site. The prospects for the redeveloped town centre and The Galleria are encouraging but efforts will need to focus on supporting non-car modes to avoid the negative impacts of car use. The use of the rail station is growing while bus use to and from the university in particular is encouraging. Walking and cycling represent smaller mode shares but are increasingly important in the sustainable transport context, particularly in relation to employment opportunities.

8.1.2 The Urban Transport Plan is set against the background of the Hertfordshire Local Transport Plan which sets out objectives and targets and aims to reduce car dependency by encouraging other modes and better integrating land use and transport. There are some accessibility issues in the town such as perceived pressures on parking and impediments to walking and cycling. The presence of the university has created some tensions concerning parking but has provided the focus for major improvements to bus services; its approach to travel planning has provided a helpful contribution to addressing transport issues. The redevelopment of the former Hatfield Aerodrome site offered a major opportunity for new land uses including a new campus for the university and major office developments. Although only partly completed, the Aerodrome site needs to demonstrate how walking, cycling and bus use are given priority in the planning process and in the infrastructure provided. This major site is one of several key locations forming a core public transport route – Business park, university, The Galleria, town centre and rail station.

8.2 Current Transport Arrangements

8.2.1 A 'health check' was undertaken to assess how the area was performing in terms of transport. This identified the need for accessibility by all modes, not just car and the strong influences determined by land use decisions, particularly where employment opportunities are located in relation to where people live. Safety and security was also important. Significantly, any transport proposals must accord with the recent focus on environmental issues such as reducing vehicle emissions and encouraging healthier lifestyles. Transport provision is also important to meet social inclusion objectives by ensuring that there is sufficient choice of transport an access to essential facilities for everyone.

8.2.2 This approach recommended a number of improvements including greater controls over car parking, better interchange arrangements at rail stations, a stronger focus on bus services, the creation of a safe cycle network, better walking routes and travel plans for workplaces and schools.

8.3 Walking

8.3.1 Walking was identified as a key issue with significant scope for improvements in the town and the surrounding area. It offers a healthy alternative to car use for shorter journeys but existing routes are often unattractive in contrast to the ambiance and attractive design of the

town centre. Improvements such as better road crossings, improved lighting and signing have been recommended.

8.4 Passenger Transport

8.4.1 Passenger transport is a vital means of encouraging a shift from car use to more sustainable modes. Rail services to the town are very good but bus services, particularly east-west services, are more limited and could be better used. Surveys of rail users were undertaken which emphasized the strong use of Hatfield station both for out-commuting and for inbound trips to the university and other locations within the town. Currently interchange at the station is important with many rail users walking, cycling or arriving by bus as well as using cars and taxis. It is proposed that an improved interchange be created at the station to encourage the use of sustainable modes by re-shaping the existing arrangements and resolving conflicting demands. This is important to provide a high profile gateway to the town at a time when considerable growth is being experienced.

8.4.2 A number of other recommendations are made including better transport information, improved infrastructure, better presentation of buses and staff and stronger marketing under the Intalink brand. Services should be able to react more effectively to demographic and economic circumstances.

8.5 Development Sites

8.5.1 Development proposals offer considerable potential to create sustainable transport links in accordance with national and regional guidance. The town centre is to be redeveloped to replace outdated and unattractive facilities and routes with a centre that is more accessible, particularly on foot, cycle or by bus.

8.5.2 However, redevelopment activities are dominated by the Hatfield Aerodrome site. This is expected to generate very considerable demand for travel, particularly by car as occupiers move onto the site. It is fundamental to the success of the site that sustainable modes are given a strong emphasis with priority bus arrangements and clear walking and cycling routes in preference to extensive car parks. Unfortunately the way the site has developed so far has favoured car use with other modes taking a secondary role, demonstrated by the failure to implement the necessary measures for buses and a predominance of parking. The site offers considerable potential for non-car modes despite the decision not to progress with the proposed regional hospital and further efforts will be required to avoid major impacts on the local road network and fulfil the objectives of the site's travel plan.

8.6 Other Issues

8.6.1 Parking has been considered in the context of the wider transport strategy. The university's park and ride site has been successful in relocating student parking away from residential areas but there is likely to be a role for Controlled Parking Zones as the number of vehicles increases.

8.6.2 A number of other issues have been considered including road traffic accidents, taxis, freight and cycling. While not presenting major difficulties, there is scope for improvement, particularly to improve cycling facilities further.

8.7 Programme of Measures

8.7.1 An investment programme has been determined in response to the problems identified. This includes measures to improve walking facilities (crossings, subways, signing, etc.), addressing town centre constraints and opportunities and particularly focusing on the proposed Station Interchange scheme. Public transport improvements can be achieved alongside cycling schemes and greater emphasis is needed for the Aerodrome site to realize its potential for sustainable modes, particularly bus and cycle.

8.7.2 The programme can be funded through the LTP process supported by developer contributions and other sources so that significant improvements can be achieved.

8.8 Implementation and Review

8.8.1 The schemes indicated in the Urban Transport plan will be taken forward for implementation and reviewed to make sure that they are meeting the objectives set. The most significant schemes out for Hatfield include the Station Interchange scheme alongside a range of smaller measures to support walking, cycling and public transport use. The opportunities presented by the town centre and Hatfield Aerodrome redevelopment sites are significant and will need to be fully integrated with transport schemes. Beyond the town centre, improved walking and cycling networks, better bus services and information and other measures will help benefit local communities and businesses. Further proposals will be developed in due course.

Appendix A – Agency and Community Workshop and Hatfield Station Interchange Workshop participants

The **Urban Transport Plan workshop** was held on 28 June 2007 and attendees included the following:

Organizations	
Chris Moseley	Centrebus
Larry Heyman	First Capital Connect
Simon Archer	Hertfordshire Bus and Coach Operators' Association
Brian Jackson	Hertfordshire CTC
Simon Davies	Hatfield taxi trade
A Maidment	
Scott Copsey	University of Hertfordshire (Travel Plan Co-ordinator)
Michael Finn	Uno
Brian Wilson	Welwyn Hatfield Access Group
Local Authorities	
Colin Croft	Welwyn Hatfield Council (Councillor for Hatfield Central)
Hazel Laming	Welwyn Hatfield Council (Councillor for Hatfield Central)
Michael Long	Welwyn Hatfield Council (Councillor for Hatfield East)
Mandy Perkins	Welwyn Hatfield Council (Councillor for Welwyn South)
Mike Beckham	Welwyn Hatfield Council (Head of Transportation)
Mehmet Ahmed	Welwyn Hatfield Council (Transportation)
James Dale	Hertfordshire County Council (Development Control)
Lindsey Lucas	Hertfordshire County Council (Development Control)
Maria Cutler	Hertfordshire County Council (Passenger Transport Unit)
Graham Bury	Hertfordshire Highways
Steve Dibben	Hertfordshire Highways (Area Manager)
Trevor Land	Hertfordshire Highways (Strategy Development Manager)

Other invitees included Arlington Property Developments, Arriva The Shires, Chamber of Commerce Welwyn and Hatfield District, East of England Development Agency, East of England Regional Assembly, Herts Association on Disability, Hertfordshire Constabulary, Network Rail, Welwyn Hatfield Ethnic Minorities' Group.

A workshop was held on 8 February 2007 to discuss options for the **Hatfield Station Interchange** project and was attended by the following:

Organizations	
Michael Gibbens*	Arlington Property Developments Ltd (Associate Director)
John Copping*	Arriva The Shires (Commercial Manager)
Mark Hines*	British Transport Police
Dave Shelley*	Centrebus (Commercial Director)
Sheena Lamont	East of England Regional Assembly (Planning & Transport Officer)
David Byrne	First Capital Connect (Head of Property)
Larry Heyman	First Capital Connect (Integration & Partnership Manager)
Gillian Simpson	Hatfield Association of Rail Travellers
Peter Clegg	Hatfield House (Director, Gascoyne Cecil Estates)
Andy Johnson*	Hatfield Owner Drivers' Association (Chairman)
Neil Carroll	Hatfield Station Coffee Shop (Proprietor)
Pauline Carroll	Hatfield Station Coffee Shop (Proprietor)
Simon Davies	Hatfield Taxi Operators' Association (Manager, Simon Cabs)
Annabelle Waterfield*	Herts Action on Disability (Chief Executive)
Brian Jackson*	Herts District Association of Cyclists' Touring Club (Hon. Secretary)
Tony Welsh	Hertfordshire Police (Traffic Management Unit)
Erica Blamire	Network Rail (Commercial Scheme Sponsor LNE Route)
Mick Long	Mayor of Hatfield
Scott Copsey*	University of Hertfordshire (Travel Plan Co-ordinator)
Michael Finn	Uno (General Manager)
Local Authorities	
Peter Clark	Hatfield Town Council (Town Clerk)
Paul Blackmore*	Hertfordshire County Council (Senior Transport Planner Network Infrastructure)
Maeve Boultwood	Hertfordshire County Council (Meeting Co-ordinator)
Maria Cutler	Hertfordshire County Council (Rail Officer)
Neil French	Hertfordshire County Council (Forward Planning Officer Passenger Transport)
Andy Gipson	Hertfordshire County Council (Team Leader Forward Planning and Rail Liaison)
Trevor Mason*	Hertfordshire County Council (Principal Engineer Transport Policy)
John Sykes	Hertfordshire County Council (Integrated Transport Services Manager)
Keith White	Hertfordshire County Council (Head of Passenger Transport Network Planning)

Vetti Vettivelu*	Hertfordshire County Council (Highways Development Control Services
Steve Dibben	Hertfordshire Highways (District Manager Welwyn Hatfield)
Nigel Hutton*	Hertfordshire Highways (Intelligent Transport Systems Manager)
Trevor Land	Hertfordshire Highways (Strategy Development Manager)
Mike Beckham*	Welwyn Hatfield District Council (Head of Transportation)
Simon Chivers	Principal Planner Special Projects, Welwyn Hatfield District Council
Ray Rehman*	Senior Engineer for Transport, Welwyn Hatfield District Council

Invitees marked * did not attend on the day due to inclement weather conditions and the resultant impacts on travel.

Appendix B - Consultees

During the development of the plan, a number of local organizations were involved including the following:

Local authorities

- Joint Members Panel Steering Group (16 April 2007, 24 May 2007)
- Hertfordshire County Council (Passenger Transport Unit, Development Control, Safer Routes to Schools)
- Welwyn Hatfield Council (Transportation, Planning)

Organizations

- Age Concern
- Centrebus
- Community Safety Officer
- East and North Hertfordshire PCT and West Hertfordshire PCT
- Hatfield taxi trade
- Hertfordshire Constabulary
- First Capital Connect
- Uno
- Hertfordshire Bus and Coach Operators' Association
- Hertfordshire CTC
- University of Hertfordshire
- Welwyn Hatfield Access Group

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