EALING BOROUGH **TRANSPORT STRATEGY 2009**

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EALING BOROUGH
TRANSPORT STRATEGY

Foreword

A good quality transport system is absolutely essential to the efficient operation of the borough. Transport has important implications for business efficiency and economic development, for getting people access to work, education, leisure and cultural facilities and for personal health and pollution reduction.

This strategy sets down the approach the council is adopting, with its various partners including TfL, to achieve these transport objectives whilst at the same time seeking ways to reduce traffic congestion, improve public transport services and encourage people to walk and cycle by providing the right kind of facilities.

I hope you find it both informative and inspiring.

Cllr David Millican

Ealing Council Cabinet Member,
Regeneration and Transport

Contents

Supplementary sections:

1. OVERARCHING THEME AND KEY OBJECTIVES

Traditionally many transport programmes (traffic calming, cycle facilities, bus priority etc) have separate funding streams, mostly externally set and with annual budget allocations (from TfL in particular) coming with their own separate sets of objectives and targets. It has therefore sometimes been difficult to integrate these transport programmes into wider council social and economic strategies and objectives such as regeneration and economic development.

Similarly transport schemes may have to be planned and implemented without being integrated with one other. Thus, in one year an area of the borough or road corridor may see a bus priority scheme proposed since funding is available that year or because the particular bus route that serves the area is the next to turn up in a London-wide bus priority programme. In another year a cycle route may be proposed in the same area because it is on that year's London Cycle Network programme, in another year a traffic calming scheme may be funded because the number of accidents in the area mean the area has at last reached the top of the accident prioritisation list, and so on....

This strategy sets out ways to reduce this fragmented approach so that transport planning can be seen to be working for the borough, helping the council achieve its wider objectives rather than ploughing its own, however worthy, furrow. This means a greater integration of funding sources and more forward planning of transport needs for each part of the borough. In this way of working, hopefully transport schemes can start to become good news rather than just a seemingly endless source of problems and confusion.

The over-arching theme for the strategy is therefore:

To make transport work for the borough

In order for this to happen, transport planning needs key objectives as reference points against which each annual programme of schemes can be assessed.

These are:

- Less congestion, smoother traffic flow and less delay
- Reducing danger on the road
- Better accessibility
- Facilitating regeneration and economic development

Each of these are challenges in themselves but each of them are ultimately inter-related. Section 2 sets out these challenges and how they can be overcome.

2. SUMMARY OF KEY ACTIONS

Less congestion, smoother traffic flow and less delay

The Council will:

- Carry out reviews of congestion spots to identify options for increasing traffic capacity.
- Continue to monitor traffic volumes and delay and congestion across the borough to inform debate on the scale of the problem.
- Implement the recently approved Scrutiny Panel's recommendations for reviews of the operation of bus lanes.
- Implement the recently approved Scrutiny Panel's recommendations for rationalising the hours of operation of bus lanes.
- Implement the recently approved Scrutiny panel's recommendations for making left turns into side roads easier and clearer on roads with bus lanes.
- Implement experiments with electronic signs showing whether bus lanes are operational and to allow motorcycles to use bus lanes (subject to TfL approval).
- Prepare a Network Management Plan, as required under the Traffic Management Act, showing how the council will secure the expeditious movement of traffic and manage temporary disruptions caused by road works.
- Complete the capacity improvement schemes including Petts Hill and Church Road north of The Target roundabout.
- Identify other congestion hotspots in the borough and prepare remedial highway schemes as the basis for funding submissions.
- Assess main road corridors from a multi-modal perspective, taking account of the needs to facilitate traffic flow, residential and stop-and-shop parking, delivery bays for businesses, bus stop and any necessary bus priority, cycle lanes and cycle parking, pedestrian crossings and accident remedial traffic management measures.
- Examine the way in which use of local streets by through traffic can be reduced or discouraged, taking account of the effect on increasing traffic delay on main roads.
- Examine the need and opportunities for new parking in town centres and the need for CPZs around town centres and railway stations.
- Work with TfL on its review of traffic signals along Uxbridge Road with the aim of smoothing traffic flow.

Reducing danger on the roads

The Council will:

- Monitor personal injury road accidents and use the information to identify places where safety measures are required.
- Carry out a formal member-level scrutiny of the role and design of 20 mph zones.
- Continue to monitor residents' views on traffic calming, recognising that road humps are not universally popular, and recommend changes where necessary as part of funding submissions.
- Carry out pedestrian and cycle audits of schemes at the design stage to ensure all road users are considered.
- Investigate the use of new technology and new approaches to highway design to achieve speed reductions and safety improvements.

Better accessibility

The council will:

- Support the extension of car clubs across the borough.
- Ensure every school has a School Travel Plan in place.
- Ensure all new developments have Travel Plans.
- Actively promote a programme of voluntary travel plans with employers in town centres.
- Continue to implement the London Cycle Network in the borough.
- Continue to implement other highway schemes that improve conditions for cyclists.
- Improve cycle parking facilities to meet the needs of cyclists.
- Promote a programme of direct support for cycling based on on-road cycle skills and confidence training.
- Expand the successful Walkability project to town centres across the borough.
- Complete the programme of bus stop accessibility improvements.
- Work with TfL London Buses, TfL Rail and Network Rail to improve bus and rail services in the borough measured against a series of quality criteria.
- Continue, as funding permits, the successful PlusBus service in Northolt.
- Prepare a plan with TfL for future of public transport in the Uxbridge Road corridor in the light of proposed new land use developments and taking account of the potential role of buses and local rail services.
- With other boroughs in west london examine the Fastbus concept linking Park Royal with Acton and prepare proposals to extend the concept to other orbital corridors in the borough.
- Work with Network Rail to improve the frequency of the Greenford Line and achieve an extension to West Ruislip.
- Work with Network Rail to increase the number of stopping services at Hanwell, West Ealing and Acton Main Line stations.
- Strongly support the Crossrail project for the major benefits it will bring to the borough in terms of accessibility, public transport capacity and regeneration potential.
- Seek to ensure an adequate number of Crossrail trains stopping at every station in the borough to make the service attractive to local people.
- Prepare station access schemes at the Crossrail stations to encourage bus, walking and cycling access and manage parking demand.
- Monitor station rebuilding plans to ensure that adequate capacity is provided to take account of the growth in rail users and that consideration is given to the needs of interchange with bus services and for pick up and set down facilities.
- Support the Airtrack proposal at Heathrow, which will improve connections from Ealing to Southwest trains lines.
- Support the case for developing and assessing the West London Orbital concept for a new north/south underground line through Ealing Broadway, subject to satisfactory technical assessment.
- Ensure that all transport proposals support the council's forthcoming Air Quality Management Plan and Climate Change Strategy.
- Oppose further growth at Heathrow and in particular a third runway and 6th terminal.

Facilitating regeneration and economic development

The council will:

- Assess the impact of potential new developments in town centres and regeneration areas on transport needs and define the changes required to meet those needs across the whole range of transport modes.
- Support Crossrail and other medium and long term public transport improvements for the role they will play in facilitating growth in the borough.
- Define a series of key road and public transport schemes for each town centre and regeneration area in the borough.
- Assess regeneration proposals against a checklist of possible transport improvements to ensure all types of potential schemes are considered.
- Ensure adequate facilities for servicing and deliveries are provided, by having a loading plan for each town centre and regeneration area and identifying lorry routes and access management to reduce the use of local residential streets by goods vehicles making through trips.

Holding it all together

The council will:

- Support and promote road public transport improvement schemes.
- Work with external organisations to improve short to medium term bus service planning.
- Co-ordinate local traffic management, road safety schemes, parking management, cycle, walking, station access and safer routes to school proposals etc in a series of area transport plans.
- Audit major new development frameworks from a transport perspective to define the transport improvements needed.
- Ensure a proper role is given to 'smart' measures such as Travel Awareness events, School and Workplace Travel Plans and direct support for cycling in addition to traditional engineering measures.
- Influence the sub-regional transport agenda by leading on WestTrans.
- Develop funding sources that are additional to those of TfL.

3. CHALLENGES TO MAKING TRANSPORT WORK FOR EALING

3.1 Less Congestion, Smoother Traffic Flow and Less Delay

3.1.1 Residents' views on congestion:

The council's most recent Residents' Survey (2007) found traffic congestion to be one of the top three concerns for residents in the borough. Overall 35% thought this was one of their main concerns, a figure that ranged from 55% in Northfield ward to 22% in Perivale.

Concern about traffic congestion has also grown by an average of five percentage points since the previous survey in 2006.

A subsequent panel of residents was set up by the leader of the council in March 2008 to explore residents' views and suggestions on congestion in more detail. The results of this are examined in relation to the Borough Transport Strategy in the attached supplementary section No. 6.

3.1.2 What restricts capacity?

On borough roads in Ealing, capacity on the network is mainly restricted by the capacity of the junctions (and in particular signalled junctions) rather than by the links between them. This is one of the most common misunderstandings to occur in discussions with residents and businesses. No matter how much we speed up traffic on the links between junctions, for example through parking controls, it is the number of vehicles that can get through the junction on each green phase that governs capacity.

3.1.3 Maximising junction throughput:

Making sure as many vehicles as possible can get through a junction on any given green phase of the signals requires strict parking control on the immediate approach to the junction. However, because many junction approaches have shops alongside the road, parking control can be unpopular and also difficult to enforce because of the ad hoc and short term nature of such parking.

Where possible we will seek to create parking/stop-and-shop/ loading bays into the footway where footway widths permit. But this is expensive and may only be practicable at a limited number of locations. The proposed Co-ordinated Area Transport Plans (Supplementary section No. 2) will help to identify locations. In other cases it may be possible to widen the junction or at least redesign the junction to maximise traffic throughput. An example of this is Argyle Road/ Ruislip Road East where proposals exist funded from TfL bus priority budgets.

In other instances, a simple review of signal timings on each arm of a junction may identify adjustments that could be beneficial to overall traffic flow, particularly as traffic volumes on different arms of a junction may change over time. In certain circumstances it may be preferable to allow greater delay on side roads in order to release more green time for the busier arms of the junction.

The primary purpose of traffic signals is to separate out conflicting traffic movements where these cause delay or accidents. Where it can be demonstrated that these criteria are not being met it is possible that existing traffic signals could be removed.

3.1.4 The issue of bus stops, bus lanes and junction capacity:

Parking management on the approaches to a junction is needed but bus stops need to be as close to the junction as possible in order to shorten the distances people have to walk from side roads to reach the bus. At the same time there needs to be a balance struck so that so far as possible stationary buses do not unnecessarily impede vehicular access to the junction and hence the throughput of vehicles through that junction on the green phase of the signals.

Bus lanes do not affect capacity so long as the 'setback', that is, the distance between the end of the bus lane and the junction is sufficient to accommodate the number of vehicles that can get through on the green phase. Again, this needs to be monitored from time to time to ensure the correct distance is being used for the traffic conditions of the time.

A recent council Scrutiny Panel examined the range of issues and concerns expressed about bus lanes in the borough. Their recommendations, in summary, were for better and more appropriate bus lane design and more relevant and standardised operating hours and specifically:

- A clear framework to be developed with clear and consistent procedures for the installation and review of bus lanes and a programme of reviews developed. These reviews will include junction modelling to assess capacity and delay to buses and general traffic and could lead to modification or removal of the bus lanes as necessary.
- Revised operating hours to be introduced such that the Northolt bus lanes experiment be confirmed (Monday to Friday peak hour operation), that bus lanes on the Uxbridge Road in Acton, Ealing and Southall town centres be operational 7 am to 8pm Mondays to Fridays and 10am to 6pm at weekends, that bus lanes on the rest of the of the Uxbridge Road be peak hours only Monday to Friday and 10am to 6pm weekends and that all remaining bus lanes be peak hours only Monday to Friday with weekend operation on a case-by-case basis if justified in a review.
- Design be changed so that clear road markings would show where drivers could cross a bus lane to turn left and the bus lane be adjusted each side of the junction to assist this.
- Signing be improved to clarify operational hours, including an experiment with electronic message signs
- Improved enforcement particularly in Southall, West Ealing and Hanwell.
- Allowing motorcycles to use bus lanes initially on an experimental basis.

3.1.5 Motorcycles:

In addition to the experiment allowing motorcycles to use bus lanes set out above, the council allows motorcycles to be parked free of charge in special bays in council operated car parks and in any Controlled Parking Zone bay in the borough. This gives motorcyclists a very considerable benefit over car drivers and has the potential to contribute to congestion reduction.

3.1.6 Advance Stop Lines for cyclists:

There was previously resistance to ASLs being provided for cyclists at signalised junctions on the basis that they would slow the departure of motor vehicles at the green phase. This has now been discounted as not significant and anyway ASLs have an important role in preventing straight-ahead cyclists being hit by left turning vehicles. The council is now implementing ASLs at all signalised junctions.

3.1.7 Is traffic increasing?

Department of Transport data shows that there was substantial growth in traffic between 1993 and 2000, but broadly speaking there has been little overall growth between 2001 and 2006 although there have been variations up and down from year to year.

In the 2001 Census 68% of Ealing households are recorded as having at least one car. 42% of journeys to work by Ealing residents in 2001 were by car. Data from the DVLA for Hanwell shows that the number of cars registered to W7 addresses has risen from 7,757 in 1995 to 9,337 in 2005 an increase of 20%.

Forward projections are of course more difficult for smaller areas but population growth, decentralisation of employment, retail, health and leisure facilities and the increased attractiveness of borough facilities could all lead to more traffic and longer journeys around the borough and into the borough. Most agencies are still forecasting long-term growth in traffic volumes.

The TfL forecast, first made about three years ago, is for a 7.5% increase in traffic volumes in outer London between 2001 and 2011 although the indications are that between 2001 and 2007 traffic volumes in outer London have increased by only about 2% so far.

The council has commenced a programme of annual traffic counts on main roads into Acton, Ealing, Greenford and Southall town centres. These show a growth of 1% between March 2007 and March 2008 compared to an expected 3%. Revised growth targets are currently for a 2% increase between 2008/9 and 2009/10 and a further 1% between 2009/10 and 2010/11.

In summary, traffic growth is not expected to be as great as it was in the 1990s but a slow but steady growth year-on-year is still projected.

3.1.8 Measuring delay and congestion:

Limited data is available on traffic speeds and journey times and these will be reported in the proposed Area Transport Plans (Supplementary Section 2). There us a wide variation in average speeds and hence journey times on the main roads and distributor roads in the borough. For example, peak hour average speeds vary as follows depending on direction of travel and time of day:

Ruislip Road East	varies from 16 to 24 mph
Greenford Avenue/ Church Road	varies from 10 to 14 mph
Western Road Southall	varies from 7 to 14 mph

From these examples it is clear that wide variations in traffic flow exist within the borough which need to be addressed.

3.1.9 Network Management Plan to be prepared:

The 2004 Traffic Management Act requires the council to manage the road network so as to secure the 'expeditious movement of traffic' on the road network. This duty is twofold:

- Firstly to keep traffic moving whilst recognising the multi modal nature of people movement - cars, buses, cycling, walking (as well as goods vehicles) and
- Secondly to manage temporary disruption to the road network (road works) as efficiently as possible so as to minimise delay.

A Network Management Plan will be prepared, once guidance is available across London which will set out the principles of how scheme proposals on main roads in the borough should be prioritised.

There will need to be a balance between providing for all modes of travel. For example, as noted in earlier sections, traffic flow cannot take precedence over the provision of pedestrian crossing facilities and the focus should be on the efficient design and management (including parking management) of junctions and their approaches to ensure maximum efficiency in the operation of junctions in the road network.

The council is now implementing ASLs at all signalised junctions.

3.1.10 A programme to tackle key traffic congestion hotspots:

The council has a short, medium and long term programme of proposals for improvements to key traffic congestion hotspots across the borough.

These include the following:

Congestion hotspots: North / South Orbital corridors

- Currently the council, with TfL and Network Rail, is removing the bottleneck for north/south orbital traffic at Petts Hill Railway Bridge in Northolt.
- Work is due on limited widening of Church Road just north of the Target roundabout in Northolt to remove a pinch point where two lanes of traffic coming off the roundabout has to merge into one before opening out again to two lanes.
- The Target roundabout itself has been the subject of reviews by TfL over a long period of time and the council will work with TfL to try and draw this work to a conclusion, particularly to look at ways in which the north/south throughput of vehicles can be rationalised and improved.
- New or improved traffic flow arrangements on and from the gyratory at Gypsy Corner are being examined as part of the work on the 'Southern Gateway' to Park Royal which covers the one-way system between the Western Avenue at Gypsy Corner and North Acton station.
- As part of the Southall Gas Works re-development and Southall Station redevelopment for Crossrail, a study is being planned to re-examine capacity provision from Western Road / King Street to South Road / Southall Broadway. This will include an assessment of the feasibility of a possible new bridge to the east of Southall Station to extend Merrick Road across the railway lines.
- There will also be consideration of means to improve road links to the Great Western Industrial Estate and potential development sites in the Glade Lane and Bridge Road areas so as relieve pressure on north/south traffic movements through Southall Town Centre.
- There are studies being carried out into options for reducing congestion at the junctions of Western Road/ Montague Waye/ King Street. The council recognises the importance of finding the best scheme to deal with this urgent problem as soon as possible.

Congestion hotspots east/west radial routes

- Reviews of the operation of bus lanes at junctions in Hanwell, West Ealing and at the Askew Arms junctions on the Uxbridge Road will be undertaken following the recommendations of the council's Bus Lane Scrutiny Panel. These reviews will specifically look at traffic capacity.
- In addition the on-going tram-alternative studies on the Uxbridge Road will examine the effect of new developments on traffic generation and specify ways in which people-movement along the Uxbridge Road can be optimised overall.

Congestion hotspots - other routes

The successful Greenford Town Centre scheme has elements that seek to reduce congestion through The Broadway, specifically by

- Lengthening bus stop bays so that buses do not block traffic flow
- Widening the carriageway to create a separate turning lane into Oldfield Lane South
- Creating loading bays to remove on-street illegal loading/unloading

The current Pitshanger Lane 'Streets-for-People' scheme will also include better loading and bus stop facilities to prevent the traffic congestion and delay that regularly occurs there. A similar scheme on Bilton Road in Perivale is under review and seeking funding.

3.1.11 A multi-modal corridor approach:

There is inevitably a potential problem that removing capacity-constraining bottlenecks will lead to the diversion of traffic onto these routes from other, busier routes, thereby reducing the journey time advantages initially gained.

It is also essential that attempts to reduce congestion take account of:

- The needs other modes of transport (walking, cycling, buses, delivery vehicles etc)
- The needs of local communities either side of the road (residents, local shops etc)

As part of the Network Management Plan every main road corridor in the borough (A and B Roads plus other busy distributor roads) will be assessed against a wide range of considerations as set out below and schemes developed to improve conditions:

Vehicle flow... junction capacity and parking management on the approaches

Parking needs… residential parking / stop-and-shop opportunities

Loading/unloading... loading bays or other facilities for on-road or off-road deliveries

Buses… bus stop location and accessibility / bus priority facilities if needed

Cycling… cycle parking / cycle lanes / traffic management

Walking... footway widths / guard railing / controlled crossing points / step free access across side roads / good sight lines on corners

Safety… .analysing the number and causes of accidents in the corridor, taking any necessary remedial action and putting in measures to ensure safe speeds are adhered to.

3.1.12 Reducing the number of short distance car trips:

Almost two-thirds of all road trips in London are less than 5 kilometres in length. Some European countries have managed to achieve high levels of short trip making on foot and by cycle. In Copenhagen for example one third of commuting is undertaken by bicycle. If people could be encouraged to walk and cycle for short distance trips this could have a positive effect on reducing congestion. This would need more pedestrian and cycle-friendly traffic management, on-road cycle training and adequate cycle parking facilities etc. More information on measures that could be used to bring this about are set out in section 3.1.13 below.

3.1.13 Controlling rat-running:

Ideally there is a need to reduce the volume of through traffic using residential streets (so-called 'rat-running'). However, rat-running is a response to capacity restrictions on main roads. Traffic calming may help to reduce the perception of the time

advantage gained by crossing through a residential area but is not the whole solution. Returning through traffic to main roads, through, for example, selective road closures will lead to extra traffic being put on the main road network and thus more queuing and delay at junctions. This needs to be carefully assessed before any such measures are installed.

For this reason proposals for returning through traffic using residential streets onto main roads where local residents identify this need will be examined on a case-by-case basis only.

3.1.14 CPZs and traffic reduction:

Controlled Parking Zones may be introduced for reasons of residential amenity but their role as part of a co-ordinated transport plan is to reduce car commuting to stations and to manage the adverse consequences of town centre parking on surrounding areas. Parking Need Assessments for town centres are required as part of assessing new development proposals, but the effect of CPZs on traffic volumes can be quite considerable – it is thought that the widespread introduction of CPZs around Ealing Town Centre in recent years has helped to stabilise traffic volumes entering the town centre.

3.1.15 Parking supply in town centres:

A significant proportion of traffic within town centres is seeking access to parking facilities. There is a delicate balance to be found between increasing the supply of car parking and encouraging more traffic, which in turn leads to more queuing and searching. There may be more scope for new or enlarged car parking or, for example, for more use of day-time short-stay dual-use bays in residential CPZs.

The best approach may be to introduce incremental changes which are linked to regular traffic delay monitoring on approaches to the town centre and within the town centre.

It has been decided to introduce Electronic Variable Message Signing in the borough to assist in managing traffic flows and traffic congestion by both giving people an informed overview of parking availability and encouraging them to use spaces nearest to where they enter the town centre and not to queue to get into full car parks at busy times.

3.1.16 Parking provision for new developments:

Current council policy is to ensure that appropriate on-site parking is provided for new developments and that punitive restrictions are not applied as a way of trying to force people out of cars. However, developers are asked to contribute to the encouragement of as many trips to and from their premises as possible to public transport, cycling and walking through their Travel Plans. The maximum provision of car parking that will be permitted for different types of development is defined in accordance with the adopted London Plan. This policy takes account both of the need to maintain a commitment to sustainable transport but also to recognise the important role of car parking in regeneration and the economic vitality of town centres and other sites.

3.2 Reducing Danger on the Roads

3.2.1 Why do people in the borough ask for traffic calming?

The council receives a constant stream of requests for traffic calming or other traffic management measures to reduce the impact of traffic. The main reasons given are:

- Speed reduction because lower speeds are perceived as less threatening
- Accident reduction and accident reduction risk brought about by lower speeds
- Amenity reasons: a feeling that traffic calming leads to a more attractive living environment.
- Reductions in noise or pollution.
- Reductions in through traffic using local streets using traffic calming to reduce the perceived time advantage.
- To assist pedestrians and cyclists by making the roads feel safer with less intimidation from fast moving traffic.

3.2.2 What are 'safe' speeds?

National statistics for urban areas from the Department of Transport tell us that:

- 25% of collisions are speed-related
- 90% of pedestrians hit by a car at 30mph are seriously injured reducing to 40% at 20 mph.
- The probability of a car occupant receiving a serious injury trebles with an increase in collision speed from 20 to 30 mph.

In other words, 20 mph is an important threshold in relation to reducing road casualties.

The council's annual Road Safety Plan plots the changes in casualties over time in relation to London and national targets which the council is statutorily obliged to meet. It also shows the accident changes resulting from the introduction of different traffic management schemes.

3.2.3 20 mph zones:

The introduction of 20 mph zones was originally intended to address the problem of pedestrian accidents, and particularly child pedestrian accidents, in residential areas. 20 mph zones were later permitted in town centres and in the vicinity of schools etc.

20 mph zones will normally require engineering measures to enforce them (according to Department for Transport Guidance) which are both expensive and sometimes unsightly. They may be introduced without engineering features where traffic speeds are already fairly low and hence self-enforcement is more likely to succeed.

3.2.4 Does traffic calming reduce accidents?

In most instances there has been a significant fall in the number of injury accidents. For example the average number of personal injury accidents per year before the 20 mph zone was introduced, compared to afterwards for several zones was

The Cuckoo Estate	5.6 down to 4.4
Salisbury Street, Acton	0.5 down to 0.2
Dormers Wells	4.9 down to 2.6
Bromyard Avenue	4.7 down to 1.9
Lady Margaret Road	14.6 down to 7.2

However, some show very little change or even an increase, thereby telling us that there are lots of other factors at work in causing accidents. For example:

Brent Road	10.1 increased to 10.4
Grange Estate	1.0 increased to 1.5

Accident reductions need also to be set against possible delays to emergency response vehicles including ambulances. Efforts need to be made to measure the overall response time for a range of trips from base stations, along the main road network to the scene of the incident of emergency within a traffic calmed area, so that the proportion of the response time that is attributable to traffic calming can be assessed.

3.2.5 Does through traffic reduce?

Data on traffic volumes is not widely collected but London-wide samples have shown on average about a 15% reduction in traffic volumes following the introduction of 20 mph zones in residential areas. This is almost certainly very much less than residents' expectations from traffic calming schemes.

3.2.6 Residents' views:

A few years ago a survey was carried out in five Ealing 20 mph zones; Hanger Hill (Ealing), Bromyard (Acton), Grange Estate (Northolt), Brent Road (Southall), Park Avenue (Southall) and Windmill Road (Greenford). There were significant variations by area but overall:

- Between 38% and 56% felt the 20mph zone had been effective in reducing speed
- Between 16% and 37% felt the 20mph zone had reduced traffic volumes
- Between 22% and 40% felt that traffic dominance had been reduced.

Incidentally, between 22% and 42% felt safer when out walking after the 20mph zone was introduced, and

Between 5% and 20% even said they had increased their walking and cycling since the introduction of the zone.

So, there is a feeling that the standard 20 mph zone can be effective though perhaps not overwhelming. This is reflected in the sort of follow-up comments officers receive. It may have something to do with the design of the schemes and this is picked up again later in this section.

3.2.7 Perceptions of safety:

In a survey of children at Petts Hill Primary School (now Northolt Park) carried out prior to the introduction of traffic calming:

89% of the children said they felt safe walking to school along the local roads, but only 44% felt safe crossing the road.

Following this survey, traffic calming, crossing facilities and parking restrictions were implemented.

3.2.8 Road danger reduction:

The statistics illustrate that traffic calming and road safety schemes are not just about casualty reduction, though obviously they should do their best to achieve this. Road safety, and people's perception of it also impinges on other council priorities such as encouraging walking, reducing congestion caused by the school run, improving environmental conditions and so on.

Similarly, road danger reduction needs to focus on the needs of more vulnerable road users, particularly those walking and cycling (including those walking to and from bus stops or railway stations), which helps to protect them in traditional road safety terms (accident reduction and prevention) but also encourages the use of these modes of transport that cause the least problems in terms of congestion and the environment.

3.2.9 Proposals and developments:

A council Traffic Calming Scrutiny Panel (2008/9) is examining the rationale behind 20 mph zones and investigating the scope for alternative, more user-friendly means of slowing traffic. In particular there is also an important need to find the right balance between potential casualty reduction and accident avoidance through speed reduction and the need to facilitate swift access for emergency vehicles attempting to save lives.

The police do not have the resources to enforce 20 mph zones and rely on the council to provide the engineering

measures to make them self-enforcing. Although there have been examples across Britain of 20 mph limits being imposed without such enforcement back-up these can, in the longer term, after the initial effect has worn off, only really work in congested streets where average speeds are already low.

There are various other options that need to be considered:

- Better design to try to improve both the traffic calming and amenity value of 20 mph zone schemes within limited budgets. These could include the use of portable electronic speed indicator and warning signs and perhaps the use of a wider mix of speed reducing features. This would recognise the unpopularity of road humps for some residents
- Better monitoring of preliminary designs to include walking and cycle audits of every highway scheme carried out prior to detailed design in order to identify the needs of more vulnerable road users and to ensure they are fully incorporated in the final designs. These audits would examine each proposed scheme to see how safe and user-friendly each is from the point of view of pedestrians and cyclists.
- New technology such as average speed cameras to enforce lower speeds without the need for road humps, speed cushions, speed tables or other vertical deflections. This technology is still not authorised for general use.
- Road closures, such as the Lawns Area in Hanwell which are cheap to implement but inconvenient in terms of access to the main road network for residents within them and which force through traffic back onto the main roads which can add to congestion.
- Home zones, such as the Five Roads in West Ealing, which are extremely expensive because of all the additional features incorporated in them in particular including resurfacing to create shared space between vehicles and pedestrians.
- More widespread distribution of road safety materials to residents, residents associations, local schools etc.

3.2.10 Role of the police:

It is recognised that police resources are limited but it is clear that there has been a reduction in traffic policing over recent years in relation to moving traffic offences.

The council has co-operated with the police and TfL in the situating of a small number of speed cameras on borough roads where speeds at certain times of the day are well in excess of the 30 mph limit and which have seen a relatively high number of personal injury accidents. However, this is no substitute for adequate road policing right across the road network. The council has targets for reducing the number of injury accidents but cannot do this by engineering measures alone and requires more police assistance.

3.2.11 Conclusions:

Road Safety cannot be considered in isolation from other policies on for example cycling, walking, safer routes to school etc.

The visual impact of road safety measures such as road humps are important to many local people and need to be taken into account in the design of traffic calming schemes.

Casualty monitoring needs to be carefully undertaken to quickly identify those schemes that are not producing the expected accident reduction benefits and action taken to identify the problems and review the schemes.

3.3 Better Accessibility

3.3.1 Demand Management:

It is not intended that unnecessary restrictions should be introduced on the highway. The council's approach will be to recognise the multi-modal nature of people movement in the borough and at the same time to facilitate schemes and processes that offer good quality alternatives to car travel to help reduce congestion.

This can be done by assisting with the efficient provision of public transport services, by facilitating cycling and walking and by promoting specific projects such as car clubs, school travel plans and workplace travel plans.

3.3.2 Car Clubs:

Car Clubs are commercial operations that hire cars to members on a pay-as-you-go basis. The council, using TfL or s.106 funds, provides dedicated parking bays for car club cars.

Car Clubs are suitable for those:

- Who do not need or wish to own a car but still have occasional use for one.
- Those who cannot afford a car or wish to save money by not purchasing a car.
- Those in a multi-person household who want to avoid purchasing a second car.
- For business users as part of workplace travel plans that seek to reduce on-site car parking.

Car Clubs therefore both increase the mobility options for local residents and businesses and have the potential to reduce parking pressure and traffic volumes. TfL studies suggest every car club bay can remove up to four private vehicles from the road and that car club members who previously owned a car can see their car mileage fall by an average of around 25%.

The number of car club bays is growing. Most of the bays are in Acton, Ealing Town Centre and Walpole/Northfields. The commercial operators find that the most successful bays are where potential members have good quality public transport (and in particular, tube services) as a back-up but new bays are about to become operational in Hanwell and there are currently investigations into sites in Southall.

3.3.3 School Travel Plans:

School Travel Plans are designed to encourage children to walk, cycle or use public transport to get to school. In doing so they directly tackle the 'school run' which accounts for over 10% of morning peak traffic and contribute directly to reducing traffic congestion.

School Travel Plans thereby also offer more healthy lifestyles for children, the chance for more independence and confidence and encourage greater awareness of environmental issues. Specific cycle training programmes are available.

Each school sets its own specific and measurable targets in relation to a recommended checklist. These targets are set according to the specific needs of each school as identified in surveys the school carries out. Drawing up a School Travel Plan must involve the whole school community including children, parents, staff and governors. Where highway schemes are developed, such as pedestrian crossings outside or near to the school, the local community will also be involved.

The targets in each School Travel Plan will include:

- To increase the number of pupils walking to school from x to y by year z.
- To increase the number staff cycling to work at the school from x to y by z.
- To have x percent of pupils receiving road safety education at least once a year.
- To implement at least one improvement on the highway by z date.
- To have travel plan links built into x number of curriculum subjects or year groups.
- To install x number of cycle parking spaces by z date.
- To have at least x number of pupils cycling to school by z date.
- To provide cycle training for x number of pupils in year groups a,b,c by z date.

About half of the 100 + schools in the borough have Travel Plans at present. The aim is to have a School Travel Plan in place at every school in the borough as soon as possible. Because of the annual turnover of children, Plans have to be regularly updated and revised.

3.3.4 Workplace Travel Plans – Business involvement in improving transport :

Workplace travel plans are now routinely required from new developers. These commit employers to seek to promote travel to work and business travel by means other than the car.

Under the auspices of the WestTrans group of boroughs, Ealing leads on the introduction of workplace travel plans across west London. This includes maintaining a website, producing newsletters, holding regular forums with borough officers and giving professional advice to large employers on how to do it. In addition an electronic database (iTRACE) has been set up to give easy access to information on travel plans across west London.

Officers initiated travel plans with major faith groups. Work continues with Primary Care Trusts. Recently a Voluntary Travel Plan strategy was approved and which is designed to encourage employers who are not at present seeking planning permission to draw up travel plans. Ealing Council, one of the largest employers in west London, is currently preparing a travel plan of its own.

The potential of workplace travel plans is that they give the opportunity for businesses and other organisations to become more involved in promoting sustainable transport choices and hence in understanding and assisting in the process bringing about wider change.

3.3.5 The contribution of cycling:

Cycling provides a cheap, healthy, environmentally friendly and roadspace-and parking-efficient means of undertaking short to medium distance trips.

Virtually whole of the borough is within 30 minutes cycle time of Ealing Town Centre. Many journeys within the borough could be cycle trips yet in the 2001 census only 2% of journey to work trips made by borough residents were made by bicycle.

3.3.6 The London Cycle Network:

The council has been active in implementing the London Cycle Network (LCN) in the borough, through cycle lanes where carriageway widths are adequate, and through minor traffic management measures to improve the safety and convenience of cycling.

The LCN in Ealing comprises the Uxbridge Road together with three north/south orbital routes basically along the Petts Hill, Mandeville Road, Church Road corridor in Northolt, between Sudbury Hill, Perivale, West Ealing and South Ealing Road and from the Hanger Lane Gyratory to Ealing Broadway and south to Popes Lane. Apart from the Uxbridge Road and Northolt corridors, the routes mostly use quieter residential roads where possible. The LCN is fully TfL funded.

3.3.7 Cycle permeability:

A range of other cycle schemes on the highway (outside of the LCN itself) have been introduced using TfL funding in order to improve conditions and shorten or simplify cycle journeys. They include one-way street exemptions for cyclists as well as extensive cycle parking. Cycle lanes have also been introduced elsewhere, for example on Boston Road. The cycle parking programme is a cross-borough scheme covering all destinations such as shopping parades and not confined to designated cycle routes. This highway work continues in a series of on-going annual programmes.

3.3.8 Direct support for cycling:

The fundamental problem remains that most potential local cycle trips (by local residents into town centres, to parks, leisure centres, medical centres and to school) are or would need to be undertaken nowhere near any of the designated LCN routes. Because of the need for multiple use of kerbside space (for loading/unloading, for bus stops etc) and because of restricted carriageway widths, for example in Acton Town Centre, many cycle lanes on the Uxbridge Road can never meet the aspiration of a fully protected end-to-end cycle route.

To get people cycling for short trips therefore requires a wholly different strategy. A programme of 'direct support' has been instituted targeted at every aspect of getting people started cycling on a regular basis and supporting them once they have started. It recognises that most new cyclists will be unskilled on the highway and probably concerned about safety issues and will probably give up easily when problems arise.

The Direct Support for Cycling programme comprises:

- On-road Cycle Training to national standards at three graded levels of attainment ('Bikeability'). In 2007/8 428 children were trained as part of school-based schemes and 424 adults and children trained as part of family or adult schemes. On-road cycle training builds confidence and imparts the skills needed to cycle safely in traffic.
- Bike Buddy Cycle Commute Escorts is an additional programme of training that helps people select commuting routes and be accompanied by a cycle trainer who will give them advice on making the journey.
- Dr Bike Cycle Health Check Sessions to advise owners of any faults on their bicycles and make them aware of the repair facilities available at local cycle shops. In National Bike week 2008 a total of 145 bicycles were checked at four sessions.
- Cycle Maintenance Classes to provide cyclists with the basic skills to keep their bicycles on the road.
- Keep Riding support including limited amounts of rainproof clothing or other accessories and advice on for example riding in winter.
- Residential cycle locker advice and where possible subsidised purchase which gets over the problem of a lack of convenient storage at home becoming a disincentive to cycling. In recent years the council has also installed lockers on Acton Vale and Drayton Bridge Estates.
- Cycle Awareness activities such as a summer youth cycling scheme on the Windmill Park and Drayton Bridge estates (jointly with Notting Hill Housing Trust). In 2008 a 'cycle experience' event was held on Acton town square.

The Direct Support for Cycling programme receives very much less funding from TfL than the LCN yet has the potential to achieve far more. Limited funding means that the potential for increasing cycling as a significant mode of travel in the borough is being restricted. Additional funding sources are being sought. For example, one of the former Area Committees funded Dr Bike sessions on two of its local housing estates with follow-up cycle training.

Cycle training at schools is gradually becoming established but it is important that the workplace travel planning (including voluntary travel planning) and s.106 funding processes start to play a more positive role in promoting cycling. The ideal for example would be to see every employee of, say, Ealing Town Centre living within 2 or 3 miles of the town centre offered cycle training and other support for their journey to work and for employers to provide the necessary cycle parking space and changing facilities.

3.3.9 Walkability:

The then Association of London Government funded a 'Walkability' programme in Hanwell which has led to on-going funding releases from TfL.

The Walkability project consisted of a series of structured 'Community Street Audits' carried out by local people and councillors along a selection of routes into Hanwell Town Centre.

The aim was to walk the routes and identify and record everything that needed improvement in order to make the route pedestrian-friendly. It covered everything from lighting, signing, maintenance to crossing facilities, sight lines, footway widths, traffic intrusion, step-free access across side roads and so on.

The whole purpose was to draw up a plan to make a small town centre like Hanwell easily and attractively accessible on foot to local residents without creating the need for more car parking space where there isn't space available and more traffic congestion as people search for it. Needless to say this fully complements any plans to regenerate and improve the town centre.

A number of schemes are now progressing:

- Step free access and entry treatments at three side roads within the town centre.
- A submission to TfL for a full pedestrian phase at the important Church Road / Uxbridge Road junction.

3.3.10 Pedestrian phases at signals:

Although important for pedestrian safety reasons and to encourage walking for local trips, it is recognised that pedestrian phases at traffic signals bring traffic flow to a halt and hence increases delay for general traffic. This has implications for traffic congestion at junctions (section 3.1.3).

A case in point was the introduction of signalisation with a pedestrian phase at the junction of Greenford Avenue and Drayton Bridge Road. The scheme was introduced in response to a high level of accidents to pedestrians at this busy junction (there is a large secondary school a short distance away). However, the introduction led to complaints about extra queuing and delay to traffic. Part of the problem, however, is with a bus stop that is very close to the junction and ad hoc parking at the shops at the junction.

In the past this has led to resistance from TfL to the introduction of new pedestrian facilities such as those at the Church Road (Greenford Avenue) junction with Uxbridge Road in Hanwell, but attitudes appear to be changing in favour of a more balanced and safer approach. The Council has made a submission to TfL.

3.3.11 Bus Stop Accessibility:

The council with TfL is implementing a programme of bus stop clearway improvements to adopted London-wide standards which ensure that bus stop clearways are of sufficient length that a bus can pull in and stop alongside and parallel to the kerb to enable people with any kind of mobility need to enter or exit the bus at virtually the same level as the bus floor. However, it is not intended to continue with providing kerb build outs where these obstruct traffic flow. The Bus Stop Accessibility programme reflects the spirit of the Disability Discrimination Act but really these needs for access are not just for wheelchair users but also for elderly or ambulant disabled people and for those travelling with children in buggies or with shopping trolleys.

This programme, which is now well past its half way mark, is important because it opens up the bus service to a much wider range of people than would otherwise be the case. More needs to be done, however, by TfL in the field of driver training and supervision.

3.3.12 What makes public transport work?

There are eight criteria that have to be met before we have a properly functioning public transport network. The criteria apply to both bus and rail services. They are:

- Frequency
- Capacity
- Reliability
- Connectivity
- Affordability
- Security
- Access
- Information

3.3.13 How does Ealing match up?

Frequency:

Bus and rail service frequencies need to be such that a turn-up-and-go service is provided and this can only be achieved with a service interval of 10 minutes or less, giving an average waiting time of five minutes. Frequencies need to be maintained in the evenings and on Sundays. Bus and rail services need to provide and integrated service and this objective of a minimum frequency of 6 per hour makes interchange more attractive particularly between orbital bus routes and radial rail services. The Greenford Line currently has no late evening or Sunday service and only two trains per hour during the day. Acton Main Line only has two trains per hour despite its proximity to Park Royal and Acton Town Centre.

Capacity:

Recent growth in public transport usage means that overcrowding occurs and this leads to delay as large numbers of people board and alight. The service should provide for people to be able to board the first bus or train that arrives. There is a particular problem in this regard with the Great Western suburban services and these need to be included urgently in the government's recently announced national programme of additional carriages.

Reliability:

Bus priority measures have attempted to maintain bus journey times and reliability in the face of worsening traffic conditions. In essence the function of bus lanes is to bring buses up to the end of the queue of vehicles that will get through traffic signals at the next green phase, not to reduce traffic capacity at the junction. With regard to rail, reliability on the Great Western services has been particularly poor.

Connectivity:

Inevitably people will have to change buses for some journeys but this is one of the most disliked aspects of travelling by bus. The council has identified eleven crucial linkages that are missing from the network and which TfL should prioritise. These are listed in supplementary section no. 1, attached.

Affordability:

There is a basic problem that the price of public transport tickets for a family travelling together can be significantly greater than the perceived marginal cost of travelling by car, even including car parking charges. The cost of bus and travel is a matter that London Councils and London Travelwatch may take up on behalf of boroughs.

Security:

There have been improvements to street lighting and lighting of bus stops shelters, together with improvements to on-board security through dedicated policing and CCTV recently which has improved the attractiveness of bus travel, although it is only through the monitoring of crime reports, in the same way as accident reports are monitored, that potential future needs can be identified. This includes consideration of safety and security on access routes to bus stops from residential areas. Some of the proposals in supplementary section 1 relate to achieving better penetration of bus services within residential areas which can help reduce walking distances. On rail there have been improvements with staffing re-introduced at former North London Line stations at Acton Central and South Acton and CCTV control at the Great Western Line stations.

Access:

The council is in the process of introducing station access schemes at Hanwell and Castle Bar stations. These mostly cover improvements to walking routes, cycle parking, general parking control and new signage/information. Further schemes are in preparation for Acton Central and South Acton where there is a need not just to improve access to and from local residential areas but also to improve access between Acton Central station and bus services along the nearby Uxbridge Road. Station access schemes of this type are planned for other stations across the borough in a five-year programme.

Information:

Generally information on routes and frequencies is fairly readily available to the public. The council recently published a pocket guide to night bus and rail services in the borough. The on-going programme of Workplace Travel Plans is helping to make public transport information available to car users but there is still a marketing gap in the promotion of rail and bus services more widely. TfL have recently funded extensive and expensive schemes in Sutton but there should be scope for a smaller scale project in a wider range of boroughs.

3.3.14 The PlusBus concept:

The council is currently funding a dedicated and very popular semi-scheduled bus service in Islip Manor for those who have difficulty using public transport. This service, which started with s.106 funding has been maintained by the council which is exploring ways of extending it to other parts of Northolt / Wood End. A characteristic of both of these areas is the lack of good bus links, but the funding of better services should be with TfL within whose remit lies the provision of public transport.

3.3.15 Uxbridge Road Tram Alternative – a corridor solution needed:

Studies continue into the future of Uxbridge Road bus services. The problem is that a point could be reached where the number of buses required to meet growing demand could lead to buses causing congestion to themselves and indeed blocking access to bus stops thus causing undue delay to bus passengers.

Part of the solution may be improving bus flow still further using traffic management measures particularly in town centres and other pinch-points such as Iron Bridge, making better use of the 607 express service and encouraging greater use of rail services on the Great Western / Heathrow Connect line for local travel by improving train services and station access.

This is particularly important because new development at Ealing Town Centre, Southall and other locations along this corridor will in itself lead to increased pressure for travel along the Uxbridge Road as well as onto services that use part of the Uxbridge Road such as the 266 (Hammersmith and Park Royal) and the E3 (Greenford to Northfields).

Because of the number of buses likely to using the Uxbridge Road in the future, consideration must be given to traffic management and parking measures to control the use of residential streets each side of the main road by through traffic.

3.3.16 Fastbus – the future for orbital bus services?

Orbital services are much less developed than radial routes. The Uxbridge Road has a series of overlapping services (the 207, 427 and an express service 607) and has parallel services such as the E8, 83 and 266 over parts of the route. By way of contrast, many orbital corridors have much more limited bus services, sometimes only one route.

Brent Council and Park Royal Partnership have developed an idea for a fast orbital service that mixes existing links with new links between Wembley and Park Royal. Fastbus means that employers in Park Royal can be more confident about their access to the labour market and residents in the Wembley area will have a better quality access to employment and retail opportunities and to Central Middlesex Hospital. It also provides enhanced access to radial rail services including the Central Line at North Acton where it would terminate.

Subject to an approval business case for the route, the council would seek to encourage TfL to accept the extension of this proposal southwards from Park Royal via Horn Lane, Acton Town Centre and ideally the South Acton estate. In doing so, Fastbus would link Park Royal to its prospective Crossrail Station at Acton Main Line. It would also widen direct employment opportunities for residents of Acton.

If introduced as a high quality and reliable service making key linkages, the service could become attractive to car users, so helping to reduce congestion and future traffic growth. It will also help the regeneration of Park Royal by broadening its labour market and linking it to Crossrail.

The Fastbus concept should then be extended to other orbital corridors in the borough, particularly Perivale to Ealing Town Centre, Northolt to Southall/Hounslow/Heathrow and Ealing to Brentford and would be the blueprint for a new type of public transport service.

3.3.17 Rail: what's needed for the short to medium term 2008 to 2016?

Network Rail are reviewing capacity and the medium term provision of passenger and freight services on the Great Western line. The council's view is that this review should take account of:

- The significant additional passenger numbers that will result from new development and regeneration along the corridor and especially at Southall and Ealing Broadway.
- The need for local train service capacity and provision to be considered as part of the overall need for people movement along the Uxbridge Road corridor. This will mean enhancing train services at local stations to meet future demand and to encourage the maximum use of rail to relieve pressure on bus services and traffic congestion.

Current proposals from Network Rail are for the Greenford Line to terminate in a siding at West Ealing, thereby reducing two train paths to Paddington. In this case the council will seek the following improvements:

- Good quality cross-platform interchange at West Ealing for passengers continuing their journey.
- The Greenford branch to become a four trains per hour shuttle (it currently runs only half-hourly).

- Urgent studies into a link at Greenford to the existing tracks to create a new terminus and interchange with the Chiltern Line at West Ruislip. This will greatly increase usage of the Greenford line and improve accessibility into the borough.
- The capacity of the new service to take account of future employment trends in the Greenford Green area served by Greenford Station.
- The train paths released by terminating the service at West Ealing be used to add extra trains at Southall, Hanwell, West Ealing and particularly Acton Main Line (to take account of the future Fastbus service to Park Royal and Acton Town Centre/South Acton).
- Network Rail to be pressed to report on the feasibility of a possible fifth track within existing railway land as a possibility of restoring the Greenford Line as far as Ealing Broadway.
- Technical studies to be sought on the feasibility of converting the Greenford Line to light rail / tram type shuttle operation.

In addition, the council is also seeking a review of passenger demand from Slough as opposed to Heathrow for the additional train paths that become available, that is whether two trains per hour should be added to the existing two per hour from Heathrow or whether they should be added to the Slough services.

A service to connect the south western train services at Staines into Heathrow (Airtrack) is being planned at present. It opens up the possibility of through trains from Ealing to Woking, Guildford and beyond (or at least good interchange connections at Heathrow) avoiding the need to go into central London or Clapham junction. This would further increase Ealing's connectivity.

3.3.18 The importance of Crossrail:

The Crossrail proposal is for a new tunnel under central London from Paddington to Liverpool Street thereby enabling direct train services to be operated between Maidenhead and Shenfield in Essex. Passengers from Ealing would be able to travel directly and swiftly into central London and east London including Docklands.

The journey time from Southall to the West End, for example, would be only 19 minutes, a very considerable improvement on the existing situation which requires a change at Paddington. It would also connect Southall to Canary Wharf. Similar benefits would apply to all Crossrail catchment stations. This will give a big boost to the local economy giving a access to a wider range of employment for local residents and at the same time broadening the inbound catchments for local businesses.

In addition, Crossrail trains will be considerably longer at up to 12 coaches. This should provide welcome relief to overloading on the Great Western and Central Lines.

The council strongly supports Crossrail and will work closely with the Crossrail planners to ensure the benefits to the borough are maximised. These benefits include improved accessibility, greater public transport capacity on the key east/west radial corridor in the borough, and a major potential contribution to regeneration and economic development in town centres and other sites along its route.

The council will also work with TfL to develop new and improved orbital public transport routes to complement Crossrail and thereby spread its benefits more widely across the borough.

3.3.19 Getting the best out of Crossrail:

There are important considerations that the council will be pursuing with the Crossrail planners

- It is proposed to give Southall 8 trains per hour and Ealing Broadway ten per hour but there would be a much poorer service at other stations: only two per hour at Hanwell, four at West Ealing and four at Acton Main Line. Planning for Crossrail must take account of its role in making a significant contribution to catering for the demand for the movement of people along the wider Uxbridge Road corridor so that each station needs to have a minimum of 6 trains per hour to provide a turn-up-and-go service – this is an aspiration of London Travelwatch and Ealing Public Transport Users Group which the council shares.
- Crossrail will generate additional passengers because of the improved quality and connectivity of its service. Most stations are to be rebuilt to accommodate this growth which could be 30% increase over existing passenger numbers on the Great Western/Heathrow Connect. But Crossrail will also set off pressure for more intensive development of jobs, homes and other facilities at or near its stations and these calculations will need to be shown to have been included in station design.
- Station rebuilding for Crossrail should include better bus interchange facilities, set down and pick up facilities, cycle parking, road crossings for pedestrians, retail offer and facilities for disabled people.
- Increased pressure for rail heading to Crossrail stations will put extra pressure on congested roads and parking in residential streets which will need to be carefully managed.
- Walking and cycling access to Crossrail stations will need to be improved.
- Orbital bus services will need to be strengthened so that bus/rail interchange is encouraged and thus the benefits of Crossrail spread more widely and more sustainably.
- Specific improvements are needed to the proposed service to Acton Main Line station to enable this station to reach its potential as the Crossrail station for Park Royal and Acton Town Centre/South Acton connected by Fastbus.
- Planned improvements on the tube (especially the re-signalling of the Piccadilly Line) and to bus services need to be maintained despite the cost of building Crossrail.

Local tube service frequencies need to be maintained after Crossrail is introduced in order to adequately serve areas of the borough not within the Crossrail corridor and to preserve the range of journey opportunities within west London, for example Northolt, Perivale and Greenford to Acton, Ealing Broadway to Hammersmith etc.

- Fare levels on Crossrail should be pitched at affordable levels to ensure users are not priced out of the service (for example the Ealing Broadway to Heathrow fare on Heathrow Connect is £5.50p which is much higher than the tube fare to Heathrow (£1.80 oyster, £3 cash).
- Consideration should be given to the mix of services to be provided between Central London and Heathrow and/or Slough/Maidenhead in view of the needs and linkages between these areas and areas served by Crossrail within the borough and especially Southall and Ealing.

3.3.20 What's possible post-Crossrail:

Two other long-term proposals for rail have been made that need to be given consideration although it has to be said that both are only at the concept stage and may not have any significant hope of coming to fruition:

- A connection between Heathrow and St Pancras for through running between Heathrow and the continent. This scheme, which is a private initiative by Arup Engineering, is estimated by that company to cost £5 billion and could be completed by 2019 at the earliest. It would presumably use train paths currently used by the Heathrow Express which would not necessarily be needed post-Crossrail, and link into the North London Lines east of Acton. Potentially this could connect Southall and Ealing Broadway to the continent.
- The West London Orbital, a concept from West London Business for a new underground line serving Kingston/Surbiton, Richmond, Brentford, Northfields, Ealing Broadway, Park Royal, Wembley, Stonebridge Park and Brent Cross. The cost would be up to £2 billion and it could be ready by 2018 at the earliest.

The West London Orbital in particular has the benefit that it would serve a road corridor that is one of the most congested in London. Congested roads in and around Richmond, capacity problems crossing the river at Kew Bridge, the narrow and heavily congested South Ealing Road route into Ealing and the A406 North Circular Road northwards from Ealing Town Centre through the Hanger Lane Gyratory would all be by-passed by the new line.

It would link regeneration areas in Kingston, Brentford, Ealing, Park Royal and Wembley. Interchange with radial rail routes would be provided at Brentford (south western lines), Northfields (Piccadilly), Ealing Broadway (Crossrail, Central and District lines), Park Royal (Piccadilly), Stonebridge Park (Bakerloo), Wembley Park (Metropolitan) and Brent Cross (Jubilee).

The radial/orbital links that could be made are therefore unprecedented and all would be in purpose built interchanges. The promoters claim that each end of the line could be reached inside 15 minutes from Ealing Broadway. The public transport connectivity this line would bring plus the journey time advantages over road journeys make this proposal very worthy of consideration and support.

Both of these post-Crossrail proposals will need further work to define their cost-benefit position before funding can be sought by the promoters.

3.3.21 Minimising environmental damage caused by transport:

The emphasis on improving public transport, cycling and walking has a direct input into the council's attempts to improve air quality and mitigate the effects of climate change.

The council is separately preparing an Air Quality Action Plan and Climate Change Strategy. These will assess the causes of pollution but vehicular traffic remains one of the most important sources of many pollutants. For example, it contributes 25% of Ealing's carbon dioxide emissions.

Walking, cycling and using public transport are the best ways forward for producing lower levels of pollution and hence must be at the forefront of the council's solution to air quality and climate change problems. Indeed car occupants are exposed to greater levels of pollutants than even cyclists or pedestrians mainly because car users are more likely to be stuck in traffic directly behind the exhaust pipe of the vehicle in front of them. And apart from lower pollution, cyclists and pedestrians benefit from specific health advantages around improving fitness.

Actions to minimise the environmental damage caused by transport, specifically by motor vehicular traffic needs to be better supported by measurements of the linkages between traffic congestion and air pollution. An attempt to do this on a selection of main road corridors in west London, including the Uxbridge Road, has been carried out by the West London Air Quality Group of borough officers. This identified the influence of the canyon effect of narrow roads lined with tall buildings on narrow footways in trapping pollutants. All our main town centres, Southall, Hanwell, Ealing and Acton have this effect exacerbated by heavy traffic congestion.

Estimates of the level of reduction in traffic volumes and traffic congestion needed to achieve given levels of reduction in pollutants in the most affected areas are needed as are Air Quality Impact Assessments of new developments and their traffic generation to measure whether, and if so by how much, they would contribute or not to increased air pollution.

In addition to general policy requirements for encouraging modal shift in favour of non-polluting modes of transport, there are specific projects that can be undertaken. The council has TfL funding for the development and installation of electric vehicle charging points and aims to have 20 or more in place as soon as possible (there are only 40 in the whole of London at present). It appears that Mayoral support for this project is set to increase.

3.3.22 Opposition to Heathrow expansion:

The council opposes further growth at Heathrow and in particular a third runway and sixth terminal, mainly on grounds of air quality and noise.

The council has grave concern over the environmental impact that any additional flights beyond the current cap will have on the borough. A particular concern is that some areas of the borough will be exposed to aircraft noise for the first time.

3.4 Facilitating regeneration and economic development

3.4.1 Squaring the circle:

The location, scale and type of new development opportunities is a major factor :

- In influencing the overall demand for transport
- In deciding how that demand will have to be met
- And possibly in deciding whether it can be met.

At the same time, major new infrastructure investment such as in Crossrail will itself act as a catalyst for future development and influence where development pressures will occur. And if such development occurs it will stimulate transport demand right across the borough and indeed the whole sub-region leading to demand for orbital transport beyond the radial corridor served by Crossrail.

The next question is whether it is possible to deliver significant growth and regeneration in the borough without creating high levels of growth in car usage which the already congested road network would not be able to cope with but which high quality public transport, and particularly rail services could accommodate.

The key issue is therefore how to service growth and regeneration adequately over the whole borough by mixed modes including public transport and road without losing the level of development that is needed to support the local economy.

3.4.2 Growth potential:

Latest figures from the GLA show that London's population is expected to rise from an estimated 7.51 million in 2006 to between 8.27 and 8.61 million by 2026 an increase of up to 15%. Employment growth is expected to rise over the same period by 26% in central London, 27% in inner London and 11% in outer London.

Ealing will clearly be part of that growth. The Mayor is emphasising the importance of recognising that outer London has considerable unrealised potential to take new jobs and population growth and in doing so to take the strain off of central London. To ensure this growth can take place,

the transport infrastructure needed has to decided upon and put in place.

At the same time many residents of Ealing will continue to have jobs in central London and beyond (currently 10% of Ealing residents work in central London) and many people will come into the borough to work from elsewhere including central, inner and east London as well as from the Thames Valley. Crossrail will perform the function of making those linkages much quicker and more attractive from which Ealing can benefit.

3.4.3 Transport provision has to improve:

The CBI in its recent London Business Survey (June 2008) notes that 87% of employers surveyed say the lack of quality and reliability of public transport has a direct impact on productivity. 64% felt congestion was getting worse, partly a reflection of road works. The tube and rail were seen as the top priorities for expenditure followed by the road network.

The West London Economic Development Strategy (2007) expressed concern that the future economic prospects of west London are being compromised by weaknesses in the transport network because of:

- A lack of high capacity orbital routes
- Traffic congestion
- Limited interchange facilities
- Low public transport accessibility

The EDS strategy suggests that high levels of car use (in west London 40% of residents drive to work compared to 34% in London overall) and poor public transport are more severe in west London than anywhere else in London. In addition the high volume of traffic produced by workers and passengers at Heathrow presents significant transport and environmental problems that are unique to west London.

The EDS further claims that traffic congestion in west London compromises business competitiveness and will limit its ability to attract business investment. Public transport links between residential areas (including areas of social deprivation) and areas of employment concentration are often poor.

3.4.4 Need for an interlocking transport network:

Efficient public transport connectivity across west London is the first priority. This requires three levels of inter connecting service.

Radial routes:

Crossrail will bring:

- Time savings in access to central and east London Borough of Ealing
- Increased capacity on the Great Western / Heathrow Connect corridor
- Capacity relief to overcrowded tube lines
- Quality improvements in terms of station re-building and new interchange with bus services
- Reduction in highway congestion through modal shift from car to rail

Crossrail will open up radial access to Southall where 3,500 new homes may be built within reach of the station. It will serve Hanwell and West Ealing where smaller scale regeneration needs to take place. It will serve Ealing Town Centre where a substantial increase in jobs, homes and retail offer may take place. It will serve Acton Main Line station which if suitable bus links are provided by Fastbus will bring the benefits of Crossrail to Acton Town Centre and Park Royal which has the potential for 11,000 new to be created in the future.

3.4.5 Orbital routes:

Development along the Crossrail corridor will need orbital links to feed into Crossrail itself and the town centres and development areas that will grow as a result of Crossrail serving them.

In the short to medium term buses are the only mode of public transport with the flexibility to meet growing demand. But buses are slow and unreliable. The solution for access to growth areas has to be an upgraded core bus network providing high quality links on key corridors. The Fastbus Wembley – Park Royal – Crossrail (Acton Main Line) and Acton Town Centre / South Acton proposal should be implemented once a business case is accepted and route design approved followed over ten years by similar services passing north/ south across corridors that link to Crossrail (Southall and Ealing Town Centres in particular) and other employment areas such as Heathrow form Northolt, Greenford, Hanwell, Perivale and South Ealing / Brentford.

For the longer term there is the proposed West London Orbital underground railway proposed to link Brentford, Ealing Broadway, Park Royal and Wembley which could transform journey times and reliability on that corridor and through interchange with radial rail and tube lines across the borough in a way no bus service could do.

The council recognises that many car journeys will still be necessary as well as multiple trips by goods vehicles. To this end a programme of highway improvements at key road congestion hotspots is underway commencing with Petts Hill and Church Road north of the Target. An on-going programme is set out in section 3.1.

3.4.6 Local access:

Restricted supply of parking space, controlled parking zones and traffic congestion mean that the local bus services, cycling and walking routes will be needed for local access to growing town centres and employment areas. Supplementary section 1 gives a list of missing bus links across the borough.

There is considerable Mayoral interest in cycling for local trips. The council's ambitious cycle support programme has the potential to transform local journeys to work. As part of the Workplace Travel Plan process we would like to see local employers committing to paying for on-road cycle training and other aspects of cycle support offered to all employees living within 3 miles of their workplace and the necessary cycle parking being installed.

3.4.7 Access to development: key schemes:

Each area of development or regeneration will have its own needs for transport and some key schemes are suggested below. A transport-led regeneration programme for Greenford Town Centre is currently being implemented.

Southall including Gas Works Site:

- New road links to the surrounding strategic road network.
- High quality walking routes northwards to the town centre and to Southall Station.
- A new rebuilt station for Crossrail with possible bus station or parking provision.
- Re-routed bus services to serve the site (207 extended from The Broadway, H32 re-routed from Western Road and Hounslow, 95 extended from Perivale, Greenford and north Southall).
- New parking opportunities especially for retail access.
- Car park electronic Variable Message Signing throughout Southall town centre to reduce searching for spaces.
- New road access from the Great Western Industrial Estate to the Glade Lane area and Bridge Road to open up land for development and provide the opportunity for bus access.
- Consideration of access for delivery vehicles and other servicing needs.

Greenford Green:

- Relating new land use development more closely to road network capacity (Oldfield Lane North, Greenford Road and Rockware Avenue).
- Further investigation and costing of new direct road link across canal and railways to A40.
- Investment in upgraded walking routes from Greenford Station into employment and retail areas.
- New bus terminus as alternative to on-street stands in Rockware Avenue.
- Support for improved frequencies on Greenford Line and possible extension to West Ruislip.

Hanwell Town Centre:

- Continuation of the popular 'Walkability' project to develop safe and attractive walking routes into the town centre.
- Pedestrian phases at all signalised junctions.
- Re-opening of the southern entrance to Hanwell Station to better serve the town centre (Network Rail responsibility).
- Creation of loading bays on wider footways for businesses and to reduce traffic congestion.
- Longer term consideration of a CPZ to control potential rail heading to Crossrail service.

West Ealing Town Centre:

- Improved walking routes and station access plan for the re-located Crossrail station.
- Improved and extended town centre parking provision.
- Longer term consideration of a CPZ to control potential rail heading at West Ealing following Crossrail.

Ealing Town Centre:

- New bus interchange with the rebuilding and enlargement of Ealing Broadway Station.
- New and expanded cycle parking facilities.
- New walking routes into the town centre.
- New car parking in new developments
- Off-street servicing facilities.
- Possible contra–flow lane for direct access to Springbridge Road car park from the north.
- Car park electronic Variable Message Signing to reduce the amount of traffic circulating around the town centre.
- Better bus stop locations and/or design to reduce walking distances and prevent congestion on footways.
- Voluntary travel plans with existing employers.
- Shopmobility scheme to cater for disabled visitors.
- Improvements to footway widths in the town centre and more and better crossing points, to the station and in High Street and Bond Street.

Acton Town Centre:

- Potential Fastbus link from Acton Main Line Crossrail station.
- Upgraded walking link to Acton Central station from Uxbridge Road.
- New loading and stop-and-shop facilities.
- Electronic Variable Message System to guide traffic approaching the town centre to the most appropriate car park.
- Improved and extended bus terminus arrangements at rear of existing Town Hall to increase capacity for future increases in service provision.
- Assessment of traffic generation from possible new development in the light of capacity constraints in the town centre and on approach roads.
- New pedestrian crossings, better parking control and safety measures on High street
- Public realm improvements to increase the attractiveness of Acton as a local centre.

Park Royal:

- Fastbus proposal from Wembley and extension to Acton Main Line station for Crossrail and to Acton Town Centre and South Acton.
- Re-examination of capacity issues at North Acton station.
- Review of car parking provision and operation.
- Reviews of local traffic management arrangements to reduce congestion.

Perivale:

- Improvements to local shopping parade on Bilton Road including more stop-and-shop and loading bays and enhancement of the public realm and walking routes.
- Consolidation and extension of the existing advisory lorry routing scheme to reduce congestion caused by HGVs on local roads.
- Better parking control of new development.

3.4.8 Transport and Regeneration Checklist:

The successful Greenford Town Centre regeneration scheme currently being implemented shows how transport itself can be the enabler of regeneration regardless of whether or not new development is in prospect. The Greenford scheme attracted substantial funding from TfL.

One of the lessons learned is that transport schemes are best linked to streetscape improvements for maximum effect

The scheme was based around a 'something for everyone' approach and gained overwhelming support at the public consultation stage. The principles of the Greenford Town Centre scheme are set out below, many of which have wider applicability and will be considered where appropriate for other centres.

Supporting local businesses – parking and servicing:

- Loading bays in the footway to give 24 hour unrestricted loading/unloading without affecting traffic flow.
- Improvements to rear servicing arrangements.
- New stop-and-shop bays in the footway.
- Car park enhancements.
- Review of car park charges.

Reducing congestion within the town centre:

- Extending bus bays to prevent buses blocking traffic flow.
- Widening the carriageway to give a turning lane from The Broadway into Oldfield Lane South.
- Better parking control whilst putting loading and stop-and-shop into footway bays.

Improvements for cyclists:

- Clusters of cycle parking stands at each end of the town centre.
- Advance stop lines at junctions.

Improvements for pedestrians:

- New crossing points including replacing refuges with pelican crossings
- Raised tables on side road entrances/exits to slow traffic and give step-free access for pedestrians.
- Pedestrianising service roads.
- Proposed diagonal pedestrian crossing at main junction to reduce walking distance and improve safety (not implemented at present).

Improved access approaching the town centre:

- Examine possibility of transferring parking and loading into on-footway bays to assist with improving traffic capacity and more efficient bus access.
- Community Street Audits to develop new walking routes into the town centre.

Improved road safety:

- More controlled crossing points for pedestrians.
- Better sight lines
- Reduced street furniture and sign clutter

A more attractive environment:

- New paving and street furniture using high quality materials
- Shop front improvements
- Environmental improvements including flowers, banners etc.

4. HOW WILL IT ALL HOLD TOGETHER?

The overarching theme defined in this strategy is 'to make transport work for the borough'.

Traditionally transport planning has been based around the implementation of separate modes of transport as separate funding streams come together. In addition, it is complicated by the involvement of a variety of different agencies: TfL. DfT, Network Rail etc.

The seven points listed below summarise the main changes needed to make transport work for the borough.

Support and promotion of major schemes:

- Crossrail
- Orbital bus network
- Longer term public transport e.g. West London Orbital
- New bus/rail interchanges
- Road congestion hotspot schemes

Changes in practices:

- Re-orientation of bus service planning towards defining the needs arising from growth in population and jobs and in meeting unmet links.

Co-ordination of local schemes:

- A series of Area Transport Plans covering traffic management, traffic calming, accident remedial schemes, parking management, cycle routes, safer routes to school, station access etc.

Audits of major new development frameworks for town centres and regeneration areas from a transport perspective:

- Traffic generation
- Road network capacity
- Access routes
- Bus service improvements
- Walking and cycle routes
- Parking control and management
- Servicing off-street and where necessary on-street loading bays

'Soft' measures, not just engineering measures:

- Workplace Travel Plans
- School Travel Plans
- Direct Support for Cycling
- Travel Awareness campaigns

Influencing the sub-regional agenda:

- WestTrans
- Park Royal Partnership
- London Councils

Better co-ordination of transport funding in relation to council priorities:

- TfL funding submissions
- s.106 and other 'internal' sources
- links between transport schemes and streetscape improvements

5. PROCESSES FOR DELIVERY

5.1 Raising Awareness of the Implications of Transport Choices:

Residents and businesses have to be given the information they need in order to understand what the council, sub-regional bodies and the Mayor are trying to do with regard to transport policy. Too often the only time people encounter council transport policy is when a local consultation document arrives through their door for a specific scheme in their area. It is very difficult to see how they can be expected to understand the totality of what the council is trying to do, let alone empathise with it.

For this purpose the council runs a variety of event-based activities using TfL funding that promotes sustainable transport policies and explain to people why they are needed and the benefits they may get from them over time.

Normally these events take place twice a year in Spring and Autumn and include:

- Walk to School Week (as well as the on-going 'Walk on Wednesdays' programme) targeting children and their parents. Competitions, displays and colourful promotional materials support the events including the year round production of School Travel Plans which outline their associated targets to increase walking and cycling to school.
- Bike Week events targeting particular modes of travel and involve a series of 'Dr Bike' sessions across the borough in association with local cycling organisations, together with various cycle rides including family rides.
- Travel Awareness events targeting a wider audience associated with European Mobility Week in September are advertised in the council magazine 'Around Ealing' thereby reaching every household in the borough. Council officers staff the events themselves and people who come along are given information leaflets, cycle route maps, bus maps and so on. Last year's event in Hanwell Town Centre was linked to and supported by a street party organised by local residents. This year it will be an information stand in Ealing Town Centre followed by a Dr Bike session on Haven Green under the auspices of TfL's new 'Give Your Car the Day Off' banner.

In addition, the council now has its own logo for events and promotion called 'travelgreen in Ealing'.

5.2 Getting local people on board in scheme design – getting the benefits of two-year funding streams:

With TfL, funding was available only on a year-on-year basis. This meant that feasibility, consultation, approval, detailed design and implementation all had to take place within one year. The problem with this was that the whole process was extraordinarily rushed, there was little time for meaningful consultation and where the project ran into difficulties at the consultation stage funding came under threat of having to be returned to the funding authority.

TfL now make funding for most schemes available over a two-year period. For example three 20 mph zone schemes in the borough (Vicars Green in Perivale, Sudbury Heights and Oldfield Circus) have £20K each for preliminary processes in 2008/9 and between £200K and £230K each committed for implementation in 2010/11 (subject to normal council approval processes). Further changes to give councils more flexibility for funding schemes are planned by the Mayor of London.

The move to two-year funding streams means that there is now an opportunity for a step change improvement in consultation and involvement processes. This will firstly mean that councillors and local people can be better informed about what is planned and going on in their area, and at an earlier stage, and secondly that an enhanced process of involvement should lead to a greater understanding and acceptance of the council's transport schemes both in terms of what they are trying to achieve at the precise location of the scheme as well as in terms of their contribution to wider council or even sub-regional objectives.

For example, a safer routes to school scheme may involve putting in a new zebra crossing which meets one set of objectives and targets but may reduce the amount of kerbside residential or business parking which counters other objectives. Only by full involvement of local people can this apparent conflict hope to be resolved. Without this we have to rely on the current situation where officers and councillors are caught in an extended battle between two groups representing different viewpoints.

To achieve this, a number of proposals are set out below.

5.3 Stakeholder groups:

These would comprise local councillors initially and then representatives of residents and businesses and other interest groups such as schools. In this way stakeholders are brought in at an early stage so that the key issues, their relationship to policy and potential solutions can be identified and discussed from the outset. This process can also be adapted to Ward Forum funded schemes once the Ward Forum has adopted its own proposals. Many transport schemes will of course cross Ward Forum boundaries anyway.

These taskforces or panels would be set up for schemes in residential areas (e.g. 20 mph zones or other area-wide traffic calming schemes), in shopping parades (e.g. for streets-for-people schemes or walking schemes), in multi purpose corridors (e.g. South Ealing Road) and in town centres or other regeneration schemes.

An example of successful types of involvement have been the Community Street Audits carried out as part of the Hanwell Walkability project.

5.4 Sharing information:

For lengthier processes scheme newsletters could be issued regularly charting progress on the scheme so keeping people informed about consultation results, the comments received, the funding constraints, the timeline of the scheme and any necessary technical information or constraints on what can be done. Again, this will help to minimise the concerns of local people that their views as expressed in a consultation are being ignored or that the scheme has disappeared into a black hole because of the length of time it is taking to implement etc.

5.5 Co-ordinated Area Transport Plans:

Area Transport Plans will be produced for about ten areas of the borough to inform local people of the entirety of schemes and proposals in their area. These will include for example highlights of what the local schools are looking for in their School Travel Plans, what is likely to happen on the London Cycle Network route that passes through their area, when CPZ reviews are planned and so on.

The Area Transport plans would also list the many requests that officers receive for schemes, mostly traffic management and parking schemes, and in this way will help the Ward Forum's to decide on spending priorities for their own budgets.

They would also give people basic information on for example accident locations and causes and where possible on traffic volumes and traffic delay at junction which can be compared across the borough.

By combining together safety schemes, traffic calming, 20 mph zones, safer routes to school, pedestrian crossings, cycle routes etc for each area transport becomes a neighbourhood improvement plans. Area Transport Plans are proposed as the means of organising this approach.

More detail on Area Transport Plans is given in Supplementary Section 2. Further information would be given on the variety of funding sources for transport including constraints on accessing such funding.

In order to meet the challenges of transport supporting the council's key strategies, particularly in regeneration, it will be necessary to re-orientate staff and work priorities to give more cross-team and less modal-based working. Working groups of officers would work together on key projects to ensure a broad-based and wide-ranging input of skills to tackle the key issues and propose and prepare options and solutions.

Technical staff would be drawn in to support the work as required, for example if a cycle audit or pedestrian audit was thought to be needed to identify problems and necessary schemes.

Such an approach would ensure that land-use and economic development strategies have a strong transport component from the outset.

SUPPLEMENTARY SECTION 1: GAPS IN BUS NETWORK PROVISION

The council as a highway authority has limited influence over the actual provision of public transport services. Nevertheless public transport is an essential component of the efficient movement of people into and around the borough and the council will actively lobby for improved services.

The council recently welcomed:

- The extension of route E5 from Medway Parade to Tesco's store in Perivale giving better community links within Perivale.
- Re-instatement at a greatly increased frequency of a link from Southall to the south side of Heathrow by route 482 to Hatton cross, Terminal 4, Cargo area and Terminal 5. However, the council is seeking the re-instatement of the previously operated link beyond Southall to Northolt.
- The extension of route 195 from Ealing Hospital to Brentford via Boston Road, giving a new direct link to the hospital from Elthorne ward and new links to the Piccadilly Line from Southall Town Centre.

The following lists the main unmet links in the borough's bus network:

- North Greenford (Northolt Park Station / Wood End) to Greenford Town Centre and Ealing Broadway (possibly by northwards extension of route E1). Wood End has no north/ south bus links at present and local residents have petitioned for a service.
- Extension of route 94 from Acton Green to the Chiswick High Road and Chiswick Business Park. This would give entirely new links from residential areas in the borough to major retail and employment opportunities in Chiswick. It would also remove the serious environmental problems caused by the unsuitable terminus at Acton Green.
- Ealing Broadway, Popes Lane, Acton Town station, Bollo Lane, Chiswick Business Park and Acton Green. This route would create new links to and from Ealing Broadway from residential areas to the south and new links to major employment sites and the Piccadilly Line for residents in the south of the borough.
- Acton High Street, the South Acton Estate, Acton Town Station, returning to Acton High Street. Achievable by extending route 70, this proposal would link the major housing estate to the Piccadilly Line for the first time and improve links to and from the town centre.
- Extension of route 148 back from Shepherds Bush to Acton Town Centre. This would link Acton Town Centre directly to Notting Hill, Marble Arch, Victoria and Waterloo avoiding the need to change at Shepherds Bush.
- Extension of route 427 east from its terminus at Market Place to Acton Vale. This would improve the capacity and frequency through Acton Town Centre and give better links towards Ealing Broadway from the shopping centre.
- Diversion of route E9 to serve the Grange Estate in Northolt. The estate is relatively isolated from bus services and a relatively simple diversion of this route would remove this. (Requests have been made by the community for this link.)
- Extension of route H32 from Southall Town Centre to terminate at Hayes By-Pass. At present there is no service linking Southall Station and the King Street area to Southall Broadway.
- Southall, Norwood Green, Tentelow Lane, Windmill Lane to Gillette Corner Tesco and Brentford or West Middlesex Hospital. There is no link at present from Southall to this part of the 'Golden Mile' employment area.
- Support for the proposed FastBus service from Wembley and Park Royal southbound to Acton Main Line Station and Acton town Centre / South Acton estate. This service would create major new access links to employment for Acton residents and link both south Acton and Park royal to the Crossrail station at Acton Main Line.
- Extension of route 83 from Ealing Hospital into the Great Western Industrial Estate. This would create new links to employment and retail facilities.

SUPPLEMENTARY SECTION 2: CO-ORDINATED AREA TRANSPORT PLANS - FUNCTION AND FORMAT

Why Area Transport Plans?

- To streamline the information, bidding and decision-making process : one document not many.
- To inform the new Ward Forums and local people as to what is going on in their areas and what the potential is for future schemes.
- To interpret the LIP and Council Transport Strategy at a local level.
- To demonstrate that plenty is happening at a local level, there is the potential for lots more and it can all add up to a coherent strategy backed up by proper reasoning and measurable results.

Bringing together in one document:

- Area Traffic Plans funded by four of the old Area Committees.
- Parallel Initiative studies carried out on main roads.
- Accident analysis and recording – currently undertaken on an ad hoc basis.
- Requests from the public for traffic and transport schemes – currently held on a separate internal database.

What an Area Transport Plan will contain:

- A set of objectives against which schemes can be assessed and prioritised.
- Accident analysis for the area (reported separately for vehicle occupants, pedestrians, cyclists and children as pedestrians).
- An audit of traffic and transport problems in the area assessed against borough wide objectives.
- Potential solutions (investigatory studies as well as actual schemes).
- Ball park costings, potential sources of funding and potential timescales.

Format:

- Map and photo-based where possible with simple labelled information and tabulations for clarity.
- Clear presentation of data (e.g. journey times, queue lengths, accident locations etc) in appropriate formats.
- Designed to be user-friendly, instantly accessible and simple to compile and edit or update.

Included in each area plan:

- 20 mph zones
- Accident remedial measures
- School Travel Plan proposals
- Parking control
- CPZs and CPZ Review areas
- Safer Routes to School
- Cycle routes and cycle parking locations
- Bus stops and bus priority measures
- Station access schemes
- Regeneration areas and related transport schemes
- Walking schemes and walking- related improvements such as footway re-lay programmes
- Potential bus route and bus stop changes

Plus background information on how to access borough-wide initiatives such as:

- On-road cycle skills, confidence and safety training
- Dr Bike sessions and local cycle shops
- Travel awareness documentation available on request and events
- Road Safety documentation available on request.
- Workplace Travel Planning initiatives in the area

Background Information on who does what and where to find information covering the following:

- Transport Policy (the annual LIP and Borough Transport Strategy)
- Role of TfL v the council (e.g. strategic roads etc)
- Implementation programmes (Highways Management)
- CPZs and yellow lines (Highways Management)
- Parking Enforcement (Parking)
- School Crossing Patrols (Parking)
- Disabled transport (Social Services)
- Public Transport provision (TfL)
- Decision-making processes for highway schemes (Cabinet and Ward Forums)
- Funding opportunities (as per Appendix 4 above).

SUPPLEMENTARY SECTION 3: FUNDING FOR LOCAL TRANSPORT SCHEMES

The following guide is made available to the public for information.

	Funding Source	*Criteria for prioritising funding*
1.	**TfL Local Safety Schemes**	Prioritised by personal injury casualty records over the previous three years.
2.	**TfL 20 mph zones**	Prioritised by personal injury casualty records over the previous three years with additional consideration of noise reduction, air quality improvement, long-term health benefits and the creation of a generally more attractive environment for pedestrians and cyclists.
3.	**Other TfL funding streams**	Principal Road Renewal and bridge strengthening, bus stop accessibility, local bus priority, parallel initiatives, area-based schemes (town centres, streets-for-people and station access), walking, cycling, freight, regeneration, air quality and related environmental, CPZs, accessibility for disabled people, travel demand management (school and workplace travel plans and travel awareness).
4.	**TfL funded School Travel Plans**	Schemes to encourage walking and cycling to school as identified in an approved School Travel Plan including highway measures such as crossings etc.
5.	**Section 106 Planning Agreements**	Schemes deemed necessary to ameliorate the effects of a new development plus a contribution to other local highway improvements as part of the granting of planning permission for larger developments.
6.	**Minor parking schemes**	A limited budget (£50K per year) is held for small scale 'yellow line' restrictions mainly to improve access or traffic flow.
7.	**Controlled Parking Zones (CPZs)**	An annual forward programme of potential new CPZs and reviews of existing CPZs is carried out. In broad terms permit fees pay for the schemes. CPZs are normally introduced where there is external parking pressures such as around town centres, railway stations, industrial estates etc.
8.	**Other sources**	The council makes available funding from its own resources particularly in relation to town centre and other regeneration schemes that may include a transport component. It may also from time to time be able to access external funding opportunities, such as one-off initiatives from TfL or central government that wholly or in part may support transport schemes.

SUPPLEMENTARY SECTION 4: THE WESTTRANS 10 POINT PLAN – EALING'S POSITION

The WestTrans group of West London boroughs has produced a ten-point Plan for the future of transport across west London. The ten points are set out below with comments on their implications for Ealing showing how Ealing fits into the west London transport agenda.

1. Reducing traffic congestion

By encouraging more sustainable choices, by promoting travel planning and reviewing regional and national policy on road user charging.

Ealing position: Ealing is addressing bus and rail service improvements under eight assessment categories – frequency, capacity, reliability, connectivity, affordability, safety and information. Supplementary section no. 1 lists eleven unmet links in the bus network that need to be resolved to balance out the borough's network. The borough is also trying to develop a multi-modal corridor-based approach to the radial Uxbridge Road route seeking to link future needs for bus provision to better provision of rail services at local stations on the Great western / Heathrow Connect lines. Workplace Travel Plans are required of all new developers and a programme of voluntary Workplace Travel Plans is being set up targeted on town centres. There are no plans to support road user charging schemes as such, for example around town centres or Heathrow, but parking charges and CPZs around our town centres all have important implications for the vitality and viability of town centre economies and are under review.

2. Integrating land-use and transport planning

By seeking to secure sustainable patterns of land use development and the transport services to access them.

Ealing position: Each of the main regeneration and opportunity areas in the borough – Southall Gas Works, Greenford Green, Park Royal, Ealing Town Centre, together with housing renewal in West Ealing and South Acton, are the subject of transport studies to establish the link between development levels and traffic and public transport impact. Transport mitigation measures are being defined as part of these studies to demonstrate in particular how public transport services can be improved to meet the needs of development and regeneration. In some instances, such as Greenford and Hanwell Town Centres, regeneration is being transport- led through a range of schemes to improve sustainable access into and within the town centres in support of local businesses.

3. Facilitating orbital movement

By working to ensure improved orbital transport facilities and services including new and improved bus services.

Ealing position: The council is supporting the Fastbus proposal and its extension from Park Royal on to Acton Main Line Crossrail station and Acton Town Centre / South Acton. This will link employment areas with residential areas and radial rail services in a north/south orbital corridor in the eastern part of the borough. This is seen as the first stage in a series of orbital Fastbus corridors across the borough. It will complement on-going TfL London Rail's improvements to services and stations on the London Overground (North London Line). In addition the council is pursuing support for improved frequencies on the Greenford Line and extension to west Ruislip for linkage into the Chiltern Line. There is also a forward programme of improvements to road congestion hotspots especially on radial routes (Petts Hill, The Target, Southern Gateway to Park Royal and South Road / Western Road in Southall which will assist necessary traffic flow and the efficiency of orbital bus services. Many of the bus route improvements listed in supplementary section 1 would improve orbital movement.

4. Improving interchange

By working with TfL and transport operators to make interchange convenient, safe, quick and easy.

Ealing position: Studies are being undertaken at Southall and Ealing Broadway into the development of purpose-built bus/rail interchanges with Crossrail. Liaison is on-going with Network Rail regarding interchange between the Greenford Line and Great Western / Heathrow Connect lines at West Ealing from 2010. Smaller scale station access schemes are in progress at Castle Bar and Hanwell stations and are in hand at Acton Central station to develop links between the station and radial bus services on the Uxbridge Road. The development of the Fastbus project will require an interchange study at Acton Main Line station which will be the Crossrail station for Park Royal and Acton.

5. Transport infrastructure improvements

By establishing a long-term strategy for the improvement and expansion of transport infrastructure.

Ealing position: The council is fully supporting Crossrail as a key infrastructure project for the movement of people on its main urban corridor giving access to its town centres and from its town centres into central London, east London, Heathrow and the Thames Valley. In all cases except Hanwell, this will involve completely re-building of each station to new and improved standards. The council is also supporting further investigation into the West London Orbital rail concept and is looking to see what benefits there could be for the borough from the Airtrack proposal and the suggested Heathrow – St Pancras link. Taken together these infrastructure projects have the potential to transform public transport accessibility to and within the borough. In addition the council has a programme of road traffic congestion hotspot treatments that will assist the movement of all traffic including delivery vehicles and buses, and which has commenced with works at Petts Hill and Church Road north of the Target roundabout.

6. Improving bus services

By working with TfL to devise practical and feasible options for bus services in west London and to assess their merits against competing priorities.

Ealing position: Supplementary section 1 above lists eleven unmet bus links that need to be planned for by TfL. There are on-going studies into how bus services on the Uxbridge Road will cope with passenger growth and new land-use developments on this heavily congested corridor. The council has an on-going programme of bus stop accessibility works together with a number of junction improvement proposals (such as Ruislip Road East / Argyle Road) in its bus priority programme. Reviews of the efficiency of bus lane operation have begun on Uxbridge Road and changes implemented in Northolt. New traffic lanes for buses are being introduced on Greenford Road focussing on the route 92 orbital corridor by moving parking and loading into purpose-built bays cut into the footway.

7. Efficient surface access to Heathrow

By working with BAA to secure efficient and effective surface access to the airport, minimising the transport impact on surrounding communities.

Ealing position: The council has welcomed new and more frequent bus services to Heathrow Terminal 4 and Terminal 5 from Southall. The route 140 corridor (Harrow, Northolt, Hayes, Heathrow) continues to benefit from bus priority measuresat peak hours. An increase in frequency from 2 trains per hour to 4 trains per hour is in prospect for the Heathrow Connect rail service with the termination of Greenford Line services at West Ealing from 2010. This should also mean Heathrow Connect services stopping at Acton Main Line for the first time and thereby a better link to Heathrow from Park Royal and Acton with Fastbus providing an efficient and attractive access to the station.

8. Complementary local services

By promoting improvements to the public realm and local access arrangements, especially for walking and cycling.

Ealing position: The council is involved in two pioneering projects – the 'Walkability' project in Hanwell and Greenford – which uses Community Street Audits carried out with local people to develop walking routes into the town centres. The second project is 'Direct Support for Cycling' which is a comprehensive and multi-faceted programme designed to get people cycling for local trips based around on-road cycle skills and confidence training. In addition an active programme of School Travel Plans is underway for all schools in the borough to encourage walking and cycling to school and Workplace Travel Plans for new developments and those existing firms that are prepared to join the voluntary travel plan scheme. There are also specific projects to facilitate better use of cars especially for local trips – the provision of car club bays and electric vehicle charging points.

9. Efficient freight services

By seeking to improve the efficiency of freight services to west London business while limiting the impact of freight traffic on the community and the environment.

Ealing position: The council has drawn up a Loading Plan for Ealing town Centre as part of the work of the West London Freight Quality Partnership. This involved analysing loading and unloading arrangements in the town centre, many of them ad hoc and in contravention of 'yellow line' restrictions that are there to help avoid congestion in the town centre. The observed needs for deliveries was matched to available facilities and proposals drawn up for new on-street and on-footway loading bays. Some bays have now been implemented. The intention is to extend Loading Plans to all town centres in the borough to achieve the best balance between serving business needs and preventing traffic congestion. Several loading bays built into or on the footway are now being introduced in Greenford Town Centre and are benefiting businesses by providing 24 hour loading instead of on-street off-peak only loading as before. The council recognises the importance of planning for delivery and servicing arrangements in other town centre and regeneration areas such as Southall Gas Works.

10. Greater customer focus for public transport

By working with TfL and transport operators to promote greater customer focus and a clear and comprehensible network of public transport services on a sub-regional basis.

Ealing position: Again, supplementary section 1 sets out the needs for new bus links in the borough. Whilst the increase in bus frequencies and limited route extensions that have taken place in recent years are welcome, there are significant problems with TfL's approach to bus service standards particularly the capacity of bus terminating arrangements (at Acton Green, Greenford Town Centre and Ealing Broadway). In addition, TfL London Buses seem reluctant to consider new initiatives such as Fastbus and have been consistently lukewarm about the 607 express service on the Uxbridge Road. All this means considerable uncertainty must remain over London Buses ability to cope with the future demand for public transport to service new development and regeneration areas.

Transport Strategy
Perceval House
14-16 Uxbridge Road
London
W5 2HL.

Email: transportplanningservice@ealing.gov.uk
Telephone: 020 8825 5853
Website: www.ealing.gov.uk/transportandstreets