

Waltham Forest Council

Mini-Holland

December 2013





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Foreword



Waltham Forest Council wants to dramatically improve conditions for cyclists around Walthamstow town centre, to help trigger a cycling culture across the whole borough.

Drawing on international best practice we are committed to delivering an ambitious programme of improvements that will remove the barriers to cycling within the borough. We hope that communities across London and the country will be inspired to follow our example.

As a Council we want to see many more people choose a bike as the default mode for local trips. Bordered by the forests, parks and marshes of the Lea Valley and Epping Forest, we already have a strong culture of off-road leisure cycling.

In Walthamstow, the core mini Holland area located between these green open spaces we are introducing a radical cycle-friendly scheme to calm the streets - through pocket parks, home zones and strategic cycle filters. We will introduce a linear park in place of the former Hoe Street gyratory and build a major cycle parking hub near the busy Walthamstow market - the longest street market in Europe.

But we also want to act to support the surge in cycling taking place on the southern edge of our mini Holland zone on the Lea Bridge Road. The segregated Cycle Superhighway planned there will provide a key commuter route to Hackney and into central London. It will also help protect the safety of rapidly increasing numbers of cyclists, with counts in the area showing cycling increasing by more than 40 per cent over the past year alone.

The Cycle Superhighway will run past Whipps Cross Hospital where our flagship Dutch-style roundabout will help break down physical and psychological barriers to Epping Forest, and eastwards, onward into Redbridge.

We will also be working to improve cycle links outwards from the town centre. A new Quietway will extend across the North Circular Road to Highams Park. In the south of the Borough improved links will be created on backstreets to Leyton and through to the Queen Elizabeth Olympic Park.

Our promotional efforts will compliment with the borough's hosting of the third stage of the 2014 Tour de France (which will take riders along Lea Bridge Road). We will use this event and our annual Tour de Waltham Forest rides to engage and consult on the roll out of the mini Holland transformations; further increase interest and awareness of cycling as a mode of transport and prepare for major 'Smarter Travel' initiatives once the new infrastructure is in place.

With half of all car trips in Outer London less than two miles, there is enormous scope to get more people cycling for transport - to work, to school, to the shops. This potential can only be realised if we can make it feel easy, pleasant and safe and reduce the fear of injury and stress associated with motor traffic which currently stops people from cycling - especially women, children and older people.

In order to make cycling for transport more attractive, we not only have to make sure that our residents are aware of the health, economic and environmental benefits, but we may also

need to make some tough decisions about how vehicles use the borough's roads. Stepping up our ambitions for cycling and a better public realm will involve reallocating space away from the car - including reducing or moving parking, where this compromises cyclist safety and wellbeing.

The Council will not shy away from this challenge. The latest Census data shows that the proportion of households owning a car has declined over the last decade in favour of other means of transport, including walking and cycling. In four wards (including two in the mini Holland area) more than half the population now live in a household which does not have access to a car.

The Council's three-year Cycling Action Plan has marked the beginning of a real step change in our ambitions. Transport for London support for our mini-Holland would enable us to become one of the UK's very best places to ride a bike.

Councillor Clyde Loakes

Deputy Leader and Portfolio Lead for Environment



Introduction and Work to Date

An ambitious borough

2012 was an extraordinary year for Waltham Forest. We hosted the Olympic and Paralympic Games, a visit from the Queen and kick-started our regeneration programme. With so many achievements in 2012 we endeavoured to continue this momentum in 2013 and make Waltham Forest an even better place to live for our residents.

Over 50 council and externally led regeneration projects either commenced or were delivered during 2013 under the public campaign title 'Creating a better place 2013'. This represented investment of over £160million into the borough's high streets, leisure facilities, schools, housing and new flagship developments.

We've invested £9million into our town centres to improve the high street experience by enhancing shop fronts and streets. Over £30million is being spent on upgrading our leisure centres, parks and playgrounds to ensure our residents have a first class leisure offer. Our libraries are undergoing a £5million refurbishment and we are rebuilding schools to ensure that our children get the best start in life.

We secured over £160million of investment in 2013 and expect that to rise to over £700million as we move towards 2018. The next four years will see dramatic changes in the shape of Waltham Forest as the physical infrastructure develops and grows. The large regeneration projects will be a catalyst for growth, bringing opportunities for both business and employment in the borough.

Major Regeneration Projects 2013/14

We're transforming our high streets and shop fronts throughout 2013/14 making significant improvement for local businesses and residents in Blackhorse Lane, Walthamstow, South Chingford, Francis Road, Leyton, Leytonstone Higham Hill, Wood Street and Lea Bridge Road and Bakers Arms.

We secured £6.5million to reopen Lea Bridge Station in December 2014 providing a regular train service throughout the day with a five minute journey time to either Stratford or Tottenham Hale.

2013 saw major initiatives change the very fabric of our town centres. The cornerstone of these will be the Arcade Site development in Walthamstow. £30million investment will bring homes, shops, jobs and a cinema opening late 2014.

In February 2014, the £20million Walthamstow Central Station development is scheduled to be completed, bringing homes, jobs and a new hotel to Waltham Forest. The scheme will see £22m investment in the area creating a new station square, a new pedestrian link towards Walthamstow Queen's Road Station, 69 residential apartments, 5 new retail units and a 107 room Travelodge hotel.

The South Grove site in Walthamstow will deliver an investment of over £65 million into the town centre with a large format Morrisons store, and additional retail space. It will create approximately 450 new, permanent jobs and training/apprenticeship opportunities – 300 of the jobs will be in Morrisons. It will provide around 240 much-needed new homes for local people, including affordable and larger family homes.

The Marlowe Road Estate multi-million pound scheme in Wood Street will include the demolition and re-provision of approximately 140 council homes, the building of approximately a further 250 private homes, new retail units and a new design of Wood Street Plaza.

The Blackhorse Lane area has the potential to provide over 2,000 new homes and 1,000 new jobs over the next ten years as part of the comprehensive regeneration of the local area including new parks, roads, schools and community facilities. It links to the Walthamstow Wetlands which was awarded £288,000 Heritage Lottery Funding.

We have made significant investment in our leisure offer. In partnership with our leisure provider we have refurbished Leisure Centres in Leyton and Walthamstow through £24.5million investment. Both Leyton Jubilee Park and Drapers Field have undergone significant works, and 28 parks and play areas were refurbished in 2013 through b£1.9million investment providing natural and adventure play, multi-sports areas, outdoor gyms, safer surfacing and art works and sculpture. Furthermore, four libraries are set for an overhaul.

Schools across the borough have been improved with over £50million secured to meet the current and future demand. 52 primary school sites have been improved in 2013 and further £22million investment in 2014.



Cycling Infrastructure and Initiatives

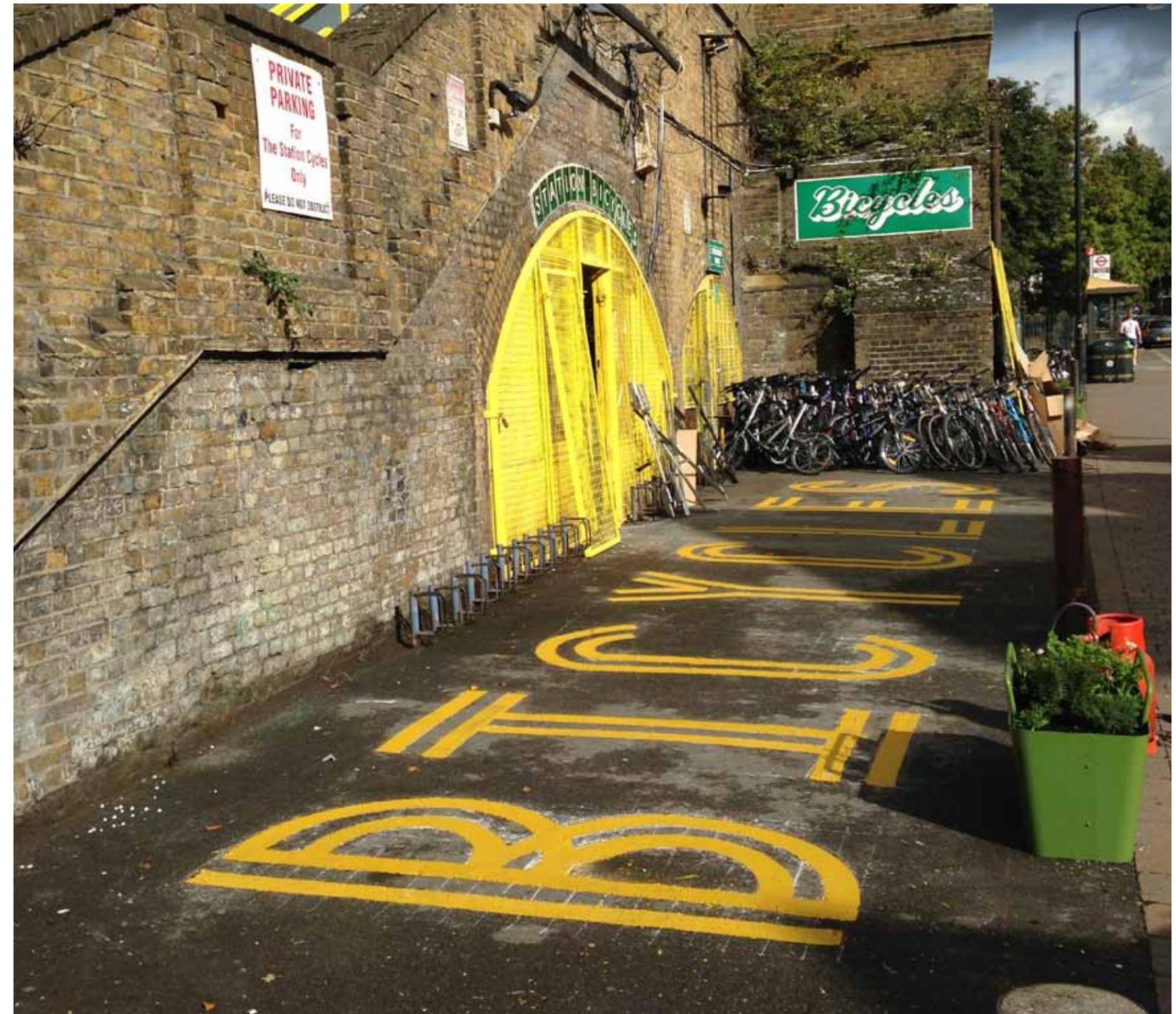
In April 2012, the Council pledged its support for the London Cycling Campaign's "Love London, Go Dutch" campaign, to make the borough more liveable by making our streets as safe and convenient for cycling as they are in Holland. It committed to delivering a comprehensive Cycling Action Plan, to be delivered over three years.

We are implementing a 20mph default speed limit in residential areas (and some high streets) across the borough, to make cycling feel safer and our streets more liveable for all residents. We have also worked closely with local cyclists to identify a shortlist of 20 junctions that pose hazards for cyclists, and have started work to improve these.

In partnership with Bikeworks, a not for profit social enterprise, the Council has expanded and relocated its successful bike recycling scheme to Leytonstone High Road, creating a community cycling hub for the whole borough. Opened in mid-June 2013, this offers access to refurbished bikes at low cost, high quality repairs, maintenance and build-a-bike workshops, as well as industry-accredited training and jobs in cycle maintenance for young people and ex-offenders.

A programme to permit two-way cycling in one way streets is under way, aimed at making local travel by bike more direct and convenient. This has already dramatically improved links between Lloyd Park, the Town Hall, residential areas and shops on Hoe Street.

We have aligned borough policies and strategies with this ambition, including our Local Plan, and require all new developments to have "future proof" levels of cycle parking and access.





Introduction and Work to Date, continued

The Council has committed to conducting an annual borough wide survey of cyclists, and those who would like to cycle, asking what would encourage them to cycle more. In our first survey, they have told us where they like to ride, and the parts of the borough where things need to improve. Insights from the survey are informing our Action Plan, cycling strategy and this submission.

Progress has been made in ensuring the borough's HGVs and those of developers are equipped with the latest safety equipment, and drivers trained to interact safely with cyclists. In 2012, we ran a campaign to highlight cycle safety to driving schools and taxi firms.

Cycling is now being mainstreamed in Council activities and across departments, such as regeneration, economic development, sport and leisure. In addition, cycling and walking have been an important element of our public health strategy since 2010.

The Council is encouraging staff and councillors to lead by example and undertake more business by bike. As well as reducing our transport impact on the community, we think cycling for business improves our knowledge of the borough and brings us closer to the community we serve. Our Portfolio Lead for Environment and Transport is himself a keen utility cyclist and the borough's cycling champion. This has increased the profile of cycling amongst other members, Council officers, the public and the local media.

We are proud of the progress of our Cycling Action Plan, but are keen to secure Mini-Holland funding as we want to go much further and much faster. While cycling is increasing, we recognize that

at 2% of journeys the borough still has a low mode share when compared to Inner London and towns like Hull, Cambridge and York. We want to keep the cyclists we already have, but are committed to creating streets that will make cycling genuinely attractive to a much wider range of residents – children and young people, women, older people and Black, Asian and Ethnic Minority residents.

We want people to see and feel the difference on our streets, and believe that creating a pleasant and safe environment for cycling will improve quality of life for everyone in the borough.

Local Developments

In line with Council policy to reduce reliance on the car for local journeys, all recent residential developments in the town centre have been car free, with limited parking for retail and schools (in areas of lower public transport accessibility). All integrate high quality facilities and generous cycle parking as standard.

The Council expects these developments to generate significant additional cycling trips, providing further justification for improving on-street conditions for cycling and more attractive public spaces. This new development provides opportunities to enhance TfL funding for cycling with developer contributions. Further, Walthamstow Town Centre is becoming a destination for tourism, close to cultural attractions such as the Vestry House Museum and William Morris Gallery, as well as the borough's "green lungs", Walthamstow Marshes, Walthamstow Wetlands and Epping Forest.

Future proofing infrastructure to ensure supply meets increasing demand

As one of the five Olympic host Boroughs, Waltham Forest is in a key position to capitalise upon the legacy opportunities emerging in Stratford and the Lower Lea Valley. Development at Stratford and the Olympic Village will bring numerous benefits to Waltham Forest residents including improved job opportunities as well as access to high quality sporting facilities and new areas of parkland. In order to capture the benefits of planned growth in these and other neighbouring areas, it is vital that the Borough apply intervention measures locally to manage and achieve growth in the most sustainable way.

The 2011 Census data shows that 42% of households in the borough are car free (a 4% increase over the last decade). In the wards around the Town Centre, household access to a car is in most cases below 50%. Mosaic analysis of this area shows a relatively high Propensity to Cycle (and Census data for 2011 indicates that around 4% are cycling to work) though there is also a significant proportion of Aspire to Drive households further from railway stations.

By creating truly excellent facilities for cycling via a Mini-Holland, as part of the holistic regeneration in the area, and targeted promotional events focussing on Aspire to Drive groups, we seek to make cycling pleasant, sociable and more aspirational, increasing the number of households that embrace car free/ car reduced lifestyles, locking in sustainable local travel and creating a cycling "unique selling point" for Waltham Forest to draw in people who seek a high quality of life in a greener, more attractive borough.



Residential street with modal filter





Programme Vision



Overarching Vision

- Create distinctive cycle friendly urban quarter wedged between forest and marshland, comprehensively integrated into sub regional transport network.
- Deliver exemplary streetscape typologies which facilitate change in the way people travel/make cycling and walking the default for local trips.
- Implement innovative schemes, drawing on international best practice, which will benchmark cycling provision in the UK.

We share the Mayor's vision of a cleaner, greener, fitter and less congested London. To achieve this, we will need to convince a much wider public of the joy and wider benefits of cycling.

We want mini-Holland funding to 'normalise' cycling, making it something everyone feels comfortable doing.

Progress to date

Waltham Forest Council has long been working towards improving conditions for cyclists, although this has become a priority in recent years, in response to increased interest and pressure from residents and ward members. In April 2012, the Council launched its cycling action plan, to be implemented over three years, including the following initiatives:

- Ensure that Council lorries, and those of our contractors, are fitted with the appropriate cycle safety devices.
- Ensure that Council and contractor commercial drivers receive appropriate on-road cycle safety training.
- Identify the borough's 20 most dangerous junctions and roads and introduce measures to improve cycle safety.
- Substantially increase funding on cycle infrastructure and initiatives.

- Carry out an annual cycle count across the borough to accurately assess cycling levels in Waltham Forest.
- Improve consultation arrangements with cycling groups and seek residents' views on our approach to cycling.
- Maintain, upgrade and expand secure cycle parking provision at all our tube and rail stations - and ensure it is included in all new developments.
- Increase route choice and reduce diversions to enable cyclists to get about the borough more easily. This includes the introduction of a scheme to allow contra flow cycling (cycling in the opposite direction to the traffic) in some one way streets. This is working well in other London boroughs, and is the default in many European countries and cities with high levels of cycling.
- Introduce a 20mph default speed limit across the borough in all our residential areas, improving safety and quality of life for all Waltham Forest residents.



Expand and relocate the Council’s successful bike scheme. Launched in June 2013 in partnership with Bikeworks, this community cycling hub offers access to refurbished bikes at low cost, high quality repairs, maintenance and build-a-bike workshops, as well as industry-accredited training and jobs in cycle maintenance for young people and ex-offenders.

We have aligned borough policies and strategies with our ambition, including our Local Plan, and require all new developments to have “future proof” levels of cycle parking and access.

Since 2012 the Council has been conducting an annual borough wide survey of cyclists, and those who would like to cycle, asking what would encourage them to cycle more. This has given us valuable information on where they like to ride, and the parts of the borough where things need to improve.

Progress has been made in ensuring the borough’s HGVs

and those of developers are equipped with the latest safety equipment, and drivers trained to interact safely with cyclists. In 2012, we ran a campaign to highlight cycle safety to driving schools and taxi firms. Cycling is now being mainstreamed in Council activities and across departments, such as regeneration, economic development, sport and leisure. In addition, cycling and walking have been an important element of our public health strategy since 2010.

The Council is encouraging staff and councillors to lead by example and undertake more business by bike. As well as reducing our transport impact on the community, we think cycling for business improves our knowledge of the borough and brings us closer to the community we serve.

We are proud of the progress of our Cycling Action Plan, but are keen to secure Mini-Holland funding as we want to go much further and much faster. While cycling is increasing, we recognise

that at 2% of journeys the borough still has a low mode share when compared to Inner London and even some provincial towns such as Hull, Cambridge and York.

However, we acknowledge the issue and see an opportunity to rapidly grow cycling modal share in the borough by providing the right types of cycle provision in the right places through the mini Holland programme.

We have already had the pleasure of seeing a little bit of the borough ‘going Dutch’. During the London 2012 Olympics our own temporary ‘mini Holland’ was created in the Walthamstow Marshes where supporters of the Dutch Olympians were camping for the duration of the Games. In order to travel to the Olympic Park the Dutch brought their own ‘OV fiets’ cycle hire bikes with them.



Markhouse Road semi-segregation





Overview of Mini Holland Bid

Our mini-Holland proposals comprise a set of integrated schemes that will deliver dramatic improvements in safety and convenience for cyclists, with imaginative public realm enhancements for residential and local shopping areas. The overall result will be a modal shift to cycling and walking that is excellent value for money.

We have prioritised our schemes using feedback from our annual cyclists surveys, and considered how the proposals support wider regeneration plans for the borough and the East London area.

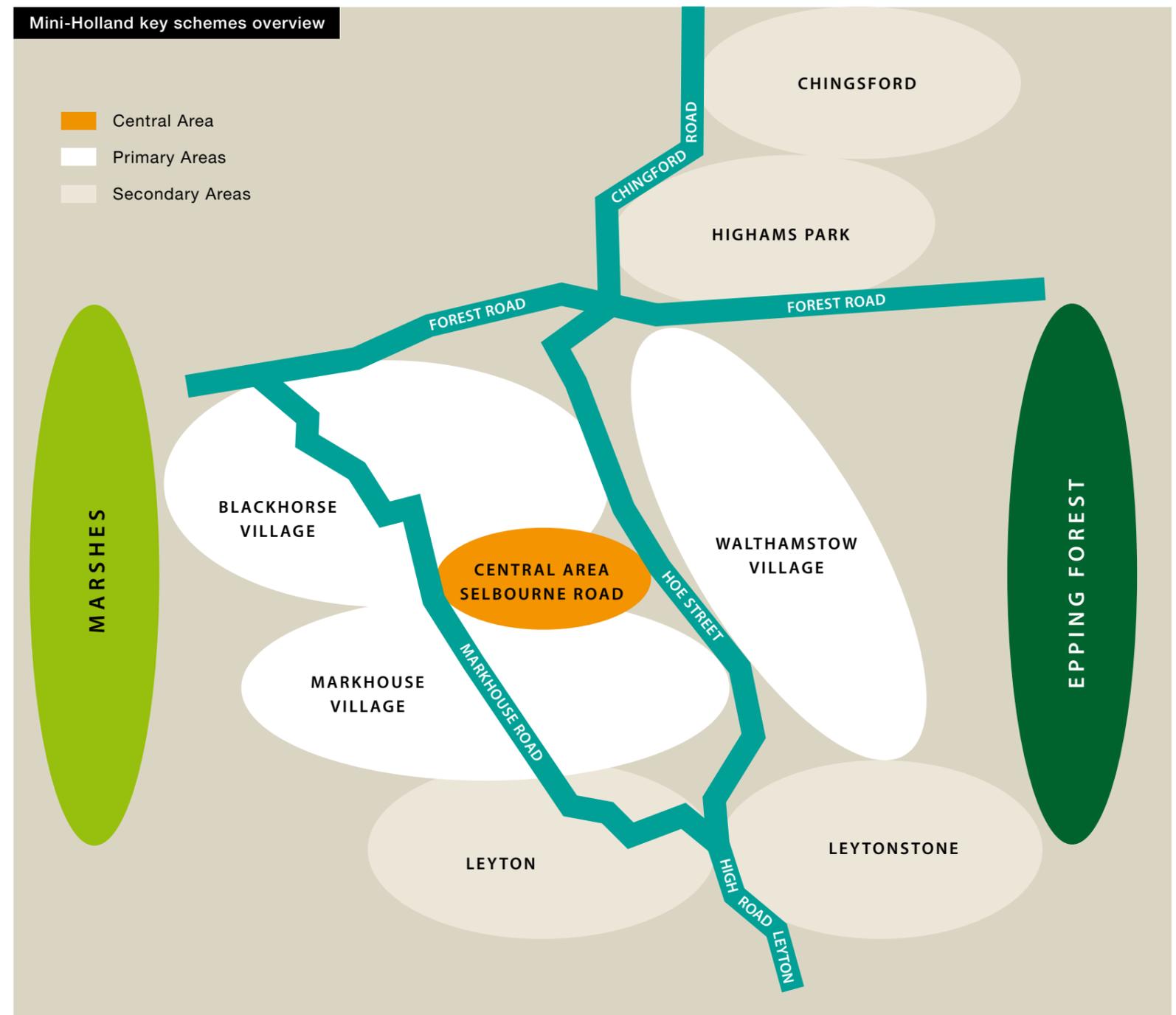
Our mini Holland bid comprises six main elements which are described below (in order of priority):

1. A substantial redesign of the main town centre to make it genuinely excellent for cyclists.

Walthamstow Town Centre and the Villages

The Council is proposing Walthamstow Town Centre and the surrounding mainly residential streets as the focus of its “Mini-Holland”. This covers 55,000 residents, roughly a fifth of the borough’s population, and an area of approximately 4.5 square miles. This forms a “crooked” square consisting of four segments, with Walthamstow Town Centre at its centre, and bounded by roads which currently can be classified (according to TfL’s new Road Task Force typology) as high roads, with high street characteristics in parts. These are Wood Street to the east, Markhouse Road to the west and Forest Road and Lea Bridge Road to the north and south respectively.

The Town Centre is one of the borough’s principal growth areas and is undergoing significant mixed use development,





Overview of Mini Holland Bid, continued

providing an excellent opportunity to build cycling in to the physical, social and economic fabric of the area. For example, 200 homes, shops and a hotel are currently being built at Walthamstow Central Station.

Another 120 homes, shops, restaurants and a cinema are taking shape on the former Arcade site next to Walthamstow Town Square, and the Council has approved a residential/retail development on the site of the Council's South Grove car park. New schools are being built at Blackhorse Road and on Hoe Street, and others are expanding. An estimated 4,600 new homes are to be built in the Mini-Holland wider area (Town Centre, Blackhorse Road, Wood Street) over the next 15 years.

However, key routes within the centre are currently dominated by road traffic creating an unwelcoming environment for cyclists and pedestrians, spoiling the look of the area and causing air quality problems. The Council has already made a policy decision to prioritise walking, cycling and public transport within the town centre in its LIP and Area Action Plan. Mini-Holland funding would enable us to accelerate the change.

A key feature of our Walthamstow Mini Holland proposals is the concept of "Villagisation" – which includes removal of through traffic in residential areas in central Walthamstow, building on work already underway to make Walthamstow a more cycle-permeable place, and addressing rat-running.

Forest Road

Forest Road is the northern boundary of the Walthamstow mini Holland area. It is also the A503 providing a link between Tottenham Hale (via ferry Lane) with Upper Walthamstow and the North Circular Road. This route is the northern part of the frame of cycle routes for the mini Holland area and forms our network of good cycling routes. The costs for Forest Road have been incorporated within the outlined costs for Walthamstow town centre.

2. Lea Bridge Road Cycle Superhighway

We propose a Cycle Superhighway along Lea Bridge Road (from Waterworks Roundabout to Hackney Powerscroft Rd). This will fill a gap in London's CSH map. It will be the first in the borough, stretching from Lower Clapton and Walthamstow Marshes to the remodelled Whipps Cross roundabout and on to Waterworks roundabout (or Epping Forest) via Bakers Arms, linking with both of our key north-south cycle routes and connecting our Mini Holland to the City and central London. Borough cycle counts demonstrate that this route has the highest cyclist flows in Waltham Forest at 6% of all traffic in the peak. There has been a 42% increase in cycling over the last year alone – an extra 500 cyclists a day. It is an even more important route into the borough in winter and at night when quiet routes across Walthamstow Marshes are less attractive (currently unlit, though we propose to address this through the Quietways programme).

Currently, high traffic speeds and volume make Lea Bridge Road a threatening environment for the less experienced cyclists we are keen to attract: observation in situ shows that cyclists are mainly young men on fast road bikes. (Problem junctions along on Lea Bridge Road are covered in the Junctions section, below).

The 2014 Tour de France will pass along this road, and Lea Bridge Station is set to reopen in December 2014. Substantial development (residential and commercial) is taking place at the border with Hackney, which we expect to generate significant extra demand for cycling.

Addressing Severance (part 1)

Integral to our Lea Bridge Road Cycle Superhighway proposals are the sources of severance found at:

- Walthamstow/Hoe Street Gyratory
- Whipps Cross Roundabout
- Junction at Lea Bridge Road/Argyll Way/Orient Way
- Junction at Lea Bridge Road/Church Road/Markhouse Road

3. A network of good cycle routes

The main design principles for our cycle route network proposals include:

- Safe space for cycling - Selbourne Road, Coppermill Lane, Markhouse Road, the Walthamstow Gyratory, - drawing on international best practise our proposed treatment of these and other streets represents a step-change in the way Waltham Forest and outer London treat cyclists.
- Direct routes - key, simple and direct routes east-west and north-south that recognise cyclists like riding directly to where they want to go without lengthy diversions.

The key routes include two main north-south routes linking the secondary town centres and the east-west route, Coppermill Lane to Wood Street.

A. Leyton to Blackhorse Road: A high quality cycle route providing a link via Markhouse Road-Church Road-Grange Park Road- and High Road Leyton to the Queen Elizabeth Olympic Park, Stratford and onto Canary Wharf/the city via the award winning Leyton Town Centre.

B. Leyton to North Chingford:

With substantial stretches of segregation this route will run from Leyton, via Chingford Road, Chingford Mount Road to North Chingford.

C. Coppermill Lane to Wood Street:

An exemplar quiet route taking its influence from Dutch 'fietstraats' (cycle streets), this route will run through the heart of Walthamstow's Mini Holland from Coppermill Lane and the Walthamstow Wetlands in the west, to Wood Street with its shops, market and station to the east. (The stretch from Walthamstow Town Centre to the Hackney border is part of the proposed Quietway 38 to Bloomsbury).



A network of good cycle routes





Overview of Mini Holland Bid, continued

4. Redesigns of some of the secondary town centres

Although the secondary centres are fourth on the list in priority, we do not underestimate the importance of these locations in terms of delivering the overall objectives of the Mini-Holland programme and the Mayor's Cycling vision. With Chingford and Highams Park in the North of the Borough, redesigning these centres will be critical in ensuring a network of direct, high-capacity, joined-up cycle routes across the borough, as will measures to mitigate the severance caused by the North Circular.

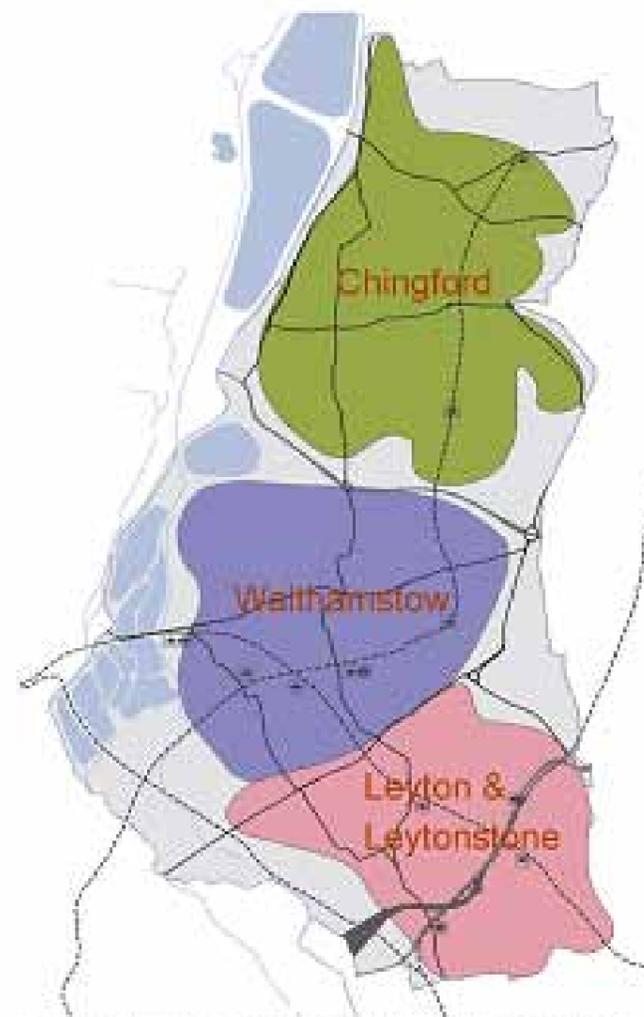
Our proposals focus on four secondary centres:

- North Chingford
- Highams Park
- Leyton
- Leytonstone

5. Addressing severance (section 2)

Our Mini Holland addresses the main sources of severance within the Borough, these include:

- Whipps Cross Roundabout
- Bell Junction (Forest Road/Hoe Street)
- A406 Barriers, we propose enhancing the existing footbridges



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6. Cycle superhubs at local railway stations

Our cycle superhub proposals include for secure parking at rail stations, leisure centres and town centres.

A new cycle store providing secure cycle parking for 160 commuter bikes is currently being built at Walthamstow Central Station site as part of a S106 agreement relating to the development of the site. This will include Visitor cycle parking for the retail units (and generous residential cycle parking for the apartments)

There is also cycle parking for 40 bikes close to the main (Selborne Road) entrance to the Underground station but this is insufficient.

We propose to add:

- An iconic cycle parking facility for a further 100 bikes in the Town Square Gardens opposite Walthamstow Central Station
- Cycle parking will be provided at junctions along the length of the High Street (from Hoe Street to St James Street) to enable cyclists to park easily wherever they want to shop or eat.
- Secure cycle parking (monitored by CCTV) for a further 40 bikes will be added, with space to expand as demand increases at St James Street Station
- Additional secure cycle parking at Wood Street Station, where under-provision is likely to be suppressing cycling to the station
- Additional secure cycle parking at Blackhorse Road Underground/Overground station. We propose an additional 50 secure spaces within a card operated bike store, so that both long and short stay commuters are catered for.



Opportunities, Challenges and Issues

Briefly describe the current situation and the problems and/or opportunities that the proposed programme will address

The current situation has obviously been a key driver in shaping the programme vision and objectives. The vision and objectives defined in the following two chapters set a framework for the opportunities for change for Waltham Forest which can be summarized as:

- Substantially increase cycling within the borough
- Shift a significant proportion of short local car trips to the bike
- Improve the look and feel of public spaces
- Economic regeneration
- Safety
- Health

Increase cycling within the borough

Current Situation/Problem - One of the key features of the existing situation in Walthamstow is that the High Street cannot be used as a cycle route due to Walthamstow Market, reputedly Europe's longest daily street market, with over 450 stalls. The centre and south of the borough have narrow and highly congested Victorian main roads and 'rat running' is a problem in the four residential "quarters" of Central Walthamstow.

Opportunity - An opportunity therefore exists for "Villagisation" facilitated by the removal of through traffic in residential areas in central Walthamstow. This will build on the work already underway to make Walthamstow more cycle-permeable and address rat running.

Current Situation/Problem - There are many sources of severance within the Borough, including Walthamstow/Hoe Street Gyrotory and Whipps Cross Roundabout, as well as main roads such as; Blackhorse Road, the A12/M11 link road (which has cut historic links between the Town Centre and Leytonstone) and the A406 North Circular Road which separates the northern and southern halves of the borough, making cycling to the Town Centre a less obvious choice. Car ownership is significantly higher in the north of the borough, in part as a consequence of this severance.

Opportunity - Creating simple and direct routes east-west and north-south that recognise cyclists like riding directly to their destination, will have a major impact on cycling numbers. Innovative and bold approaches to tackling these sources of severance along with coherent and consistent design along the routes will be key to success.

Opportunity - Addressing severance, as a complementary measure we are also working with other boroughs in the Northern sub-region, to develop a separate proposal for a northern Quietway to parallel the A406 North Circular Road, to provide better orbital links for cyclists across borough boundaries

Opportunity - Lea Bridge Road is a corridor of opportunity. It links the heart of the borough and Walthamstow Mini Holland with the greenspaces of Walthamstow, Hackney and Leyton Marshes. In the west it provides the link to the cycling communities in the London Borough of Hackney and on to central London.

Issues - Lea Bridge Station is to reopen in 2015. A redesign of the main junction is planned to improve facilities for pedestrians and cyclists (being developed as part of the

accommodation works for the reopening of the station). A main issue is the width of the bridge structure and the wider requirements for the new station. With the additional funding available from the Mini Holland programme we propose to introduce an additional bridge span similar to the well received Ruckholt Road bridge into the Queen Elizabeth Olympic Park.

Shift a significant proportion of short local car trips to the bike

Current Situation/Problem - We know one-way streets are bad for cyclists, creating convoluted routes and in some instances encouraging higher vehicle speeds. In light of the proposed road closures/modal filters in the town centre, the villages and the secondary centres we will review all existing one-way systems in this area with the aim of removing them or at the very least introducing contraflow cycling.

A programme to permit two-way cycling in one way streets is under way, aimed at making local travel by bike more direct and convenient. This has already dramatically improved links between Lloyd Park, the Town Hall, residential areas and shops on Hoe Street. We have aligned borough policies and strategies with this ambition, including our Local Plan, and require all new developments to have "future proof" levels of cycle parking and access.

Within the secondary centres there are areas of high cycling potential, with an increasing proportion of young professionals in areas such as Leytonstone, with new pubs, restaurants and artist studios/pop up exhibitions. Anecdotally, many are moving into the borough from Hackney, where rents and property prices are higher, and are bringing that borough's cycling culture with them. The Council and social enterprise Bikeworks have also set up a bike hub in Leytonstone High



Opportunities, Challenges and Issues, continued

Road, offering a range of bike related activities and training programmes. Leyton Sixth Form College, with over 2000 students, low car mode share and an enthusiastic staff cycling champion, is located midway along the route.

Opportunity – A key feature of our proposals will be value engineering, examples of these opportunities would include use of planters and other cost effective measures to segregate cycle lanes and create temporary road closures. We will also introduce a number of road closures, some initially on an experimental basis, to reduce the amount of through vehicular traffic in residential areas. This will improve conditions for cyclists and pedestrians and residents generally.

Opportunity – To increase cycle use for short trips we have focused on some key opportunities including: the creation of a cycle hubs at all key stations within the secondary centres; Providing additional cycle parking in residential and key shopping areas; Increasing car club coverage; and creating parklets and pocket parks in residential areas that will improve the physical characteristics of the area for communities.

Improve the look and feel of public spaces

Current Situation/Problem - While the key motivation of the Mini Holland submission is to increase cycling amongst all sections of community, a desired co-benefit is the creation of an improved public realm which provides a welcoming context for economic sectors with higher value jobs, such as the services, IT and creative industries, and to ensure that local people have easy and sustainable access to jobs in employment centres such as Stratford and the City. Currently, the evening economy in the centre is very limited and with shops often closed by 6pm the town centre can be deserted and is a quiet place where people can feel unsafe.

Opportunity – There are opportunities to apply visual gateway treatments leading into residential quarters and secondary centres. Space freed up through road closures will become available for “pocket park” community use - planters, benches, green gym and, community gardens.

Economic regeneration

Current Situation/Problem - Three key factors make Walthamstow different from other town centres:

- Walthamstow Market.
- High proportion of independent retailers offering a range of retail and other services.
- Local community is ethnically and culturally diverse, giving vibrancy to the centre.

However, the centre has been underperforming for a number of years and if this is not reversed it will lead to long term commercial decline due to departing investment. The centre is facing increased competition from neighbouring centres, particularly from the new shopping centre at Stratford City. Walthamstow currently does not have units of sufficient size to attract and accommodate some of the higher quality retailers the Council wishes to attract.

There is a lack of non-retail uses, such as leisure, tourism and cultural uses, within the centre. Currently, the evening economy in the centre is very limited. Shops are often closed by 6pm leaving the centre deserted and quiet place where people can feel unsafe. The current evening offer is dominated by takeaways and there are few quality restaurants. Despite current low use of the town centre as a leisure destination, the size and proximity of a large local population represents a significant opportunity to develop the evening

economy, which is being driven by the cinema development at the top of the High Street.

While Walthamstow has a range of shops and services, these are focused primarily at the lower and discount end of the market and there is a lack of higher value retail. The centre is a major focal point for shopping, but too much spending power leaves the Borough. There is a need to capture more of the spend of higher earners within the borough.

With the exception of retail jobs, Walthamstow performs a limited employment role. A large number of residents travel outside of the area for work. A large proportion of the local population have no qualifications (33%) and a large proportion is employed within low-value occupations. The occupational profile of Walthamstow and the surrounding area reinforces the importance of facilitating economic diversification, the need to raise average incomes and the need to ensure good access to local training and skills development opportunities

Opportunity - The major investment in infrastructure provided by Mini Holland funding will help attract investment from professional workers and high value business sectors such as IT, the media and arts. Providing safer and more attractive routes into and out of the borough will enable our residents to access jobs in Central London and the City, promote the visitor economy and facilitate sustainable travel to jobs and town centres in the borough. Section 106 opportunities for improving cycling (and walking) conditions for the major residential and retail developments which are due for completion over the next three to four years in the area will be a major complimentary measure and opportunity alongside this programme. With proposed new access to the Olympic Park provided via Eton Manor, opportunities exist for Cycle Hire into the park and potentially into LBWF through funding generated by S106 agreements.



Opportunities, Challenges and Issues, continued

Opportunity - High Streets/local shops: There is a growing body of evidence from London and cycling cities abroad demonstrating that cyclists (along with public transport users and pedestrians) are loyal supporters of local shops and services. They tend to use local shops and services more frequently and spend more money per month than those arriving by car. In addition, they do not require expensive/limited facilities such as car parking. An improved public realm, with significant greening as proposed as part of WF's Mini Holland bid, is likely to benefit the local economy by increasing property values and rental income.

Issues – We need to be mindful of short term parking and loading requirements for local business.

Safety

Current Situation/Problem - Numerous studies and our own consultation with over 500 cyclists have shown clearly that fear of injury and stress associated with motor traffic are what stop people from cycling, especially for women, children and older people. So to make cycling an enjoyable and mainstream mode of travel, we know that we will need to employ more innovative measures to manage traffic, and create better routes which protect cyclists from motor vehicles, including segregation.

Opportunity - Introduce a 20mph default speed limit across the borough in all our residential areas and ensure the borough's HGVs and those of developers are equipped with the latest safety equipment. Identify the borough's 20 most dangerous junctions and roads and introduce measures to improve cycle safety. Creating an environment where residents

feel safe to cycle for transport will enable them to exercise while going about their daily routine, making it accessible to those with busy lifestyles and on lower incomes.

Opportunity - We are in discussions with a number of providers of innovative technology solutions that we hope will improve conditions for all road users, particularly at problem junctions. Example of the technology we would like to use include the M100BR Radar Bicycle Detector, designed for use on cycle lane approaches and at advance stop lines, and also green wave lights installed in the edge of cycle commuter routes in advance of signalised junctions. We have included further details on these within the technology section in the last chapter of our response.

Health

Current Situation/Problem - Creating an environment where residents feel safe to cycle for transport will enable them to exercise while going about their daily routine, making it accessible to those with busy lifestyles and on lower incomes. While Waltham Forest residents are reasonably active compared to England as a whole, there is room for improvement and not all parts of the population take sufficient exercise. Increasing opportunities for more people to cycle more often will help prevent the onset and aid the management of chronic diseases.

Opportunity - Access to nature. Our proposed "Marshes to Forest" route puts the borough's green spaces just a short cycle ride away from 100,000 people, many of whom are living in the central part of the borough, which is categorised as an area deprived of access to nature.

An increase in cycling has the potential to reduce the burden of preventable disease in the borough by increasing the number of adults and children undertaking physical activity.

Generic Issues/Risks in tackling problems and realising opportunities

There are a number of generic issues and risks that need to be understood in terms of how we approach the current problems for cyclists within Waltham Forest and the opportunities that exist to deliver a major step change in cycling infrastructure and culture change amongst its residents and commuters.

Coherence and consistency in design is crucial. Radical differences of approach between different streets and routes will be confusing for cyclists and drivers. Which we believe will result in schemes failing to deliver the results we all want i.e. a higher number and broader range of cyclists in a safer environment.

We want to avoid the issue of 'business as usual' clutter where design approaches to junctions will deliver relatively marginal benefits to cyclists. We want to ensure that our proposals represent a step change in design, are consistent in approach and will deliver significant improvements to cycling, not just treat this programme as an opportunity to design more business as usual interventions that don't challenge conventional design and modal priority.



Programme Objectives

Describe briefly why the programme is needed e.g. how it will help promote a significant uptake of cycling while also meeting wider transport, public realm and regeneration benefits

Waltham Forest Council shares the Mayor's Vision for cycling and seeks to dramatically improve conditions for cyclists across the Borough. With current funding levels provided through the Local Implementation Plan we expect the cycle modal share within the Borough to increase from the current 1.8% to 3.2% by 2016/17. However, if successful in our bid for Mini Holland funding, we aim to achieve a more ambitious, but, we believe, realistic target of 10% mode share by 2020.

At the same time, as part of our Mini Holland objective to reduce short local car trips, we will set a target to reduce single occupancy vehicle use mode share in the borough by 5% by 2020, to 35% (from 2011/2012 baseline of 40% for Waltham Forest).

While we want to boost levels of cycling generally, WF is particularly keen to increase cycling among specific groups in order to better reflect the ethnic make-up of the borough. For example, 81% of cyclists responding to Waltham Forest's 2013 cycling survey were white, although Census 2011 data shows that only 53% of the borough's residents fall into this category. 22% of Waltham Forest's residents are Asian/Asian British/Chinese, yet in our 2013 survey, only 6% described themselves as belonging to this category. By 2020, we would like the proportion of Asian/Asian British/Chinese to increase to 10% of respondents. Similarly, 17.4% of the borough's residents are black, but only 4% of cyclists responding to our survey were black. By 2020, with Mini Holland, we would seek to increase this to 8% of respondents.

In our 2012 and 2013, 39.5% of cyclists responding to our survey were women. We would like to see a more even split between the genders, as is the case in the Netherlands, Denmark and Germany, and aim to increase the proportion of women cycling to at least 45% by 2020.

In 2012, 6.7% of respondents were over 60. This had increased slightly by 2013 to 7.1%, but as improved infrastructure and cycle friendly policies in Waltham Forest give more people the confidence to ride a bike in the borough, we aim to increase the proportion of trips made by bicycle in this age group.

Objectives:

- To substantially increase cycling within the borough, to make it an attractive and mainstream mode of transport. In particular, we want to attract people who do not currently cycle due to fear of traffic, including more women, children, families, older people and BME groups.
- To shift a significant proportion of short local car trips to the bike. Reducing the dominance of motor traffic will benefit all residents by reducing congestion, improving air quality and creating a safer, happier, more sociable town centre that is accessible to all.
- To improve the look and feel of public spaces: Roads and streets make up most of the public space in Waltham Forest. As part of our Mini Holland, we are planning extensive greening measures, including tree planting as well as traffic management, which will improve the public realm for residents, visitors and businesses in the borough.
- Economic regeneration: Mini Holland will help us attract investment from professional workers and high value business sectors such as IT, the media and arts. Providing safer

and more attractive routes into and out of the borough will enable our residents to access jobs in central London and the City, promote the visitor economy and facilitate sustainable travel to jobs and town centres in the borough. Creating and publicizing a network of local routes and secure, high quality cycle parking will encourage even more cyclists to use local shops and services.

- Safety: To improve actual and perceived safety for cyclists on our streets and achieve significant reductions in KSIs and slight injuries. A focus on reducing danger for cyclists will have positive co-benefits for all road users.
- Health: To reduce the burden of preventable disease in the borough by increasing the number of adults and children incorporating physical activity into their daily routines.



Somers Road - before



Newly improved modal filter at Somers Road





Benefits Strategy

We will develop a monitoring programme in order to assess the relative benefits of the overall programme and the relative benefits of the differing elements. Due to the temporary/ low cost nature of many of our proposed measures (planters to close roads, armadillos to semi-segregate cycle tracks monitoring success will be vitally important if we are to be able to modify proposals to provide the optimum solutions. The collation of baseline data will be vital to the monitoring of the impact of all changes and whilst some traffic data is available via the DfT and TfL we would like to understand the impact of changes on most if not all roads.

To support the monitoring of benefits we will:

- Introduce traffic counters throughout the town centre area to evaluate the impact of closures and revised traffic routes, this monitoring will assess not just cycle numbers but all vehicle movements so we can ascertain the impact of closures on neighbouring roads or how changes to traffic movements may impact on junctions.
- On main cycle routes (Lea Bridge Road cycle super highway, north-south routes and marshes to forest) we will use the same technology as will be used for traffic signal management to monitor all vehicle numbers (including cyclists) in order to assess the impact of the implementation of proposals on cycle numbers, private car trips.
- We will promote the use of our cycle routes with cycle counters and visual displays on key routes and at key locations.
- We will monitor accident numbers and locations in order to understand the impacts of changes to provision, improvements to junctions.
- Working with schools we will monitor the number of children cycling to school and the number of schools with STARS accreditation.

- Through wider promotion of our cycle survey and by engaging through new channels such as employers and community leaders we will gain a greater understanding of cycle usage and promote the results through a variety of media including regular press releases.

Benefits expected from the programme

Environmental

- Reduction in CO2 (and other greenhouse gas) emissions
- Improvements in air quality (reducing morbidity and mortality attributable to particulate air pollution, as well as reductions in air pollution damage to plants, other wildlife, buildings and watercourses).
- Noise pollution reduction
- Greening and improving the public realm provide direct aesthetic benefits, but will also encourage people to spend time outside and access green spaces. (Within Waltham Forest over 40 % of households, in 8 out of 20 wards, have deficient access to nature).

Health

- Increased life expectancy through increased physical activity: Creating an environment where residents feel safe to cycle for transport will enable them to exercise while going about their daily routine, making it accessible to those with busy lifestyles and on lower incomes. Whilst adults and children are reasonably active in the borough (when compared to the rest of England) there is room for improvement and not all parts of the population take sufficient exercise.
- Chronic diseases: Waltham Forest has high comparative mortality from chronic disease in the under 75s. Increased active travel, such as cycling, may help prevent onset of chronic disease – diabetes, cardiovascular disease

and some cancers – and may help in the management of disease once onset.

- Obesity: Evidence shows that populations which travel actively tend to have lower rates of obesity. Waltham Forest's adult obesity prevalence is 23.4 %, which is not significantly different from the England average of 23.4 %. Obesity among primary school children (year 6) is, at 23.4 %, significantly higher than the England rate of 19%, but not significantly higher than that for London (22%).
- Improved air quality, reducing incidence, severity and deaths from respiratory disease: On some of Waltham Forest's main arterial roads, including Lea Bridge Road, Hoe Street and Forest Road, there are high concentrations of NO2 which are above EU and health based limits. Waltham Forest can attribute 7.4% of local mortality to long term exposure to particulate matter. This compares to an average of 5.4% across London (range 6.8 – 8.9) and 3.01 in England overall.
- Improved access to safe, green spaces which are underused by some ethnic groups and women.
- Improvements in mental health and wellbeing brought about by more active travel.
- Improved road safety for cyclists and pedestrians Improved safety for other road users brought about by traffic calming and reallocation of road space to non-motorized modes.

Economic and social benefits

- Mode shift from car to bike has the potential to reduce congestion, leading to journey time savings for all road users, including bus passengers.
- More trips by bicycle will improved journey time reliability.



The benefits would accrue to all road users through reduced general congestion, but also to individuals who take up cycling as cyclists are generally less delayed by vehicle congestion. Increased public transport capacity created by public transport users transferring shorter trips to cycling.

- High Streets/local shops: There is a growing body of evidence from London and cycling cities abroad demonstrating that cyclists (along with public transport users and pedestrians) are loyal supporters of local shops and services. They tend to use local shops and services more frequently and spend more money per month than those arriving by car. In addition, they do not require expensive/limited facilities such as car parking.
- An improved public realm, as proposed as part of WF's Mini Holland bid, will benefit the local economy by increasing property values and rental income.
- Increasing cycling has the potential to reduce NHS spending on at least 20 common diseases linked to lack of physical activity (including heart disease, stroke, Type 2 diabetes and several cancers), while improvements in air quality and road safety will result in a lower demand for spending on respiratory disease and trauma-related injuries/rehabilitation.
- High tech industries (IT, media) tend to have higher proportions of cyclists among their workforces, so improving facilities for cycling will help attract high value jobs and investment in the area (as has occurred in Hackney). Provision for cyclists is increasingly a consideration for European companies seeking to invest in/relocate to the UK.
- Medical evidence links increased active travel and physical activity in school children to improved academic performance and concentration.
- More people cycling in the borough will increase the requirement for cycling related services and equipment (such as training, maintenance, bikes and accessories), providing opportunities for entrepreneurs and social enterprises.
- Training opportunities for residents in bicycle retail and maintenance can improve the economic prospects of residents. (WF has already started working with Bikeworks at the Leytonstone Community Bike Hub to realize some of these opportunities).
- Social inclusion will be facilitated and physical severance addressed by reducing the domination of traffic as part of the Mini Holland proposals. Real and perceived fear of traffic has limited the freedom of all residents, but particularly children and older people, to move around their communities. There is strong evidence from studies in the UK and the US that traffic calming increases positive social interaction in streets and neighbourhoods, and that cycling helps to make cities happier and more sociable spaces.

Security

- Improved public realm security brought about by increased natural surveillance from cyclists and increased numbers of pedestrians taking advantage of enhanced public realm.



Walthamstow

Walthamstow (from the Anglo-Saxon Wilcumstow or ‘place of welcome’), the borough’s only major centre and the focus of this bid will be the area from which the new cycling culture in the borough will emanate.

The area includes and is bounded by four main roads (and important cycle routes): Forest Road (A503) to the north, Markhouse Road/Blackhorse Road to the west, Wood Street to the east and Lea Bridge Road (A104), to the south.

This area will be the centre of our wider proposals, making it the cycling heart of the borough, providing all residents and visitors with easy access by bike to amenities, shops and public transport links.

The area around Walthamstow town centre has 55,000 residents accounting for about a 20% of the borough’s population, and covers about 4.5 square miles. At the core of the mini-Holland area is Walthamstow Town Centre. The wider area of influence includes the industrial area Argall Business Improvement District.

Within a 10 minute cycle ride of our mini Holland area are Walthamstow Wetlands to the west, and Epping Forest to the east.

All main council buildings are within the mini Holland area including The Town Hall, Forest Road and Low Hall Depot in Argall Avenue

Walthamstow mini Holland comprises four wards: High Street, William Morris, Hoe St, and Markhouse (the wider area includes parts of Lea Bridge and Wood Street wards). These wards are densely populated, have younger populations, higher levels of deprivation, lower incomes and

are ethnically and culturally more diverse than the average for Waltham Forest and London, with a high proportion of Asian and British Asian residents.

The mini Holland area can be broken down into 4 distinct smaller adjoining areas or villages:

Walthamstow Town Centre

The main shopping area in the borough including the High Street, the market, Walthamstow Central Station and the Mall Shopping Centre. The area has a dense concentration of shops and offices employing just under 3000 people.

Walthamstow Village

An historic residential area bordered by Hoe Street, Forest Road, Wood Street and Lea Bridge Road. Walthamstow Village includes ‘the Village’ itself in the roads surrounding the Vestry House Museum and Wood Street with its mainline train station, shops and increasingly popular craft and vintage market.

Blackhorse Village

A predominantly residential area to the north and west of the town centre characterised by the architecture of the Warner Estate Company.

Markhouse Village

A residential area immediately to the north of our proposed Cycle Superhighway, bordered by our north-south routes and the town centre.

Forest Road

To compliment our proposals for the town centre and the villages we propose a fully /semi segregated cycle route along Forest Road between the borough boundary with London Borough Haringey and Woodford New Road. Where road widths do not allow we will take the opportunity to redesign the streetscape to create a sense of place 20mph speed limit and an enhanced public realm.





Walthamstow Town Centre

Walthamstow Town Centre is the main commercial centre in the borough, where retail is the most important economic activity. It is the borough's main shopping area, and includes the High Street, the market, Walthamstow Central Station, the Mall Shopping Centre and Selborne Road.

The High Street is dominated by Walthamstow Market, which began in 1885 and has around 450 stalls. The town centre and market together employ around 2,700 people.

The market is open five days a week (from Tuesday to Saturday), and a farmers' market is held on Sunday. The street is lined with shops: a selection of high-street chains, but also many small independent shops specialising in international food, fabrics, household goods, as well as cafés. An increasing number of these have street terraces.

Two major retail developments, the Mall Shopping Centre (home to 75 businesses including an Asda supermarket, other high street chains and a number of independent stores) and a Sainsburys' Supermarket (near the junction with South Grove) 'book end' the main area of retail area.

Access by private car

The town centre is highly accessible by car and there are a range of parking options provided both on-street and off-street. Two experimental road closures with modal filters have been introduced at Somers Road and Cleveland Park Avenue. Short term parking is provided in most adjoining side roads in the form of pay by phone limited waiting bays. There are currently in the region of 334 on-street spaces which are used by 75% vehicles on weekdays and 96% vehicles on Saturdays.

Both supermarkets have multi storey car parks together providing spaces for around 1200 cars.

Access for HGVs/delivery vehicles

Heavy goods vehicle access for deliveries and servicing is currently provided via Selborne Road.

Public Transport

The town centre is well served by public transport with Walthamstow Central Station the main node. It is a convergence of mainline rail services to/from Chingford and Liverpool Street, the termination of the Victoria Line from Brixton and is also served by 14 bus routes linking Walthamstow with central London and town centres in Chingford, Newham, Hackney, Barnet and Redbridge, playing a key strategic role in north-east London.

Two additional stations serve the Walthamstow Town Centre area: St James' Street Station (Liverpool Street to Chingford line) and Queen's Road (London Overground Barking to Gospel Oak line).

Access by cycle

Existing cycle provision in Walthamstow Town Centre is limited. The pedestrianisation of the High Street causes severance by preventing north-south travel through the area by bike.

A substantial redesign of the main town centre to make it genuinely excellent for cyclists

Our vision of Walthamstow mini Holland is one of a vibrant social and economic centre with attractive streets and green spaces and a relaxed feel. One that makes you want to spend time shopping in the market, walking the quiet back streets or cycling to the borough's museums and parks.

Walthamstow High Street, which hosts the market from Tuesday to Saturday, and the Town Square (where a Farmers' Market takes place on Sunday mornings) are already car free. The whole of the High Street (from Hoe Street to St James Street) is officially designated a pedestrian zone, but cycling is (informally) permitted outside market hours, and conflict with pedestrians is low.

It will be challenging to make this permeable for cyclists during market trading hours, due to the sheer density of shoppers and stalls, but we will explore relocating/removing market stalls at two junctions along the High Street to provide 24 hour permeability for cycling, linking in with the network of quietways. However, traffic signs at each end of the market will be used to make explicit to cyclists that they are welcome to travel in both directions outside market hours, though pedestrians will have overall priority (essentially formalizing current practice).

We want parents to feel confident about allowing their children to go to the shops on their bikes, people to cycle to meet their friends for coffee on Hoe Street or to take a quiet summer stroll down to the Walthamstow Wetlands.



Walthamstow Town Centre, continued

In order to realise this vision we know that we will need to reallocate road space to reduce domination of the streets by traffic.

We are already making changes to the public realm to facilitate this and businesses and developers are working with us to regenerate the area at a number of key sites and locations.

The Town Centre is one of the borough's principal growth areas and is undergoing significant mixed use development, providing an excellent opportunity to build cycling in to the physical, social and economic fabric of the area.

The Council expects these developments to generate significant additional cycling trips, providing further justification for improving on-street conditions for cycling and more attractive public spaces. This new development provides opportunities to enhance TfL funding for cycling with developer contributions.

The Council has already made a policy decision to prioritise walking, cycling and public transport within the town centre in its LIP and Area Action Plan. Mini-Holland funding would enable us to accelerate the change.

In line with Council policy to reduce reliance on the car for local journeys, all recent residential developments in the town centre have been car free, with limited parking for retail and schools (in areas of lower public transport accessibility). All integrate high quality facilities and generous cycle parking as standard.

On-going development in the mini Holland area includes:

- 200 homes, shops and a hotel are currently being built at Walthamstow Central Station.
- 120 homes, shops, restaurants and a cinema are taking shape on the former Arcade site next to Walthamstow Town Square,
- A planning permission has been granted for a retail-led residential development on the site of the Council's South Grove car park (the residential unit will be car free).
- New schools are being built at Blackhorse Road and on Hoe Street, and others are expanding. An estimated 4,600 new homes are to be built in the Mini-Holland wider area (Town Centre, Blackhorse Road, Wood Street) over the next 15 years.

Selbourne Road

One example of the Council's progress towards our vision for a more cycle friendly town centre is our ambitious proposal for Selborne Road.

This project (funded by the Council and the Mayor's Air Quality Fund) aims to reduce concentrations of traffic-generated NOx/PM in Walthamstow Town Centre by increasing pollutant-scrubbing vegetation around the bus station and along Selborne Road, including a new tree lined corridor which provides segregated cycling facilities.

While planting will directly benefit air quality, the reallocation of road space to provide a safer and more attractive environment for walking and cycling, integrated with public transport, seeks to promote shift from car for local trips. Key elements of the scheme include:

A segregated east-west cycle track linking Walthamstow Central Station and the Mall shopping centre with the

Cranbrook Mews, St James Street Station and the new retail development at South Grove separating cyclists from HGVs and buses along this busy local transport corridor;

- Improved footway and segregate cycle route with enhanced crossing facilities and permeability into the High Street;
- New pollution-absorbing trees along Selborne Road and bus station outer contour (focus: NO₂ absorption);
- Remove feeder road to create wider footway (improving pedestrian/commuter environment);
- Growing panels (NO₂-absorbing natives) to be erected on/ alongside railway boundary fencing
- PV powered hydroponic pre-grown green-walling on Sainsbury's supermarket wall (water for irrigation harvested from car-park roof);
- Cable stay planting on multi storey car-park;
- Ongoing NO₂ monitoring throughout the project area with triplicate diffusion tubes to assess success of measures at reducing NO₂ levels.

Hoe Street

The Council is currently implementing a public realm improvement scheme on the Hoe Street corridor between Walthamstow Gyratory and Forest Road.

Key elements of this scheme include:

- Better designed parking layout in Church End Road to reduce the risk of conflict with cyclists and pedestrians
- 20mph zone reinforced by physical design
- Improved pedestrian access to the High Street and market via a new shared space in front of the Scene development site
- Footway improvements along Hoe Street



Walthamstow Town Centre, continued

- Rationalisation of waiting and loading along Hoe Street
- Improved bus stops with enhanced accessibility for passengers

PROPOSALS

We propose to make Walthamstow a destination for cyclists, known for its attractive, safe and convenient network of cycle routes, with plentiful and secure cycle parking. We think this will widen access to our diverse range of shops, cafes, cultural centres and green spaces, and catalyse new economic activity to support cycling.

We propose the following specific measures to complement the regeneration programme already underway in the Town Centre:

Improved access for cyclists and pedestrians

Our network of segregated and semi segregated cycle routes will mean most residents of the borough are within 15 minutes cycle ride of Walthamstow.

The incorporation of the Coppermill to Wood Street (marshes to forest) link through the town centre via the Selborne Road Air Quality scheme, providing a walking and cycling spine into the heart of the town centre.

A new cycle track from Selborne Road to the High Street through the Town Square Gardens, addressing the severance issues created by the impermeable nature of the pedestrianised High Street, the market and the Mall Shopping Centre.

Walthamstow Gyratory

Walthamstow Gyratory and Hoe Street are barriers to cycling due to the traffic dominated landscape and the limited and complicated junction facilities provided for cyclists. One of the key elements of our proposals to radically improve conditions for cyclists in Walthamstow is a major redesign of the gyratory. This will also have significant benefits for pedestrians.

This junction links several important elements of our bid. It is where a key "marshes to forest" route crosses from a redesigned and greener Selborne Road into Walthamstow village and meets our north-south route from Chingford to Leyton.

Building upon feasibility work already carried out, we propose to close the western section of the bridge to vehicular traffic and introduce a linear park with areas for recreation and an outdoor market. The revised junction design will provide much improved crossing facilities for cyclists and pedestrians from Selborne Road, alleviating severance issues caused by the busy Hoe Street and ensuring continuity to the Coppermill to Wood Street link into St Mary's Road.

Cycle parking

We know that the key to cycle parking is providing the right levels of the right provision in the right places. We therefore propose to introduce a range of cycle parking options into the streetscape in the town centre.

We have a number of locations specifically in mind including Walthamstow Central Station and Town Square, Blackhorse Road Station and Leyton Town Centre, with the recent Waltham Forest Cycle Survey providing information on where respondents want parking

A cycle parking hub at Walthamstow Central Station for 160 bikes is already proposed as part of the improvements to the station. We will focus on providing smaller cycle parking locations throughout the town centre area so cyclists find it easy to park their bikes near the shops and other places they wish to visit, and businesses can take advantage of the increase passing trade.

Potential on-street cycle parking solutions for the town centre include:

Banks of Sheffield stands in existing car parking bays as is commonplace in most major European cities and many London Boroughs (see picture overleaf).

Pictures 3 and 4 (overleaf): Architectural cycle parking such as the car bike port from cyclehoop which shows how many bikes can fit in a standard car space or the cycle plant lock which combines cycle parking with greening.

We intend to produce our own eye catching cycle parking design which will make a statement about the borough and cycling being at the heart of a new Waltham Forest, these will be developed further through a design competition that will allow the community opportunities to get involved in the design.

As part of this process we will look to declutter the public realm, removing unnecessary street furniture and wherever possible, replace with cycle parking facilities and greening including planters and trees. We hope to engage the local business community in this part of the mini Holland programme and develop shared investment and maintenance agreements.



Walthamstow Town Centre, continued



Areas for recreation and play

Areas for recreation, resting and play will be vital to creating the relaxed village feel that we wish to introduce into Walthamstow as part of the mini Holland implementation. While there are a number of major public realm proposals already underway as part of our wider regeneration programme and included in this bid (such as the proposal for Walthamstow Gyration), the introduction of smaller public realm improvements throughout the area will help create a sense of place and reduce the dominance of the car in the town centre.

Pocket parks

Pocket parks are small areas of public space that are redesigned to provide new areas of public space for recreation, play or the arts. Opportunities for the introduction of pocket parks include:

- Westbury Road near the junction with the High Street and Gillards Way
- Storey Street near the junction with the High Street, next to the Chequers Public House
- The area surrounding the junction of Mission Grove and Palmerston Road
- The junction of Palmerston Road and the High Street

Pictures 5 and 6: In central Barcelona, lanes of traffic have been replaced by a combination of pocket parks, enhanced bus stops and cycle facilities to improve corridors for all users, with priority for sustainable and collective modes.

Parklets

A parklet is a small space serving as an extension of the pavement to provide amenity and green space for people using the street. It is typically the size of several parking spaces, or can be located on the pavement where it is wide enough to accommodate a parklet with ease.

Parklets typically extend out from the level of the pavement to the width of the adjacent parking space, though some have been built at the level of the street with access from the footway.

Parklets are intended for people. They offer a place to stop, to sit, and to rest while taking in the activities of the street. Parklets can also provide additional areas of seating for cafes, restaurants and pubs. This is common in Copenhagen, Amsterdam, and, more recently, in New York.

A parklet may also provide greenery, art, or some other visual amenity. bicycle parking may be accommodated within it, or adjacent to it.

We propose to introduce parklets throughout Walthamstow mini Holland and in the secondary centres. We will work with the local community including businesses to identify the best locations for and types of parklets. The scope of an assessment of suitable locations would include but not be limited to:

- Parking stress
- Potential use by businesses (e.g. additional outdoor seating)
- Potential for anti social behaviour (e.g. street drinking)

We hope that working with the community from the outset on these elements of the proposals will create feelings of inclusion and ownership and that joint funding and maintenance agreements can be put in place to ensure these new pockets of greenspace and recreation are planted, painted and maintained to the highest possible standard.

Ensuring access by car for those who need it

While we want travelling by bike into Walthamstow town centre to be the default choice for local trips, we understand that some people will still need to travel to the town centre by car, due to mobility issues or to pick up and deliver goods. The proposals for the town centre mini Holland will not prevent access to town centre parking locations such as the Mall and Sainsbury's multi storey car parks (although demand



Walthamstow Town Centre, continued



for car parking spaces in these facilities is already reducing).

As part of the town centre improvements we will review parking allocations with residents and businesses in adjoining side streets to ensure they are fit for purpose and make best use of available kerb space.

Near the High Street priority will be given to short term parking for cyclists, while accommodating delivery vehicles, drivers with mobility issues and some short stay parking for cars

Ensuring access for servicing and deliveries

We will work with businesses, market traders, delivery companies and developers to ensure convenient and safe delivery of goods and services to premises in the town centre, through the agreement of delivery and servicing plans. We will minimise the potential for conflict between LGVs, HGVs, pedestrians and cyclists through the development of agreed routes for goods vehicles. We will also work with relevant stakeholders to reduce danger to cyclists and pedestrians by limiting HGV deliveries/collections in the peak. Wherever possible we will separate these routes from those prioritised for cyclists and pedestrians. Where the same route will be used by both, as in Selborne Road, we will ensure segregation or, at least, semi segregation to reduce the potential for conflict.

Our current proposal for goods vehicle access to the Town Centre are via Hoe Street and Selborne Road. Palmerston Road is currently closed to vehicles over 3 tonnes while bridge strengthening works are undertaken. However, this road is a busy local high street, with new residential development underway, as well as an important route for pedestrians and cyclists. For this reason we intend to retain the closure to HGVs permanently.

As part of the redesign of the town centre we will carry out a holistic review of loading provision with businesses to ensure the right provision is provided in the right place but that redundant loading space is reallocated to public realm improvements, such as parklets.

Van sharing

Businesses often need access to vans or cars for deliveries or to pick up stock and while use of the vehicles can be infrequent, access to vehicles is still an important part of many business operations. This can lead to a perception that businesses must have their own vehicles.

Members of the Waltham Forest team have a wealth of experience in working with businesses on transport issues, in particular on the introduction of car club vehicles as

an alternative to private ownership. One of our team was responsible for the introduction of the first pay as you go van in the UK in Angel in 2007.

We know that car club vehicles have a range of benefits that have the potential to reinforce our mini Holland proposals, including as they can significantly reduce ownership and use of private vehicles, easing congestion and demand for kerbside space for parking. They can save businesses money through reduced operating costs, and enhance their green credentials with customers

In addition, having vehicles that are available for business use when needed will mean that there is less need for shopkeepers and workers to drive their vehicles into the town centre area.

We therefore propose to introduce a number of pay as you go vans and cars into the streets surrounding the High Street so that businesses have a viable alternative to private fleet use. The borough's car club operator Zipcar are fully supportive of the proposal and will assist in the promotion and marketing of this element of the mini Holland bid.



Walthamstow Villages

Our proposal for the residential area of Walthamstow mini Holland is based upon the woonerf principles. We want to return the streets to local people by removing through traffic, providing safer, quieter and more pleasant streets which make walking and cycling the obvious ways to get around

Our approach has been designed to be modular with the hope that the mini Holland area will be the first three areas of a programme that will extend beyond the geographical scope and project lifecycle of the mini Holland itself. This approach also complements the work already underway as part of our 20mph and 2013 “Better Places” programmes.

We will soften the streetscape, by removing unnecessary line markings and street furniture which address perceptions that the streets are for cars and not for people - that they are connections rather than places in their own right.

We will use innovative/experimental features and items such as planters, seating and greening to block through routes, applying design philosophies associated with woonerfs (home zones) to cells of streets selected to have maximum strategic impact in facilitating cycling and walking, and reducing problems such as rat running.

To facilitate the creation of filtered permeability in clusters of streets, in the outer mini Holland area, we have divided it into three distinct residential “villages”;

1. Walthamstow Village

An historic residential area bordered by Hoe Street, Forest Road, Wood Street and Lea Bridge Road. Walthamstow Village includes ‘the Village’ itself in the roads surrounding the Vestry House Museum and Wood Street with its mainline train station, shops and increasingly popular market.

2. Markhouse Village

A residential area immediately to the north of our proposed cycle superhighway; bordered by our north-south routes and the town centre.

3. Blackhorse Village

Next to the Walthamstow Wetlands, to the north and west of the town centre, the Blackhorse Lane regeneration area has long been primarily industrial in nature. However, around 2,500 new homes are to be built over the coming decade and it is undergoing significant change and developing a much more residential character. Workshops, business starter units, studios, schools, an art gallery and student accommodation are also changing the feel of the area and attracting a demographic that is likely to have a high propensity to cycle, especially if we can improve provision for cyclists on Blackhorse Lane and Forest Road.

The villages and our network of cycle routes

The cycle routes in our proposal will link up the villages with each other and town centre while also providing safe high quality connections between the town centre in Walthamstow and secondary town centres within the borough as well as destinations outside the borough.

Walthamstow Village

The Walthamstow Village area will benefit from direct access to five of our proposed cycle routes. To the north Forest Road will provide a direct primarily segregated link to Walthamstow Wetlands and onto Tottenham Hale and the London Borough of Enfield.

To the south our Cycle Superhighway will provide a direct link into central London. Wood Street and Hoe Street will provide semi-segregated links to the north and south of the borough. Additionally our Marshes to Forest link (part of the 38 Quietway proposal) travels through the heart of Walthamstow Village.

Markhouse Villages

The spine of Markhouse Village is Markhouse Road which also forms part of the Leyton to Blackhorse Lane route. Segregated cycle tracks are proposed for the entire length of Markhouse Road with a dutch style roundabout at the junction with St James Street and South Grove.

The Marshes to Forest (Coppermill Lane to Wood Street) route also travels through Markhouse Village providing a link onto Walthamstow Marshes, into the town centre and east to Wood Street and onto Epping Forest.

The southern boundary of Markhouse Village is Lea Bridge Road, our main commuter route to central London. Access for cyclists from Markhouse Village will be possible via either the Markhouse Road cycle route or through the many modal filters introduced on the northern kerblines of Lea Bridge Road.



Walthamstow Villages, continued

Blackhorse Village

Access to our network of cycle routes will be made very easy for those living and working in Blackhorse Village. The area is bounded by Forest Road, Hoe Street and Blackhorse Road which are all part of our proposed network of cycle routes and the High Street area. Access to the routes will be direct from the residential roads in the area via improved junctions (cycle friendly sinusoidal raised junctions and modal filters).

Programme

Engagement, consultation and implementation will follow the order outlined above with the following stages. We have developed a 3 staged approach but it has been designed so stages one and two could commence simultaneously for a bigger impact.

Stage 1

Key road closures will be introduced in the Markhouse Village to limit the main east-west vehicle movements which account for a large proportion of trips into the area.

Permanent closures would be installed at:

- Queens Road – At the junction of Chelmsford Road and Edinburgh Road;
- Boundary Road – At the junction of St Barnabas Road and Westmorland Road; &
- Bowden Road – At the junction of Westmorland Road and Lilly Road.

At the same time additional permanent closures will be introduced in the neighbouring Walthamstow Village area to remove the opportunities for east-west cut through movements by motor vehicles.

These closures will be installed at:

- Grove Road – At the junction with Pembroke Road
- Shernhall Street – At the junction with Lea Bridge Road and Grove Road
- Church Hill – At the junction with Prospect Hill and Church Hill Road

Where possible key features will be installed alongside or forming part of these closures e.g. the creation of pocket parks at the Queens Road and Grove Road closures. The closures at Grove Road, Church Hill, and Queens Road would offer the largest opportunities in terms of public realm improvements.

With these closures in place at all arms of the junctions it will be possible to create large pocket parks improving the physical landscape whilst tying into existing features (such as the existing park at Grove Road and Pembroke Road). These areas would also incorporate features allowing cyclists to move freely through the pocket parks.

These closures would restrict the main cut-through routes and the potential for inter-village cut through routes. The traffic situation in both areas will be monitored to assess the impacts of their introduction, e.g. on neighbouring streets.

Stage 2

Experimental closures will be installed at various locations within both the Markhouse and Walthamstow Village areas effectively plugging any potential gaps for cut through traffic. These closures will significantly reduce the amount of traffic entering and using these areas.

Again after installing these closures the traffic conditions will be monitored and any alterations can be made. After

satisfactorily locating these closures additional measures will be incorporated within them such as cycle parking provisions.

Stage 3

The third and final stage will introduce a number of permanent and experimental closures within the Blackhorse Lane area. It will be beneficial to introduce all the road closures within this area more or less simultaneously.

Following their introduction the traffic conditions will again be monitored and the final locations of the closures determined.

Experimental Traffic Management Orders will be used to close the selected streets. This will enable the council to work with the local community during the experimental period to ensure the best solution for the area is put into place. The Council and the community will then have a further 12 months to refine the closure programme.

Measures

Road closures and reducing traffic levels

To encourage traffic reduction and traffic evaporation throughout the mini Holland area we will introduce a series of road closures with modal filters building on lessons learnt from Europe and other London Boroughs (Hackney, Islington, Camden) preventing vehicular traffic travelling through residential areas while still maintaining access.

We know from experience that we will have to consider and test a broad range of issues to ensure that we do not create traffic issues that may have a detrimental impact on public perception and acceptance of the changes proposed as part of the programme. The location of closures will also be



Walthamstow Villages, continued

carefully considered during this process and another reason why we will use temporary materials in many locations initially. There may in some instances be opportunities to use junction heads adjacent to main roads as loading or parking areas, removing these activities from the main carriageway. Other locations may benefit from closures half way down roads rather than at junctions.

The mini Holland area will be subject to extensive modelling and investigation prior to the implementation of the second phase of closures to minimise the risk of creating gridlock. It should however be remembered that it is highly likely that issues will be experienced while drivers adjust to the fact that 'rat runs' they have been using are no longer available.

Experimental closures will be introduced wherever possible using temporary features such as planters and experimental traffic orders so if modifications are required they can be made relatively easily and without significant abortive works costs.

Within each area roads that will provide access, known as 'neighbourhood links', will be identified. These will be the main routes for traffic in and out of the smaller cells of closed roads.

During the second and third phases of the village programmes further experimental closures will be made, and initial closures that have proved successful made permanent.

Modal filters

We will introduce modal filters at road closures providing safe and easy access by foot and bike throughout the mini Holland area. Initially, modal filters may be temporary, such as the one we recently introduced in Cleveland Park Avenue. However

we will develop a number of innovative solutions that combine closures with greening, a place to rest such as benches or functions such as cycle parking.

Cycle access from the villages

The entire mini Holland area is within 5 minutes cycle ride of the town centre and all of the villages are served directly by at least one of our proposed cycle routes.

20mph and traffic calming

By the time the mini Holland programme commences all roads within the mini Holland area will be subject to 20mph speed limits and traffic calming introduced.

As a part of the implementation of the villages we will review existing traffic calming features, replacing measures that are not cycle friendly and introducing new measures such as sinusoidal (cycle friendly) speed humps and tables.

One-way roads

There are a number of existing one-way systems/streets within the mini Holland area. Originally introduced to address rat running issues one-way streets are barriers to cycling as they increase journey times and can increase traffic speeds.

Part of the initial focus of the 'villagising' of the mini Holland area will be to remove one-way workings where road closures will render them obsolete, and to investigate contra flow cycling on those that remain (subject to local traffic conditions).

Pocket parks

The introduction of modal filters and road closures provides an opportunity to enhance the public realm through the introduction of complementary greening. There are many

examples of such uses of greening in neighbouring boroughs.

As part of the creation of the villages we will introduce pocket parks, trees and planting where feasible.

Resident led design

One of the opportunities for the community to become involved in the design and development of the mini Holland programme is to help us redesign the residential streets they live in to accommodate modal filters, cycle parking or a revised parking layout. We have outlined a consultation strategy which will encourage resident participation and ownership of improvements to their streets. (discussed in more detail in the consultation and engagement section of this document).

Cycle parking

We know from our own surveys with cyclists and from experience from elsewhere that the lack of safe, secure high quality cycle parking, both at destinations (commercial/retail centres, transport nodes) and at home is a barrier to cycling.

The Waltham Forest team have experience of delivering a wide variety of cycle parking solutions, including cycle parking hubs at stations, within new commercial developments and residential cycle parking storage. We think that there could be opportunities for local businesses, such as, Iniko, which specialises in cycle parking, which supports this bid and is located just to the north of our mini Holland boundary in Bunyan Road, E17.

Iniko have designed a modular cycle parking storage unit which can fit 12 cycles in 6 units within the space of a standard car parking space. The unit has been designed to fit within standard residential parking bays (see image) and



Walthamstow Villages, continued

thanks to its modular design can make use of small sections of redundant or underused kerbside space.

Car clubs

We will work with the borough's appointed car club operator Zipcar to introduce car club cars throughout the mini Holland area. Studies of car club members carried out by the Transport Research Laboratory show that they walk, cycle and use public transport more than those who own their own cars. The introduction of a car club car can also remove up to 25 cars from local roads through people selling their vehicles or deferred purchases.

Public Transport interchanges

Our local public transport interchanges play a central role in the movement of people around the borough and to work.

The bike plays a vital role in combined mobility journeys and the Council is keen to enable more people to access their local bus, train and underground stations by bike. Secure bike parking will be key to this, and this mini Holland proposes Cycle parking and railings are already at capacity at Walthamstow Central and Blackhorse Road stations, so cycle hubs are proposed for these locations, and additional secure cycle parking within outside St James St and Wood Street stations.

Play streets

Play Streets provide an opportunity for children to reclaim the streets from vehicles and traffic for a few hours on selected streets on agreed days.

This allows children who do not live near to a park or playground to safely play in their street, let their hair down and blow off some steam.

The roads are closed to traffic and are fully supervised by the parents or guardians of the children playing out. This also supports the view that roads are not there purely for the movement and parking of cars.

Children like to play near home and have traditionally done so. A 2007 poll found that only 21% of children today are allowed to play out. (Play England). The main reason cited for not playing outside was traffic.

We know children need to play. It is vital for their physical and emotional development and for their social learning. Children are far more likely to get a good daily dose of physical activity if allowed to play outside which helps address many social, environmental and health issues.

The borough has been supporting street parties and play streets through the 'get together Initiative' including £5,000 to each community ward forum. There are currently two permanent play streets – Brooke Road and also a new coordinated play street across 4 streets.

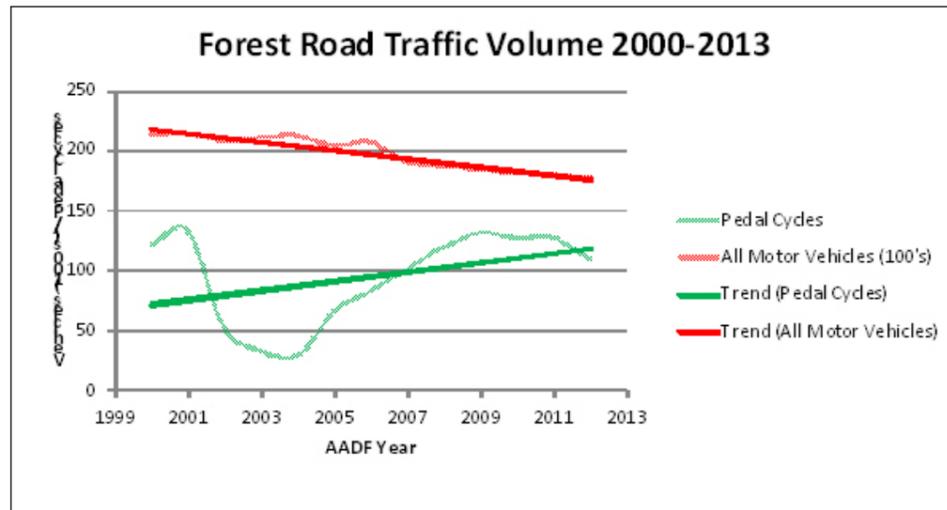
The Council is promoting play streets vigorously, and sees mini Holland as an excellent opportunity to formalise existing play streets and create new ones, as communities see the benefit of low traffic streets.



Forest Road

Forest Road is the northern boundary of the Walthamstow mini Holland area. It is also the A503 providing a link between Tottenham Hale (via ferry Lane) with Upper Walthamstow and the North Circular Road.

Forest Road is also one of the key east-west arterial routes in the borough and connects Waltham Forest with key destinations such as Blackhorse Lane and the Upper Lea Valley Opportunity Area which is forecast to create a minimum



of 15,000 additional jobs in the period up to 2031. The new north London Sub-Regional Plan (SRTP) has highlighted the importance of good road management of this route as part of the 6 kilometre potential connectivity corridor from Tottenham to Stratford.

It is a busy road carrying in the region of 17,000 vehicles per day in 2012. Traffic volumes on the corridor have however fallen consistently since 2000 (21,336 vehicles per day) with last year's figures representing a 17% reduction since 2000. Whilst it is a strategic road and a key cycle route it is also a

place with popular local destinations such as the Town Hall, Waltham Forest College, Lloyd Park, schools and Blackhorse Road station all located along its length.

Depending on the location along the corridor, it can (using TfL's new roads typology) be classified as a high road, connector, or high street. It is also highly residential in nature. As shown in the graph, DfT traffic data shows while traffic volumes have been decreasing, cycling has been growing rapidly since it peaked in the road in 2001 and tailed off severely to a low in 2004 of 29. 127 cyclists were recorded using the road in 2011 and 110 in 2012. Our own recent 2013 cycle counts show 565 cyclists using The Bell junction (where Forest Road meets Hoe Street and Chingford Mount Road) in a twelve hour period on an early autumn weekday. This represents an increase of 56.1% (or 203) on 2012 figures.

The 2012 and 2013 cycling surveys and the Council's own staff travel survey cites Forest Road as a deterrent to cycling. Existing issues include speed, volume, proximity of traffic to cyclists (exacerbated by pedestrian islands), and narrow advisory cycle lanes blocked by loading, and parked cars in the evenings and at weekends. These problems may be suppressing cycling in the otherwise fairly cycle-friendly/"propensity to cycle" residential streets to the north of Forest Road.

Additionally a streetscape condition survey has shown that this corridor exhibits poor pedestrian crossing conditions, poor bus stop alignment, inconsistent cycle path widths and inadequate levels of cycle parking outside shops. There are also some issues relating to the inappropriate siting of pedestrian refuges causing difficulties for larger vehicles, a problem that compromises safety on this stretch of the A503 and one that could reasonably be expected to exacerbate with the planned industrial growth at Blackhorse Lane and the

Upper Lea Valley. Internal surveys undertaken by the Council have also revealed that this stretch of Forest Road has a relatively high level of accident rate with 34 incidents recorded over a 3 year period with a high percentage of these relating to vulnerable road users.

In addition to our cycling proposals, a LIP funded scheme is being implemented to address road safety concerns and recorded personal injury collisions on Forest Road between Brookdale Road and Hoe Street. It will also improve the visual setting of Lloyd Park and William Morris Gallery, and enhance the street environment along this section of Forest Road. The proposals include a 20mph zone, a Restricted Zone (no road markings), coach parking review, removal of pedestrian islands (cycle pinch points), and new and relocated Zebra Crossings. A public consultation in 2013 showed 93% in favour of these proposals.

Outline proposal

Forest Road will form the northern boundary of the Walthamstow mini Holland area between the borough boundary with Haringey in the west and Wood Street to the east, and become an exemplary cycle route in its own right; it will connect with our two strategic north-south cycle routes at Blackhorse Road station and at Bell Corner. We propose a combination of solutions to create a better balance between the movement and place functions of the street. Wherever feasible cyclists will be provided enhanced segregated or semi segregated facilities. Where due to limiting road widths space cannot be allocated purely to cyclists traffic will be slowed by the introduction of traffic calming features and carriageway narrowing. The additional space provided will be given over to pedestrians, improving the public realm for all. It will mean exemplary cycle facilities are provided to the front doors of The Town Hall, Waltham Forest College, Thorpe Coombe



Hospital and Blackhorse Road, meaning cycling to these local destinations is a no brainer. The improved Forest Road will also be a fitting gateway to the award winning Walthamstow Wetlands development with the main visitor centre to be located to the west of Blackhorse Road station.

Key benefits

The Forest Road proposal will provide:

- ‘The northern part of the frame of cycle routes for the mini Holland area
- ‘Much improved cycling and walking access to the Town Hall and Walthamstow College
- ‘A sustainable gateway to the Walthamstow Wetlands development
- ‘A greener corridor with sustainable drainage and additional tree planting
- ‘New public spaces in the form of pocket parks
- ‘Improved access to nature for residents of the borough and those wishing to visit the marshes and Epping Forest.

We will implement segregation on both sides of Forest Road on the wider section from Farnan Ave to Wood Street junction (and on to Epping Forest), using armadillos, bollards and/or planters.

Section 1: Borough Boundary to Blackhorse Road Existing

The current road space allocation is one lane eastbound with two lanes westbound (including bus lane – Mon to Sat 7am to 7pm). Currently westbound cyclists can use the footway (shared) or bus lane with eastbound cyclists afforded a segregated lane situated on the northern footway.

The current carriageway design suggests a road suitable for

high volumes of vehicular traffic. Traffic speed is an issue along this stretch of the road, and there is a traffic speed camera to deter high speeds.

Properties along this stretch are limited to commercial premises east of Wickford Way, but there are no residential addresses. Over the three year period there were 8 collisions, 6 involving cyclists (1 involving a pedestrian – 3 in darkness). Dubbed London’s best kept secret” by the Mayor of London, the site borders Waltham Forest, Haringey and Hackney and its proximity to the Olympic Park ties it into the other facilities in the area providing a legacy from the 2012 Games. The site is part of the Lee Valley, linking to Hackney Marshes and Leyton Jubilee Park and through to the Olympic Park.

The project won the 2012 London Planning Awards Best Conceptual Project and involves:

- ‘Transforming a 200 hectare site into London’s largest urban wetland nature reserve through £6.5m Heritage Lottery Fund and Thames Water funding of £1.5m.
- ‘Enhancing the environmental, recreational and educational potential of the Walthamstow Reservoirs with improved habitats and biodiversity, nature trails, heritage walks and a three kilometre cycle route through the site. It has the largest fishery in London and is a wildlife site of international importance
- “Water and Life’ visitor centre in a renovated pumping station, a café overlooking the reservoirs, a viewing platform and hides and an annual river festival.
- ‘Provide public access to nature to enjoy the green oasis in the heart of North East London. Over 300,000 people live within two miles of the site, which is close to Tottenham Hale and Blackhorse Lane stations, providing easy access by public transport.

Proposal

Benefits to cyclists on Forest Road will be a greener, more attractive environment, providing a more appropriate gateway to the Wetlands, as well as improved safety and comfort on this section of Forest Road especially east bound. Possible risks include potential delays to buses as traffic is restricted to one lane in each direction.

Borough boundary to Blackhorse Lane Junction

Semi-segregated treatment is proposed from the west up to the bridge structure, then a segregated cycle track as per the visualisation and using sustainable drainage systems (SUDS) is proposed between the reservoirs. This section of highway will be totally re-configured; there is no built-up areas with frontage requirements and very few stats to deal with.

As the route reaches the eastern end of the reservoirs, the highway becomes wider and the cycle route will seamlessly continue into semi-segregated facilities up until the Blackhorse Rd junction (and for much of the route until east of the Bell Corner junction). Much of this section of highway is very wide with central hatching that be more usefully utilised as cycle lane.

Junction 1 –Blackhorse Road/Blackhorse Lane Junction

The current situation on this node includes:

- ‘Traffic signalled cross-roads – 3 stages including early cut-off on westbound
- ‘Two or more traffic lanes on each arm
- ‘Staggered pedestrian facility across all arms
- ‘Yellow box marking over southern part of junction for westbound traffic
- ‘Advanced cycle stop lines on three arms
- ‘Pre-cycle signal on west arm of Forest Road



Forest Road, continued

- ‘Over three year period – 10 collisions 2 involving cyclists (2 involving pedestrians – 2 in darkness)

Our proposals are:

- ‘pre-cycle signals on all arms
- ‘all green phase for cyclists subject to junction modelling
- ‘two-stage right-turns if all green not implemented
- ‘low-level signal heads for cyclists once DfT approval granted
- ‘feeder’ bus lane on eastern arm

The benefits will include cyclists having advantage over general traffic and drivers made more aware of cyclists with slower traffic through junction. Risks include reduced capacity of the junction and potential for increased delays for buses through the junction. There may be additional delays and congestion on approaches to the junction.

Forest Road just past junction with Palmerston Rd. Unofficial pavement parking and parking in cycle lanes causes hazard and stress to pedestrians and cyclists, and blocks shop fronts. Fast moving traffic deters younger, older novice and leisure cyclists.

Section 2: Blackhorse Road to Palmerston Road

The current situation on this link includes:

- ‘Generally one lane in each direction
- ‘Advisory cycle lanes provided in each direction on carriageway
- ‘Toucan crossing by Pembar Road
- ‘Small pockets of commercial/retail frontages
- ‘Mainly residential frontages

- ‘Waiting restrictions mainly Mon to Sat between 8am and 6.30pm – both sides
- ‘Loading restrictions mainly Mon to Fri between 8am and 9.30am and between 4.30pm and 6.30pm
- ‘Over three year period – 14 collisions 4 involving cyclists (1 involving pedestrian – 3 in darkness)
- ‘Road width mainly between 7.5m to 8.5m with relatively narrow footways

Our proposals are:

- ‘2.0-metre semi-segregated cycle lanes in both directions
- ‘Raised level cycle lanes at bus stops with pedestrian priority
- ‘entry treatments at side roads
- ‘reviewing waiting and loading restrictions
- ‘remove carriageway centre lines

This will improve cycle safety by reducing speed and control traffic turning in/out of side roads.

Junction 2 – Palmerston Road/Higham Hill Road Junction

The current situation on this junction includes:

- ‘Traffic signalled staggered cross-roads – 4 stages including pedestrian stage
- ‘Internal stop lines
- ‘Advanced cycle stop lines on all arms
- ‘Yellow box marking eastbound
- ‘2 lanes on westbound arm
- ‘Over three year period – 10 collisions 0 involving cyclists (4 involving pedestrians – 3 in darkness)

Our proposals are:

- ‘pre-cycle signals on all arms
- ‘all green phase for cyclists subject to junction modelling
- ‘two-stage right-turns if all green not implemented
- ‘low-level signal heads for cyclists once DfT approval granted
- ‘removal of right turn lane on eastern arm

Benefits will include slower traffic through junction, allowing drivers to be more aware of cyclists. This may however cause additional delays and increase congestion on approaches to junction and increase delays to buses

Section 3: Higham Hill Road to Hoe Street

The current situation on this link includes:

- ‘Generally one lane in each direction
- ‘Advisory cycle lane in each direction
- ‘Mainly residential frontages
- ‘Small pockets of commercial/retail frontages especially between Higham Hill Road and Rosebank Grove
- ‘Westbound bus lane (Mon to Fri – 7am to 10am & 4pm to 7pm) from just west of Wolsey Avenue to just west of Luton Road
- ‘3 zebra crossings
- ‘Greenleaf Primary School frontage between Greenleaf Road and Melville Road
- ‘Lloyd Park with William Morris Museum located between Winns Terrace and Bedford Road
- ‘Waiting and loading restrictions generally the same as in Link 2
- ‘Along ‘narrow’ section At Any Time waiting restrictions



Walthamstow Town Hall Forest Road - Existing



Walthamstow Town Hall Forest Road - Proposed





Forest Road, continued

north side with peak period loading restrictions

- 'Carriageway width between 8.5m to 10m with 1.7m to 2.5m footways
- 'Over three year period – 32 collisions 3 involving cyclists (8 involving pedestrians – 11 in darkness)

Our proposals are:

- '2.0-metre semi-segregated cycle lanes in both directions
- 'Raised level cycle lanes at bus stops and Zebra crossings with pedestrian priority
- 'entry treatments at side roads
- 'reviewing waiting and loading restrictions
- 'remove central hatching in carriageway and right-turn pockets; do not replace with centre lines.

This will improve safety for cyclists and pedestrians and reduce the speed of traffic turning in/out of Forest Road, slow traffic along narrow section and improve flow of traffic offpeak. Junction 3 – Hoe Street/Chingford Road junction (Bell Corner)

The current situation on this node includes:

- 'Traffic signalled cross-roads – 3 stages including a pedestrian stage
- 'Advanced cycle stop lines on all arms
- 'Two or three lanes on all arms – narrow lanes
- 'Yellow box marking
- 'High turning movements during peak periods
- 'Over three year period – 18 collisions 1 involving cyclist (4 involving pedestrians – 4 in darkness)

Our proposals are:

- 'pre-cycle signals on all arms
- 'all green phase for cyclists subject to junction modelling
- 'two-stage right-turns if all green not implemented

- 'low-level signal heads for cyclists once DfT approval granted

This will provide improved driver awareness of cyclists and reduced traffic speed through the junction, removing vehicle conflict at Howard Road

Risks include increased delays and congestion on all arms and access restricted to/from Howard Road with possible increase in delays to buses

Section 4: Hoe Street to Shernhall Street

The current situation on this link includes:

- 'One lane in each direction
- 'Advisory cycle lane in each direction and/or two-way segregated lanes along northern footway
- 'Waiting and loading restrictions similar to those in link 2
- 'Staggered pedestrian crossing outside Town Hall
- 'Sections of central island
- 'Commercial/retail frontages between Hoe Street and Farnan Avenue – both sides
- 'Waltham Forest College and Walthamstow Town Hall located between Farnan Avenue and Shernhall Street north side
- 'YMCA located south side
- 'Some residential frontages
- 'Over three year period – 12 collisions 1 involving cyclist (3 involving pedestrians – 3 in darkness)

Our proposals are:

- 'Fully segregated cycle track on both sides of highway
- 'review of waiting and loading restrictions

- 'removal of median islands in carriageway

This will improved cycle facilities generally as well as creating an improved public realm with a linear 'green border' along the northern side of the highway.

Risks include restriction on-street parking at night and Sundays

Junction 4: Shernhall Street Junction

The current situation on this node includes:

- 'Traffic signalled T-junction – 3 stages
- 'Staggered pedestrian facilities across all arms
- 'Advanced cycle stop lines on Shernhall Street and Forest Road east arm
- 'Two or three lane approaches
- 'Yellow box marking eastbound
- 'Over three year period – 3 collisions 0 involving cyclists (0 involving pedestrian – 1 in darkness)

Our proposals are:

- 'pre-cycle signals on all arms
- 'all green phase for cyclists subject to junction modelling
- 'two-stage right-turns if all green not implemented
- 'low-level signal heads for cyclists once DfT approval granted

This will improve cycle safety generally with reduced traffic speeds through junction. Risks include additional delays and congestion on all arms and increased delays to buses.



Section 5: Shernhall Street to Wood Street

The current situation on this link includes:

- ‘One lane in each direction
- ‘Advisory cycle lane in each direction
- ‘Mainly commercial/retail frontages
- ‘Similar waiting and loading restrictions as in link 2
- ‘Over three year period – 7 collisions 2 involving cyclists (1 involving pedestrian – 3 in darkness)

Our proposals are:

- ‘2.0-metre semi-segregated cycle lanes in both directions
- ‘Raised level cycle lanes at bus stops and Zebra crossings with pedestrian priority
- ‘entry treatments at side roads
- ‘reviewing waiting and loading restrictions
- ‘removing central hatching in carriageway and right-turn pockets; centre lines to be installed only at approach to junctions

This will improve cycle facilities generally and reduce delays to traffic especially off-peak. Risks include restriction on servicing frontages.

Junction 5 – Wood Street/Fulbourne Road Junction

The current situation on this node includes:

- ‘Traffic signalled cross-roads – 3 stages including pedestrian stage
- ‘Sub-standard staggered pedestrian facilities on both arms of Forest Road
- ‘Two lanes on all approaches except Wood Street (only 1 lane)

- ‘Advanced cycle stop lines on all arms
- ‘Over three year period – 14 collisions 0 involving cyclists (2 involving pedestrians – 4 in darkness)

Our proposals are:

- ‘pre-cycle signals on all arms
- ‘all green phase for cyclists subject to junction modelling
- ‘two-stage right-turns if all green not implemented
- ‘low-level signal heads for cyclists once DfT approval granted

Benefits include improved safety for cyclists and pedestrians, reduced traffic speeds through the junction. Risks include additional delays and congestion on all arms and increase in delays to buses.



Secondary Centres - Mini Town Centre

Introduction

We would undertake a similar approach within our secondary centres as to that proposed in our main hub of the Walthamstow Town Centre with shared aims and objectives. It is our aspiration that the positives gained through the Mini Holland scheme would reach residents in all areas of the borough. These secondary centres therefore play a vital role in ensuring that the benefits of the scheme achieve their full potential. The aims of our approach within the secondary centres look to:

- Increase the number of short journeys undertaken by bicycle both in terms of commuting and recreational usage.
- Improve the local streetscene through planting and landscaping that will help communities 'reclaim' their streets.
- Introduce a number of temporary road closures on an experimental basis to reduce the amount of cut through vehicular traffic in residential areas which will in turn improve conditions for cyclists and pedestrians alike.
- Work together with local schools to ensure that cycling is a viable alternative to both school children and parents alike.
- Be mindful of the need for short term parking and loading provisions for local business who play a key role in bonding local communities together.

These secondary centres have been divided into keys areas with further sub-areas or 'Villages' being identified within some of them. These secondary centres include Leyton, Leytonstone, Highams Park and Chingford.

The measures proposed within these secondary centres can be considered specific to the individual area; however there are elements that will apply to all areas. Those more general measures include:

- The creation of a cycle hubs at all key stations within the secondary centres.
- Providing additional cycle parking provisions in residential and key shopping areas.
- Increasing the number of car club provisions.
- Creating parklets and pocket parks in residential areas that will improve the physical characteristics of the area for communities.

Leyton area

Our specific proposals in the Leyton area include:

- Installation of Barclays Cycle Hire Scheme docking stations at various locations including Leyton Station, the future Lea Bridge Road Station and the Leyton town centre area for easy access to the Queen Elizabeth Olympic Park.
- The creation of an improved north to south cycle route along Ruckholt Road linking Leyton with the Queen Elizabeth Olympic Park, Stratford and Stratford International Stations as well as the River Lea and River Lea Navigation tow paths.
- Providing an east to west cycle route from Fairlop Road to High Road Leyton that will improve conditions for cyclists whilst providing a link from Leytonstone via Leyton to the main Mini Holland area.
- The creation of a pedestrian zone along Francis Road between Albert Road and Claude Road to tie with the recent regeneration scheme that has already been undertaken here.
- Installation of key road closures to restrict cut-through traffic in residential areas.

Leyton area closures

The closures in the Leyton area have been divided into

two further sub-areas or 'Villages', the Capworth Village – surrounded by Lea Bridge Road, Church Road and High Road Leyton and Francis Road Village – surrounded by High Road Leyton, Grove Green Road and Gospel Oak to Barking Railway line.

Proposed closures in the Capworth Village include:

- A diagonal closure at the junction of Vicarage Road and Capworth Street – preventing north / south cut through traffic on Vicarage Road and east / west traffic along Capworth Street.
- A diagonal closure at the junction of Park Road and Farmer Road – Preventing north / south traffic along Vicarage Road and east / west traffic on Farmer Road and Park Road.
- A linear closure at the end of Brewster Road at the junction of Vicarage Road – To prevent traffic from entering Vicarage Road from Brewster Road.

Proposed closures in the Francis Road Village include:

- A linear closure along Norlington Road at the junction of Grosvenor Road – To prevent northbound traffic from entering Hainault Road which has been highlighted as a key cycle link route.

Leytonstone area

Our specific proposals in the Leytonstone area include:

- The creation of a new quiet way cycle route along Gainsborough Road, Fairlop Road and Essex Road that will link Leytonstone to Wood Street and the Walthamstow Village area.
- Installation of key road closures to restrict cut-through traffic in residential areas.



Leytonstone area closures

The proposed road closures in the Leytonstone area have concentrated on preventing cut through traffic between Lea Bridge Road and the A12 as well as the Leytonstone town centre. Particular care and consideration has been given to the close proximity of Whipps Cross Hospital to this area and the key routes used by emergency service vehicles to minimise any potential disruption.

Proposed closures in the Leytonstone area include:

- A linear closure at the junction of Essex Road South and James Lane – To prevent north / south cut through traffic along the proposed quiet way cycle route.
- The creation of a one-way system in Peterborough Road and Essex Road to compliment the road closure and quiet way cycle route. Making Essex Road one way will reduce the amount of carriageway dedicated to vehicular traffic and in turn increase that for cyclists on the quiet route.

Highams Park area

Our specific proposals in the Highways Park area include:

- Improving cycle links along Beech Hall Road and The Avenue to increase permeability of cyclists from the Walthamstow area to the Chingford area.
- Creating an improved cycle access point at Beech Hall Road by Hale End Road, which currently has a road closure in place.
- Working together alongside the Corporation of London to improve cyclist access points to Epping Forest along the Forest's eastern corridor within the area.

Chingford Area

Our specific proposals in the Chingford Area include:

- The creation of a quiet way cycle route linking Chingford Hatch with Chingford Station and Chingford Plains via Friday Hill, Whitehall Road, Long Decon Road and Beresford Road.
- Working together alongside the Corporation of London to improve cyclist access points to Epping Forest along the Forest's eastern corridor within the area.
- The introduction of road closures to prevent cut through traffic in residential areas.

Proposed closures in the Chingford area

At the current time there are limited opportunities for vehicles to make east / west movements across Chingford and into the Highams Park areas. However, as part of our proposals we intend to introduce road closures to prevent this traffic from using residential streets. The proposed road closures will include:

- A diagonal closure at the Ainslie Wood Road junction with Underwood Road and Inks Green.
- A linear closure in Heathcote Grove at the junction with Chingford Avenue.
- A linear closure at the junction of Endlebury Road and The Ridgeway.
- A linear closure at the junction of Beresford Road and Rangers Road in order to discourage cut through traffic in the residential streets situated to the east of Chingford Station.



Addressing Severance

New cycle and pedestrian crossings of major roads, railway lines or waterways

Key junctions and linear barriers that cause severance include:

- Walthamstow/Hoe Street Gyratory
- Whipps Cross Roundabout
- Junction at Lea Bridge Road/Argyll Way/Orient Way
- Junction at Lea Bridge Road/Church Road/Markhouse Road
- Junction at Bakers arms
- Junction at Bell Junction, Forest Road
- A406 Barriers including enhancement of existing footbridges

Our proposals for Walthamstow/Hoe Street Gyratory, Whipps Cross Roundabout and the junctions on the Lea Bridge Road are described in detail on our section on the Cycle Super Highway. The Junctions at Bakers arms is described in the north-south routes and bell junction is described in the section on Forest Road.

Significant severance issues exist elsewhere in Waltham Forest. The A12/M11 link road has cut historic links between the Town Centre and Leytonstone (secondary centre), making walking and cycling between them more difficult. The A406 North Circular Road separates the northern and southern halves of the borough, making cycling to the Town Centre and less obvious choice. Car ownership is significantly higher in the north of the borough, in part as a consequence of this severance. With other boroughs in the Northern sub-region, Waltham Forest Council is developing a separate proposal for a northern Quiet way to parallel the A406 North Circular Road to provide better orbital links for cyclists across borough boundaries.





Lea Bridge Road





Lea Bridge Road - the first Borough Superhighway

We are proposing to create a Cycle Superhighway, or Principal Cycling Route, from the borough boundary on Woodford New Road, along Lea Bridge Road (A104). Preliminary discussions with LB Hackney and Redbridge have confirmed their interest and support.

Lea Bridge Road is a corridor of opportunity. It links the heart of the borough and Walthamstow mini Holland with the vast greenspace of Walthamstow, Hackney and Leyton Marshes. In the west it provides the link to the cycling culture of our neighbours, the London Borough of Hackney and on to central London.

Borough cycle counts demonstrate that this route has the highest cyclist flows in Waltham Forest at 6% of all traffic in the peak. It is an even more important route into the borough in winter and at night when quiet routes across Walthamstow Marshes (currently without lighting) are less attractive.

The 2014 Tour de France will pass along this road, and Lea Bridge Station is set to reopen in December 2014. Substantial development (residential and business) is taking place at the border with Hackney, which we expect to generate significant extra demand for cycling.

Lea Bridge Road is a key commuter route for one of the borough's large employers, Whipps Cross Hospital. We know from travel planning work that it has a reasonably high cycle mode share for an Outer London workplace, but there is potential to increase this substantially if the on-road environment can be improved).

Lea Bridge Road was highlighted by residents in our cycling survey as a priority and to be a viable commuter route for a wider range of cyclists, lower traffic speeds and/or protected

space are required. It intersects with our two key north to south routes at the junctions with Markhouse Road/Church Road and the recently improved Bakers Arms junction (with Hoe Street/High Road Leyton). Between these junctions the road is a bustling commercial centre with shops, restaurants and cafes. Further east the road leads on to Whipps Cross Roundabout and into Epping Forest and the London Borough of Redbridge.

Our vision

Our vision is for a world class cycling and walking corridor providing commuters with a safe direct route through the heart of the borough into the London Borough of Hackney and central London.

SECTION A: BOROUGH BOUNDARY WITH LB HACKNEY TO JUNCTION WITH ARGALL WAY/ORIENT WAY

Existing situation

Cycle facilities along this section are currently satisfactory but there is an opportunity to enhance provision further. On the southern kerb-line a cycle track (at pavement height) is in place. The width of is however very narrow ($\leq 1\text{m}$) and not suitable for overtaking. On the eastbound (northern kerblines) cyclists are provided an off carriageway segregated facility for part of this section.

Junctions for vehicular traffic are limited with Rigg Approach and Lammas Road the only formal side roads. There are a number of other vehicular accesses along this section of the route to the Thames Valley Ice Centre and to a Thames Water site on the south side.

Bridge structures crossing the River Lee at the borough boundary, the Flood Relief Channel and over the railway line (Argall Way) act as pinch points limiting available road space for all users.

Traffic issues (non compliance) are also currently experienced along this section with cars using the hatching (for right turn into Rigg Approach) as unofficial outside eastbound lane.



Our proposal

Our proposal for this section of Lea Bridge Road includes:

- An improved and widened eastbound segregated cycle track
- A new off carriageway westbound cycle track including a new bridge over the Thames cycle path with improved merging of the routes
- Improved pedestrian facilities along corridor length including footway improvements, raised junctions and new improved crossing facilities
- Entry treatments for all junctions
- Public realm improvements at Lea Bridge (by the Princess of Wales PH and Essex Wharf developments) and at the junction with Lammas Road
- Improved facilities for bus passengers with relocated bus stops and floating bus stops to mitigate conflict with cyclists

The only element of the proposal for this section of the route which has associated land ownership issues is the new cycle bridge over the existing Thames cycle Path. We hope to take advantage of an existing redundant bridge pier for locating the new structure either by using the existing structure or at least the foundations and footprint. Whilst land ownership is a potential issue on this section of the corridor, the Lea Valley Partnership are fully supportive of the proposal and cost of land transfer is highly unlikely to be prohibitive.

JUNCTION 1: LEA BRIDGE ROAD/ ARGALL WAY/ORIENT WAY



Existing situation

The junction of Lea Bridge Road/Argall Avenue/Orient Way is a key junction. There are however perceived safety issues with cyclists considering it a barrier to cycling due to its imposing nature.

It is the main access point to the industrial and commercial areas on Argall Way including:

- Leyton Industrial Village
- Eastgate Business Park
- Cromwell industrial Estate
- Forest Business Park
- Dorma Trading Park

Via Orient Way it also provides a route to:

- Ruckholt Road and onto Leyton and Strafford.
 - Temple Mills Depot (Abellio Greater Anglia and Eurostar),
- With regard cycling the junction is also very important with cycle routes to Walthamstow and the Lea Valley Cycle Path

along Argall Way and Leyton, Leytonstone and the Queen Elizabeth Olympic Park converging.

The cycle facilities at the junction are confusing and neither continuous nor consistent. Travelling westbound cyclists are effectively offered two routes across either side of the junction with spurs to Leyton and the industrial area of Argyll Way. Most cyclists travelling west use the bus lane either for all or part of their journey through the junction due to the fact the routes provided are elongated and truncated.

The facilities provided to cyclists on the western side of the junction are extremely narrow (≤ 1.0) with similar due to the limited bridge span of the existing bridge with Travelling east cyclists are afforded a simpler route through the junction. Cycle routes to Leyton and Walthamstow are also simpler travelling east although the route to Leyton currently involves a narrow unlit underpass under Lea Bridge Road.

Bus passengers are provided two bus stop locations which are inaccessible and isolated. East bound there is a stop on the approach to the bridge and west bound it is located on an island in the middle of the junction.

Options and feasibility

This junction has the scope to become a new gateway to the borough. The reopening of Lea Bridge Road Station combined with mini Holland would provide the scope to make real change to this junction and the wider public realm instilling a sense of place and function.

In addition a number of nearby sites are earmarked for residential development meaning the need to make improvements to the public realm and particularly cycling and walking will be a pre-requisite.



Lea Bridge Road, continued

The station is to reopen in 2014 with services to Stratford and Tottenham Hale stopping at the new station once open. The route which is earmarked for absorption into the London Overground network will provide a link to Liverpool Street from the area in 10 minutes.

The redesign of this junction to improve facilities for pedestrians and cyclists is currently being developed as part of the works for the reopening of the station.

With the additional funding available from mini Holland we propose to introduce an additional bridge span similar to the well received Ruckholt Road bridge into the Queen Elizabeth Olympic Park.

This will enable us to provide wider footways, fully segregated cycle facilities and cycle friendly signals. We would propose incorporating the bicycle radar detector solution (see technology section) to insure that cyclists are provided green time when needed and the impact on all traffic is minimised.

Our proposal for this junction:

- Simplified junction design
- Linkages to new Lea Bridge Road Stations and wider proposed redevelopment
- Cycle signals
- Improved crossing facilities for pedestrians
- Introduction of improved signage for pedestrians and cyclists
- Relocated bus stops to more accessible locations

SECTION B: ORIENT WAY/ARGALL WAY TO MARKHOUSE ROAD/CHURCH ROAD



Existing situation

The existing road layout along this section of the corridor is dominated by traffic. It is wide and there are very few crossing points provided for pedestrians with a handful of informal crossing points and two signalised crossings (at the junctions with Heybridge Way and Dagenham Road). Land use is mixed with residential and commercial pockets.

There is a general traffic lane and bus lane in each direction. Bus lanes operate during peak hours in both directions (Mon-Sat 7am-10am and 4pm-7pm). When bus lanes are not in operation much of the space is available to be used as unofficial parking. In locations nearer the junction with Church road/Markhouse Road the council has introduced voucher parking bays that operate off peak.

The permitting of parking and loading in bus lanes out of peak hours means the routes for cyclists (who are advised to use the bus lane) are obstructed by vehicles, creating pinch points and potential for conflicts.

There is a reasonably high frequency of junctions with side roads on both north and south side. The majority of these junctions allow left and right turns in and out with only Hibbert Road closed to vehicular traffic (whilst still providing cycle permeability).

Options and feasibility

The width of the carriageway provides an opportunity to introduce hybrid, grade separated or partially segregated cycle lanes along this length of the corridor.

The effectiveness and requirements for bus lanes along this section of the corridor should also be considered. Whilst the bus lane may provide journey time savings for buses during peak hours the road space allocated is in many instances parking and loading space for the remainder of the day and it is likely that more dynamic use of the space may be possible.

Our proposal for this section of the route includes:

- Segregated or semi segregated cycle tracks of at least 2.0m in each direction
- Rationalised bus lanes with some space allocated to other uses
- Increased operational hours (7am-7pm) for new sections of bus lane
- Parking relocated onto side roads and still provided in bus lanes outside of operational hours
- Road closures with modal filters on Sanderstead Road, Kettlebaston Road, Flempton Road, Morieu Road, Hitcham Road
- Entry treatments on all other side roads
- Improved cycle/pedestrian toucan crossings
- Improved footway along entire length
- Resurfaced and remarked carriageway



Lea Bridge Road, continued

JUNCTION 2: LEA BRIDGE ROAD/CHURCH ROAD/MARKHOUSE ROAD



Existing situation

This junction is the convergence of Lea Bridge road with the A1006 which links Leyton to the south (via Church Road) and Walthamstow and Blackhorse Lane to the north (via Markhouse Road).

In addition to the main signalised junction there is a left turn slip lane into Church Road (southbound) from Lea Bridge Road (westbound). This adds an additional vehicular movement prior to the main junction on the westbound approach (but reduces traffic volume at the junction).

An island with clock tower and phone box exists to the south of the main junction forming the existing layout (see picture).

Proposal

- Cycle priority signals with bicycle radar detection
- Copenhagen style right turns
- Improved lighting
- Removal of left turn from Lea Bridge Road into Church Road and creation of new public space
- Business Opportunity for cafe at junction

SECTION C: CHURCH ROAD/MARKHOUSE ROAD TO BICKLEY ROAD



This section of the corridor has a peak hour bus lane in place westbound, a cycle lane on the eastbound kerbline with limited sections of bus lane. Cyclists are protected from door swipe through a hatched area offsetting the cycle lane from adjacent parking bays.

A central median island or hatching is also in place along parts of this section. The westbound bus lane is used by cyclists but as with other sections along the route the bus lanes only operate at peak times.

This means the lane is effectively converted into parking and loading provision outside of these hours and whilst the volumes of vehicles parking or loading are low, issues surrounding cyclists having to manoeuvre around these activities exist.

Junctions with side roads currently allow most traffic movements with the exception of right turns out of the junctions prevented by the central medium.



Options and feasibility

There is scope to provide hybrid cycle lanes or partially segregated cycle facilities along this section of the route.

Additional road space could be gained by removing the central median strip and potentially the westbound bus lane.

With the additional width wider cycle facilities could be introduced in both directions on the inside of parking and loading provision.

Proposal

- 2.5m segregated cycle track
- New pedestrian/cycle crossing
- Improved access to Friendship Gardens with cycle rest point facilities
- Parking and loading islands
- Side road entry treatments
- Shorter bus lanes with longer operating hours



Lea Bridge Road, continued

SECTION D: BICKLEY ROAD TO BAKERS ARMS, JUNCTION 3 BAKERS ARMS AND SECTION E SECTION E- BAKER ARMS TO KNOTTS GREEN ROAD



A new public realm corridor scheme has recently been implemented along this section of Lea Bridge Road, also incorporating the Bakers Arms junction. Whilst the new design includes wider footways, 20mph speed limit and improved crossing facilities cyclists are not prioritised as highly as they should.

The proposal also includes new inset parking and loading facilities on both the northern and southern kerblines. Whilst this will mean that parked vehicles are not located in the carriageway the scheme will limit available road width along this section and therefore limit possibilities for additional cycling infrastructure.

At the junction the scheme includes a rationalisation of the junction and the removal of the left turn from Hoe Street (southbound) onto Lea Bridge Road (eastbound).

Proposal

Whilst the new scheme provides a number of improvements and benefits to all users we think the cycle super highway along the Lea Bridge Road corridor should be continuous. For that reason we propose to:

- Relocate cyclists to new cycle tracks inside parked cars
- Review signals at junctions with the aim of introducing separate cycle signals combined with bicycle radar detectors
- Investigate the possibility to relocate (and provide net gains of) parking and loading onto side streets

SECTION F: KNOTTS GREEN ROAD TO LEYTON GREEN ROAD

Existing situation

Cyclists are provided with a reasonably wide (1.5m) cycle lane in both directions. Parking is provided for businesses and their customer on the southern kerb. Pedestrian crossing facilities are limited with no crossing points provided.

Proposal

- Relocated wider westbound cycle track on the inside of parked cars
- East bound cycle lane protected by armidillos and wands
- Raised entry treatments on side roads
- Public realm improvements including Greening the streetscape
- Westbound 2.5m segregated cycle track

SECTION G: LEYTON GREEN ROAD TO WOOD STREET

Existing situation

The pavement along this section of the corridor is relatively wide on the south eastern side of Lea Bridge Road. Parking bays and bus stops are inset into the kerb with cyclists currently provided a cycle lane.

There are only one junction between Leyton Green Road and Peterborough Road on the south eastern kerb line, namely the junction with Essex Road.

Peterborough Road provides a quiet route for cyclists to/from the Green Man roundabout and Woodford. The interaction between this and cycling facilities on Lea Bridge Road would have to be considered as part of any design development.

Proposal

- Eastbound bus Lane between Western Road and Raglan Road
- New cycle pedestrian Toucan crossing at end of Raglan Road
- 2.5m segregated cycle track eastbound and westbound
- Closure of Shernall Street and creation of linear park
- Parking and Loading islands
- Improvements to junction with Leyton Green Road
- Shared pedestrian cycle crossing to link to Leytonstone Quietway (Essex Road)



Lea Bridge Road, continued

JUNCTION 4: LEA BRIDGE ROAD/WOOD STREET



Existing situation

The junction of Lea Bridge Road and Wood Street is currently constrained with limited carriageway width. The right turn into Wood Street is heavily used (observed during PM peak). Cyclists are provided with a cycle track at footway level (westbound).

The cycle track is however narrow and space is very limited when cyclists and pedestrians are using both facilities. No cycle facilities are currently provided eastbound at this location.

Options and feasibility

It appears there is scope to realign the carriageway at this location by moving the junction back into Wood Street, utilising existing space at the junction. This would enable the introduction of a wider cycle path/track westbound and new provision on the eastbound. Lanes for general traffic including the right turn from Lea Bridge Road (westbound) into Wood Street could also be facilitated.

JUNCTION 5: WHIPPS CROSS ROUNDABOUT

Whipps Cross Roundabout is a large conventional roundabout which is on a number of important desire lines for cycle journeys. These include longer distance movements through the centre of the borough via the Lea Bridge Road corridor, together with trips to nearby destinations such as Whipps Cross University Hospital and Epping Forest.

The junction is very hostile to cycling at present, with heavy motor traffic flows entering and circulating at high speeds, and there have been eight collisions involving cyclists over the last five years. Left untreated it will continue to deter most people from choosing to cycle in this part of the Borough and a substantial improvement to the junction is needed. This scheme forms a major element within our mini Holland Bid.

A number of options have been considered at this initial stage, and the design shown on figure 1200-01 represents our current thinking. This would be reviewed and refined when funding has been secured, but we believe that a layout of this form is likely to provide the best balance between the various complex demands at this location.

The scheme involves the construction of a signal-controlled junction in the centre of the existing roundabout, which would be designed primarily for motor traffic. Cycle traffic would be routed away from this space via direct separated tracks which in places make use of the existing (narrowed) roundabout carriageway. Cyclists would be able to cross the junction via direct signalised crossings, phased in with the main signals so that delays are minimised. The aim will be to ensure that there is no time or distance advantage to cyclists remaining on the main carriageway.

The associated junction of Wood Street and Lea Bridge Road,

currently a T-junction with limited movements, would be changed to a small satellite Dutch-style roundabout, with a priority crossing for cyclists and pedestrians on the relatively quiet Wood Street arm. We envisage that this will involve the introduction of a cycle crossing adjacent to the existing zebra, using a layout which the Department for Transport is expected to authorise in 2014/5.

There is an important bus interchange on the south-western side of the junction which would be retained under the scheme. Buses would be able to turn into the interchange area from all directions and would leave via a separate signalised node adjacent to and phased with the cycle crossing. This area would also include an improved area of public realm adjacent to the war memorial, which is presently dominated by fast roundabout traffic.

Although the scheme would require the removal of the clump of trees in the centre of the island, the revised layout would provide an opportunity to increase tree cover, extending this corner of Epping Forest and bringing the woodland up to the start of the Lea Bridge Road corridor.

Raglan Road is also a key cycle route which would be fully integrated into the scheme, with the existing staggered pelican crossing at the connection to Lea Bridge Road being upgraded to a direct Toucan.

The existing café at the junction of Raglan Road and Lea Bridge Road, which has outdoor seating with potential access from both routes, provides an excellent opportunity to create a cycling-themed venue. We will work with the owners to support them in this venture. Conversion of part of Raglan Road to a home-zone shared space may offer the opportunity for the café to place tables and chairs on the public highway.



Lea Bridge Road, continued

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A Network of good Cycle Routes

Design statement

We will adopt wherever possible simpler, safer street designs that through a combination of innovative measures, 20 mph speed limits and the reclamation of space for pedestrians change the feeling of our key corridors which are after all the places where residents' of our borough should want to spend time, enjoying the rich cultural mix of our borough.

Space for cycling will be provided through semi or fully segregated facilities. In locations where this is not feasible we will ensure the design of streets encourage low speeds and driver awareness of cyclists is raised.

Segregation



Full segregation will be used along sections of our cycle routes where there is adequate carriageway width or land available adjacent to routes that can be used to widen corridors. This design option would be used along sections of carriageway with high volumes of cyclists and/or motor traffic.

This design option provides the best possible facilities for cyclists but may not be feasible in some locations unless this is at the detriment to other road users. We understand the need to get the balance right and only propose full segregation where we know conditions are right.

Segregation light



On the north-south routes semi segregation will be our most commonly used solution. Where we adopt segregation light it will be through the use of a combination armadillos, wands and planters. This will provide us with some flexibility with the implementation of proposals. Where we are unsure of the right balance and want to experiment with road space reallocation we will use temporary/removable features so if we need to make modifications we can.

Addressing severance at junctions

Key junctions on all main routes will be redesigned where necessary to ensure they are safer for cyclists. We will introduce cycle signal phasings, using innovations such as the bicycle

radar detector to ensure cyclists are given time to cross junctions when they need it. To help decision making as to whether to rush to make green lights we will introduce green wave technology (see technology and innovation).

We will also provide cyclists with Copenhagen turns, making the navigation of major junctions easier especially for less accomplished cyclists. Where there is a requirement we will also consider the introduction of pan handle crossings. We have identified locations where we feel 'Dutch' roundabout designs can be applied and propose to introduce one at the junction of Markhouse Road and St James Street and where New Road meets Larkshall Road.

We will monitor the success of these locations and the proposal for Wood Street junction with Lea Bridge Road monitor, learn and then apply similar design principles to other junctions in the borough.

New improved crossings will be introduced to improve conditions for pedestrians as well as cyclists and meaning that the severance caused to communities by being dissected by main roads is greatly reduced.

Public transport

We want all road users to benefit from the mini Holland programme. Where we can improve bus journey times by amending bus lanes or improve bus stop accessibility by relocating bus stops this will be incorporated into revised streetscapes.

Sustainability and greening

Where we can we will apply sustainable drainage techniques, with the aim of reducing flood risks and to provide more varied



A Network of good Cycle Routes, continued

ecosystems along the corridors. On Forest Road Lea Bridge Road there are real opportunities to introduce new drainage systems.

Opportunities to green the corridors of the cycle routes such as by the creation of pocket parks will be incorporated into our designs again making better places for all.

It is likely that we may need to remove trees to realign kerb lines and provide additional road width to accommodate cycling. Where we have to do this we will ensure that more trees are planted than are taken out. We will make sure that new trees plug gaps in tree canopy coverage and introduce and reintroduce different species focusing on native flora improving air quality and biodiversity.

Our new cycle network

Our network of cycle routes designed to complement the transformation of Walthamstow Town Centre and the surrounding villages. In addition to the Cycle Superhighway on Lea Bridge Road and the marshes to forest quietway, our proposed network comprises of two north-south spine routes (both commencing in Leyton, terminating in Blackhorse Road and Chingford) and Forest Road, which provides an east-west link across the top of the town centre and villages (see page x).

The following sections provide a commentary along each of these three routes, how they interact with other elements of the proposal, with a focus on key barriers such as major junctions.

LEYTON – WALTHAMSTOW – CHINGFORD

The proposed routes to be enhanced for cyclists are aligned along the main thoroughfares that already provide north-south links for general traffic in the borough. The A112 links Leyton in the south and Chingford in the north via the mini-Holland hub of Walthamstow town centre, a major interchange and destination in its own right. The A1006 links Leyton and Blackhorse Road, one of the key development sites in the borough again via the town centre and surrounding villages.

The north-south routes will also open up the Olympic Park and the wider regeneration to residents of the borough and enable them to access world-class facilities by bike, thus capitalising on the Olympic legacy. What could be considered the biggest barrier in east London is now a major destination, made accessible by bike to local people. Further afield, the opportunity areas of Stratford and Canary Wharf will be that much more accessible by bike because of our proposals.

The North Circular Road is a major road in the north of the borough that presents severance issues, effectively cutting the borough in half for those on foot or bicycle. Our north-south routes begin to mitigate the effects of this severance by providing enhanced cycle routes between Chingford and the north of the borough with Walthamstow and Leyton in the south.

We will be improving the links along the north-south routes but also the cycling facilities through major junctions such as the Crooked Billet roundabout by improving the existing facilities with better lighting and signage.

Much of these routes have significant sections of retail frontage and are therefore both through routes and local high streets (links and places). Our proposed improvements to these routes, whilst

focusing on cycling are aimed at making places and enhancing the public realm of these local destinations.

Enhancing cycling provides us with the means of mitigating the tension between the 'route' and 'place' function of these streets. The potential to do this arises from the overall trend in the reduction of general motor traffic levels we have seen across the borough generally, combined with the potential for a modal shift to cycling arising from the enhanced environment for cycling as a result of our proposals. An enhanced environment for cycling also enhances the public realm as it reduces the dominance of motor traffic, and with our proposals we aim to get more of the local trips currently being driven to be made by bike.

Enhancing the highway for cycling provides us with opportunities for improving the public realm. But these will not be merely cosmetic – we have been looking for opportunities to create open-air public spaces outside cafes and restaurants, opportunities for 'pocket parks' to make the high street more attractive, yet at the same time looking for alternative provision for parking and loading where our cycling proposals require removal of parking bays. In other words, we are looking to enhance the local economy as well as improving access for local people.



A Network of good Cycle Routes, continued

Section A: High Road Leyton (A112) Borough boundary to Leyton Station Bridge



On-going public realm improvements on High Road Leyton

Characteristics and Existing Situation

High Road Leyton is a gateway to the borough and one of the main routes from the borough to the Queen Elizabeth Olympic Park and the wider Stratford regeneration area and the London Borough of Newham. This section of the route is a local high street and is the main retail centre for south Leyton. Advisory cycle lanes are provided in both directions but these are narrow, on the southbound side next to parked cars raising concerns of door swipe and on the northbound side blocked by buses and parked cars. It is currently subject to a high street improvement scheme focusing on improving the appearance of the buildings and road safety and environmental improvements.

Key issues along this section of the route are congestion which can be severe particularly at weekends and evenings and the provision for parking and loading creating potential conflict between cyclists and motor vehicles.

Bus stop locations also create potential issues with conflict due to cyclists having to navigate around buses stopping at them, often with vehicular traffic trying to advance past buses at the same time. Pavement widths are quite narrow with little scope for further narrowing.

Proposals

The preferred option for this section is to introduce semi-segregated cycle lanes along the northbound kerb-line. The closure of Etchingham Road may facilitate enough room to introduce a new floating bus stop at this location.

The removal of some parking on the southbound side will be feasible providing space for a section of segregated track between Calderon Road and Frith Road. South of this we propose to provide cyclists with a new wider 'path' outside of the reach of car doors. These proposals will be supported by the

public realm improvements already underway, the introduction of a 20mph speed limit, associated traffic calming features, planting and other features to introduce a boulevard feel.

Benefits

- An enhanced high street through public realm improvements and reduced motor traffic
- A vibrant local economy through facilitating local trips by bike
- An enhanced local cycling route to local destinations and opportunity areas further afield

Section B: Leyton Station Bridge

Leyton Station is on the Central Line and provides a high frequency service into the City and the West End from the centre of Leyton. It is a vital transport node for the Borough and carries a large volume of commuters, as well as people travelling to and from the town centre, and Leyton Orient FC on match days.

The station building is on Leyton High Road, close to the point where it bridges over the A12 dual carriageway and the Central Line tracks. The building is therefore situated above the level of the tracks and platforms, which run parallel to the A12. There is only limited cycle parking at the station, which is on a structure at footway level adjacent to the station entrance.

Leyton High Road itself is a busy route, including for buses, which links the north of the Borough with Stratford and the Olympic Park. To the north of the A12 it is lined with retail and commercial businesses while to the south it is more residential in nature. On either side of the A12 / rail bridges Leyton High Road is bounded by retaining structures with minor roads at a lower level. The carriageway and footway through this section are



Proposed street layout design of High Road Leyton near Leyton Station





A Network of good Cycle Routes, continued

constrained and there are well-used bus stops on the downhill sections on both sides.

The area around Leyton Station is important for cycling; both for people travelling to and from the station and for people passing by along Leyton High Road. While there have been no recorded casualties involving cyclists on the raised section in the last 5 years, the constrained nature of the route, the need to interact with heavy bus flows and the very limited cycle parking means that significant improvements are needed if the potential demand is to be met.

Achieving a step-change in quality will involve considerable engineering works which will require further investigation during the next phase of the project; however at this stage we have been able to prepare two options, shown on Figures 1169-04-01 and 1169-04-02 that we believe are feasible and should be taken forward for detailed consideration.

Option 1 entails constructing a new footbridge parallel to Leyton High Road on its west side. This only extends partly alongside the existing structure because of land ownership constraints. This new bridge provides improved a wider path for pedestrians walking from Leyton station to Leyton Mills Retail Park, the northbound bus stop, and Leyton town centre. This arrangement allows cyclists to join the former western footway opposite the station, then proceed north on a track leading around the northbound bus stop outside the retail park to re-join Leyton High Road at the junction with Maud Road. The layout of this 'bus stop by-pass' cycle track would require careful evaluation because of the heavy pedestrian footfall at this location.

To the south of the A12 there is no opportunity to widen or extend the bridge structure without acquiring third party land, and therefore we propose to use a 'cycle street' arrangement

for around a 50m length. Here 1.5m (downhill) and 1.8m (uphill) advisory cycle lanes would continue on both sides leaving a central carriageway wide enough for cars to pass two-way with caution (4.8m) but which would require larger vehicles to travel slowly behind a cyclist. The central carriageway would be paved in a surface which encourages slower speeds through this section.

South of the 'cycle street', cyclists would then by pass the southbound bus stop on their own dedicated alignment. Although pedestrian flows are reasonably high, it is possible to accommodate a very large area of footway between the cycle track and the carriageway which we believe will be sufficient to accommodate the number of people waiting as well as people walking through.

The southern bus stop bypass – common to both options – is achieved by building out the retaining structure on the eastern side onto the footway of Goodall Road; that street would be repaved as a slow-speed level-surfaced 'home zone' to minimise any impact on pedestrian amenity or safety. About four parking spaces would be lost on Goodall Road to accommodate pedestrian movements and the cycle track however a similar number of spaces could be reclaimed from existing yellow lines on Westdown Road.

Cyclists would be brought back onto Leyton High Road just to the north of the junction with Calderon Road, with road narrowing to make this a safe transition. This would require the vehicle entry into Calderon Road for motor vehicles to be removed, but access into the area via Frith Road to the south would remain. There have been 4 cycle casualties at this junction in the last five years.

Option 2 does not include a new footbridge over the A12 and railway line. Therefore, the 'cycle street' treatment is required to

extend as far north at Maud Road (an additional length of around 80m). Northbound buses would need to cross the cycle lane to access the bus stop lay-by outside the retail park.

In addition to the highway works, we see the opportunity for a major expansion of the cycle parking at the station, by extending the existing structure to the east in the space between the A12 and the Central Line. This could be progressively expanded over time and also include parking at ground level (subject to railway operational requirements).

A further option would be to create a ramped access to the cycle parking area from the Langthorne Road pedestrian/cycle bridge at the eastern end of the station, providing good access to the facility from the residential areas east of Leyton town centre. Looking even further into the future, should ever a redevelopment of Leyton station take place, this could provide further opportunity for improvement of the road alignment across the A12 and railway line by setting the station building further back from the current road.

Section C: High Road Leyton (A112) to Grange Park Road (one-way/ gyratory junction)

Characteristics and Existing Situation

This section of the route is also Leyton town centre. We have already begun transforming the area with a £3 million regeneration project implemented in time for the London 2012 Olympics. This public realm project was awarded the town centre award at the 2012/13 London Planning Awards.

As part of the improvement works side roads were treated with raised table entry treatments and footways widened. Cyclists are afforded an advisory cycle lane northbound with a peak hour



A Network of good Cycle Routes, continued

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bus lane southbound (7am-10am, 4pm-7pm) which converts to parking bays/cycle lane out of operational bus lane hours. As with most commercial/retail centres issues for cyclists using this section of the route are associated with loading and unloading, buses and parked vehicles. This coupled with traffic congestion make conditions for cyclists difficult and potentially dangerous.

Proposals

- Semi-segregated cycle lanes will be installed on links between junctions, shortened bus lanes and floating parking bays
- Floating bus stop between Adelaide Road and Dunedin Road with speed ramp in cycle track bypass
- A consolidation of parking and loading onto side streets where feasible

Benefits

- An enhanced high street through public realm improvements and reduced motor traffic



Design option for Floating Bus Stop

- A vibrant local economy through facilitating local trips by bike
- An enhanced local cycling route to local destinations and opportunity areas further afield

Junction 1: High Road Leyton/Grange Park Road / Church Road gyratory

Characteristics and Existing Situation

A112 High Road Leyton section (one-way southbound) has mostly retail frontage requiring parking/ loading. Bus lane effectively operational during parking restrictions: 7.00am to 10.00am and 4.00pm to 7.00pm; used for parking most of the day. The Grange Park Road section (one-way northbound) has mostly residential frontage with parking restrictions 8.00am – 6.30pm.

Cycle lanes are in situ on both sides of the road providing cyclists with a route either towards Markhouse Road or towards Leyton Green Road. The Church Road section

(one-way eastbound) has mostly residential frontage with parking restrictions 8.00am – 6.30pm.

Proposals

- Maintain one-way working of gyratory but reduce general traffic lanes to one lane on all arms.
- Install semi-segregated lanes on Grange Park Road, with the eastern cycle lane converted to a southbound cycle contra-flow lane. This will complement the Quietway proposal for the northern section of Grove Green Road.
- Install semi-segregated near-side lane (east-bound) on Church Road.
- Replace existing bus lane on High Road Leyton section (southbound) with semi-segregated inside lane, retaining parking bay adjacent outside lane but widening footway.
- Existing bus stop on High Road Leyton section (southbound): Designs will be drawn up for an island/ floating design with speed ramp in cycle track as highway wider at this point.
- Link cycle lanes at two northern junctions on Church Road.
- Each of the three junctions will have either tight geometry priority junctions giving priority to cyclists, or a tight 'Continental' geometry mini-roundabout with over-runs; all options to have raised junctions/ speed tables.
- Connectivity with adjoining streets will be implemented where access is currently impeded, e.g. Grange Park Road.

Benefits

- Mitigation of the barrier of the one-way system
- Re-instating connectivity to adjoining streets for cyclists



A Network of good Cycle Routes, continued

Section D: High Road Leyton (A112): Church Road to Lea Bridge Road

Characteristics and Existing Situation

- Mostly residential from Church Rd to Leyton Midland station.
- Mostly retail frontage from Leyton Midland station to Lea Bridge Rd.

Proposals

- Existing cycle lanes to be widened and enhanced with semi-segregation.
- Central hatching, right-turn pockets, and central islands to be removed as required to facilitate semi-segregated cycle lanes.
- Breaks in semi-segregation will be used for bus stops rather than 'floating' bus stops as available footway and highway is limited in this section.
- Junction with Hainault Rd: northbound approach lanes be reduced to one general lane to accommodate semi-segregated cycle lane.
- Parade of shops (e.g. nos 581 to 627; 670 to 688): Move parking bays over creating 'floating' bays to provide cycle lane on the inside.
- Junction with Leyton Green Road: Scope to overall reduce junction size (e.g. remove right-turn pockets) and re-allocate space to cycling facilities through junction; these to be advisory cycle lanes highlighted with red surfacing.
- Junction with Leyton Green Road longer term option: Remove one arm of highway around triangular section of Leyton Green Road.
- Possible re-use of urban space at junction with Leyton Green Road to create/ improve pocket parks, or as extension to footway/ retail space for cafe's, events, etc.

Benefits (overall)

- Improved cycle routes for local trips and through routes
- An enhanced high street through public realm improvements and reduced motor traffic
- A vibrant local economy through facilitating local trips by bike

Junction 2: Baker's Arms junction- Addressing Severance

The Bakers Arms junction has been subject to major investment in the public realm as part of our corridor regeneration scheme. The junction, and the adjoining parts of High Road Leyton, Hoe Street and Lea Bridge Road will be transformed with more public space, improved crossing facilities for pedestrians and improved priority for cyclists. The improvements are aimed at making Bakers Arms more attractive as a destination and creating a sense of place.

Proposal

Despite the improvements which are already well underway to completion the junction can be further improved for cyclists, particularly with the introduction of our Cycle Superhighway proposal on Lea Bridge Road.

To further improve the junction we will:

- Introduce cycle signals with bicycle radar detection to ensure efficiency (see technology)
- Introduce 'Copenhagen turns'
- Implement additional cycle parking

Section E: Hoe Street – Baker's Arms to Walthamstow Central

Characteristics and Existing Situation

This section of the route is mixed residential/retail in land use. It is a busy corridor and high street with many small businesses located along its length meaning there is a high level of loading and short term parking activity. Bus services including the 58, 69, 97, 257, and the W15 use the route. This section of the route has a relatively high level of cycle and pedestrian accidents with six cycle and eight pedestrian accidents recorded between July 2010 and July 2013.

Options and Opportunities

- Existing cycle lanes to be widened with semi-segregation installed.
- Breaks in semi-segregation to be used for bus stops rather than 'floating' bus stops and where vehicular access to properties is required.
- Granville Rd to Leamington Av: Northbound bus lane to be replaced with semi-segregated lane with break for bus stops.
- Approach lanes at junctions will be reduced to single lanes to allow width for semi-segregated cycle lane up to junctions (e.g. junction with Queens Rd/ Orford Rd).

Benefits

- Improved cycle routes for local trips and through routes
- An enhanced high street through public realm improvements and reduced motor traffic
- A vibrant local economy through facilitating local trips by bike



A Network of good Cycle Routes, continued

Junction 3: Walthamstow Gyratory

Characteristics and Existing Situation

Walthamstow Gyratory is a local landmark and is known for as a complicated potentially dangerous location for cyclists and pedestrians. The junction is comprised of two bridge structures over railway with traffic a gyratory movement. In the past three years there have been no recorded cycle accidents but six pedestrian accidents and one serious have been recorded.

Options and Opportunities

- Eastern arm to be two-way and carry general traffic including buses.
- Western arm to become a 'linear park' with an opportunity for a small market, a cycle path and links to the marshes to forest Quietway, incorporated into general public realm enhancements at this location.
- Signal phasing required to allow cyclists into eastern arm, with phasing required to allow buses into Selborne Rd for the bus station, and access required for cyclists into proposed Selborne Rd facility and St Mary's Rd.

Benefits

- Improved cycle routes for local trips and through routes
- An enhanced high street through public realm improvements and reduced motor traffic
- A vibrant local economy through facilitating local trips by bike





A Network of good Cycle Routes, continued

Section F: Hoe Street – Walthamstow Central to Forest Road

Characteristics and Existing Situation

This section of the route is mostly retail frontage and is to a certain extent a continuation of the town centre. The section from Selborne Rd to High St/ Church Hill is quite narrow but parking is restricted through yellow line restrictions. This section of the route is the subject of a public realm improvement scheme which will be implemented in the next few months.

Options and Opportunities

With the additional funding from the mini Holland programme we will add:

- Semi-segregated cycle lane north and southbound.
- Floating bus stops.

Benefits

- Improved cycle routes for local trips and through routes
- An enhanced high street through public realm improvements and reduced motor traffic
- A vibrant local economy through facilitating local trips by bike
- Footway widening where feasible

Junction 4: Hoe Street/Forest Road (Bell Corner)

Characteristics and Existing Situation

Bell Corner is an important local junction for all traffic but is also a particularly busy one for cyclists. It is the junction of Hoe Street (A112) and Forest Road (A503) Our 2013 cycle count recorded 565 cyclists using the junction in a 12 hour period, a 56.1% increase on 2012. The nature of the junction creates psychological barriers and severs the local area. Crossing facilities for pedestrians are satisfactory but have been engineered to address concerns associated with speeding vehicles and therefore the nature of the road suggests it is a link for vehicles and not a place for people.

Addressing severance

As part of the implementation of the north-south route we will:

- Redesign the junction with more priority for pedestrians and cyclists including separate cycle signals with bicycle radar detection
- Introduce Copenhagen turns so cyclists can easily switch between the east west route on Forest Road and the north-south routes
- Introduce softer landscaping including a pocket park adjacent to number 8 Hoe Street

Benefits

- Improved interchange between north-south and east west routes
- An enhanced public realm
- Better crossing facilities for pedestrians

Section G: Bell Corner to Crooked Billet Roundabout

Characteristics and Existing Situation

Chingford Mount Road is primarily a residential road but is also an important local link between Walthamstow and the north of the borough. Cycle paths have been introduced in both directions but are only advisory and protected by single yellow lines meaning cars often park in the cycle lanes out of hours. The road is also a bus route with the 34, 97, 215 and the 357 services all using the corridor.

In places the road has been designed using measures which are akin to main roads and this has created an environment which is unfriendly to pedestrians and cyclists.

Proposals

Our proposals for this section of the route include:

- Semi-segregated cycle lane north and southbound
- Installation of floating bus stops
- Removal of mini roundabout at junction with Omnibus Way and introduction of new T-junction
- The removal of central median, right turns pockets (where feasible), central islands and associated markings
- A declutter of unnecessary street furniture
- The introduction of zebra crossings for pedestrians and shared pedestrian/cycle toucan crossings

Benefits

- Improved facilities for cyclists on north-south routes
- An enhanced public realm along the corridor with an improved crossing facilities and footway improvements where feasible
- A vibrant local economy through facilitating local trips by bike
- Footway widening where feasible



A Network of good Cycle Routes, continued

Junction 5: Crooked Billet Roundabout

Characteristics and Existing Situation

Crooked Billet roundabout is a major junction and is one of the main vehicular routes into the borough from the North Circular Road (A406). Whilst the North Circular Road is considered a barrier to cyclists they are provided with a subway which bypasses the roundabout and provides a traffic free route under the main traffic junction. There have been 31 collisions but none involving cyclists or pedestrians.

Whilst the conditions for cyclists and pedestrians are reasonable lighting and surface conditions could be improved.

Addressing severance

As part of the implementation of the north-south route we will:

- Enhance surface conditions on the approaches and through the subway
- Introduce improved street lighting
- Soften the public realm with the introduction of greening (pocket park)

Benefits

- Improved conditions for pedestrians and cyclists
- Improved public safety
- Increased biodiversity and greening

Section H: Crooked Billet Roundabout to junction with New Road/Hall Lane

This section of Chingford Road is quite wide (circa 11m). Cyclists are provided an advisory cycle lane in both directions but due to kerbside space only being protected by single yellow line cars can park in the cycle lane outside of operational hours.

This section of the route is subject to major change with the redevelopment of Walthamstow Stadium. Discussions are on-going with the developer at the time of writing this document but the redevelopment will impact upon the use of the road and changes to the road layout are likely.

Proposals

Our proposals for this section of the route include:

- Working with developers on the introduction of segregated of road cycle track along the development frontage
- The introduction of semi-segregation for the remainder of the section using armadillos primarily to ensure access to the many off-street parking spaces
- Improvements to the junctions with Walthamstow Avenue and Morrison Avenue/Higham Station Avenue
- Raised junctions on side roads
- Installation of floating bus stops
- The removal of central median right turns, central islands and associated markings
- A declutter of unnecessary street furniture
- The introduction of zebra crossings for pedestrians and shared pedestrian/cycle toucan crossings

Benefits

- Improved facilities for cyclists on north-south routes
- An enhanced public realm along the corridor with an improved crossing facilities and footway improvements where feasible

Junction 6: Chingford Mount Road/New Road/Hall Lane

The junction of Chingford Mount Road/New Road/Hall Lane (A1009) currently prioritises vehicular traffic with limited facilities for cyclists and pedestrians. It is intimidating for cyclists, particularly turning right. Pedestrian crossing facilities are also limited. There is an island located between Hall Lane, Old Church Road and Hall Lane with some planting and seating.

Addressing severance

As part of the implementation of the route we will:

- Tighten junction radii
- Improve street lighting
- Investigate the potential to join the island to either Hall Lane or Old Church Road to provide a new area of public space

Benefits

- Improved conditions for pedestrians and cyclists
- Improved public safety
- Increased biodiversity and greening



A Network of good Cycle Routes, continued

Section I: New Road

New Road is a main road (A1009) but also a residential road with many driveways. The road is quite heavily parked and no parking controls are currently in place. Between the junction with Chingford Mount Road and Grove Road the carriageway width is quite narrow. Between Grove Road and the junction with Larkshall Road the road widens with a service road to the north with separating grass verge providing additional width.

Proposals

Our proposals for this section of the route include:

- The introduction of 20mph speed limit and cycle friendly traffic calming features between the junction with Chingford Mount Road and Grove Road
- The introduction of semi-segregation (and potentially segregated cycle track) for the remainder of the section using armadillos/wands
- Cycle friendly side road entry treatments
- The introduction of shared zebra crossings for pedestrians and cyclists

Benefits

- Improved facilities for cyclists on the north-south routes
- An enhanced public realm along the corridor with improved crossing facilities and footway improvements

Junction 6: New Road/Larkshall Road

The junction of New Road/Larkshall Road is a four arm roundabout. The footprint of the roundabout is quite large with additional highway land surrounding the feature. The only existing cycle facilities are cycle lanes provided to/from Larkshall Road.

Addressing severance

As part of the implementation of the north-south route we will:

- Convert the roundabout to a 'Dutch' style roundabout with pedestrian/cycle zebra crossing

Section J: Larkshall Road

Larkshall Road (B160) is one of the main routes into Chingford but also a residential road with many driveways. Lukin Road runs parallel to the road and provides parking space for houses that face the road to the east. Between Dale View Crescent and the junction with Simmons Lane the road narrows again but cyclists are provided with an advisory cycle lane in both directions.

The section of Larkshall Road between the junction with Simmons Lane and Kings Road is very narrow with narrow cycle lanes and very narrow footway. In some sections on the eastern side there is no footway provided at all.

Proposals

Our proposals for this section of the route include:

- Between Colvin Gardens and Dale View Crescent introduce semi-segregated cycle facilities using armadillos to maintain access to off street parking
- Removal of the existing pedestrian islands and replacement with zebra crossing facilities

- On the southbound side there is scope to use the grass verge to move the footway out and provide wider provision
- Replace the existing mini roundabout at the junction with Simmons Lane to a 'Dutch' style roundabout with pedestrian/cycle zebra facilities
- The introduction of a 20mph speed limit and traffic calming features including raised junctions and sinusoidal speed humps

Section J: Kings Road

Kings Road between the junction with Larkshall Road and Station Road is relatively wide (circa 8m). Land use is mixed between residential and commercial. Chingford Church of England school is also located on the road. Cyclists are afforded an advisory cycle lane in both directions between the junction with Pretoria Road and the junction with Larkshall Road. Our proposals for this section of the route include:

- The introduction of a 20mph speed limit and traffic calming features including raised carriageway in front of the Chingford CoE School and sinusoidal speed humps placed along the remainder of the route
- A redesign of the junction with Station Road to provide improved facilities for cyclists and pedestrians



A Network of good Cycle Routes, continued

LEYTON TO BLACKHORSE ROAD

The Leyton to Blackhorse Road route follows the same path as the Leyton to Chingford route until the junction with Grange Park Road. For the proposals for this section of the route please refer to section A-C and Junction 1 of the Leyton-Walthamstow-Chingford section.

Section D: Church Road

Land use along Church Road is a mixture of residential/commercial. The 58 and 158 bus services travel along the road with two stops in each direction. Cyclists along this section of the route are provided an advisory cycle lane on both sides of the road but this breaks for residential car parking. Central hatch markings are in place for sections of the road with right turn lanes and pedestrian islands incorporated into the layout.

Proposals

- Semi segregated cycle tracks northbound and southbound
- Raised junction entry treatments on side roads

Junction 2: Church Road/Lea Bridge Road/Markhouse Road

Addressing severance

The junction with Lea Bridge Road is a key junction in terms of local connections and severance for cyclists. The junction is busy with a number of turning movements currently permitted. There is also a left turn slip into Church Road from Lea Bridge Road which bypasses the signalised junction.



Proposals

- Simplified junction with cycle signals and bicycle radar detectors
- Introduction of Copenhagen turns for cyclists joining from Lea Bridge Road cycle super highway
- Improved crossing facilities for pedestrians
- New public space created by closing slip road from Lea Bridge Road

Section E: Markhouse Road

Markhouse Road is a key local link between the Blackhorse village area and Lea Bridge Road but is also the central spine of a residential area. It is a busy cycle route with cyclists provided advisory cycle lanes along the entire length of the road. South Grove Primary, Kelmscott School and Walthamstow Leisure Centre are located on the road.

Proposal

- Semi segregated/segregated cycle track in both north and southbound directions



A Network of good Cycle Routes, continued

- Raised side road junction entry treatments
- Floating bus stops
- Dutch style roundabout at junction with South Grove and St James Street
- Six zebra crossings and two signalised pedestrian crossings

Section F: St James Street/Blackhorse Road

This section of the route could be typified as a high street, but is also an important link between Forest Road and Walthamstow.

Proposal

- Semi segregated cycle tracks in both directions of travel for majority of the section
- A shared surface treatment between Grange Road and Mission Grove with interaction with the route 38 quietway at either Coppermill Lane or Leucha Road (quietways discussions on-going)
- Raised junction entry treatments on side roads

Junction 3: Blackhorse Road/Forest Road

This is a busy junction for vehicular traffic and is also the location of Blackhorse Road station which has both national rail and underground services calling at the station.

The existing junction layout includes:

- Traffic signalled cross-roads
- Two or more traffic lanes on each arm
- Staggered pedestrian facility across all arms
- Yellow box marking over southern part of junction for westbound traffic



- Advanced cycle stop lines on three arms
- Pre-cycle signal on west arm of Forest Road
- Over three year period – ten collisions two involving cyclists (two involving pedestrians – two in darkness)

Proposal

- Pre-cycle signals on all arms
- Improved pedestrian crossing facilities
- All green phase for cyclists subject to junction modelling
- Two-stage right-turns if all green not implemented
- Low-level signal heads for cyclists once DfT approval granted
- 'Feeder' bus lane on eastern arm



Cycle Superhubs

Providing large amounts of secure cycle parking at local railway stations

As part of a S106 agreement, a new cycle store providing secure cycle parking for 160 commuter bikes is currently being built by the developer of the Walthamstow Central Station site, in addition to visitor cycle parking for the retail units (and generous residential cycle parking for the apartments). There is also limited cycle parking close to the main (Selborne Road) entrance to the Underground station. However, if successful in the Mini-Holland bid, we propose adding an iconic cycle parking facility for a further 80 bikes in the Town Square Gardens opposite Walthamstow Central Station, catering for visitors, shoppers and commuters. This is particularly important as space for cycle parking along the High Street is limited by the daily market from Tuesday to Saturday.

At St James Street Station, which lies on the proposed Quietway into Hackney and the Marshes, we also plan to add covered, secure cycle parking (monitored by CCTV) for a further 40 bikes, with space to expand as demand increases. Additional secure cycle parking is also required at Wood Street Station, where under-provision is likely to be suppressing cycling to the station, resulting in additional short car journeys.

Significantly more secure cycle parking is required at Blackhorse Road Underground/Overground station (the existing 50 spaces are often full and spilling onto railings – and ongoing residential development in the area will increase demand). We propose adding another 50 secure spaces in a card operated bike store, so that both long and short stay commuters are catered for.





Significant local marketing and promotional efforts

We have a unique opportunity, a once in a lifetime opportunity to promote cycling in the borough beyond all expectations through the Mini-Holland funding and the Tour de France when it travels through the borough in July next year, will act as a perfect springboard for our marketing plan and engagement strategy.

We want all residents to feel that cycling is a real safe, healthy reliable transport option and that it is their Mini Holland. Therefore we want all people in the borough to be able to input into the development of the proposals. The input may be small, just telling us where they think a new tree should go or where some cycle parking would be valuable input and will be vital to ensuring that the residents and businesses feel empowered and ultimately the owners of this unique opportunity. The mini Holland programme will not be successful unless people choose to take up cycling. There are a number of key stakeholder groups that will need to be engaged fully in the process and in order to gain their views different approaches and strategies will have to be put in place to ensure they understand the proposals, the legitimisation for them and where necessary informed or educated as to why the council is proposing such changes. The view of differing stakeholder groups will vary massively and is likely to change throughout the engagement, design and implementation process. We have provided details in the next section of our approach to engagement on the different elements of the mini Holland programme and special engagement approaches developed to ensure the differing views and opinions are heard. As with any marketing strategy there will need to be a plan in place for implementation, with details of the marketing mix and communications mix to ensure that targeted groups are reached and the desired message is clear and understood. Proposed channels will include:



- Social media development and on-line content
- Traditional advertising including posters, particularly around known traffic bottle necks
- Radio interviews with key council officers
- Event Management and PR including launch events
- Targeted cycle training
- Try before you buy cycle promotions
- Stakeholder consultation on local scheme sand interventions
- Improved wayfinding and cycle maps (inc online)

Expanded events and activities

The funding applied or within this submission has been based not only on the substantial infrastructure improvements but also the significant marketing and promotion strategy and plan, with a structured programme of events and activities to

market cycling to staff, shoppers and the general public.

Give the high proportion of BAME residents in the Mini Holland area, we will develop tailored campaigns to target these groups as there are significant growth opportunities among them (eg all woman cycling groups, family cycle training and rides and maintenance classes, building on best practice from the work of others, such as the London Cycling Campaign, Ealing and Lancashire County Council).

We know that many more children would like to cycle to school, but concerns about safety can often prevent schools from actively promoting cycling. All borough schools are already offered Bikeability training, but once we can point to real improvements in the on-street environment around schools (eg in Blackhorse Road, St James Street, Forest Road), we will run additional school-focussed promotions, targeting teachers (important role models) parents and students.



Significant local marketing and promotional efforts, continued

Tour de France

There is a great opportunity to raise the profile of cycling in the Borough when the Tour de France travels through the borough in July 2014 along the Lea Bridge Road – the route which forms the southern boundary of the Mini Holland area and contains several of the flagship schemes including the fully LCDS-compliant Lea Bridge Road Cycle Superhighway and the proposed Dutch-style cycle-friendly roundabout at Whipps Cross.

Engagement with residents and businesses along the route will include roadshows promoting the public realm benefits of the two proposed schemes. Promotion during the event will also focus on the predicted boost in trade to local shops and businesses from the resulting increase in cyclists and pedestrians that are expected when the schemes are complete.

Tour de Waltham Forest

The event will be used to promote a series of major engagement/marketing events organised under the banner Tour de Waltham Forest. This consists of a series of rides aimed at all types of cyclists beginning with a Grand Tour two weeks after the Tour de France cycling the entire borough boundary. Key portfolio holders and ward councillors will get on their bikes and cycle along with local cyclists. The ride will aim to celebrate Walthamstow's natural existing advantages for cycling – its local green fringes of Marsh and Forest. The idea of developing routes into and out of the Borough will be symbolised by involving the Mayors of Waltham Forest's neighbouring councils (Hackney, Newham, Haringey, Enfield and Redbridge)



Mini Tour

Secondly, there will be the Mini Tour in September 2014 which will focus on a meandering route through the core Mini Holland area which will be used to further raise the profile of the Mini Holland transformation combined with a more focussed consultation on the smaller schemes in Walthamstow Village and the Markhouse and Blackhorse districts. The Mini Tour will also involve schools and health care providers, promoting the public health and environmental benefits of a cycling culture.

The Mini Tour will be linked in with a relaunch of the Borough's travel plans. These will include all of the school travel plans; the work-based travel plans and the Council and hospital travel plans. The first phase of the relaunched plans will be

a review of all physical infrastructures requested in these plans and will include updated ideas to complement the Mini Holland proposals. An important part of this will be a campaign to improve secure residential cycle parking both in social housing estates and in private residential streets.

We will look at pooling funding from a variety of TfL, LIP, Section 106 and Community funds to implement these schemes. Planning for phase two of the Travel Plan relaunch will also be made. The second phase will focus on Smarter Travel measures to encourage people to switch to cycling once the hard infrastructure measures are in place.



Pocket Parks/DIY Streets

A third phase of the Tour de Waltham Forest will in Spring 2015 will focus on cycle rides and walks and linking sites local historic interest recently regenerated streets and public spaces and local businesses (pubs restaurants, shops) and will lead on to Dr Bike/DIY Streets workshops at the sites of the proposed pocket parks and other local cycling schemes in the core Mini Holland area. The walking elements of these events will draw on some of the programmes developed by Living Streets in their Step Out in London campaign.

The timing of the second and third phases of the Tour de Waltham Forest will be designed to take advantage of the opening up of a series of broader public realm and regeneration schemes being developed in the Mini Holland Area. These include:

- The Scene
- Town Square
- William Morris Museum
- The Great Green Wall
- Walthamstow Wetlands
- The Stow Festival/Apple Festival

Communications

Mini Holland will be publicised in local newspapers including the Waltham Forest Guardian, Waltham Forest News, E17 Listings. Updates from the project will also be tweeted on the #WFMiniHolland twitter account and on the Council's website.

A mailing list for community, campaigning and religious organisations in the Mini Holland area will be updated with

developments. Some messages will be targeted at particular area-based and religious/ethnic groups.

A travel plan mailing list will also be set up for schools, workplace and development-based travel plans to update them of all relevant development. New infrastructure will be also be promoted through permanent on-street signage and temporary banners and notices.

Mini Holland Launch

The Mini Holland Launch will include early engagement and communication of outline plans of the most highly visible parts of the Mini Holland programme. These include Whipps Cross roundabout, Walthamstow Gyrotory, Lea Bridge Road Cycle Superhighway, the Cycle Hub and the Hoe Street /Forest Road

Wayfinding Toolkit

A series of planned wayfinding tools will be launched at this event at roadshows at all four of flagship locations. These include

- Improved cycle signing and way finding on all key cycling routes (including destinations and cycle times and distances)
- A cycling app for the borough
- Waterproof cycling (and walking) maps for distribution to cyclists in the borough
- On line cycling and walking interactive maps
- Cycling information, maps and details of events at council buildings including all main buildings, libraries and schools
- A professionally-designed Mini Holland page/web page incorporating all the newly launched on-line wayfinding tools will be publicised

Travel Plan Relaunch

Post launch, the second phase of the relaunched travel plans will focus on Smarter Travel measures to encourage people to switch to cycling once the hard infrastructure measures are in place. The Smarter Choices measures will also go beyond the borough's existing travel plans to reach out to new harder to reach groups through a series of monitored personalised travel planning campaigns based on areas and target markets informed by mosaic geodemographic segmentation studies.





Consultation, Engagement and Involvement

Including targeted efforts to increase cycling by key demographic groups in the borough who cycle less than average

We want the implementation of our mini Holland programme to evoke a modal and cultural shift towards cycling. Our existing base line aim is to increase cycling modal share from 1.8% to 3.2% by 2016/17. With mini Holland funding we propose to increase this to a more ambitious but achievable aim of 10% mode share by 2020.

Our mini Holland bid consists of 5 main parts, all aimed at increasing cycling through the provision of much improved facilities, reduced traffic levels and an improved public realm for all. The main elements of our proposal are:

- A redesign of Walthamstow Town Centre
- A superhighway on Lea Bridge Road
- Enhanced North-South cycle routes
- A route through the Town Centre from Walthamstow Marshes to Epping Forest
- Redesign of Chingford, Highams Park, Leyton and Leytonstone

The mini Holland programme will be delivered over a Five Year period with a number of major changes proposed to key transport corridors in the borough, major improvements to key junctions and a the introduction of a range of measures in the town centre and secondary centres aimed at promoting cycling and a reduction on the reliance of the private car for short journeys.

As one of the first steps towards implementing our mini Holland programme we will develop our own 'vision for

cycling' strategy which will incorporate and build on:

- The Mayors vision for cycling
- Our existing cycle action plan
- Our mini Holland programme
- Our Quietways proposals developed in partnership with TfL, Sustrans and key stakeholders
- The boroughs wider regeneration proposals

This consultation and engagement strategy has been developed to outline the work we have already done with key stakeholders and how we propose to engage the community and key stakeholders during the implementation of the mini Holland programme.

It outlines how we will engage, communicate and work with residents, businesses and specific groups such as children or minority ethnic groups. It explains the principles and processes that will be applied to stakeholder engagement, public consultation and how we will work with our delivery partners.

The approach to consulting on the differing routes and areas that the programme will impact will be finalised once funding and a works programme has been agreed. This document provides an insight into the scope, approaches, events and specific engagement programmes that will be used including how we will utilise social media and other innovative approaches to engagement allowing us to have a continual conversation with the community during the development and implementation of the programme.

On-going conversations

As part of the development of the initial scoping of the expression of interest for the mini Holland programme we

engaged with key stakeholders including:

- London Borough of Waltham Forest Transportation, Highways, Planning and Parking team
- Councillors
- Waltham Forest Cycling campaign
- Friends of Lea valley
- Network Rail

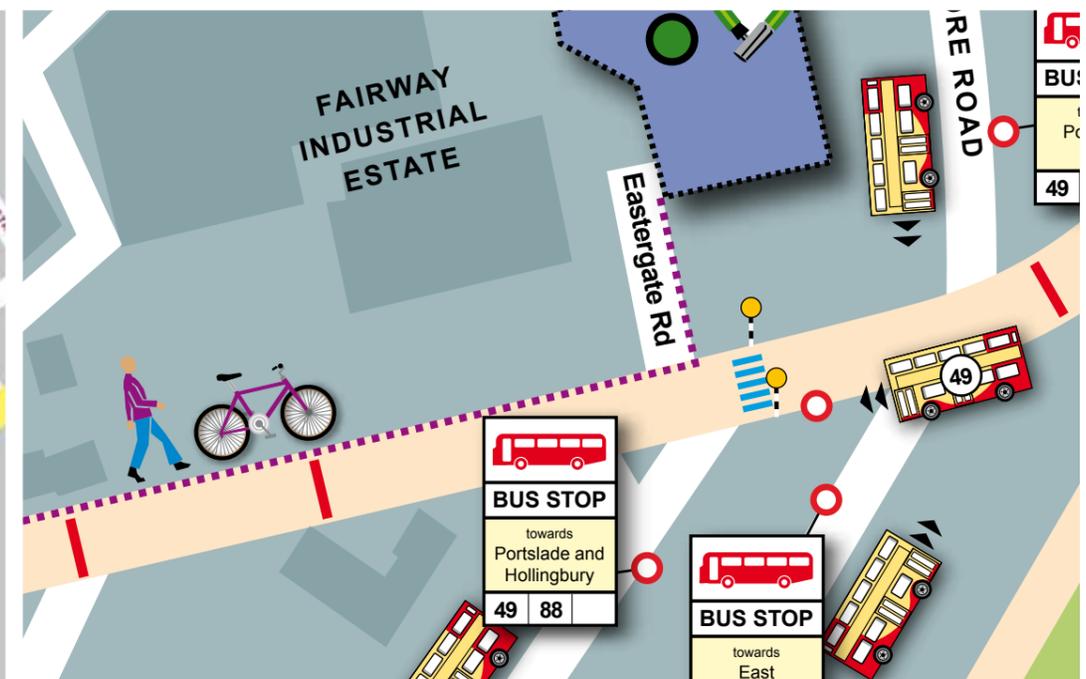
During the development of this second submission we have engaged with a range of stakeholders in addition to those above including (but not limited to):

- Presentations to and discussions with ward forums
- Presentations to and discussions with businesses including small business forums such as the Asian Business Centre
- Discussion with the Metropolitan Police (Waltham Forest Borough Commander) who have given their full support to the bid
- Further discussions with Network Rail to develop proposals for the new Lea Bridge Station and works on the nearby junction
- Discussions with delivery partners such as NSL (parking enforcement), Riney (highways contractor) Zipcar (car club provider)
- Invitations to schools to show their support and how they would like to get involved
- A social media (twitter) campaign to 'back the bid'.

Further details are available in Appendix A of this document.

Engagement timetable and programme

The Consultation and engagement programme will reflect the overall implementation and review timetable of the





Consultation, engagement and involvement, continued

mini Holland programme. Due to the fact that many of our proposals use temporary or modular measures our approach to engagement will enable stakeholders to provide on-going feedback. This will enable changes to be made in light of feedback and schemes can be modified to ensure they benefit the entire community before more permanent features or measures are implemented.

The aim is for phase 1 of our proposals to be in place by 2015, phase 2 by 2016 and phase 3 to be implemented by spring 2017/18.

Raising awareness

Whilst we have worked hard to raise awareness of the mini Holland bid and received a wide range of responses from many different stakeholders in the borough and media coverage we know that many people will be unaware of the mini Holland proposals. Many will not know about the various initiatives and the support that already exists related to training, purchasing, maintaining cycles or know the existing routes in the borough.

Waltham Forest is an ethnically diverse borough, with 64% of the population from ethnic descent. This diversity can make engaging with communities more challenging as different approaches may be needed for each group. Our Engagement team have vast experience with this. Working on the Neighbourhood Enhancement Programme (NEP)- Resident led design project in Lambeth involving the engagement of 66,000 residents – our team along with foreign language experts went to find the communities holding casual impromptu consultations in hairdressers, coffee shops, parks and launderettes. These engagements radically increased the diversity of the attendees at our public consultations, as people informed their friends and relatives of what was happening and how to get involved.

We know that many in our community may have a language barrier to overcome before overcoming any barriers to cycling. We will therefore work with our own communications team with welcome support from TfL and other stakeholder partners to develop an initial awareness and promotional campaign including:

- A Waltham Forest cycle app
- Basic information in leaflets (in English, Polish, Urdu, Turkish, Somali and Punjab)
- A poster campaign
- Special information for schools and children
- Community press releases through community and religious leaders

Why engage and consult?

Our Mini Holland proposals are designed to radically change travel behaviour in the borough. Large parts of the project will involve the relocation of road space and the closure of some parts of roads to vehicular traffic. The outcome of this will have a positive impact on the residents, businesses and road users, however the initial change will affect everyone's daily habits which some will feel as a negative. Once the transition has taken place the benefits will become clear to all, with safer roads, improved public realm, increased footfall; with wider benefits for the local economy as well improvements to the health and wellbeing of residents and people who work in the borough.

Change whether for good or bad creates issues and opportunities. We understand that if the residents and businesses are to benefit involvement, knowledge, empowerment and ownership of the changes will be key to this. Not just to aid the acceptance and implementation of the physical changes but also to fully benefit and buy-in to the associated lifestyle changes.

The proposals that make up our bid will likely:

- Increase the number of residents, employees and visitors using cycling as primary mode of transport
- Impact on journey times for all road users
- Modify access to residential and commercial/shopping areas
- Changes to parking and loading provision

The consultation and engagement carried out as part of the mini Holland programme will be more than just an opportunity to receive comments of proposals. The process is a much larger opportunity to reach out and engage the community to evoke the modal shift towards cycling that will be needed if the mini Holland programme is to be a success.

It is an opportunity to:

- Educate- residents, businesses and visitors alike to the benefits of cycling (including health, economic, environmental and social benefits)
- Involve- the engagement and consultation is an opportunity to involve the entire community in the development of proposals
- Empower- the boroughs residents, businesses and visitors to embrace cycling and the wide ranging benefits an increase in cycling could bring

The benefits of consultation and engagement

Better informed decision: Identifies issues not considered during the design and allows for a better understanding of stakeholder views

Local ownership: residents and businesses will play a central role in the development of proposals and take local



Consultation, engagement and involvement, continued

ownership of the developments' elements such as the design of pocket parks or the location of cycle parking

Identify contentious issues: Early warning of contentious issues allows time to develop a response and mitigate risks
Raise awareness: Opportunity to explain the wider benefits of cycling and the specific benefits of the individual proposals
Enhance reputation: Demonstrates that the council and our delivery partners to be proactively seeking and responding to our stakeholders and the public

Public expectation: People expect to be consulted on major publicly-funded schemes which could change the places they live, work and travel

Monitoring: Providing the community with mechanisms to provide feedback on successes and areas for improvement including the reporting of carriageway conditions. Our implementation approach using a mix of temporary and permanent measures will mean we can react and make changes

Statutory consultation: The scheme will involve many changes to waiting and loading restrictions, which require statutory consultation with stakeholders, focusing on those who live and work in the affected areas. Our approach to consultation using experimental changes in the first instance will hopefully mean that concerns associated with the proposed changes can be monitored and seen 'in real life' so informed decisions can be made by all

When will we engage and consult?

We will manage a number of stages as streams of engagement and consultation with stakeholders including:

- Engagement with existing cyclists who will be our champions and trail blazers
- Engagement with future cyclists
- Engagement with schools

- Tailored approaches for minority ethnic and other hard to reach groups
- Targeted business engagement and consultation

Early engagement

We want to build on the on-going engagement work we have conducted with the community in order to continue the momentum that has gathered during the development of the proposal. We will hold a series of key stakeholder meetings and awareness events as soon as funding is confirmed including:

- A celebration of cycling in the borough
- A workshop with councillors including training on the new approach to providing for cyclists
- Meetings and design reviews with key stakeholders
- Route rides and
- Ward forum presentations
- Visits to all schools in the area immediately affected by the proposals
- A series of business workshops

These events will focus on both the mini Holland programme and the other related opportunities, benefits and issues; and a broader engagement on cycling in the borough.

Due to the use of experimental/temporary measures, particularly in the town centre and surrounding area our engagement will be an on-going conversation throughout the delivery programme. The early engagement stage will focus on gathering views of the community on the wider scope of proposals to encourage involvement.

This will include letting residents and businesses identify unloved

spaces in the public realm that could be improved as part of the town centre improvements or spaces that due to road closures can now be converted to pocket parks or food growing.

We will provide a variety of media for feedback and comment including:

- Email
- Social media
- Dedicated engagement phone line
- Displays with feedback opportunities in libraries and other public buildings

Phase Two – Public Consultation

The public consultation will be developed to work in parallel with the delivery of the overall mini Holland programme. As previously discussed we will be gathering the views of the local community from an early stage and feeding this into the scoping and design development.

It is vital from the outset that we manage expectations and clearly explain what we will be consulting on, when and why. Whilst we want to hear the views of all on the various proposals in order to ensure the consultation is manageable and effective we will:

- Consult informally across the town centre (including the villages) and the secondary town centre areas on proposals
- Use experimental traffic orders that can be modified with an on-going consultation during the experimental period
- On cycle routes consult affected frontages and adjoining side roads
- Conduct statutory consultations for changes to waiting and loading restrictions that require amendments to Traffic Management Orders (TMO)



Consultation, engagement and involvement, continued

For the public consultation we will use the following methods:

- Dedicated website with scheme details, information and online surveys
 - Consultation events, with survey forms for responses
- Leaflet production and distribution as outlined above

Translations into key local languages and use community leads to raise awareness of programme and consultations

Working with the community

The following section provides more detail on the specific engagement and consultation we conduct with specific groups and sections of the community to ensure our mini Holland programme is open and inclusive and empowers all members of the community whether cyclists or not to feed into the development of proposals and benefit when they are implemented.

Working with politicians

Political support for cycling in the borough is growing and as more residents take up cycling the importance of political understanding of the issues and solutions will become paramount. In order to make sure our politicians are fully informed we will hold a series of events at the outset of the roll-out of the programme. The focus of these events will be: A presentation of the full scope of the funded programme A research trip to a European city to experience cycling in a cycle friendly city

A series of learning events on new cycling design standards, the benefits cycling can bring to the borough (health, social, economic, environmental)

Cycle training

A councilor cycle ride taking in all the key routes and locations involved in the programme

We hope that this approach will lead to our councilors becoming political champions of cycling and a greater understanding of cycling and the benefits. Whilst we realise that councillors will always work on behalf of the entire community and that currently provision for cyclists is not always considered to the benefit of all we hope that this range of events and initiatives will mean a better understanding and therefore a stronger working relationship.

Working with existing cyclists

Our existing cyclists are early adopters, pioneers and champions. They cycle on a regular basis in the borough and further afield. They know where the best routes for cyclists are, where cycle parking is missing and potentially dangerous locations. We already have a good working relationship with the cycling community. We meet regularly with them and engage them early on in the development of proposed changes to streets and places to make sure our proposals are cycle friendly.

As part of the mini Holland programme we will build on and enhance this relationship. We will work in partnership with use their expert knowledge to guide the delivery of the programme and identify cycling champions within the community that can help us promote cycling within the community.

Whilst a lot of this can be done through Waltham Forest Cycling Campaign we want to identify cycling champions that are not your stereotypical cyclist. We want a range of cycling champions that all members of the community can identify with. Working with our existing cycling community we will:

- Form a 'cycling working group' for the mini Holland programme which will carry out design reviews, site visits

- Attend resident and community group meetings to talk about the benefits of cycling, the role of the council, WFCC and explore opportunities for wider membership
- Develop and promote the Waltham Forest Festival of Cycling

Working with future (and reborn) cyclists

We already offer cycle training through our cycle training partner Cycle Confident and maintenance courses with Dr Bike. As part of the mini Holland programme we will broaden and increase the number of events available to potential cyclists of all ages and backgrounds. Whilst we consider our existing training and awareness programmes to be inclusive we know that we will have to engage some sections of our community through more innovative and targeted approaches.

As part of the mini Holland we will offer:

- Parent and child cycle training (through working with schools)
- Cycle confident training
- Refresher courses for adults who want to take up cycling again

Working with businesses and major employers

Working with the business community and the other major employers in the borough will be key to the successful implementation of the mini Holland programme. Businesses will likely be one of the most affected groups but are also one of the groups that can benefit most.

Many of the businesses of the borough are SMEs with only 12% of companies employing more than 10 staff. Smaller companies are unlikely to be able to support their own human resources or green travel capability and this is itself a barrier to the organisations and employees to take advantage of the cycle to work scheme or similar initiatives.



Consultation, engagement and involvement, continued





Consultation, engagement and involvement, continued

We will work to engage the business community, meeting proprietors face-to-face and discussing issues and concerns.

Most businesses will be concerned with the impact of these changes fearing that it will detract customers as there is no/reduced parking and making it difficult to receive deliveries. By talking through these issues we can reassure and educate businesses of the benefits that will come with the mini Holland improvements. We also expect that in the wake of these cycle improvements a number of green initiatives will set up and offer pedal power deliveries.

The largest employer in the borough is the council, we would like our employees to set the example to the rest of the borough and get on their bikes. We will develop our green travel plan, advertise the 'Cycle to work scheme' encouraging those without bikes to join in, increase our fleet office pool bikes and encourage all site visits to be done by bike. We will increase or cycle parking for staff as well as for visitors.

We will also raise awareness of the wide range of opportunities available to businesses that will come along with the mini Holland programme but also those already available from the council, Transport for London and national initiatives.

Shopping and cycling

There is a general misconception that kerbside space should be prioritised for car parking in order to support local shops and high streets. Whilst some shops such as those that sell bulky items need some parking provision and those with mobility issues need space to park close to shops and businesses there is a wealth of evidence to show that people who walk, cycle or use public transport spend more money locally.

We will carry out extensive shopping surveys to gain a greater understanding of our shoppers and what triggers them to go out

and buy locally to ensure our plans have a positive affect.

The Department of Transport (DoT) in New York has recently published a report called Measuring the Street: New Metrics for 21st Century Streets. The report focuses on streets in the city that have been redesigned to improve conditions for all road users through the reallocation of space, dedicated space for cyclists, more public space and rationalised parking and loading provision.

In 8th and 9th Avenues in Manhattan the DoT introduced the first protected bike lane in the US. Monitoring of the scheme has shown:

- A 35% decrease in injuries to all street users on 8th Ave
- A 58% decrease in injuries to all street users on 9th Ave
- Up to 49% increase in retail sales

As part of the consultation and engagement for the mini Holland programme we will set-up a specific business support and engagement team that will:

- Work with the business community to raise awareness of the opportunities for adopting cycling as part of their own business operations (including the potential for cargo bikes, utilisation of car club vehicles instead of grey fleet);
- Promote the benefits of cycling culture to the business community;
- Promote workplace travel planning
- Work with businesses to review parking needs in Walthamstow Town Centre, in our secondary centres and along the key cycling corridor;
- Advise on the initiatives available for staff such as cycle training, cycle to work scheme
- Encourage businesses to help us monitor the success of the implementation of the scheme by monitoring sales and travel choices of customers

Public transport companies

As part of the implementation of the mini Holland programme we will work with local transport operators including community transport operators, taxi companies and coach companies to ensure that opportunities are taken for the companies to support and benefit from the successful bid.

We know that there is a risk there will be issues surrounding the implementation of the works associated with the bid and certain business groups. For example taxi companies are often located on main corridors and parked vehicles on these routes outside of the hours of limits waiting restrictions, sometimes rendering existing cycle infrastructure useless.

There are however real opportunities for taxi companies as part of the mini Holland programme. In Denmark, all taxis are fitted with cycle racks so you can combine the two modes where necessary e.g. a late night puncture or a longer stay at the pub.

We want to try to emulate this and as part of the mini Holland programme we will:

- Work with taxi companies to find solutions to their parking requirements that do not impact on cycle provision
- Offer taxi companies the opportunity to take part in NVQ driver training.
- Provide drivers the opportunity to take part in the cycling introduction/reintroduction courses,
- Give companies opportunities to purchase cycle friendly equipment for their vehicles including additional mirrors and cycle racks
- Promote cycle friendly public transport/taxi operators including information on key cycle routes and locations



Consultation, engagement and involvement, continued

Health

The opportunities to work on improving health and fitness levels in the borough are obvious but there are a number of specific initiatives which we would like to introduce as part of the mini Holland programme. We already work closely with Whipps Cross Hospital on both encouraging staff to cycle to work and.

Whipps Cross hospital has supported the development of this bid recognising the wide range of health benefits that cycling can bring to the individual and wider society. We will work closely with the hospital and the wider public health industry.

Lambeth council has successfully incorporated cycle training into its Exercise on Referral scheme. Cycling was added to the scheme which includes gym, pilates and tai chi to give users of the scheme more choice.

The scheme is open to people with high risk cardiac and low to mid mental health issues who are referred by their GP in addition to hospital referral cases of pulmonary diseases/cardiac rehabilitation. Cyclists are taken through the national standards cycle training programme from Level 1 (off-road) to Level 3 (busy roads).

We would like to replicate the GP referral scheme in Waltham forest as part of the mini Holland programme learning from our colleagues experience south of the river.

The emergency services

We have a good working relationship with the Police and other emergency services in the borough and wish to further develop this relationship as part of the roll-out of the mini Holland programme.

The emergency services are already consulted on all traffic schemes as part of our statutory consultation process and

we ask for the views of the emergency services during the development of proposals.

The Borough Commander of the Metropolitan Police has provided a letter of support to this bid and is in full support of the proposals. We are currently working with the Police as part of Operation Safeway at a number of locations in the borough.

The operation is aimed at cyclists and HGVs drivers and involves the stopping of both groups, checking vehicle safety and reminding road users of their responsibilities under the Highway Code and other relevant legislation.

Working with neighbouring authorities

We already have good working relationships with our neighbouring boroughs and realise that these relationships and cross border working are crucial if London is to effectively deal with issues associated with cycling. This is of particular importance for the mini Holland programme as cycling facilities cannot stop at borough boundaries nor be developed in isolation without consideration of the issues and proposals of neighbouring authorities.

We support and have received reciprocal support from our neighbours in Newham and Hackney. Our major cycle routes including Lea Bridge Road, the north-south routes from Leyton and our marshes to forest route have all been designed to be contiguous with proposals from our border colleagues. We will continue to develop this working relationship through the mini Holland programme and will look to agree targets for cross border cycling as part of the monitoring of the success of the programme.

Working with schools

Waltham Forest – Work with schools to promote walking and cycling

The Road Safety Team at Waltham Forest provides the main contact with schools and the public in relation to cycling and walking.

Under the TfL framework contract with Cycle Confident, we provide free cycle training for adults living, working or studying in the borough.

All primary schools are invited to arrange Bikeability training for Years 5 and 6.

Since this contract was established in July 2013, over 120 adults and more than 120 children have received training. The Council's revised road safety strategy reflects the reduction in staff resources in recent years, and the road safety team will aim to provide a more targeted resource to schools. This includes:

A library of downloadable guidance for teachers, parents, young adults and the public. Play equipment to help primary pupils learn about road safety, such as road layouts, traffic signals and zebra crossings, are available for free loan to schools.

We promote the Youth Travel Ambassador and Childrens Traffic Club schemes and will provide a more targeted approach to the schools within the Mini Holland area.

We arrange for theatre education events to make pupils and students aware of issues such as distraction, speed, drink



Consultation, engagement and involvement, continued

driving and use of seatbelts. 1000 Year 12 students attended the Safe Drive Stay Alive Event in Chingford in October 2013.

We support schools seeking to update their travel plans to reflect expansion or changes in circumstance, including promoting the STARS travel plan award scheme. This year another school was awarded a Silver STAR for their efforts to promote healthy sustainable travel, and a further 10-12 achieved their Bronze award.

We are seeking to engage with all 22 schools and colleges in or adjacent to the Mini Holland area to ensure their travel plans are fit for purpose, with a view to having all of them updated and to encourage greater levels of walking and cycling to school. As part of our strategy, where a school seeks new engineering measures outside its premises we will look at their travel plan in the first instance to ensure that the measure has been identified and consulted upon adequately.

We manage the school crossing patrol service for the 14 remaining crossing sites in Waltham Forest, and engage with schools seeking new crossings to recruit officers under a service level agreement process. One primary school has recently signed an agreement and we will be assisting the school in recruiting suitable staff in November.





New street market at Walthamstow Gyratory





Ensuring that all new developments and projects are genuinely cycle-friendly

As part of a S106 agreement, a new cycle store providing secure cycle parking for 160 commuter bikes is currently being built by the developer of the Walthamstow Central Station site, in addition to visitor cycle parking for the retail units (and generous residential cycle parking for the apartments).

There is also limited cycle parking close to the main (Selborne Road) entrance to the Underground station. However, if successful in the Mini-Holland bid, we propose adding an iconic cycle parking facility for a further 100 bikes in the Town Square Gardens opposite Walthamstow Central Station, catering for visitors, shoppers and commuters. This is particularly important as space for cycle parking along the High Street is limited by the daily market from Tuesday to Saturday.

At St James Street Station, which lies on the proposed Quietway into Hackney and the Marshes, we also plan to add covered secure cycle parking (monitored by CCTV) for a further 40 bikes, with space to expand as demand increases. Additional secure cycle parking is also required at Wood Street Station, where under-provision is likely to be suppressing cycling to the station, resulting in additional short car journeys.

Significantly more secure cycle parking is required at Blackhorse Road Underground/Overground station (the existing 50 spaces are often full and spilling onto railings – and ongoing residential development in the area will increase demand). We propose adding another 50 secure spaces in a card operated bike store, so that both long and short stay commuters are catered for. We will seek to provide room to expand these facilities as demand increases (as new development is completed)

Cycling and new development

Waltham Forest has integrated cycle parking into its Local Plan, to make owning and using a bike as convenient as possible. Our minimum cycle parking standards are higher than those required by the London Plan (and our car parking standards lower). The Council's transport planners liaise directly with developers to ensure that cycle parking is suitably designed, secure and conveniently located – for all land use classes. Provision for cycling is a central theme in our emerging Sustainable Transport Supplementary Planning Document.

Through pre-application discussions we seek to ensure that developments provide safe and pleasant access for cyclists (including low speeds within residential development which enable younger children to experiment with cycling in safety). In larger developments, we encourage home zones and filtered permeability. We secure and monitor robust travel plans for all significant developments (e.g. all residential developments with 20 units or more). We also secure developer contributions to improve local sustainable transport infrastructure, including cycling.

In addition, we work with developers to ensure that servicing and loading does not conflict with cycling within the development and on local cycle routes. The Council's Cycling Action Plan also commits us to implementation of the LCC Safer Lorries Pledge, whereby a condition of planning permission is that HGVs involved in construction and servicing new developments have the latest safety equipment, and that their drivers have undertaken Safe Urban Driver training.



Complementary measures - Technology and Innovation

Improving junctions for all

We know that in order to provide space for cyclists we will have to review the way junctions operate and how road space is allocated to all users. We seek to minimise negative impacts by taking advantage of the latest technology and innovations in signal technology, with a view to improving conditions for all users.

An example of the technology we would like to use is the M100BR Radar Bicycle Detector.

Designed for use on cycle lane approaches and at advance stop lines, the M100BR integrates with a wireless vehicle detection system to detect bicycles, adjusting timing and phasing of traffic signals so as to significantly enhance junction safety for cyclists and ensure fair passage for all road users.

The M100BR sensor incorporates a low power, wide-band radar with secure radio technology. Sensors are installed very close to the roadway surface and are able to detect cars, trucks, bicycles and pedestrians. M100BR sensors are also capable of detecting and distinguishing objects in motion from objects that are stationary and distinguishing large objects from small objects.

As part of our Mini Holland, We propose introducing these at all major junctions on the commuter routes (Lea Bridge Road and north-south commuter links).

Cyclists green wave

Members of the Waltham Forest delivery team have undertaken study trips to Copenhagen, where they travelled a number of commuter routes into and express cycle routes through the city. Among features and measures implemented to improve safety and convenience for cycling were green wave lights installed in the edge of cycle commuter routes in advance of signalised junctions.

The lights on the road surface go out sequentially or 'wave' towards the traffic signals as the bicycle phase on the traffic signals is running down. If the cyclist is keeping up with the wave on the ground they will know whether they will make the green signal and those who are not keeping up can slow down and relax as they approach the junction.

Monitoring success

We will want to be able to monitor, measure and evaluate success of the implementation of the entire programme ensuring that we can learn and improve further, provide residents', stakeholders and other interested parties information on the success, this will involve the use of:

- Cycle counters
- Vehicle counters
- Real time monitoring giving opportunity to modify measures





Equality Impact Statement

A statement of intent to complete Equality Impact Assessments on proposed schemes to demonstrate intended benefits to local communities, ensuring there are no discriminatory outcomes and that, where possible, 'mini-Holland' programmes promote equality.

Waltham Forest Council has a well-established and well-regarded Equality Analysis (previously known as Equality Impact Assessments) process that is embedded into the way the council develops services and proposals and forms an essential part of all our decision-making processes. The current approach involves undertaking Equality Analysis at the formative stages to help identify opportunities to advance equality of opportunity for all protected equality characteristics, as well as to identify and mitigate any potential for negative impacts.

Waltham Forest Council will conduct equality impact assessments and consult equality target groups on all schemes proposed as part of the mini Holland initiative, to demonstrate the benefits to local communities and ensure that there are no discriminatory outcomes, as well as using the EIA process to identify opportunities to advance equality and foster good relations.

We will review our mini Holland strategy regularly and put in place equality monitoring systems to check the effects our policy has on ethnic, disability and other equality target groups.

Waltham Forest is ethnically, economically and culturally diverse, and our mini Holland aims to making cycling available to all. Everyone should feel able to cycle on our streets regardless of their race, ability, faith, gender, sexual orientation or age. As part of our mini Holland consultation

and marketing strategies, we will actively engage with people from all equalities groups to promote the benefits of cycling to them and take into account any concerns raised with a view to informing our approach.

The Council believes that mini-Holland programmes will actively promote and advance equality in numerous ways. Key areas of benefit are highlighted below:

- Fear of traffic is a key barrier to cycling for many people. Providing attractive, safe and convenient cycling infrastructure will remove key obstacles to cycling for all sections of the community, in particular women, children, older people and those with disabilities. All of these groups are currently underrepresented among cyclists in the borough.
- Calming traffic as part of Mini Holland will reduce road danger for all, but particularly those on lower incomes and from BAME communities, who are more likely to live on busy roads and are disproportionately represented in KSI figures.
- People on low incomes and BAME groups also tend to suffer disproportionately from the impacts of traffic noise and air pollution. Reducing the dominance of traffic on residential and other streets will reduce noise and improve air quality, benefitting these groups - in particular children, older people and those with existing health conditions/ disabilities, who are most at risk from the effects of air pollution.
- As real and perceived danger from traffic is reduced, cycling will become a realistic mode of travel for all, increasing opportunities to access jobs, training, services and leisure opportunities. Many of our residents face financial constraints. Cycling is much more widely accessible than private car ownership in that it is relatively inexpensive to

access, yet provides similar benefits of flexible point to point travel.

- Making cycling genuinely safe and welcoming for all sections of the community will increase opportunities for regular physical activity, social interaction and leisure, with known positive impacts on physical and mental health and wellbeing.
- The Council is already working with Bikeworks to provide low cost bikes and maintenance training to low income and marginalised groups, and to promote all ability cycling in the borough. Mini Holland will enable us to build on these programmes, as well as improving our infrastructure to better accommodate disability adapted cycles, trailers, cargo bikes and other bikes which make cycling a realistic mode of travel for a wider demographic.



Conclusion

Engaging with residents, councillors, businesses and other stakeholders for this Mini Holland bid has demonstrated the very high levels of public support for change in Waltham Forest. We have received over 200 messages of support in response to our Back the Bid campaign, and one Walthamstow resident has even submitted a short film to accompany our submission. We would love you to view our film so you can see what people of the borough think about cycling in Waltham Forest and their views on our proposals.

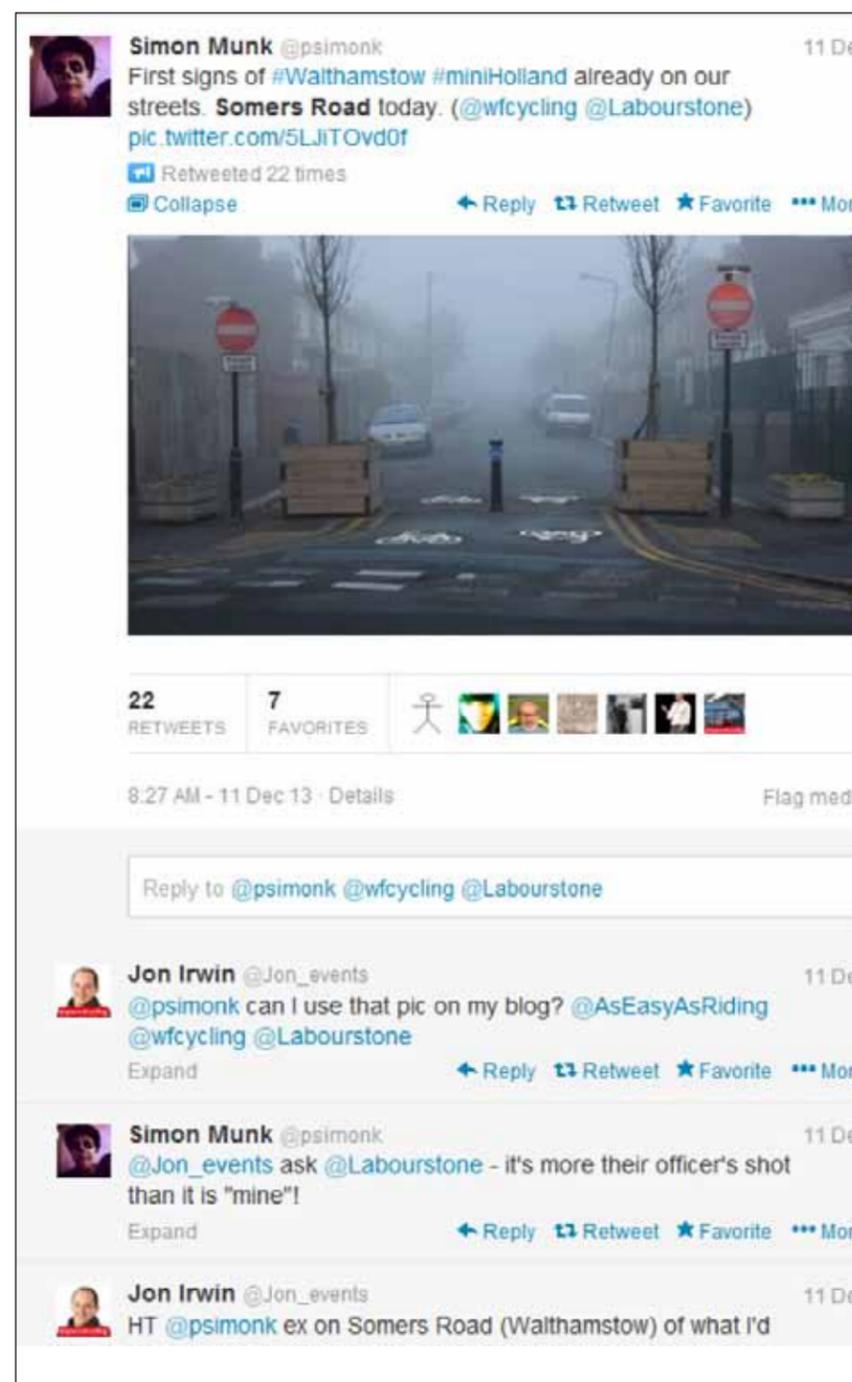
The film can be viewed at: <http://youtu.be/v09o5DR7jo8>

With Council leadership and the provision of truly excellent infrastructure, we seek to create a critical mass that makes cycling the obvious way to get around, helping to unclog our borough's arteries and reinvigorate our town centres.

The measures proposed in this bid have clear benefits for all. Improved accessibility, safer, quieter, greener and more sociable streets, cleaner air, more active and independent children – in short, a better quality of life.

Though we have mainstreamed cycling in our LIP, we were unsuccessful in our bid for Biking Borough funding, and have not benefited from the impetus provided by Barclays Bike Hire and – to date - the Superhighways. But we are ready to raise our sights – we think Mini Holland could transform this borough into a true cycling community.

We have already reached important milestones on our Cycling Action Plan. Our cycle counts show levels of cycling on borough roads have grown by almost a quarter since 2012. With Mini Holland funding and support from Transport for London we believe we can create world class facilities for cycling in Waltham Forest.



Walthamstow mini Holland on Twitter.

