

Harlow and Gilston Garden Town Local Cycling and Walking Infrastructure Plan Refresh

Technical Report

for Essex County Council

September 2026



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Executive Summary

PJA has been commissioned by Essex County Council (ECC) to prepare a refresh of the Harlow and Gilston Garden Town (HGGT) Local Cycling and Walking Infrastructure Plan (LCWIP), adopted in 2021. The original LCWIP identified a network of nine cycling corridors and seven Core Walking Zones (CWZs) to support sustainable travel across Harlow and the wider Garden Town area, supported by an evidence base showing how the network integrates with existing and planned infrastructure to facilitate commuting, everyday and leisure trips.

LCWIPs are intended to be live documents with a ten-year lifespan. For the HGGT LCWIP, a five-year review was planned so that the LCWIP could be refreshed to respond to the progression of the Garden Town developments, alongside changes in local priorities, movement patterns and funding opportunities. It has been prepared in accordance with national LCWIP guidance, with stakeholder engagement informing the approach and refining priorities. The refresh focuses on updating and refining the previous LCWIP in response to recent growth, rather than undertaking a full redevelopment.

For cycling, the refresh reviews and refines the existing network and identifies an updated set of priority primary and secondary routes for interventions. Eight new cycling routes have been identified and audited, with high-level design recommendations developed for each. These routes build on a

combination of existing infrastructure, including the legacy network and National Cycle Network, alongside new provision. Where corridors overlap with existing routes, this reflects their continued strategic importance, with opportunities identified to upgrade infrastructure to current design standards. The secondary network is defined at a more strategic level and will be developed further through future reviews.

For walking, the focus remains on Core Walking Zones, which represent areas with a high concentration of trip generators. Seven CWZs have been retained from the original LCWIP: Pinnacles, Town Centre, Temple Fields, Burnt Mill, Church Langley, Bush Fair and Staple Tye. While the previous LCWIP prioritised four zones for detailed intervention, this refresh revisits the remaining locations to ensure they respond to current and future needs. A neighbourhood case study at Church Langley demonstrates how design interventions can be applied in practice to improve local walking conditions.

It is recommended that the LCWIP is embedded within future planning and development processes and integrated with wider transport strategies and programmes across Essex and neighbouring authorities. This will support a coordinated approach to improving walking, wheeling and cycling conditions and contribute to the achievement of sustainable travel and mode shift objectives set out in the policy context.



Figure 1 Parallel Crossing in Harlow



Introduction





Overview

PJA has been commissioned by Essex County Council (ECC) to prepare an update to the Harlow and Gilston Garden Town Local Cycling and Walking Infrastructure Plan (LCWIP). PJA produced the original LCWIP document in 2020 on behalf of Harlow and Gilston Garden Town (HGGT), a partnership comprising Essex County Council, Harlow District Council, Epping Forest District Council, East Hertfordshire District Council and Hertfordshire County Council. The LCWIP was formally adopted in 2021, within which nine cycling corridors and seven Core Walking Zones (CWZs) were identified.

Background

LCWIPs are prepared with a ten-year timeframe for delivery. However, the Department for Transport (DfT) specifies that the documents should remain flexible and function as 'live' documents, which allows local authorities to update their network plans to reflect local changes, including new development sites, emerging funding opportunities and other locally driven priorities. The original LCWIP incorporated a five-year review commitment, which was formally embedded within the HGGT business plan. Funding secured through the HGGT partnership has supported the delivery of this LCWIP Refresh.

Basis for the Refresh

With the five-year cycle now elapsed, there is a clear basis for undertaking a timely refresh of the LCWIP to ensure that it is fit for purpose for the next five-year period.

The HGGT is progressing across several development areas, with masterplan concepts largely in place and planning applications moving forward. The Refresh ensures that the walking and cycling network remains aligned with the developing spatial framework and supports the access and movement needs of the new and existing communities in Harlow.

The Refresh also takes account of the alignment between the Housing Infrastructure Fund (HIF) programme and planned cycling improvements. This helps ensure that future funding opportunities can be supported by a clear and coherent evidence base, demonstrating how proposed interventions contribute to a well-planned and integrated network.

A key policy within the local policy framework is the need for development to consider a modal hierarchy which prioritises walking, wheeling, cycling and public transport over private motor vehicles. The HGGT Transport Strategy (2022) sets an ambitious mode share target for Harlow: 60% of all trips within the Garden Town should be made using sustainable modes, and 50% of trips



within Harlow itself. This reinforces the role of walking, wheeling and cycling as strategic transport priorities for Harlow. Recent micromobility initiatives, including the proposed Harlow bike-sharing scheme, indicate a shift already underway and highlight the need for infrastructure to keep pace.

Objectives of the Refresh

The LCWIP Refresh builds on the evidence base of the original LCWIP and provides an update to the existing plan. Its purpose is to reassess the proposed walking and cycling network to identify and address gaps in provision and refine the network where necessary to reflect current local circumstances and priorities. The Refresh also establishes a focused and strategically prioritised set of routes for short-to-medium term delivery and aims to reinforce the role of walking, wheeling and cycling as a strategic transport priority for Harlow.



LCWIP Refresh Methodology



Overview

This chapter provides an overview of the LCWIP process and how it has been applied in HGGT. The DfT technical guidance for authorities developing an LCWIP sets out a methodical approach to the planning and delivery of cycling and walking infrastructure. The process is based on the six stages listed opposite in Table 1 .

The geographic scope for the cycling element and walking elements of the LCWIP need not be the same, but there can be efficiencies where cycling infrastructure also considers walking and vice-versa, and planning them together can avoid one mode compromising the other. There are several instances within the existing LCWIP where proposed walking and cycling schemes overlap.

The Refresh follows the same methodical approach used for the original LCWIP, but with adjustments at each stage to ensure that the work adds value, avoids duplication and reflects current priorities. Its development has been informed by input from ECC, engagement with wider local authorities such as Hertfordshire County Council (HCC), Harlow District Council (HDC), HGGT project officers, and other stakeholders such as the Walk Wheel Cycle Trust. Virtual engagement sessions were held with the LCWIP working group throughout the process to help shape the proposals and ensure the Refresh reflects local insight and experience.



Stage	Name	Description
1	Determining Scope	Establish the geographical extent of the LCWIP Put in place arrangements for governing and preparing the plan
2	Gathering Information	Identify existing patterns of walking and cycling and potential new journeys Review existing conditions and identify barriers to cycling and walking Review related transport and land use policies and programmes
3	Network Planning for Cycling	Identify origin and destination Develop network(s) of routes Determine the type of improvements required
4	Network Planning for Walking	Identify key trip generators, core walking zones and routes Review existing provision Determine the type of improvements required
5	Prioritising Improvements	Prioritise improvements for future investment
6	Integration and Application	Integrate outputs into local planning and transport policies, strategies, and delivery plans

Table 1 LCWIP stages from DfT technical process guidance



Policy Alignment



Policy Context

This chapter reviews changes to the regional and local policy context since the publication of the LCWIP in 2021. It identifies relevant policy updates and considers how new guidance documents and major projects may interface with, and influence, the outcomes of the LCWIP Refresh.

Essex Transport Strategy The Local Transport Plan for Essex 2025 (Consultation Draft)

The Essex Transport Strategy: The Local Transport Plan for Essex 2025 (Consultation Draft) sets out the County Council's approach to transport and outlines its long-term ambitions for creating sustainable places and communities, connecting people, places and business and supporting people's health, wellbeing and independence. The development of LTP4 is currently underway, with two rounds of public consultation undertaken in 2024 and 2025.

The Strategy identifies five key outcomes directly relevant to active travel:

- People have inclusive and affordable access to key services
- People enjoy improved physical and mental health and wellbeing
- The transport network is safe, and feels safe, for all users
- All places support the transport needs of all residents
- Transport has a reduced impact on the environment and adverse impacts on natural habitats are avoided

- The transport network has a secure and long-term future

To deliver these outcomes, the Essex Transport Strategy sets out a number of policy and relevant actions that support and promote walking and cycling:

- Encouraging existing communities and require new developments to maximise the use of sustainable forms of travel such as walking, cycling and public transport for a safer, healthier and more resilient Essex, with better access to a wider range of opportunities.
- Making travel in Essex safe and feel safe for all users of the transport network.
- Protecting the places people live, and our historic and built environments from the harmful effects of transport and strive to make places more people focused with an emphasis on placemaking to make spaces safe and accessible for all.
- Giving people the choice of inclusive, reliable and affordable sustainable transport.

Essex Walking Strategy 2021

The Essex Walking Strategy was prepared by ECC to promote the benefits of walking and support its overarching vision of making walking "an easy, safe and normal part of everyday life". The Strategy aligns with the Department for Transport's Cycling and Walking Investment Strategy (2017), which provides



the national framework underpinning the development of Local Cycling and Walking Infrastructure Plans (LCWIPs). To increase walking activity by 2040, the Government identified three guiding principles, which have been adopted by ECC: Better Safety, Better Mobility and Better Streets.

These principles are reflected within the Essex Walking Strategy through nine strategic objectives. The Strategy recognises the importance of walking for both everyday journeys and leisure purposes, supporting sustainable end-to-end travel between settlements and key destinations. In common with the LCWIP planning process, the Strategy seeks to create environments that encourage walking by improving safety, accessibility and connectivity. Achieving these objectives will support the delivery of wider measures identified within the Strategy, including initiatives that promote the physical and mental health benefits of walking. The Harlow LCWIP Refresh aligns closely with the objectives of the Essex Walking Strategy. Building upon existing walking patterns and routes within identified Core Walking Zones, it seeks to address road safety and accessibility challenges while improving connectivity to key destinations, including educational establishments, community facilities, employment areas and planned development sites. Through these interventions, the LCWIP will support increased walking activity and contribute to the delivery of ECC's wider walking objectives.



Figure 2 Essex Walking Strategy 2021



Figure 3 Essex Cycling Strategy 2025



Essex Cycling Strategy 2025

Essex County Council recently adopted a new Cycling Strategy for the county (Figure 3). The Cycling Strategy sets out ECC's vision, outcomes, and actions for cycling in the county for the next few years and will be a valuable tool to secure funding to improve and maintain cycling facilities and infrastructure across the county.

The Strategy outlines six key outcomes. For each of these outcomes, the strategy identifies specific activities:

- The cycle network: The current and future cycle network in Essex is safe, convenient and accessible for all types of trips
- Changing perceptions: Cycling is considered a natural and attractive option for people and businesses in Essex
- Communities, health and equality: Cycling helps to create more inclusive and connected communities, as well as improving health and reducing inequalities
- The economy: Cycling contributes to the economy, and brings jobs and employment to local communities
- The environment: Cycling improves the environment in Essex by reducing emissions, noise, congestion and enhancing the quality of life
- Leisure cycling: Essex is a popular destination for leisure cycling and tourism

The LCWIP Refresh will help ECC to achieve each of the six outcomes outlined above, by identifying a prioritised list of cycle routes using an evidence-led approach as well as acting as a tool to secure funding for the delivery of these routes.

Essex Design Guide (2018)

The Essex Design Guide is used as a design framework to support the creation of high-quality places with a distinct identity that reflects the Essex context. A central aim of the guide is to reduce car dependency by prioritising walking, cycling and public transport. These modes should be embedded into the layout and structure of developments from the outset. Streets are expected to function as both movement corridors and public spaces, supporting safety, accessibility and social interaction.

Although primarily focused on new development and masterplanning, its principles on connectivity, permeability and active travel are relevant to LCWIPs, offering a benchmark for future networks. Key design principles are that routes should be coherent, direct, safe, comfortable and attractive.



HGGT Policy Updates

Since the publication of the original LCWIP, HGGT's policy has been updated in many fields to better clarify the development vision for the masterplan areas, as planning progresses towards delivery. Much of this policy is intended to support prospective developers and ascertain infrastructure requirements to support sustainable development, as the vision for the sites evolves.

HGGT Transport Strategy (2022)

Since the production of the original LCWIP, HGGT have developed and adopted a new overarching Transport Strategy. The HGGT Transport Strategy sets an area-wide ambition to shift trips to active and sustainable modes, with a mode share objective of 50% for trips in Harlow and 60% for the new Garden Communities. The Strategy includes a future network plan built around Sustainable Transport Corridors running north-south and east-west to the town centre, designed to support safe and attractive walking, cycling and public transport, with an accompanying programme and timeline for phased delivery. These routes are summarised in the Desktop Review section of Chapter 4 in this report. The mode share targets and the development of the Sustainable Transport Corridors should inform this LCWIP to ensure that proposed routes, junction upgrades and wider network improvements align

with the strategic direction set out in the Transport Strategy.

HGGT Re-Imagining How We Can Travel Differently (2024)

The HGGT 'Re-Imagining How We Can Travel Differently' (2024) framework was developed as an implementation plan for the HGGT Transport Strategy. It sets out a programme of interventions to support the delivery of ambitious modal shift targets across the Garden Town.

The framework emphasises the need for a combination of high-quality active travel infrastructure, public transport improvements and behaviour change measures to achieve meaningful shifts in travel patterns. It establishes a prioritised pathway of transport-focused measures, including short-term actions (within the next two years) and longer-term interventions to 2040, to enable the modal transition required to meet these objectives. It is intended to inform decision making by HGGT partners and stakeholders, including funding bids, developer contributions and transport planning decisions.

It also recognises the role of the LCWIP as a key supporting document, with a number of interventions dependent on the progression and updating of the LCWIP to inform the next stage of scheme development and delivery through new development and associated contributions.



HGGT Green Infrastructure Framework (2022)

The HGGT Green Infrastructure Framework promotes a connected network of green corridors that support both walking and cycling as part of everyday movement. It identifies opportunities to expand and enhance the Green Wedges and Green Fingers network to improve permeability and accessibility between residential areas, the town centre and key destinations such as parks.

The framework also highlights the importance of improving pedestrian and cycle infrastructure, including underpasses and road crossings, to create safer and more attractive routes. While primarily developed to support large-scale growth, it provides a useful spatial and strategic framework that complements LCWIP objectives by encouraging active travel alongside wider benefits such as health, wellbeing and environmental enhancement.

HGGT Updates

The HGGT Strategic target is to deliver 23,000 new homes.

This housing target is split across various sites strategic sites in the greater Harlow area, each at differing stages in the planning process as of February 2026. An update on each strategic site is provided below.

Gilston Garden Town

The Gilston Garden Town was granted outline planning permission in January 2025. It was conceived by the HGGT as seven new villages north of Harlow, delivering around 10,000 new homes. Alongside new homes, the development includes facilities for business, retail, sports and leisure and healthcare, as well as community spaces, parks and open spaces, new primary and secondary schools and early years facilities. Developers have been appointed for each of the villages and the plans are progressing towards delivery. The Gilston Strategic Landscape masterplan was approved in Spring 2026. This sets out a framework for the Masterplans for the seven individual Village Masterplans. The Strategic Landscape Masterplan sets out a network of cycle routes across the area, including the principle active travel link into Harlow via the Stort Crossing, linking to the recently constructed North-to-Centre STC.

East of Harlow

Both Epping Forest District Council (EFDC) and HDC adopted the East of Harlow Masterplanning Guidance SPD in 2024. The SPD establishes cross boundary principles for the strategic site, covering sustainable movement, delivery of schools and local centres, health and wellbeing facilities, landscape and green infrastructure, and wider infrastructure to guide the masterplanning process. It confirms capacity for approximately 3,350 homes, comprising

around 2,600 within Harlow and 750 within Epping Forest District. Appendix A of the SPD includes extracts from the Epping Forest District Local Plan (adopted March 2023), which sets out the requirements for development at East of Harlow. In relation to active travel, developments must integrate with National Cycle Network Route 1, provide new footpaths, cycleways and bridleways, link these routes to networks in Harlow and Epping Forest, and deliver a footpath/cycleway/bridleway connection to the Pincey Brook area to improve access to the wider public Rights of Way network.

Water Lane

The Water Lane strategic site remains at the masterplanning stage. The allocation in the Epping Forest District Local Plan (adopted March 2023) identifies capacity for around 2,100 homes, a local centre, a new primary school, traveller pitches and extensive green and transport infrastructure. In February 2025, the HGGT Joint Committee endorsed the Water Lane Stakeholder Engagement Proposal, marking the start of early community and stakeholder-focused engagement to inform the emerging masterplan. A consortium of developers is preparing a Strategic Masterplan for the site under an agreed Planning Performance Agreement with EFDC, HDC and ECC, with formal masterplanning commencing in 2026 following the initial engagement phase.

Latton Priory

An outline planning application for the Latton Priory development was submitted to Epping Forest District Council (EFDC) in September 2024, proposing up to 1,340 homes, a mixed-use local centre, primary and secondary schools, green infrastructure, traveller pitches and new transport routes. Prior to submission, EFDC had endorsed two key documents that carry material weight in the determination of the scheme: the Latton Priory Strategic Masterplan Framework (endorsed in 2023) and the Latton Priory Strategic Design Code (endorsed in March 2024). The Masterplan sought to consider various active travel links into/out of the site, including Rye Hill Road, Fern Hill Lane, and northwards via a proposed Sustainable Transport Corridor to Harlow town centre. The application was refused in February 2026.

Other Sites in Harlow

The Pinnacles

At The Pinnacles, the UK Health Security Agency (UKHSA) will establish a new National Biosecurity Centre, relocating its scientific facilities and headquarters from Porton Down, Colindale and Canary Wharf to Harlow. The project will create circa 2,750 jobs at the new campus. The first facilities are due to open in the mid 2030s and the full site is expected to be operational by 2038.



Princess Alexandra Hospital

The Princess Alexandra Hospital (PAH) site is allocated in the Local Plan for redevelopment in the event that the hospital relocates. The site has the potential to deliver a housing-led scheme of approximately 550 dwellings, representing one of the largest development opportunities within Harlow outside of the proposed Garden Communities.

The relocation programme is currently focused on confirming the preferred location for the new hospital, which will determine the timing and nature of redevelopment at the existing PAH site. The scheme was originally envisaged as a relocation to a greenfield site near M11 Junction 7a, however at the time of writing a range of delivery challenges has led to a preference for redevelopment of the existing site, subject to Government approval.

Harlow Town Centre Regeneration

It is also relevant to note the range of major regeneration projects currently underway in the town centre. These include the emerging arts and cultural quarter, the Broadwalk redevelopment, improvements to Market Square and the delivery of a sustainable transport interchange.

Together, these schemes are reshaping the town centre environment and are expected to generate increased levels of movement, activity and demand for

high-quality walking and cycling connections.

Ongoing Growth and Development to the East of the Town Centre

In parallel, development to the east of the town has progressed significantly since the preparation of the LCWIP 2021. Growth areas such as the Innovation Park and Newhall continue to come forward and have increased in scale since the first LCWIP was prepared.

Development at the Innovation Park remains underway, with a growing mix of employment, leisure, wellness and cultural uses, including the David Lloyd facility and associated arts and leisure provision. This evolving mix is expected to generate a wide range of trips across the day. Newhall is also an expanding residential neighbourhood, with further phases progressing and additional homes being delivered over time. Together, these eastern growth areas represent current and future trip generators, reinforcing the need for the LCWIP to reflect emerging travel patterns and to strengthen active travel connections between eastern neighbourhoods, employment and leisure destinations, and the wider town.

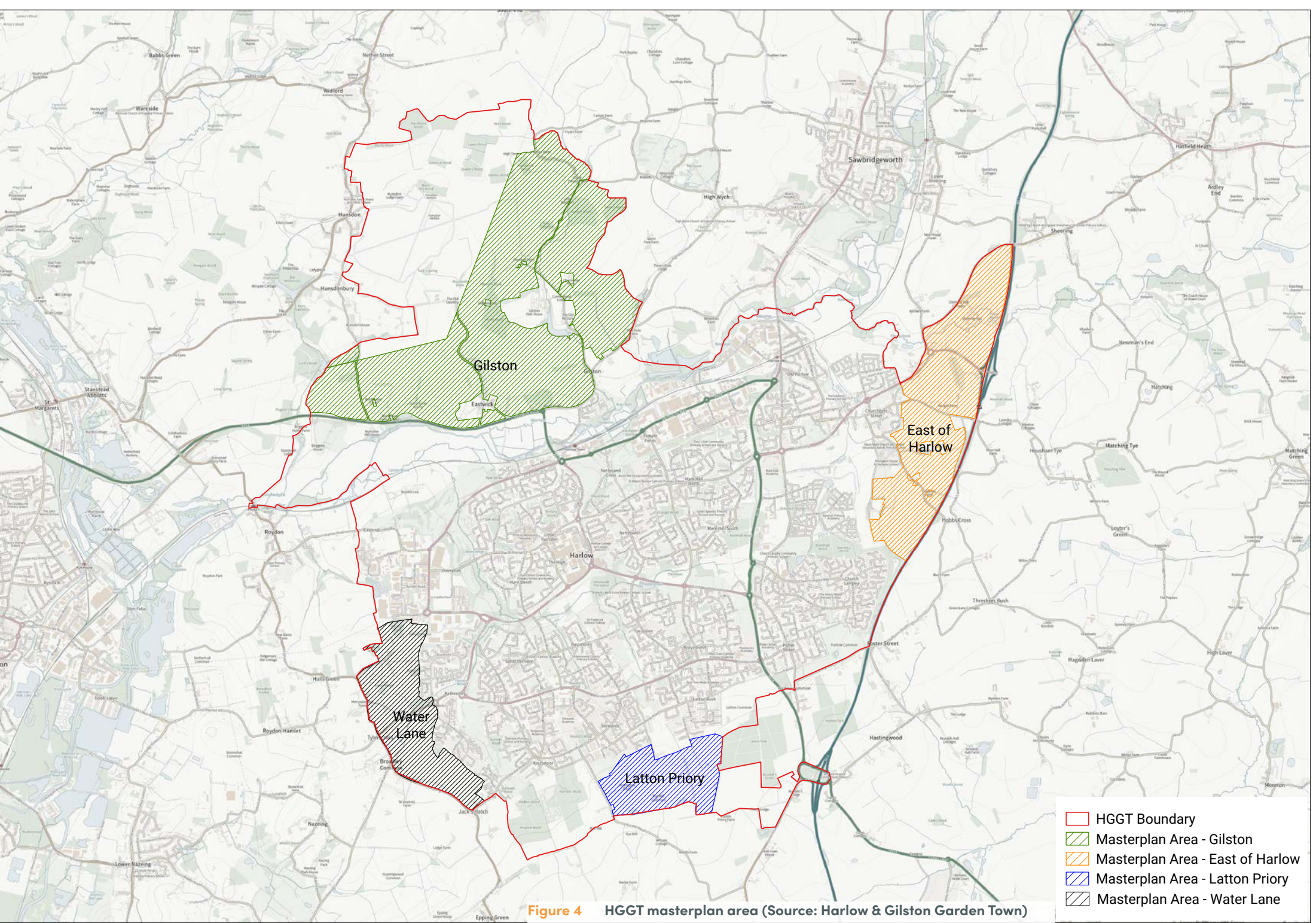


Figure 4 HGTT masterplan area (Source: Harlow & Gilston Garden Town)

-  HGTT Boundary
-  Masterplan Area - Gilston
-  Masterplan Area - East of Harlow
-  Masterplan Area - Latton Priory
-  Masterplan Area - Water Lane



Stage 1 + 2: Determining Scope and Data Collection

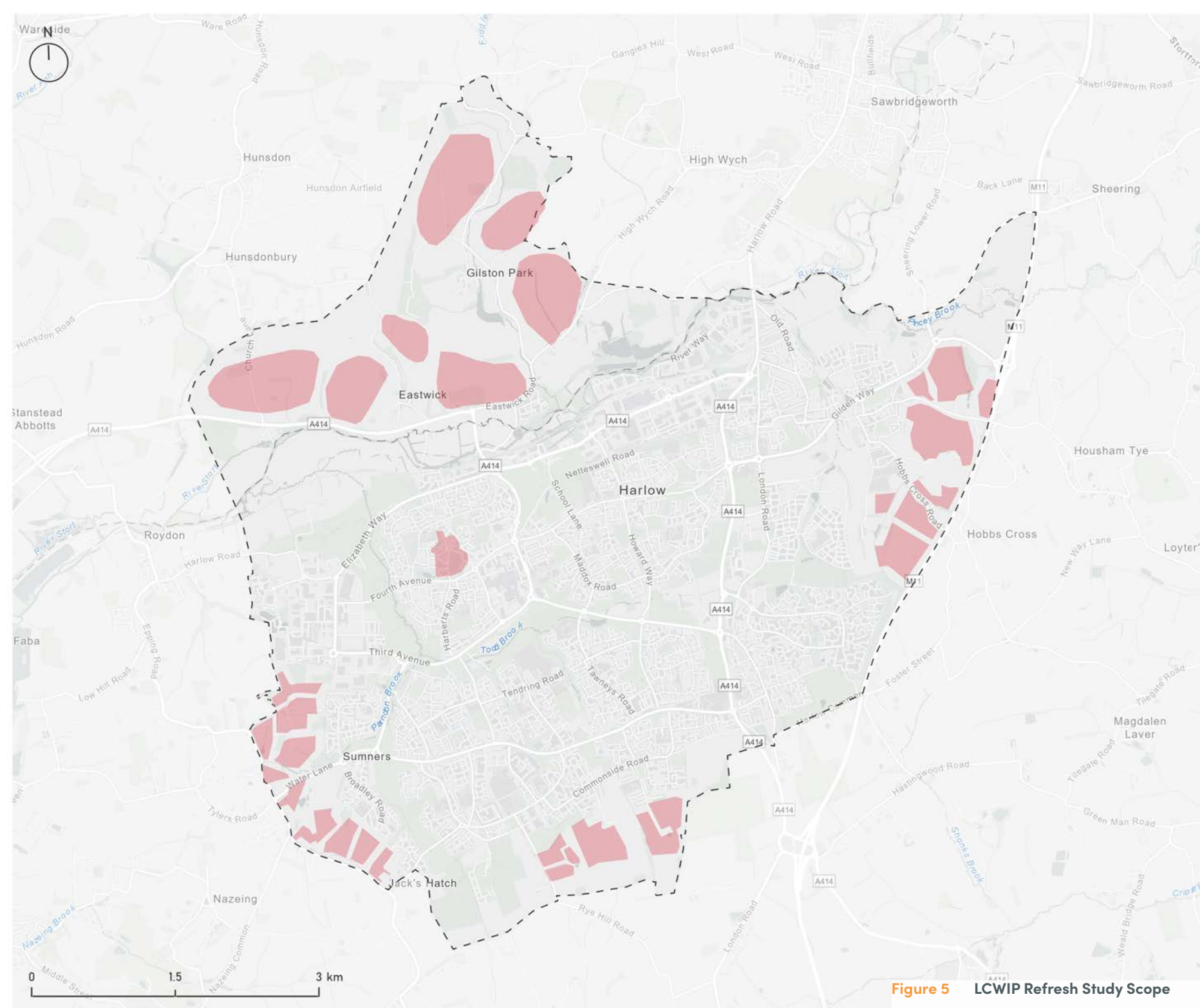


Stage 1 – Determining Scope

The geographic scope of the original LCWIP was defined using a 5 km radius (20-minute cycle distance) from the Harlow town centre. For the Refresh, the study area has been updated to directly align with the Harlow and Gilston Garden Town boundary, as shown in Figure 5. This ensures that the assessment covers both the existing town and the emerging Garden Town communities at Gilston, Latton Priory, Water Lane and East of Harlow.

As part of the LCWIP refresh, it was also important to consider the role of cross boundary connections to neighbouring local authorities, such as Hertfordshire and Epping Forest, to ensure that connectivity to surrounding towns and villages was given proper consideration.

The walking element of the LCWIP applies the same study boundary. However, the geographic scope was further refined during Stage 4 through the identification of Core Walking Zones. These zones were established through a destination clustering process, which identified core areas where multiple desire lines converged. This method ensures that analysis focuses on locations with the highest pedestrian activity and greatest potential for improvement.



LCWIP Refresh Study Scope

- HGGT development sites
- Harlow Study Extents

Figure 5 LCWIP Refresh Study Scope

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Stage 2 – Data Collection

The focus of Data Collection (LCWIP Stage 2) is to understand the local context to inform the development of the LCWIP walking and cycling networks. DfT guidance recommends that a broad range of information should be gathered to inform the preparation of the LCWIP, including:

- Local context
- Location of significant trip generators
- Transport network
- Travel patterns
- Existing barriers to cycling and walking

Our LCWIP review methodology aligned with the above national guidance. The approach draws on a range of quantitative and qualitative datasets to ensure the recommendations are robust and reflect current local conditions. The methodology comprises three components.

- **Desktop Review** – A systematic review of changes over the past five years, including planning and policy updates, infrastructure delivery, land use change and wider contextual developments. This establishes a clear understanding of progress to date and any shifts that may influence future network priorities.
- **Demand analysis** – A reassessment of emerging and potential walking and cycling desire lines informed by recent development activity, population

change and travel behaviour change. This stage identifies areas where increased demand for walking and cycling is expected and where targeted interventions are likely to have the greatest impact.

- **Network expansion assessment** – An evaluation of opportunities for network expansion, focusing on new or strengthened walking and cycling corridors that would enhance connectivity and improve overall network coherence. While the LCWIP guidance champions a data-led approach to network planning, also key to the process is building in stakeholder engagement into the development of the LCWIP.

For the LCWIP Refresh, the PJA team and ECC engaged with officers at HDC, HGGT and the wider local authorities. Findings from the engagement exercise have informed the network expansion and design recommendations in this report.

Desktop Review

Original HGGT LCWIP Routes

The following section is a review of the routes identified in the previous LCWIP, which are shown on the plan overleaf in Figure 6.



Route 1: Town Centre orbital

LCWIP Route 1 follows the road network encircling Harlow town centre. It is highly strategic in nature, with all other proposed LCWIP routes linking to Route 1 as radial routes from the town centre.

The development of Route 1 was always to be contingent on other town centre developments featured within the Harlow Town Centre Masterplan such as the Town Centre Interchange & Hub.

The easternmost section of Route 1 along Velizy Avenue, alongside LCWIP Route 3, was completed in March 2026 as part of the North-to-Centre Sustainable Transport Corridor (STC) development along the A1019.

Route 2: Gilston (west) – Parndon Mill – Town Centre

LCWIP Route 2 connects between the settlement of Eastwick to the north of Harlow into Harlow town centre. It passes adjacent to the Parndon Mill gallery and creative industries hub as well as planned residential and employment sites in the Parndon Mill Lane area of the town.

No construction works are currently included in the live programme, and the scheme remains at the LCWIP technical recommendation stage rather than as a finalised delivery package.

Route 3: Gilston (central) – Burnt Mill – Town Centre

LCWIP Route 3 links Gilston to Harlow town centre via Fifth Avenue/Zelensky Avenue (the A414) and Burnt Mill Roundabout.

The North-to-Centre STC follows route 3 along Allende Avenue/Fifth Avenue in the A1019 corridor. The corridor was completed in March 2026 as part of the North-to-Centre STC programme.

The Gilston developer proposes to extend the STC north of Burnt Mill Roundabout to the Eastwick junction on the A414, including new dedicated transport infrastructure crossing the Stort Valley. Planning approval for the Central Stort Crossing was granted in February 2022. This includes the widening and upgrade of the existing A414 / Fifth Avenue bridge, the provision of bus lanes, and a new pedestrian and cycle bridge linking Village 1 at Gilston with Harlow.



Desktop Review

Route 4: Town Centre – First Avenue – Churchgate Street – East of Harlow

LCWIP Route 4 is being referred to as the “east-to-west route” and is the longest route proposed at around 4.5km in length. It leads eastward from Velizy Avenue roundabout and ends at Sheering Road, connecting several local centres between Old Harlow and Harlow town centre. It is also the proposed route to connect to the East of Harlow development site. The route follows the alignment of the East-West STC with alignments differing east of the London Road roundabout where the LCWIP continues along the A1025.

Phase 1 focuses on three initial crossing upgrades on First Avenue: a new raised table crossing at the Park Lane Junction with First Avenue Mandela Avenue; a new toucan crossing on the northern arm of the Howard Way Roundabout near the junction with First Avenue and a new parallel crossing over Momples Road at the junction with First Avenue. The proposals underwent consultation in summer 2025, and it is now being finalised before proceeding with the legal orders required for the scheme and tendering. At the time of writing, construction is programmed to begin in spring 2026 and complete in summer 2026.

Route 5: Town Centre – Brays Grove – Potter Street

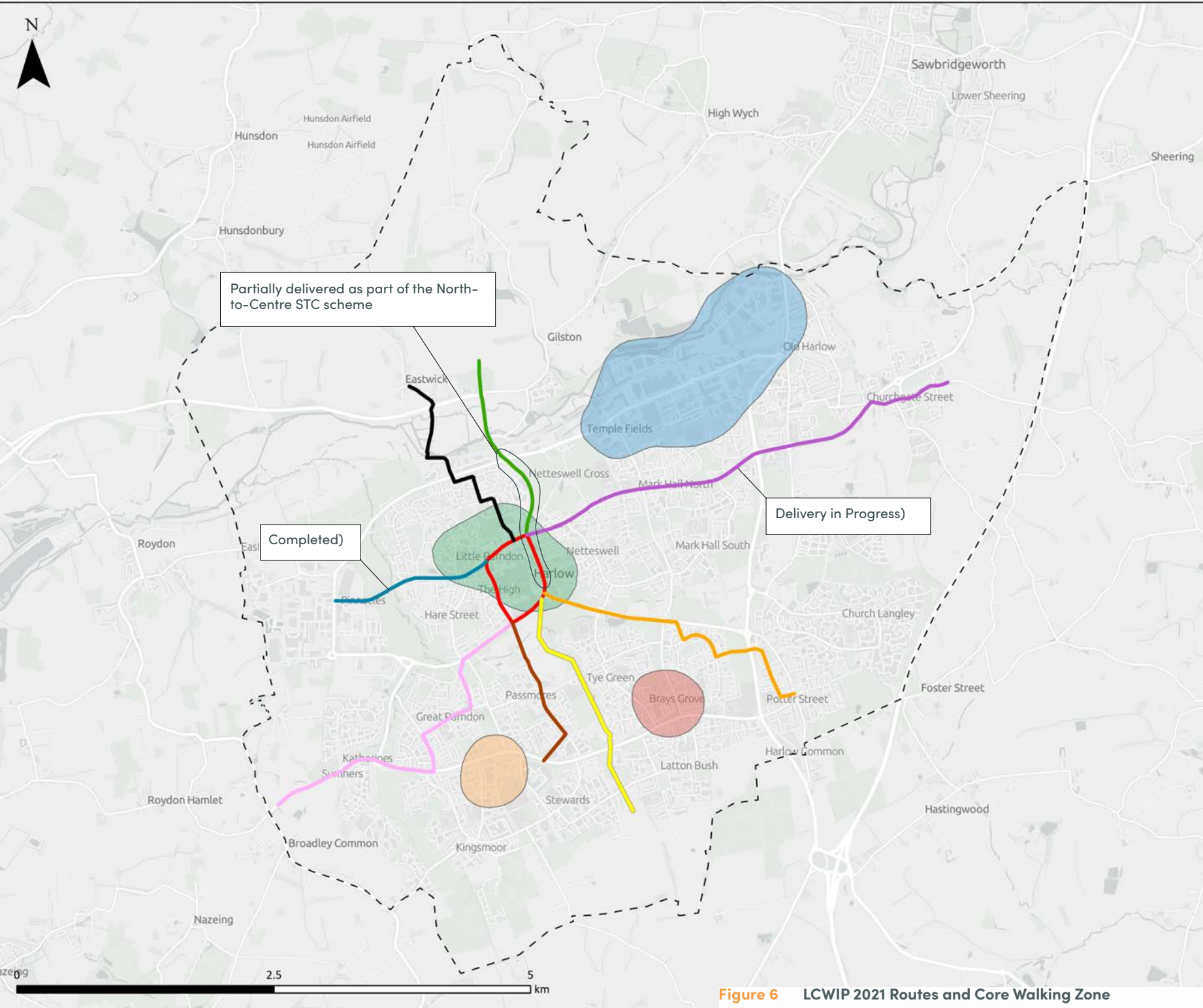
LCWIP Route 5 links east from Harlow Town Centre and was proposed to link to Potter Street east of the A414.

Route 6: Town Centre – Tye Green – Latton Bush – Latton Priory

LCWIP Route 6 is already a comfortable and direct north-south cycle route between Latton Bush and Harlow Town Centre. The route consists predominantly of off-road paths, and the LCWIP recommends upgrading the existing provision by widening the shared-use path, resurfacing the route, and introducing appropriate crossing facilities to improve connectivity. To date, maintenance improvements have been made to Route 6, and options for this route are being explored as part of a potential STC connection via the "Green Wedge" to Latton Priory. This would provide facilities for people walking and cycling, and buses.

Route 7: Town Centre – Passmores – Staple Tye

LCWIP Route 7 was proposed between the Town Centre and Tye Green via the residential area of Passmores. No progress has been made to date to deliver the proposed Route 7.



Harlow Study Area

Proposed Core Walking Zone (CWZ)

Bush Fair

Temple Fields

Town Centre

Staple Tye

Proposed Cycle Corridor

Route 1 (2.17 km)

Route 2 (2.29 km)

Route 3 (1.86 km)

Route 4 (4.49 km)

Route 5 (3.04 km)

Route 6 (2.40 km)

Route 7 (1.55 km)

Route 8 (3.69 km)

Route 9 (1.57 km)

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PJA

The Aquarium

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T. 0118 956 0909

CLIENT

Epping Forest District Council

PROJECT

Harlow LCWIP

TITLE

COMBINED LCWIP WALKING AND CYCLING PROPOSALS

SCALE

DRAWN

REVIEWED

DATE

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06/05/2021

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Figure 6 LCWIP 2021 Routes and Core Walking Zone



Desktop Review

Route 8: Town Centre – Great Parndon – Water Lane

LCWIP Route 8 was proposed between the Town Centre and Water Lane via Great Parndon. It connects several allocated housing sites in the Great Parndon area and leads into the Water Lane masterplan area. No progress has been made to date to deliver the proposed Route 8.

Route 9: Town Centre – Fourth Avenue – Pinnacles

LCWIP Route 9 is an east-west corridor connecting the Pinnacles industrial area with the Town Centre. It is also part of the east-to-west STC. The route was the first Active Travel Fund scheme to be completed by ECC in November 2024, following investment of approximately £2 million. Works included full resurfacing of the existing path, new street lighting, improved drainage, new wayfinding and road markings. A new tabletop crossing, and parallel crossing have also been installed at both the west and eastern ends of Hodings road respectively.

Core Walking Zones

A total of seven Core Walking Zones were identified in the previous LCWIP:

- Pinnacles
- Town Centre

- Temple Fields
- Burnt Mill
- Church Langley
- Bush Fair
- Staple Tye

The previous LCWIP performed a prioritisation exercise to select four zones for walking route development, detailed site audits, design recommendations, and future funding programmes. These were:

- Town Centre
- Temple Fields
- Bush Fair
- Staple Tye

Recent progress has largely been limited to incremental improvements delivered through STC works and the Station–Town Centre Walking Route Upgrade, alongside town centre regeneration projects such as Broadwalk and Market Square, which enhance the overall town centre walking environment and the quality of public space.



Figure 7 New footpath and cycleway as part of the North-to-Centre STC scheme



Figure 9 New seating area provided as part of the North-to-Centre STC scheme



Figure 11 North-to-Centre STC scheme



Figure 8 LCWIP route 9 improvements (source: ECC)



Figure 10 LCWIP route 9 improvements (source: ECC)



Figure 12 New parallel crossing on LCWIP route 9 (source: ECC)



Desktop Review

Sustainable Transport Corridors (STCs)

The growth of the Garden Town is underpinned by investment in STCs which link new and existing communities to the town centre and key destinations. These corridors are intended to provide high-quality public transport and active travel connections, enabling fast and reliable links to places such as Harlow Town railway station and primary employment areas. In March 2020, Homes England announced £172 million of Housing Investment Grant (HIG) funding to support early delivery of essential transport infrastructure, including the STCs, ensuring that new development is accompanied by high-quality sustainable travel options from the outset.

With the funding now secured, ECC has brought forward the first Sustainable Transport Corridor into delivery, and construction on the initial phases is now complete along the northern corridor linking Harlow Town railway station and the town centre.

North-to-Centre Sustainable Transport Corridor

The North-to-Centre STC forms a major element of this programme, providing new high-quality public transport, walking and cycling connections along the A1019 between Burnt Mill Roundabout and the town centre. The scheme includes upgrades to junctions along A1019 to improve their operation

and enhance accessibility for people travelling by bus, cycle or on foot, supporting a more pleasant and predictable journey experience. A series of new signal-controlled crossings for both pedestrians and cyclists are being introduced along the corridor to provide safe and convenient crossing points for all users. The corridor was completed in March 2026.

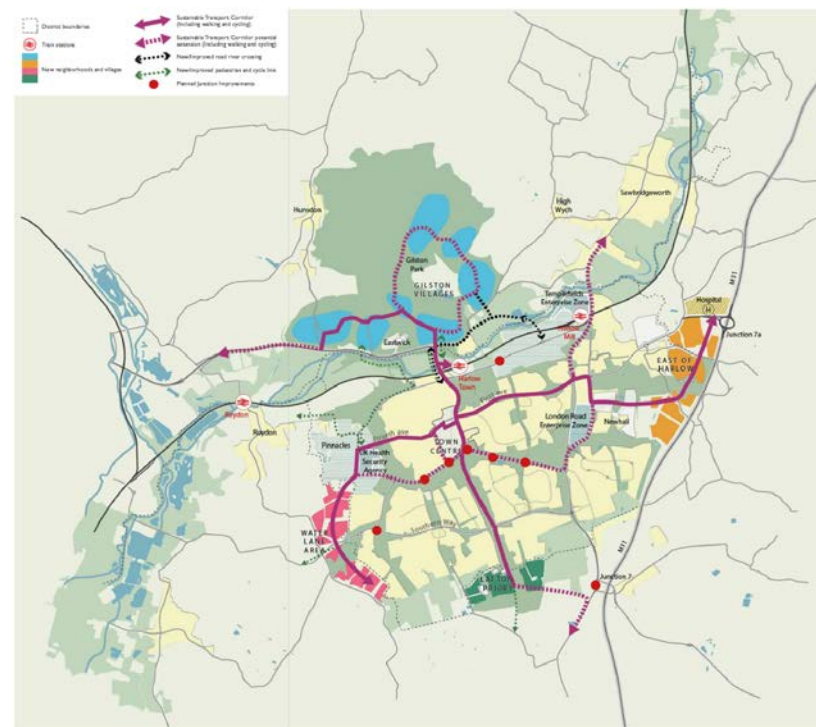


Figure 13 Indicative alignments of STC in HGGT Transport Strategy 2022

The Gilston developer proposes to extend the STC north of Burnt Mill Roundabout to the Eastwick junction on the A414, including new dedicated transport infrastructure crossing the Stort Valley. Planning approval for the Central Stort Crossing includes the widening and upgrades of the existing A414/ Fifth Avenue bridge with integrated pedestrian and cycle facilities, was granted in February 2022 and completion is anticipated in 2029.



Figure 14 Visual of the STC extension proposal

Southern Way Improvement Scheme

ECC has undertaken feasibility and early concept design work for improvements along Southern Way. The scheme is currently at an early stage and explores a range of options through an optioneering process. Its objectives align closely with LCWIP priorities, including supporting modal shift towards active travel, improving road safety, enhancing public transport integration and achieving a better balance between movement and place, alongside improvements to the public realm. While not yet fully defined, the scheme is being developed in parallel with the LCWIP and provides an opportunity to inform and align with wider network planning, ensuring that emerging proposals complement identified walking and cycling routes and contribute to a coherent active travel network.

STC Connectors – Developer Information Pack (2023–2024)

The STC alignments set out in the policy documents remains indicative, with further updates to the alignment options now available following completion of the relevant studies. In 2023, HGGT and ECC commissioned detailed assessments of potential STC alignments to the strategic masterplan sites, including any associated land acquisition requirements. These studies examined a wide range of route options in depth. A preferred option has now



Desktop Review

emerged, although it remains indicative and subject to further design work.

Water Lane

The STC connector will start at Elizabeth Way/Third Avenue roundabout, run south along the access road to Icon Harlow Business Park, then turn west and follow an east–west alignment across undeveloped land south of the G and T site. It will then cross the existing bridleway and join the northern edge of the Latton Priory site. The existing public bridleway from Flex Meadow, which runs south between two industrial units, can also support walking and cycling access.

East of Harlow

The STC Connector will begin on the eastern edge of the Newhall development and continue east into the adjoining green space. It will meet the proposed all vehicle route coming south from Gilden Way. The all-vehicle route is expected to link to the A1025 near the old nursery site before heading south into the green space east of Newhall. The STC will have priority at the crossing point, then continue across Hubbard Hall Lane and into the main development area between Churchgate Street and Hubbard Hall. The precise alignment, along with the position of the all-vehicle access to the development, will be set through masterplanning.

Latton Priory

The preferred alignment runs south from Commonside Road along the existing alignment of Fern Hill Lane, and just south of the allotments it shifts east across land within the Harlow Green Wedge before connecting into the northern perimeter of the Latton Priory development site.

A Review of Harlow's Historical Cycle Network (Walk Wheel Cycle Trust, 2025)

HGGT has engaged the Walk Wheel Cycle Trust to evaluate the condition of the entire 30-mile network in August 2025 (Figure 15). The audit of Harlow's historical cycling network provides an important evidence base for understanding the current condition and role of the legacy infrastructure. The study demonstrates that the 30-mile network remains a significant asset: it is coherent, largely separated from motor traffic and offers generous space for both walking and cycling, however the level of use appears low.

The audit captured a range of issues affecting the quality and accessibility of the network, including barriers to access, maintenance issues, recorded defects, wayfinding gaps and points of severance. A notable finding was the identification of 67 locations that felt isolated or unwelcoming. These were typically underpasses or spaces with limited visibility or enclosure, which

appear to affect users' confidence and may contribute to low levels of walking, wheeling and cycling, even where the infrastructure itself remains functional.

Following the site visits, the audit findings were compared against strategic routes in Harlow's Local Cycling and Walking Infrastructure Plan (LCWIP) and the Sustainable Transport Corridors proposed by HGGT. Feedback gathered from the community during a face to face engagement session was

also incorporated. Together, this process resulted in a series of prioritised suggestions for more focused improvements across the network.

The audit of the legacy cycling network provides a clear understanding of which routes remain usable and the level of service they currently offer.

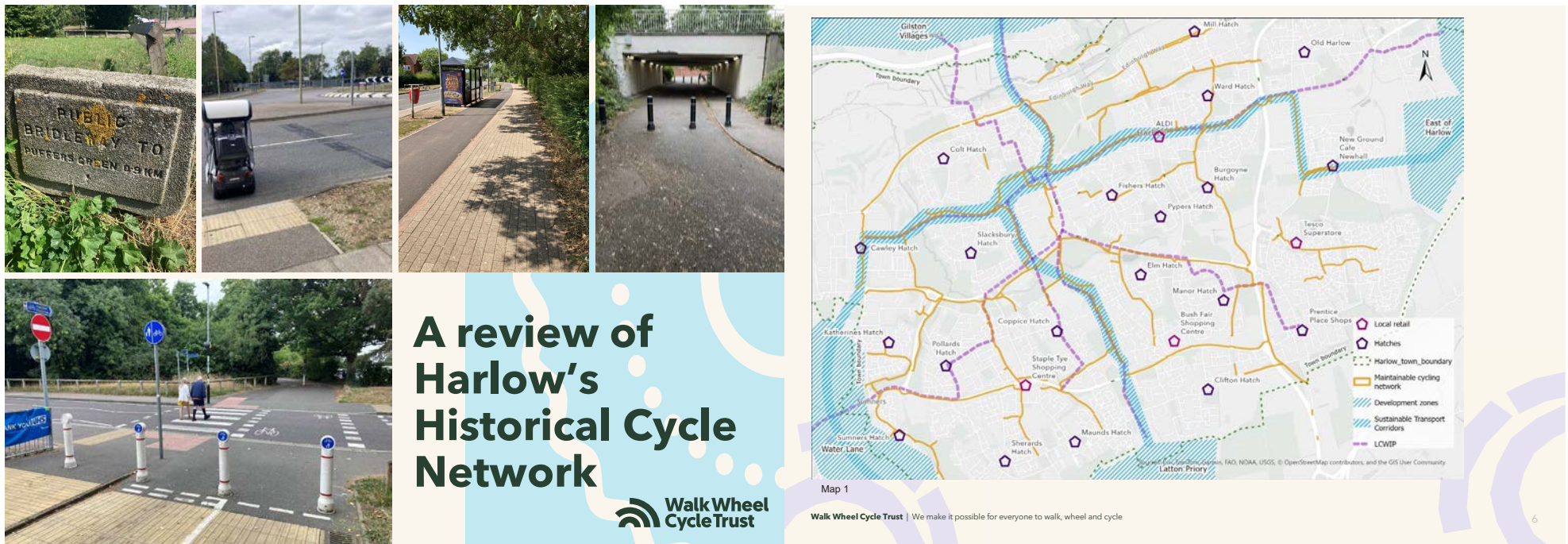


Figure 15 A review of Harlow's Historical Cycle Network report (left); Auditing scope (right)



Desktop Review

This evidence is central to the development of this LCWIP Refresh because it establishes the baseline from which future improvements must be planned. It highlights where the historical network continues to function effectively and where gaps, constraints or declining conditions now limit its usefulness. These findings directly inform the development of the future cycle network by identifying priority legacy links that should be upgraded to meet current and emerging travel needs. The evidence base also informs the recommendations and prioritisation process of this LCWIP.

Harlow Town Station and Harlow Mill Station upgrades

The proposed enhancements to the interchange areas at Harlow Town and Harlow Mill railway stations are intended to establish high-quality transport hubs that support a range of sustainable travel modes. The improvements would create more welcoming gateways to Harlow, provide high-quality passenger facilities and expand travel choices for residents and visitors.

For Harlow Town Station, a concept design option has been developed, Concept design options have been developed, one of which is shown in Figure 16, which incorporates a revised bus stop layout, relocation of the existing taxi bay, new drop-off bays on Station Approach and the introduction of zebra crossings across the station forecourt. The proposals also include a new cycle

route from the Burnt Mill Roundabout and a new one-way bus route located behind the multi-storey car park, linking to Edinburgh Gate. These are subject to ongoing and future discussions among stakeholders.

For Harlow Mill Station, a design option has been prepared that brings forward a package of improvements to the immediate station area. This

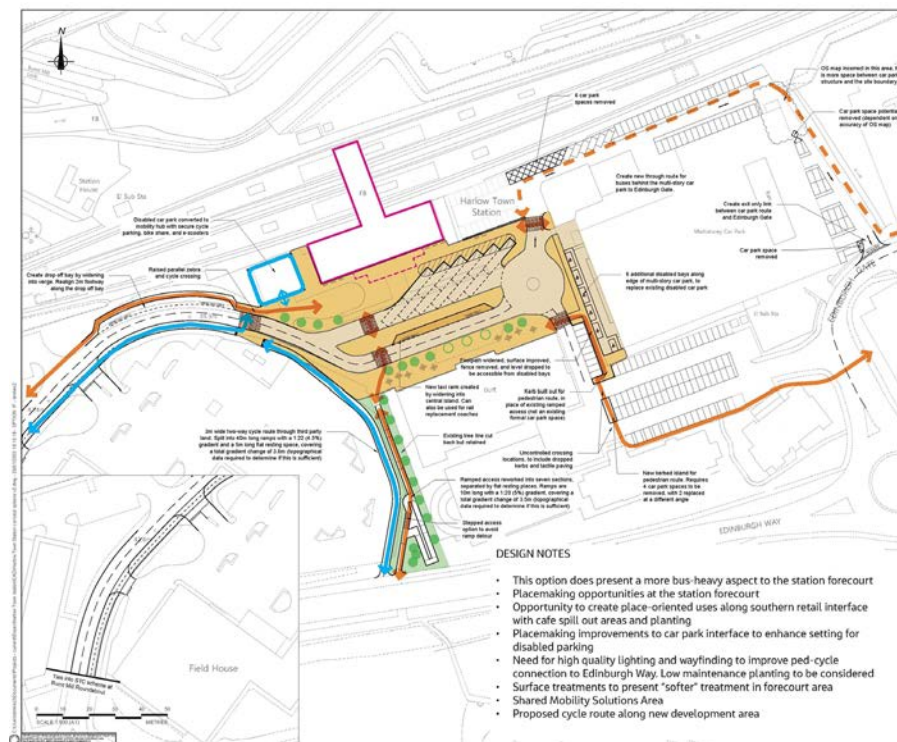


Figure 16 Harlow Town Station Forecourt Concept Design Option

includes proposed new bus stops and dedicated drop-off or taxi spaces, alongside enhanced walking and cycling facilities on Station Approach. A signalised pedestrian crossing over the A1184 Cambridge Road is also included within the option.

Community engagement on the proposals is ongoing and will continue to inform the refinement of the design.

East Herts Local Cycling and Walking Infrastructure Plan (consultation draft 2025)

The emerging East Herts Local Cycling and Walking Infrastructure Plan (LCWIP), prepared jointly by Hertfordshire County Council and East Herts Council, was subject to consultation in Autumn 2025 and the updated version is due to be published. As part of its development, the councils have been working with local communities to understand walking and cycling needs, including the connections that relate directly to the northern edge of Harlow.

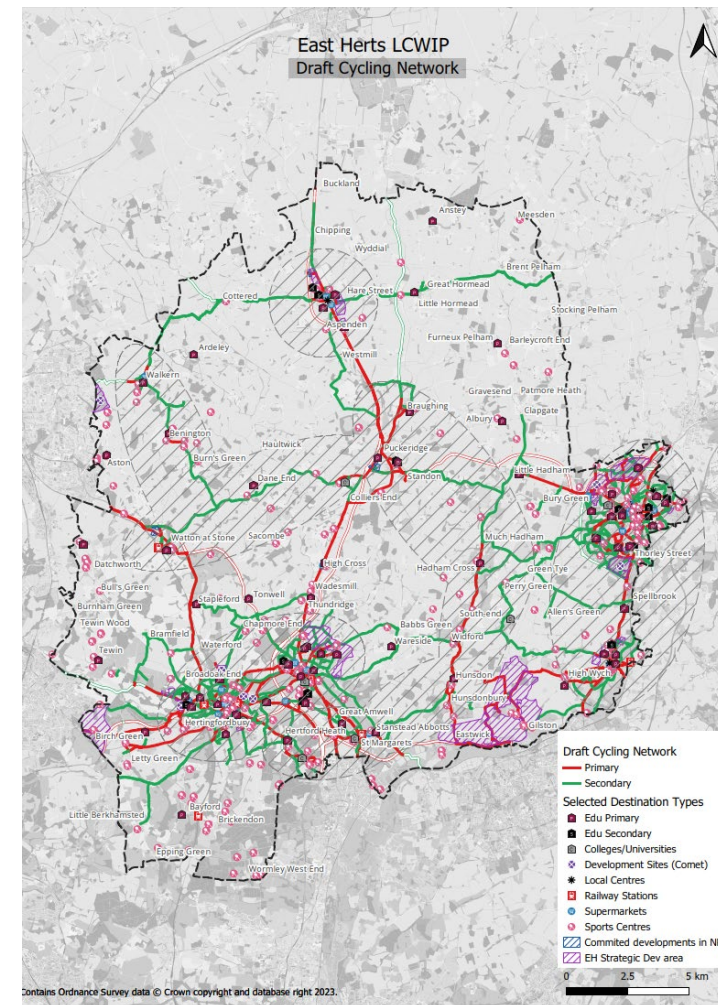


Figure 17 East Herts Local Cycling and Walking Infrastructure Plan (consultation draft 2025)



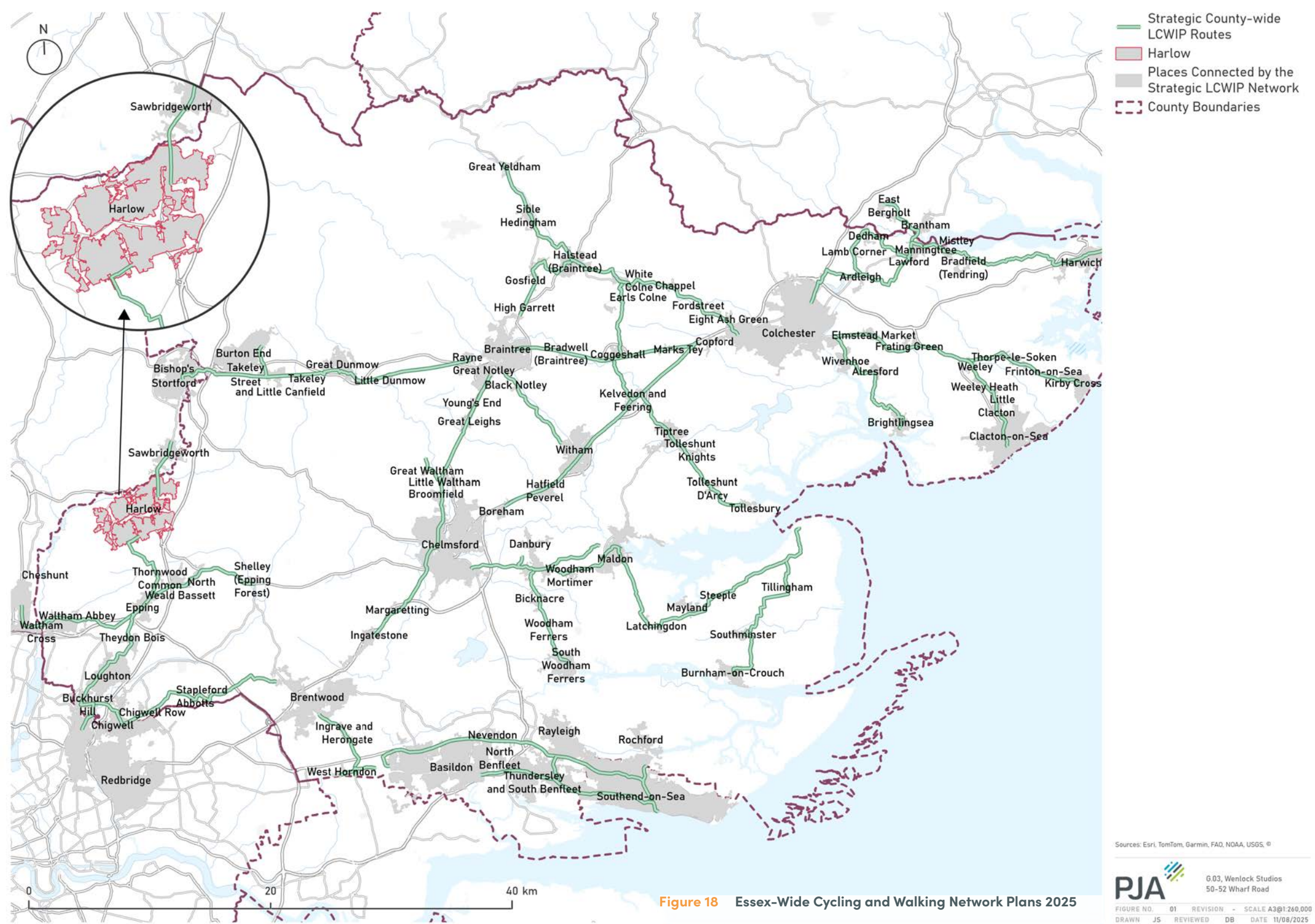
Desktop Review

As the HGGT area spans the boundary between Essex and Hertfordshire, the draft East Herts LCWIP is particularly relevant. It identifies several secondary routes linking the Gilston Area with Harlow railway station, Roydon and Old Harlow, as well as a primary route connection towards Sawbridgeworth. These cross-boundary links will play an important role in ensuring that new Garden Town communities are well connected to key destinations on both sides of the county boundary. This LCWIP therefore needs to align with the emerging East Herts route network and reflect the work already undertaken in the background, so that proposals form part of a coherent, joined-up walking and cycling network across the wider HGGT area.

Essex LCWIP (2025)

The Essex LCWIP sets out a county-level approach to improving active travel infrastructure, with a particular focus on enhancing strategic and rural connections that enable longer journeys by active travel mode. The plan intends to complement existing district-level LCWIPs by providing intra-regional links between villages, town and cities, and strengthening connectivity across the wider Essex. The routes identified in the Essex LCWIP are shown on the plan opposite in Figure 18.

As shown on the plan, the Essex LCWIP identifies two strategic connections relevant to Harlow: one to the north towards Sawbridgeworth, and one to the south linking Thornwood Common, North Weald Bassett and Epping via Latton Priory. These corridors provide important cross-boundary links to the nearby settlements and support the development of a coherent wider network.



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, ©



Demand Analysis

Overview

Understanding existing and potential future travel patterns is an important step in developing the LCWIP network to ensure it reflects local demand. Since the publication of the previous LCWIP, it has been necessary to update the demand analysis to ensure the network reflects the current picture of travel behaviour. Population growth, ongoing development and the emergence of new destinations, such as residential areas, employment sites and community facilities, have altered both the distribution and intensity of travel demand in the town.

The analysis of travel patterns has combined analysis of commuter patterns (Propensity to Cycle Tool) and non-commuter travel patterns (School Trips, Everyday Trips and Strava analysis). Updated datasets, including the latest Strava Metro information and refreshed everyday trip analysis, now provide a more detailed and representative view of active travel activity. Together, these changes necessitate a revised analysis to ensure the LCWIP remains aligned with current and future needs.

Propensity to Cycle Tool (PCT)

The Propensity to Cycle Tool or PCT (www.pct.bike) is a nationwide model that identifies where increases in the rates of cycling can be expected through the provision of better infrastructure. It uses Census travel-to-work data and school travel data and looks at trip distances to see where there may be scope for more short journeys to be undertaken by cycling.

It is important to acknowledge a key limitation of the PCT. The model is built on 2011 Census data, which restricts its ability to reflect recent demographic or travel behaviour changes. Although population data used in this study has been reviewed and updated where appropriate using the 2021 Census, the underlying modelling framework remains based on 2011 travel patterns which means that emerging desire lines may not be reflective of recent changes in Harlow's urban form.

As a result, outputs from the tool should be interpreted as indicative rather than definitive. They serve as a useful proxy for assessing the potential for modal shift to cycling, but they do not capture all recent changes in employment locations, travel demand or network development.



The PCT provides seven scenarios for forecasting future levels of cycling which range in ambition from the 'Government Target' (assumes 6% of commuting trips by bicycle) up to the 'E-Bike' scenario (assumes 22% of commuting trips by bicycle and improved access to e-bikes). The PCT provides two sets of mapping outputs:

- Straight-Line Networks – these plans show direct paths between LSOA Origin-Destination points which gives an overview of the key desire lines for cycling flows
- Applied Networks – applies the straight desire line to the existing road network to provide a more detailed summary of where increased cycle flows would take place on the local network

The PCT tool was used to identify the greatest latent demand for cycle and school commuting. The PCT analysis used the 'E-Bike' scenario, which models the same mode share for cycling as in the Netherlands, adjusting for trip distance and topography and includes improved access to E-Bikes. Using the 'E-Bike' scenario provides a more ambitious and longer-term outlook for cycling flows which is advantageous in network planning as it ensures that the LCWIP cycle network will provide for assumed future advances in the town's cycle network.

To accommodate future commuting demand from proposed developments, the population forecasts for each proposed development site were incorporated into the PCT forecasts to provide a more accurate reflection of a potential future scenario. The forecast populations were assigned to the nearest available LSOA to each development site.



Demand Analysis

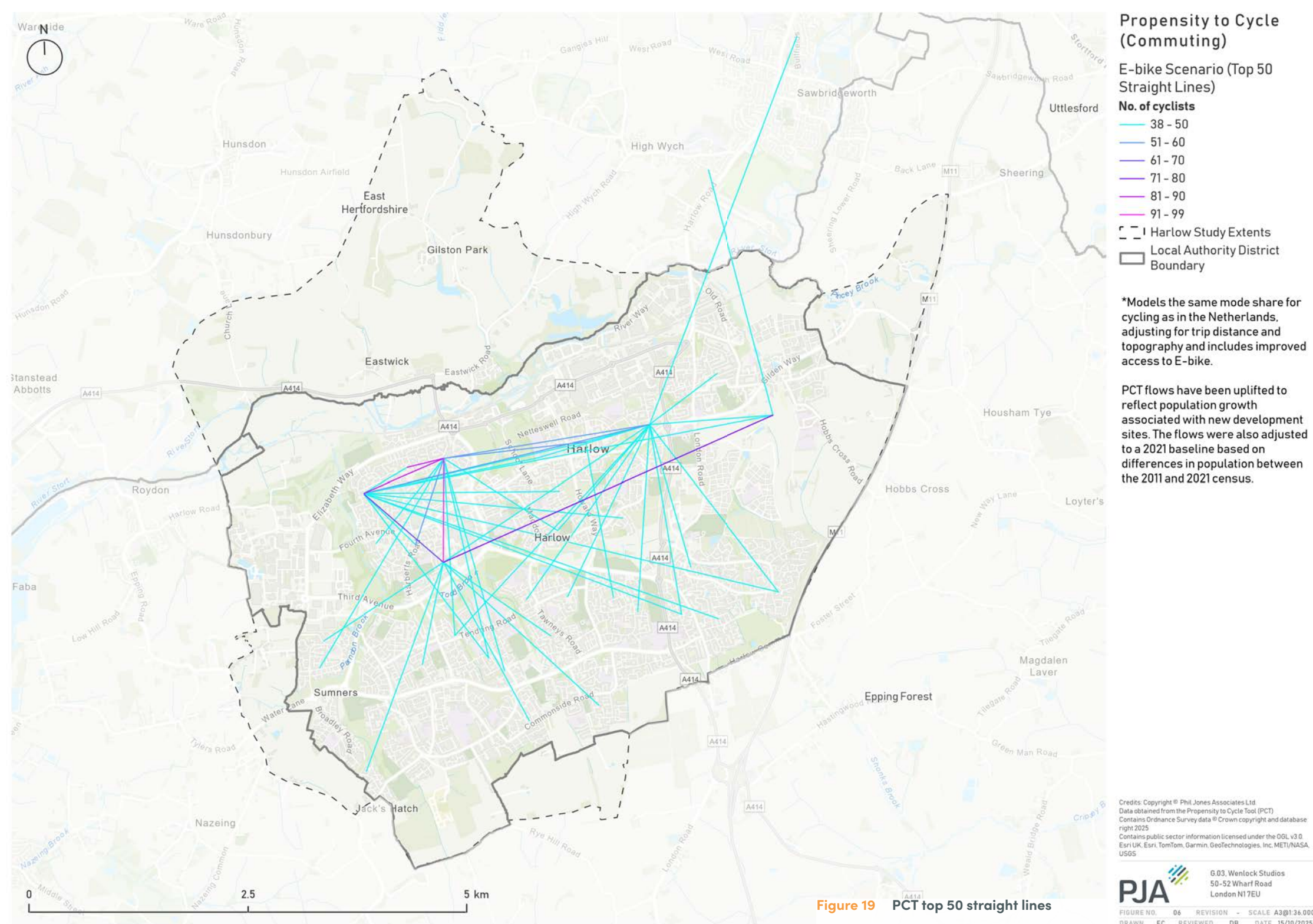
PCT Straight Lines

The plan in Figure 19 shows the top-50 straight desire lines across the study area. It should be noted that the PCT analysis is based on routes between population-weighted Lower Layer Super Output Area (LSOA) centroids, rather than specific trip origins and destinations. As a result, the spatial representation of demand may not fully reflect local conditions, and some trip patterns may be generalised or displaced. This is particularly relevant when looking at desire lines to and from employment areas, such as the Pinnacles, where the population-weighted centroid would instead be located in a nearby residential area, rather than within the employment area itself. This should be taken into account when interpreting desire lines and applying the outputs to inform network planning.

The results indicate strong commuting movements between the eastern and western parts of Harlow. There are multiple desire lines radiating from the town centre and its immediate surroundings in all directions. This reflects the concentration of key destinations within Harlow town centre, which generates substantial movements between the centre and the predominantly residential neighbourhoods surrounding it.

Another cluster of desire lines is shown in the north east of Harlow. This corresponds with a local centre in this part of the town, which creates desire lines radiating outwards to the adjacent areas including Old Harlow Town Centre, the London Road Enterprise Zone, nearby local centres such as Bush Fair, and surrounding residential neighbourhoods.

A number of desire lines also extend towards planned growth locations to the east of Harlow, including Latton Priory and Water Lane. These indicate emerging demand associated with new development areas and highlight the need to consider future connectivity between existing communities and planned sites.





Demand Analysis

PCT Applied Network

The PCT tool also provides an 'applied network' scenario which snaps the straight-line desire lines to closest applicable road alignment to provide an indication of more applied demand. It also provides a school travel scenario using the travel-to-school results from the 2011 Census.

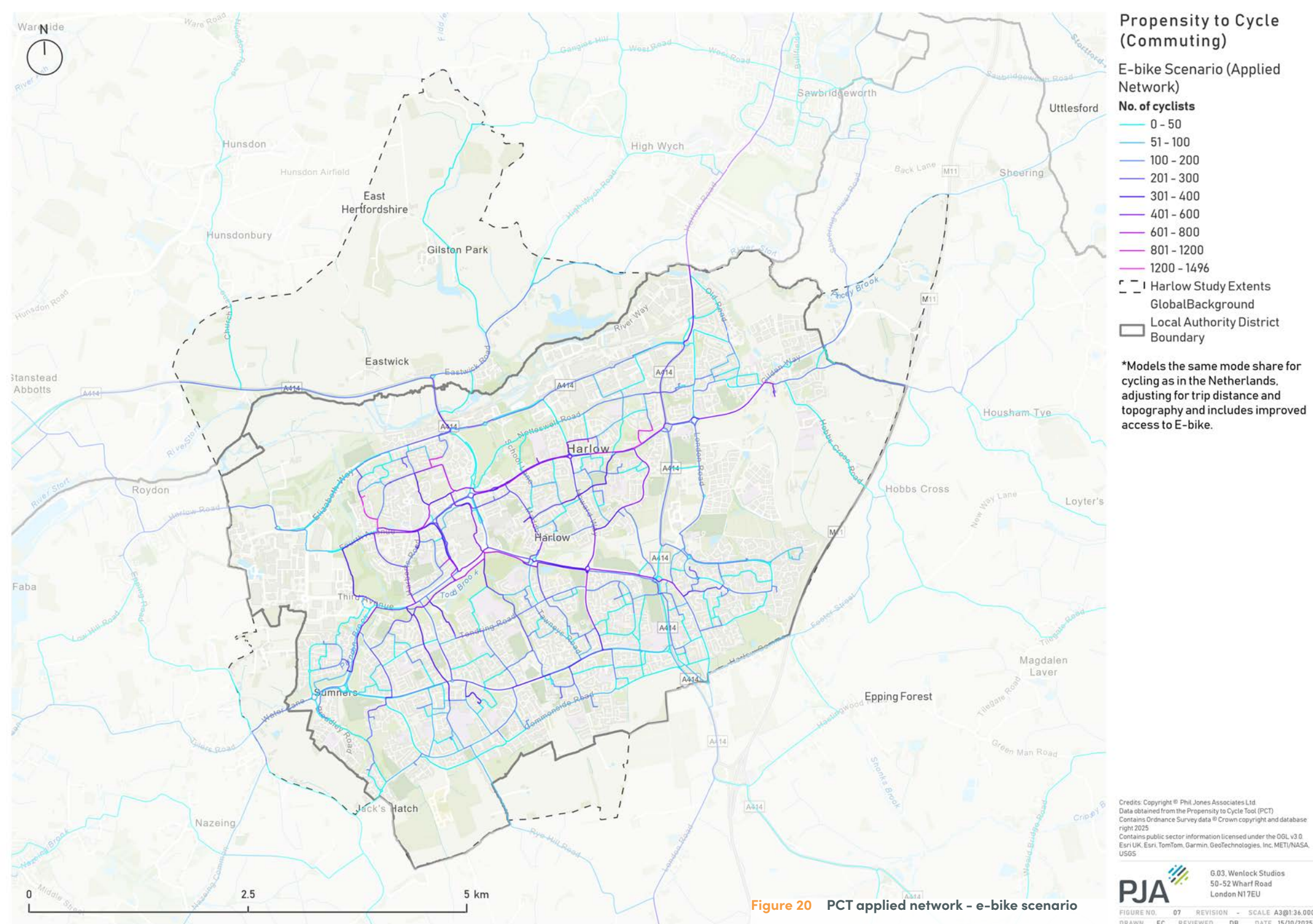
It should be noted that the PCT tool is based on 2011 Census data, and therefore does not reflect more recent or future development. This results in gaps in the applied network where significant growth has occurred or is planned. In recently developed locations such as Newhall, the model does not capture current or anticipated movement patterns, nor the presence of new or proposed routes and destinations. This limitation should be considered when interpreting the outputs and applying them to network planning.

The PCT outputs in Figure 20 indicate that latent commuter cycling demand is highest on corridors that radiate from the town centre. Strong demand is consistently observed along the following primary routes that connect into the town centre, including First Avenue Mandela Avenue, Second Avenue, Third Avenue, Fourth Avenue.

Southern Way accommodates a significant proportion of east–west demand, functioning as one of the major routes for longer east–west movements within Harlow.

Howard Way, Tillwicks Road, Katherine's Way, Abercrombie Way and a number of adjoining residential streets are identified with strong north–south demand. Together, these routes form a network of local connectors for north–south connections within Harlow.

Notable demand is also shown along Harlow Road and Gilden Way, extending beyond the eastern edge of Harlow towards the north–east.





Demand Analysis

PCT Applied Network – School Travel

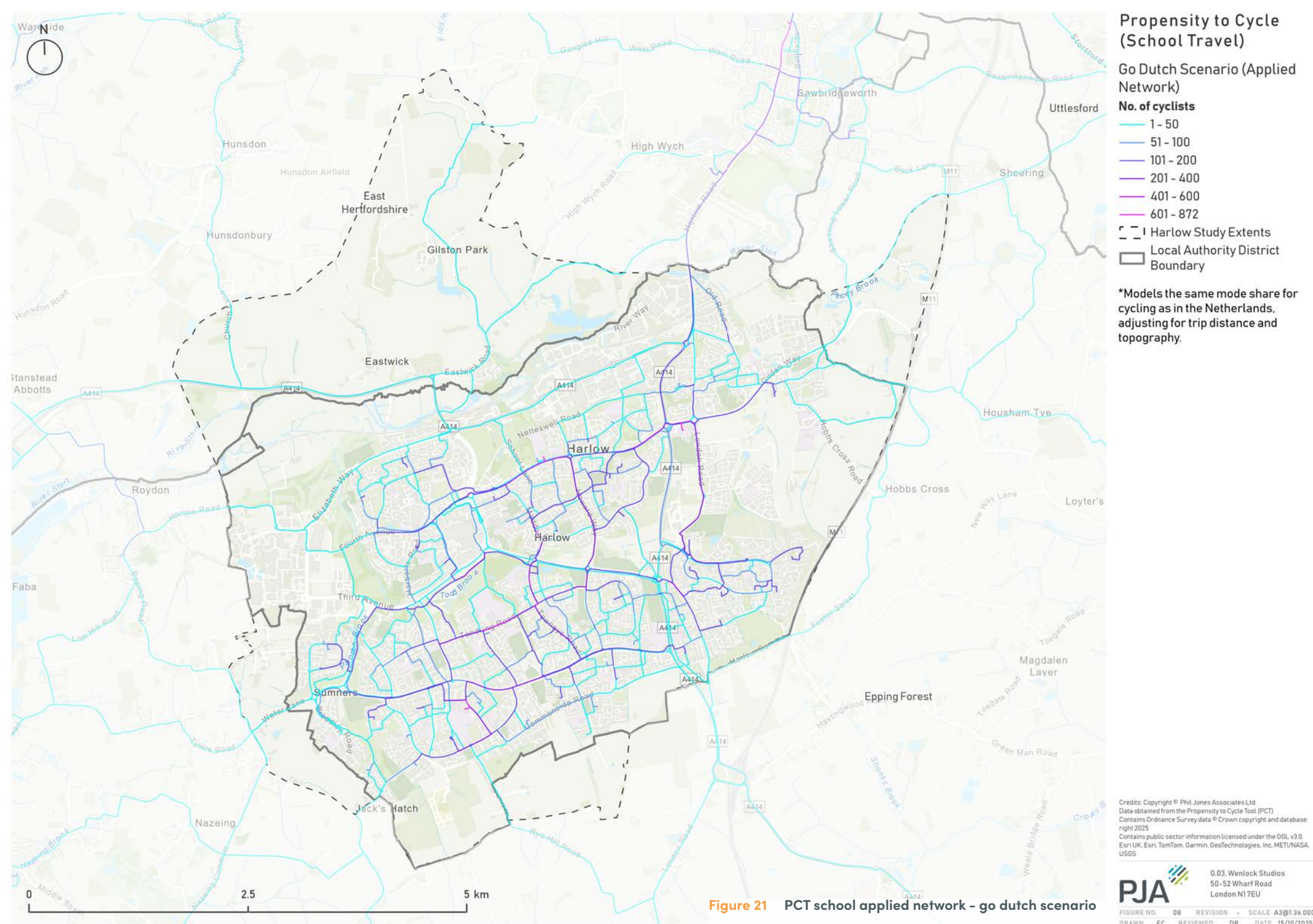
Figure 21 presents the school travel results for the 'Go Dutch' scenario (the plan also includes school locations in the study area). This scenario assumes that there is the same mode share for cycling trips to school as the Netherlands, which is 41%.

The strongest demand for school cycling trips shifts away from the town centre, where there are no schools, and is instead more dispersed across surrounding residential neighbourhoods. However, despite this more decentralised pattern, demand still tends to concentrate along key strategic corridors such as Southern Way, Howard Way and London Road. These routes provide the primary connections across Harlow, linking residential areas with nearby schools and supporting both north–south and east–west movement. This reflects the continued importance of the main road network in structuring school travel patterns, even where trip origins and destinations are more locally distributed.

There are notable differences between the commuting and school travel patterns. Whilst commuting trips are more concentrated in the north-east of the town, particularly feeding the town centre and northern employment areas, school travel demand is more dispersed and shifts towards the south

and the east, reflecting the predominance of residential areas in these parts of the town. In addition, the hierarchy of routes changes under the school travel scenario. A number of secondary routes, including key east–west corridors such as Paringdon Road and Tendring Road, as well as north–south corridors such as Tawneys Road, Tripton Road and London Road, show increased demand. This indicates a greater reliance on local distributor roads to access schools, as opposed to the more radial, employment–focused patterns observed in commuting trips.

A limitation of the PCT is its focus on commuting and school trips which tends to produce outputs focused on key employment and education sites. For the purpose of the LCWIP, the PCT results were used alongside an analysis of non-commuting and leisure trips to enable the development of a network that covers a wide range of trip purposes.





Demand Analysis

Strava (Cycling)

To help supplement the PCT results, Strava data was used to provide additional information on trips 'on foot' (including walking, running, hiking etc.) and trips 'on bike'. The Strava data was extracted from the Strava Metro website and is gathered from Strava users recording walking, running or cycling trips on their Strava app.

Strava data is available in batches of three consecutive months, data was therefore obtained for July – September 2025. Strava notes that although many users record leisure and recreational activities, commuting and utility trips also form a meaningful part of the dataset.

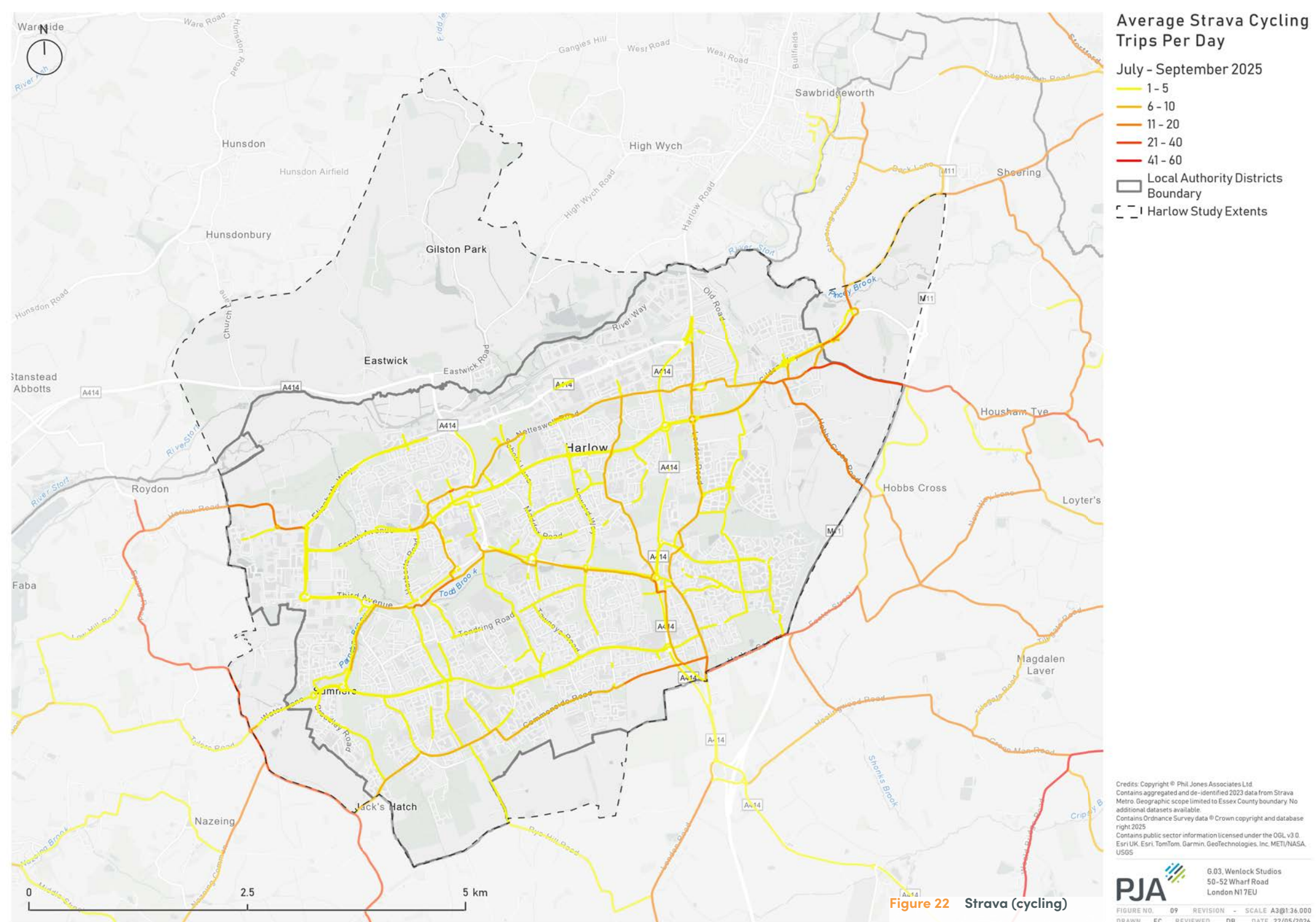
The plan in Figure 22 shows the average number of cycling trips per day recorded on Strava. The distribution of recorded cycle trips is concentrated on the existing cycle network, with additional activity observed along several on-carriageway routes where dedicated cycling infrastructure is limited or not present. Notable examples include Potter Street, sections of London Road, the Parsloe Road and Commonside Road corridor, and Roydon Road, indicating that cyclists are using routes without dedicated infrastructure where alternative provision is unavailable or indirect.

The results highlight a small number of alignments where daily cycle volumes

are comparatively higher than elsewhere in the study area. These include Station Road, London Road and Potter Street, which together form a north–south corridor linking Harlow Mill Railway Station, Old Harlow and Church Langley.

Another route for north–south movement is evident along the A414, Latton Street and several off-road paths connecting Church Langley to Templefields. A parallel east–west alignment is also identified along Latton Common Road, Commonside Road, Paringdon Road and Parsloe Road. This corridor runs broadly parallel to Southern Way and provides a quieter alternative route to the more direct route along Southern Way. Several east–west routes show consistent usage along First Avenue, Mandela Avenue, Second Avenue, Third Avenue and Fourth Avenue, reflecting their role as the primary cross-town corridors.

Other common movement patterns are observed along Roydon Road, reflecting regular cycling activity towards Roydon, which forms part of NCN 1. Some cycling trips are recorded along Moor Hall Road and Hobbs Cross Road, indicating movements extending towards the wider rural area to the north-east. Epping Road also records a notable level of cycling activity. This corridor functions as a key route connecting towards Epping, though it lies outside the defined study area.





Demand Analysis

Everyday Trip Analysis

The PCT outputs provided indicative cycling networks based on commuting and school trips, whilst the Strava data is generally focused on trips for recreation and/or exercise. The purpose of the everyday trips analysis therefore was to provide an additional layer of analysis that focused on 'Everyday' cycling trips which would include: leisure and recreation, trips to local centres and amenity trips.

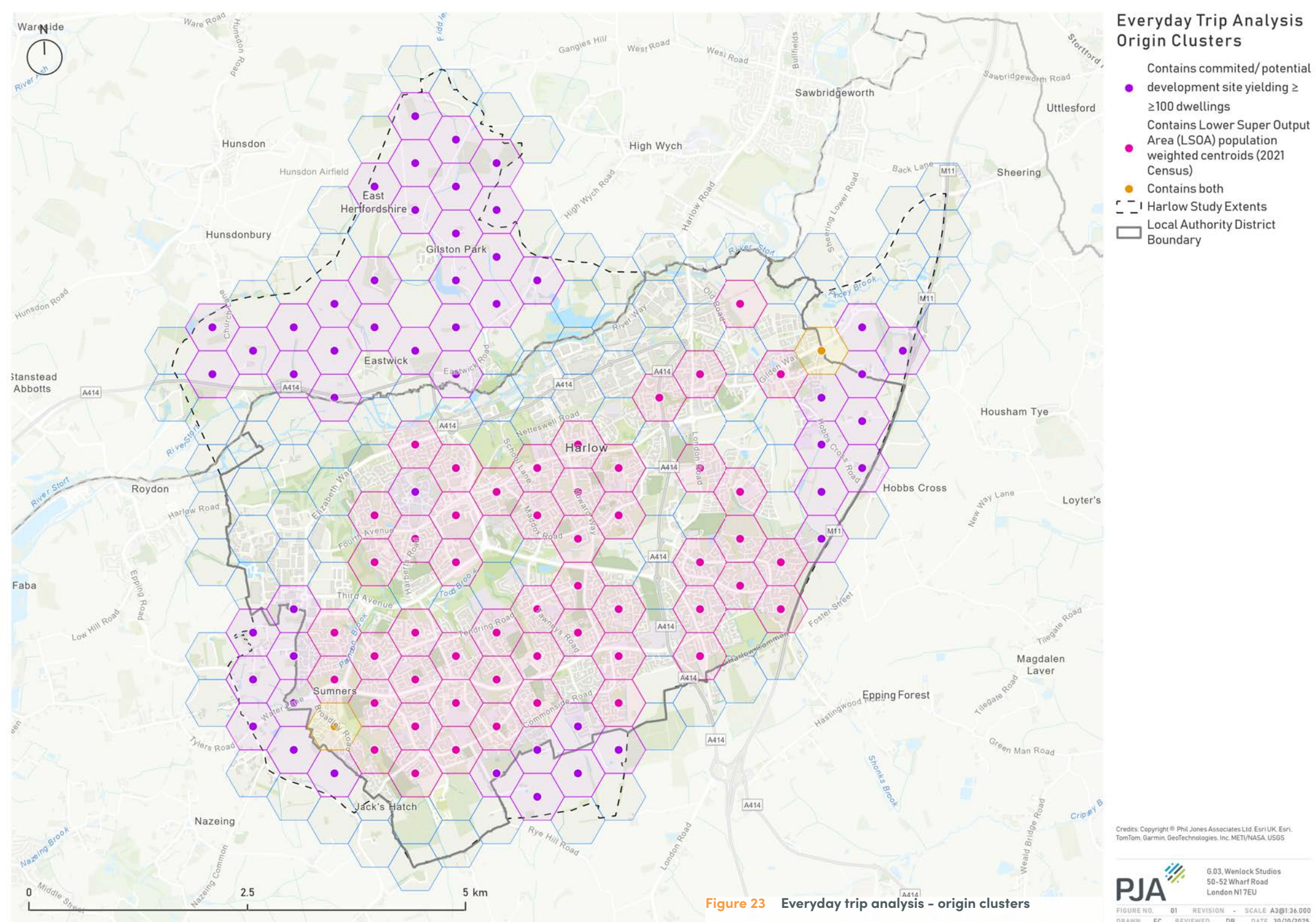
The everyday trip analysis uses straight line desire lines between origins and destinations within the study area to illustrate routine travel patterns. By mapping these lines, the analysis identifies locations where they cluster most densely, indicating a high levels of day-to-day movement. These dense areas highlight priority locations where improvements to walking and cycling infrastructure would support the largest volume of everyday trips.

Further detail on the methodology and stages of the everyday trip analysis is provided in Appendix A, and a summary is provided on the following pages.

Everyday Trip Analysis – Origins

For this analysis, origins were defined as hexagons containing an existing LSOA population-weighted centroid, along with those expected to accommodate more than 100 residential dwellings in the future. These are shown on the plan in Figure 23.

As shown on the plan, these origin points are primarily concentrated within the main settlement area of the district and within the Gilston Garden Town development area. Origins are generally well distributed across the study area. However, the mapping clearly shows that some locations are not identified as origins, including The Pinnacles and Templefields, which are major employment areas rather than residential neighbourhoods.



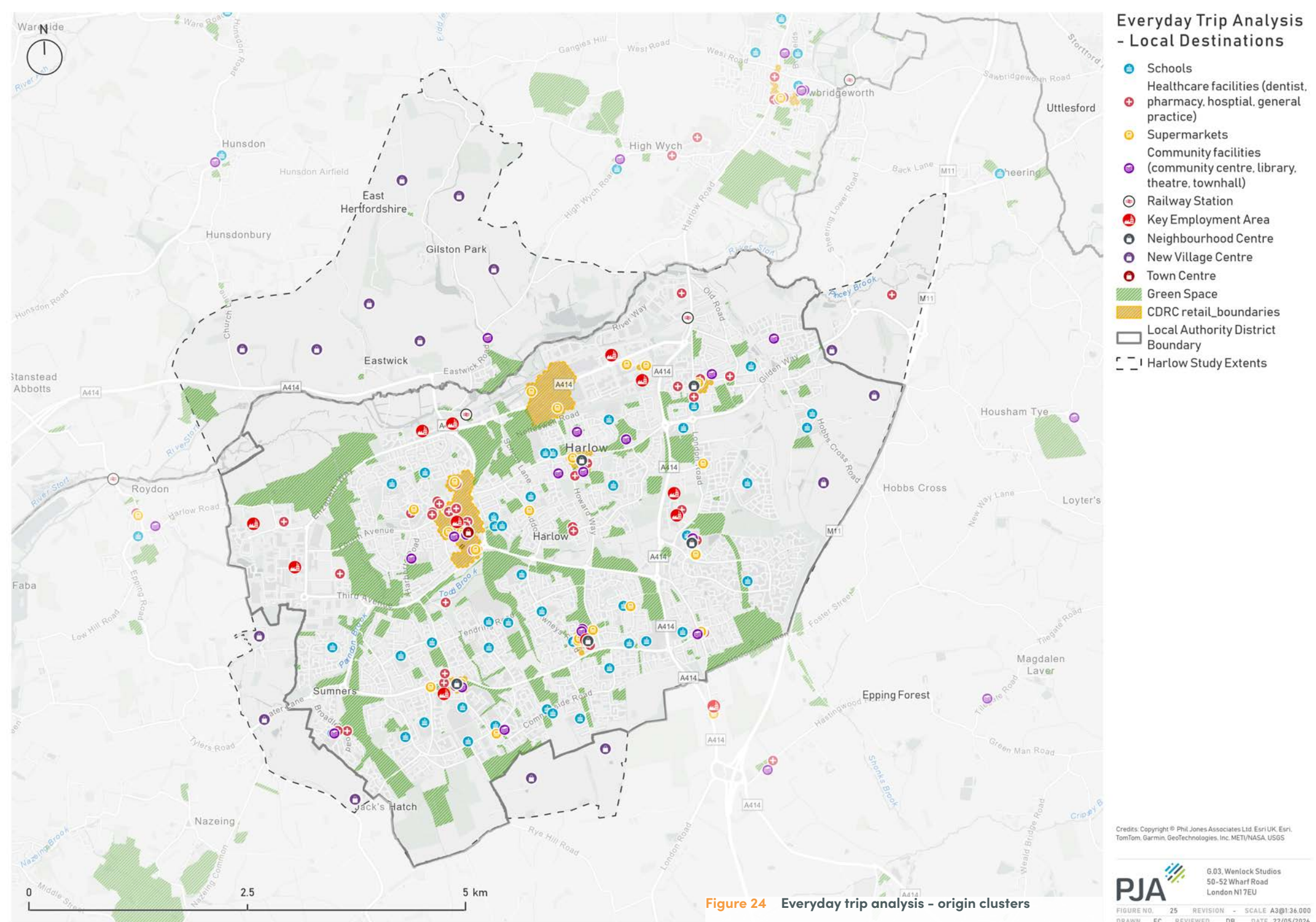


Demand Analysis

Everyday Trip Analysis – Destinations

A plan has been prepared to identify local destinations within the study area that are likely to generate everyday trips. These include a range of facilities such as town centre, retail park, local centre, new village centre in the HGGT areas in the future, railway station, healthcare facilities, schools, community facilities, supermarket and green space.

The mapping highlights that local destinations are dispersed throughout the study area, with a number of concentrations evident in established neighbourhood centres and key urban areas. These include Harlow Town Centre, Temple Fields, Bush Fair, Staple Tye, Church Langley and Old Harlow, where a mix of services and facilities are located in.





Demand Analysis

Everyday Trip Analysis – Destinations

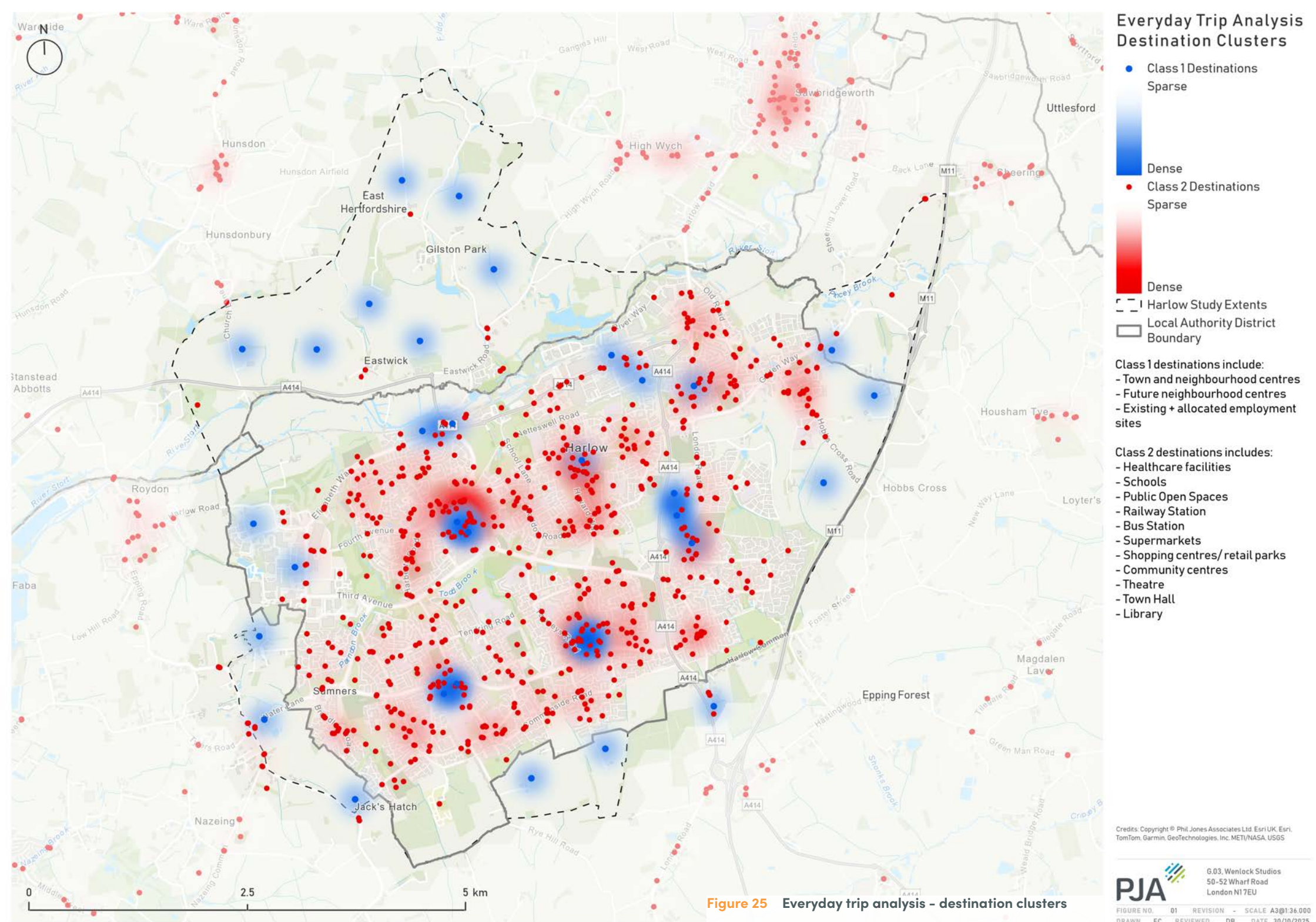
All destinations were then categorised as below:

- Class 1: Existing and Planned Town, Village and Local Centres; Key Employment Sites,
- Class 2: Bus Stops, Schools, Healthcare Facilities, Supermarkets, Public Open Spaces, Railway Station, Shopping centres/ retail parks, Community centres, Theatre, Town Hall, Library

This distinction reflects the relative role of destinations in generating and attracting trips, with Class 1 representing higher-order destinations that typically generate a greater number and variety of trips, while Class 2 comprises supporting local facilities that attract more frequent but generally shorter trips. As such, greater weight is attributed to Class 1 destinations within the analysis.

The plan in Figure 25 shows the destinations that were identified as part of the everyday trip analysis. A clustering analysis has been used to show where there are dense clusters of class 1 and class 2 destinations across the study area.

As shown on the plan, the main destination clusters are located within the Harlow Town Centre, Temple Fields, Bush Fair, Staple Tye, The Pinnacles, Church Langley and Old Harlow.





Demand Analysis

Everyday Desire Lines – Straight line network

Using the outputs from the previous density analysis plan, the plan opposite (Figure 26) interprets the outputs from the everyday trip analysis to identify the most commonly occurring desire lines across the study area. The detailed set of plans in Appendix A explains the methodology that was used to define these desire lines.

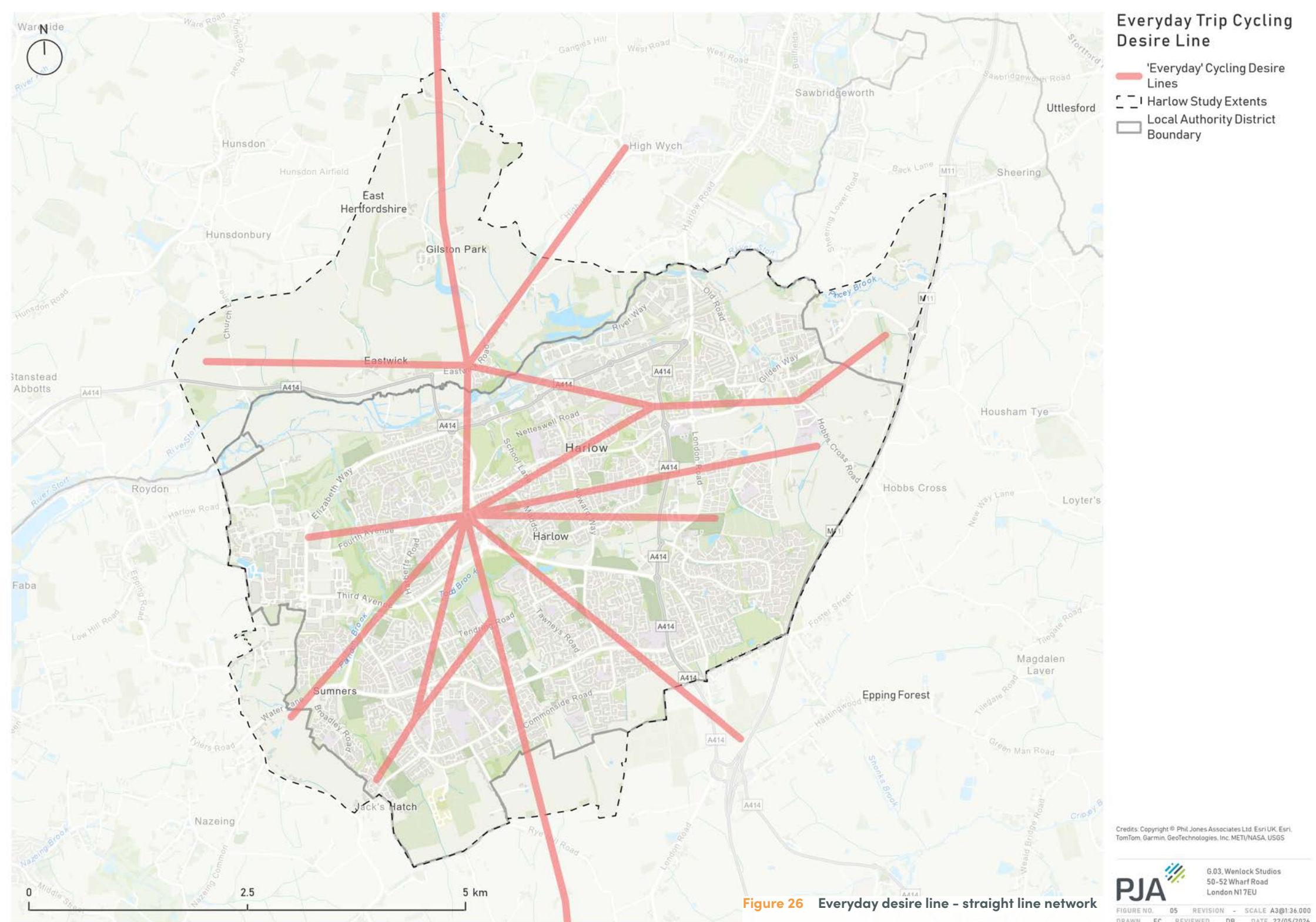
These desire lines represent simplified, straight-line connections between key origins and major destinations, providing an initial indication of strategic movement patterns. The plan highlights the broad corridors where cycling demand is likely to be focused.

Cycling desire lines predominantly radiate outwards from Harlow Town Centre to the surrounding neighbourhoods, demonstrating its role as the primary destination for everyday trips in the town.

Three long-distance desire lines extend from the town centre towards major growth locations:

- To the north, a strong corridor extends towards Gilston Villages.
- To the south, a clear desire line links the town centre with Latton Priory.
- To the east, a long corridor connects to the East of Harlow development area.

The plan also shows several shorter desire lines within the study area, which represent demand for movements between neighbourhoods and local centres.





Demand Analysis

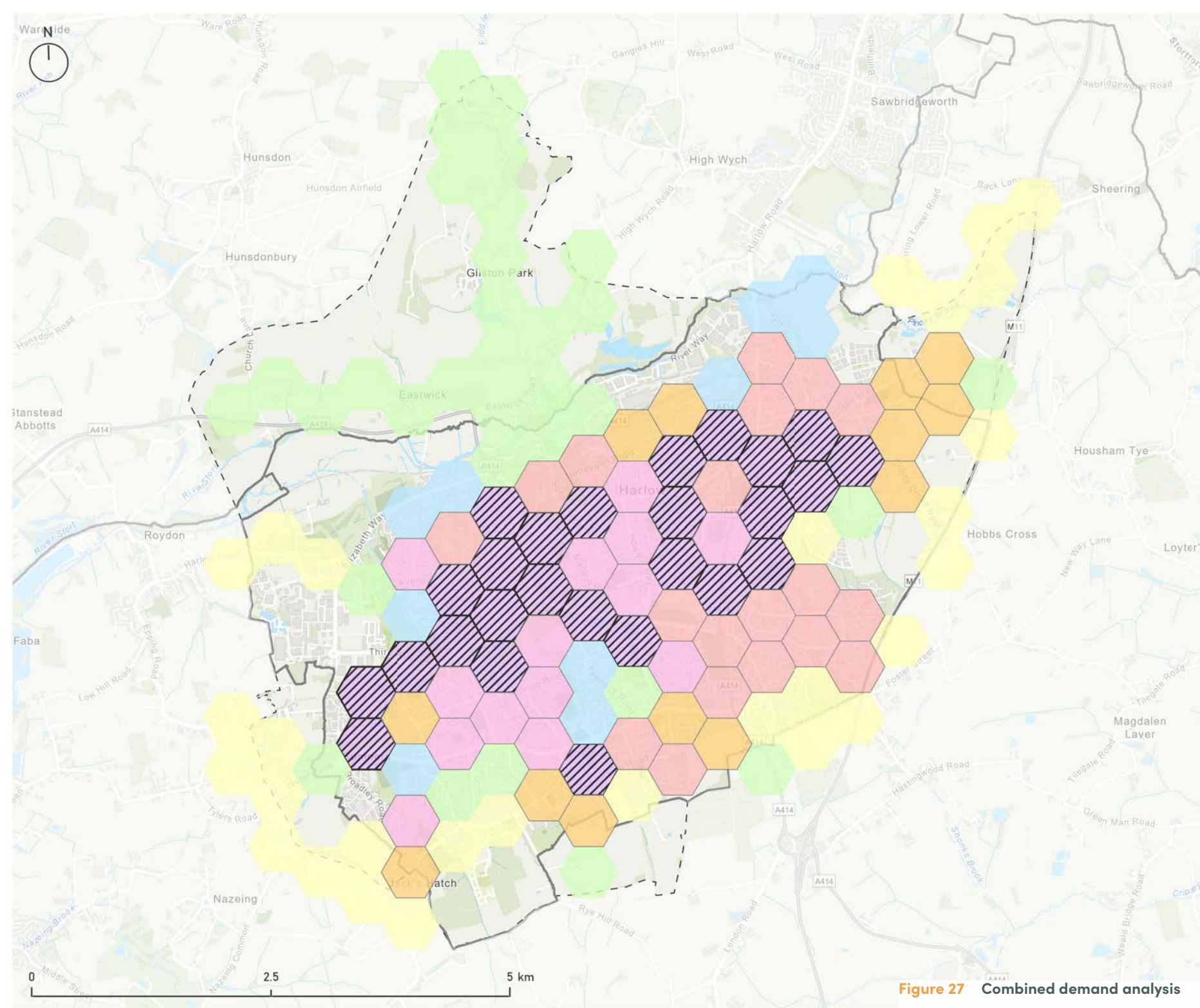
Combined Demand Analysis

To help establish a comprehensive understanding of the cycling demand and compare the results from the PCT, Strava and Everyday Trip analyses, Figure 27 was prepared which highlights where the results overlapped.

The study area was first split into a grid of hexagons, which were assigned a colour if they contained a certain type of desire line. Hexagons containing a Strava link with high demand were coloured yellow, a top 50 PCT desire line blue, and everyday cycling desire line green. The hexagons outlined in black with black stripes are key areas where demand from all three datasets was identified. The key areas of demand identified on the plan are described in further detail below.

The plan shows that, in general, demand is highest within the main urban settlement. The highest levels of overlap between the three datasets are in or around the town centre, where movement patterns converge. Areas with notable overlap extend from the town centre towards Water Lane, Templefields, Old Harlow, Bush Fair, New Hall and Church Langley.

This plan was then overlaid with the existing, committed and planned network in Harlow to identify opportunities for new routes, or improvements to existing routes. The identification of route alignments for assessment is summarised in the following chapter.



Combined Demand Analysis

-  Contains all three types of desire lines
-  Contains top 50 PCT desire lines
-  Contains 'everyday trip' desire lines
-  Contains Strava link with more than 5 trips per days (cycling)
-  Contains top 50 PCT desire lines and 'everyday trip' desire lines
-  Contains both top 50 PCT desire lines and Strava link with more than 5 trips per days (cycling)
-  Contains both 'everyday trip' desire lines and Strava link with more than 5 trips per days (cycling)
-  Harlow Study Extents
-  Local Authority Districts Boundary

Figure 27 Combined demand analysis

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Stage 3 Network Planning for Cycling



Network Planning

Overview

Stage 3 used the outputs from Stage 2 to develop a preferred cycling network for site auditing. Based on results from the combined demand analysis, routes across the study area were identified for further assessment. The aim of this stage was to highlight gaps in provision within both the existing and committed network, ensuring that the subsequent audit focuses on routes where improvements would meaningfully strengthen connectivity and support everyday cycling. While these are defined as cycle routes, it is important to note that the design recommendations identified also consider provision for people walking and wheeling.

The site audit results were then used to identify a high-level programme of infrastructure improvements.

Network Development

For the purposes of the network development, the LCWIP methodology recommends developing 'routes' which form the basis of the auditing in Stages 3 and 4. The combined demand analysis was interrogated to develop an initial network consisting of primary and secondary routes within the study areas.

The **primary network** identifies strategic corridors expected to carry the

highest levels of cycle demand, which play a key role in providing direct, continuous connections between major destinations, growth areas and town centres. The **secondary network** provides supporting links that feed into the primary routes, connect neighbourhoods to local centres, and strengthen network permeability within residential areas. This two-tier structure ensures that both strategic and local movements are accommodated, and that investment can be prioritised in a coordinated and coherent way.

Stakeholder Engagement

LCWIP guidance highlights the importance of a balanced methodology that integrates robust technical evidence with continuous stakeholder engagement.

The evidence base developed in Stage 2 was predominantly data-led, but was refined through continuous input from stakeholders, ensuring that local knowledge played a key role in shaping the emerging network. This process was supported by an established core working group, with outputs iteratively reviewed to reflect both analytical findings and practical, place-based considerations. Stage 3 built upon this foundation by translating the refined evidence base into a preferred network for site auditing and further development. This stage incorporated further stakeholder engagement, including a workshop to review the emerging proposals and test the developing network, alongside wider engagement where appropriate.

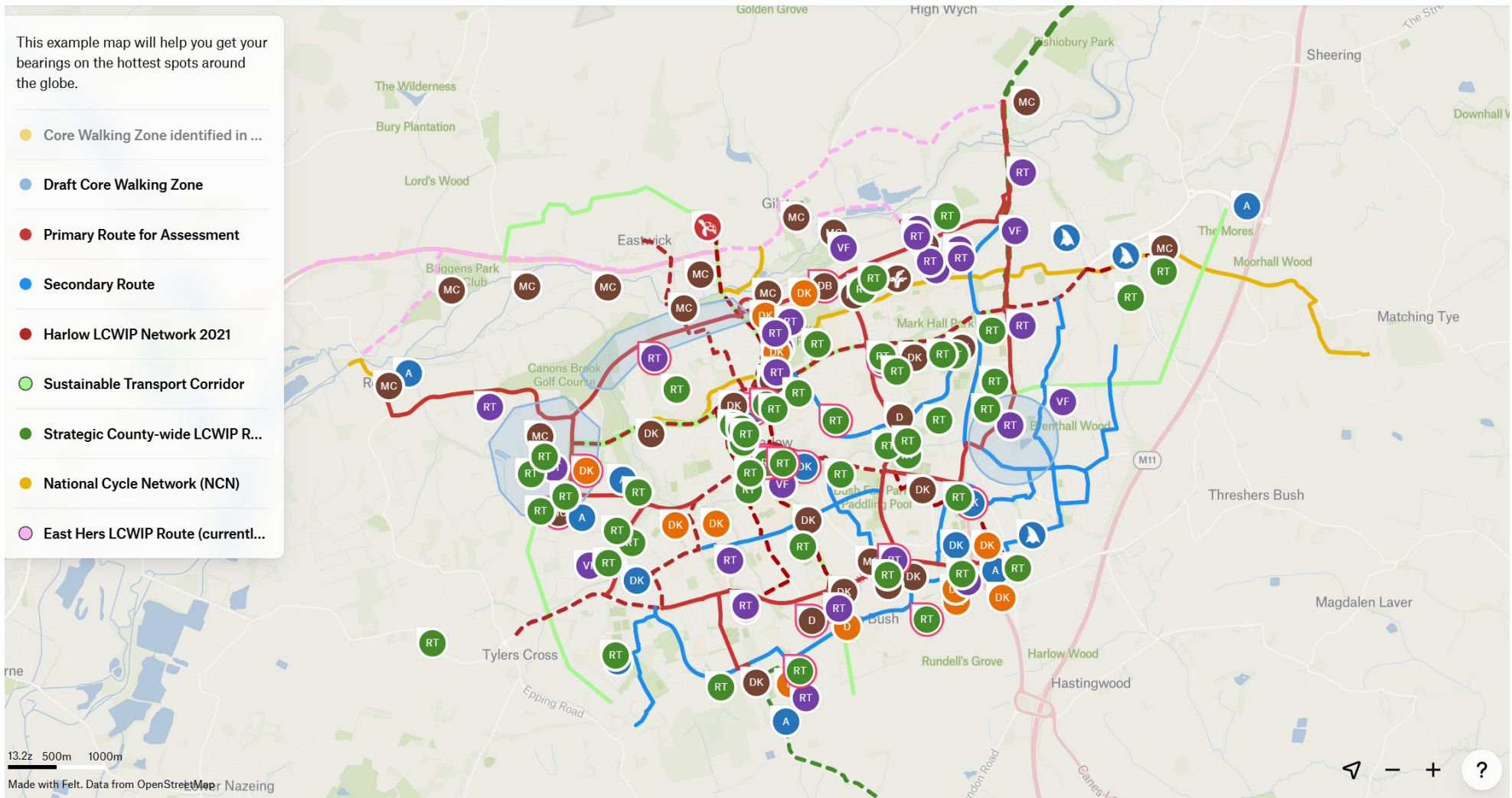


Figure 28 Online stakeholder engagement exercise



Network Planning

An engagement exercise undertaken in December 2025 with the wider working group enabled stakeholders to review the initial routes in detail and provide targeted feedback. This included identifying opportunities for new connections, suggesting refinements to existing alignments and proposing alternative route options where appropriate. This feedback supported further validation and refinement of the network prior to finalisation of the recommendations. The exercise included an engagement workshop and an online map where stakeholders could leave comments on the draft network. In total, 142 comments were received, as shown in Figure 28.

The comments covered a wide range of issues, including:

- General background information and local context
- Observations on existing issues and opportunities across the network;
- Comments relating to specific design considerations; and
- Specific feedback on proposed route alignments.

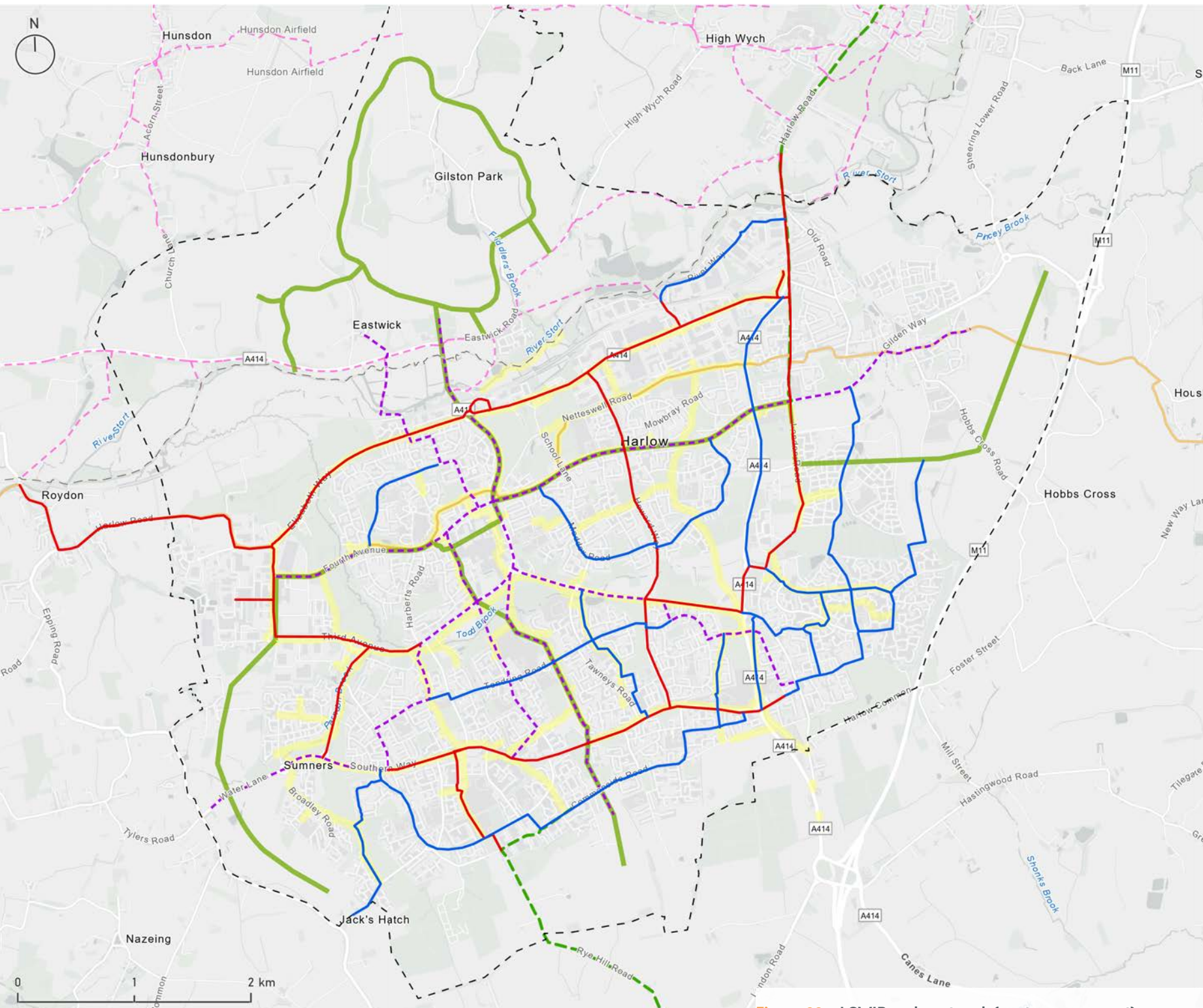
Reviewing the feedback led to several secondary route alignment changes, including:

- An extension from Roydon Centre to Roydon Railway Station;
- A new link addressing the missing link between Potter Street and Church Langley;
- An extension from River Way to Cambridge Road through the employment

area;

- A new link along Hodings Road from Rivermill towards the Fourth Avenue; and
- A new link for an off-road connection between Southern Way and Brooklane Field.

Following this review, modifications were incorporated and the updated LCWIP cycle routes have been incorporated as shown opposite in Figure 29. This plan shows the proposed new primary and secondary routes to be included in the LCWIP network, alongside existing infrastructure, the previous LCWIP routes and other committed and planned routes. This provides a comprehensive overview of how the proposed routes would contribute towards a coherent and joined up cycle network in Harlow. As shown on the plan, some proposed new LCWIP route alignments coincide with sections of existing infrastructure such as the local legacy network and NCN. The LCWIP Refresh presents opportunities to review these corridors and strengthen the existing infrastructure with targeted improvements so that it meets current design standards.



Draft LCWIP Cycling Network

- Maintainable cycling network (Audited by Sustrans)
- Harlow LCWIP Network (2021)
- Sustainable Transport Corridor
- Strategic County-wide LCWIP Routes
- National Cycle Network (NCN)
- East Herts LCWIP Route (currently undergoing final consultation)
- Harlow Study Extents
- LCWIP Update - Suggested New Routes
 - Primary Route for assessment
 - Secondary Route

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Figure 29 LCWIP cycle network (post-engagement)



Route Auditing

Route Selection Tool (RST) Audit

LCWIP guidance states that potential cycle routes should be assessed using the route selection tool (RST). The purpose of the RST audit is to evaluate how well a route performs in its current condition against the core design outcomes and then compare this with its likely performance if improvements were made. This process also enables alternative alignments to be compared in a consistent way, helping to determine the most suitable route for inclusion in the preferred network.

Prior to the commencement of this LCWIP Refresh, HGGT engaged Walk Wheel Cycle Trust to audit Harlow's historic cycling network. As there is significant overlap between the historic cycling network and the proposed network in this LCWIP Refresh, the findings from the Walk Wheel Cycle Trust audit have been reviewed and summarised in this report where relevant.

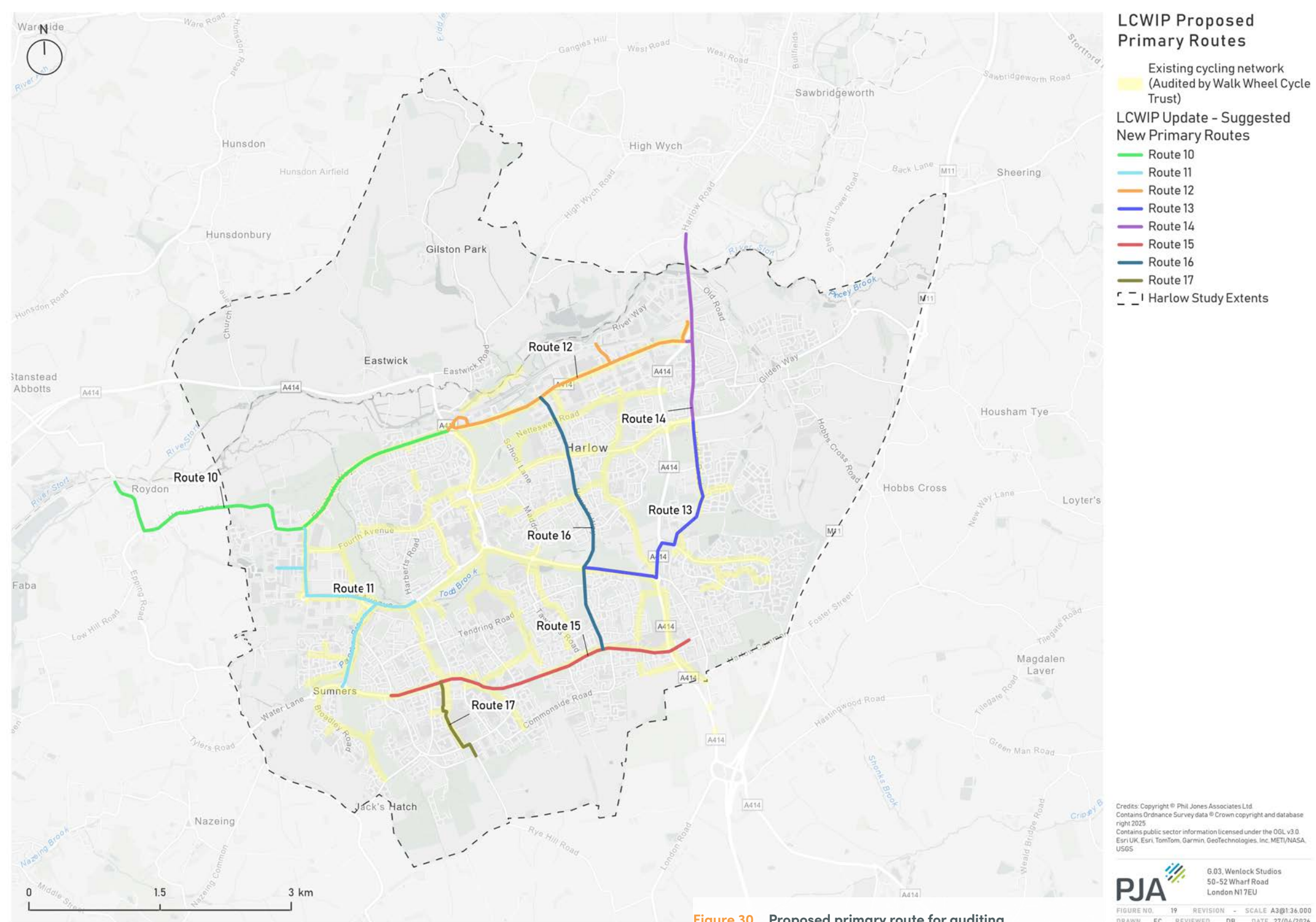
The auditing process for this LCWIP Refresh therefore operates in two parts:

- Where a route overlaps with the historic cycling network, the Walk Wheel Cycle Trust findings are used to inform the assessment.
- Where the route does not overlap with the historic network and therefore is not covered by the Walk Wheel Cycle Trust audit, it has been audited by PJA using the RST tool. This was informed by a site visit undertaken with ECC

and HDC officers in February 2026.

For this LCWIP Refresh, it was agreed that the primary routes would be the main focus of the auditing process, as they form the backbone of the proposed network and carry the greatest potential for delivering meaningful improvements to everyday cycling. Secondary routes will not be audited at this stage, as the priority is to ensure that the primary network is robust, deliverable and supported by a clear evidence base before considering further network expansion.

The routes assessed as part of the LCWIP refresh are presented on the plan opposite in Figure 30.





Route Auditing

Route Selection Tool (RST)

The RST is an appraisal methodology that allows practitioners to determine the best route to fulfil a particular straight-line corridor, referencing against existing conditions and the shortest available route. It considers the six important criteria that determine the quality of a cycling route which are described below. The RST divides routes into shorter sections which should reflect changes in the character and layout of the alignment.

- **Directness:** Compares the length of cycle route against the equivalent vehicle route with cycle routes that are shorter than the vehicle are scored positively for Directness. Higher scores can be achieved through the introduction of modal filters or routing cyclists through parks/open spaces to provide a more direct connection
- **Gradient:** Identifies the steepest section of a given cycle route where the section shares similar characteristics (max 1km in length). Routes are scored down where the gradient exceeds 5% for at least 50m.
- **Safety:** Considers vehicle flows and speeds to better understand the exposure of cyclists to vehicular traffic. Routes with either protected cycle facilities or low-traffic environments score highest.
- **Connectivity:** Records the number of individual cycle connections into a section of route – routes should aim to have >4 connections per km.

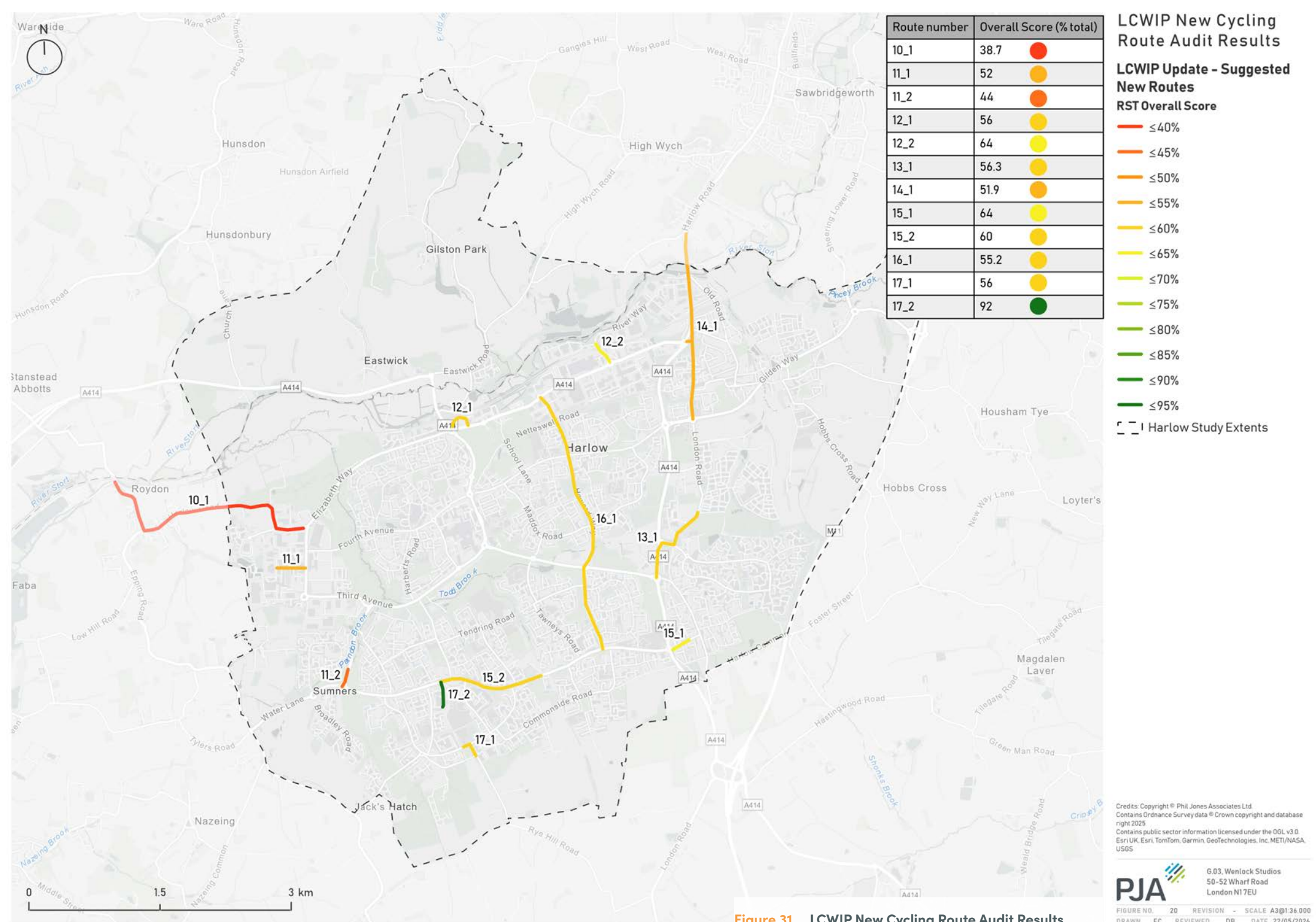
- **Comfort:** Assesses the space available for cycling and the quality of surfacing with a preference for protected cycle facilities of >3m (bi-directional) or >2m (uniflow).
- **Critical Junctions:** Provides a number of critical junction design issues including: vehicle flows, protection from vehicular traffic, wide junction splays, and junction geometries

RST Results

The RST results across the assessed sections ranged from 38.7% (Route 10) to 92% (Route 17, section 2), as shown in Figure 31. The average overall RST score across the LCWIP routes was 57.5% and the average score among all assessed sections for each of the five criteria are presented in table 2 on the following pages.

These results suggest that, while some locations perform moderately better than others, only a small number of the assessed sections reach a level that would be considered high quality. The cycling level of service across the routes assessed by PJA could therefore be improved.

The average criteria score for **Directness** (100%) was the highest amongst the RST's scoring criteria. This shows that the assessed sections follow direct alignments compared to equivalent motor vehicle routes.





Route Auditing

The average score for **Gradient** was 58.9%, however there was a large variance in scores against this criterion, as scores ranged between 20% and 100% across the study area. This indicates that while some routes present a very low gradient, the high gradient along other routes may negatively impact cyclists' comfort.

The **Safety** criterion assesses average vehicle speeds and flows and whether cyclists are protected from vehicular traffic. It is therefore unsurprising that the proposed LCWIP cycle routes in the study areas also scored fairly low for this criterion (an average of 22.7%), which corresponds with the low average score for Comfort (8.9%). These results indicate that cyclists are frequently required to mix with high volumes of fast-moving motor traffic. Moreover, some sections lack passive surveillance and are unlit, which reduces users' perception of safety, particularly outside of daylight hours/in winter months.

The average **Comfort** score was 8.9%, with scores across the study area ranging from 0% to 100%. The low score reflects the absence of protected cycling infrastructure along routes carrying high volumes of motor traffic. As a result, cyclists are often required to mix with general traffic flows exceeding 2,500 vehicles per day, which automatically yields a zero score under the Comfort criterion.

The **Connectivity** results show that all assessed sections perform well overall, with scores ranging from 63.6% to 100% and an average of 97.0%. This suggests that most parts of the area are highly connected, offering strong links and good access in line with the assessment criteria.

The **Critical Junctions** factor assessed all junctions against nine different criteria, including vehicle speeds and volumes, junction geometries and visibility. The assessment records the number of junctions along a route which satisfy at least one of the criteria.

The results from the Critical Junction element of the RST were closely related to the volume and speeds of vehicular traffic at junctions or roundabouts, which corresponds with the results of the RST audits. The critical junctions identified were primarily along the main vehicular routes through the study area, including Roydon Road, Southern Way, Howard Way, Tillwicks Road, London Road and Katherine's Way.

The common issues identified at critical junctions were junctions where cyclists are in potential conflict with heavy motor traffic flows and high traffic speed, and roundabouts where cycles mix with traffic or cross without priority, and junctions where cyclists cross very wide or flared side-road junctions.

Criteria	Directness	Gradient	Safety	Connectivity	Comfort
Highest	100.0%	100.0%	100.0%	100.0%	100.0%
Lowest	100.0%	20.0%	0.0%	63.6%	0.0%
Average	100.0%	59.0%	22.7%	97.0%	8.9%

*Lower percentages indicate a poorer quality of provision

Table 2 RST scores



Figure 32 Site Survey photo: Katherine's Way, Route 11



Figure 33 Site Survey photo: London Road, Route 13



Figure 34 Site Survey photo: Elizabeth Way, Route 10



Route Auditing

Overall Auditing Results by Route

Route 10: Harlow Railway Station - The Pinnacles - Roydon

The Walk Wheel Cycle Trust audit identified a number of issues along the existing cycle infrastructure of route 10 between the railway station and the Pinnacles. Seven maintenance issues were recorded, mostly relating to surface vegetation encroaching onto the path and overhanging vegetation reducing effective width, visibility and cycling comfort. Eight severance issues were observed where controlled crossing points are missing, which affects access to key destinations and weakens links to the wider surroundings. Five surface defects were noted, including degraded surfacing and potholes. Two wayfinding issues were also identified where signage is damaged or missing.

The RST audit of the remaining sections of route 10 west of Elizabeth Way by PJA highlighted wider concerns about high traffic volumes and vehicle speeds, in particular along the section of NCN 1 along Roydon Road (Figure 36). This creates an environment that feels unsafe and uncomfortable for cyclists. It also highlighted several critical junctions where there is insufficient protection for cyclists performing turning movements, including the Roydon Road / Parkway junction shown in Figure 36.



Figure 35 Desire path along grass verge on Roydon Road (NCN1)



Figure 36 No cycling infrastructure along Roydon Road (NCN 1)

Route 11: The Pinnacles – Southern Way

The Walk Wheel Cycle Trust's audit identified several issues with the existing provision along this section of the route. Nine maintenance issues were recorded, including surface vegetation, overhanging vegetation and debris affecting the existing cycle route. Eleven severance issues were noted where controlled crossing points are missing, limiting access to destinations across severance along the corridor. Twenty surface defects were identified, largely consisting of degraded surfacing. Three wayfinding issues were recorded where signage is either damaged or missing. Fourteen barriers to access were also observed, including unlit or poorly lit areas, chicanes, gates or pinch points, sections that feel isolated or unwelcoming, limited shade or shelter and noise from motor traffic, such as the section shown in Figure 38.

On the remaining sections of Route 11 audited by PJA, the RST audit again raised issues around traffic volume, speed and junction layout, with particular concerns about safety, comfort and a critical junction where there is insufficient protection for cyclists making turning movements.



Figure 37 Lack of priority at side-road junctions along Elizabeth Way cycle track



Figure 38 Isolated section of Katherine's Way cycle track



Route Auditing

Route 12: Harlow Railway Station – Templefields – Old Harlow

A mixture of maintenance, access and safety concerns were identified along the existing infrastructure for this route in the Walk Wheel Cycle Trust's report. Five maintenance issues were noted, mainly involving surface vegetation and overhanging growth reducing width and visibility. Severance remains a problem at eight locations where safe crossing facilities are missing, and where traffic speed and volume create additional road danger for cyclists travelling to nearby destinations (Figure 40). One drainage-related surface defect was recorded. Wayfinding could be improved, with three cases of signage that is damaged, obscured or dirty. Seven barriers to access were also observed, including missing dropped kerbs, poorly lit sections, chicanes, gates or pinch points, areas that feel isolated or unwelcoming and parts of the route where the cycleway is too narrow.

On the remaining sections of the spur route along River Way audited by PJA, the RST audit highlights similar themes, with high traffic volumes, vehicle speeds and general discomfort making conditions feel unsafe for cycling. One of the most significant issues along the corridor is at major roundabouts, including Edinburgh Way and River Way, where the complexity of the layout and the lack of protection for cyclists during turning movements present a critical safety risk (Figure 39).



Figure 39 Edinburgh Way / River Way roundabout



Figure 40 Edinburgh Way side-road junctions

Route 13: Brays Grove – Old Harlow

The Walk Wheel Cycle Trust audited the two sections of this route with existing provision: the off-road path along Second Avenue and the section from London Road roundabout to Church Langley Field, where several issues were identified. Four severance problems were noted where there are no controlled crossings. There were four maintenance issues, mainly involving overhanging vegetation and surface vegetation encroaching onto the path. Two surface defects were recorded, including degraded surfacing and potholes, and have since been referred for resolution. Wayfinding is could be improved, with three missing signs. Four barriers to access were also identified, including a lack of shade or shelter and no places to rest. RST audits were carried out by PJA on the remaining parts of the route with no existing provision, where concerns again centred on traffic volume and speed, which reduced the overall scoring.

Route 14: Old Harlow – Red Brick Lane

There is no existing infrastructure along this section, therefore no overlap with the Walk Wheel Cycle Trust audit. The RST assessment undertaken by PJA shows that the main concerns relate to traffic speed and volume along Cambridge Road (Figure 42), which affect both safety and comfort for people cycling. Conditions along Station Road are generally variable. While traffic levels are relatively low and short



Figure 41 Old Harlow Town Centre



Figure 42 Lack of dedicated cycling infrastructure on Cambridge Road



Route Auditing

sections of off-road path are provided, there are sections where cyclists are required to travel on-carriageway. In these areas, features such as junctions and changes in alignment may influence the overall comfort and attractiveness of the route.

Route 15: Great Parndon – Church Langley (via Southern Way)

The Walk Wheel Cycle Trust audited the sections along Southern Way with existing infrastructure for cycling. Ten severance issues were recorded, largely due to the absence of controlled crossings. Two potential surface defects were noted and passed on to Essex Highways, including degraded surfacing and potholes. Wayfinding is limited, with two missing signs. Seven barriers to access were also identified, including a lack of shade or shelter, no places to rest and noise from nearby motor traffic. Most of Southern Way was covered by the Walk Wheel Cycle Trust audit, with the exception of the section between Abercrombie Way and Goldings Playing Fields, where there is no existing cycling infrastructure. On this section, the RST assessment undertaken by PJA highlighted issues with traffic volume and speed (Figure 43).

Route 16: Bush Fair – Templefields

There is no existing cycling infrastructure along this section, so the Walk Wheel Cycle Trust audit was not considered. The RST audit undertaken by PJA shows that the main concerns along the route relate to traffic speed and volume based on site visit observations, which affect both safety and comfort for people cycling (Figure 44). Several major roundabouts



Figure 43 Southern Way (east of Tawneys Road)



Figure 44 Lack of cycle provision along Howard Way

along the route present significant safety concerns to cyclists, including junctions with Second Avenue (Figure 45), Tillwicks Road, First Avenue, Mandela Avenue, Howard Way and the Edinburgh Way. A number of other junctions were also identified as critical due to the level of motor traffic and the limited protection for cyclists moving through or turning at these locations.

Route 17: Staple Tye - Latton Priory

The Walk Wheel Cycle Trust audited section is an off-road path which shows a relatively small number of issues with the existing infrastructure. The off-road path shows a small number of issues with the existing provision. One maintenance issue was noted, relating to overhanging vegetation. Four surface defects were recorded, including degraded surfacing and potholes. Wayfinding could be improved, with three missing signs. Two barriers to access were also observed in places where the environment feels isolated or unwelcoming. The RST audit undertaken by PJA covered two sections. Conditions on the Perry Road section scored relatively well due to low traffic levels, although a critical issue remains at the Southern Way and Perry Road junction due to high traffic volumes on Southern Way. It is recommended to collect further data for Paringdon Road and Rye Hill Road to determine the appropriate level of infrastructure based on traffic volumes and speeds (Figure 46).



Figure 45 Howard Way / Second Avenue roundabout



Figure 46 Paringdon Road, looking west towards junction with Rye Hill Road



Design Response

This section looks at some of the key issues identified by the RST and Walk Wheel Cycle Trust audits and provides an overview of the design response that would be required. Whilst the primary focus of this section is the development of a coherent cycling network, the design responses have been informed by the needs of all users. In particular, opportunities to improve walking conditions alongside cycling infrastructure have been considered throughout, recognising the close relationship between walking and cycling movements.

Comfort and Safety

A recurring issue identified through the audits was the limited comfort and safety provided for cyclists, largely due to high traffic volumes and, in some areas, high vehicle speeds. These problems were most evident on the busier corridors, where both flow and speed create challenging conditions for cycling. LTN 1/20 sets out the level of protection required based on traffic speed and volume, and many of the roads assessed fall into categories where physical separation from motor traffic is recommended.

In locations such as this, segregated facilities for cyclists should be explored where the highway width allows. This could take the form of stepped cycle tracks in more constrained locations, or fully segregated routes where the width allows (Figure 48). On quieter routes, advisory cycle lanes should be

provided in the carriageway to raise awareness of cyclists in the carriageway.

Across much of the study area, limited carriageway width restricts opportunities for full segregation or major road space reallocation. In these cases, a corridor-wide approach is more appropriate, aiming to improve overall conditions for both walking and cycling rather than delivering isolated upgrades. Measures such as reduced speed limits and traffic calming should be explored as part of this.

In addition, improvements at side-road junctions including tightened geometry, centre-line removal, footway widening, junction redesign, and improved crossing facilities to reduce the severance effect of major roads through the study areas are recommended to raise the overall level of service for both walking and cycling where mixed traffic cycling is required.

LTN 1/20 indicates a clear preference for protected cycle facilities on roads with higher vehicle flows, with shared-use paths only suitable in limited circumstances. Notwithstanding this, it is noted that some street layouts are more constrained due to pinch points, and in these cases, alternative layouts should be considered. In the case of streets with particularly low pedestrian flows, widening and improving existing shared-use facilities may be suitable in order to ensure the continuity of the cycle network (Figure 47).



Figure 47 Shared-use path with grass buffer strip alongside A21



Figure 48 Broomfield Road cycle track, Chelmsford

Critical Junctions

The RST audits recorded low scores for Critical Junctions, primarily due to the absence of protected cycling facilities at key junctions and the need for cyclists to cross without priority.

The recommendation at major junctions is to incorporate dedicated cycle crossing facilities which protect cyclists from vehicular traffic. Where junction geometry is more constrained, alternative measures such as advanced stop lines, early-release signals and two-stage right-turn arrangements may offer practical improvements. At quieter locations, parallel pedestrian-cycle crossings can also enhance safety and reduce delay for cyclists.

For roundabouts, LTN 1/20 notes that roundabouts with flared geometry and no dedicated cycle facilities are unsuitable for most people cycling and can pose a heightened risk even for experienced riders. In line with this guidance, several approaches can be used to accommodate cyclists at roundabouts:

- Provide protected cycling space around the junction with suitable crossings of each arm
- Introduce signal control to the roundabout, with protected space or other suitable facilities for cycling
- Replace the roundabout with a signal-controlled or alternative junction



Design Response

layout with appropriate cycle facilities

- Provide grade-separated cycle tracks around and/or across the junction

Mini-roundabouts are generally only suitable where traffic speeds and flows are low. In busier or higher-speed environments, including larger or double mini-roundabout arrangements, it is uncomfortable and less safe for cyclists to be mixed with traffic. At these locations, off-carriageway protected space for cycling should be provided where appropriate, or the junction should be remodelled to a more suitable junction layout with appropriate cycling facilities. Improvements may also include simplified geometry, tighter entry radii to reduce vehicle speeds, speed-reduction features on the approaches and priority crossings where required.

For minor junctions, including those abutting proposed cycle routes, it is recommended that these are treated to reduce vehicles speeds and prioritise those walking or cycling. Measures could include continuous cycle tracks at side roads (Figure 49), tightening junction radii, continuous footway treatments and/or raised entry treatments, which would also improve conditions for people walking.



Figure 49 Continuous footway and cycle track, Hitcham Road, Waltham Forest



Figure 50 Oval School Street, Lambeth



Quieter Streets Interventions

The installation of dedicated cycling measures should be proportionate to the surrounding streetscape and local environment. On quieter streets, an area-wide approach can often be more appropriate than full segregation. In this context, area-wide interventions refer to wide range of measures including traffic-calming and through-traffic reduction measures that lower vehicle speeds and flows across a wider area.

This approach would be particularly useful along routes which pass through residential neighbourhoods and town centre locations where carriageway widths are narrow. 'Modal filters' are used to remove vehicle access whilst retaining access for all other users. This significantly reduces volumes of vehicular traffic and therefore improves local conditions for cycling. Typically, modal filters are enforced using bollards, planters or even outdoor seating to physically prevent vehicle access (Figure 51).

While modal filters are one effective option for removing through-traffic, a wider range of interventions can achieve similar outcomes, such as traffic-calming features, road space reallocation, revised priority arrangements, or other measures that reduce the attractiveness of a street as a through-route. An example measure that has been suggested for many of the routes is Safer Streets, which aim to reduce motor traffic during school

pick-up and drop-off periods to improve road safety in the vicinity of schools.

Safer Streets can also provide opportunities for public realm enhancements, such as the example shown in Figure 50 in Lambeth.

The development of area-wide improvements requires extensive data collection and stakeholder engagement to ensure that proposals do not adversely affect streets in surrounding areas and to maximise the benefits beyond focusing only on traffic flows. Creating a series of quieter streets can help increase network coverage at a lower cost than installing protected facilities.

Severance

The major corridors used for cross-town movement also create several barriers across the study area, limiting permeability for cyclists and making crossing more challenging. As a long-term measure, likely beyond the scope of the LCWIP, it should be explored whether there are amendments or improvements that could be made to the street layout and traffic management in these locations, in order to free up additional space for walking and cycling infrastructure.

Within the LCWIP context, the focus should be on providing safe, direct and legible pedestrian and cycle connections. Crossing points should be located



Design Response

at ground level wherever possible (Figure 52). Underpasses should only be considered where they provide a clear safety benefit and can still deliver a route that is direct, convenient and comfortable to use.

The study area contains a number of existing underpasses, which are a legacy of earlier phases of town development. While these provide grade-separated connections, issues relating to perceived safety can undermine their effectiveness as part of a walking or cycling route. Improvements could include better lighting, increased passive surveillance, clearer sight lines, surface upgrades, and wayfinding to encourage use and improve comfort. It is also noted that some improvement works are already underway, including lighting improvements and repainting the underpasses to make them more legible and welcoming (Figure 57).

Supporting Measures

Alongside the improvements outlined above, various supporting measures should also be considered along each of the LCWIP routes. The HGGT Modal Shift Strategy identifies that the LCWIP should consider locations which would benefit from increased cycle storage. It is therefore recommended that short-stay cycle parking is provided at key destinations along each of the routes, including in "Hatches" where there are clusters of local facilities and at transport interchanges including bus stops (Figure 56). Cycle parking should

be provided in convenient locations, with adequate lighting and surveillance, and with parking provision for a range of cycle types, including cargo bikes and adaptive cycles. In residential areas, long-stay cycle parking should be provided in the form of cycle hangars to enable cycle parking options for residents in areas with a high percentage of flats or terraced housing.

The LCWIP should also integrate with the proposed Harlow Cycle Share scheme and ensure that docking stations are located in areas with high demand. Docking stations in priority areas could also incorporate public realm enhancements, such as wayfinding and planting (Figure 54).

Finally, it is recommended that wayfinding is included in each of the LCWIP schemes to ensure that routes are legible and easy to follow (Figure 55).



Figure 51 Modal filter outside school, Upton Road, Bristol



Figure 52 Parallel crossing, Hodings Road (Harlow)



Figure 53 Dedicated cycle signal at junction (Old Street, London)



Figure 54 Cycle parking (Avon Street, Bath)



Figure 55 Wayfinding integrated into street signage (Wood Street, London)



Figure 56 Cycle parking incorporated into bus stop with HGGT branding (Maypole Blvd)



Figure 57 Upgrades to existing underpass (Nettleswell Road, Harlow)



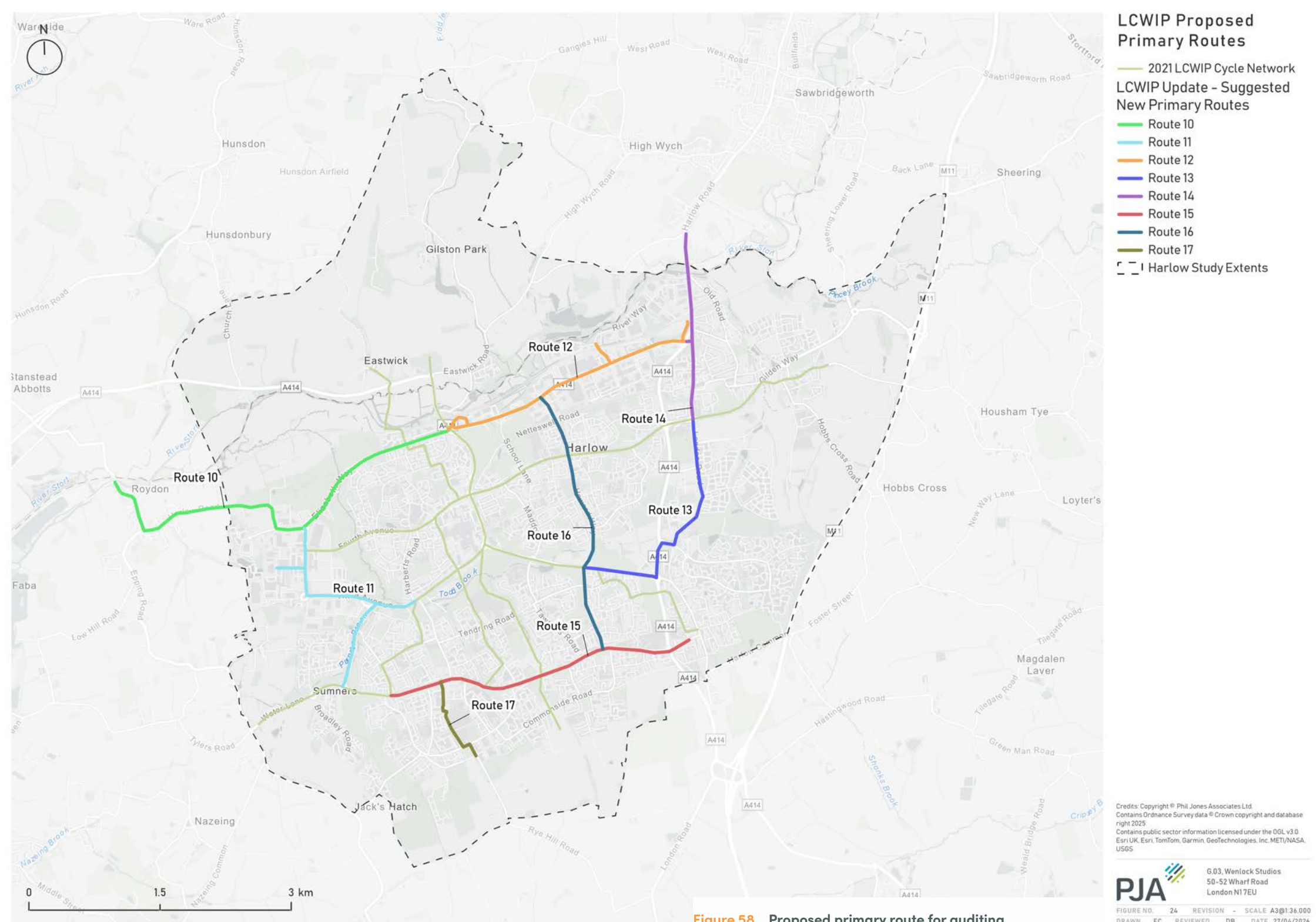
Cycle Route Design Commentary

Cycling Route Design Recommendations

Building on the design principles and best practice examples established in the design response section, the following section presents the specific walking and cycling design recommendations for each of the primary LCWIP routes. These are presented again in Figure 58 for ease of reference.

Based on the results from the site audits, design measures were prepared for each of the LCWIP routes following the design principles previously described. Whilst the recommendations are focused on the LCWIP routes, many of them are applicable to the remaining streets within the study area. For example, side road treatments would likely be a common design recommendation across most of the LCWIP routes. Likewise, it is recommended that area-wide 20mph speed limits could be pursued, which would benefit most of the routes in the study areas, as well as the remainder of the town.

The following table provides the design commentary for each route, with an alternative summary table provided in Appendix B. These should be treated as a non-exhaustive list of some of the key design recommendations for each route, however it is important to note that these recommendations are subject to further review, data collection, feasibility studies and design development.



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Cycle route design commentary

The table below provides the cycle route design commentary.

Table 3 Cycle route design commentary (detailed version)

Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
10	Harlow Railway Station - The Pinnacles - Roydon	The route begins at Burnt Mill Roundabout, continues along Elizabeth Way through the Pinnacles, and then heads west along Roydon Road and Harlow Road to Roydon Station.	Maintenance of the existing cycle route along Elizabeth Way, including resurfacing and targeted upgrades to bring sections up to current standards where required. Controlled crossing points are recommended across Elizabeth Way to link residential areas to the south, including connections to Herons Wood, Canons Gate and the off-road path serving Herons Wood. Side road treatments are recommended along the length of the route to provide priority for people walking and cycling at side-road junctions. There is an opportunity to extend similar cycling provision along Elizabeth Way through to Roydon Road at the Roydon Road/ Parkway roundabout. Junction improvements at both the Roydon Road/Elizabeth Way roundabout and the Roydon Road/Parkway roundabout would be required to provide safe crossing points for people walking and cycling. Along Roydon Road and Harlow Road, there may be scope for a shared-use path linking Harlow with Roydon along NCN 1, though space is constrained, this would need further feasibility work. Traffic-calming measures, such as priority chicanes and surface treatments that highlight the transition into a village environment, should also be considered at the gateway point to Roydon to help reduce vehicle speeds. A new crossing point is recommended at Roydon Village Hall on Harlow Road, as well as additional crossing opportunities along the High Street, to support safer movement and contribute to wider traffic-calming objectives. Within Roydon, a 20mph speed limit is recommended to encourage slower vehicle speeds and improve conditions for mixed traffic cycling. Wayfinding should be provided at key decision points, particularly where the route connects with the wider cycle network or with key local destinations, to support legibility and user confidence.	



Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
11	The Pinnacles - Southern Way	The route begins at the Elizabeth Way/Roydon Road roundabout, moves south along Elizabeth Way, then follows Third Avenue and Katherine's Way. Additional spurs branch off via Harolds Road to the Pinnacles and along Third Avenue to Abercrombie Way.	Maintenance and improvement works are required along the existing cycle route on Elizabeth Way, Third Avenue and Katherine's Way. This should include resurfacing and targeted upgrades to bring legacy sections up to current standards. Many of the side-road junctions along this route would benefit from side road treatments, particularly where the historic network provides footway-level cycling that results in uneven surfaces, limited priority and an inconsistent experience when crossing side roads. Improving these junctions would create safer and more intuitive movements for cyclists. The Elizabeth Way/Fourth Avenue junction requires improvement to support safe crossing movements, with a toucan crossing or a dedicated cycle crossing likely to be the most appropriate intervention. A similar approach is recommended at the Elizabeth Way/Harolds Road junction Junction improvements at both the Elizabeth Way/Third Avenue roundabout and the Third Avenue/Katherine's Way roundabout would be required to provide safe crossing points for people walking and cycling. There is a missing link in the historic network between Katherine's Way and the Southern Way roundabout. This gap should be addressed by exploring alignment options, potentially by either a shared-use path or a footway-level cycle track Wayfinding should be provided at key decision points, particularly where the route connects with the wider cycle network or with key local destinations such as key employment sites within the Pinnacles, to support legibility and user confidence. Consider reducing speed limit to 20mph along Elizabeth Way to reduce dominance of vehicular traffic through the employment area.	



Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
12	Harlow Railway Station - Templefields - Old Harlow	From Burnt Mill Roundabout, the route runs east along Edinburgh Way through Templefields to the Edinburgh Way/Cambridge Road in Old Harlow. There is a short spur extending from Central Road/River Way/Edinburgh Way roundabout towards the north along River Way.	Maintenance and improvement works are required where appropriate along the existing cycle route on Edinburgh Way. This should include resurfacing and targeted upgrades to bring legacy sections up to current standards and ensure a consistent level of service throughout the corridor. The cycle route primarily supports east-west movements along Edinburgh Way. With key destinations situated on both sides of the corridor, a key priority is to establish safe north-south connections at the junctions and along key desire lines to enable safe access into the retail park and surrounding destinations. Several major roundabouts along Edinburgh Way will require improvement to accommodate safer crossing movements for people walking and cycling. Priority locations include the Edinburgh Gate roundabout, the Howard Way roundabout, the River Way/Central Road roundabout and the Cambridge Road/Edinburgh Way roundabout. These junctions currently offer limited safe crossing opportunities and require improvements to incorporate safer crossing points. A controlled crossing point is recommended near the West Road junction to support safer movements across Edinburgh Way. Additional wayfinding should be provided along the entire route to support navigation and improve route legibility. Implement localised widening of the shared-use path on the southern side of the Edinburgh Gate roundabout. Many of the side-road junctions along this route would benefit from side road treatments, particularly where the historic network provides footway-level cycling that results in uneven surfaces, limited priority and an inconsistent experience when crossing side roads. Improving these junctions would create safer and more intuitive movements for cyclists. Further improvements should also focus on strengthening key connections, including an enhanced link to Harlow railway station. The existing off-road path from Edinburgh Way is currently very narrow; widening this section is already being considered by ECC as part of the Harlow Town Station upgrades scheme. In addition, a new link to River Way through the employment area should be explored to provide a parallel route to Edinburgh Way.	



Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
13	Brays Grove – Gilden Way	Starting on Second Avenue in Brays Grove, the route travels east towards the Clock Tower roundabout. From here, it turns north onto the A414 and continues to the Church Langley Way roundabout and Church Langley Way towards the Church Langley local centre. The route then follows London Road, passing the London Road Enterprise Zone and the David Lloyd Harlow site to the Gilden Way Roundabout.	Maintenance and targeted upgrades are required along the existing cycling provision to bring older sections up to current standards. This includes improvements to surfacing and enhanced continuity across the corridor. Several underpasses require enhancement, including the underpass at the A414 roundabout, where improved lighting and wayfinding would significantly improve legibility and safety. There is some scope to incorporate segregated cycling facilities along sections of the A414, potentially delivered as a footway-level cycle track or a shared-use path, subject to available width. At the Church Langley Way/A414 roundabout, junction improvements should focus on providing safer crossing opportunities for walking and cycling. Further junction upgrades are also needed at the London Road/Church Langley Way junction and at the access junction serving the London Road Enterprise Zone. These improvements should support safe turning movements. Certain sections of London Road, particularly between Church Langley and Braggowens Ley, are constrained and may not accommodate segregated facilities. In these areas, traffic-calming measures such as reduced speed limits, priority chicanes and surface treatments should be considered to support safe on-road cycling. Additional upgrades are required at the London Road/The Chase roundabout to provide safer crossing points for pedestrians and cyclists. Several key destinations lie along London Road, including David Lloyd Harlow and Mark Hall Academy. The connections between London Road and the access points to these destinations at Newhall Way and First Avenue/Mandela Avenue should be strengthened to support safer, more legible movement for people walking and cycling. Wayfinding should be improved at key decision points, including the Newhall Way/Barnfield Way junction and major junctions along the corridor. Large roundabouts such as First Avenue and Gilden Way also require improved crossing facilities and clearer wayfinding to support user navigation. A controlled crossing is recommended on London Road outside Fawbert and Barnard Primary School to improve access and safety for school users. Junction improvements are also required at the Wayre Street/London Road junction and the Park Hill/London Road junction. The section between these junctions forms part of the National Cycle Network and would benefit from enhancements to ensure continuity of provision.	



Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
14	Old Harlow - Red Brick Lane	Starting at Station Road at the Gilden Way roundabout, the route runs north along Station Road through Old Harlow Town Centre to the Edinburgh Way / Cambridge Road roundabout. It then continues north of Station Road before joining an off-road path, and subsequently follows Cambridge Road to the Redricks Lane junction.	Along Station Road, a signed quietway-style cycle route is recommended. Further north approaching the Cambridge Road and Edinburgh Way roundabout, traffic-calming measures may be required to signal the transition into the town centre and encourage lower vehicle speeds. Wider area-based traffic-calming measures, including consideration of a 20mph speed limit, may be needed to support safer local cycling and walking movements throughout the corridor. With the town centre character and heritage setting of Old Harlow, there is strong potential for public realm enhancement. In particular, a raised continuous surface between High Street and Fore Street would reinforce pedestrian and cyclist priority, strengthen the place function of the street, and help moderate vehicle speeds. The off-road path to the north of Station Road may require widening and resurfacing, together with lighting and wayfinding improvements. On Cambridge Road, segregated cycle facilities should be delivered where feasible, either as a footway-level cycle track or a shared-use path. The section between Old Road and Redricks Lane is more constrained; in this area, traffic-calming measures may be required to support safe on-road cycling. These could include reduced speed limits and surface treatments that emphasise the transition into the village environment and encourage slower vehicle speeds. Side-road junctions along both Priory Avenue and Cambridge Road should be improved to support safe turning movements for cyclists. Many of these junctions are wide and currently designed to accommodate higher vehicle speeds, which reduces safety for people walking and cycling. Junction tightening and improved priority arrangements would help provide a safer and more coherent cycling experience. Wayfinding should be provided at key decision points, particularly where the route connects with the wider cycle network or with key local destinations, to support legibility and user confidence.	As a potential do maximum measure, it may be appropriate to explore traffic management options along Station Road, including the possibility of filtering the route to remove through traffic. This would reduce vehicle movements through Old Harlow and encourage motor traffic to use the A414 instead. Such an intervention would help reinforce the area's town centre character and improve conditions for people walking and cycling.



Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
15	Great Parndon - Church Langley (via Southern Way)	Starting at Kingsmoor Road, the route travels east along Southern Way to the A414 roundabout and continues further east to Carters Mead in Church Langley.	ECC is currently reviewing potential improvements along Southern Way alongside the development of this LCWIP refresh. The recommendations presented here have therefore been aligned, where appropriate, with the emerging proposals from that scheme. Maintenance and improvement of the existing cycle route along Southern Way is required, including resurfacing and targeted upgrades to bring older sections up to current standards. There is also a missing link in provision between Parnall Road and the Goldings Playing Field area; this gap should be addressed by aligning any new infrastructure with the existing cycle facilities to maintain continuity. Many of the side-road junctions along this corridor would benefit from side road treatments, particularly where historic footway-level cycling results in uneven surfaces, limited priority and inconsistent experience when crossing the side road. Upgrading these junctions would help create safer and more intuitive movements for cyclists. Controlled crossing points are recommended along the entire route, with particular priority at the Kingsmoor Road junction and at the Staple Tye local centre. Controlled crossings at these locations would support both safety and access to key destinations. Several junctions require improvement to support safer crossing movements and ensure a coherent connection with the wider cycle network. These include the Abercrombie Way junction, the Partridge Road junction, the Tye Green Village junction, Tawneys Road, Tillwicks Road, Trotters Road, Tracys Road and Priory Court Road. Upgrades at these locations should focus on providing controlled crossings and improving network continuity. Two underpasses also require enhancement. The underpass near Parnall Road, which links Southern Way to the off-road path to the north, and another one at the A414 Roundabout would benefit from improved lighting and wayfinding to improve legibility and safety. To support on-road cycling, traffic-calming measures such as extending the existing 20mph zone should be considered along the section of Southern Way passing through Church Langley.	



Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
16	Bush Fair – Templefields	The route begins at Bush Fair and follows Tillwicks Road northwards. It continues along Howard Way all the way to the Edinburgh Way roundabout in Templefields.	There is scope to incorporate segregated cycle facilities along the entire corridor, with provision delivered where feasible either as a footway-level cycle track or a shared-use path. This would create a consistent standard of infrastructure and reduce reliance on on-road cycling in higher-speed environments. Existing crossing facilities should be upgraded to parallel zebra or toucan crossings to provide safer and more predictable crossing movements for pedestrians and cyclists. Several large roundabouts along the route require redesign to accommodate safe crossing points, including the Edinburgh Way/Howard Way roundabout, the Howard Way roundabout, the First Avenue/Mandela Avenue/Howard Way roundabout, the Second Avenue/Tillwicks Road Avenue roundabout. These junctions currently provide limited safe crossing opportunities and do not support inclusive cycling conditions. Further junction redesign is required at key locations, including the Southern Way/Tillwicks Road junction, which is currently a mini roundabout. Similar improvements are needed at Tilegate Road and at the Tillwicks Road junctions, where crossing upgrades to toucan provision are recommended. The Tumbler Road/Tendring Road/Tillwicks Road complex junction design, which comprises two mini roundabouts, also requires rationalisation and improved crossing facilities to support safe movements. At Momples Road/Maddox Road/Howard Way, junction upgrades are required to support safe turning movements for cyclists. A controlled crossing point will likely be needed to ensure continuity of the route and to improve safety at this location. Wayfinding improvements should be introduced along the corridor to provide clear direction for intuitive navigation and ensure route legibility for all users. Additional wayfinding should also be considered at key destinations, including the Bush Fair Local Centre, which may also serve as a potential location for a bike-sharing hub.	



Route	Name	Description	General Design Commentary	Design Maximum (Highest ambition/cost/ political complexity)
17	Staple Tye - Latton Priory	The route begins at the Perry Road junction on Southern Way and travels south. It then follows the off-road path past Stewards Academy and St James' Church of England Primary School, continuing to Paringdon Road before following Rye Hill Road to Longwood/Rye Hill Road junction in Latton Priory, where it connects with the County-wide LCWIP route towards Epping.	Along Perry Road, a signed quietway-style cycle route is recommended, supported by targeted traffic-calming measures where required to create a safer and more comfortable on-road cycling environment. Wayfinding should be provided to direct cyclists towards the off-road path and to improve clarity at key access points. The off-road path requires maintenance to address degraded surfacing and overhanging vegetation, both of which reduce accessibility and user comfort. Wayfinding should also be enhanced along this path, particularly at entry points, to support navigation and legibility. The access point at Paringdon Road may also require upgrading to provide a wider, more accessible connection for cyclists and wheelchair users. At Rye Hill Road, side-road junction improvements are required, as the current junction is wide and encourages higher turning speeds that do not support safe cycling conditions. Some traffic-calming measures may be appropriate along Rye Hill Road itself, and wider area-based traffic-calming may be needed, including consideration of a 20mph speed limit, to support safer local cycling and walking movements.	

Table 4 **Cycle route design commentary (detailed version)**



Figure 59 New cycling parking facilities integrated with bus stop



Figure 60 New footpath and cycle route delivered as part of the north-to-centre STC scheme



Figure 61 New parallel zebra crossing connecting Sainsbury's on Hodings Road



Figure 62 New toucan crossing along the north-to-centre STC



Figure 63 Toucan crossing along Edinburgh Way



Figure 64 New parallel zebra crossing delivered as part of the town centre regeneration scheme





Stage 4 – Network Planning for Walking



Walking Network Planning

Overview

Stage 4 used the outputs from Stage 2 to develop a preferred walking network for site auditing. The main focus of Stage 4 is to upgrade and extend the quality and coverage of the existing walking network. The figure opposite (Figure 65) illustrates how the development of the LCWIP walking network is based upon the identification of 'Core Walking Zones' (CWZ) which represent areas that are expected to contain key walking trip generators and therefore likely to create higher levels of footfall.

Core Walking Zones

The destinations identified in LCWIP Stages 2 and 3 were used to determine the locations of the LCWIP Core Walking Zones. These zones are focused around clusters of key destinations and trip generators. A total of seven Core Walking Zones were identified, which are consistent with those established in the previous LCWIP:

- Pinnacles
- Town Centre
- Temple Fields
- Burnt Mill
- Church Langley

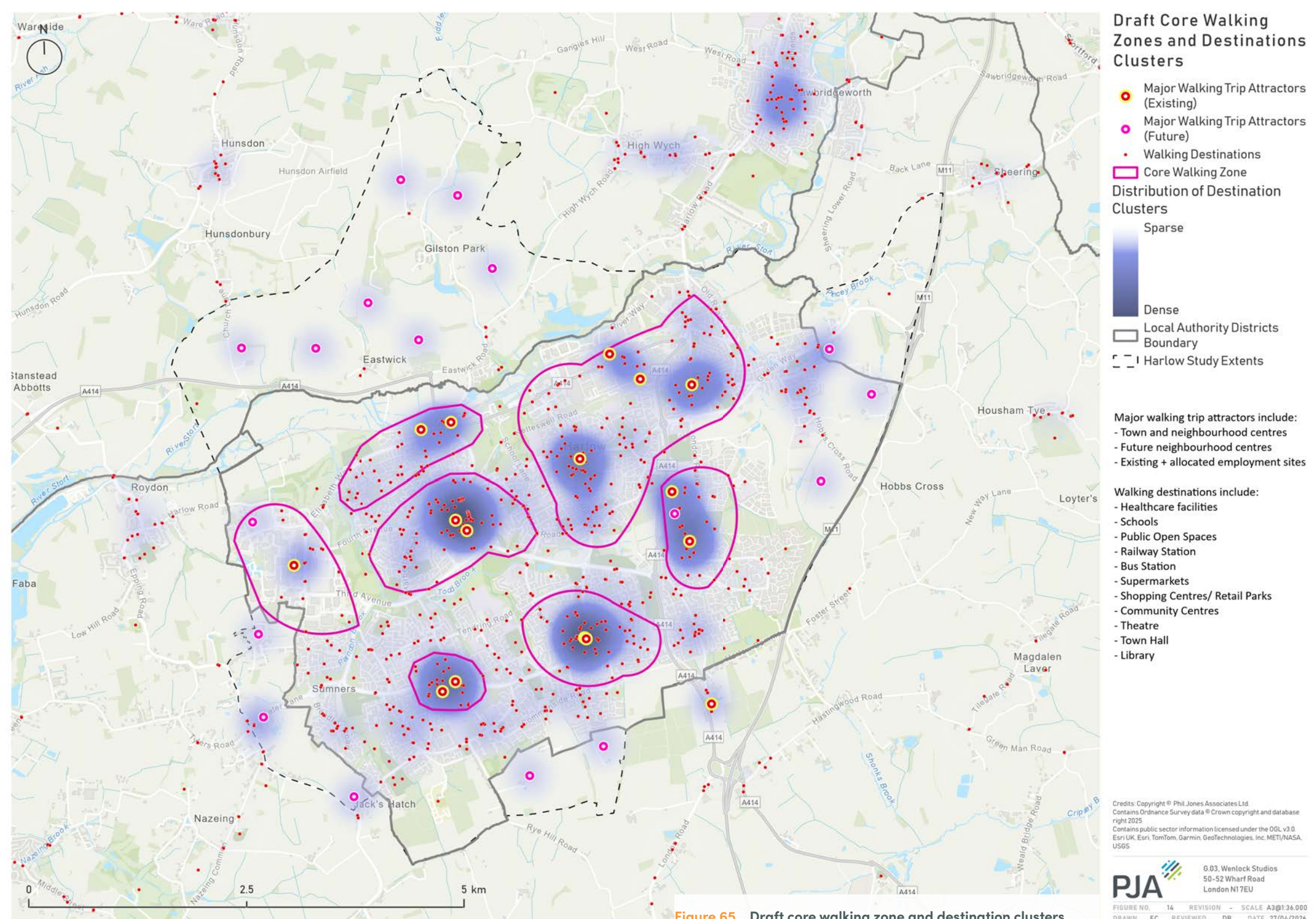
- Bush Fair
- Staple Tye

The previous LCWIP performed a prioritisation exercise to select four zones for walking route development, detailed site audits, design recommendations, and future funding programmes. These were:

- Town Centre
- Temple Fields
- Bush Fair
- Staple Tye

While the overall pattern of walking demand remains broadly consistent with the previous LCWIP, this Refresh will revisit the remaining CWZs to ensure future proposals align with emerging development and movement needs.

An engagement exercise was undertaken in December with the working group. This exercise enabled stakeholders to review the initial selection of core walking zones. The discussion offered useful insight into which CWZs should receive greater focus and an appropriate approach in respond to the local aspirations within this LCWIP Refresh.



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Walking Network Planning

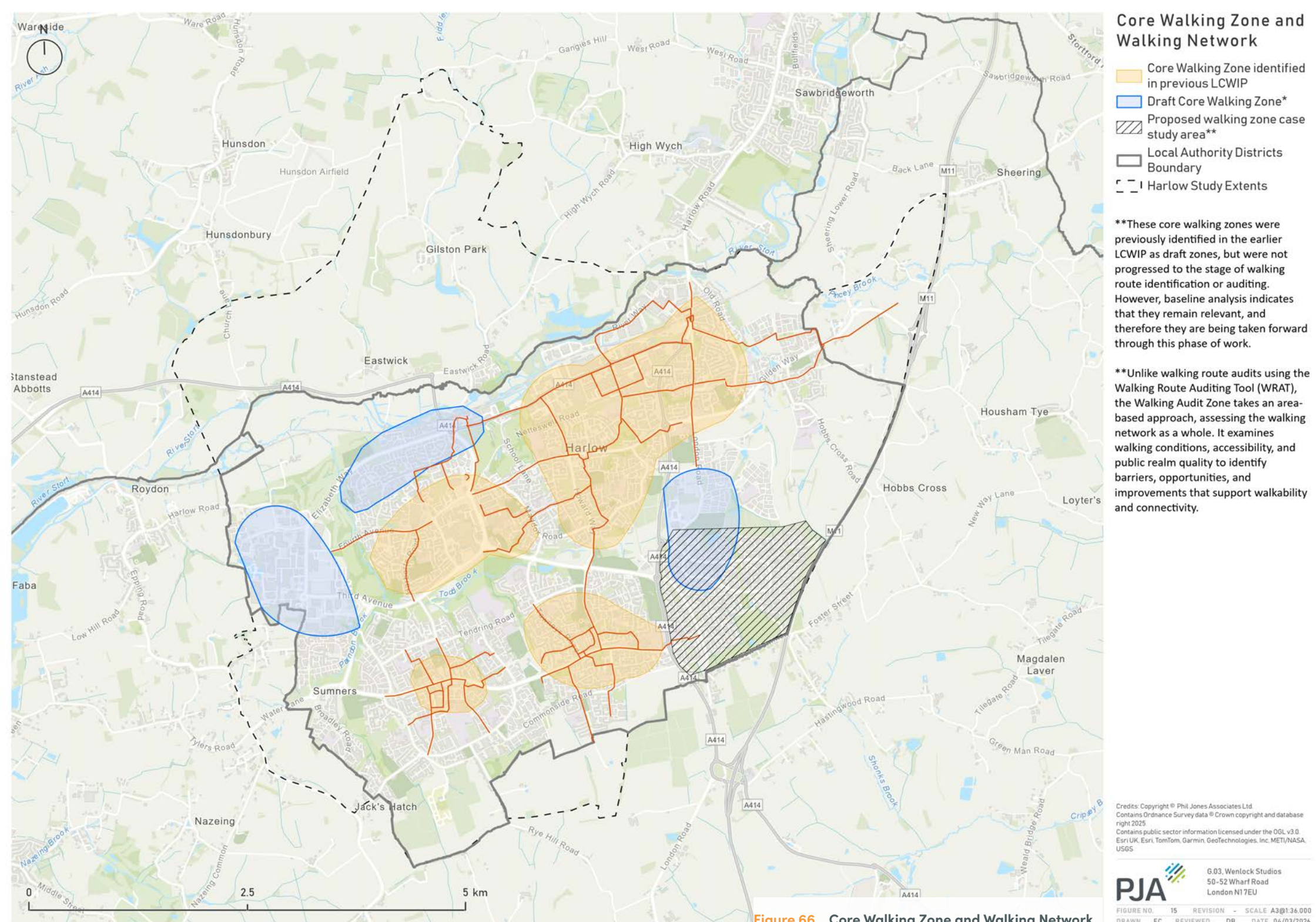
Area-based Approach

The previous LCWIP already provides comprehensive auditing and detailed design recommendations for the first four CWZs. As these zones have already been assessed in depth, this LCWIP Refresh focuses on the remaining three CWZs.

Instead of developing walking routes for auditing and further assessment, as was done in the previous LCWIP, this Refresh adopts an area-based approach. This method looks beyond individual corridors and considers how people move across the whole neighbourhood. It allows the assessment to capture the wider context, including street layouts, local walking barriers, desire lines, points of severance, access to key destinations and how these elements interact at an area-wide scale. By doing so, it provides a clearer picture of the everyday walking environment and helps identify interventions that respond to local movement patterns rather than isolated sections of route. This creates a more coherent foundation for future proposals and ensures recommendations reflect how people actually navigate their surroundings. This assessment was informed by a site visit undertaken by PJA and ECC officers in December 2025.

The sections below explain how Pinnacles, Burnt Mill and Church Langley will be taken forward within this LCWIP Refresh.

- **Pinnacles:** The area is due for major regeneration around 2030 for the relocation of UKHSA campus. As such, detailed walking recommendations are not proposed within this LCWIP cycle; however, the next LCWIP refresh should revisit the area to align proposals with planned development.
- **Burnt Mill:** Burnt Mill has not been selected for detailed study in this LCWIP Refresh because the walking environment in this area is shaped primarily by the wider transport corridors that run through it, rather than by local, neighbourhood-level movement patterns. As a result, meaningful improvements to walking here depend on changes to the cycling and multimodal network that are already being developed.
- **Church Langley:** This CWZ has been selected as a particular focus area. It will also act as a trial for adopting a new assessment methodology: moving from a route-based approach to an area-based approach. This will enable a more holistic review of individual streets, pedestrian barriers, desire lines, and local movement patterns within a neighbourhood setting.



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Case Study – Church Langley

Overview

Located on the eastern edge of Harlow, Church Langley is a predominantly suburban neighbourhood and one of the town's more recent large-scale residential developments. The A414 forms a major east-west corridor across Harlow and creates a significant severance between Church Langley and the remainder of the town. Within the area, the primary local centre is situated on Church Langley Way, with Church Langley Playing Field and Newhall development to the north.

Church Langley comprises two distinct sub-neighbourhoods. The northern area is accessed solely from the A414 via Church Langley Way and has no alternative vehicular approach. The southern area is accessed separately from Potter Street and from Southern Way. There is no through vehicle connection between the northern and southern sub-neighbourhoods, which results in a relatively disconnected internal road network. The street network is composed largely of distributor roads and cul-de-sacs, resulting in limited permeability for walking and a movement pattern that is more car-oriented than in older parts of Harlow with a finer street grain.

However, several off-road paths and public rights of way provide pedestrian links between the two areas, offering some permeability for walking despite the lack of vehicular through routes.



Figure 67 Church Langley Way



Figure 68 Bridleway in Church Langley

Barriers to Walking

Following our site visit, the project team has compiled a summary of the observations on site and the issues that may influence the walking experience within Church Langley. The points below set out the key findings and areas requiring further consideration.

High Traffic Volume and Speed

The primary road network within Church Langley is traffic dominated, such as Church Langley Way with relatively fast moving vehicles that create safety concerns for people walking and cycling. These conditions contribute to a poor sense of comfort and act as a barrier to active travel uptake.

Severance and Perceived Isolation

The area feels somewhat isolated due to its location at the eastern edge of Harlow and the significant severance created by the A414 to the west. This major road restricts direct movement and makes connections between Church Langley and the surrounding neighbourhoods less intuitive and less comfortable.



Figure 69 Burley Hill/ Kiln Lane junction



Figure 70 London Road



Case Study – Church Langley

Quality of the Existing Walking and Cycling Infrastructure

Church Langley Way benefits from a footway-level cycle track running alongside the footway. They are supported by controlled crossings along key desire lines, including the zebra crossing that connects to the bridleway to the south. While the facilities are generally well maintained, the cycle track is narrow for two way flows, creating potential conflicts and limiting comfort.

Public Rights of Way and Off-Road Paths

Church Langley is somewhat connected due to the high number of public rights of way and off-road paths across the area. However, the quality of these routes vary, with some degraded surfaces requiring maintenance and accessibility improvements. Bollards and gated access points restrict movement, while limited wayfinding and poor lighting, particularly around underpasses on the edge of the study area, reduce legibility and comfort, leaving the footpath unwelcoming.

Junction Design and Pedestrian Crossing Provision

The local road network within Church Langley features several roundabout-style junctions, many of which are not pedestrian-friendly. These junctions offer limited safe crossing opportunities, which is problematic given the relatively high traffic speeds and volumes. Key walking routes also lack dedicated safe crossing points, side-road junctions are wide and encourage fast vehicle turning, and some section of the footways, particularly along London Road, are narrow and uncomfortable for pedestrians.



Figure 71 Signalised crossing outside Tesco



Figure 73 Parallel zebra crossing at Church Langley Way



Figure 75 Footway-level cycle track along Church Langley Way



Figure 72 Off-road path in Church Langley



Figure 74 Access control of the off-road path in Church Langley



Figure 76 Bridleway access point and crossing connection



Case Study – Church Langley

The following section outlines the recommended design interventions for Church Langley, which are presented on the plan opposite in Figure 77.

Junction improvements

Junction improvements consist of a range of design measures that make road junctions safer, easier to navigate and more consistent for all users, particularly pedestrians and cyclists. Improvements typically focus on reducing vehicle speeds, clarifying priorities, improving visibility and creating safer, more predictable crossing points. Depending on context, ambition and available funding, improvements can range from small adjustments to major redesigns.

A key aspect of junction improvement is the provision of safer crossing points. Signalised pedestrian crossings can be introduced to manage interactions between vehicles and pedestrians and provide a controlled and safe crossing point. These may include dedicated pedestrian stages, countdown timers or early release phases for cyclists where appropriate. In locations with lower traffic speeds and volumes, zebra crossings can provide clear pedestrian priority and support more direct routes across junction arms. It is acknowledged that wherever a new crossing is proposed, a PV2 (Pedestrian vs Vehicle Conflict) survey would be required to determine whether the locations meets the threshold for installing a formal crossing.

More substantial changes may involve rationalising the junction layout to remove unnecessary complexity. Many junctions and roundabouts in the study area are designed to maximise vehicle throughput, leading to high approach speeds, wide entries and limited facilities for pedestrians. Redesign generally focuses on tightening entry geometry, reducing speeds and creating safer crossing opportunities.





Case Study – Church Langley

Safer school streets

Safer school streets can use timed closures as an effective way to reduce the impact of heavy motor traffic around schools. In a safer school street context, timed closures are applied specifically during drop off and pick up times. During these periods, the street is closed to most motor vehicles, creating a safer environment for children and parents travelling on foot or by bicycle. This approach improves safety in the school zone and supports wider aims for sustainable travel and healthier daily routines within the school community.

Alongside traffic management measures, safer school streets are often supported by a set of complementary design interventions.

These can include footway build outs to provide additional space at school entrances and along key routes to school. Public realm improvements can introduce street furniture such as cycle parking, seating and, where appropriate, small play elements that make the environment more pleasant and engaging for children. Improving the route to school from nearby bus stops is also an important consideration. Upgrades to pedestrian crossings, targeted traffic calming and measures that reduce vehicle speeds help create a more consistent level of safety along the entire journey.

20mph

30mph is the legal speed limit that usually applies to all traffic on most roads in UK cities, towns and villages. However, introducing a 20mph limit can reduce both the risk and severity of collisions and help pedestrians and cyclists feel safer. This in turn encourages more local walking and cycling.

A 20mph limit can be introduced through signs and road markings alone, without the need for physical traffic-calming features. This makes it a cost efficient way to support lower and safer vehicle speeds. Where further intervention is required, complementary traffic-calming measures can be added. They go beyond simple signage and can include features such as sinusoidal road humps and speed cushions to reinforce slower speeds.

At present within the study area, only a short section of Potter Street is subject to 20mph limit. Expanding the limit to cover the wider area and reduce speeds on roads where it is appropriate to do so would create a more consistent speed environment, improve safety for people walking and cycling, and strengthen the overall benefits of a quieter street network.



Side road treatment

Side road treatments are design measures used at junctions where a minor street meets a main road. Their purpose is to improve the safety and comfort of pedestrians and cyclists by slowing turning vehicles, clarifying priority and reducing the dominance of motor traffic. These treatments help create more consistent, predictable crossing points and support a safer walking and cycling environment across neighbourhoods.

Continuous footways are recommended at the junctions of side roads, where the footway is extended seamlessly across the entrance of the side road and give-way markings for traffic are set back. They work best at the entrances of small streets and filtered areas, where drivers are more likely to be residents or visitors. Tightened corner radii at junctions also reduce vehicle speeds and provide visual cues to drivers that they are crossing a footway where pedestrians have priority. This helps reduce aggressive driving behaviour and creates a safer environment for pedestrians and cyclists.



Stage 5: Prioritisation



Prioritisation Approach

Overview

The purpose of the Prioritisation stage is to establish a prioritised programme for the delivery of the walking and cycling measures identified in Stages 3 and 4 of the LCWIP. The prioritised list of measures should aid future network development by outlining the top-priority schemes for delivery. The results can also be used as a mechanism for funding applications or seeking developer contributions towards new walking and cycling infrastructure. LCWIPs are considered to be 'live' documents by the DfT and local authorities therefore should consider updating/revising the prioritisation matrix to reflect latest developments.

Prioritisation Approach

Essex County Council has developed a multi-criteria analysis tool which is used across all Essex LCWIPs. The tool assesses each LCWIP Route against a series of objectives to produce a prioritisation score which then enables ranking of the LCWIP cycle routes for delivery. The routes and design measures included within this LCWIP will now be provided to ECC to be processed through the prioritisation tool. The outputs from this tool will enable ECC to identify the highest priority routes within the study area in Harlow to then be progressed through to delivery.





Stage 6: Integration and Application



Summary and Recommendations

Summary

This report has provided a technical summary of the HGGT LCWIP Refresh, including the full methodology and assessment that has been undertaken.

The report has demonstrated how it responds to the planned review cycle, the progression of HGGT development, and evolving policy priorities and movement patterns. The proposed walking, wheeling and cycling network builds on existing and planned infrastructure recommended in the previous LCWIP to create a comprehensive and integrated network across Harlow. This network would provide connections between key origins and destinations in Harlow and enable regular everyday trips to be made by walking, cycling and wheeling, as well as routes which would enable safe and enjoyable leisure journeys to be undertaken by all users. Ultimately, a comprehensive network in Harlow would help to achieve the modal shift targets established as part of the HGGT Transport Strategy.

As this is an update to the previous LCWIP rather than a full redevelopment, the work has focused on revisiting elements influenced by recent growth, development and shifting movement patterns, refining the network where required.

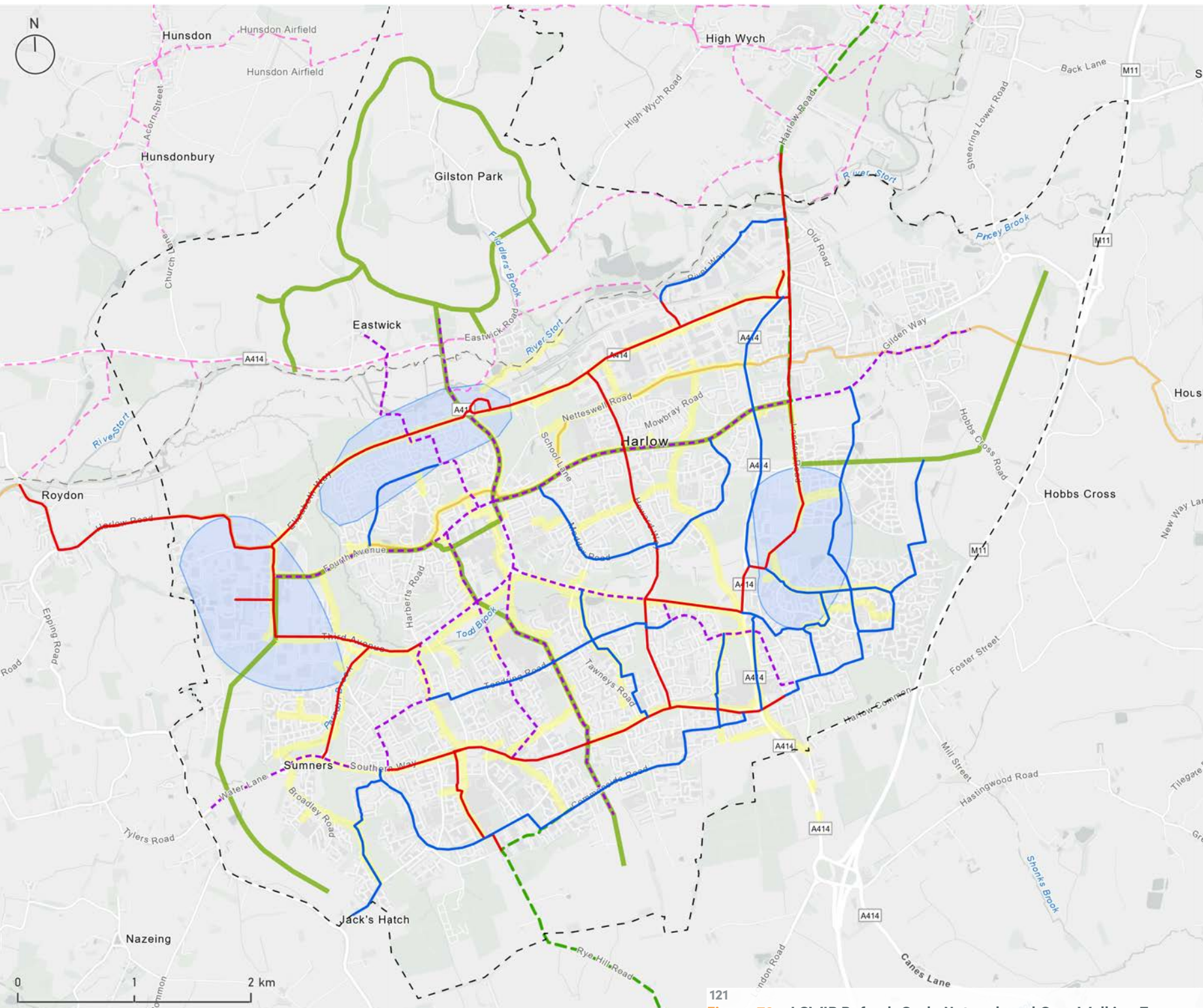
The LCWIP methodology has been followed, and a series of interventions to

improve conditions for walking, wheeling and cycling in the town has been developed. These interventions have been provided to ECC for multi-criteria prioritisation to identify routes for progression to delivery.

Integration

It is recommended that the LCWIP is considered in all future developments and applications in the study area which either directly impact upon the LCWIP networks or are likely to affect conditions for walking and cycling in general. Whilst the LCWIP has developed measures only for the LCWIP network, a majority of these recommendations could be adopted and applied to sites across the town to further improve the walking and cycling conditions.

It is also recommended that the LCWIP is integrated with ongoing strategies and policies in the county, as well as the delivery of planned walking and cycling infrastructure through ECC. It will be important to ensure that the LCWIP is integrated with county-wide projects, such as any future iterations of the Essex-wide LCWIP, as well as projects in neighbouring areas, including Hertfordshire, Epping Forest, given the proximity of the town to the county boundary and the cross-boundary nature of the HGGT development.



Draft LCWIP Cycling Network

- Maintainable cycling network (Audited by Sustrans)
- Harlow LCWIP Network (2021)
- Sustainable Transport Corridor
- Strategic County-wide LCWIP Routes
- National Cycle Network (NCN)
- East Herts LCWIP Route (currently undergoing final consultation)
- Harlow Study Extents
- LCWIP Update - Suggested New Routes
- Primary Route for assessment
- Secondary Route
- Core Walking Zone

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Figure 79 LCWIP Refresh Cycle Network and Core Walking Zone



Appendix A



Appendix A

This appendix provides additional detail on elements of the everyday trip analysis workflow.

Everyday Trip Desire Lines

To determine the key desire lines for the LCWIP, the spatial relationship between Origin and Destinations was analysed.

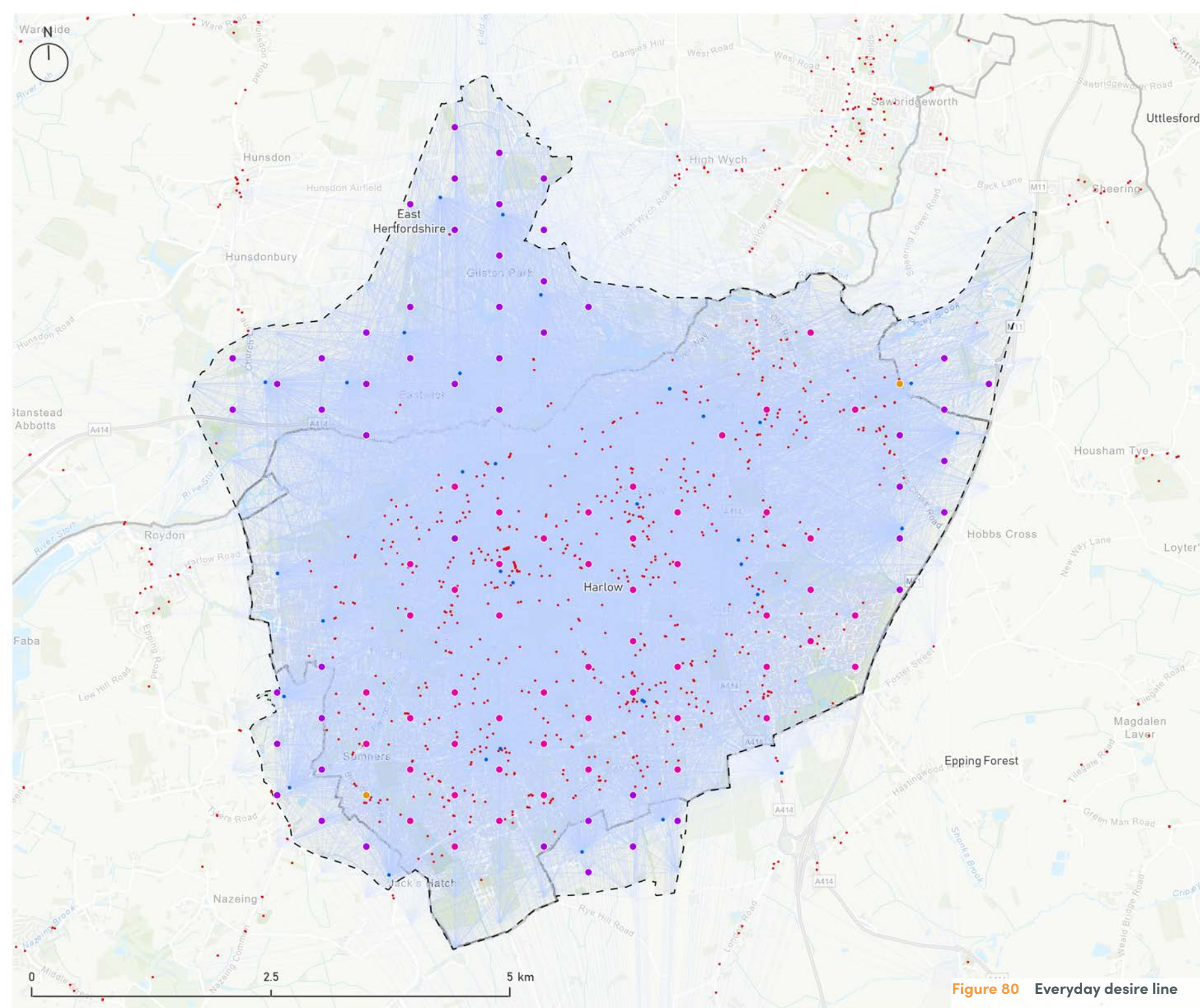
Origin-Destination straight desire lines were created from each origin centroid to its nearest Class 2 destination, and then also to all Class 1 destinations in the Study Area (all desire lines >8km were excluded from the analysis). This was based on the assumption that the Class 1 destinations would generate a higher number of trips and that they are also likely to have a larger catchment area of trips from across the study area, compared to Class 2 destinations which would generate more locally based trips.

The plan in Figure 80 shows dense clusters of desire lines across Harlow, reflecting the urban nature of the area. Destinations are distributed across the study area with multiple local centres rather than focused on a single centralised core. This pattern results in a high number of desire lines, spread across the town. The purpose of this plan is to demonstrate the number of desire lines that were identified across the study area.

At the edges of the study area, fewer desire lines are recorded. This reflects

lower population density and fewer destinations in the peripheral areas.

While the mapping highlights where movements are most concentrated, the density of desire lines across much of the urban area makes this plan difficult to interpret on its own. Therefore, additional analysis is required to interpret these patterns effectively.



Everyday Trip - All Desire Lines

Destination Clusters

- Class 1 Destinations
- Class 2 Destinations

Origin Clusters

- Contains committed/potential development site yielding ≥ 100 dwellings
- Contains Lower Super Output Area (LSOA) population weighted centroids (2021 Census)
- Contains both 'Everyday' Cycling Desire Lines ($< 8\text{km}$)
- Harlow Study Extents
- Local Authority District Boundary

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Figure 80 Everyday desire line



Density of Everyday Desire Lines

Having identified all available desire lines in Figure 80, a density analysis was undertaken to determine where these movements are most concentrated across the study area – this is shown in Figure 81. The analysis identifies locations where multiple desire lines overlap or pass through the same broad corridor, providing an indication of areas with the greatest likelihood of attracting walking or cycling trips.

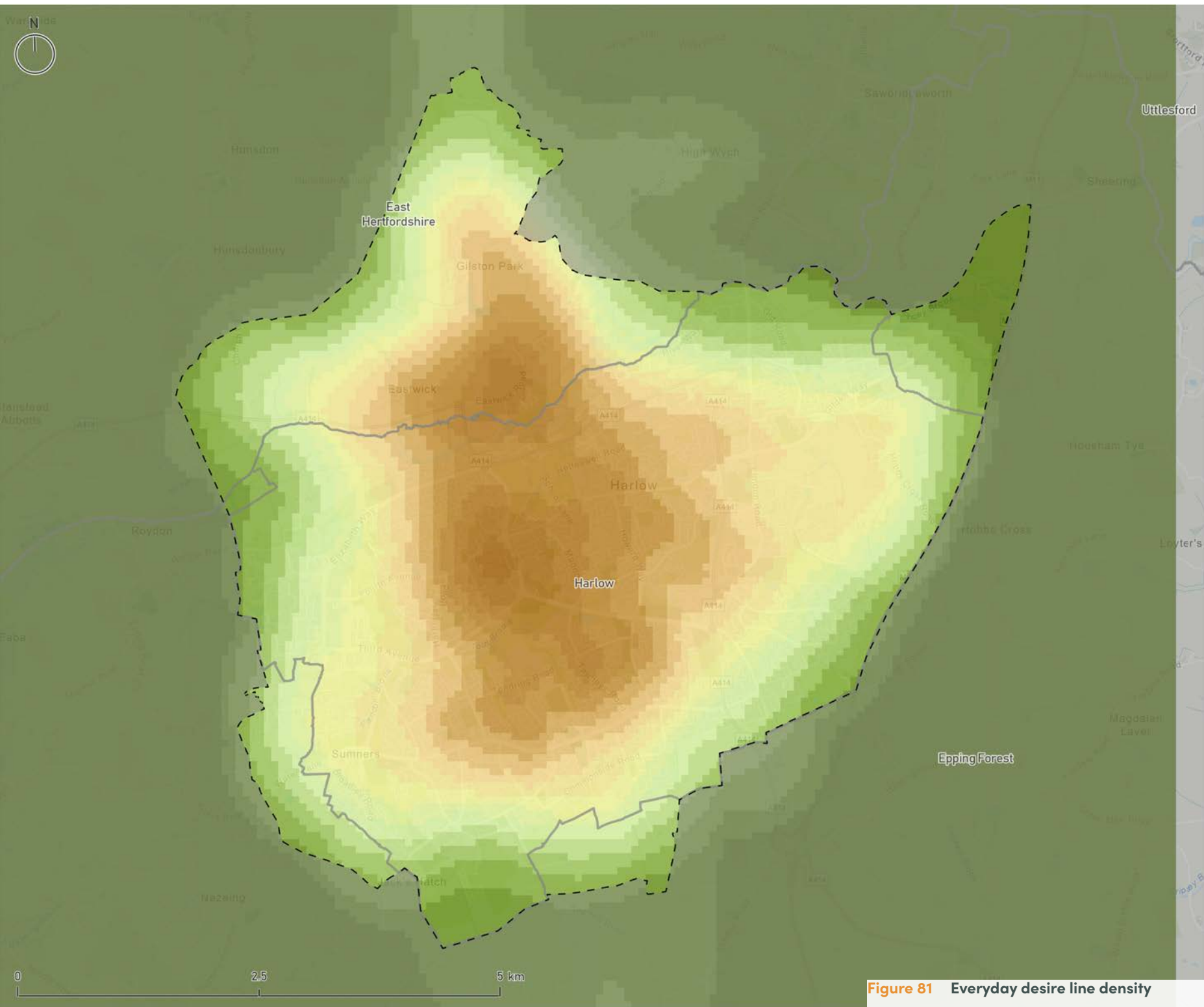
The map presents population-weighted desire line density. This combines the number of overlapping desire lines with the population associated with each origin. Higher-density locations represent corridors where everyday movement demand is higher and where walking and cycling activity is more likely to be focused.

The results show that:

- The highest density appears in the central part of the study area. This is consistent with the concentration of trip attractors in and around the town centre, where multiple routes converge, and overlapping desire lines accumulate. The central area functions as the primary destination for everyday trips.
- The density decreases progressively towards the edges of the study area,

reflecting lower population density, fewer trip attractors, and a reduced number of intersecting desire lines.

- The map shows elongated bands of medium-to-high density extending outward from the centre, which represent key corridors of movement.
- Notable medium-density areas are visible to the east and north-east of the study area. These movement patterns align with the emerging growth locations in the HGGT.



Everyday Trip Cycling (0-8km) Desire Line Density



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Figure 81 Everyday desire line density



Appendix B



Cycle Route Design Commentary – Summary Table

Route	Name	Description	Link	Junction	Crossing	Traffic Management	Complementary Measures
10	Harlow Railway Station – The Pinnacles – Roydon	The route begins at Burnt Mill Roundabout, continues along Elizabeth Way through the Pinnacles, and then heads west along Roydon Road and Harlow Road to Roydon Station. The design approach for this corridor focuses on upgrading and completing the existing active travel network through a combination of route maintenance, safe crossing provision and targeted traffic calming.	Maintenance/upgrade of existing cycle route Segregated cycle route	Major junction improvement Side road treatments	Controlled crossing points	Traffic-calming measures, such as priority chicanes and surface treatments 20mph speed limit	Wayfinding improvements Additional cycle parking
11	The Pinnacles – Southern Way	The route begins at the Elizabeth Way/Roydon Road roundabout, moves south along Elizabeth Way, then follows Third Avenue and Katherine's Way. Additional spurs branch off via Harolds Road to the Pinnacles and along Third Avenue to Abercrombie Way. The design approach for this corridor focuses on upgrading and completing the existing active travel network through a combination of route maintenance, safe crossing provision and targeted traffic calming.	Maintenance/upgrade of existing cycle route Segregated cycle route	Major junction improvement Side road treatments	Controlled crossing points	20mph speed limit	Wayfinding improvements Additional cycle parking
12	Harlow Railway Station – Templefields – Old Harlow	From Burnt Mill Roundabout, the route runs east along Edinburgh Way through Templefields to the Edinburgh Way/Cambridge Road in Old Harlow. There is a short spur extending from Central Road/River Way/Edinburgh Way roundabout towards the north along River Way. The design approach focuses on strengthening east-west continuity and delivering safe north-south connections to improve access across the Edinburgh Way corridor.	Maintenance/upgrade of existing cycle route A new parallel cycle route along River Way linking to Edinburgh Way	Major junction improvement Side road treatments	Controlled crossing points		Wayfinding improvements Additional cycle parking



Route	Name	Description	Link	Junction	Crossing	Traffic Management	Complementary Measures
13	Brays Grove - Old Harlow	Starting on Second Avenue in Brays Grove, the route travels east towards the Clock Tower roundabout. From here, it turns north onto the A414 and continues to the Church Langley Way roundabout and Church Langley Way towards the Church Langley local centre. The route then follows London Road, passing the London Road Enterprise Zone and the David Lloyd Harlow site. From this point, the route proceeds along Station Road, continuing into Old Harlow town centre. The design approach for this corridor is to improve connectivity through targeted upgrades, safer crossings and traffic calming.	Maintenance/ upgrade of existing cycle route Segregated cycle route	Major junction improvement Side road treatments	Controlled crossing points	Traffic-calming measures, such as reduced speed limits, priority chicanes and surface treatments 20mph speed limit	Underpass improvements Wayfinding improvements Lighting improvements Additional cycle parking
14	Old Harlow - Red Brick Lane	Starting at Station Road beside the Edinburgh Way/Cambridge Road roundabout, the route runs north along Station Road through Old Harlow Town Centre and the off-road path before following Cambridge Road to the Redricks Lane junction. The design approach focuses on completing the missing gaps in the existing active travel network by delivering cycle facilities along the route that are appropriate to the local context.	Quietway-style cycle route Off-road path upgrade Segregated cycle route	Side road treatments	Controlled crossing points	Traffic-calming measures, such as raised tables and surface treatment 20mph speed limit	Wayfinding improvements Lighting improvements Additional cycle parking
15	Great Parndon - Church Langley (via Southern Way)	Starting at Kingsmoor Road, the route travels east along Southern Way to the A414 roundabout and continues further east to Carters Mead in Church Langley. The design approach for this corridor focuses on upgrading and completing the existing active travel network through a combination of route maintenance, safe crossing provision and targeted traffic calming.	Maintenance/ upgrade of existing cycle route Segregated cycle route	Major junction improvement Side road treatments	Controlled crossing points	20mph zone	Underpass improvements Wayfinding improvements Lighting improvements Additional cycle parking



Cycle Route Design Commentary

Route	Name	Description	Link	Junction	Crossing	Traffic Management	Complementary Measures
16	Bush Fair – Templefields	The route begins at Bush Fair and follows Tillwicks Road northwards. It continues along Howard Way all the way to the Edinburgh Way roundabout in Templefields. The design approach focuses on completing the missing gaps in the existing active travel network by delivering cycle facilities along the route that are appropriate to the local context.	Maintenance/upgrade of existing cycle route Segregated cycle route	Major junction improvement	Controlled crossing points		Wayfinding improvements Additional cycle parking
17	Staple Tye – Latton Priory	The route begins at the Perry Road junction on Southern Way and travels south. It then follows the off-road path past Stewards Academy and St James' Church of England Primary School, continuing to Paringdon Road before following Rye Hill Road to Longwood/Rye Hill Road junction in Latton Priory, where it connects with the County-wide LCWIP route towards Epping. The design approach focuses on quietway-led interventions with path upgrades, junction improvements and targeted traffic calming	Quietway-style cycle route Off-road path upgrade	Side road treatments		20mph speed limit	Wayfinding improvements Accessibility improvement to off-road path Additional cycle parking

Table 5 Cycle route design commentary – summary table





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