SCALE BAR + NORTH POINT

100m 200m 400m

KEYS

- Application Boundary
- Area Subject to Full Details Submitted
- Local Authority Boundary
- Sustainable Transport Corridor (STC) - Indicative alignment through development areas
- Sustainable Transport Corridor (STC) - Roundabout junctions indicative alignment
- Area safeguarded for future M1 Bridge Crossing
- Secondary School Buildings and Playing Fields
- Strategic Open Space (including parks, play spaces, allotments, tree and landscape planting, paths and drainage infrastructure)
- Suitable Alternative Natural Greenspace
- Area for Playing Pitches
- Retained Woodlands
- Edge Landscapes
- Habitat Creation Areas with Limited Public Access
- Extent of Planted Bund
- Green Corridors (including existing and new vegetation, wildlife connectivity, drainage infrastructure, active travel routes) (Indicative alignment through development areas)
- Nickey Line
- Sustainable Transport Corridor Narrowing to Minimise Impact on Nickey Line
- Area of flexible access for a new Nickey Line connection
- Habitat Connectivity Across the STC
- Area within which Sports Hub is to be accommodated
- Commercial Area Public Square (Indicative Location within Built Development)
- Multi-Value SuDS Ponds - Permanent Water Areas
- Multi-Value SuDS Ponds - Floodable Extents
- Ponds with Permanent Water (Not Connected to Strategic Drainage System) (Indicative Location
- Neighbourhood Equipped Area of Play(Indicative Location)
- Neighbourhood Park (Indicative Location within Residential Built Development or Strategic Open Space)
- Extent of Built Development

Note: Parameter plans to be read in conjunction with the Development Specification.

CLIENT: The Crown Estate

MASTERPLAN CONSULTANT: Prior + Partners, 70 Cowcross Street, London EC1M 6EJ, +44 (0)20 3951 0052

PROJECT TITLE: EAST HEMEL

DRAWING TITLE: OUTLINE PLANNING APPLICATION PARAMETER PLAN 02 GREEN INFRASTRUCTURE

DATE	DRAWN	CHECKED	APPROVED
24/11/2025	AA	KK	CP

PURPOSE OF DRAWING	SCALE	SIZE
FOR APPROVAL	1:6000	A1

DRAWING NUMBER: EHUK_PRP_XXX_XXX_DR_T_00002 -Green Infrastructure Parameter Plan

REV: 10

06.3

Access and Movement Framework

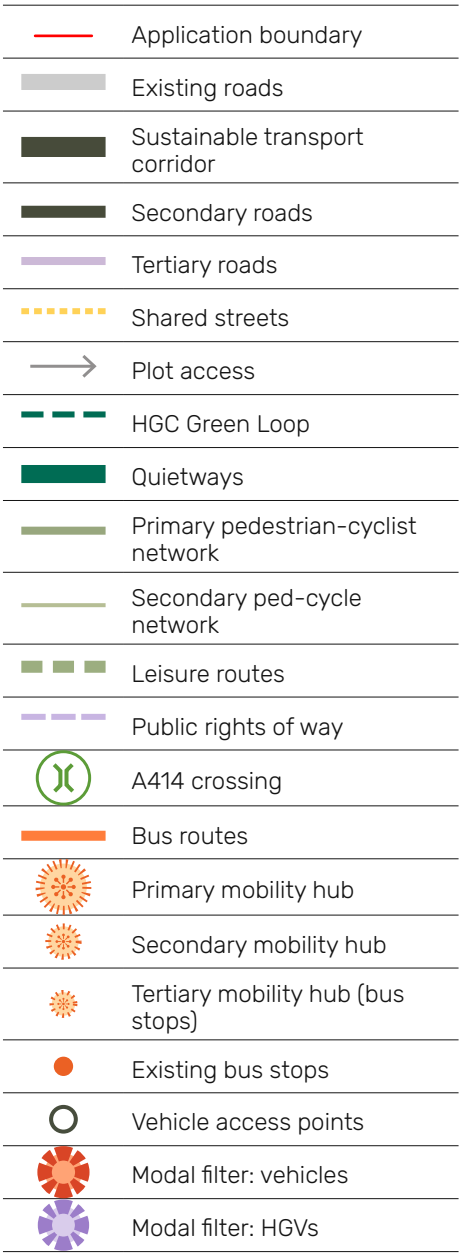
06.2.12

Overview

The Access and Movement Framework has been prepared in response to the TCE's vision principle of connecting places and people alongside the HGC Transport Strategy and Vision, which targets 60% of all trips originating in East Hemel to be made by sustainable modes by 2050.

The core components of the movement network include:

- **Sustainable Transport Corridor (STC) -** a sustainable movement corridor providing principal access through and between neighbourhoods for buses, vehicles, pedstrians and cyclists. The STC will be designed as a tree lined street with segregated cycle lanes
- **Quietways -** existing lanes downgraded to prioritise walking and cycling by reducing vehicle access, including Cherry Tree Lane and Westwick Row (part of the HGC Green Loop), Punchbowl Lane and Hogg End Lane
- **Nickey Line -** strategic walking and cycling route; to align with Nickey Line Vision (2025). Where the Nickey Line intersects with the STC, an at grade crossing will be created with priority given to Nickey Line users
- **Primary pedestrian-cycle network** complementing the STC, connecting centres and destinations through both on- and off-road routes. The primary ped-cycle route in the commercial area is on the STC
- **Mobility hubs** providing wider modal integration
- Bus-only connection into Spencer's Park
- Junction arrangements at Redbourn Road which ensure priority crossing for buses via a dedicated bus lane
- Option for a modal filter in the southern neighbourhood, removing through-traffic
- HGVs restricted north of Punchbowl Lane
- No vehicle movement across Westwick Row from the A4147



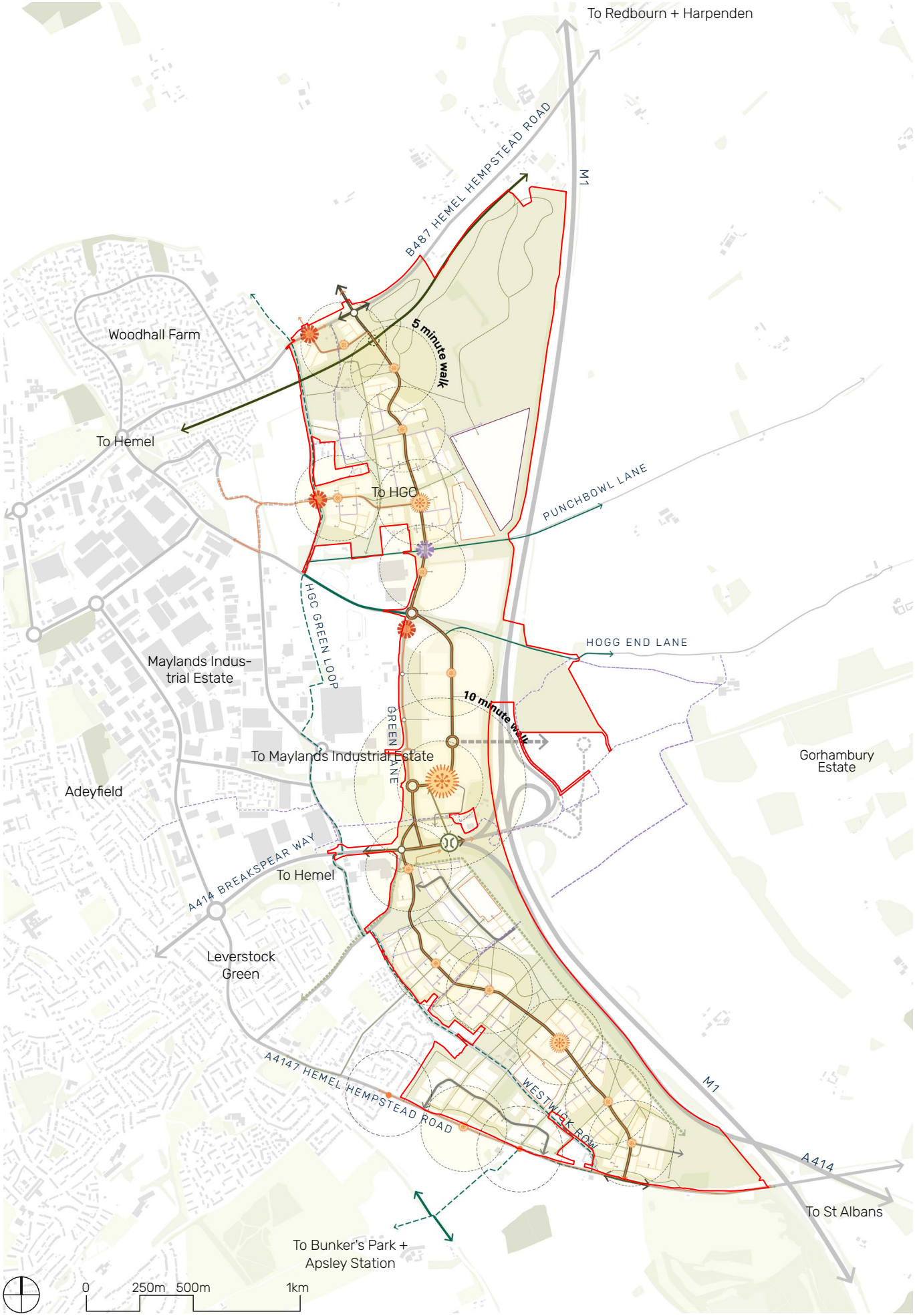


Fig 06.28 Access and Movement Framework

06.3.1

Walking and Cycling

East Hemel is designed around the principle of walkable neighbourhoods, where daily amenities, schools, parks and transport can be accessed by walking and cycling in safely and conveniently. All streets should be healthy, safe places that put pedestrians first.

Beyond the movement network itself, the Masterplan Framework as a whole, including the mix and distribition of uses, open space network, residential densities, and quality and character of place all influence the walkability of a place. Therefore, the **principles of Active Design** have informed the development of the Masterplan Framework as a whole, including:

- **Supporting active travel:** creating walkable communities, providing connected and active travel routes, and mixing uses and co-locating facilities
- **Active, high quality spaces and places:** active buildings inside and out, providing activity infrastructure, high quality streets and spaces, and creating a network of multi-functional open spaces
- **Creating and maintaining activity:** activating spaces and maintaining flexible, high quality spaces

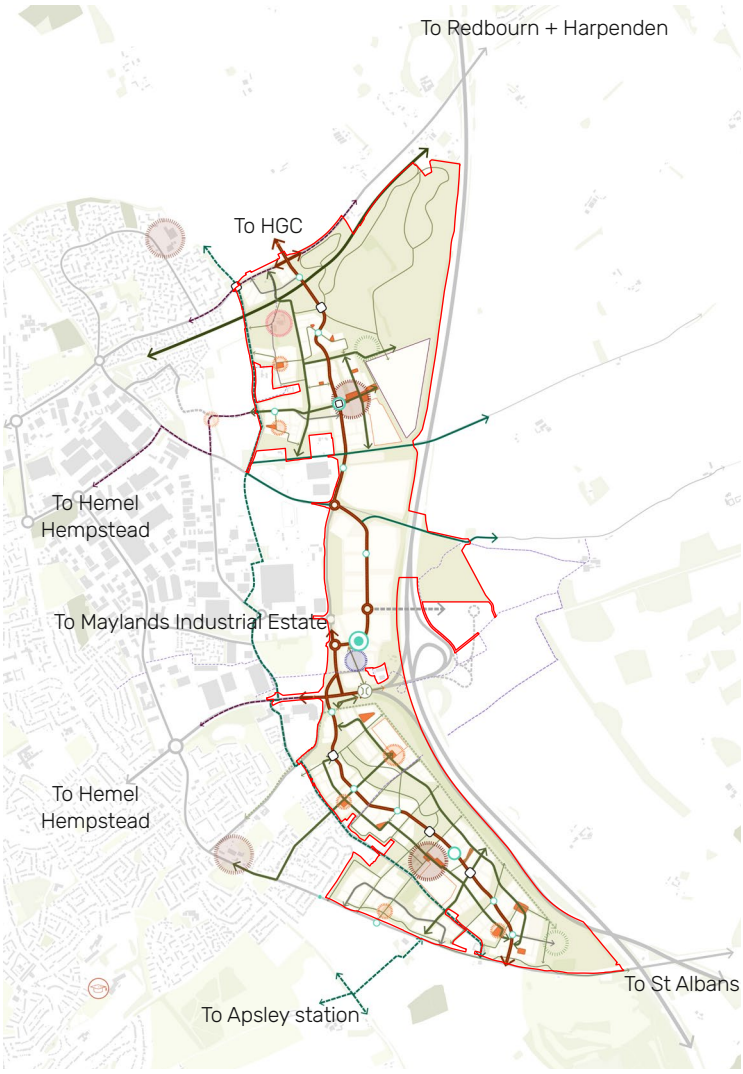


Fig 06.29 Walking and cycling network

	Application boundary
	Existing roads
	Sustainable Transport Corridor
	HGC Green Loop (Quietways)
	Potential quietways
	Primary pedestrian-cyclist network
	Secondary pedestrian-cyclist network
	STC cycle lane
	Local open spaces
	Improved walking and cycling connections to Hemel
	Public Rights of Way
	A414 crossing
	STC strategic crossing points
	Mobility hubs

Within the Site, a range of routes will be provided. These will include:

- Segregated cycle and pedestrian routes adjacent to roads
- On-street cycle routes on more lightly trafficked roads
- Shared surfaces
- Segregated cycle and pedestrian routes not adjacent to roads, such as within green corridors or public spaces

As described, key active travel routes will include the STC, the Nickey Line, a bridge over the A414 and Quietways. Segregated cycle lanes on the STC will link to the proposed cycle route to St Albans.

The primary pedestrian-cyclist network has been designed to link key locations within East Hemel to each other, as well as to integrate into adjacent neighbourhoods wherever possible, particularly to Leverstock Green and including to the new development coming forward on Westwick Row.

Safe level crossings will be provided to cross the STC, including within the Country Park, Valley Park, and at the B487 Hemel Hempstead Road/Cherry Tree Lane junction to better connect the HGC Green Loop.

Leisure routes will complement key active travel routes, and link into wider leisure routes beyond the site, such as to Bunker's Park via Blackwater Lane and to the River Ver via Punchbowl and Hogg End Lane.

A **circular walking loop** of 2.5km is proposed within the Country Park and a 2.3km route within the Valley Park, neither which will require crossing the STC. Safe level crossings of the STC will be provided to link these circular routes into the wider neighbourhood and eastward connections to the HGC Green Loop, Nickey Line and Bunker's Park.

Existing **Public Rights of Way** will be retained. In the event that they are proposed to be diverted at the detailed design stage, consent will be sought through the appropriate planning or highway process. More accessible and meandering routes may be provided as an alternative to existing steep PRoW crossing the Site.

Segregated routes adjacent to roads

Dedicated cycle and pedestrian routes within the public realm

Dedicated cycle and pedestrian routes through landscaped areas

Leisure routes through parks and open spaces

06.3.2

Public Transport

The **STC** will be the primary bus route, providing onward connections to the HGC growth area, Hemel, Redbourn, and St Albans. This will be served by a combination of new and extended existing routes.

A hierarchy of **mobility hubs** will be located along the STC, interchanges of multiple modes such as bus, micro-mobility services, walking and cycling links, and car-sharing services. Hubs will be aligned to the centres hierarchy, with the majority of homes located within 400m of a hub. A primary mobility hub will be located at the A414 gateway, with secondary hubs located within local centres.

There is the potential to integrate the **Hertfordshire Essex Rapid Transit** (HERT) as part of the strategic public transport network. Options are being considered within HCC for the routing of HERT, with one potential option seeing HERT routed through the southern neighbourhood, connecting from the A414 norhtbound route to the A414 Breakspear Way junction via East Hemel. As a result, the Outline Application safeguards the ability to deliver this bus connection through East Hemel should it come forward.

Parcels south of Westwick Row will additionally be served by new stops on existing routes along Hemel Hempstead Road, including potential deviations into the Site.

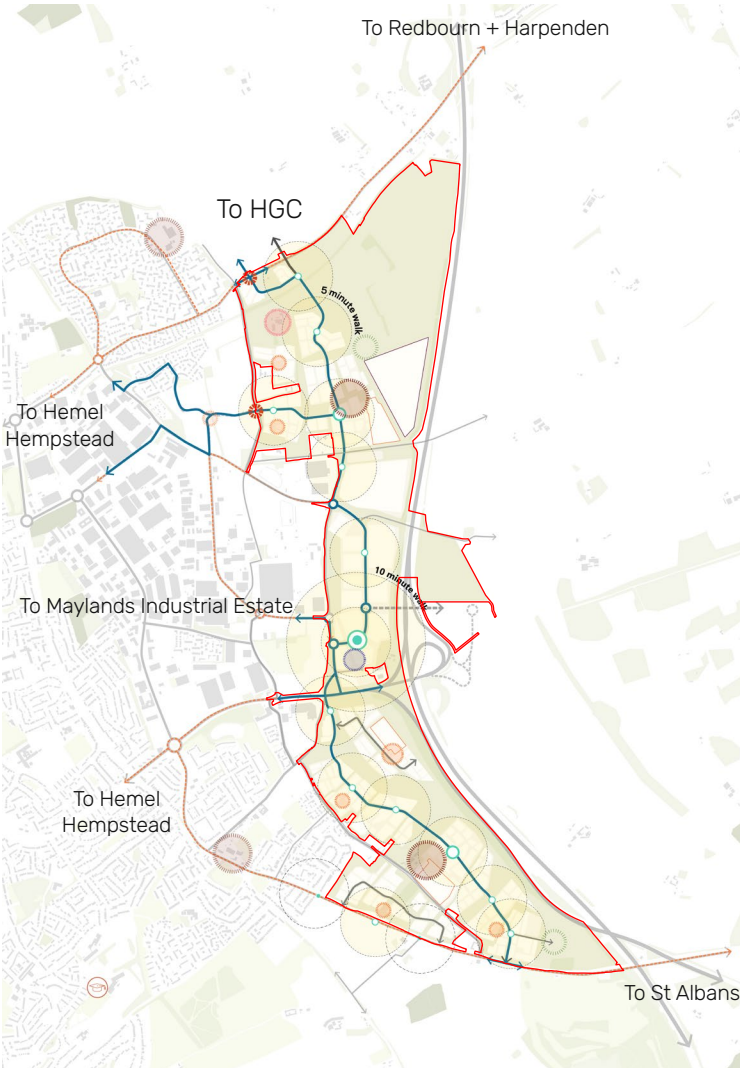


Fig 06.30 Public transport network

	Application boundary
	Existing roads
	Existing bus routes
	Sustainable transport corridor
	Spencer's Park bus connection
	Primary mobility hub
	Secondary mobility hubs
	Tertiary mobility hubs (bus stops)
	Modal filter

06.3.3

Vehicular Movement

The **Sustainable Transport Corridor** will permit vehicular through-movement, critical to the delivery of northern HGC. However, the design of this route will ensure that vehicular movement is slow so as not to become a new bypass or strategic corridor for the town.

Secondary routes provide access from the STC to key destinations such as the secondary school, sports hubs, and Spencer's Park. It is proposed that the link across Cherry Tree Lane into Spencer's Park is for sustainable modes only, with no private vehicle access permitted.

The option of introducing a modal filter mid way down the southern residential area is being considered.

Only existing local traffic will be permitted on **Westwick Row**, and no new vehicular crossings will be created. Parcels south of Westwick Row will be accessed off A4147 Hemel Hempstead Road instead of the STC.

While **HGV movement** will be permitted within the commercial area, this will be limited north of Punchbowl Lane so as to protect the residential character of the northern neighbourhood.

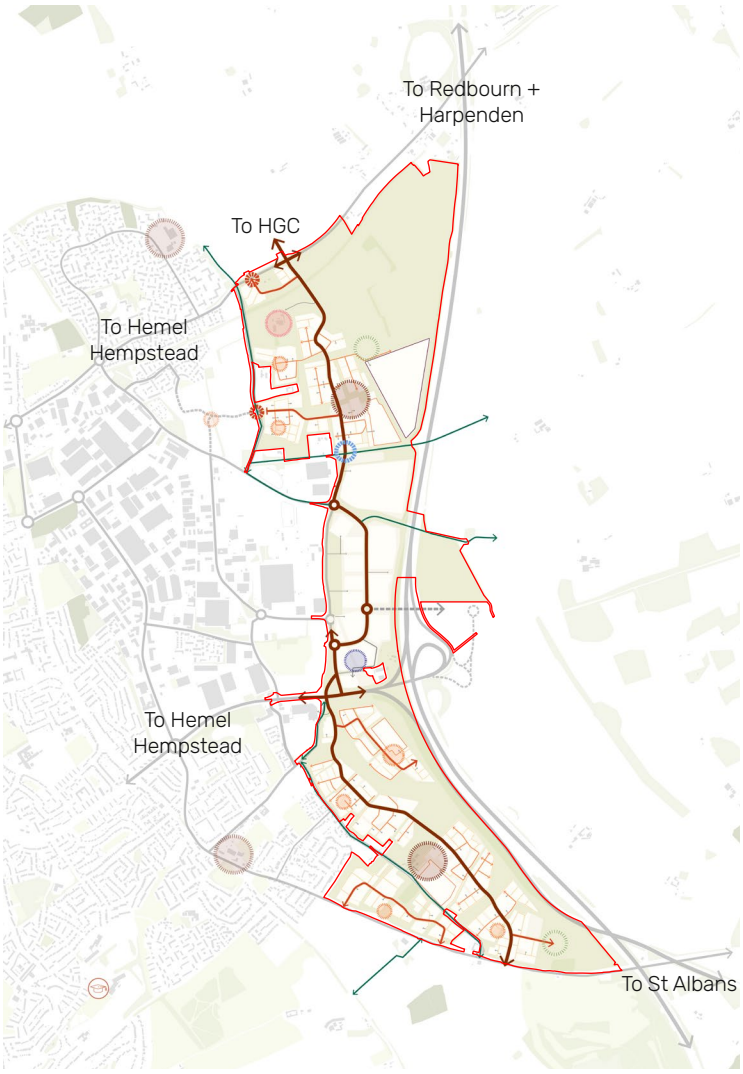


Fig 06.31 Vehicular network

	Application boundary
	Existing roads
	Sustainable transport corridor
	Secondary routes
	Tertiary roads
	Shared streets
	Plot access
	Quietways
	Modal filter

06.3.4

Equestrian Paths

Within the open space network, and through the re-purposing of the lanes as Quietways, new equestrian paths will be introduced as part of the network of leisure routes.

The equestrian movement framework for the site could provide:

- A looped equestrian path (with an unsealed surface like grass or bark) in the Country Park suitable for horse riders.
- A riding loop in the south, as indicatively shown adjacent, on the Westwick Row portion of the HGC Green Loop, and the landscaped edges of the neighbourhood south of the A4147.
- Both looped equestrian paths will connect with the HGC Green Loop within the Site, via Cherry Tree Lane and Westwick Row respectively.
- The re-purposed Punchbowl Lane, Hogg End Lane, Cherry Tree Lane and Westwick Row Quietways will be suitable for equestrians and carriages.

These new Quietways will improve equestrian connectivity to the wider countryside (particularly to the north-east of the M1) by providing a safer experience through reduced car use of the existing country lanes.

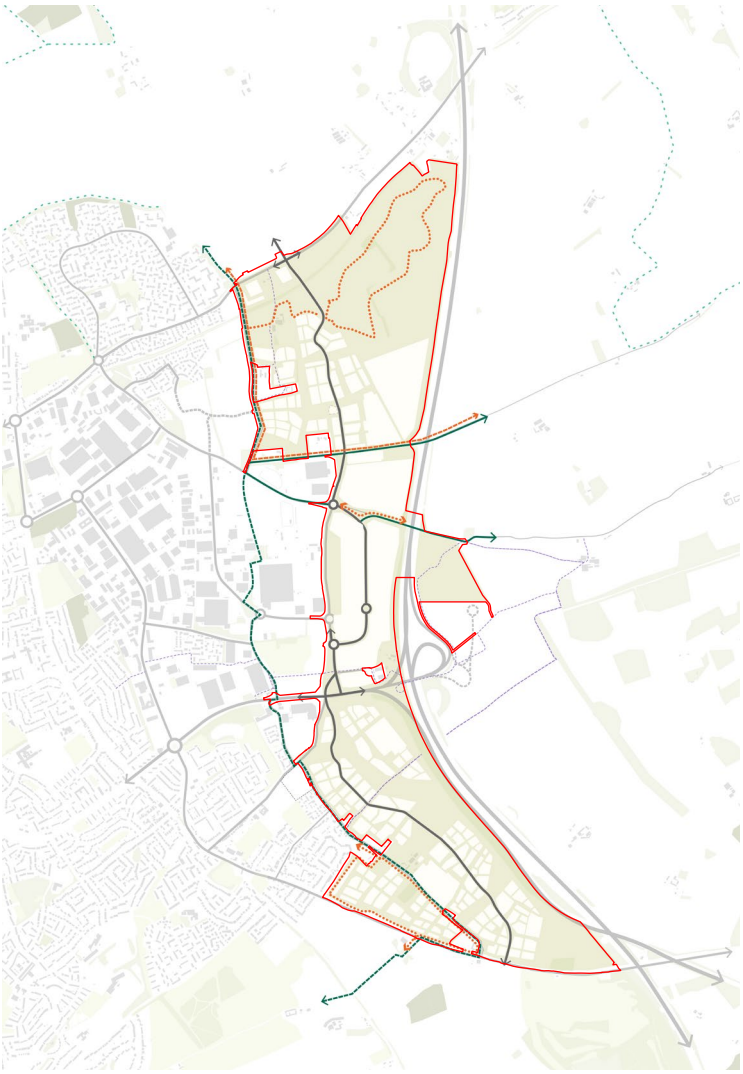


Fig 06.32 Equestrian network

	Application boundary
	Existing roads
	Public Rights of Way
	Bridleways
	Sustainable transport corridor
	HGC Green Loop (Quietways)
	Potential quietways
	Proposed equestrian path
	Proposed equestrian path for carriages

06.3.5

Sustainable Transport Corridor

The STC forms a key route linking residential areas to local centres, schools, employment opportunities and leisure within the Site as well as to key external corridors.

The STC will be designed to give priority to sustainable modes whilst also allowing private vehicles to pass along. The cross section through residential areas will include:

- Segregated walking and cycling routes
- A 6.4m carriageway
- Verges and swales

The cross section will vary through the Site to reflect characteristics of the area. Illustrations of these changing characters are shown in **Fig 06.32** to **Fig 06.35**. For example, through local centres the STC will have a reduced width compared with typical residential areas.

The STC will cross the Nickey Line at grade, creating a new access point onto the Nickey Line. The STC will reduce to a minimum possible width in order to minimise severance of the Nickey Line. Options for the crossing have been tested (Section **04.9)** to identify an optimum solution in response to topography and vegatation, with the preferred option illustrated in Section **06.3.6.**

The STC route includes the active travel bridge over the A414 which forms an important connection between the north and south of the Site. Section **06.3.7** illustrates a potential bridge crossing.

Within the commercial area the carriageway will be generally 10m in width to facilitate HGV movements. It will provide segregated facilities for pedestrians and cyclists.

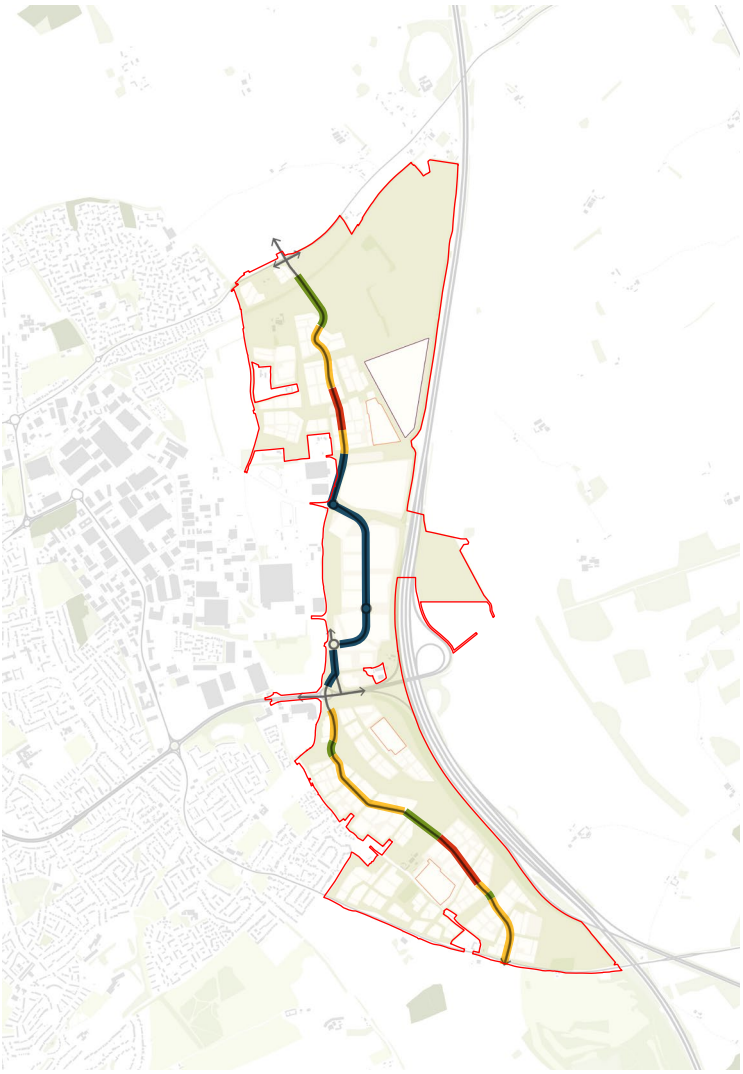


Fig 06.33 STC Character

	Application boundary
	Typical residential section
	Parkland section
	Local centres section
	Commercial area section
	Elevated structure across valley

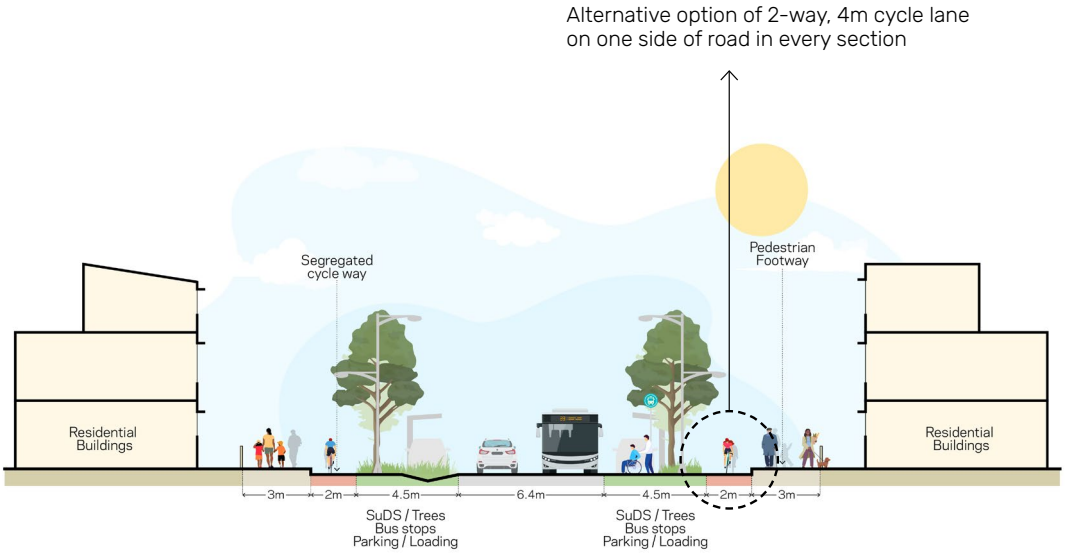


Fig 06.34 Typical residential section of STC

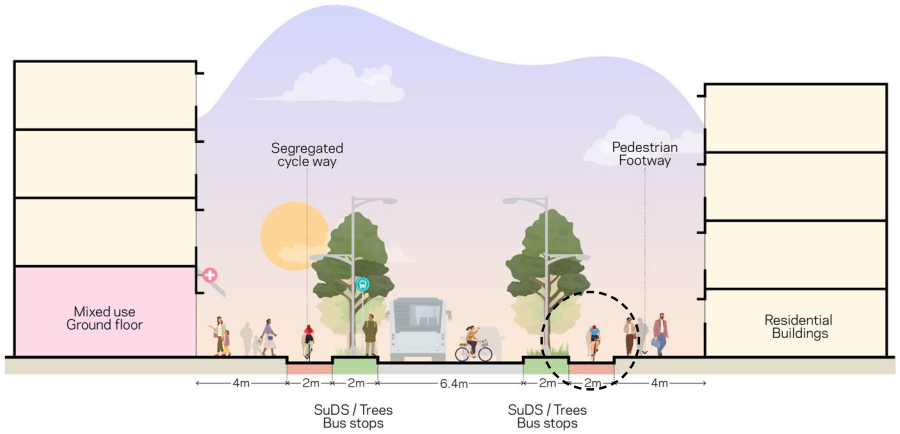


Fig 06.35 STC section through local centres

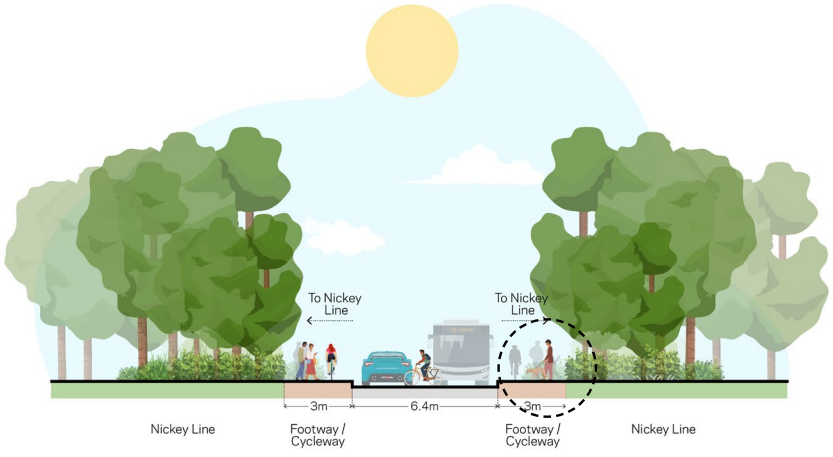


Fig 06.36 STC section at the Nickey Line

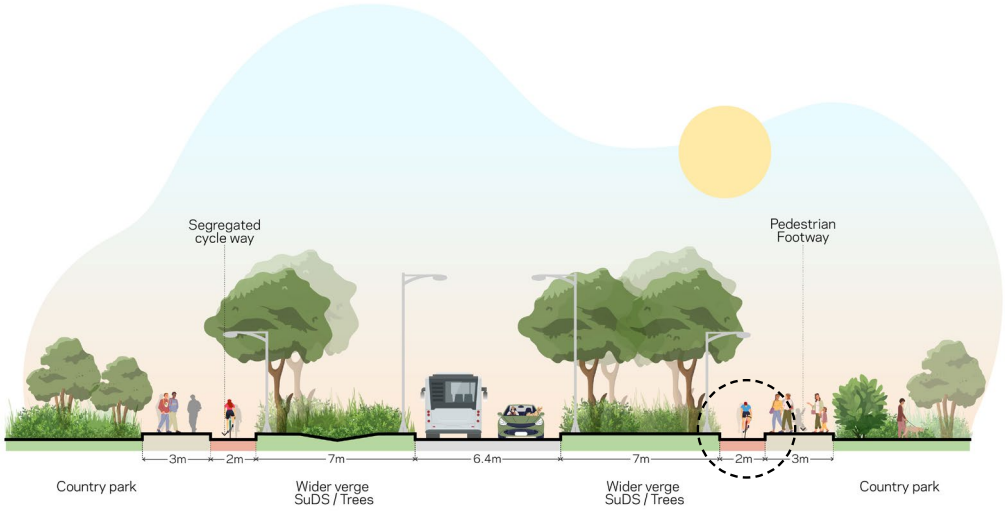


Fig 06.38 STC section through parks

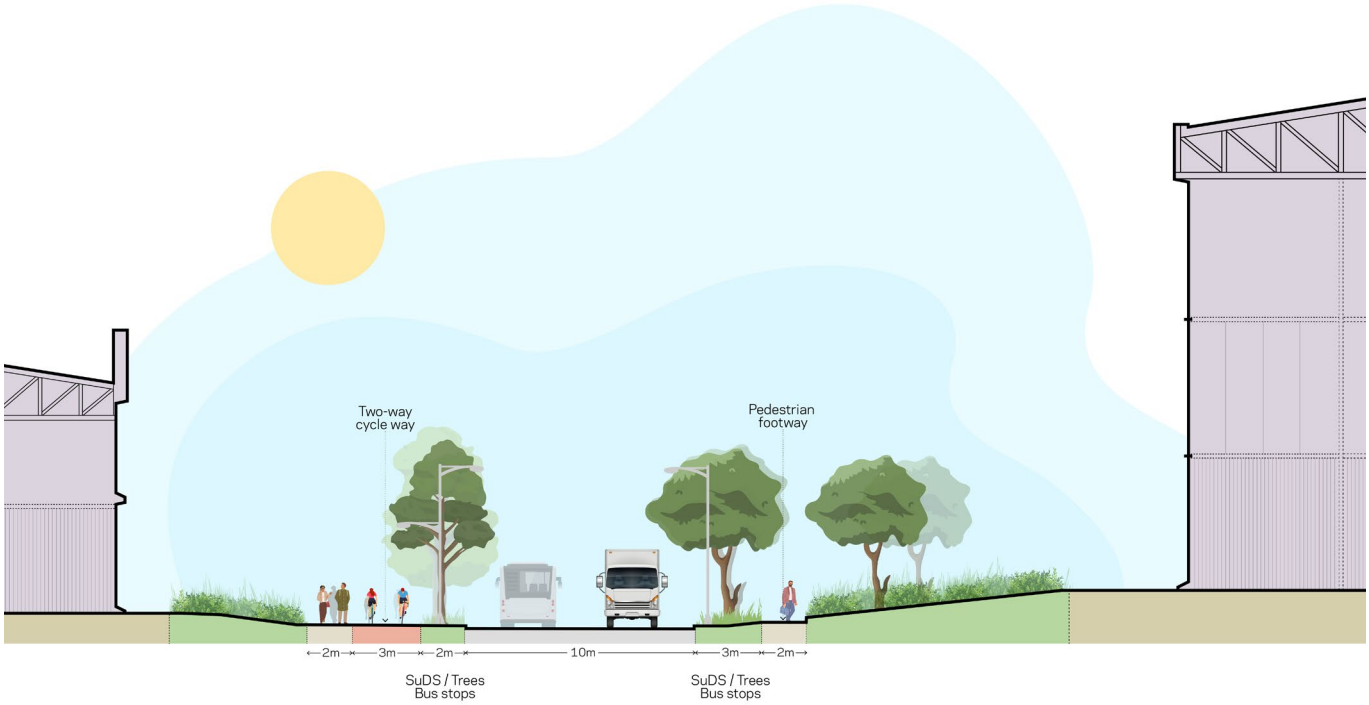


Fig 06.37 STC section through commercial area

06.3.6

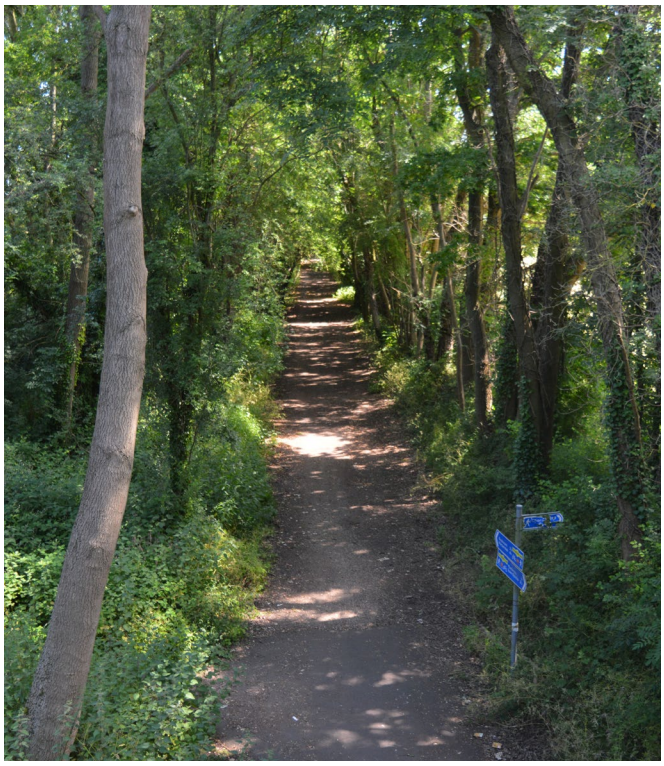
Nickey Line Crossing

Following a series of studies considering ecology, topography, hydrology, utility constraints, and accessibility, described in Section **04.9,** an at-grade crossing was identified as the most appropriate solution for the STC to intersect the Nickey Line.

To limit impacts on existing vegetation, the width of the STC will be kept to the minimum required, while still providing a safe and functional crossing for all user groups. These include pedestrians and cyclists on both the Nickey Line and the STC, as well as vehicles using the STC.

The diagram opposite sets out the high-level design principles for this arrangement.

Surfaced section of the Nickey Line adjacent to Spencer's Park development.



Nickey Line lined by mature trees

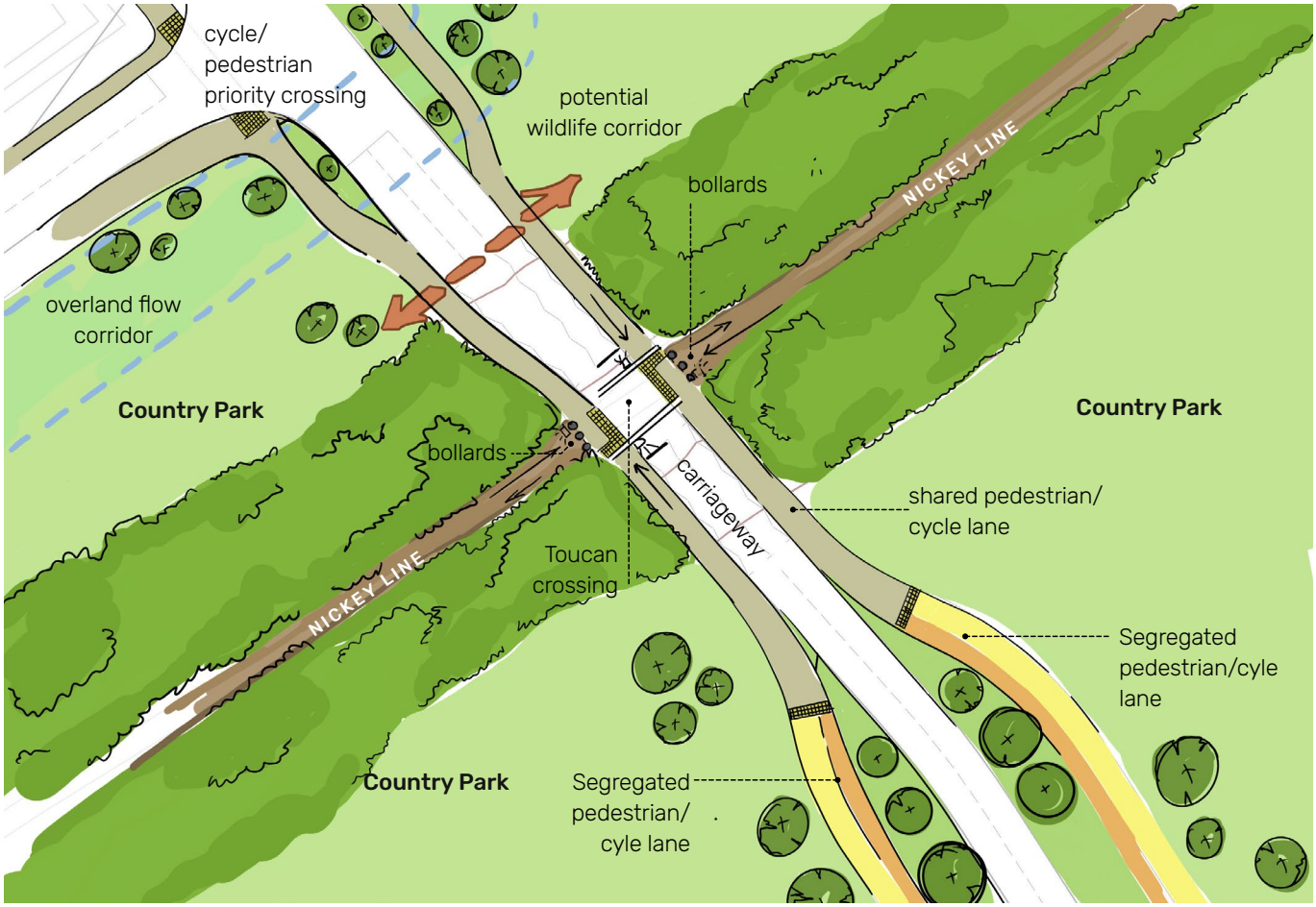


Fig 06.39 Exploration of STC Nickey Line and STC crossing

06.3.7

A414 Bridge

A core component of the active travel network is the creation of a new pedestrian and cyclist bridge across the A414, connecting the southern neighbourhood across the busy A414 into the commercial area and northern neighbourhood beyond.

The core objectives of the A414 bridge are to:

- Improve active travel connectivity across the A414 and East Hemel generally
- Increase accessibility to the key destinations and amenities north of the A414: Mobility hub employment area, secondary school, Country Park
- Create a visual landmark at the gateway to Hemel Hempstead

The illustrative alignment below shows the feasibility of integrating a bridge and ramps in this location in a way that is both integrated into the wider pedestrian and cyclist network and forms a landmark gateway into Hemel. The detailed alignment and design of the bridge will be brought forward in future Key Phase design stages.

Alignment

The illustrated alignment provides an example of where the bridge could be located and how it could fit into the masterplan. This illustrative alignment has been designed to prioritise connectivity between key destinations north and south of the A414 while balancing technical constraints including topography, existing access, underground utility easements, and carbon footprint.

The bridge is proposed to cross the A414 between Breakspear Junction and the M1 motorway; the precise location will require specific designs on the south and north landing sites that respond to the technical constraints.

An example arrangement is illustrated below, with its southern ramp set in a landscape

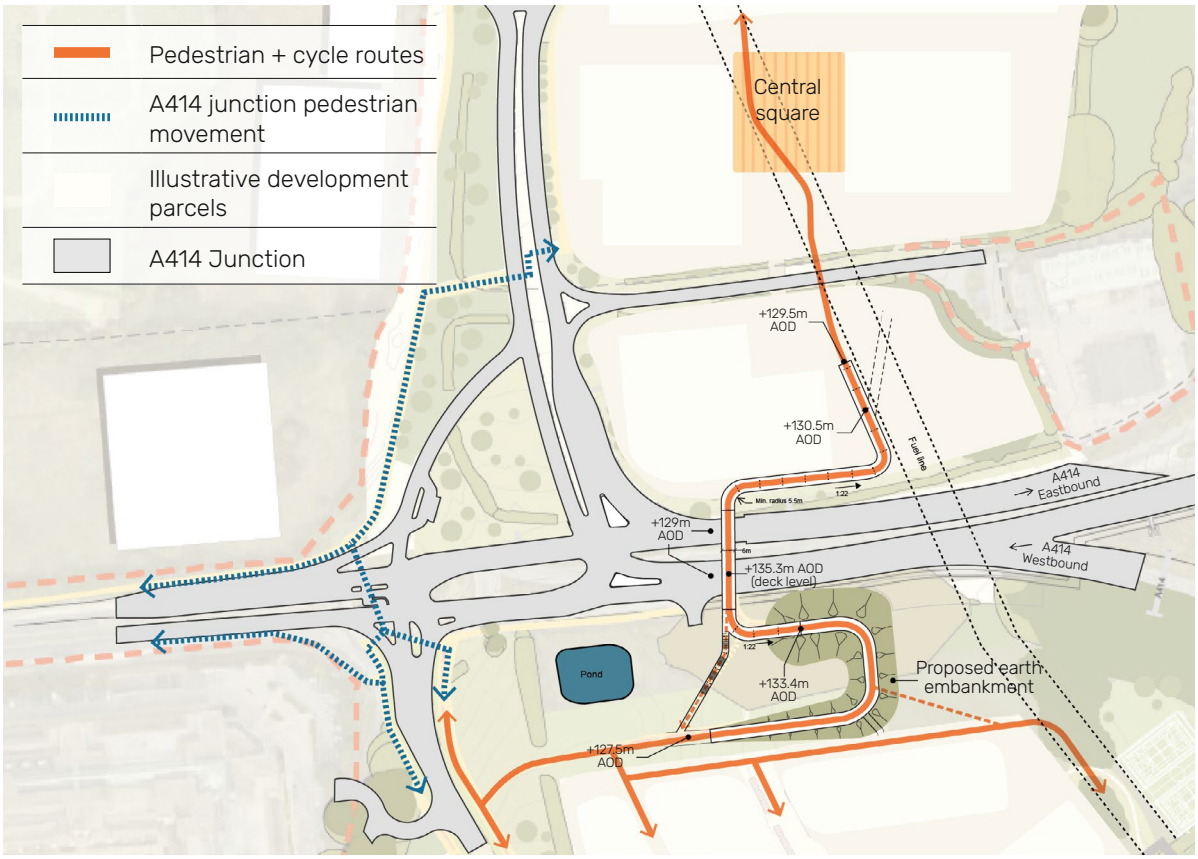


Fig 06.40 Exploration of A414 bridge alignment

setting, integrated into embankments and a noise attenuation feature along the A414 and descending in close proximity to the Valley Park entrance and STC. Its northern ramp descends in alignment with the A414 and the innovation hub buildings, entering into an urban landscape setting and aligned with further pedestrian-cyclist connections to the central square and mobility hub located on the STC.

Technical design considerations

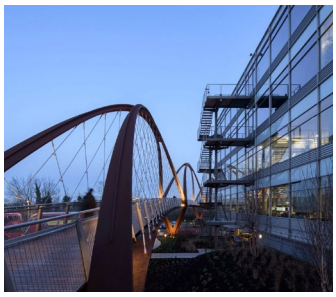
The following technical assumptions have been made to inform the alignment:

- The structural main span will be 45m (3m horizontal clearance from the verge)
- Bridge deck width of 6m overall, including 3.5m unsegregated pedestrian/cyclist use
- Ramps and curves will be designed to comply with DMRB limits
- Minimum 5.7m clearance between the road surface and the underside of the bridge deck
- Stairs complementing ramps for more direct connectivity options

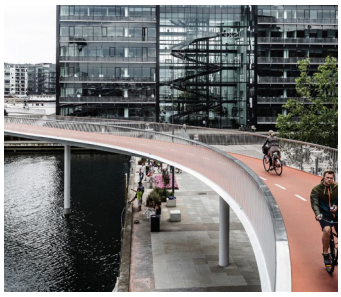
The design of the bridge will need to comply with all technical requirements from key stakeholders including National Highways.

Footbridge over N10, France

Ponte Segunda Circular Bridge, Lisbon



Chiswick Park Footbridge, London



Cykelslangen, Copenhagen, Denmark

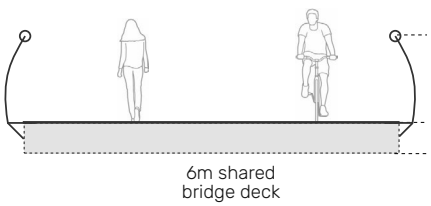
The above images are indicative, demonstrating potential integration between bridges, landscape and built development. Detailed design will be developed in future stages.

Bridge Structure Options

Due to the span required, the most feasible bridge types include truss, arch, cable-stayed, and beam structures.

The type of structure and the architectural design of the bridge will need to balance important demands of:

- Creating a visual landmark
- Optimising pedestrian and cyclist experience and safety
- Cost and carbon considerations
- Heights and visibility
- Integration within the surrounding masterplan design



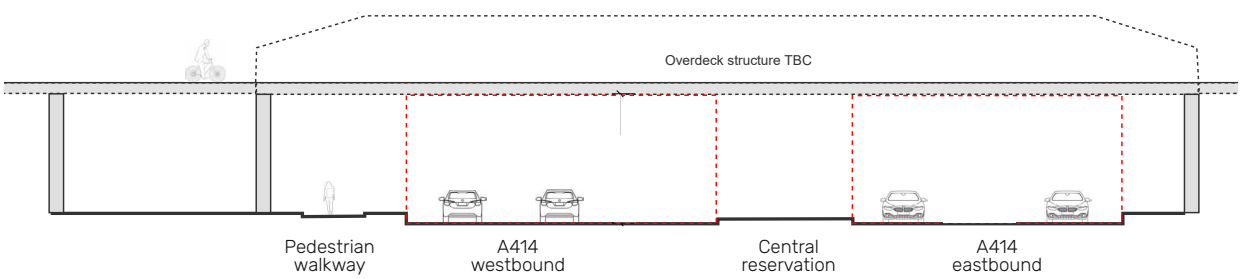


Fig 06.41 Exploration of A414 bridge span and walkway width

06.3.8

Mobility Hubs

In order to achieve the modal split targets of the HGC Transport Strategy and Vision, and in order to best serve a strategic of this scale, a connected network of mobility hubs are proposed to maximise accessibility and connectivity with the public transport network.

At East Hemel, these hubs will be connected via active travel corridors allowing easy access using shared bike, eBike, eScooter and cargo bikes. This will encourage car free lifestyles inside the Site and provide access to amenities within neighbourhoods.

A primary mobility hub will be provided within the commercial area close to the A414, and secondary mobility hubs will be provided in each of the two local centres. Tertiary hubs will be located at intervals within the development.

The component mobility services and features grow cumulatively at each tier.

Type	Mobility service	Supporting features
Tertiary	EV car club bays Cycle share Cycle parking Bus stop (walking distance) eScooter share	Step free access Branding Street lighting Seating
Secondary	Tertiary services plus: eBike share Digital Demand Responsive Transport (DDRT) virtual bus stop Secure cycle parking	Tertiary features plus: Bike pump Bike repair mini-station Covered seating
Primary	Secondary and tertiary services plus: eScooter & eBike recharging Carpool scheme Cargo Bike Bike or e-bike hire Public transport option	Secondary and tertiary features plus: Bike repair workshop Concierge, travel advice WiFi Parcel lockers + last mile delivery (ground drone) Realtime PT + wayfinding totem Cafe & co-working space

Tertiary
Tertiary mobility hubs might offer cycle parking, cycle and eScooter sharing as well as EV car club cars, and have a bus stop close by. Branding and street lighting are important to make it safe. It can be located in more peripheral locations to fill gaps in the public transport network.

Fig 06.43 Illustration of a tertiary mobility hub

Secondary
Secondary mobility hubs are larger in scale and accommodate greater footfall. In addition to the above, they might offer secure cycle parking, EV charging points, eBike share, DRT and a bus stop. They would also offer more supporting features such as bike pump and bike repair station as well as covered seating.

Fig 06.42 Illustration of a secondary mobility hub

Primary
The main mobility hub, located in the commercial area would serve a larger catchment and offer the greatest quantity of mobility services. In this location, it can act as a community hub, offering a range of complementary amenities such as a cafe, bike repair workshop, concierge, parcel collection, and real time travel information in addition to the services provided in secondary and tertiary hubs.

Fig 06.44 Illustration of a primary mobility hub

06.3.9

Integration of HERT

Hertfordshire Essex Rapid Transit (HERT) is a planned new public transport system being developed by Hertfordshire County Council (HCC), aiming to be an accessible, reliable and affordable east-west transit system connecting key towns of Hertfordshire and Essex. The corridor is planned to connect Hemel Hempstead and Welwyn Garden City, with potential future extensions to Hertford and Harlow.

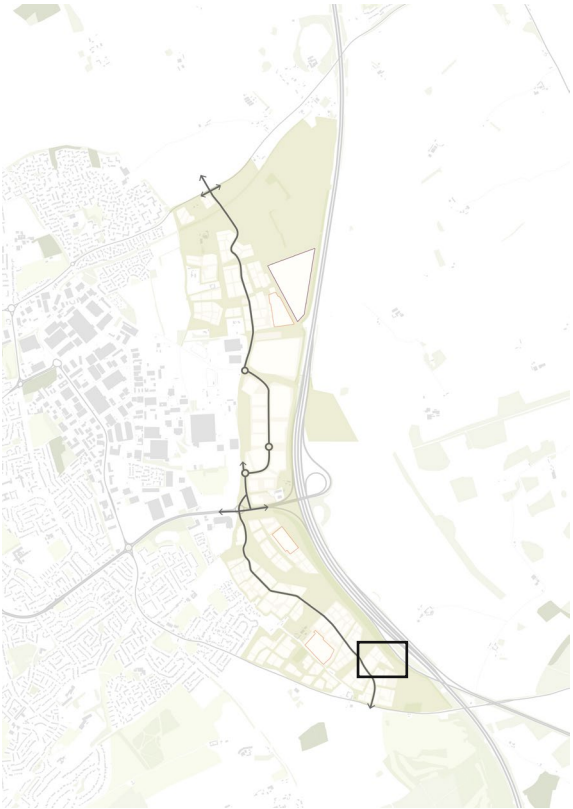
Options are being considered within HCC for the routing of HERT at East Hemel, with one potential option seeing HERT routed through the southern neighbourhood, connecting from the A414 to the A414 Breakspear Way via East Hemel. As a result, the Outline Application facilitates a future link between the STC and the A414 to accommodate bus-only movements westbound from St Albans as part of the future HERT network. Eastbound HERT movements are expected to route along the A414 to the east of the M1.

The technical feasibility of this link has been tested, with an illustrative alignment demonstrated below. This provides certainty that it is possible to integrate a HERT alignment into existing and planned contexts and constraints, including levels, the new M1 noise bund, existing hedgerows and trees, and the overall Masterplan Framework.

Because of the need for a residential street in this location with or without the link, the HERT link can be accommodated within the Masterplan Framework without any material change to the quantum of residential development or the character envisaged for this area. The requirement for, detailed alignment and design of the STC link will be determined as part of Key Phase submissions.

Design principles to consider regarding the integration of HERT include:

- 6.4m carriageway to accommodate bus travel
- Segregated pedestrian footpaths
- Alignment capable of accommodating westbound movements
- The orientation of building frontages and the introduction of marker buildings at key locations that mark the entrance to East Hemel and assist with the hierarchy, visibility and wayfinding of the route
- No front drives accessed from the route, to prioritise bus movement
- Avoidance of any impact on the existing or future noise bund, to ensure the new connection does not have any adverse effect on noise levels within residential areas adjacent



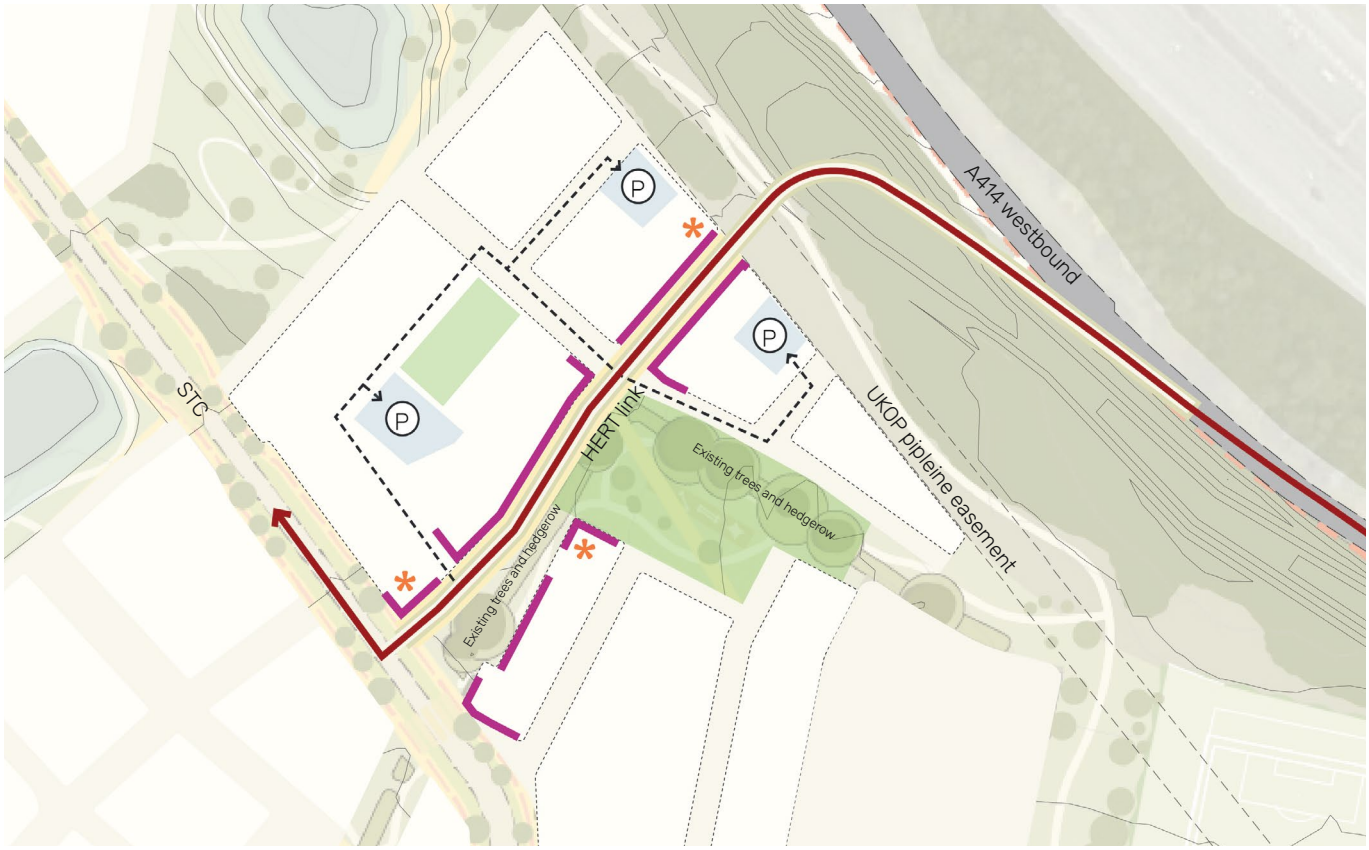


Fig 06.45 Exploration of HERT alignment