



Figures



Figure 1.1 - Emerging Local Plan Site Allocation Boundary (Draft Policy SS13)

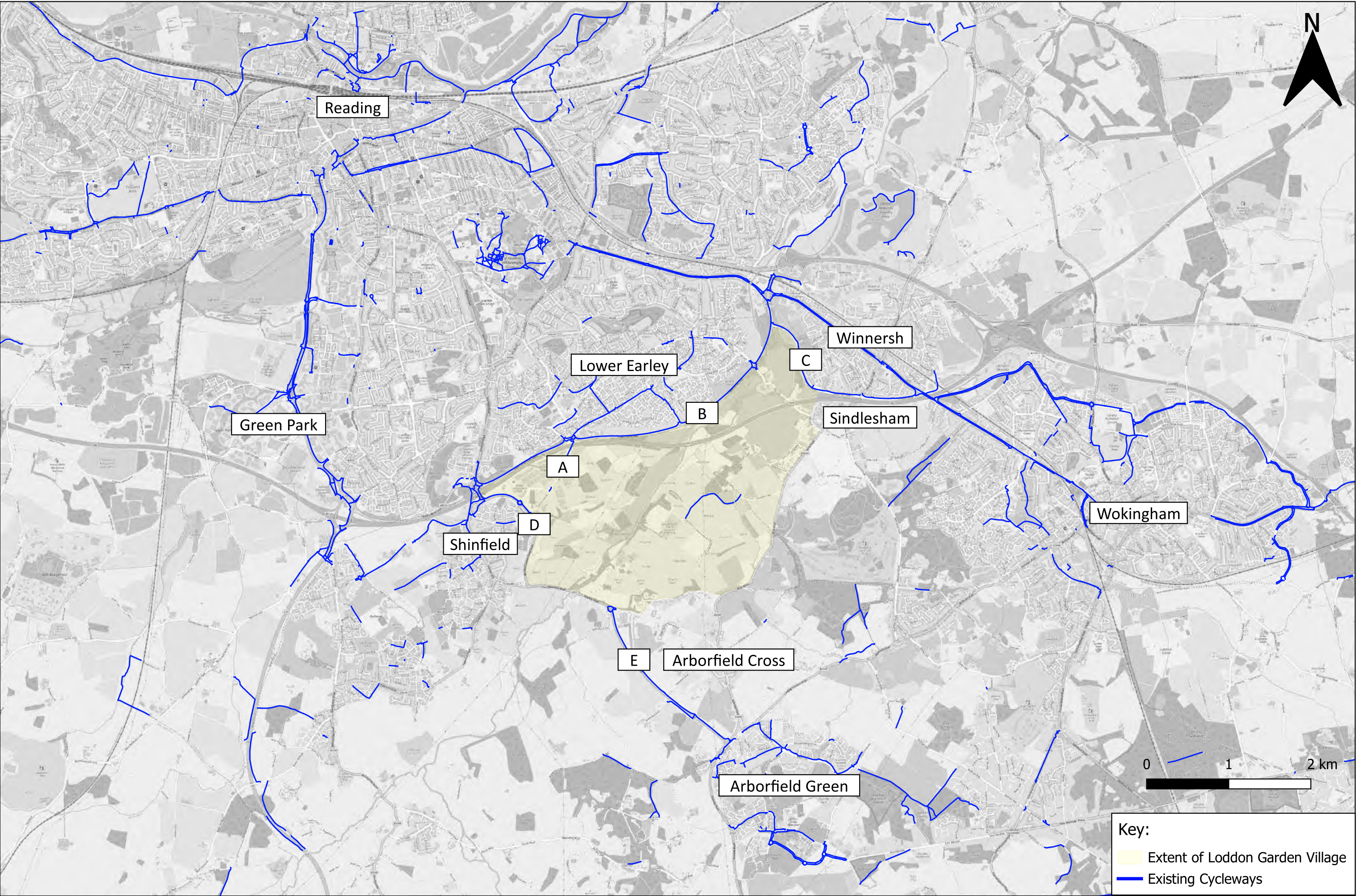


Figure 2.1 - Existing Cycleways

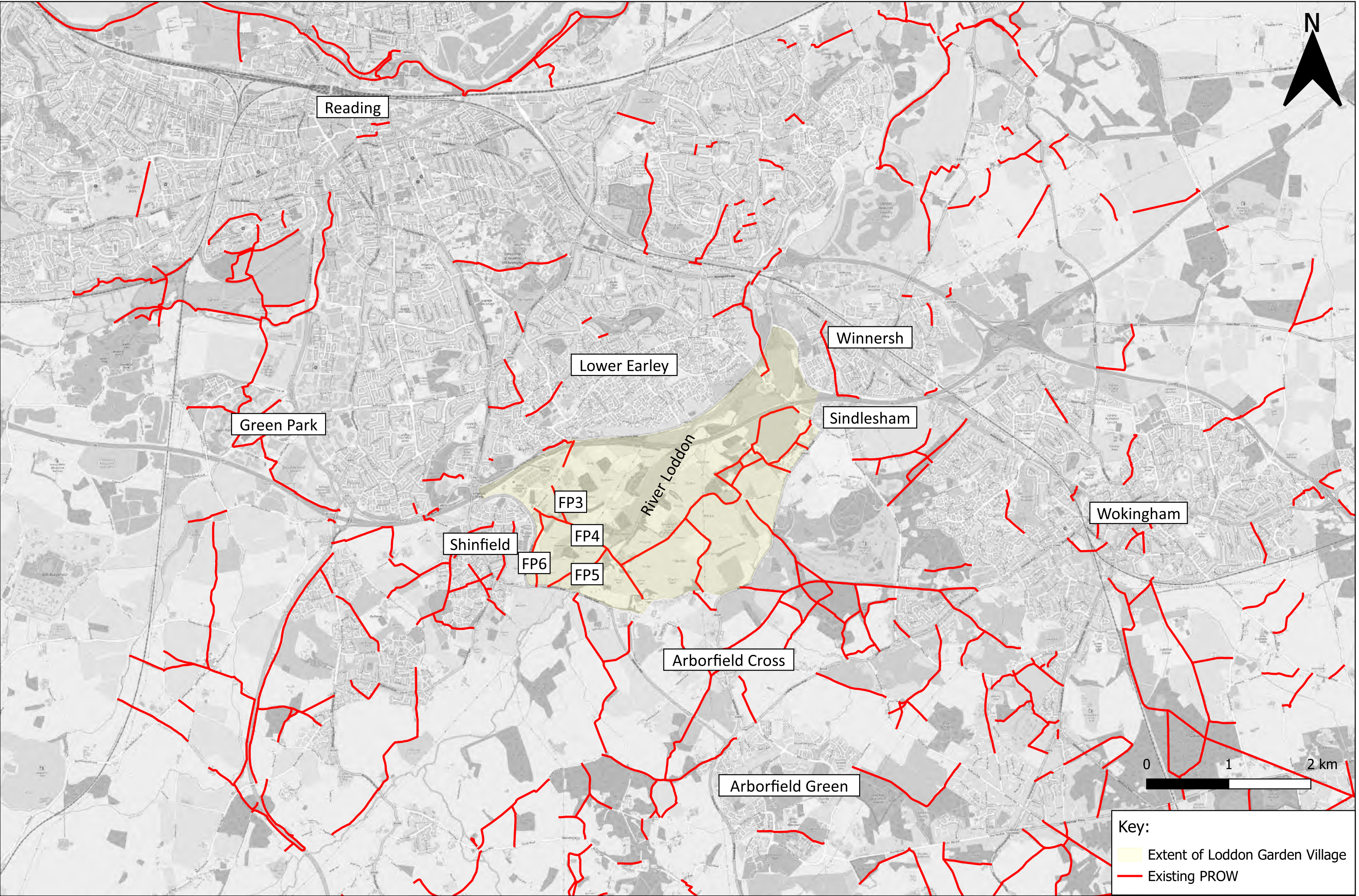


Figure 2.2 - Existing PROW

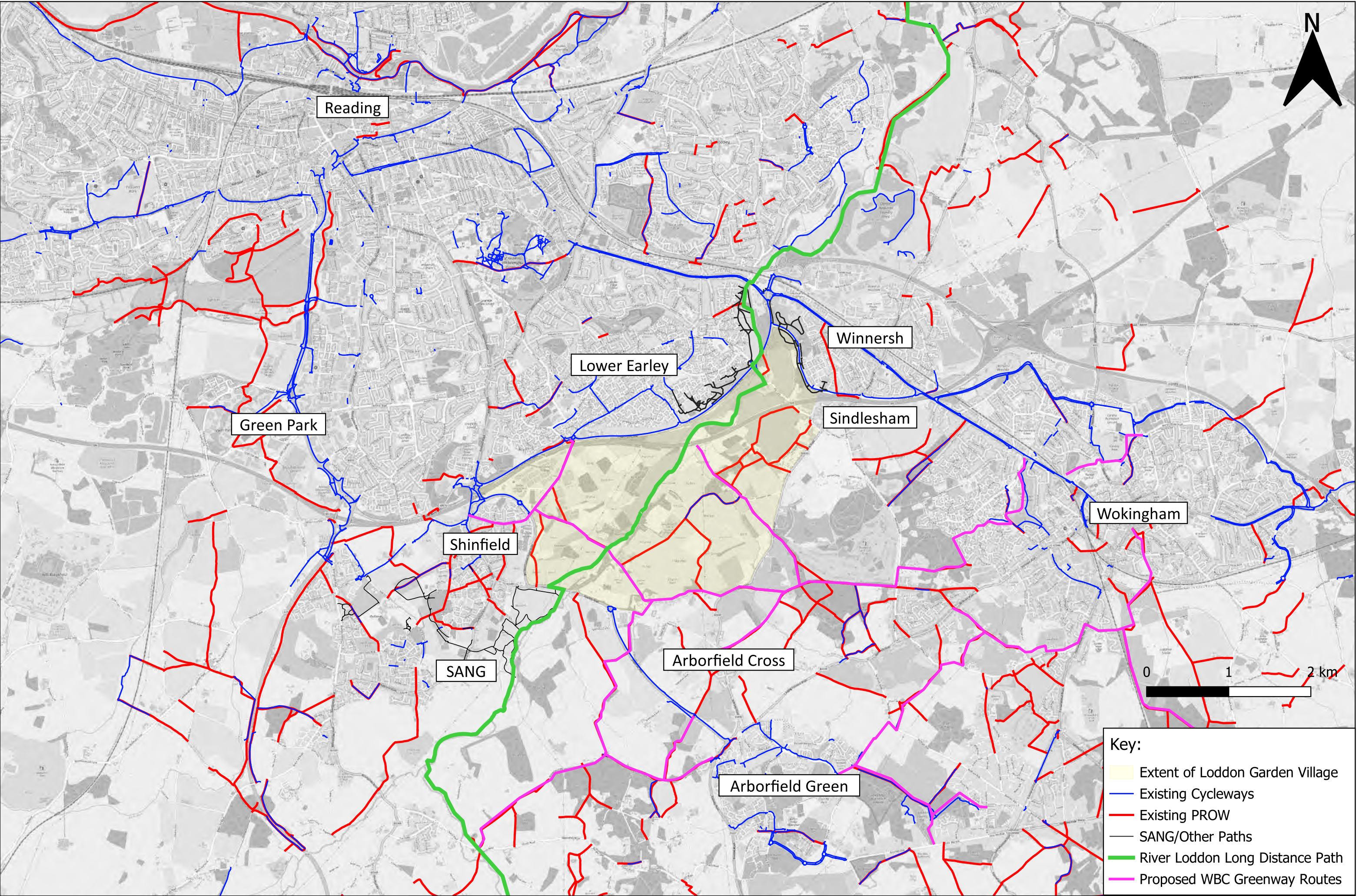


Figure 2.4 - Summary of Existing Active Travel Networks

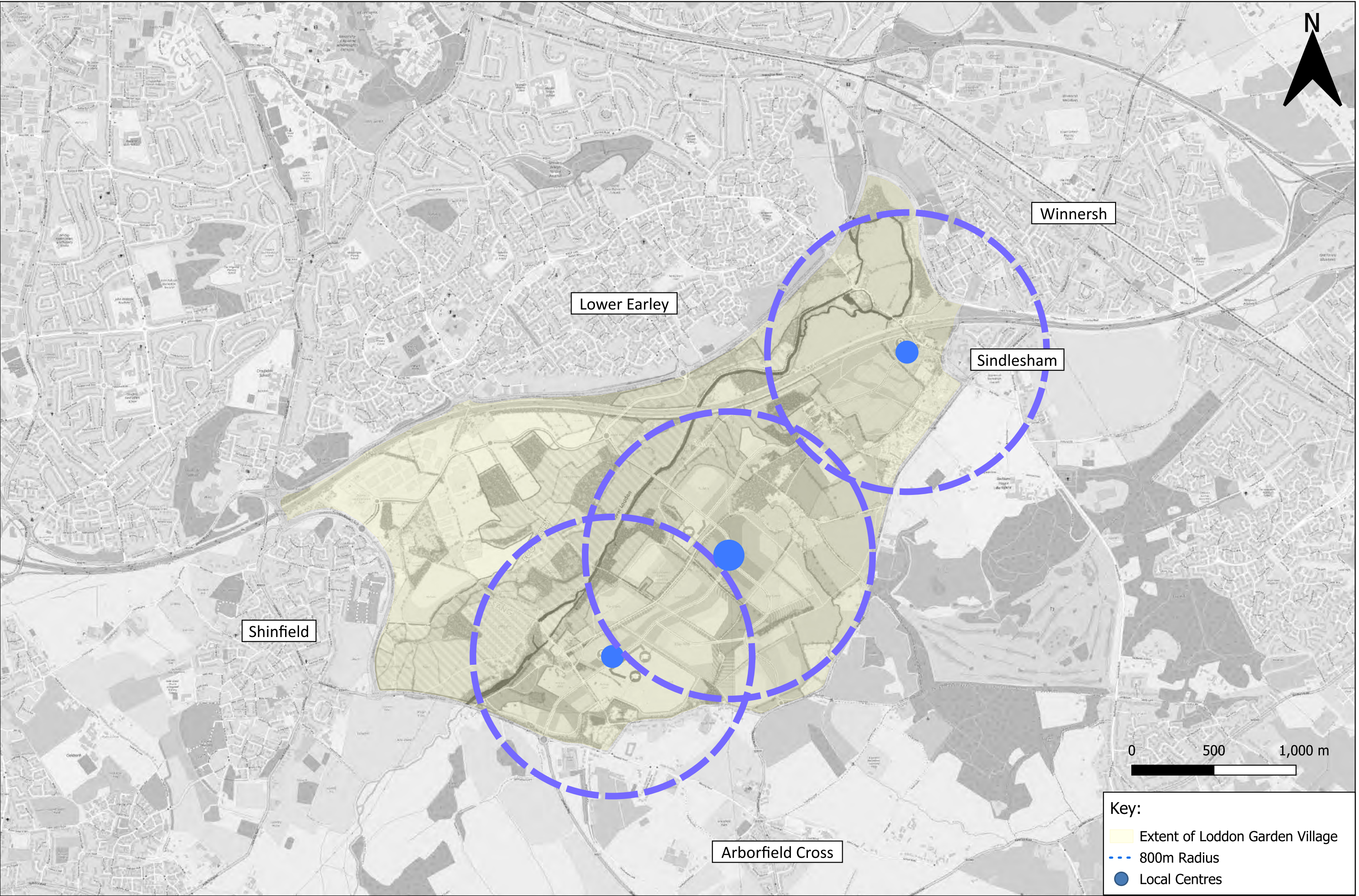


Figure 3.1 - Creation of 'Walkable Neighbourhoods'

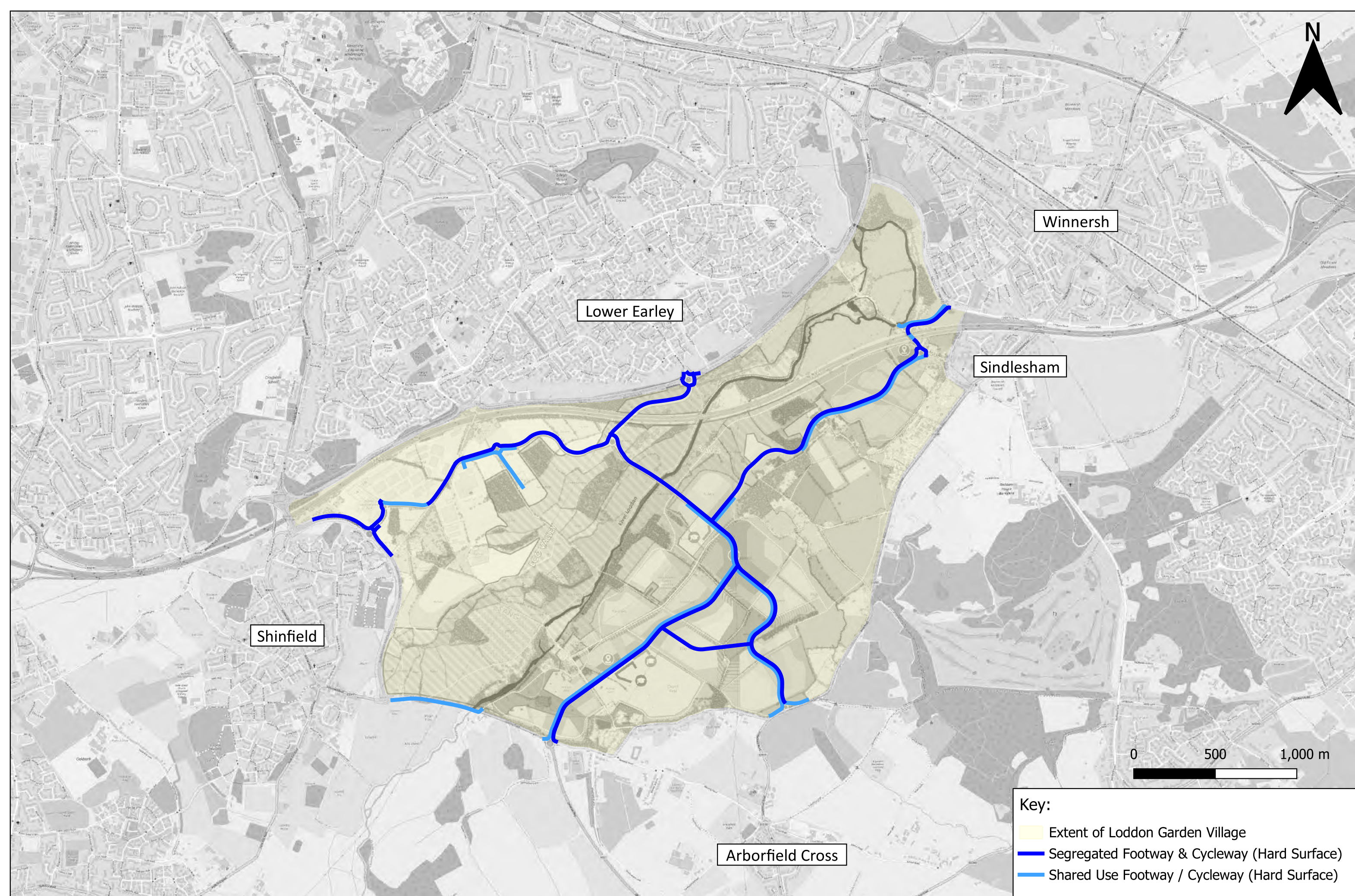
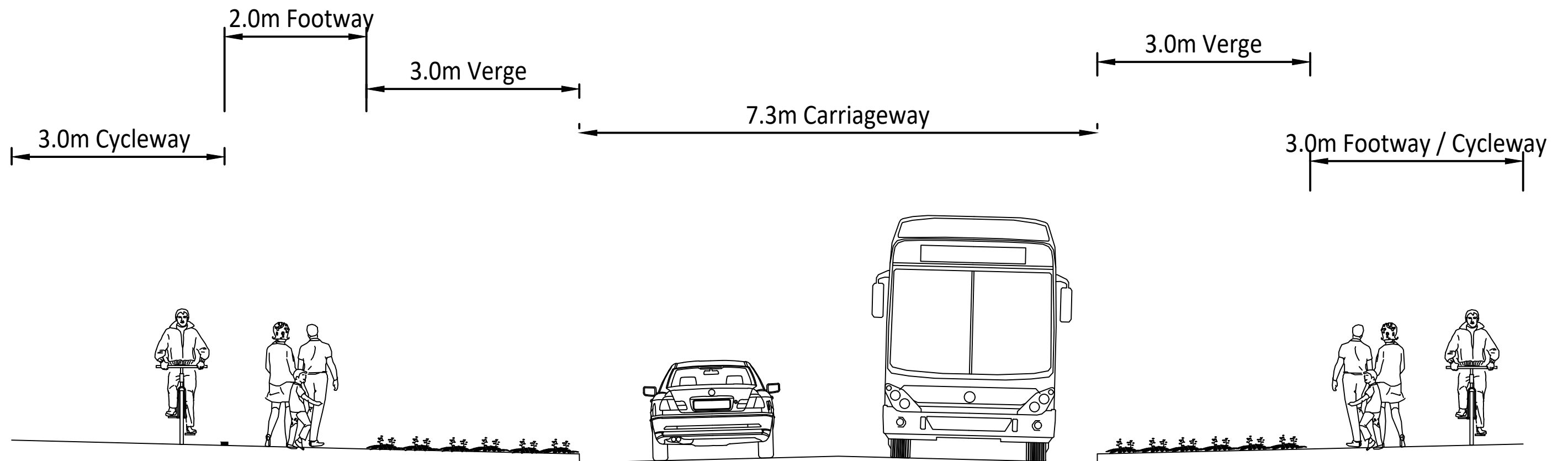


Figure 3.2 - Proposed Footway & Cycle Routes Adjacent to Carriageways



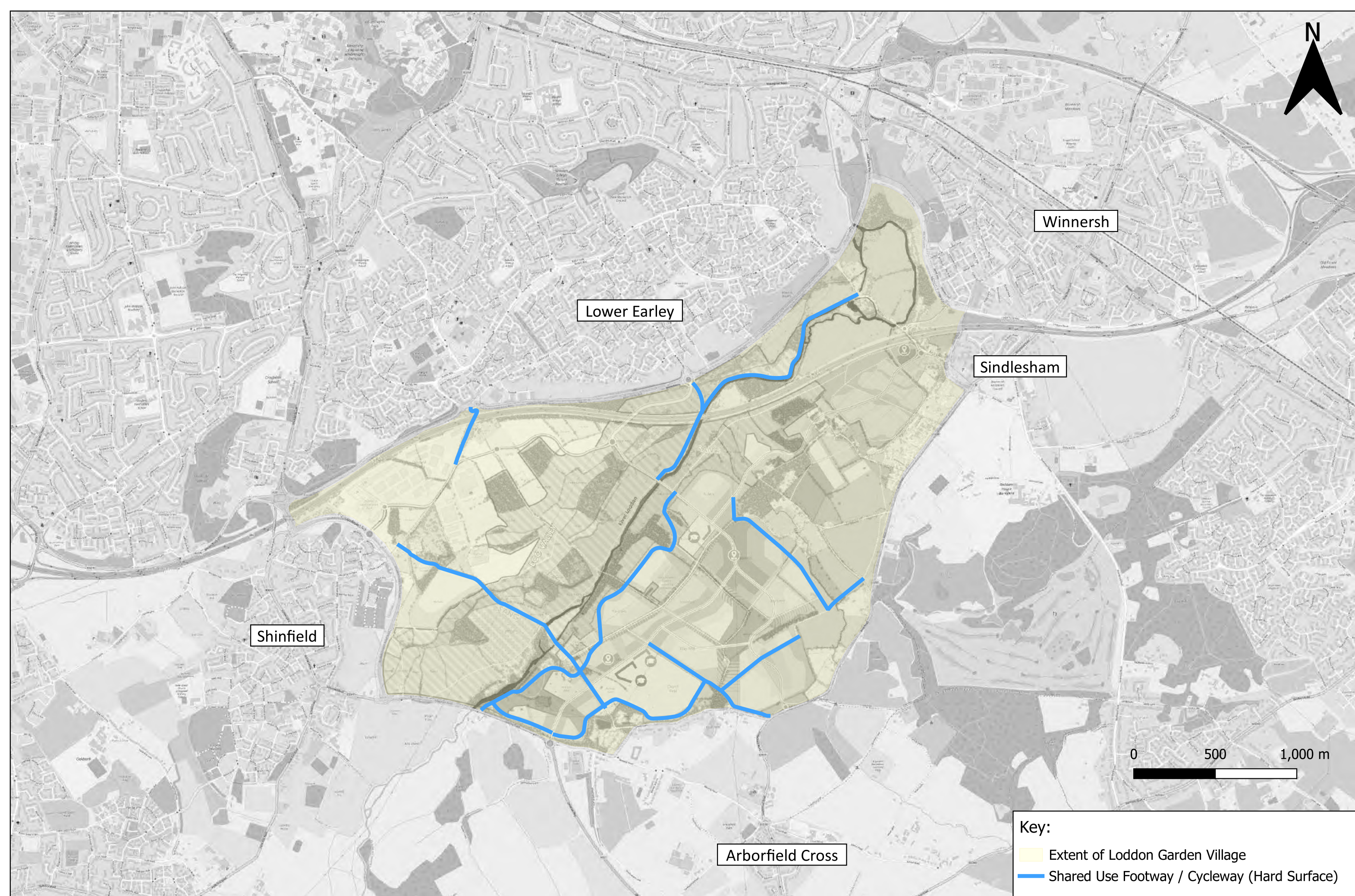


Figure 3.4 - Proposed Shared Use Footway / Cycle Routes

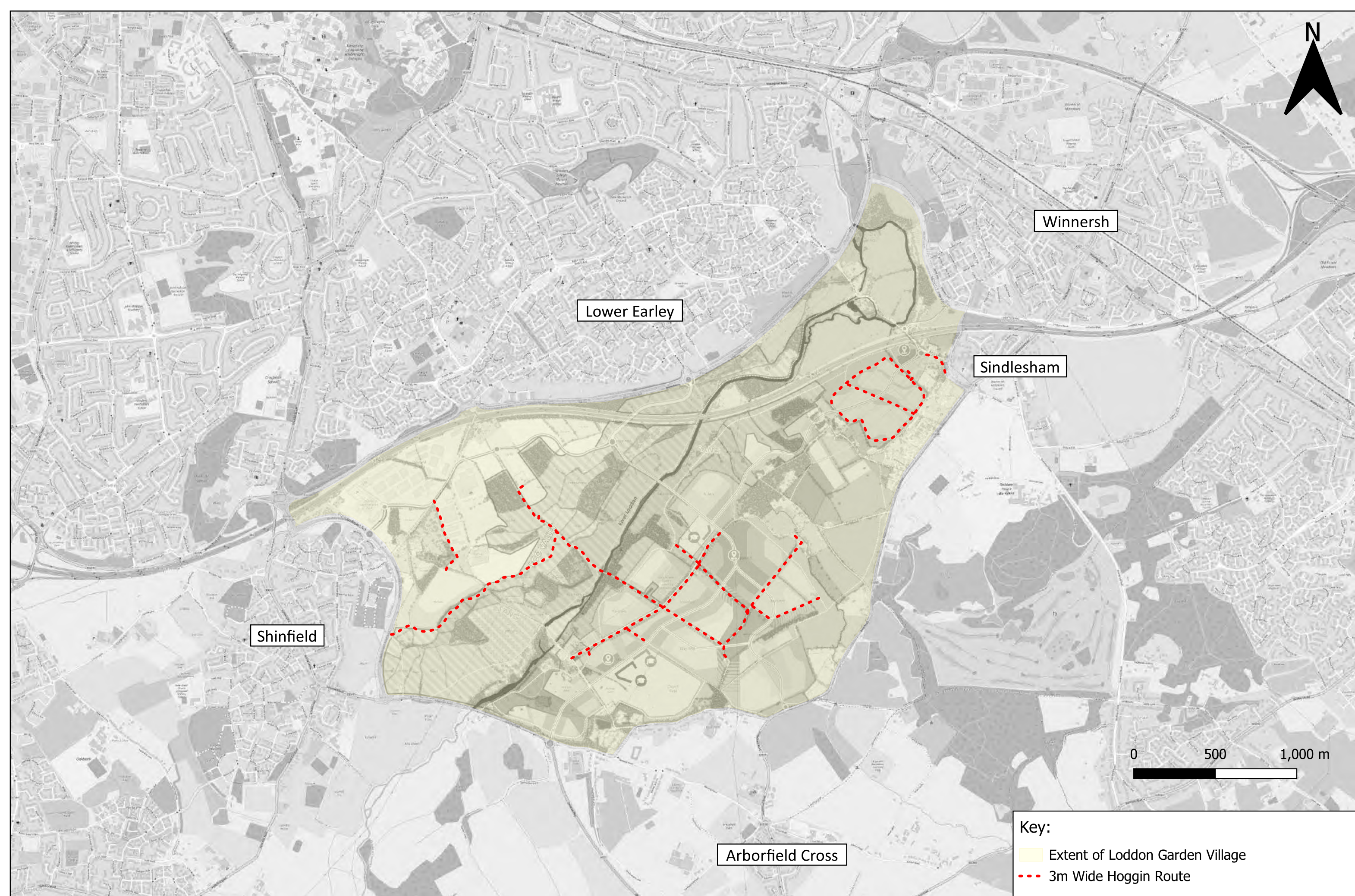


Figure 3.5 - Shared Use Paths (Unbound Surface)

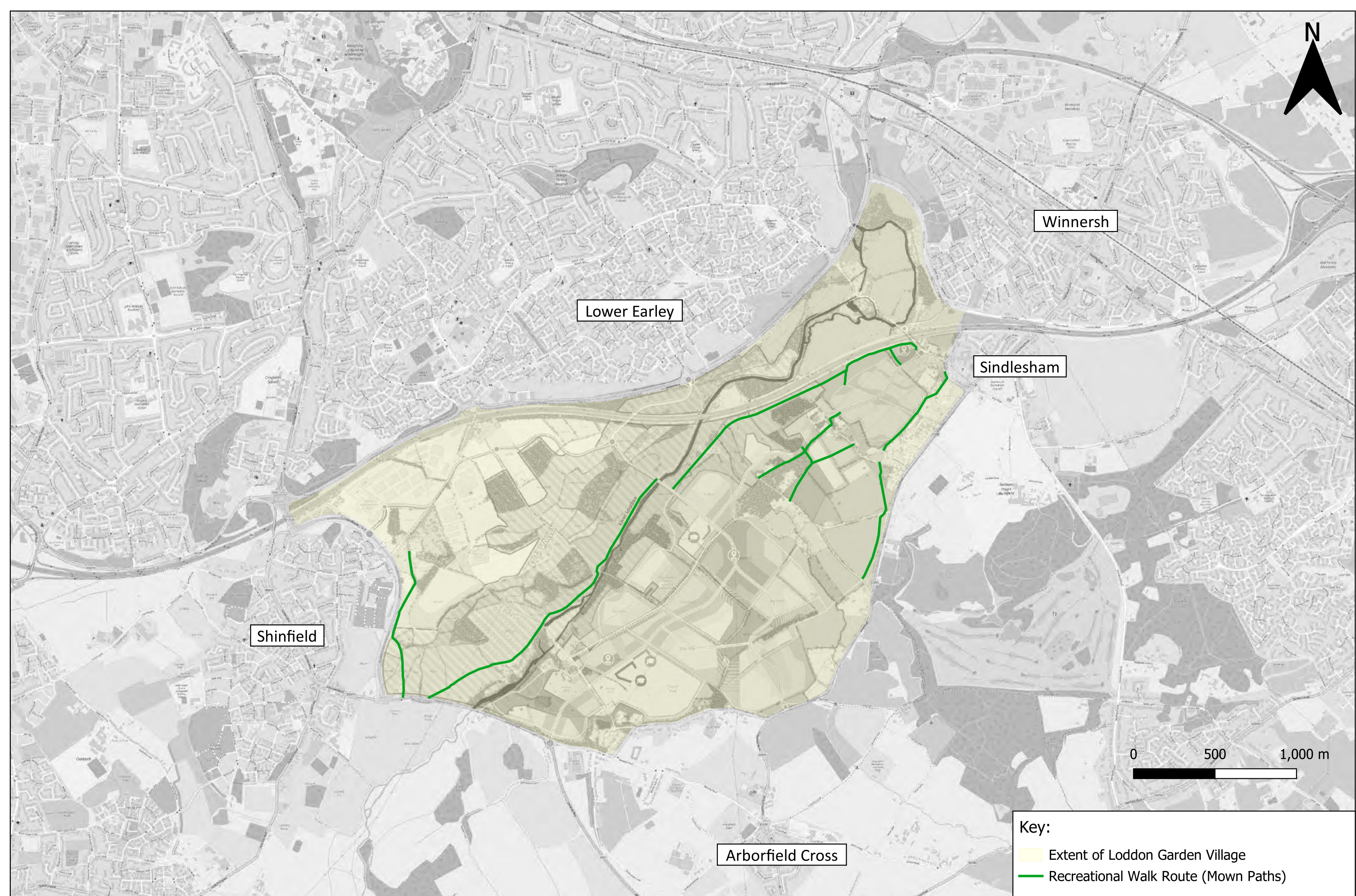


Figure 3.6 - Recreational Walk Routes (Mown Paths)

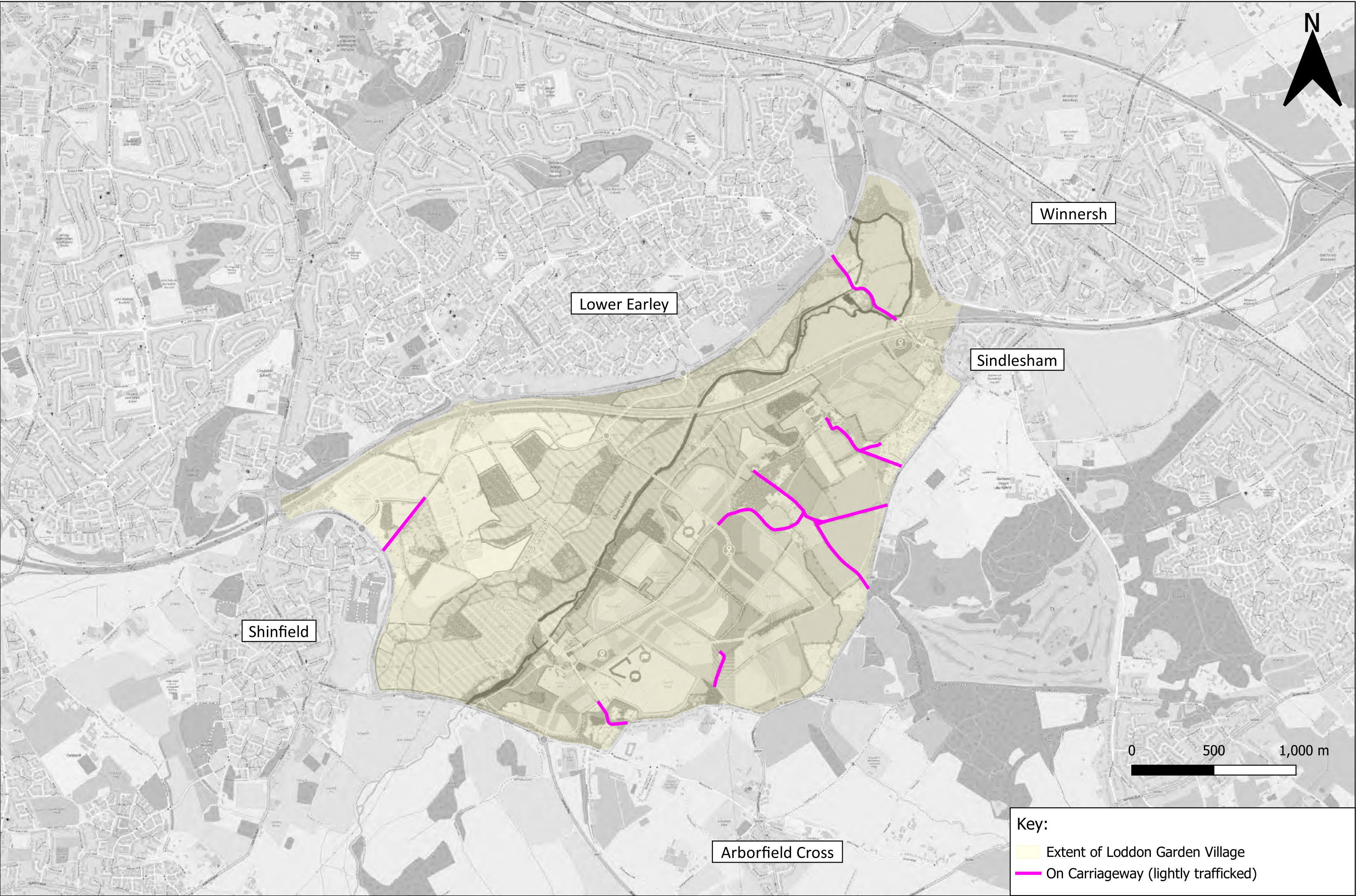


Figure 3.7 - Existing On Carriageway Routes

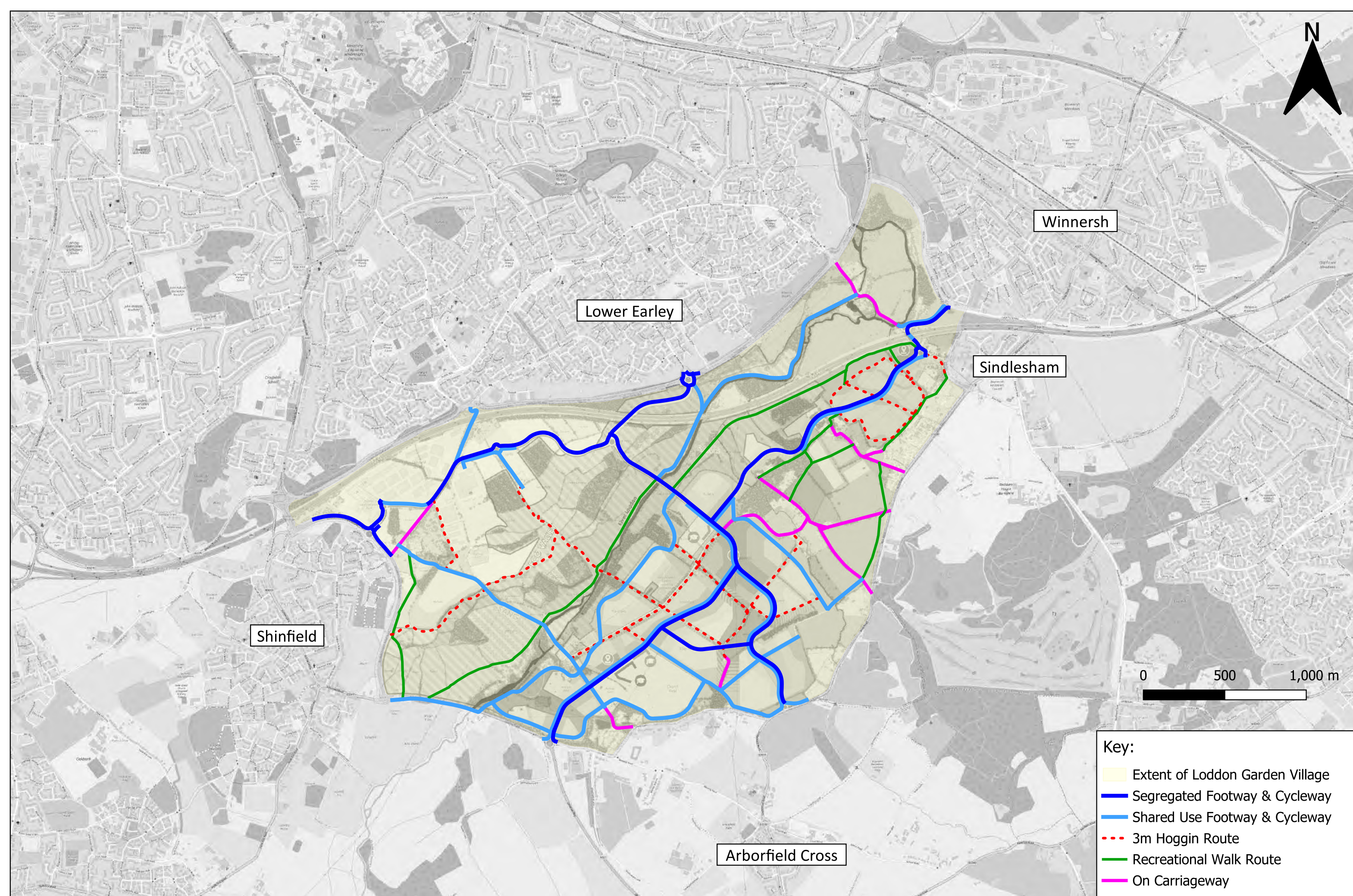


Figure 3.8 - Proposed On-Site Active Travel Routes

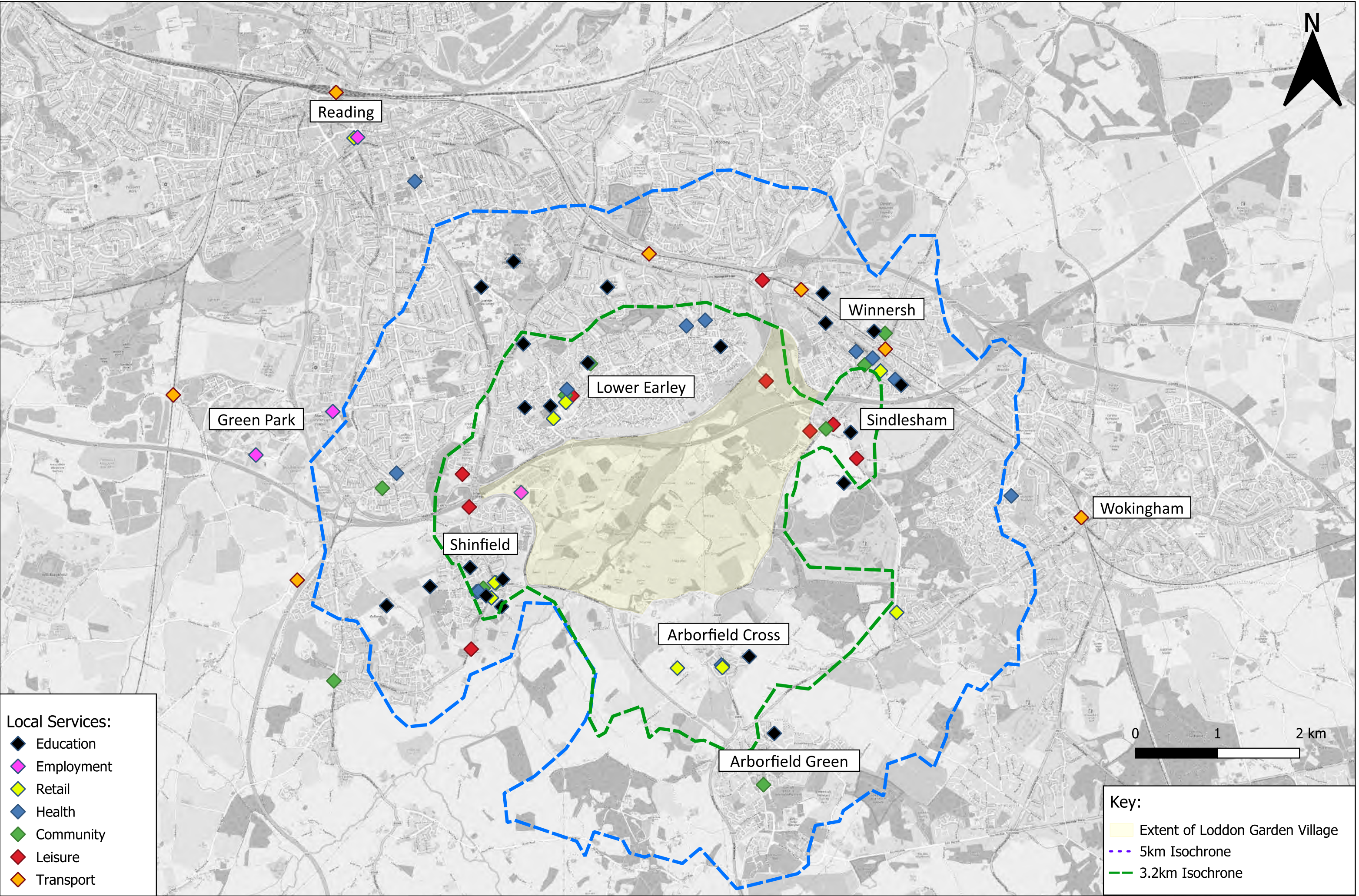


Figure 4.1 - Existing Local Services

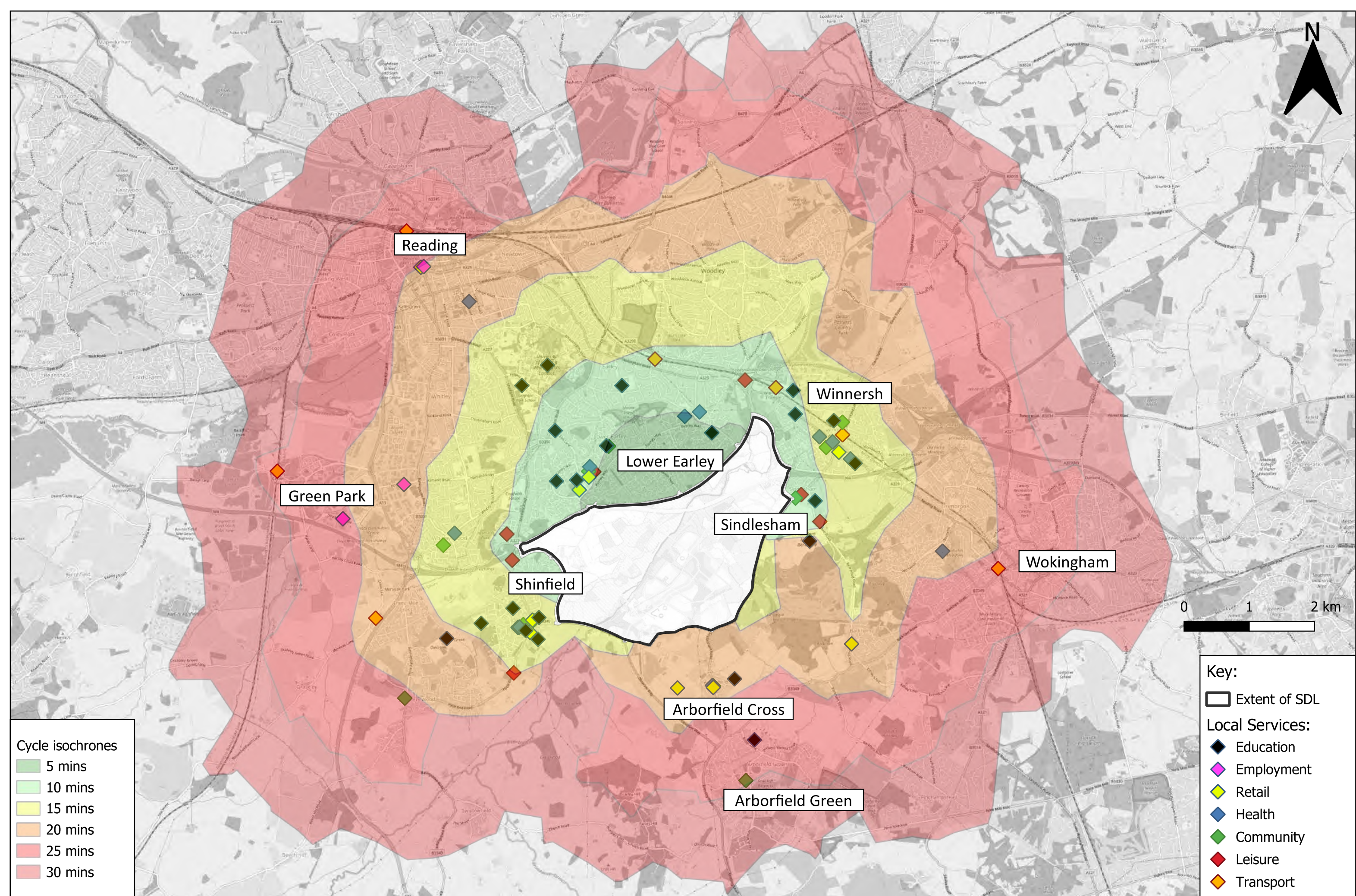


Figure 4.2 - 30-Minute Cycle Isochrone from Northern Frontage of Loddon Garden Village Site

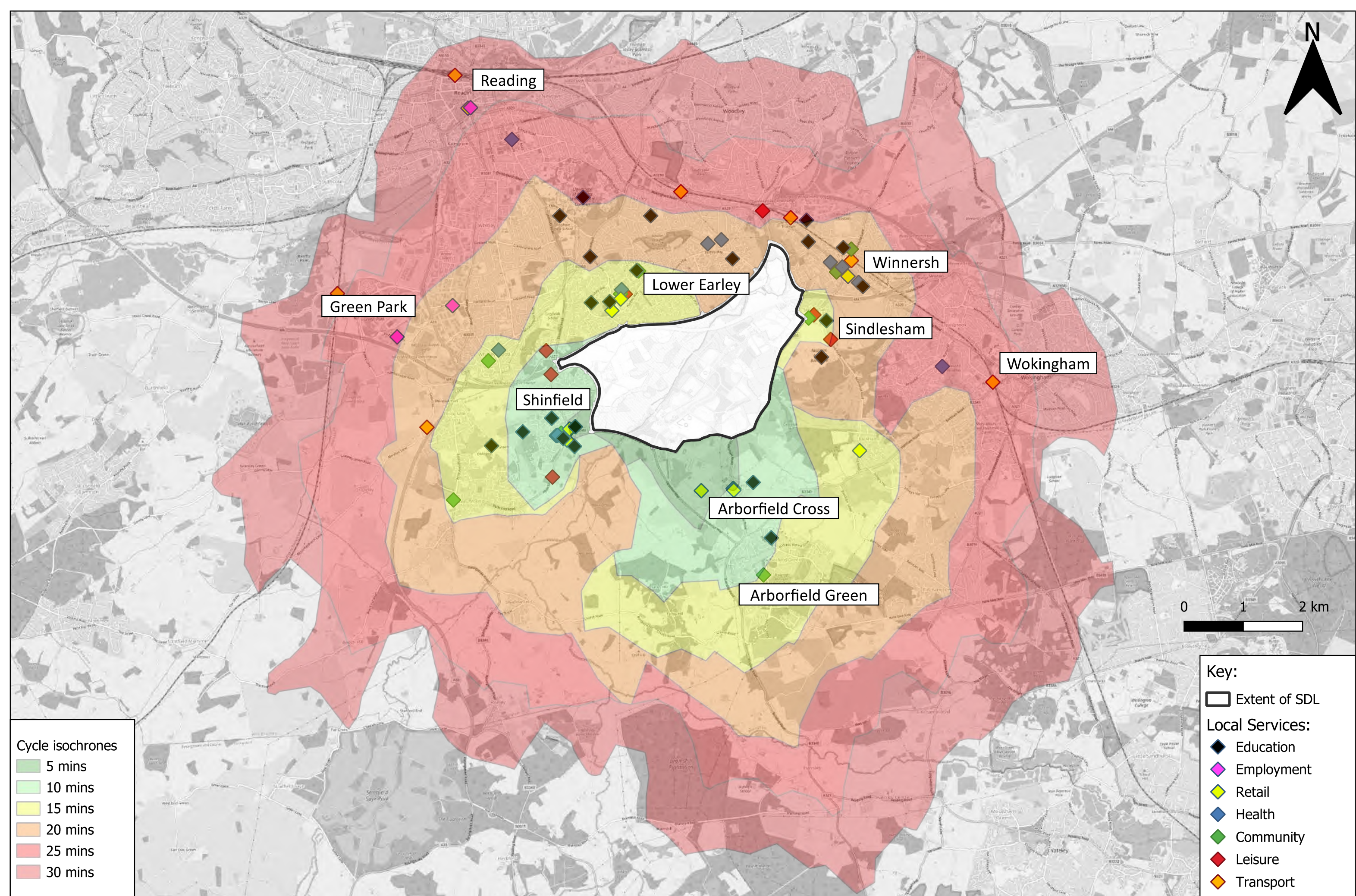
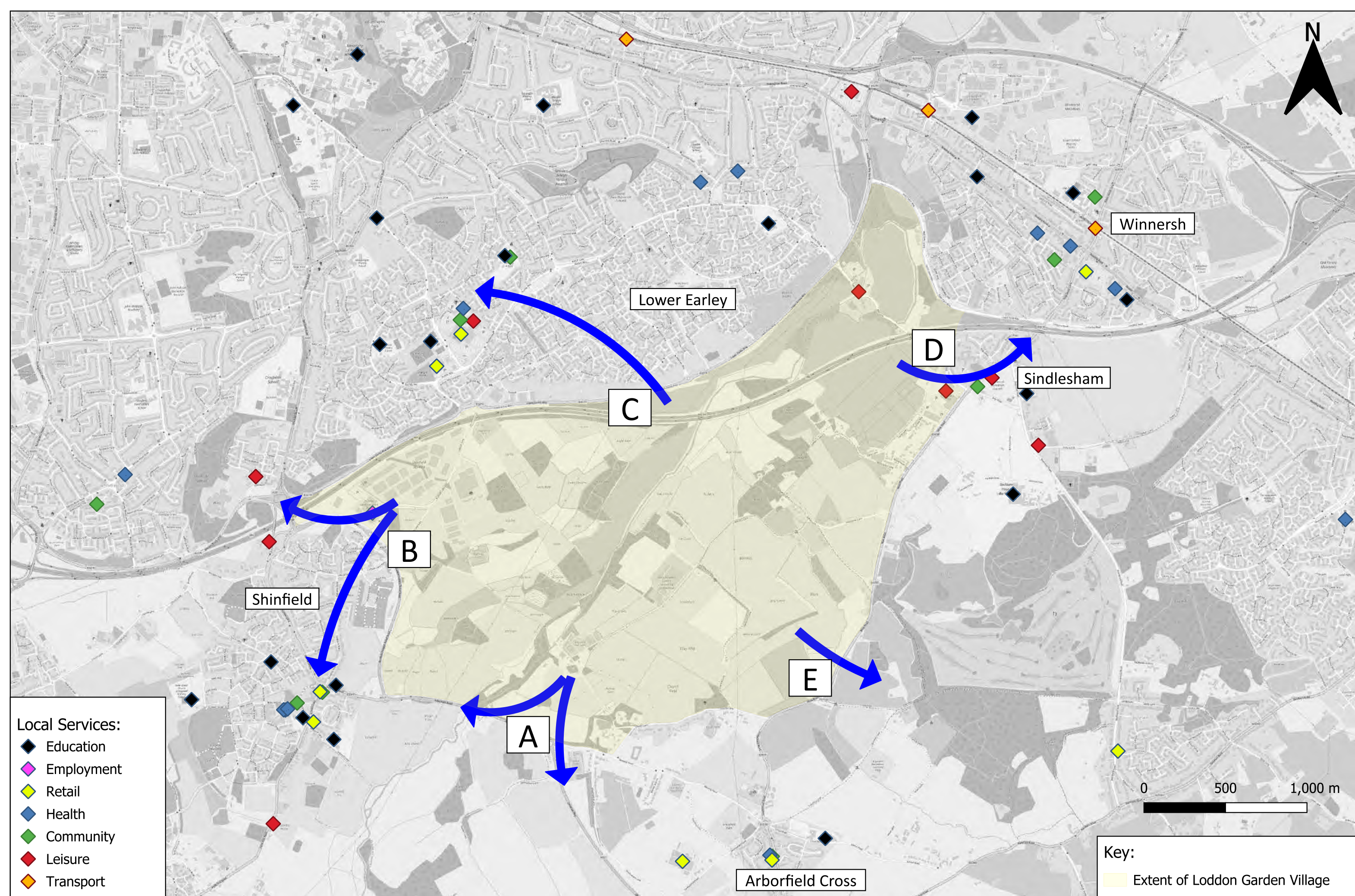


Figure 4.3 - 30-Minute Cycle Isochrone from Southern Frontage of Loddon Garden Village Site



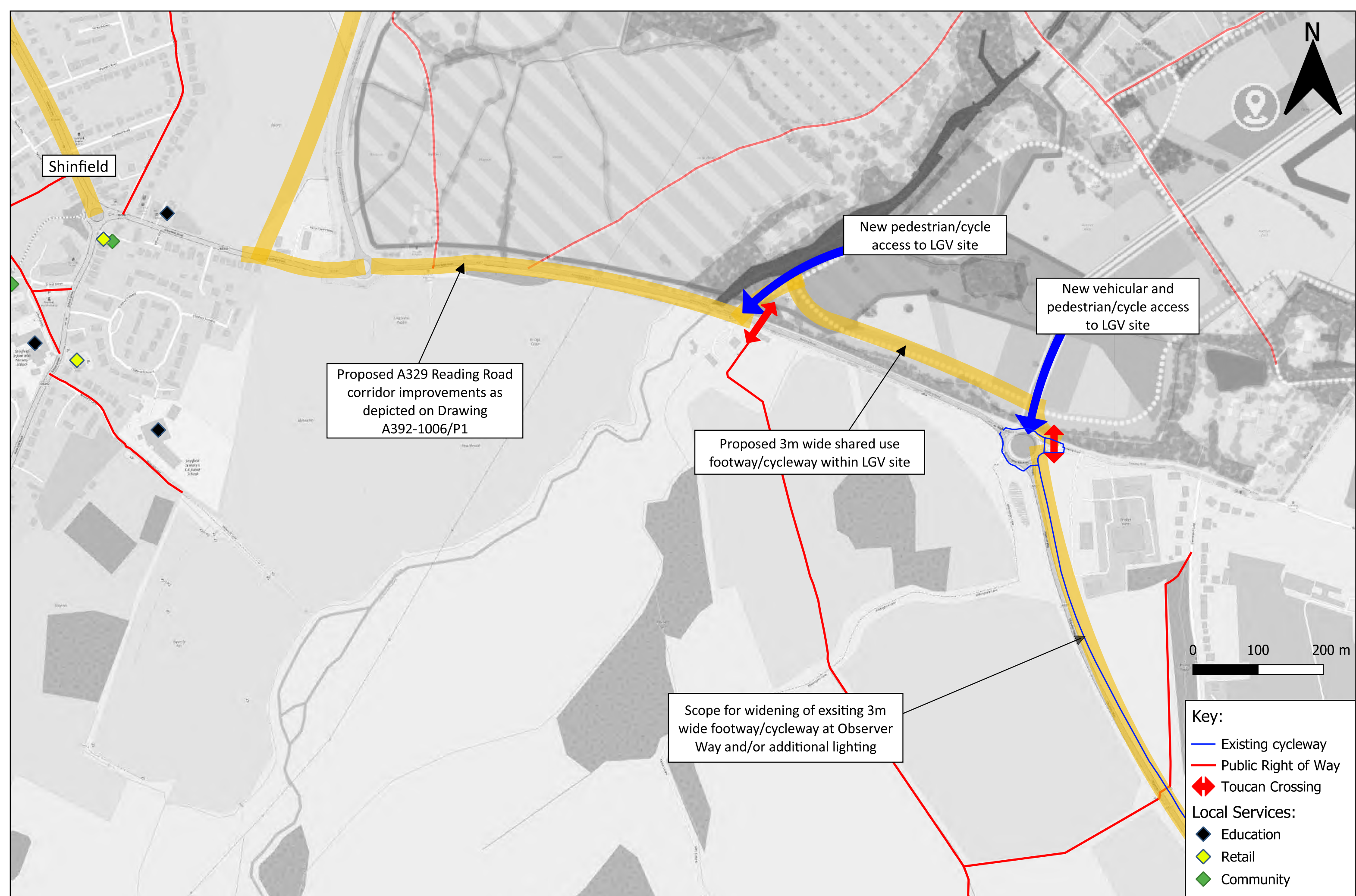


Figure 4.5 - Potential Active Travel Enhancements towards Shinfield and Arborfield

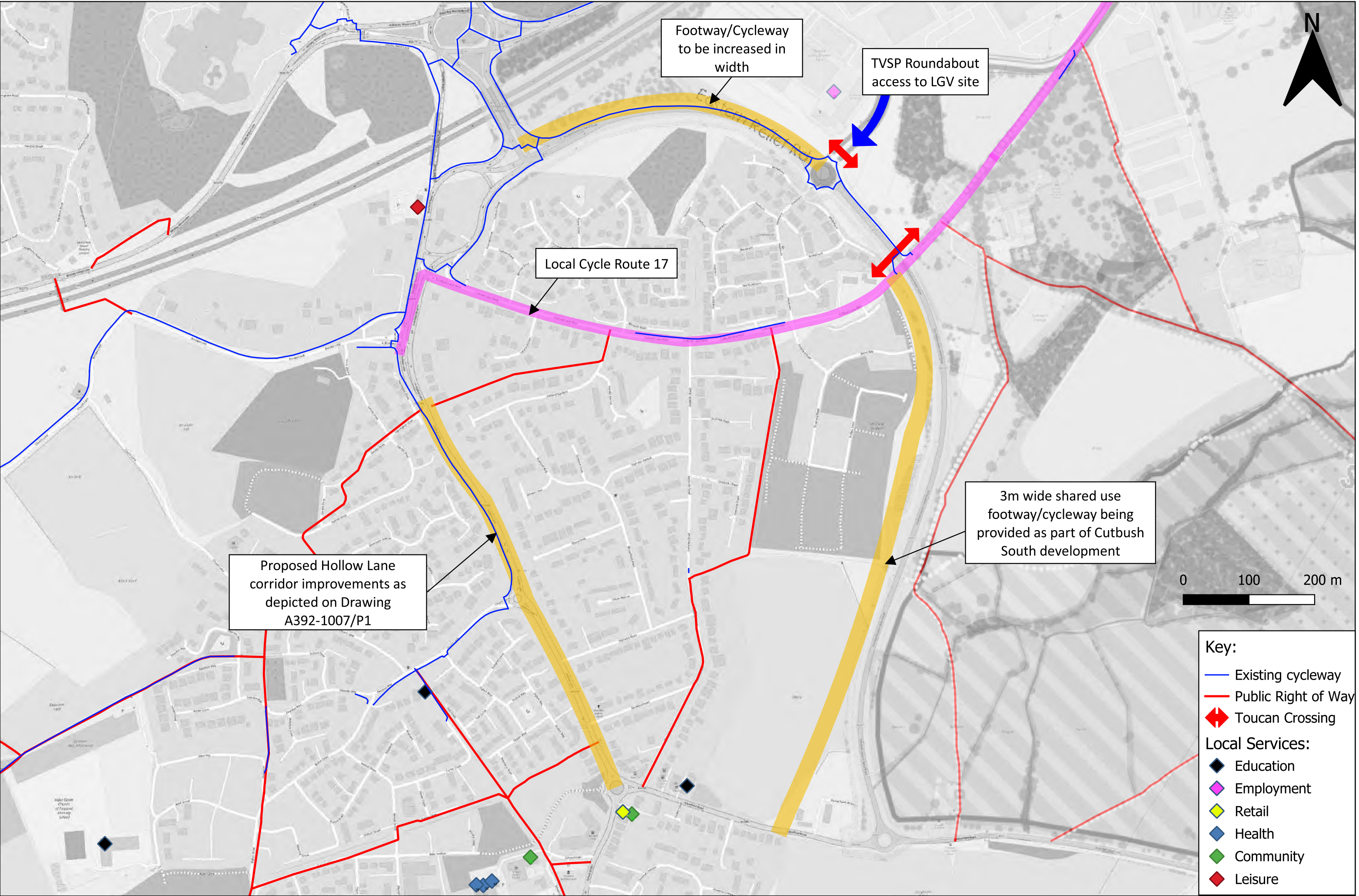
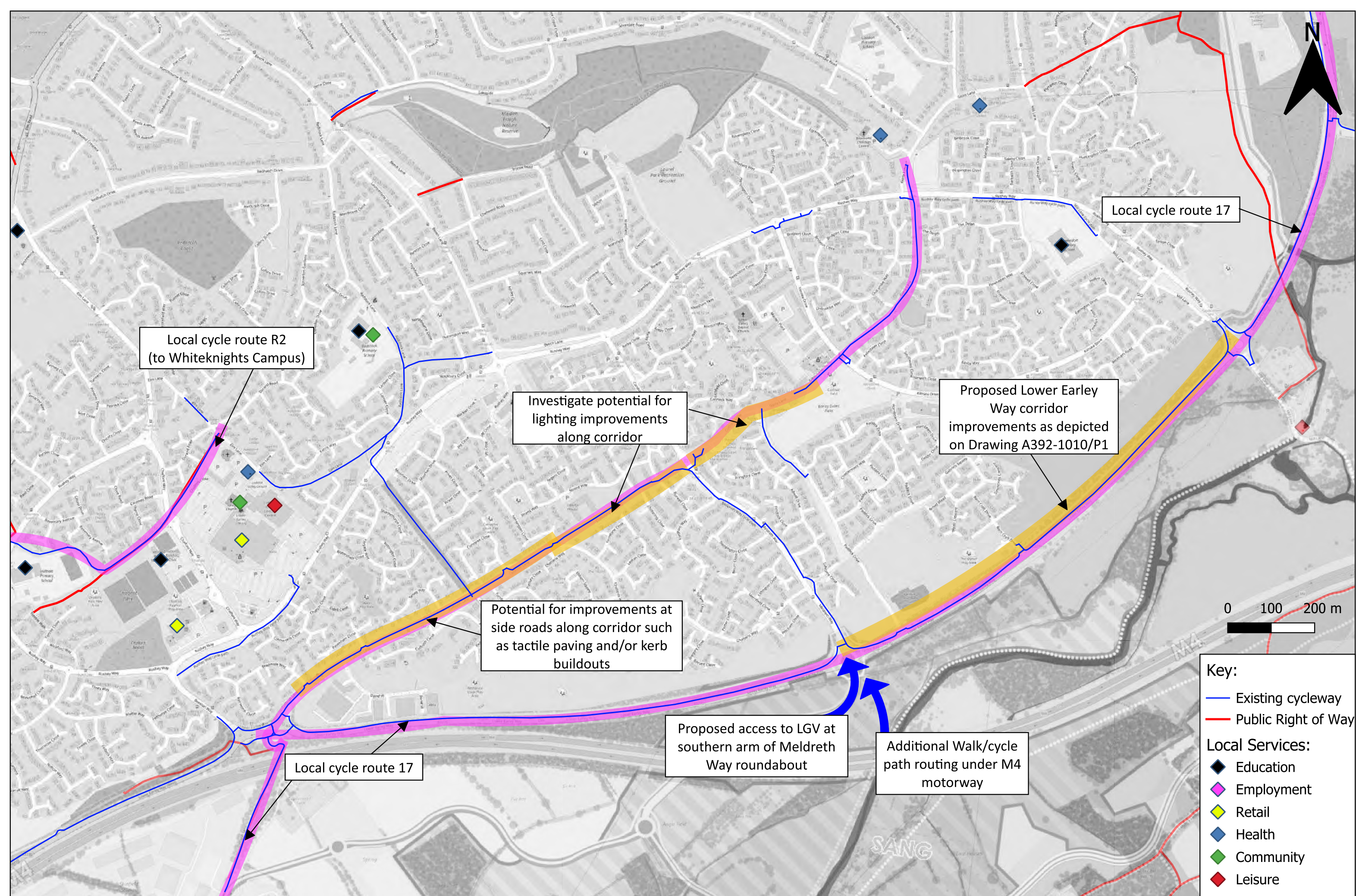
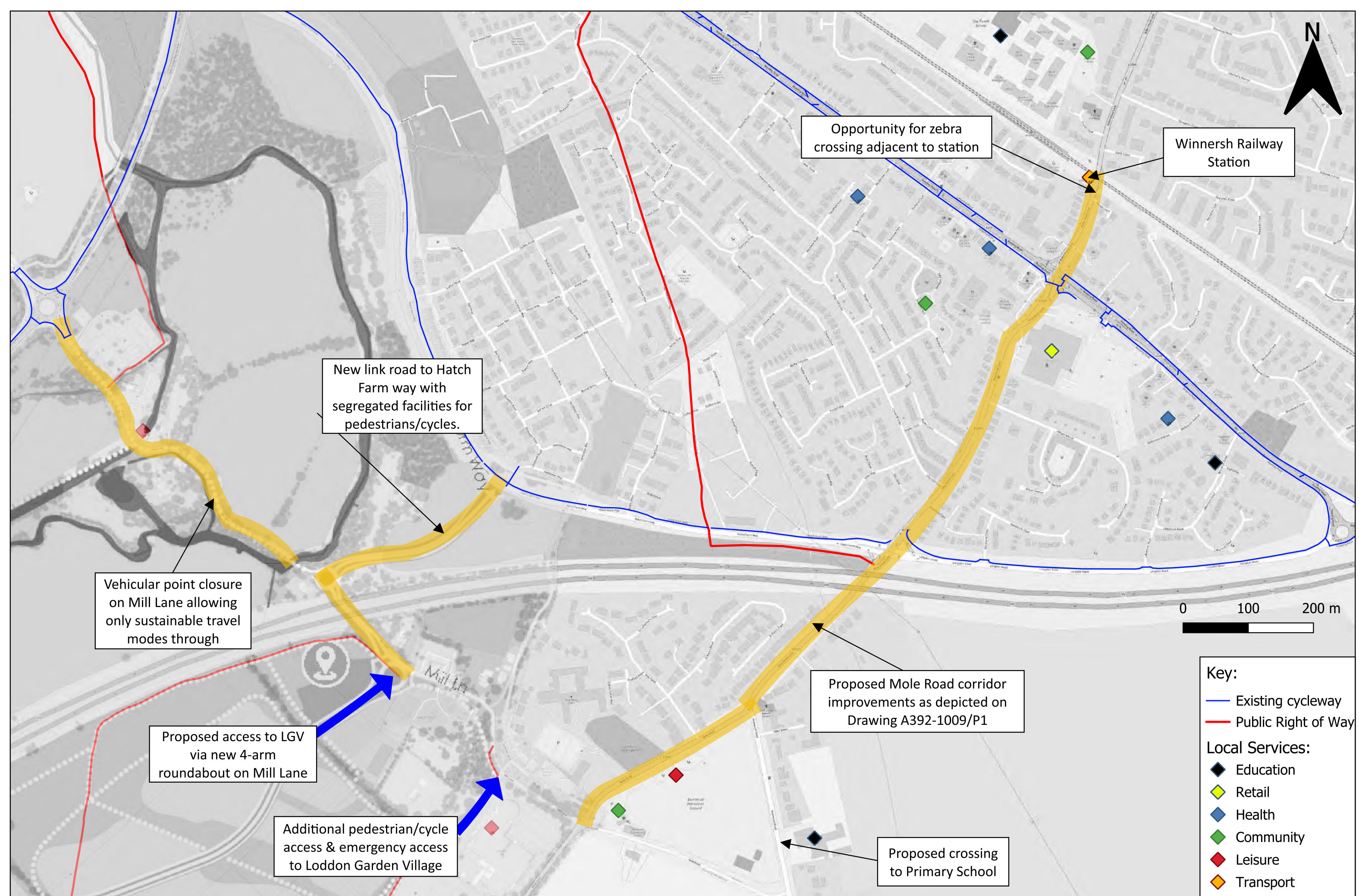


Figure 4.6 - Potential Active Travel Enhancements towards Shinfield





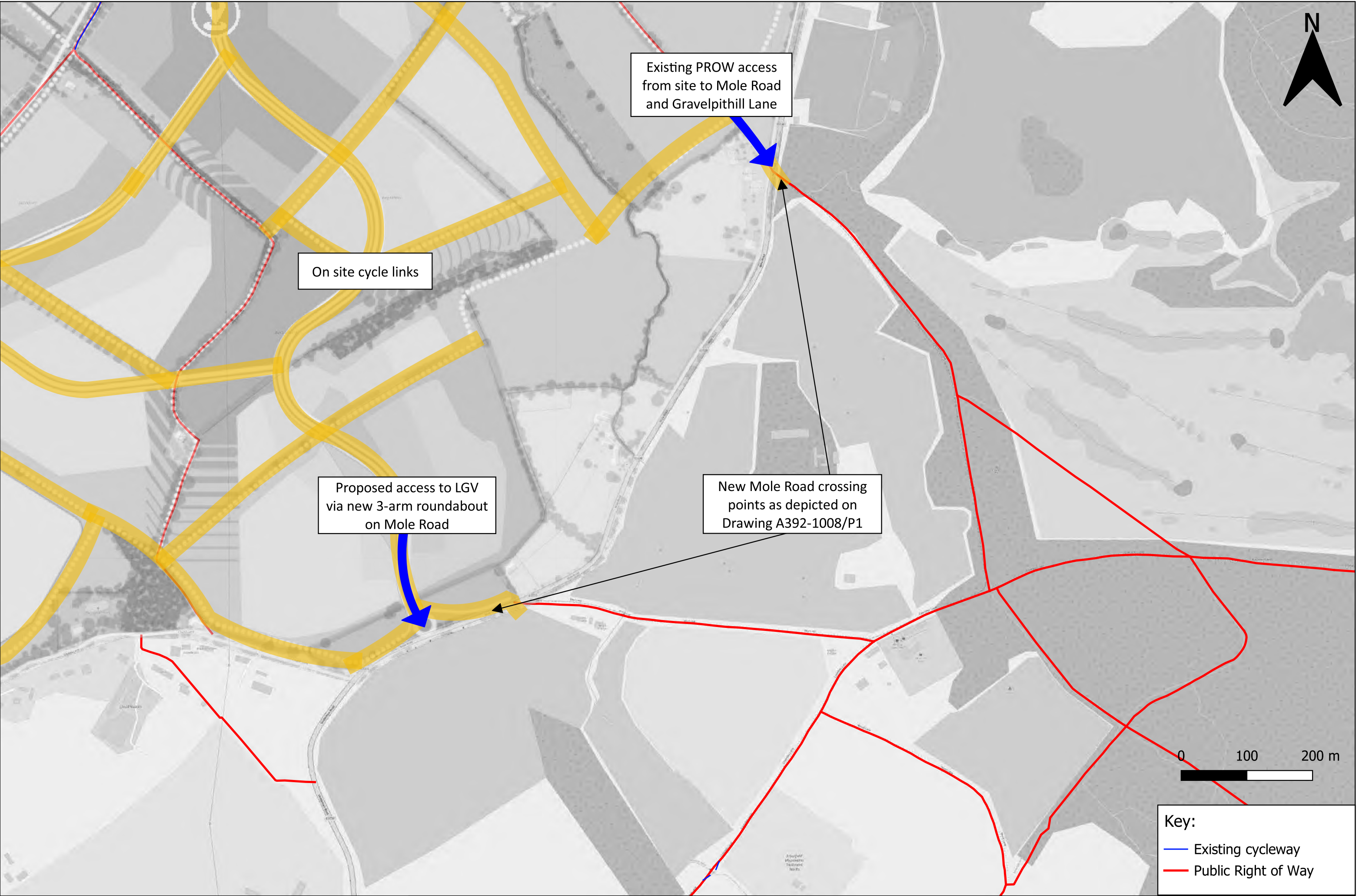


Figure 4.9 - Potential Active Travel Enhancements to link to Networks East of Mole Road

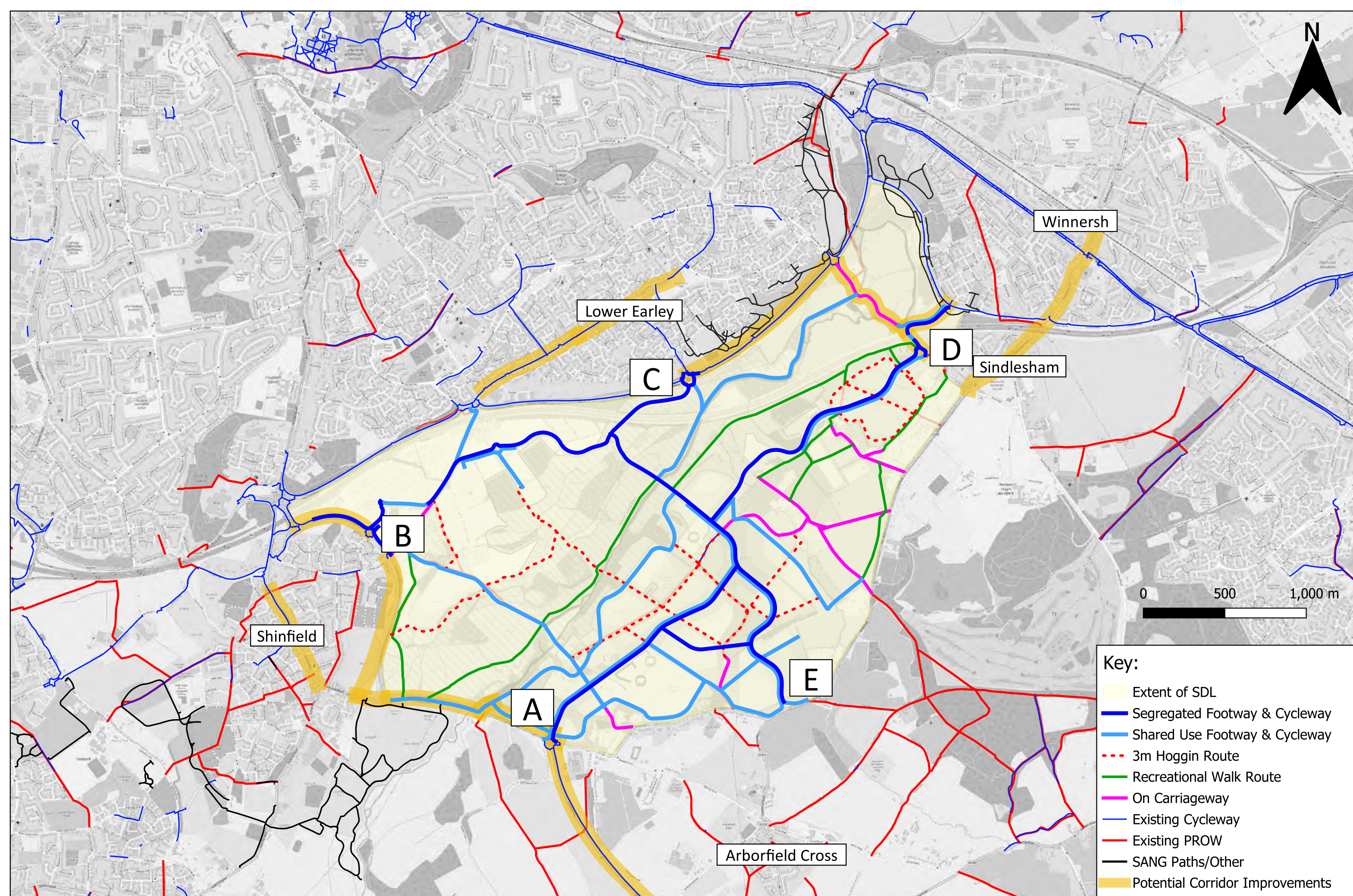


Figure 4.10 - Active Travel Strategy - On and Off Site Provision



Appendices



Appendix A – LGV Framework Plan

FRAMEWORK
PLAN

- Residential Parcels
99.40ha
- TVSP
91.90ha
- Education/Sport area
19.50ha
- District / Local Centre
- Primary School
- Secondary School
- Spine Road
Infrastructure corridor
- Proposed Active
Travel routes
- Indicative locations of
primary SuDS features
- Secondary drainage
system
- Parks & Public
Gardens
- Country Park
(including SANG)
- TVSP - Future
employment parcels
- Solar Farm





Appendix B - Travel Hubs Technical Note

Project Title: Loddon Garden Village

Project No/ Document Reference: A392-TN07/A

Date: 13 June 2024

Author: A Golding

TRAVEL HUB – TECHNICAL NOTE

1. Introduction

- 1.1. This document has been prepared to provide background information relating to Travel Hubs. The information included within this Technical Note includes identifying what a Travel Hub is, examples of existing Travel Hubs and the potential opportunities and constraints of Travel Hubs.

2. What is a Travel Hub?

- 2.1. Collaborative Mobility (CoMo) is a national organisation leading the way for the promotion of shared transportation, with a particular focus on Travel Hubs. CoMo have produced guidance and accreditation documents to support the uptake of such hubs in new developments covering a wide range of sectors including residential and commercial developments.
- 2.2. CoMo Guidance define a travel hub as a central location where various transportation modes and services converge to provide seamless and convenient mobility options for residents.
- 2.3. The concept of a Travel Hub is central to the CoMo framework, which aims to integrate and optimise different transportation services for the benefit of users. The main components of a Travel Hub in the context of CoMo guidance typically include:

Physical Infrastructure

- **Location and Facilities:** A designated physical location where various transportation services and modes converge, such as bus stations, train stations, park-and-ride facilities, or mixed-use urban hubs.
- **Shelter and Waiting Areas:** Covered and comfortable waiting areas for passengers, providing protection from the weather.
- **Cycle Parking:** Safe, secure, and easily accessible storage for bicycles.
- **Electric Vehicle Charging Points:** Charging infrastructure for electric vehicles, promoting sustainable transport uses.
- **Pedestrian Infrastructure:** Safe and accessible walkways, zebra crossings and footways to facilitate pedestrian access.



- Wayfinding Signage: Clear signage and information display to guide passengers and help them navigate the hub.

Public Transport Services

- Bus Stops: Integration with local and regional bus services including designated stops and shelters.
- Transport Schedules: Real-time schedule information and route maps to assist passengers in planning their journeys.

Shared Mobility Services

- Car Sharing: Provisions for car-sharing services with designated parking spaces.
- Ridesharing and Carpooling: Pick-up and drop-off points for ride share and carpooling services.
- Micro-mobility: Facilities for shared bikes, electric scooters, and other micro-mobility options.
- Transportation Network Companies (TNC): Integration with app-based ride hailing services such as Uber.

Multi-Modal Integration

- Seamless Transfers: Design elements that enable easy and efficient transfers between different modes of transportation.
- Ticketing and Payment: Integrated fare systems or ticketing options that allow passengers to pay for multiple services with a single ticket or app.
- Information and Connectivity: Digital tools and apps that provide real-time information on transportation options, schedules, and connectivity.

Amenities

- Toilets: Access to public toilets for passengers.
- Food and Retail: On-site options for food, shopping, and other services.

Accessibility

- Universal Design: Consideration of accessibility for all users, including those with disabilities, through features such as ramps, lifts, and tactile signage.
- Customer Assistance: Staff or information points to assist passengers with special needs.

Sustainable Practices

- Green Infrastructure: Environmentally friendly features such as green roofs or sustainable landscaping.
- Environmental Sustainability: Encouragement of eco-friendly transportation modes and practices.



- 2.4. The specific components of a Travel Hub can vary depending on the location, size, and goals of the hub. The CoMo approach aims to provide a well-integrated, user-friendly, and sustainable transportation experience, promoting a shift towards more efficient and sustainable mobility options.

3. Case Studies

Seabrook Orchards, Topsham

- 3.1. The Seabrook Orchard E-mobility Hub is located at a housing development in Exeter in the UK which received a 'Gold Award' from CoMo a recognition from promoting greener journeys.
- 3.2. The Travel Hub features access to an electric car club vehicle, with an associated parking bay and charging facility. There is also an electric charger for public use and e-bikes available for hire at a docking station as depicted at Figure 3.1 below. The hub is powered by renewable energy and identified with its own branded wayfinding signage.

Figure 3.1: Seabrook Orchard Travel hub



- 3.3. The hub is located only a one-minute walk away from a bus stop served by a bus route providing frequent connections to both Exeter and Exmouth.
- 3.4. New residents at the Seabrook Orchard site residents were offered a free first year membership of the car club scheme and a driving credit to get them on the road. An on-site event gave them the opportunity to find out more about the services and to try the e-bikes for themselves.



- 3.5. Since the hub opened there have been almost 2,000 e-bike rentals and more than 20% average car share utilisation. Trip analysis shows the majority of bike journeys from the housing development end in Exeter city centre, Digby & Sowton train station, and the Royal Devon and Exeter Hospital, demonstrating that the bikes provide a feasible sustainable travel option to important connections to retail, onward travel, and employment.

City of Bremen

- 3.6. A notable case of the benefits provided by Travel Hubs is Bremen, Germany where 10 large and 33 smaller Travel Hubs were located in the city in 2020. The Bremen Travel Hubs include facilities such as car club vehicles, bike share and cycle parking alongside an enhanced streetscape.

Figure 3.2: Bremen Travel Hub Example



- 3.7. The main objective of the Travel Hubs is to reduce private car ownership and to encourage the use of sustainable transport which can in turn reduce traffic and parking demand. Studies indicate a high level of engagement with the Travel Hubs with 85% of residents knowing about the travel opportunities provided and a total reduction of 5,000 vehicles has been attributed to the scheme (CoMoUK, 2021).

Cambridge Science Park

- 3.8. An example of a Travel Hub for employees rather than residents is at Cambridge Science Park in the UK. The cycle and mobility hub offers access to free E-bike rental services for staff of subscribing companies and a cycle repair service that can be utilised by employees and members of the public as depicted at Figure 3.3 below.



Figure 3.3: Cambridge Science Park Travel Hub



- 3.9. E-bikes can be hired from a number of locations within the Science Park as well as the nearby park and ride site to the north of Cambridge.

City of Ghent

- 3.10. In 2017, Ghent opened its new car-free centre and traffic circulation system in just one weekend. Vehicle traffic was prohibited from entering the city centre except for city centre residents and delivery vehicles. Car clubs were installed at Travel Hubs within easy reach of residential areas and the impact of the plan was measured in 2020 with some of the results summarised below (from CoMOUK):

- Cyclists increased from 22% of journeys to 37%
- An 18% reduction in air pollution
- 20% fewer cars in the centre
- 10% more cars on the ring road
- Increased use of public transport instead of the car
- Fewer road traffic collisions
- 6,000 car share users in 2017 increasing to 13,500 in 2019 and aiming for 20,000 by the end of 2020.

4. Travel Hub Evaluation

Opportunities

- **Multi-Modal Integration:** Travel hubs enable the seamless integration of various transportation modes, such as buses, trams, trains, bikes, and electric scooters. This promotes convenience and flexibility for commuters.
- **Reduced Congestion:** By encouraging the use of public transport and alternative modes of transport, travel hubs can reduce traffic congestion, leading to shorter travel times and decreased levels of air pollution.



- **Sustainability:** Travel hubs can support sustainable transportation options such as electric vehicles, car sharing, and walking and cycling, contributing to reduced emissions and improved air quality.
- **Economic Development:** As hubs are often located in local centres, they enhance areas for attracting businesses, restaurants, and shops. This can help create jobs and enhance local commerce.
- **Improved Accessibility:** Travel hubs improve accessibility for people with disabilities and those who do not own personal vehicles, making urban movement more inclusive.
- **Data and Technology Integration:** Travel hubs can leverage technology and data for better planning, scheduling, and real-time information sharing, making transportation more efficient and user-friendly.
- **Reduced Parking Demand:** Encouraging the use of public transport at travel hubs can lead to reduced parking demand across developments.

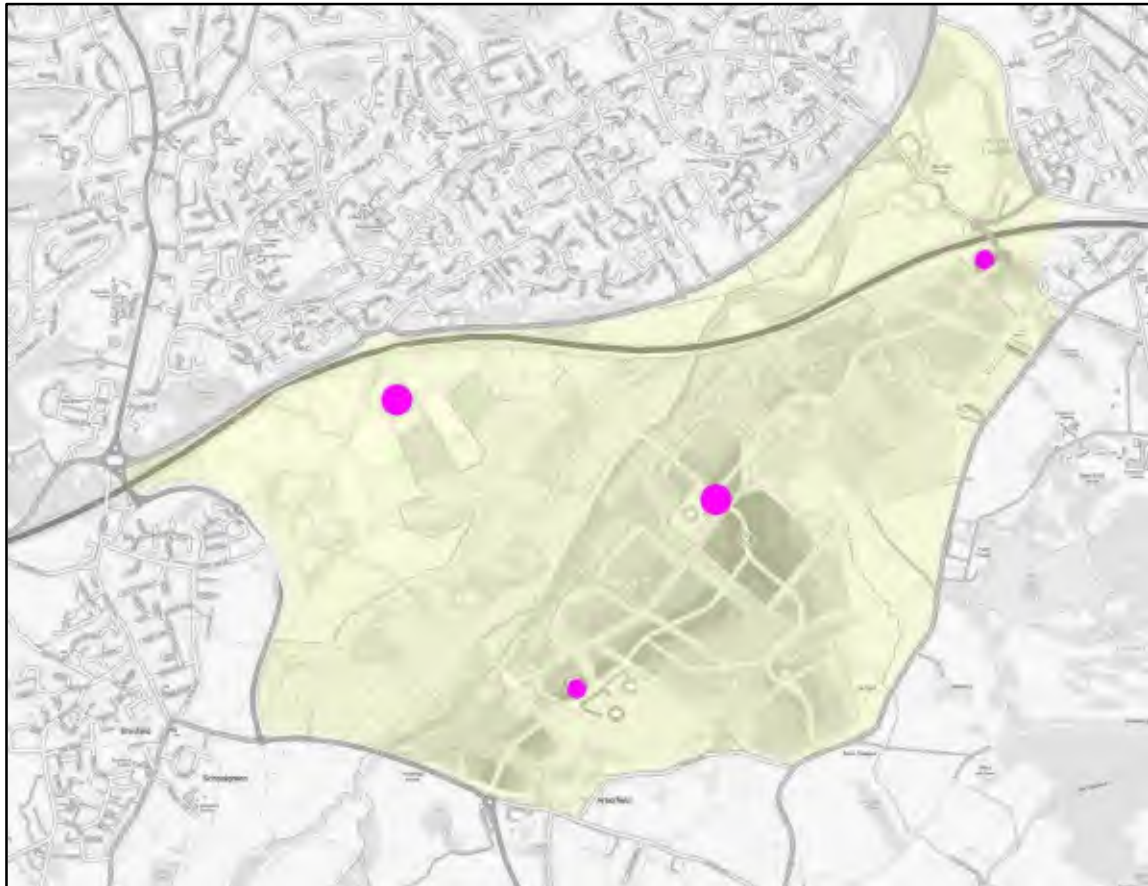
Considerations

- **Location:** The success of a travel hub can be dependent on its location and ease of access for users, a travel hub which is located in an inconvenient location will be ineffective.
- **Infrastructure Investment:** Developing and maintaining travel hubs can be costly, involving investments in transportation infrastructure, pedestrian facilities, and digital systems. Ideally, a travel hub will be self-sustaining such as through ticket purchases and rentals.
- **User Behaviour:** Encouraging residents to embrace alternative modes of transportation is a key constraint as residents often prefer the convenience of personal vehicles. However, the implementation of incentives and improved convenience can often aid the shift to sustainable modes.
- **Political and Stakeholder Engagement:** Successfully developing mobility hubs may require the cooperation and support of multiple stakeholders, including local governments, transport providers and other local companies.

Loddon Garden Village Context

- 4.1. In the context of the Loddon Garden Village proposals there is opportunity to provide at least two Travel Hubs within the site, one hub would serve the Thames Valley Science Park and the other would be located close to the main local centre of the Loddon Garden Village residential site. Two further ancillary hubs have then been indicated in the vicinity of the local centres at residential parcels of development at Sindlesham to the north east and at Hall Farm at the south west. The indicative locations of each of the hubs in the context of an illustrative masterplan is shown in **Figure 4.1** below:

Figure 4.1: Proposed Travel Hub Indicative Locations



- 4.2. Whilst each of the hubs would aim to provide seamless integration between transport modes, each hub would be tailored to support the surrounding land uses. **Table 4.1** below outlines the proposed facilities which could be provided at or in the vicinity of each hub although these will ultimately depend on the surrounding land uses at each site.



Table 4.1: Potential Travel Hub Facilities

Component	Thames Valley Science Park	Loddon Garden Village Centre	Ancillary Hubs at Sindlesham and Hall Farm
Bus Stops	✓	✓	
Secure Cycle Parking	✓	✓	✓
Bike Sharing / Rental Scheme	✓	✓	
Bike Repair Station	✓	✓	✓
Wayfinding Signage	✓	✓	✓
Covered Waiting Areas	✓	✓	
Car Sharing Facilities		✓	
Car Pool Spaces	✓	✓	
Electric Vehicle Charging (Cycles, Car, Scooter)	✓	✓	✓
Real-time Information Display	✓	✓	
Route Planning Tools		✓	✓
Pick-up and Drop-off Zones (Uber)		✓	✓
WiFi	✓		
Public Restrooms	✓		
Café	✓		
Green Spaces/Landscaping	✓	✓	
Solar Panels	✓	✓	
Access for Mobility Impaired	✓	✓	

- 4.3. The proposed Travel Hub at the Thames Valley Science Park will be more tailored toward commuters with facilities to encourage sustainable travel between key residential areas in the surrounding area. The hub will also have facilities to attract cyclists and walkers undertaking recreational trips such as along the proposed River Loddon Long Distance Path. Therefore, as set out at Table 4.1, the provision of local bus and bike route information, opportunities for bike repairing/servicing and excellent waiting facilities would be useful to visitors and commuters.



- 4.4. The proposed Travel Hubs at the Loddon Garden Village will cater for commuting trips future residents may undertake as well as those visiting new services at the site. Therefore, access to services such as car clubs, cycle hire and electric scooters are likely to benefit residents in the more residential location.

5. Conclusion

- 5.1. Developers should consider providing a number of Travel Hubs at the Loddon Garden Village development as it offers future residents convenient access to various transportation options, such as public transport, cycle sharing, car sharing schemes and electric scooters. Improved access to sustainable modes ultimately reduces the reliance of the private car.
- 5.2. The promotion of alternative transport modes offers wider highway improvements; traffic congestion is reduced in the surrounding area as a result of the reduction in the number of private vehicle journeys, other environmental benefits include reduced vehicle emissions and health benefits associated with walking and cycling.
- 5.3. Consideration shall be given to the proposed location of the Travel Hubs within Loddon Garden Village to ensure access to alternative travel modes for prospective residents is maximised, particularly with respect to the residential and employment local centres of the proposed development. Ancillary travel hubs will also ensure that all parts of the proposed development can benefit from sustainable travel initiatives.

Transport
Development Planning
Sustainable
Deliver
Trusted
Enable
Site Appraisal
Hydrology
Highways
Civil Engineering
Successful
Travel Planning
Support
Drainage
Dynamic
Masterplanning
Flood Risk Assessment
Infrastructure Design

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Appendix C - River Loddon Crossing: Illustrative Design

RIVER LODDON



Figure 1 is a cross-section diagram of a proposed bridge. The diagram shows a central span of 4m. Labels indicate the approximate location of the western and eastern bridge abutments, the expected height of the proposed bridge, the centre of the river lodon, the approximate location of the eastern bridge abutment, the approximate location of the western river bank, and the approximate location of the eastern river bank.

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LODDON GARDEN VILLAGE

INDICATIVE RIVER
LODDON CROSSING

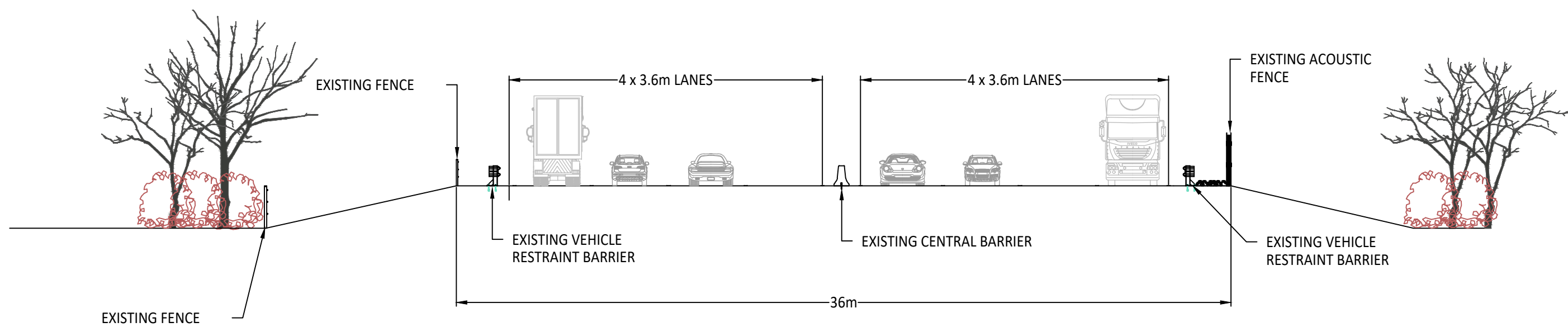
FOR DISCUSSIONS

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Drawing No			Revision
A392-1003			P3

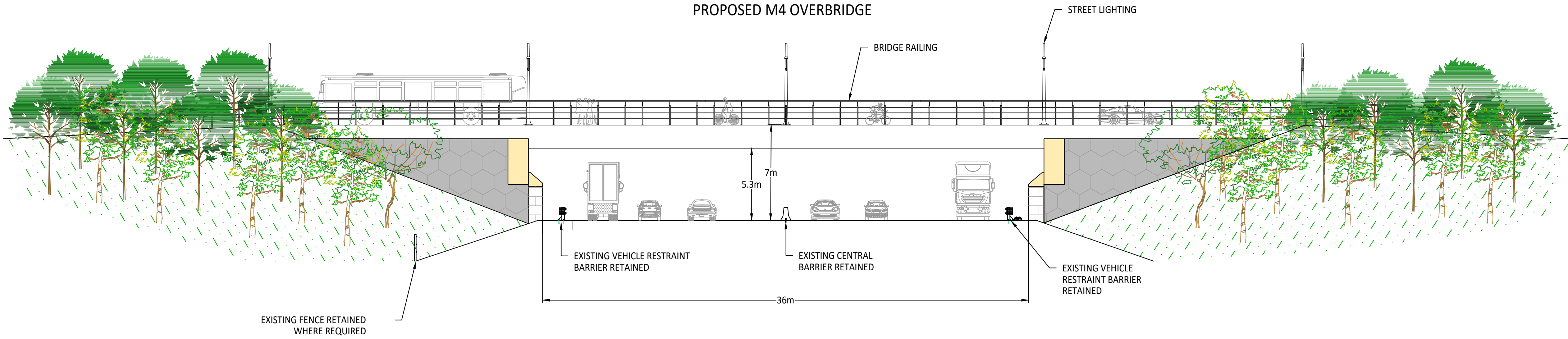


Appendix D - M4 Motorway Crossing: Illustrative Design

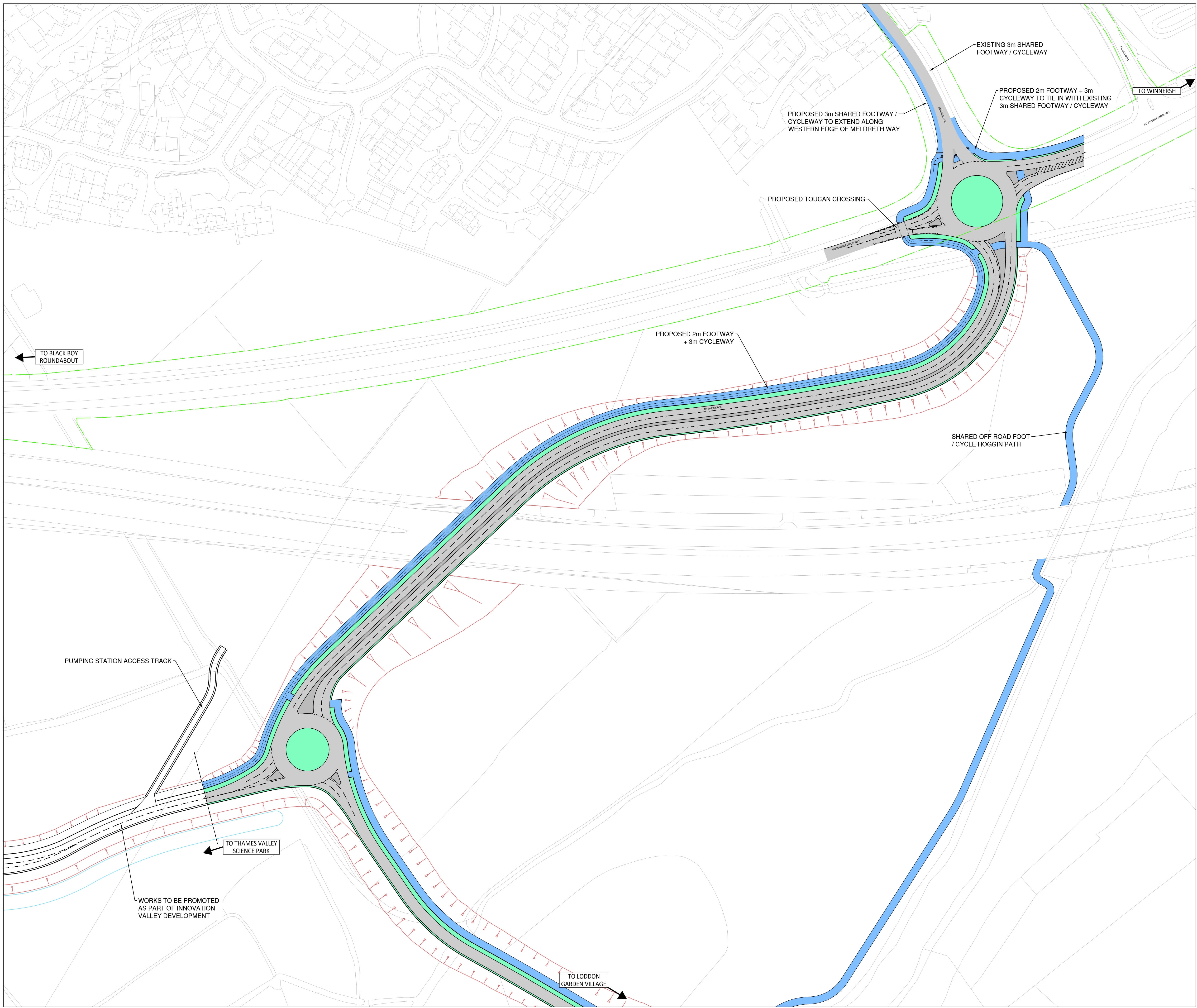
ILLUSTRATIVE CROSS SECTION OF EXISTING M4 CORRIDOR



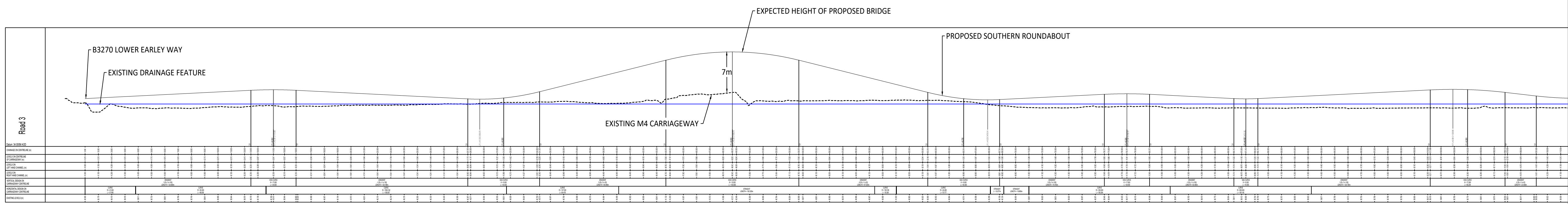
ILLUSTRATIVE CROSS SECTION OF PROPOSED M4 OVERBRIDGE



SCALE: 1:200 @ A0



ILLUSTRATIVE LONG SECTION OF PROPOSED M4 OVERBRIDGE



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KEY

- HIGHWAY BOUNDARY
- PROPOSED FOOTWAY / CYCLEWAY
- PROPOSED VERGE
- PROPOSED CARRIAGEWAY
- PROPOSED TRAFFIC ISLAND

PS	10.24	ADDITIONAL CROSSING AND AMENITIES	TDM	BT
PS	10.24	MINOR ANNOTATION AMENDMENTS	TDM	PJ
PS	10.24	BRIDGE LOCATION REVISED FURTHER	TDM	PJ
PS	10.24	BRIDGE LOCATION REVISED TO WEST	TDM	PJ
PS	10.24	CYCLEWAY WIDENED TO 3m	TDM	PJ
PS	10.24	FIRST ISSUE	TDM	PJ

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Project: **LODDON GARDEN VILLAGE**

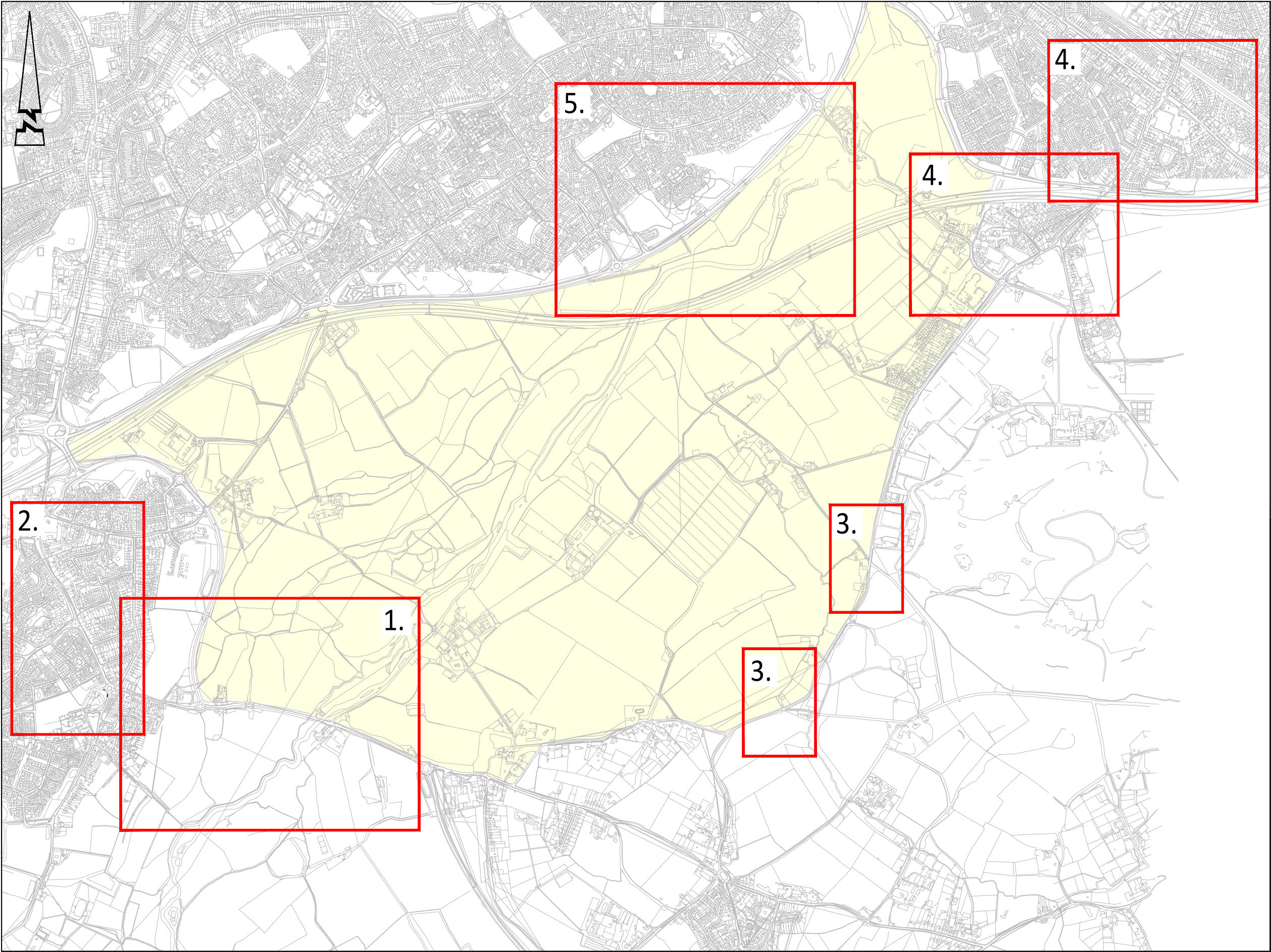
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Status: **FOR DISCUSSIONS**

Scale: 1:250 @ A0	Date: OCT 2023	Drawn: TDM	Checked: PJ
Drawn: A392-097			Revised: P6



Appendix E - Reference Plan for Drawing Sheets



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- KEY**
- AREA OF ACTIVE TRAVEL IMPROVEMENT PROPOSALS
 - LODDON GARDEN VILLAGE DEVELOPMENT AREA
1. See ALP Drawing A392 - 1006 P2
 2. See ALP Drawing A392 - 1007 P2
 3. See ALP Drawing A392 - 1008 P2
 4. See ALP Drawing A392 - 1009 P2
 5. See ALP Drawing A392 - 1010 P2

P1	06.24	FIRST ISSUE	TDM	AG	
Rev	Date	Description	Drawn	Checked	

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LODDON GARDEN VILLAGE

Title

ACTIVE TRAVEL IMPROVEMENTS
CONTEXT PLAN

Status

FOR INFORMATION

Scale	Date	Drawn	Checked
1:500 @ A3	JUNE 2024	TDM	AG
Drawing No			Revision
A392-1015			P1



Appendix F - Arborfield Road Corridor Improvements



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- KEY
- HIGHWAY BOUNDARY
 - INTERNAL PEDESTRIAN / CYCLE LINKS
 - EXISTING FOOTWAY
 - POTENTIAL FOOTWAY IMPROVEMENT
 - POTENTIAL SHARED FOOTWAY / CYCLEWAY IMPROVEMENT

P3	10.24	MINOR AMENDMENTS	TDM	BT
P2	06.24	MINOR AMENDMENTS	TDM	PJ
P1	05.24	FIRST ISSUE	TDM	PJ
Rev	Drawn	Design	Check	Drawn

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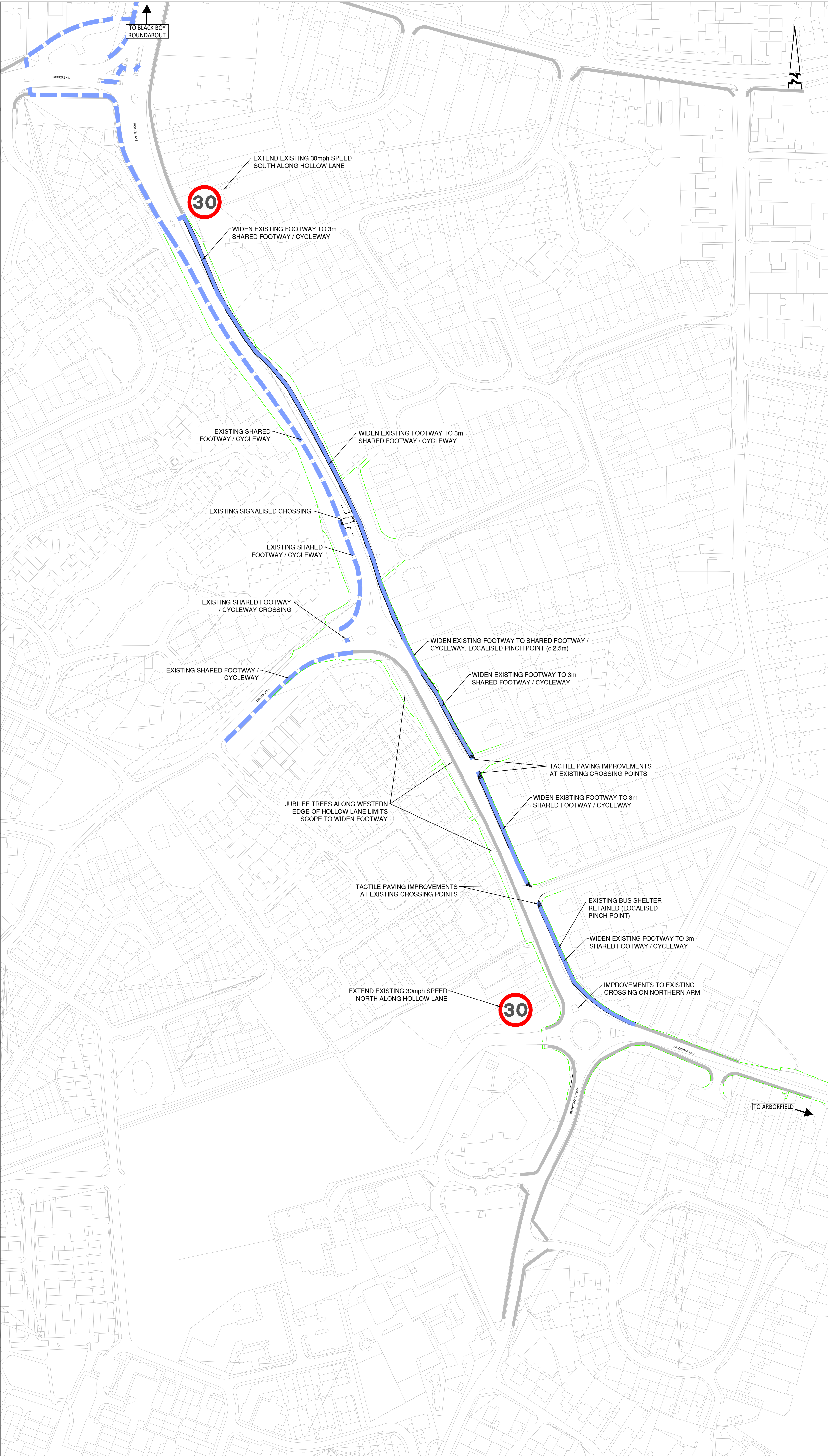
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**POTENTIAL ACTIVE TRAVEL IMPROVEMENTS
ARBORFIELD ROAD**

Status
PRELIMINARY

Scale 1:1250 @ A0	Date MAY 2024	Drawn TDM	Checked PJ
Drawing No A392-1006	Revision P3		



Appendix G - Hollow Lane Corridor Improvements



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KEY

- HIGHWAY BOUNDARY
- EXISTING FOOTWAY
- EXISTING SHARED FOOTWAY / CYCLEWAY
- POTENTIAL SHARED FOOTWAY / CYCLEWAY IMPROVEMENT
- POTENTIAL NEW SPEED LIMIT

P3	10.24	MINOR AMENDMENTS	TDM	BT
P2	06.24	MINOR AMENDMENTS	TDM	PJ
P1	05.24	FIRST ISSUE	TDM	PJ
Rev	Date	Description	Drawn	Checked

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Client

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Project

LODDON GARDEN VILLAGE

Title

POTENTIAL ACTIVE TRAVEL IMPROVEMENTS
HOLLOW LANE

Status

FOR INFORMATION

Scale	Date	Drawn	Checked
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		P3	