

Leeds Local Cycling and Walking Infrastructure Plan – Phase 1

Summary Document

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Introduction

In 2017 the Government published its first Cycling and Walking Investment Strategy, which sets out an ambition to make cycling and walking the natural choices for shorter journeys or as part of a longer journey. Local Cycling and Walking Infrastructure Plans (LCWIPs) form part of the Strategy and set out a new, strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing cycling and walking networks so that the Government's objectives can be achieved.

The document provides a summary of the phase one Bradford LCWIP, which for its initial phase has been produced to cover certain geographic areas of focus (south Bradford for cycling; Keighley for walking). The plan has been developed through a process of stakeholder consultation (workshops and street audits), data analysis, and high level engineering assessment of potential improvements. The document provides a summary of the phase one LCWIP including the key outputs:

- **Network maps** for cycling and walking, which identifies preferred routes and core zones for further development;
- A **programme of infrastructure improvements** for future investment

A more detailed report is available on the Combined Authority's website, that sets out the underlying analysis carried out and a narrative to support the identified improvements.

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Proposed Cycling Network for North East Leeds

These network proposals include:

A Network Map, showing the main desire lines to provide connections across north east Leeds – with two routes prioritised for further assessment in detail

Route alignments for the prioritised desire lines.

Two potential options were assessed for each route and will inform more detailed feasibility work to be carried out at a later stage

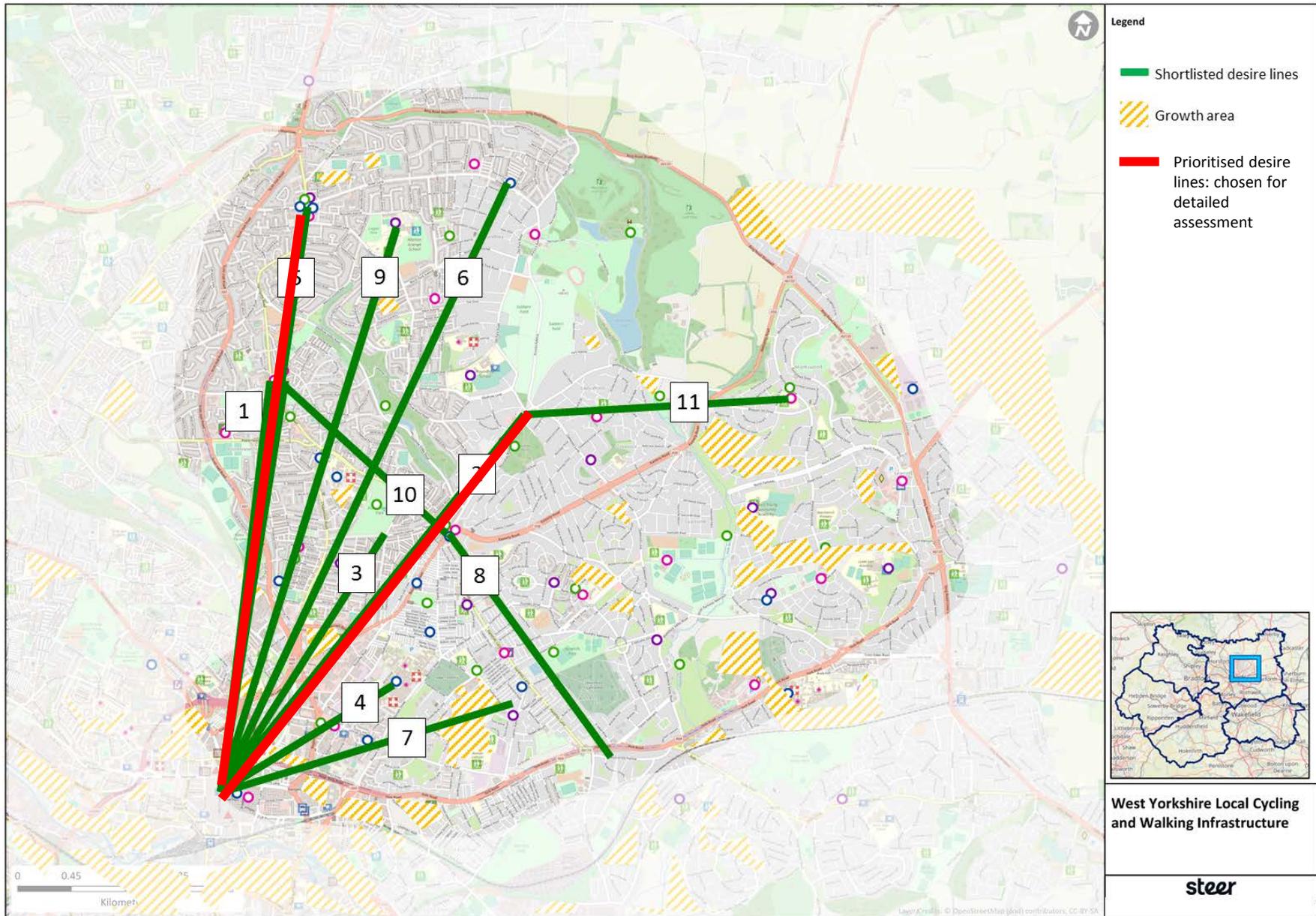
Programmes of improvements for cycling on the detailed route alignments

These improvements have been identified through high level assessment and further feasibility work is required to be carried out. The types of cycling provision proposed are based on route types identified in government guidance, and approximate costs based on typical costs for this type of provision provided in government guidance.

The proposed cycling infrastructure may also be accompanied by a range of complementary measures to be defined in further stages of LCWIP development.

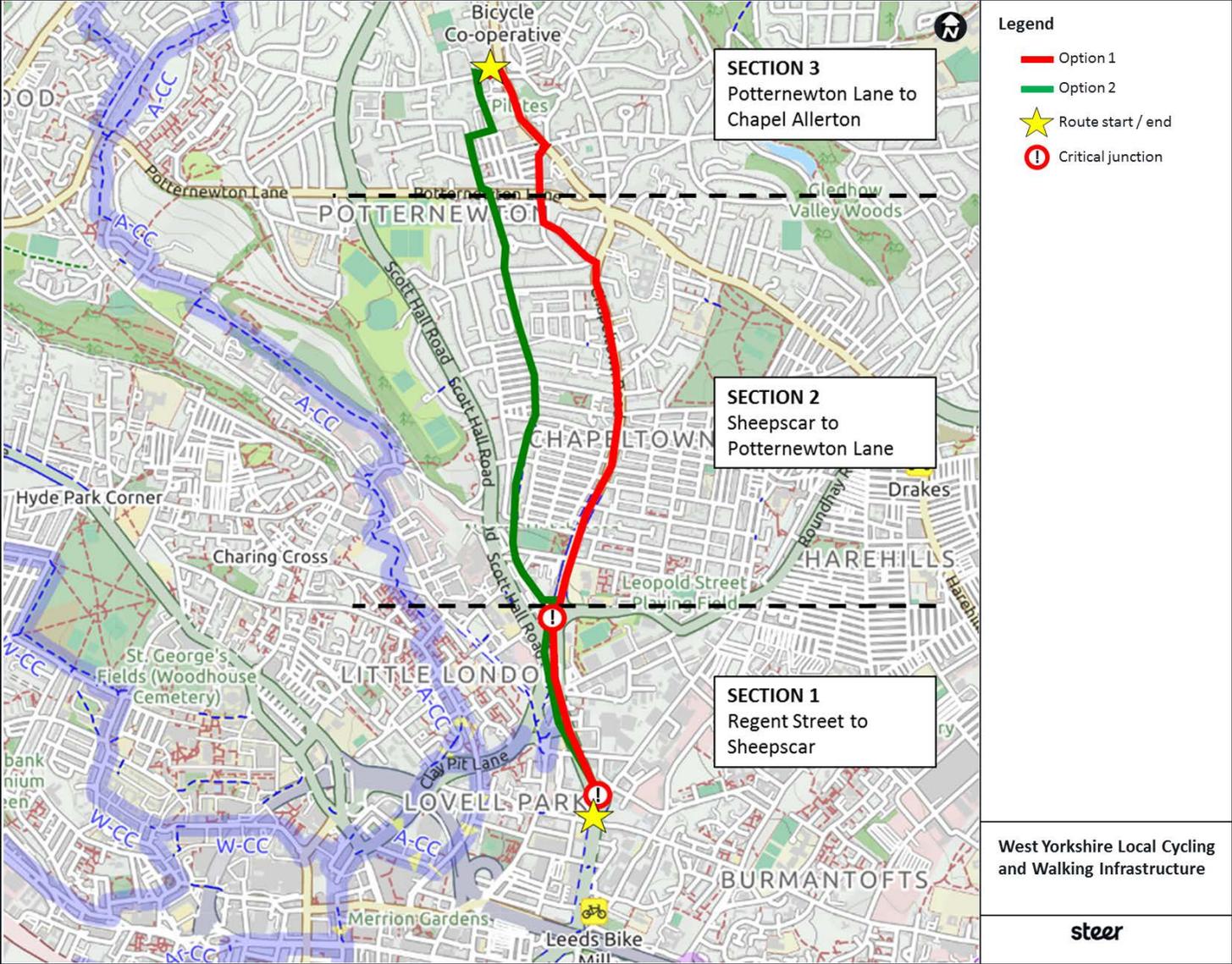
Complementary measures may include: new waiting/loading restrictions; Improved enforcement of existing waiting/loading restrictions; Behaviour change programmes to raise awareness of infrastructure improvements and encourage walking and cycling; Restrictions to general traffic; Improved landscaping and lighting; New and improved cycle parking

Proposed Cycling Network Map



Proposed Cycling Network: Detailed Route Alignment

Route 1: Regent Street to Chapel Allerton



Proposed Cycling Network: Programme of improvements

Route 1: Regent Street to Chapel Allerton

Option 1

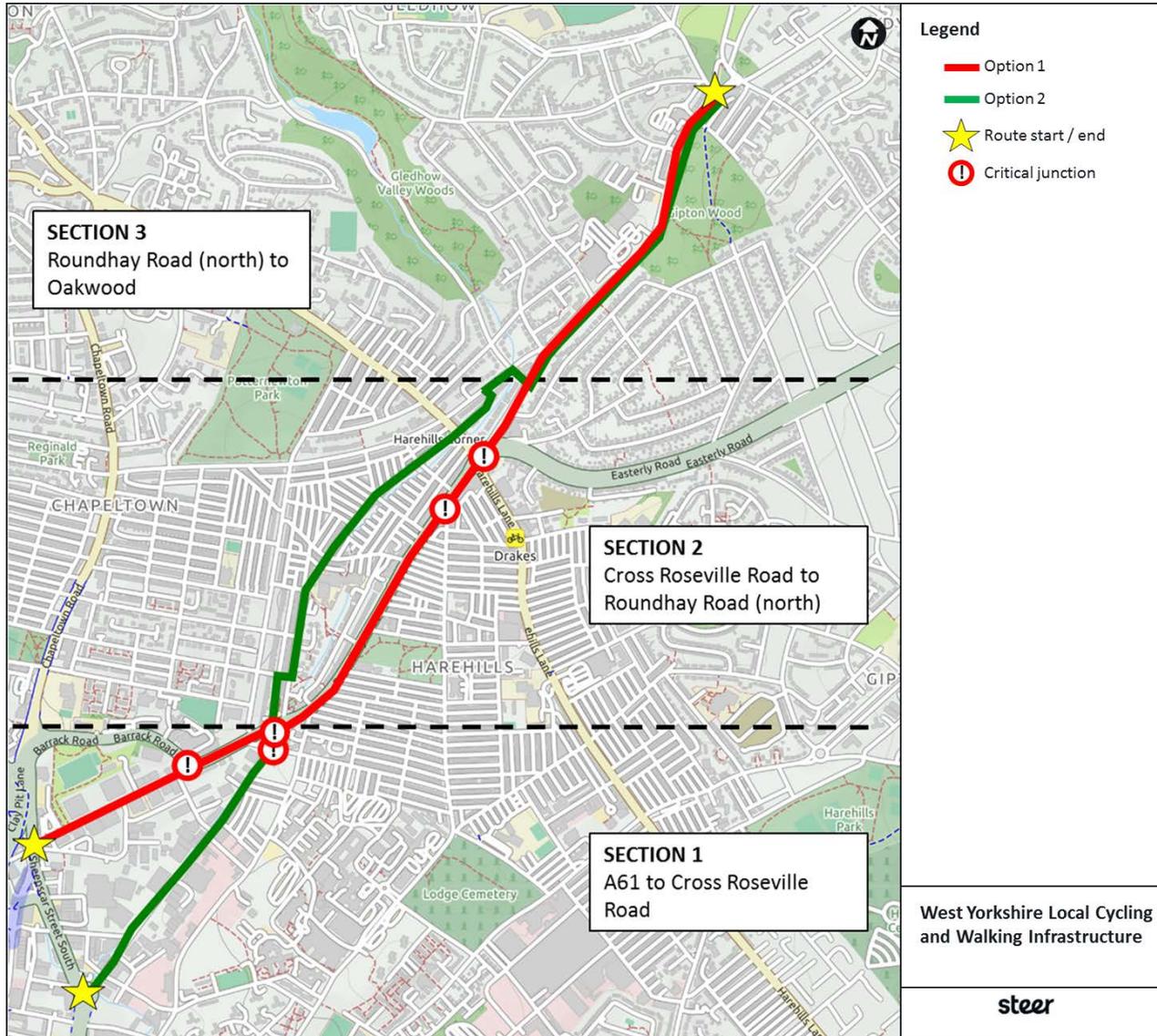
Route section	Proposed provision	Indicative Cost
1 Regent Street to Sheepscar	Segregated cycle route, on highway 445m from Nortech Close to Barrack Road	£0.6m
2 Sheepscar to Potternewtown Lane	Segregated cycle route, on highway 1.31km from Barrack Road St Martins Road	£1.7m
	Mixed cycle route – 369m from St Martins Rd to Potternewtown Lane	£0.3m
3 Potternewtown Lane to Chapel Allerton	Mixed cycle route – 191m from Potternewtown Lane to Harrogate Road	£0.1m
	Segregated cycle route, on highway – 385m from Harrogate Rd to Chapel Allerton	£0.5m

Option 2

Route section	Proposed provision	Indicative Cost
1 Regent Street to Sheepscar	Segregated cycle route, on highway – 445m from Nortech Close to the path leading to Sheepscar Way	£0.6m
2 Sheepscar to Potternewtown Lane	1.67km cycle route of mixed provision from the path leading to Sheepscar Way to Potternewtown Lane, including: <ul style="list-style-type: none"> • Mixed cycle route – 1.24km • Resurfaced cycle route – 0.51km 	£0.7m
3 Potternewtown Lane to Chapel Allerton	Mixed cycle route – 580m from Potternewtown Lane to Chapel Allerton	£0.3m

Cycling Network: Detailed Route Alignment

Route 2: A61 to Oakwood



Proposed Cycling Network: Programme of improvements

Route 2: A61 to Oakwood

Option 1

Route section	Proposed provision	Indicative Cost
1 A61 to Cross Roseville Road	Mixed cycle route 485m from A61 to A58	£0.3m
	Segregated cycle route, on highway – 258m from A61 to Cross Roseville Road	£0.3m
2 Cross Roseville Road to Roundhay Road (north)	Segregated cycle route, on highway – 1.2km from Cross Roseville Road to Roundhay Road/Gledhow Valley Road	£1.6m
	Remodelling of one major junction – Easterly Rd/Roundhay Rd	£1.6m
3 Roundhay Road (north) to Oakwood	Segregated cycle route, on highway – 1.04km from Roundhay Road/Gledhow Valley Road to Oakwood	£1.4m

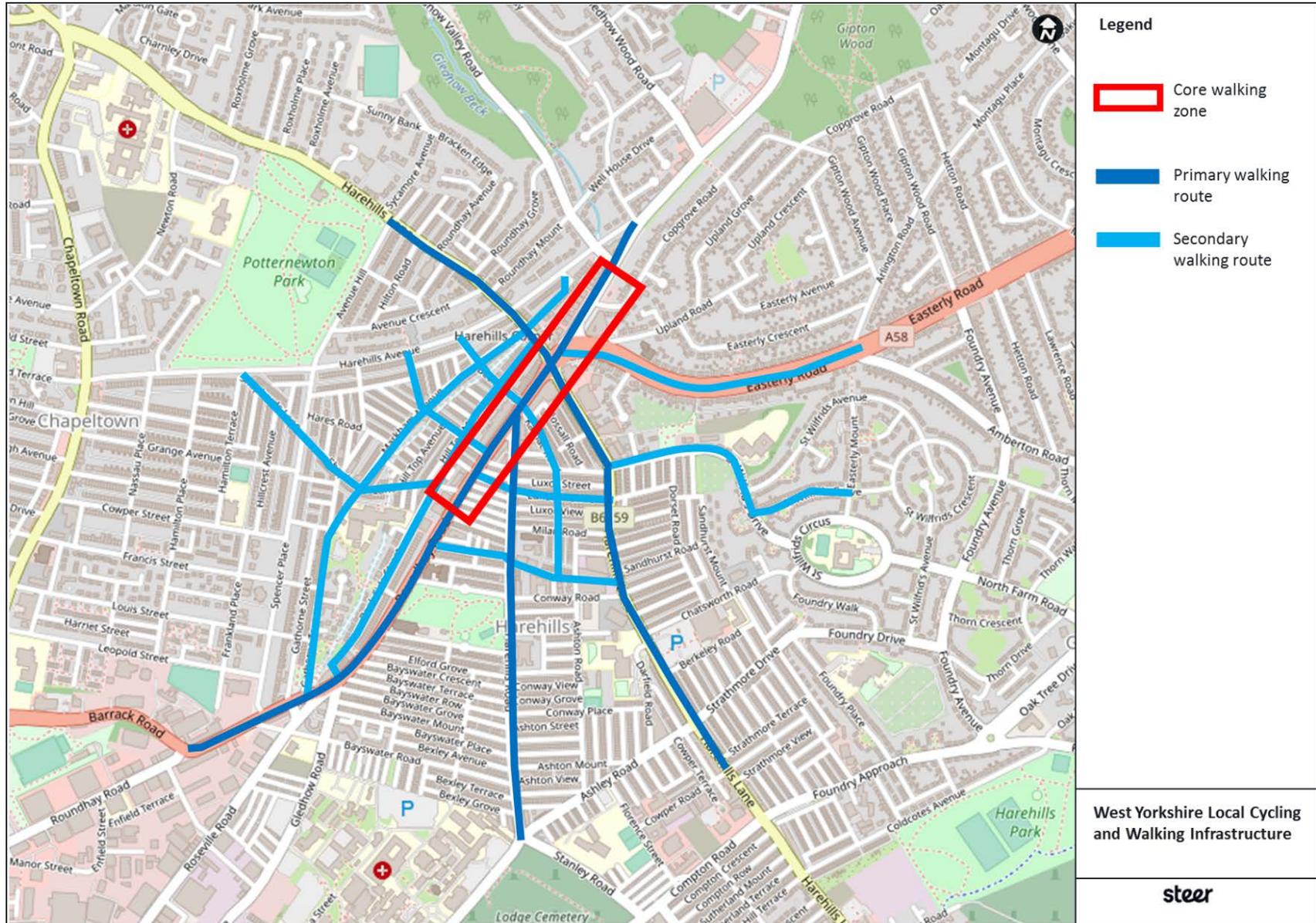
Option 2

Route section	Proposed provision	Indicative Cost
1 A61 to Cross Roseville Road	Mixed cycle route 915m from A61 to Cross Roseville Road	£0.6m
2 Cross Roseville Road to Roundhay Road (north)	Mixed cycle route 1.35km from Cross Roseville Road to Roundhay Road/Gledhow Valley Road	£1m
3 Roundhay Road (north) to Oakwood	Segregated cycle route, on highway 1.04km from Roundhay Road/Gledhow Valley Road to Oakwood	£1.4m

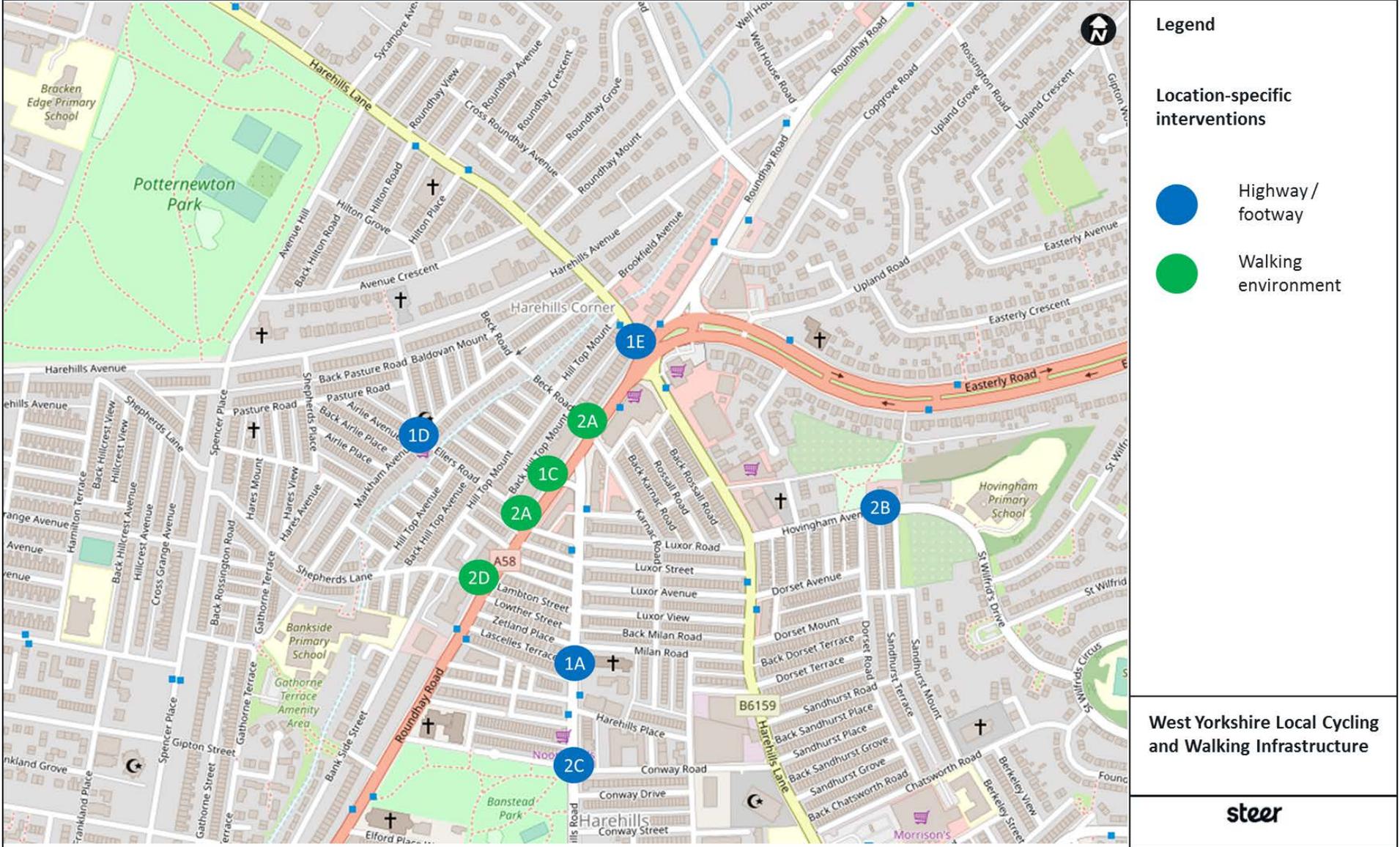
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Proposed Walking Network: Harehills

Proposed Walking Network Map



Proposed Walking Network: Programme of improvements



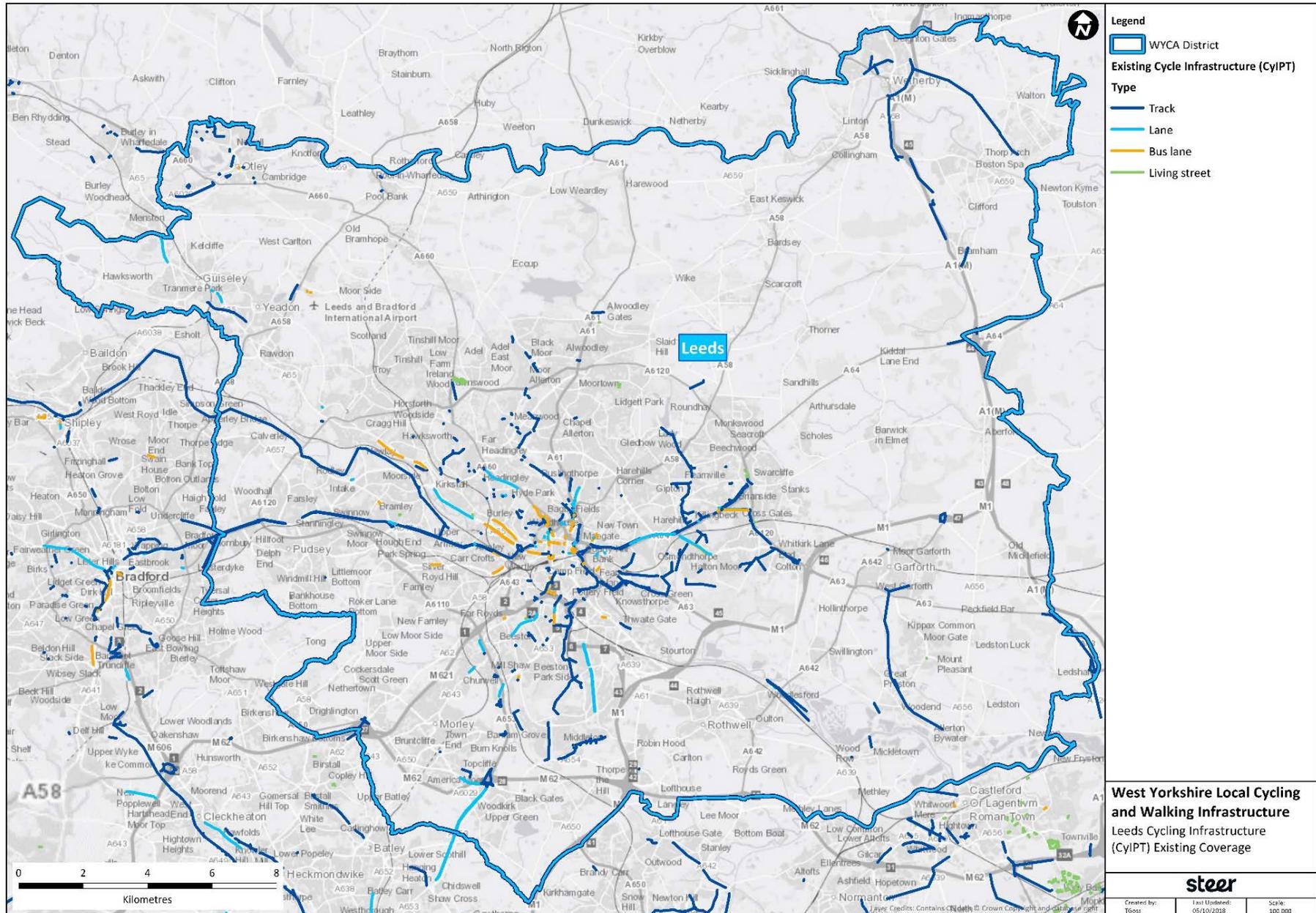
Proposed Walking Network: Programme of improvements

	Intervention	Intervention	Indicative Costs	Time scale
1A	Upgrades to Harehills Lane filtering scheme	Continuous footway and bollards at side roads	£10k-20k per crossing	M
1B	Footway treatment at side roads along Roundhay Road, Harehills Road and Harehills Lane	Raised table crossings at side roads	£8k-£15k per crossing	M
		Cycle access through modal filters	Further study required	M
1C	Improve pedestrian safety and walking environment along the parade of shops on northwest side of Roundhay Road	Bollards (subject to local study)	£150-£350 per bollard	S
		Re-engineered road corridor to provide a wide, unobstructed footway	Further study required	L
1D	Improve the public realm at junction of Ellers Road and Markham Avenue	New public realm area	Further study required	M
1E	Improve pedestrian crossings at the Harehills Lane / Roundhay Road intersection	Single-stage crossings across each arm of the junction	£50k - £62k per crossing	M
2A	Prevent vehicles driving on the footway to access/exit Roundhay Road	Bollards at key side road locations	£150-350 per bollard	S
		Parklet	£500-£2k	S
2B	Improve crossing points outside of schools	Zebra crossing with a raised table outside the ARK Centre	£20k-£33k	S
		Audit of crossing points at other schools	Further study required	M
2C	Upgrade the Conway Road / Barnstead Terrace crossing	Zebra crossing	£20k-£33k	S
2D	Upgraded crossing at junction of Shepherds Lane and Roundhay Road	Upgraded pelican crossing providing single-stage crossings across each arm of the junction	b. £50k - £62k per crossing	M
3A	Traffic management across the Core Walking Zone	Modal filters, continuous footways at side roads, upgraded crossings, removal of vehicle lanes and traffic calming across a similar area	Further study required	L

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Supporting information

Existing Cycle Network



Cycling – principles of design

Core Design Outcomes are well established principles for cycling infrastructure set out in Government’s LCWIP guidance, which have informed the proposed infrastructure improvements and associated cost estimates, to ensure that proposals meet the appropriate quality of infrastructure provision needed to increase cycling. These Core Design Principles have been used to shape the development the proposals in this summary document.

A set of principles for walking and cycling design is being developed locally by West Yorkshire partners which will inform the basis of further development of the schemes identified through this LCWIP.

Coherent	The network must be coherent: it must link all the places cyclists want to start and finish their journeys with a route quality that is consistent and easy to navigate. Abrupt changes in the level of provision for cyclists will mean that an otherwise serviceable route becomes disjointed and unusable by the majority of potential users
Direct	<p>Routes for cyclists must provide direct and fast routes from origin to destination. In order to make cycling preferable to driving, routes for cyclists must be at least as direct – and preferably more direct – than that available for private motor vehicles.</p> <p>And indirect route for cyclists may result in some of them choosing the more direct, faster route, even if it is unsuitable for cycling.</p>
Safe	Cycle networks must not only improve cyclists’ safety, but also their feeling of how safe the environment is. Consideration must be given to reducing the speeds of motor vehicles to acceptable levels, particularly when cyclists are expected to share the carriageway. The needs for cyclists to come into close proximity and conflict with motor traffic must be removed, particularly at junctions, where the majority of crashes occur.
Comfortable	Smooth surfaces, with minimal stopping and starting, without the need to ascend or descend steep gradients and which present few conflicts with others users creates comfortable conditions that are more conducive to cycling. The presence of high speed, high volume motor traffic affects both the safety and the comfort of the user.
Attractive	Cyclists are more aware of the environment they are moving through than people in cars or other motor vehicles. Cycling is a pleasurable activity, in part because it involves such close contact with the surroundings. The attractiveness of the route itself will therefore affect whether users choose to cycle.

Cycling provision - Definitions

The definitions provided below for different types of cycle route provision identified in the Programme of Improvements are taken from Government's LCWIP guidance and research commissioned by the Department for Transport.

Segregated cycle route, on highway

Referred to as Cycle-Superhighway in guidance. An extended cycle route that enables direct, rapid, safe cycle trips largely segregated from traffic along an arterial route e.g. a 10km route following an A-road from outer suburbs to a city centre.

Typical features:

- Physically protected segregation from traffic and pedestrians for much of the route, using kerbs, paving level differences or other physical means.
- Sufficient width to accommodate large flows of cyclists.
- Cyclist priority at side roads with speed tables to slow cars. • Clearway orders to prevent parking in the cycle lane.
- Cyclist 'bypasses' to the rear of bus stops forming passenger waiting 'islands'.
- Dedicated cycle crossing facilities across major roads, signalised where necessary.
- A feeling of safety so that unconfident cyclists feel comfortable using the route

Mixed cycle route

Referred to as "Mixed Strategic cycle route" in guidance. An extended cycle route to facilitate cycling along a strategic corridor, comprising a mixture of: signed route without dedicated lanes along quieter roads; on-road lanes without physical segregation; physically segregated cycle lanes along busier roads; marked cycle routes away from roads where such alignments are available.

Typical features:

- Continuous clear signage from one end to the other.
- Routing and provision of segregation and crossings so the whole route can be cycled without encountering major obstacles or having to battle with fast traffic on a busy road.
- Deviations from the fastest most direct route to follow parallel quieter roads or paths through parks and green corridors.
- Speed restrictions such as 20mph zones and traffic calming.

Toucan Crossing

A Toucan crossing is a shared signal-controlled crossing for pedestrians and cyclists, linking cycle track and pedestrian routes on opposite sides of a carriageway

Sources: LCWIP Technical Guidance, Department for Transport, 2017
Typical Costs of Cycling Interventions, Transport for Quality of Life (for DfT), 2016
Local Transport Note 2/95 "The Design of Pedestrian Crossings", Department for Transport 1995

Walking principles of design

The **Core Design Outcomes** are well established principles for cycling infrastructure set out in Government's LCWIP guidance, which have informed the proposed infrastructure improvements and associated cost estimates, to ensure that proposals meet the appropriate quality of infrastructure provision needed to increase cycling.

Comfort	Footways level and in good condition, with no trip hazards.
	Footway widths generally in excess of 2m effective width
	Width on staggered crossings/pedestrian islands/refuges able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.
	No instances of vehicles parking on footways.
	Clearance widths generally in excess of 2m between permanent obstructions.
Directness	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).
	Crossings follow desire lines.
	Crossing of road easy, direct, and comfortable and without delay (< 5s average).
	Crossings are single phase pelican/puffin or zebra crossings.
	Diagonal crossing (pedestrian and all-green phase) available at intersections
	Green man time is of sufficient length to cross comfortably (presume 0.8m/s)
Coherence	Walking network developed to link key trip generators, public transport and residential areas
	Adequate dropped kerb and appropriate tactile paving provision.
	Comprehensive wayfinding with walking times installed throughout core walking zone and along key routes
	Footway and crossing materials consistent throughout core walking zone and along key walking routes
Safety	Appropriate formal crossing points installed at all major road crossings
	Continuous network of footway available throughout core walking zone and along key walking routes
	Appropriate street lighting installed along all key routes
	Footway network maintained to avoid trip hazards
	Traffic calming measures in place in areas of higher pedestrian vulnerability e.g. schools, residential care homes, hospitals etc
Attractiveness	Footway and street furniture maintained to a good standard (clean, safe and accessible)
	Regular litter and waste collection to ensure clean street
	Planting and greenery installed where possible, also to provide shade