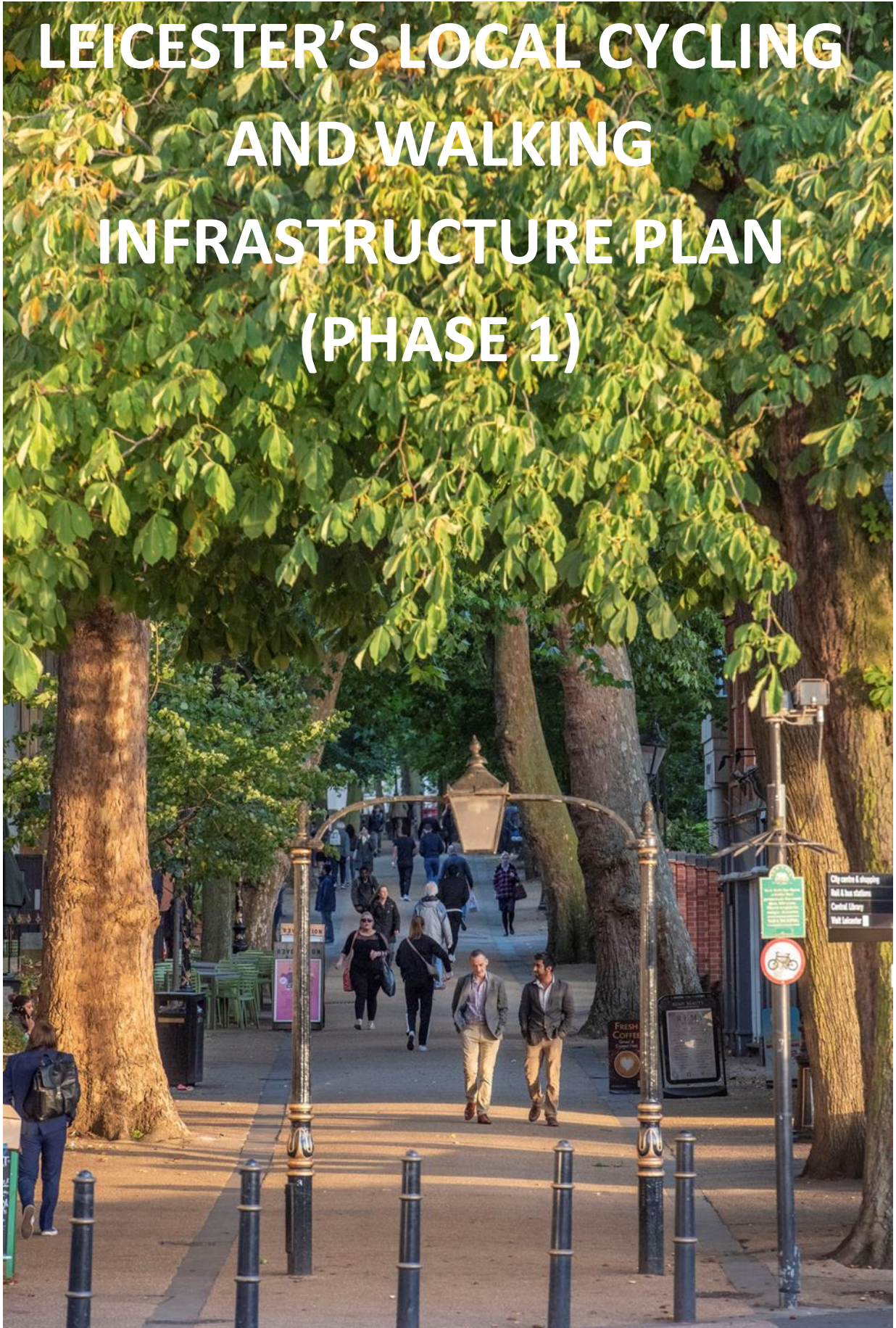


# LEICESTER'S LOCAL CYCLING AND WALKING INFRASTRUCTURE PLAN (PHASE 1)



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# Leicester's Local Cycling and Walking Infrastructure Plan (Phase 1)

## Background to Leicester

Leicester has been investing in safe and attractive places to walk and cycle and programmes to encourage walking and cycling to work and school since 2011 and by continuing to place walking and cycling at the heart of all built environment and welfare decisions, we aim to create a healthier city that has less congestion, pollution and social isolation.

In the 2011 census the population of the City of Leicester unitary authority was 329,839 making it the most populous municipality in the East Midlands region. Leicester is the second fastest growing city in the country. In terms of ethnic composition, according to the 2011 census, 50.6% of the population was White, 37.1% Asian. Leicester is recognised by the UK Growth Dashboard as having the fastest business growth rate outside of London. Main growth sectors are manufacturing, health and social care and tourism.

Where there has been investment, the levels of walking and cycling have gone up by 20% and 100% respectively since 2011. However, where there has been little investment in the outer areas of Leicester both walking and cycling continue to decline.

Walking and Cycling delivery, in Leicester, is shaped by the Cycle City Action Plan 2105 – 2024 and the Walk Leicester Action Plan 2019 – 2024.

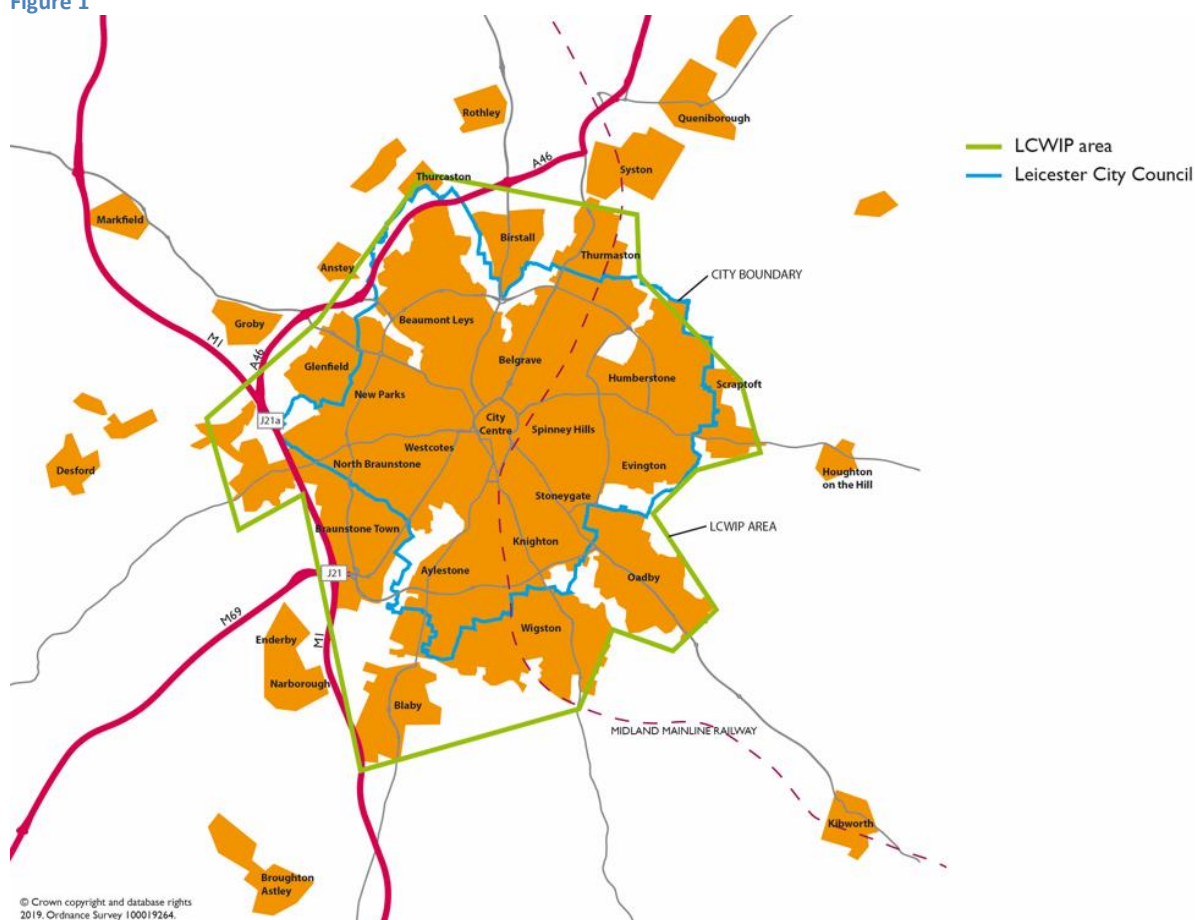


## Stage 1 – Determining Scope

### Establishing the geographical extent of Leicester's LCWIP

In line with Leicester's Cycle City Action Plan (2016), it was decided that the LCWIP would cover the entire administrative city area as opposed to focusing in on sub-areas of the city (Figure 1). Leicester City Council has worked closely with Leicestershire County Council on ensuring that the walking and cycling network requirements at the city and county boundary are determined and considered as part of the LCWIP process.

Figure 1



The average commute in Leicester is 6km with 83% of its residents working in city region itself. This initially demonstrated the high potential for journeys to be made by bike or foot within the administrative area of the city. Additional TRACC travel time analysis (Figure 2) further reinforced that cycling from the city centre to the inner and outer city conurbations is a feasible method of travel.

## Stage 1 – Governance and Delivery

### Delivery

The average commute in Leicester is 6km as 83% of its residents work in Leicester, allowing journeys to be feasibly made by bike or on foot. Whilst a large proportion (75%) of those employed in Leicester live in Leicester, the remaining workforce largely comes from the surrounding area and therefore many of the activities to promote walking and cycling are either jointly delivered by Leicester City Council and Leicestershire County Council or are offered to people living within the surrounding area.

The City Council's Walking and Cycling Team jointly manage the Access Funded Choose How You Move Programme with Leicestershire County Council, whilst co-coordinating work in the city delivered by British Cycling, Sustrans, Living Streets and The Ramblers. Therefore, the LCWIP was led by the Team Leader of the Walking and Cycling Team with a team consisting of monitoring officers, rights of way officers, planners, maintenance officers and public health officers. Both the Director of Transport and the Director of Highways, have been heavily involved in the process and it has been fully supported by the City Mayor and Deputy city Mayor.

### LCWIP Governance Structure

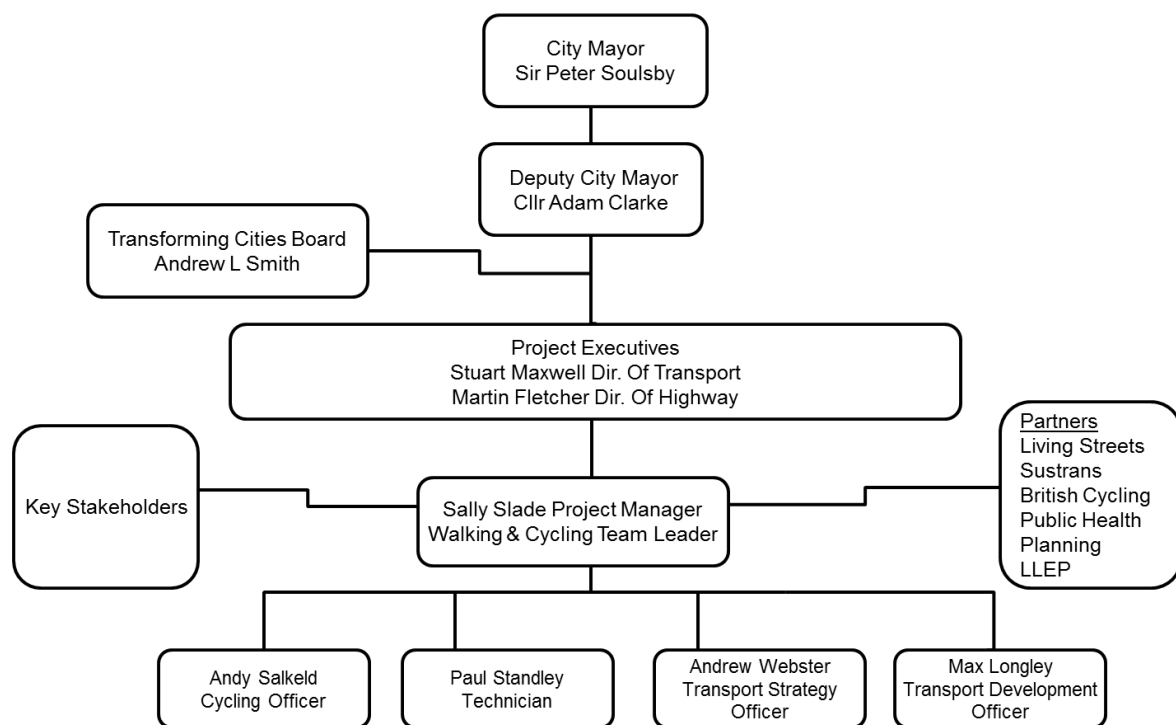


Figure 2

## Stage 1 – Stakeholder engagement

A stakeholder engagement workshop was carried out in June 2018. In that workshop three categories of stakeholders were identified

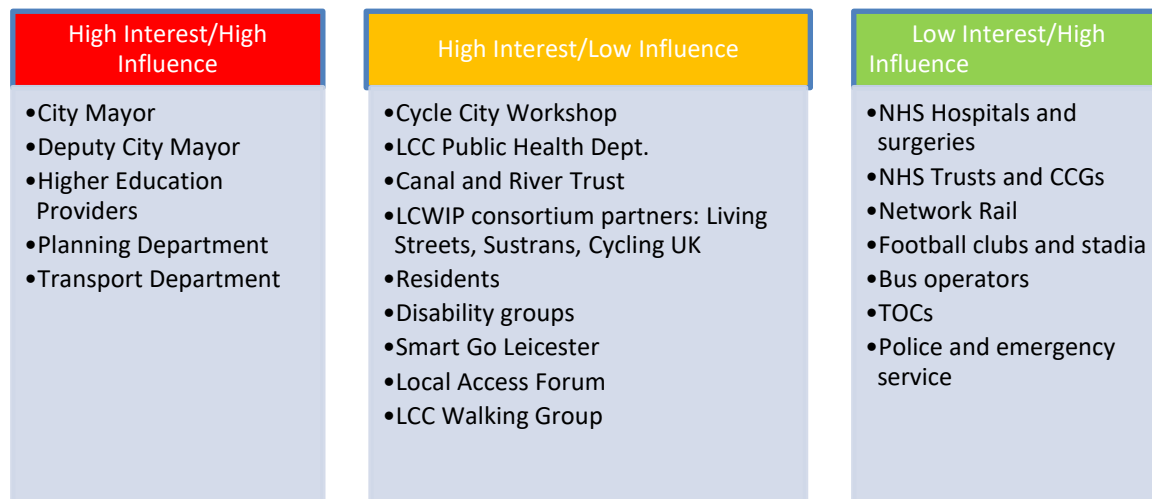


Figure 3

Those groups marked as **High Interest/High Influence** have been closely involved in the development of the LCWIP (apart from the Higher Education Providers who will be given the opportunity to engage through the online consultation)

Of the groups marked as **High Interest/Low Influence** most have been closely involved in the development of the LCWIP . those that have not, have been consulted through presentations at workshops.

Those groups marked as **Low Interest/High Influence** will be given the opportunity to engage through the online consultation.

The timetable of consultation is shown below:

Stakeholder	Dates	Headline comments
City Mayor	Jan 2019	Very interested. Wants to share with other Departments within the Authority
Deputy City Mayor	May 2017 Dec 2018 Nov 2019	
Planning Department	ongoing	Have included it in Local Plan. Have started to refer to it.

Stakeholder	Dates	Headline comments
Cycle City Workshop	Feb 2017 March 2018 Oct 2018 Aug 2019	Lack of infrastructure in the east of the city is an issue Barriers on the routes in the outskirts of the city an issue
LCC Public Health Dept.	Ongoing Feb 2019	Particularly interested in the schools heat maps. Was referred to in deciding where to deliver a Beat the Streets programme
Canal and River Trust	June 2018	Were keen to see how the towpath network would fit with the final plans. Led to some partnership working with our led walks and community rides
LCWIP consortium partners: Living Streets, Sustrans, Cycling UK	ongoing	
Local Access Forum		Unable to meet
LCC Walking Group	Feb 2017 March 2018 Oct 2018 Aug 2019	The design of new infrastructure is critical The walking networks are reliant on maintenance such as cutting back foliage and litter picking in order for them to be of enough quality. Revenue cutbacks in maintenance are affecting the provision of good quality walking routes.

## Stage 2 – Gathering information

### Stage 2: Gathering Information

A broad range of data was gathered to inform the preparation of the LCWIP and ensure that the evidence-led conclusions could be reached on the requirements of the city's walking and cycling network.

Primary data gathered covers four themes. Wherever possible, local data has been utilised.

#### Transport Network

- Existing and recorded local walking and cycling networks
- Associated transport network data e.g. street lighting, crossing facilities, bus stops etc.
- National Cycle Network (NCN)
- Strategic Housing Land Availability Assessment (SHLAA) 2016
- WYG Joint Retail Assessment 2015
- STATS19 accident and collision data

#### Travel Patterns

- UK Census journey to work data 2011
- Leicester Schools Census journey to school data (ONE system) 2018
- Local traffic counts
- Automatic pedestrian and cycle counts
- TRACC Travel Time Analysis
- Leicester Health and Wellbeing Survey 2018
- Propensity to Cycle Tool
- Walkability Tool

#### Location of significant trip generators

- University Leicester Hospitals Travel Plan 2013
- DeMontfort University Travel Plan 2017
- University of Leicester Travel Plan 2015
- Leicester City Football Club Travel Plan 2014
- Highcross Shopping Centre Travel Plan 2017

#### Perception of existing facilities

- Health and Wellbeing Survey 2018
- Access fund workplace, community and school engagement surveying
- Personal travel planning results 2016-2019



## Stage 3 – Network Planning for Cycling

### Heat network analysis

Origin – destination heat network analysis has been carried out on all trips less than five kilometres to key and potential future employment sites as well as to primary and secondary education. Five kilometres was identified as the threshold as this represented a fair ‘cyclable’ distance. Strategic Housing Land Availability Assessments (SHLAA) were also included to account for the potential effect of new developments. Figure 4 demonstrates the commuter analysis using journey to work data from the UK Census 2011. Figure 5 demonstrates the education travel analysis using journey to school data from the Leicester Schools Census 2018 (ONE system). The heat network analysis allowed us to initially identify the North West and South West regions as key trip commuter and education trip generators.

Figure 4

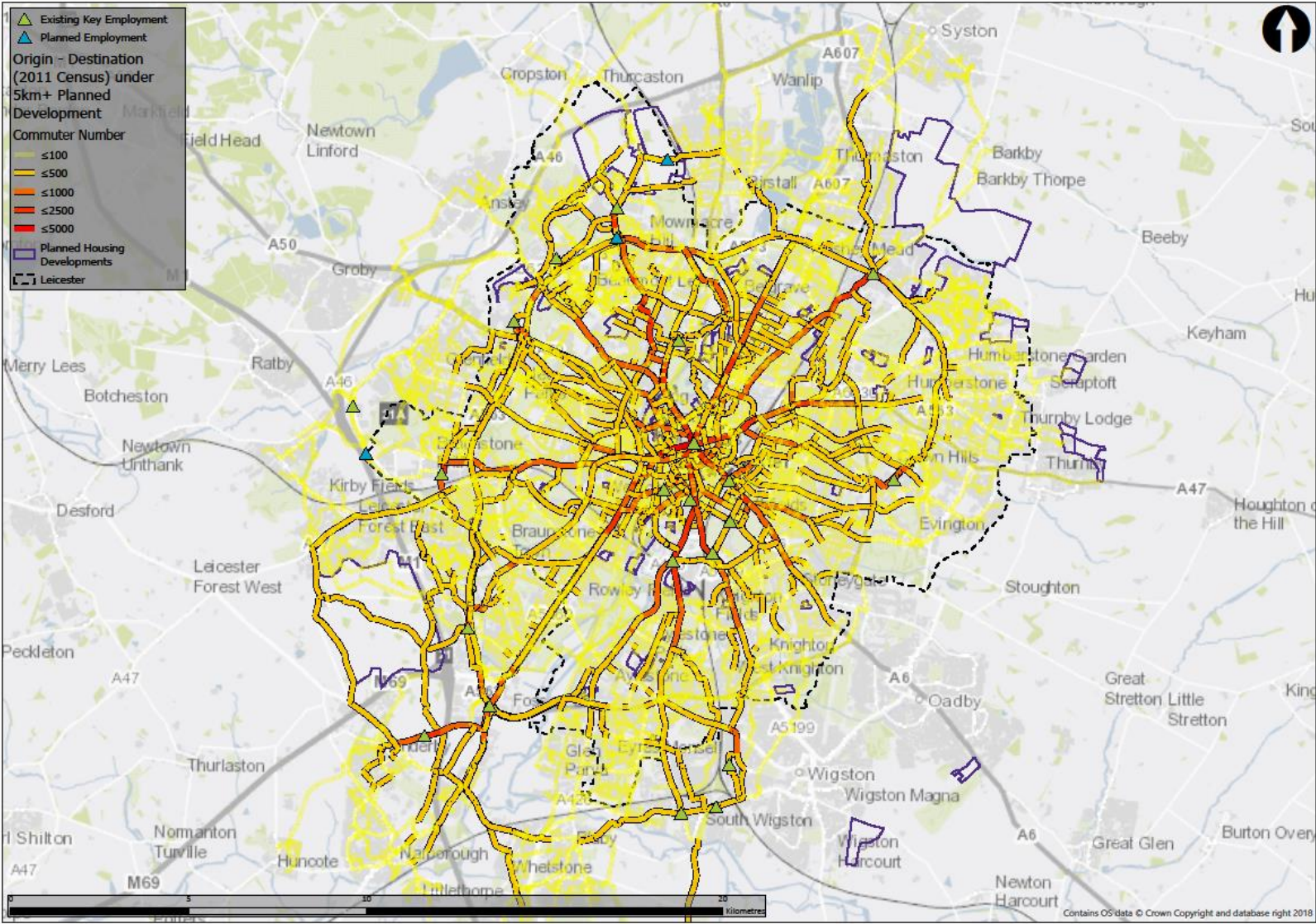
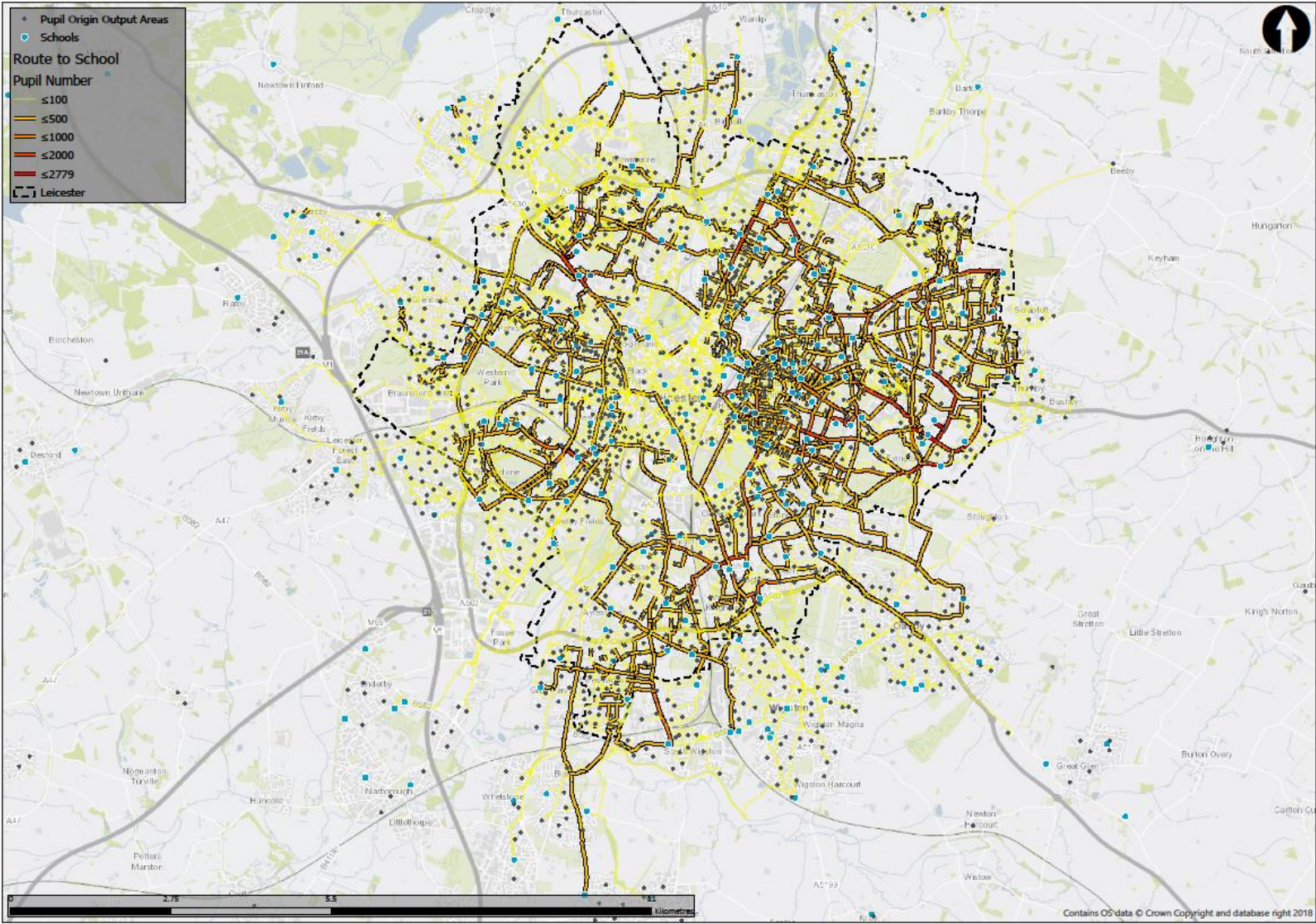




Figure 5



## Cycle Route Selection Process

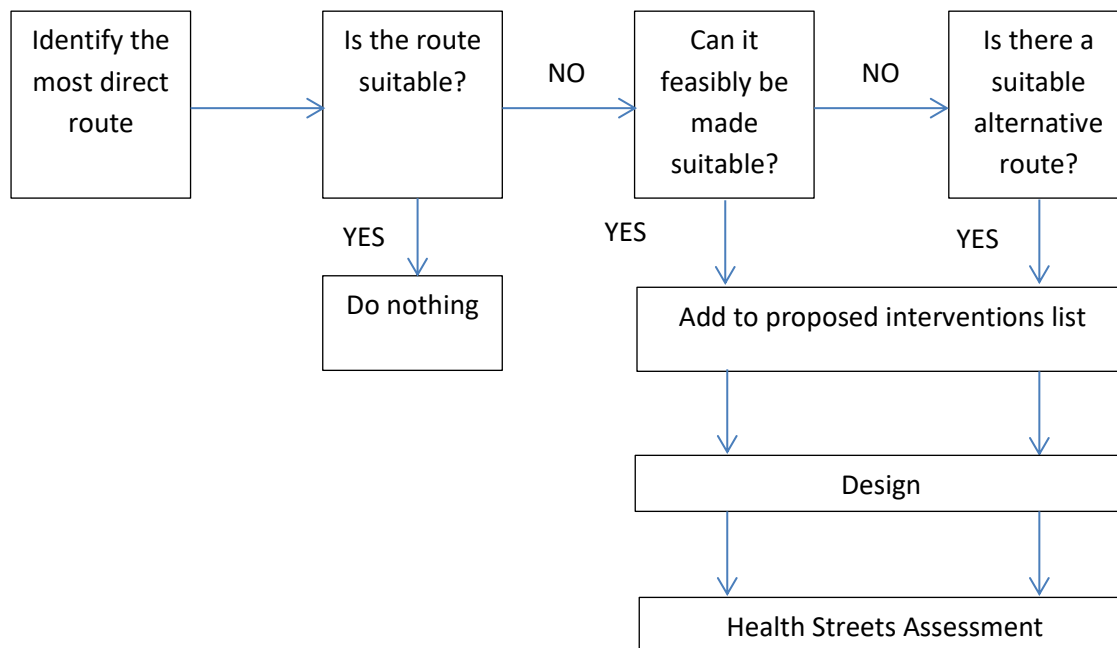


Figure 6

The major routes in the North West and South West were selected for the route selection process. Each of the routes have been put through the DfT's Route Selection Tool to assess the suitability of a route in its existing condition against core design outcomes and then compare it with the potential future state if improvements are made. This also enabled the merits of alternative routes to be considered. The criteria for route selection are:

- Directness
- Gradient
- Safety
- Connectivity
- Comfort
- Critical Points

In conjunction with the RST, future area porosity analysis will be undertaken to assess the level of improvements required at access points to the selected schemes.

Examples: Saffron Lane (figure 7) and Aylestone Road (figure 8) Route Selection Tool assessments. These RSTs demonstrate the existing condition and future potential condition if the required improvements are implemented. Please see Appendix A for the remaining RST assessments carried out.



Figure 7

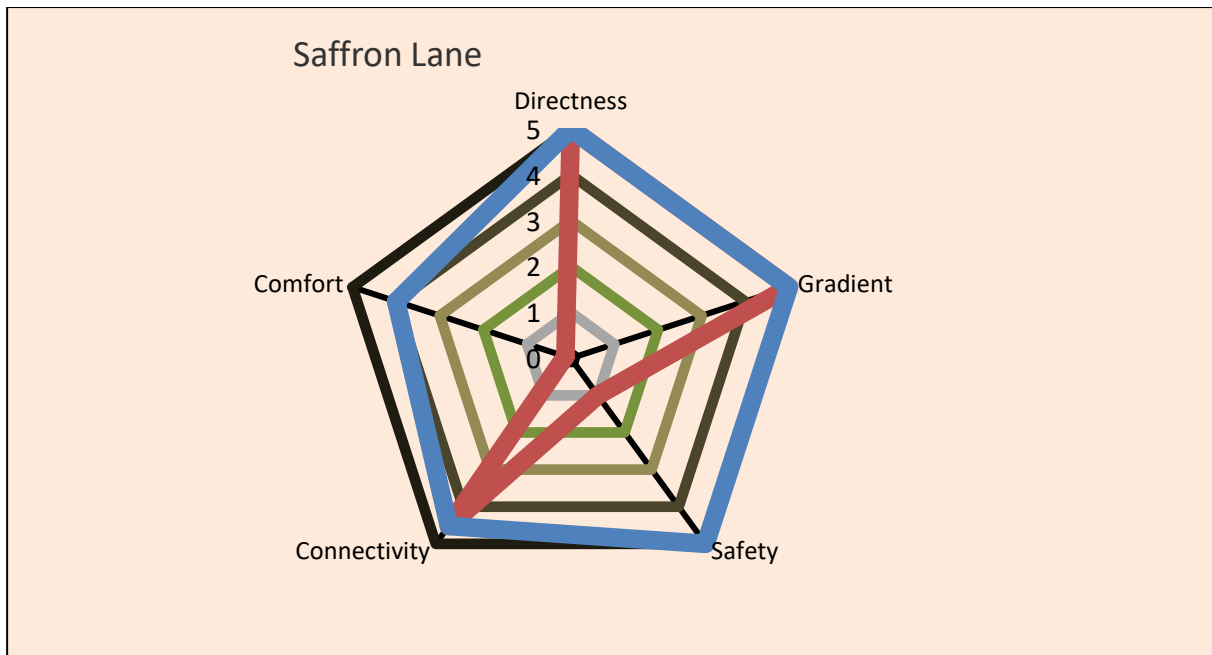
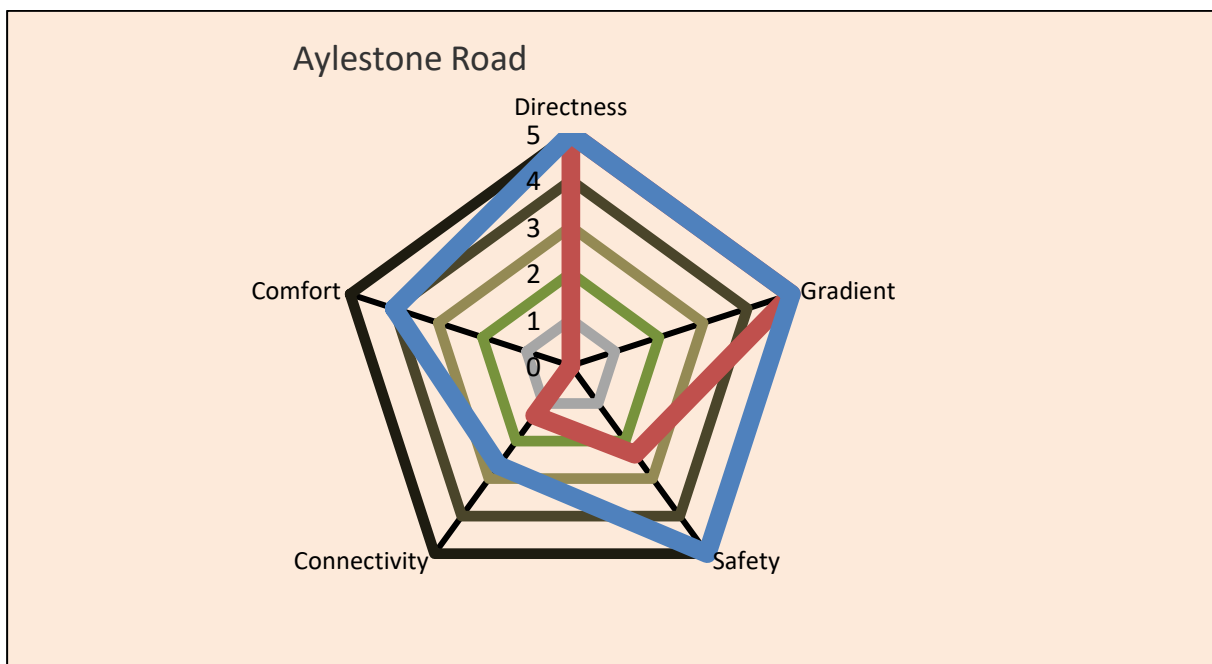


Figure 8



## Stage 4: Network Planning for Walking

### Walking zone analysis

A zone approach has been taken to identify core walking routes. Aggregated 800m analysis has been conducted at Leicester's district, local and neighbourhood centres to assess walking potential or 'walkability.' Zones were scored on amenity provision, public transport accessibility and frequency, proximity to primary and secondary education, working population and resident population.

For amenity provision, individual amenities at a centre are categorised and scored based on their category:

- Critical services: e.g. medical centres, community centres, libraries.
- Merit services: e.g. supermarket, convenience store, agencies, clinics. Score
- Neutral services: e.g. majority retail.
- Demerit services: e.g. betting shop, petrol station.
- Vacant/demolished sites.

Basic economic theory has been applied to determine scoring criteria:

- Critical/merit service characteristics
  1. Individuals do not realise the true personal benefit of these services
  2. Generate positive externalities
  3. Generally these services will be underused
- Demerit service characteristics
  1. Individuals do not realise the true harm of these services. Ignore the costs of using these services
  2. Generate negative externalities.

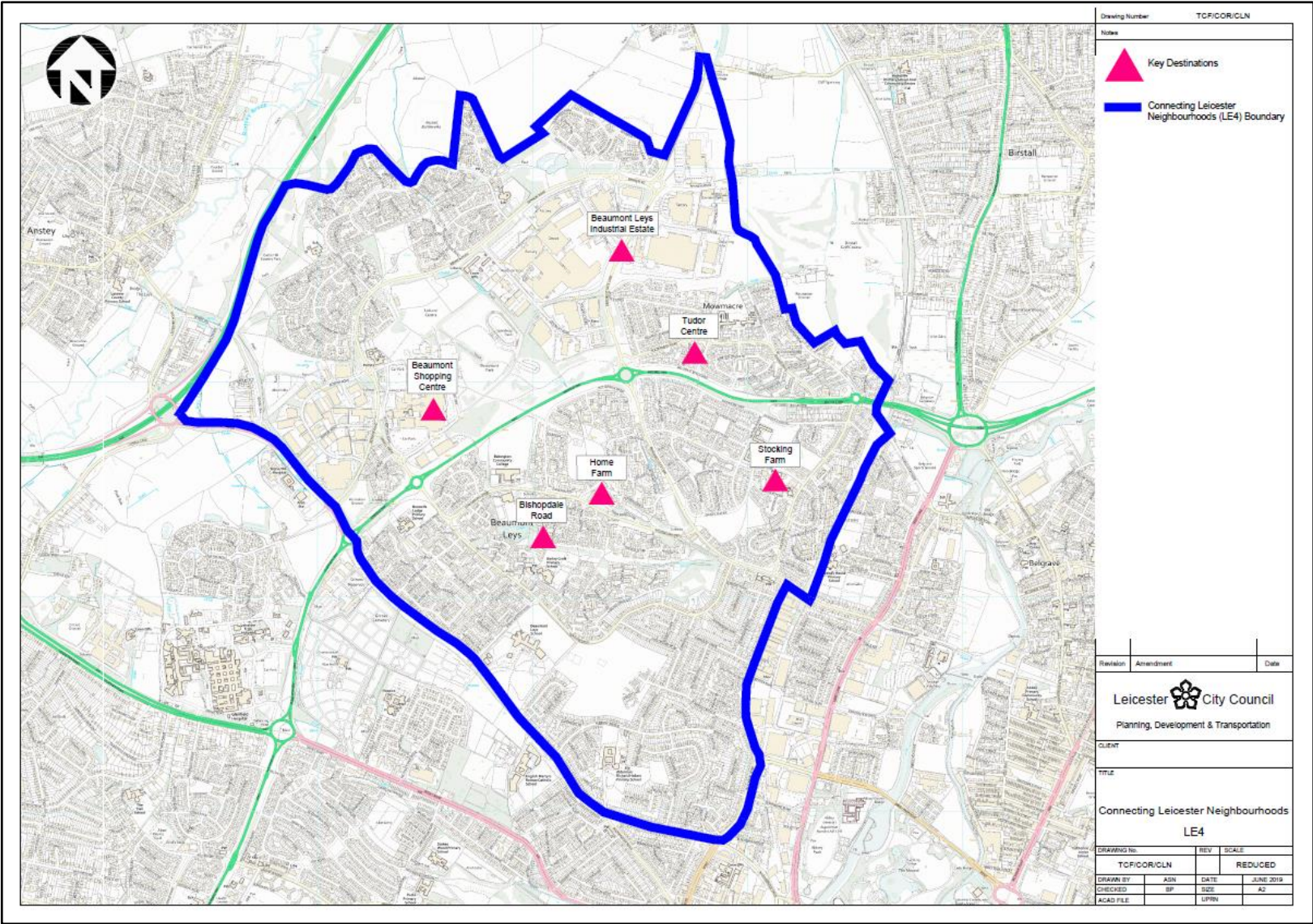
Each zone was ranked based on their final scores; a green rating indicated high walkability, orange rating; medium walkability and red rating; low walkability (Figure 9).

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Figure 10





Two North West zones were selected for the walking route selection process. The decision for this was based on their walkability scoring, alignment with identified cycling improvements in the North West and the wider economic regeneration of district, local and neighbourhood centres in the North West.

Figure 10 represents the final 'Connecting Neighbourhoods' core walking zone boundary which was selected for inclusion in our Transforming Cities Fund bid.

## Walking routes and zones auditing process

Identified core routes within the 'Connecting Neighbourhoods' zone are put through the Walking Route Audit Tool (WRAT) to assess routes in their existing condition against core design outcomes. The criteria for walking route selection are

- Attractiveness
- Comfort
- Directness
- Safety
- Coherence

Following DfT guidelines, a score below 29 out of a possible 40 indicates a substandard level of walking infrastructure provision. From the audit results, detailed lists of pedestrian improvements are developed. Where several minor improvements have been identified in the same area or route, improvements are amalgamated into a package of works, to ensure that individual measures are implemented together and achieve complementary benefits and synergies.

Connecting Neighbourhoods walking route audit scores and potential actions for improvement:

No.	Name	Score	Potential Actions
1	Beaumont Walk I	27	Litter removal Bollard/gate removal on connecting routes Resurfacing Vegetation cutback Street furniture renewal Amendment to the status to permit cycling
2	Beaumont Walk II	27	Litter removal Resurfacing Vegetation cutback Subway improvement (drainage/attractiveness) Bollard/gate removal under subway Krefield Way crossing on

			demand (forced change) Amendment to the status to permit cycling
3	Glovers Walk I	24	Litter removal (prevalent fly tipping at Tilling Road end) Footway widening at Tilling Road end Krefield Way crossing on demand (forced change) Amendment to the status to permit cycling
4	Glovers Walk II	34	Amendment to the status to permit cycling
5	Keepers Walk	21	Resurfacing (particularly by subway) Gate removal at Anstey Lane entrance and bollard removal on route Vegetation cutback at Anstey Lane entrance and forested section Litter removal (flytipping prevalent) Footway widening Stepped access removal by Heacham Drive Lighting improvement along forested section Amendment of route to follow desire lines and connect directly with adjoining routes Construction of dropped kerbs where route crosses carriageway
6	Rawlinson Walk	30	Graffiti removal Subway fill in and construction of at grade crossing facility (zebra?)
7	Ingold Ave Link	27	Resurfacing (trees uprooting footway in areas) and levelling of green link Removal of gates Addition to or amendment of route to follow desire lines Amendment to the status to permit cycling Extension of green man time at Beaumont Leys Lane Improvements to dropped kerbs
8	Marwood Road	26	Removal of bollards (excessive use) Improvements to parking

			<p>enforcement</p> <p>Greenification of route</p> <p>Relocation of bus stops closer to Stocking Farm local centre</p> <p>Improvements to dropped kerbs (tactile paving required)</p>
9	Marwood Road + Collett Road	19	<p>Renewal of fencing and railings (possible removal if serving no obvious purpose)</p> <p>Footway widening at Tilling road</p> <p>Improved parking enforcement</p> <p>Crossing relocation or new junction design at Marwood Rd/B Leys Lane/ Collett Rd</p> <p>Improvements to dropped kerbs</p> <p>Resurfacing</p> <p>Improvements to passive surveillance (cutback of vegetation)</p>
10	Appleton Avenue	17	<p>Graffiti removal</p> <p>Litter removal (flytipping)</p> <p>Resurfacing and levelling</p> <p>Amendment to route to follow crossing desire lines (Cashmore View)</p> <p>Cutback on vegetation</p> <p>Improvements to dropped kerbs and tactile paving at all crossing points</p> <p>Controlled crossing at Red Hill Way</p> <p>Footway and crossing widening</p>
11	Tudor Centre Circular	14	<p>Litter removal and improved waste enforcement (commercial waste)</p> <p>Bollard and railing removal/reduction</p> <p>Simplification of centre design</p> <p>Footway widening</p> <p>Resurfacing and levelling (trees uprooting footway in areas)</p> <p>Improved parking enforcement</p> <p>Improvements to dropped kerbs and tactile paving (including relocation to cater for desire lines)</p> <p>Implementation of formal crossing points</p>
12	Bedale Drive	10	<p>Litter removal (flytipping)</p> <p>Vegetation cutback</p> <p>Fencing renewal</p> <p>Resurfacing</p>

			<p>Widening of footway</p> <p>Improved crossing facilities at B Leys Lane – relocation to cater for desire lines, widening, tactile paving etc. (possible controlled crossing due to poor visibility, high traffic volume and speeds)</p> <p>Improved footway parking enforcement (vehicles blocking entire footway)</p> <p>Opening up of route – cater for desire lines</p> <p>Removal of bollards at B Leys Lane end</p> <p>Extension of footway on inbound side of B Leys Lane</p> <p>Improved tactile paving and dropped kerbs on Bedale Drive</p>
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## Stage 5 – Prioritising Improvements

The network planning for cycling and walking in Stages 3 and 4 of Leicester’s LCWIP have covered the entirety of the LCWIP area, and therefore, produced a huge number of potential schemes. To avoid vast levels of resource time, for this first version of Leicester’s LCWIP, the cycle network was sieved in terms of their potential, to produce a list of 21 schemes that were then prioritised using local parameters around effectiveness, policy, deliverability and value for money appraisal. The table below demonstrates the prioritisation scoring criteria.

Criteria	No.	Description	1	2	3	4	5
Effectiveness	1a	Forecast increase in walking and cycling trips	<100 peds/cycles	100-200 peds/cycles	200-300 peds/cycles	300-500 peds/cycles	>500 ped/cycles
	1b	Number of dwellings that directly benefit from the intervention per km (within 200m buffer zone)	<500 residents	500-999 residents	1000-1499 residents	1500-1999 dwellings	>2000 dwellings
Policy	2a	Housing Growth	No link	Minor part of a journey to a major trip generator	Part (40-60%) of a journey to a major trip generator	Covers majority of a journey to a major trip generator	Direct link to a major trip generator
	2b	Attractor/Employment	No link	Minor part of a journey to a major trip attractor	Part (40-60%) of a journey to a major trip attractor	Covers majority of a journey to a major trip attractor	Direct link to a major trip attractor
	2c	School	No link	Minor part of a journey to a educational establishment	Part (40-60%) of a journey to a educational establishment	Covers majority of a journey to a educational establishment	Direct link to a educational establishment
	2d	Air Quality	No link to AQMA	Links to AQMA	40-60% of the route is covered by an AQMA	Used as alternative to a route in an AQMA	Majority of route passes through AQMA
	2e	Deprivation	Quintile 5	Quintile 4	Quintile 3	Quintile 2	Quintile 1
	2f	Transport Connections	No Improvement	Minor part of a journey to a transport interchange	Part (40-60%) of a journey to a transport exchange	Covers majority of a journey to a transport interchange	Direct link to a transport interchange
	2g	Local centre	No link	Minor part of a journey to a local centre	Part (40-60%) of a journey to a local centre	Covers majority of a journey to a local centre	Direct link to a local centre
Economic	3a	Capital Cost	£3-5mn	£2-3mn	£1.5-2mn	£1-1.5mn	<£1mn
	3b	Private funding/S106	Private sources of funding unlikely	Possible future development	Route serves small proposed development site	Route serves large proposed development site	Committed S106 or other sources of private funding
	3c	Value for Money	Very low	Low	Medium	High	Very High
22 Deliverability	4a	Scheme feasibility	Unfeasible - requires significant work	Somewhat feasible - multiple issues exist	Mostly feasible - no alternatives exist	Mostly feasible - alternatives exist	Feasible: Good to go
	4b	Political acceptability	Unacceptable	Minor part(s) of scheme accepted	Majority of scheme accepted	Scheme accepted	High priority accepted

The DfT-funded Propensity to Cycle Tool (PCT), alongside local growth predictions has been used to assist with the estimation of current and potential future distribution of commuter cycling trips under different growth scenarios. Walking uplift has been based on the uplift created by recent pedestrian improvements and public realm schemes.

- Appendix C gives an example of the use of the propensity to cycle tool to forecast the increase in cycling

Economic appraisal on selected walking and cycling schemes will be accomplished using the Active Mode Appraisal Toolkit. Wherever possible, data specific to the local area will be used in the appraisal. In instances where local data is unavailable appropriate regional/national data will be utilised. Such as:

- National Travel Survey
- Active People Survey
- Data from the Office of National Statistics e.g. journey to work data by mode.

Where relevant, the Valuing Urban Realm Toolkit (VURT) including the Pedestrian Environment Review System (PERS) will be used instead of AMAT to assess values for the user experience on public realm improvements.

- Appendix C gives an example of the use of the AMAT tool to establish a value for money score for each scheme.

This process will be repeated for remainder of the networks outlined in Stages 3 and 4.

## Stage 6 – Integration and Application

### Embedding of the LCWIP into local policies and plans

#### **Leicester's Local Transport Plan**

Leicester City Council has a Local Transport Plan covering the period 2011 to 2026. It is, currently, in the process of updating the plan with a new period covering the period 2019 to 2036. Theme 3 – The Best City for Walking and Cycling includes the development of a Local Cycling and Walking Infrastructure Plan and implementation of walking and cycling infrastructure using LCWIP tools.

#### **Leicester and Leicestershire Strategic Draft Transport Plan 2019-2050**

Leicester City Council and Leicestershire County Council in collaboration with the district councils are developing a Strategic Transport Plan. Theme 4 - Travel Around County Towns and other Urban Areas includes the priority to implement LCWIP priorities in the urban areas.

#### **Local Plan**

Leicester City Council has developed a Local Cycling and Walking Infrastructure Plan (LCWIP) which defines the cycling and walking network of Leicester as well as setting out our aspirations for future provision of cycling and walking infrastructure. The Local Plan will provide a positive planning policy framework for the provision and improvement of walking facilities as part of new developments, alongside providing accessibility and connectivity opportunities, such as the provision of wider footways and/or formal crossing facilities where an increase in pedestrian movements are expected.

The Local Plan will also consider the needs of everyone in the community, including the needs of people with disabilities and the elderly by all modes of transport.

#### **Walk Leicester Action Plan 2019 – 2015**

There is an action to implement the LCWIP under Theme 1 – Planning and Design for Leicester in the Walk Leicester Action Plan.

#### **Cycle City Action Plan 2015 – 2025**

The current Cycle City Action Plan was written before the LCWIP process was developed. However, it includes the following two aims:

- Develop an infrastructure network of high-quality cycle tracks along main road corridors



- Create a plan for strategic cycling infrastructure and address missing links, pinch points and safer cycling within neighbourhoods

An update of the Cycle City Action Plan is currently being drawn up and will include the LCWIP process. The annual Bicycle Account records the progress of cycling infrastructure provision each year.

## Application of the LCWIP

**Leicester City Council's application to the Transforming Cities Fund** has 4 themes.

- Theme 1 City Centre Hubs and Links include high quality cycling and walking links between transport hubs
- Theme 3 Green Growth Corridors include:
  - High quality cycling and walking infrastructure in Northwest/southwest sectors of the city identified through the LCWIP process.
  - A neighbourhood cycling and walking demonstrator zone, developed using LCWIP tools and principles at Beaumont Leys to deliver community level enhanced connectivity and transport integration.

Once the LCWIP document is approved, Leicester's City Mayor has asked for it to be distributed it amongst Senior Managers from all divisions to help with other funding applications.

The LCWIP is already being used to inform where resources should be concentrated on the school run parking programme.

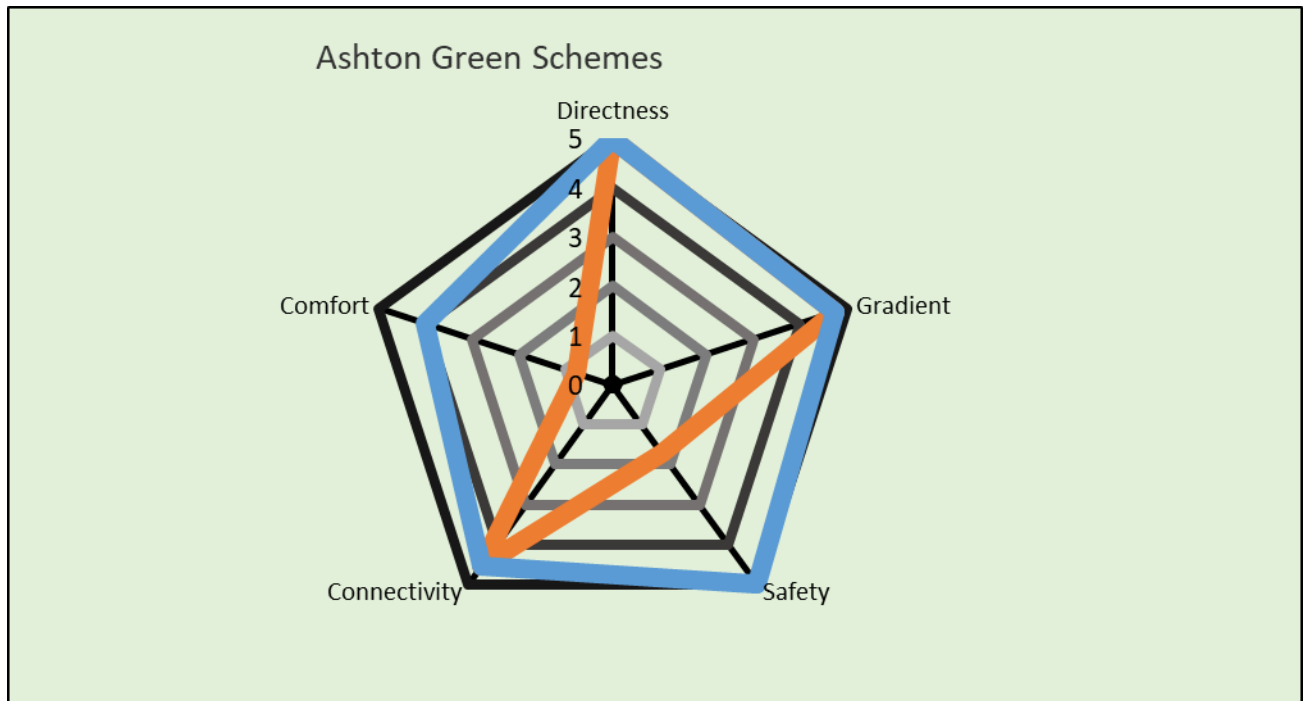
The neighbourhood cycling and walking zone in Beaumont Leys (Connecting Neighbourhoods) identified through the LCWIP process, is being run as a pilot and extends to work in other divisions within the council and other local organisations. If deemed successful, this will be replicated in other areas of the city.

Leicester is currently investigating the possibility for a workplace parking levy, with the potential to fund those schemes outlined in the emerging LTP4. Evidence from the LCWIP will be used to evidence the benefits of using funds raised through the workplace parking levy to deliver walking and cycling schemes.

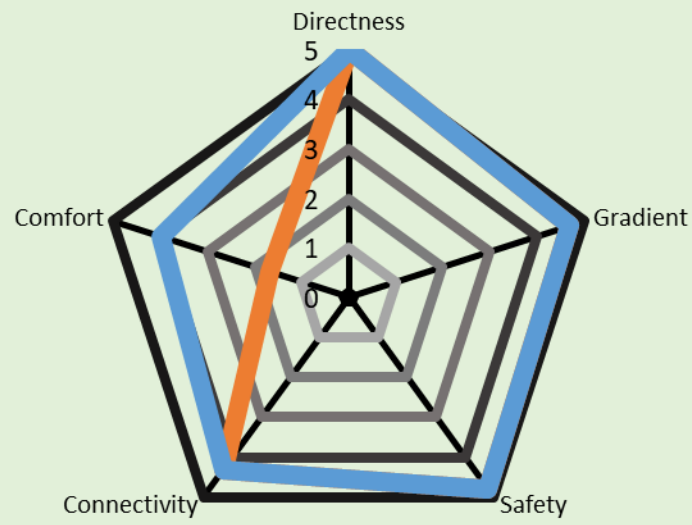
Leicester City Council is already using the Healthy Streets Assessment based Leicester Healthy Streets Design guide to determine the detailed design of a scheme. Schemes such as the newly completed London Road scheme providing safer cycling infrastructure to the railway station from the residential areas in the south of the city and the Universities, were designed using the new guidelines to ensure that the scheme was cycle and walk proofed.

## Appendix A.

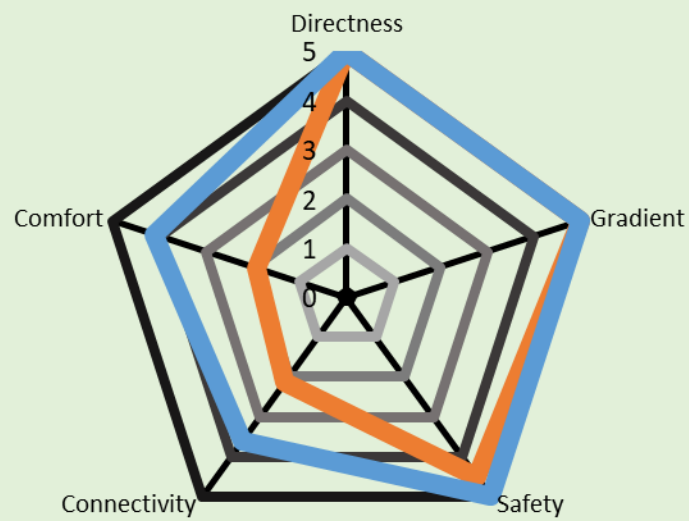
### Route Selection Tool Assessments:



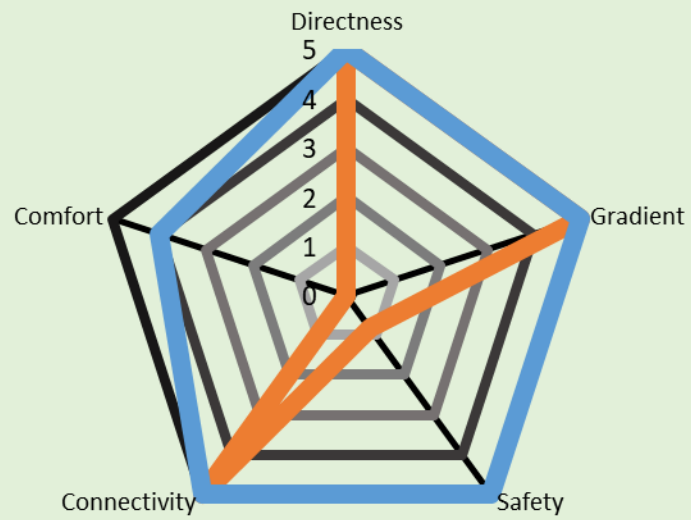
### Connecting Leicester Neighbourhoods



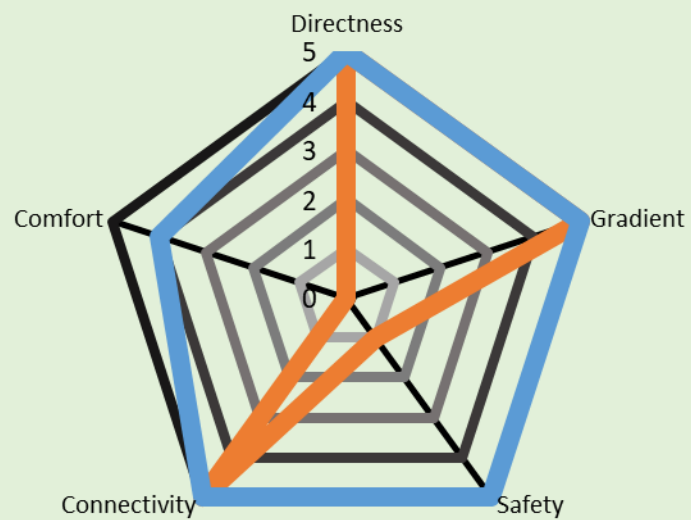
### Great Central Way



### A6 Abbey Lane/St. Margarets Way

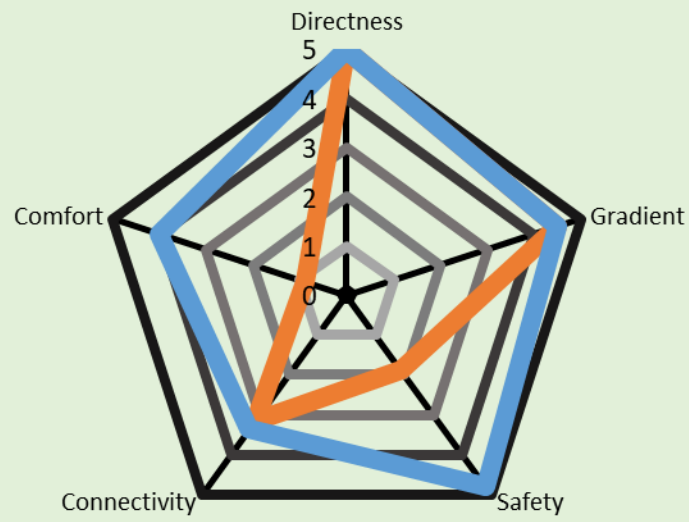


### Abbey Park Road





### Anstey Lane



### Melton Road

