



# Black Country Walking and Cycling Strategy and Implementation Plan



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## Foreword

When West Midlands Combined Authority (WMCA) launched its Cycling Charter I was very excited to become Cycling Champion - and championing the Black Country Cycling & Walking Strategy is an essential element of that role.

Our vision is to realise the full potential of the importance of cycling and walking to the health and wealth of the Black Country – creating more sustainable suburbs, towns and cities that are healthier, safer and more desirable place to live, work and learn.

I am genuinely passionate about this issue and the opportunity to promote this ambitious campaign.

As an occasional Black Country cyclist myself, I'm looking to work with other people who really know the issues and have practical ideas to boost bikes as a mainstream means of transport.

The aim is to make a bike a safer and easier routine travel choice, through improved infrastructure such as cycle lanes, cycle priority and improvements at stations and other public spaces.

Historically the West Midlands region has had fewer people choosing to cycle to work than other metropolitan regions - and we want to change that.

The draft strategy is drawn from the key principles of the wider West Midlands Cycling Charter, which aims to raise levels of cycling to 5% of all trips by 2023.

We already know the demand is there and we also know what many of the barriers are – people would cycle more if they felt safer and the environment was more attractive.

I believe there are some simple solutions that would encourage people to cycle more and this draft strategy is an excellent way to get a debate going and make some real changes - please do get involved.

**Cllr Peter Lowe**



**Vice Chair, West Midlands Combined Authority and Cycling Champion**



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# 1. Introduction

As part of the West Midlands Cycle Charter Action Plan (approved by the ITA in September 2015) AECOM has been contracted to prepare a cycling and walking strategy for the Black Country. The principal output of this strategy will be a pipeline of prioritised infrastructure investments schemes that support walking and cycling to become more attractive as a physical activity and for utility trips. The approach will integrate with land use planning and complementary measures to promote cycling and walking through training, maps and the use of Smarter Choices behaviour change initiatives to remove barriers, whether perceived or real, and assist in creating a strong and sustainable cycling and walking culture.

The strategy has been developed with the close co-operation of Birmingham City Council and the West Midlands Combined Authority along with other organisations active in promoting and delivering cycling, walking and health initiatives across the conurbation. The intention is that this will be assimilated into a West Midlands strategy.

The governance for the delivery of the infrastructure and other measures in the Strategy and Implementation Plan will be provided through the Black Country LEP. The West Midlands Combined Authority (WMCA) and its transport arm, Transport for the West Midlands brings together the West Midlands Metropolitan Authorities and the Local Enterprise Partnerships. The WMCA is committed to prioritise those schemes that best underpin and support the wider goals for economic growth, housing and skills and many of these cycle and walking priorities would fall into this category. Their strategic transport plan "Movement for Growth" sets out much of the infrastructure programme for the coming 25-years which includes a comprehensive cycle network and acknowledges the importance of local walking routes and good quality public realm to the local environment and supporting sustainable transport choices. The ambition is to deliver transformational change across the area with the strategy and implementation plan driving future development of the network and supporting future bids to Government and other organisations.

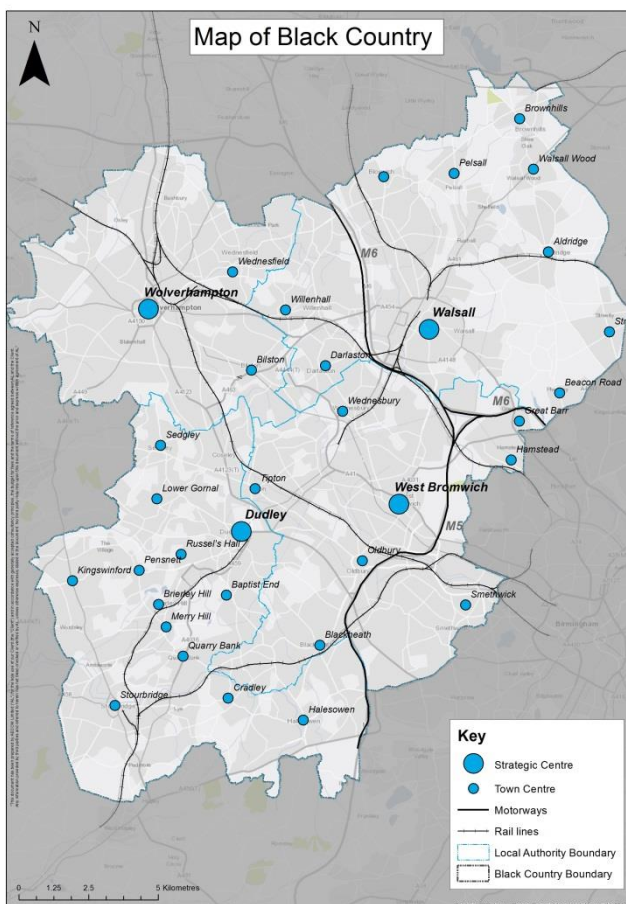
## 1.1 Project Scope

Prepare a strategy to provide a vision for cycling and walking in the Black Country that reflects its ambition to significantly increase these modes as an integral component of the transport and regeneration activities as well as one of the approaches to get more people active every day. The strategy needs to be concise but set key principles for the approach and include a detailed implementation / delivery plan including specific schemes. The individual initiatives being promoted need to show ambition and emulate best practice elsewhere, including London and that being promoted in Birmingham as examples, and include consideration of marketing and promotion of the specific infrastructure and initiatives as well as promoting and supporting people to adopt more 'active travel'.

The Centro Cycle Charter forms a framework document and will not include bespoke detailed design guidelines. It would instead reference and link to good practice documents to inform the design of schemes and the approach. The focus for the study and report would be on schemes, proposals and investment requirements. The Implementation Plan would need to reflect an agreed prioritisation process and include a costed delivery plan with options for a pilot route or schemes for early delivery and 'quick wins' that will achieve good outcomes and mode change. These early wins would then 'set the scene' and develop a local 'traction' that can be built on in developing an extensive network to encourage and support a step change in the numbers cycling.

## 2. Context

The nature of the Black Country geography means that there are four strategic centres, twenty five town centres, each with their distinctive identity and strong communities as well as numerous key employment areas accommodating and serving a 1.2 million population across 356 km<sup>2</sup>. All these centres have excellent potential for regeneration and growth but the way these communities have developed and evolved and their industrial heritage has led to a complicated transport network with many locations poorly connected or severed from employment, leisure and education facilities. This complex network however can offer attractive cycling and walking environments and routes with opportunities for filtered permeability where pedestrians and cyclists can take more direct and attractive routes than those travelling in vehicles. Exploiting these dense highway networks, canals and greenways by putting in high quality pedestrian and cycle facilities would then make these modes viable options for people to access jobs, education, shopping and leisure opportunities and to be active every day. People's lives do not observe administrative boundaries and nor should the walking and cycling infrastructure so the implementation plan and strategy needs to ensure the cycle routes and complementary activities link to neighbouring Birmingham, Worcestershire and Staffordshire as well as the National Cycle Network.



The framework for developing this strategy is provided by a number of strategic transport documents, including the West Midlands Cycle Charter that sets out a vision and ambitious cycling targets for the region, West Midlands Strategic Transport Plan "Movement for Growth", the Black Country Strategic Economic Plan, Highways England Cycling Strategy, the draft National Cycling and Walking Infrastructure Plan and the Government's strategy Sporting Future: A New Strategy for an Active Nation.

Increased walking and cycling levels can also be an important component in tackling the significant health inequalities in the Black Country where high levels of people are overweight and obese, including a quarter of children. An increased participation across the whole population, but particularly by 11-25 years (with focus on 14-25) is therefore important for the Black Country. Statistics show that the area has a 56,322 adult participation gap compared to national average (Sport England Active People Survey). If the Black Country participation levels could be brought to a national level it has

been estimated as potentially saving £35m long term to the public health purse by reducing the incidence of obesity, coronary heart disease, stroke and diabetes (Sport England/BCC Ltd).

All four Black Country local authorities have strategies or plans to reduce health inequalities, obesity and increase physical activity. Wolverhampton has published their 'Call to Action' to tackle obesity. This report recognises that, in common with the UK, obesity rates have more than doubled in the last 25 years and being overweight is now the norm for adults with 66.5% of men and 57.8% of women being either overweight or obese.

Dudley's Obesity strategy has a strong theme about supportive environments, links between workplace travel and health and has a target to increase cycling over the next 5 years through infrastructure, school engagement, training and signage. Sandwell have recently reviewed their walking strategy in light of the new public health agenda and has more of a focus on encouraging walking and ensuring the appropriate infrastructure is in place to support people living more active lifestyles.

Walsall's Public Health Annual Report 2014/2015 stresses the importance of being active more often and promotes the need to be active throughout life and the link between inactivity and disease.

Nationally the Government recognises the health benefits of people being more active every day throughout life, reducing coronary heart disease, stroke, type 2 diabetes, some cancers, obesity, mental health problems and musculoskeletal conditions. As well as reducing demands on health and social care services the Chief Medical Officers conclude in their report<sup>1</sup> that the benefits of physical activity extend to productivity in the workplace, reduced traffic congestion and pollution through active travel and healthier development of children and young people.

**Table A: Recommended Physical Activity Levels**

Age Group	Recommended Level of Physical Activity
Children under 5 years of age	At least 3 hours per day for those capable of walking. For those not yet walking, they should be encourage to be active through floor and water based play
Children between 5 and 18 years of age	At least 1 hour of moderate intense activity each day
Adults	At least 150 minutes of moderate intensity activity every week

At least 5 a week – evidence on the impact of physical activity and its relationship to health. Chief Medical Officer 2004

The Chief Medical Officers report<sup>1</sup> recognises the creation of cycle friendly environments to encourage healthy lifestyles and cite the mainland Europe experience where the adoption of pro-bike policies has led to 4 out of 10 journeys being made by bike. To achieve this change in UK cities they acknowledge the need for willing local authorities, investment in cycling infrastructure, promotional programmes and a prioritisation of cycling as a mode of transport in Transport Plans. Promotion of physical activity, including walking and cycling at work is also highlighted as effective action as well as community based activity programmes.



Image courtesy of Sport England

The Government's 'Sporting Future: A New Strategy for an Active Nation' (2015) sets out ambitions to get more people taking part in sport and physical activity and sport to evidence impact on well-being and social and economic development priorities. The strategy recognises that active travel, active living, accessing environments and encouraging behaviour change are some of the key elements needed to reduce levels of physical inactivity.

Sport England, in their drive to promote a step change in people's health, launched a "Sport England: Towards an Active Nation" strategy which sets out how the Government's Sporting Future strategy will be delivered against the five health, social and economic outcomes. Key features of the strategy are dedicated funding to get children and young people; working with the sport sector to put customers at the heart of everything they do, and using the principles of behaviour change to inform their work; piloting new ways of working locally by investing in up to 10 places in England – a mix of urban and rural areas; investing up to £30m in a new volunteering strategy; helping sport keep pace with the digital expectations of customers; and

<sup>1</sup> Start Active, Stay Active – A report on physical activity for health from the home countries' Chief Medical Officers

working closely with governing bodies of sport and others who support people who already play regularly. Seven investment programmes will aim to get more people active through sport and exercise.

As the report "Everybody active every day"<sup>2</sup> acknowledges, effectively increasing activity levels in a population requires a multi-agency approach that is persistent and collaborative. It identifies four areas for action, namely; creating a social movement for an active society; having a network of experts and professionals to promote physical activity the social norm; the importance of urban design, land use patterns and transport networks in creating the right spaces to support active environments; and scaling up interventions that are proven to work.

The four local authorities of the Black Country have, with their Public Health colleagues, Transport for West Midlands, Black Country consortium, national governing bodies of sport such as British Cycling and local cycle lobby groups, undertaken and continue to deliver a wide range of initiatives, activities and promotions to promote walking and cycling and encouraging more active and healthier lifestyles. The partnership between public health and transport is strengthening and the pursuit of their common objectives will be vital to the achieving walking and cycling. Cycle and pedestrian friendly routes are generally also wheelchair friendly and running /jogging friendly and will vastly improve general accessibility for the whole population.

As well as positive health benefits cycling can play an important role in enabling people to access training and job opportunities, particularly as it is affordable and flexible providing access when public transport is not available due to location or shift times. Access to cycle training and affordable bikes can play a part in overcoming transport barriers to skills and job opportunities and awareness of this should be raised to job centres and employment providers extending on the Workwise scheme that has been active in the West Midlands for many years. In particular promotion of cycling as a mode of transport and improving people's mental and physical health could benefit youth unemployment assisting in meeting one of the Department for Work and Pension's key priorities: to reduce the numbers on Employment Support Allowance.



*Image courtesy of Eltis.org*

Each of the four Black Country local authorities also have individual cycle strategies and programmes that have been considered, although some of these are now quite dated and tend not to take a cross-boundary approach. Wolverhampton City Council has recently approved an Active Travel Strategy and Implementation Plan that includes a cycling and walking strategy and a high level action plan setting out a long term approach to tackle their objectives for reducing obesity and encouraging more sustainable transport.

The Black Country bid for Cycle City, whilst unsuccessful in securing grant funding, does contain some very useful evidence and background information and cross boundary schemes that have been reviewed as part of the process. It also led to investment into Managing Short Trips programme as part of the Local Enterprise Partnership's (LEP) Strategic Economic Plan.

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<sup>2</sup> Everybody active every day – Public Health England 2014



In preparing the strategy and implementation plan the need to complement and support the wider Black Country investment and regeneration priorities for the next 10 years is considered important to ensure that the design of the schemes fully meets the objectives of supporting significantly increased levels of walking and cycling. Fully exploiting this capital investment opportunity is vital to ensure cycling and walking is given at least equal priority as modes of transport. Retro-fitting cycling and walking infrastructure is often more expensive, more disruptive and may result in removing highway capacity from motor vehicles, which can be unpopular and polarise opinions.

The following corridors and areas have been identified in the Black Country Strategic Economic Plan and Growth Strategies as priorities for economic growth and investment:

- M6, junction 10
- I54
- M5 junction 1
- Pensnett

Approximately 17km of towpaths in the Black Country will be improved thanks to funding from the Black Country LEP Growth Deal, through the Managing Shorter Trips programme, a £4.2 million package of schemes to boost cycling and walking across the Black Country, as part of the Smart Network, Smarter Choices programme. It is a joint initiative by Transport for West Midlands, the Canal & Rivers Trust and Dudley, Sandwell, Walsall and Wolverhampton Councils. The Canal & Rivers Trust are keen to provide further opportunities for improved walking and cycling along our towpaths and improve links with existing and future provisions to ensure that we help create a joined up network.

The Wednesbury to Brierley Hill Metro extension is additionally identified for investment within the next 10 years.

Any infrastructure that is implemented as part of these programmes will need to ensure cycling and walking is fully 'designed in' and forms an integral component of these schemes and their business case.



## 2.1 National, Regional and Local Strategies and Policies

A review of the existing cycling and walking strategies has been undertaken to determine the national, regional and local context for the development of this strategy and implementation plan. This is set out in the table at **Appendix 3** of this report and demonstrates that there are significant influences and reference points for this work that provide strong guidance and support for making walking and cycling the natural choice for shorter journeys, regardless of age, gender fitness level or income.

Of particular relevance to this work is the National Cycling and Walking Investment Strategy, Department for Transport<sup>3</sup> which has strongly influenced our methodology to ensure the strategy and implementation plan is demand led and takes account of existing trip patterns and potential future demand. The principles we have identified in the cycling and walking strategies reflect and complement the National Strategy where the intention is to design and implement a comprehensive network across the Black Country that links key origins and destinations via a combination of separate cycle lanes segregated from motor traffic; shared provision between cycle traffic and motor traffic where vehicles speed and volumes are appropriate and cycle paths

<sup>3</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/512895/cycling-and-walking-investment-strategy.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/512895/cycling-and-walking-investment-strategy.pdf)

using canals and green spaces etc. For walking we have again taken a complementary approach by identifying core walking zones based on the principal trip attractors and routes.

The West Midlands Cycle Charter (May 2015) provides a key strategic context for this report. This identifies the following objectives and targets:

Objectives:

- Increased participation in cycling
- Improved access to training and employment
- Improved health and activity levels
- Decrease in car dependency
- Create places that attract employers and residents

Targets:

- To raise levels of cycling across the West Midlands Metropolitan Area to 5% of all trips by 2023 from the 1% baseline
- To raise cycling levels across the West Midlands Metropolitan Area to 10% of all trips by 2033

The West Midlands Integrated Transport Authority's Strategic Transport Plan "Movement for Growth" is a key document that sets out the long term approach to guide transport improvements in the conurbation over a twenty year period. With respect to walking and cycling it sets the objective to significantly increase the amount of active travel in the West Midlands Metropolitan Area. The action to support the vision is ensuring that walking and cycling are a safe and attractive option for many journeys especially short journeys, by delivering a strategic cycle network and enhancing local conditions for active travel.

To this end it identifies a new Metropolitan Cycle Network comprising of high quality core cycle routes, supplemented by quietways using a combination of green corridors, well maintained canal towpaths and lightly trafficked and low speed streets. As part of the local tier approach, area-wide 20 mph limits on residential roads, a Key Walking Routes programme and public realm improvements will be promoted.

An overview of current and ongoing cycle programmes and initiatives within each of the local authority areas have been evaluated and these are summarised in **Appendix 3**.

## 2.2 Design Guidance and Best Practice

A best practice review has been undertaken to demonstrate and exemplify what good design should achieve for both cycling and walking. A table showing the five core outcomes of safety; directness; comfort; coherence and attractiveness for cycling is attached as **Appendix 4** and for walking as **Appendix 5**. These guiding principles for walking and cycling are also summarised in **Table B**.



**Table B: Core Design Guiding Principles**

	<i>Guiding Principles for Cycling</i>	<i>Guiding Principles for Walking</i>
<i>Safety</i>	<ul style="list-style-type: none"> <li>- Space separation from volume motor traffic</li> <li>- Consider semi-segregation where full segregation is not possible</li> <li>- Separation by using lower-traffic streets</li> <li>- Where integration with other road users is necessary, differences of speed, volume and vehicle type should be minimized</li> <li>- Reassessing the substandard tools currently used to manage cyclists' interactions with others</li> <li>- Road space re-allocation</li> <li>- Conflicts with other vulnerable road users such as pedestrians and powered two-wheeler users should be minimised</li> </ul>	<ul style="list-style-type: none"> <li>- Segregation</li> <li>- Reducing vehicle speeds and flows</li> <li>- Personal safety</li> </ul>
<i>Directness</i>	<ul style="list-style-type: none"> <li>- Cycles must not be treated as pedestrians but as an individual transport mode</li> <li>- Cyclist interventions need not be attempted on every road</li> <li>- Taking into account of how users actually behave. If not, routes and schemes will be ignored</li> </ul>	<ul style="list-style-type: none"> <li>- Direct routes and networks which follow natural desire lines</li> <li>- Pedestrian routes should be as straight as possible through road junctions</li> </ul>
<i>Comfort</i>	<ul style="list-style-type: none"> <li>- All designers of cycle schemes must experience the roads on a cycle</li> <li>- As important as building a route itself is maintaining it properly afterwards</li> <li>- Separation from traffic fumes and noise</li> <li>- Cycling should be treated as mass transport</li> <li>- Facilities must be designed for larger numbers of users</li> </ul>	<ul style="list-style-type: none"> <li>- Route width</li> <li>- Route gradient</li> <li>- Quality of the surface</li> <li>- Avoiding street clutter and obstacles</li> <li>- Other (cleanliness; tactile paving; drainage; lighting; cleanliness etc.)</li> </ul>
<i>Coherence</i>	<ul style="list-style-type: none"> <li>- Routes must flow</li> <li>- Routes must be intuitively understandable by all users</li> <li>- Provision must be consistent and routes must be planned as a network</li> <li>- Density of network</li> </ul>	<ul style="list-style-type: none"> <li>- Easy and logical routes</li> <li>- Walkable neighbourhoods</li> <li>- Comprehensive, permeable and logical network</li> <li>- Routes must be clearly defined and identifiable by all</li> <li>- Removing severance issues</li> </ul>
<i>Attractiveness</i>	<ul style="list-style-type: none"> <li>- Avoiding over-complication</li> <li>- The need for capital infrastructure</li> <li>- Social safety and perceived vulnerability of user</li> <li>- Minimising street clutter</li> <li>- Secure cycle parking</li> <li>- Trials can help achieve change</li> <li>- Segregation of routes with vegetation where possible and appropriate</li> </ul>	<ul style="list-style-type: none"> <li>- The availability of spaces to rest and reflect</li> <li>- Paths for relaxing walks</li> <li>- Attractive streets and public realm</li> </ul>

## UK Precedents – What Works?



### London Cycle Superhighway

This is a series of strategic long-distance routes across London that encompasses high levels of segregation for cyclists. The first route implemented at Vauxhall has seen a 73% increase in cycling levels when compared to the number of cyclists using this route before the superhighway was created. The route provides a completely segregated two-way cycle track; signalized cycle junctions and bus stops bypass; and upgraded pedestrian crossings and wider footways. Concerns for significant impacts on traffic congestion raised during the consultation and construction phase have proved largely unfounded.

### Leicester Cycle Campaign

Leicester City Council has a target to double everyday cyclists by 2018 and for bikes to form 10% of the city centre traffic by 2024. It has an approach of introducing experimental schemes to take out traffic lanes for segregated cycle routes, prior to creating permanent cycle routes once the traffic impacts and benefits have been proven. Two schemes are in the process of being implemented this way at Newarke Road and Welford Road

*Image courtesy of Mark Treasure, As Easy As Riding A Bike*



### Sheffield Gold Route

Sheffield City Council's award winning Gold Route links high quality spaces and streets taking visitors from the station to the Sheffield University Campus. It encompasses water features, innovative lighting, public art emphasizing the local character and heritage to make an impressive gateway to the city and ensure a clear and unobstructed pedestrian route as part of a wider masterplan for the city's regeneration. It has proven successful in attracting pedestrians and in supporting significant new commercial investment.



### Birmingham's Big Hoot Trail

Birmingham introduced a walking trail across the city and the 10 suburbs in the summer 2015 linked by 89 individually designed owls and 122 owlets. The initiatives attracted hundreds of thousands of people with many, especially children, navigating the trail to 'bag' and photograph each of the owl sculptures. As well as encouraging people to walk, the project was very successful in promoting Birmingham City.

### Wolverhampton and Sandwell Beat the Streets

In Wolverhampton, over 24,000 people, including pupils and teachers from 75 schools, signed up to play a seven week walking, cycling and running game to measure and record their miles with a combined target of 238,000 miles – the distance of the moon from earth. It is aimed to be a 'real-life' game where players register their journeys by tapping on the 'beat boxes' with personalised cards. Team competitions are also promoted. In Sandwell, over 16,000 people from 56 schools participated in a similar programme.

Reading ran a successful 'Beat the street' programme in 2014 and 2015. Prior to the 2014 game in Reading, 35% of adults in the town were meeting Department of Health guidelines for physical activity and this grew to 53% at the end of the game and was maintained for 3 months after the conclusion of the competition.



### 3. The Vision for Walking and Cycling in the Black Country

*"To realise the full potential of walking and cycling's contribution to the health and wealth of the Black Country – creating more sustainable suburbs, towns and cities that are healthier, safer and more desirable places to live, work and learn."*

#### What Does Success Look Like?

- The Black Country is a lively and attractive place **where people are inspired to walk and cycle as part of their everyday life for leisure, work, school and shopping trips.**
- The cycling and walking networks developed to **exploit the proximity of multiple small towns** and the **relatively short commuter journeys** undertaken by Black Country residents.
- An **extensive, closely spaced, interconnected, safe and continuous first class walking and cycling network** providing rapid, convenient and sustainable links between the strategic centres, existing and new communities and employment sites with strong links to parks and green spaces.
- Cycling and walking are **fully integrated** into the wider transport network and further enhance people's accessibility to jobs, education, services and green space within the Black Country and the wider West Midlands
- Cycling and walking are integrated into the planning system and decision making and considered as a 'normal', efficient and cost effective choices to travel.
- A wide range of organisations **working together to encourage and enable people to cycle and walk** to meet shared health, well-being, environmental and transport objectives.



*Image courtesy of: Mark Treasure, As Easy As Riding A Bike<sup>4</sup>*

<sup>4</sup> <https://aseasyasridingabike.wordpress.com/2014/04/22/independent-mobility/>

## 4. Cycle Strategy

In urban transport, cycling is recognised as a key measure to alleviate congestion, improve air quality and public health and to positively shape cities for all, whether on a bike or not. There is no need to go very far to see the benefits of making places more cycle-friendly and consequently people friendly. It should be borne in mind that the improvements to make the environment cycle-friendly can improve conditions for those with a mobility disability and for pedestrians also. The report British Social Attitudes Survey 2014: Public attitudes towards transport<sup>5</sup> shows that for journeys of less than two miles travelled by car, 41% of respondents said they could just as easily cycle (with the caveat that 64% of respondents felt that it is too dangerous for them to cycle on the road, the highest level recorded since the question was introduced in 2011).



*Image courtesy of Eltis.org*

Dutch and Danish cities are heralded by many as having a better approach to planning their transport system where for many years they focus on moving people rather than vehicles. Several British cities such as London, Oxford, Cambridge, Bristol, Manchester and Leicester have begun to take this view and are beginning to invest significant amounts of money in cycling schemes in recognition that their benefits far outweigh their cost.

The Black Country is yet to step on this path. At the moment, we lag behind most other regions in the UK when it comes to cycling; Wolverhampton is the best performing area in the Black Country with about 2.1% of its residents cycling to work and the remaining areas having levels of around 1%. Experience would suggest this is mainly the result of cycling not being treated as an integral component of transport planning and investment and where motorised transport is prioritised. Cycling is then considered as an afterthought in place-making and highways design processes and not a serious transport mode with potential to mitigate transport, environmental, social and health problems in the Black Country. Indeed, cycling should be viewed as a key tool to tackle rising congestion levels, poor air pollution, social and economic deprivation, which are all well above the national average, and to improve health and well-being by getting more people active, including reducing obesity and levels of mental ill health.

Our region is being promoted as a location for significant future housing and employment growth, with **Appendix 6** outlining details on proposed housing development sites. However without effective measures to reduce road traffic congestion and improve accessibility the opportunities to attract business and investment and improve competitiveness will be difficult to exploit. The dense polycentric urban form arising from the industrial heritage and the barrier effect of canals, railway lines and highways creates particularly complex movements and a complicated transport network. However, we recognise the potential of turning this into our advantage by exploiting the opportunity to shift many of these short trips of less than 5km (which currently account for half of all commuting trips) from car to cycle.

The significant rate of developments coming forward in the Black Country presents an excellent opportunity to ensure cycling is fully embedded in the schemes as an integral element. Cycling should be encouraged

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<sup>5</sup> British Social Attitudes Survey 2014: Public attitudes towards transport  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/481877/british-social-attitudes-survey-2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/481877/british-social-attitudes-survey-2014.pdf)

through the design of high quality cycling networks, cycle parking, active travel promotion and car parking standards in order to provide high standards of connectivity between the new land uses within the site and established trip generators and attractors. Similarly, new road schemes and other transport infrastructure projects should include high quality infrastructure to enhance permeability and encourage cycling.

We want to encourage people to consider cycling as a viable and meaningful transport mode for many journeys, in addition to those trips undertaken on foot, by public transport or by car. We see cycling as just another means for people to get around, alongside walking, driving and public transport. Today, the area does not offer this option because cycling in the Black Country is not appealing or practical to the majority of population as a result of a fragmented and relatively poor quality cycle route network, a lack of signed routes, the use of heavily trafficked roads, high traffic speeds and poor maintenance. We recognise that in the process from non-cycling to undertaking utility trips by bike the non-cyclists are more likely to take up recreational cycling first on off-road routes. We therefore want to improve both off-road and on-road routes which will have significant part to play in getting more people cycling.



Image courtesy of [Eltis.org](http://Eltis.org)

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There is some good work and practice underway across the Black Country with a number of active cycle lobby groups and individuals, initiatives such as the LEP's Managing Short Trips Programme that has, amongst other activities, facilitated the provision of cycle storage at stations and interchanges and business based travel planning that encourage more sustainable travel to, from and for work. 'Bostin bikes' has been successful in allowing people to purchase bikes at an affordable price and there has been a successful and well supported child cycle training programme (Bikeability) with high levels of take up in schools across the Black Country. Skyrides have been held in the Black Country – social rides, organised by British Cycling and Sky Ride's social network, run in various places around the country and offering free guided rides for all abilities, from easy to challenging.

There is indeed an ongoing programme of cycle infrastructure provision within each local authority area but it is recognised that to achieve our vision and wider aims we need to have a regional approach and set of common aims and objectives to underpin the development of the cycle friendly Black Country.

## **Aims and Objectives**

### **Aim 1: Making cycling inviting and attractive to everyone**

Objectives:

1. Create an extensive, closely spaced, safe and coherent network of quality and well-designed off-road and on-road links meaningfully connecting key destinations, irrespective of administrative boundaries.
2. Work with agencies from across the sport, health and transport agendas to promote the wide range of benefits to them from being more active and cycling for some journeys and for leisure
3. Ensure that quality cycle infrastructure is built-in in all new road schemes, housing and employment developments
4. Secure political leadership and a governance structure that supports delivery
5. Utilise Travel Plans to improve cycle access to and within Education sites, Employers and Large Traffic Generators
6. Train officers, planners and engineers in cycle friendly design, planning and auditing



## **Aim 2: Make cycling safe and secure**

Objectives:

7. Reduce and enforce traffic speed, promote an accelerated roll-out of 20mph areas and manage traffic volumes
8. Cycle-proof junctions and crossings
9. Reduce conflicts between different road users
10. Provide cycle training and journey planning support to cyclists
11. Regularly maintain routes applying similar maintenance regimes to that operated for the main carriageway

## **Aim 3: Make cycling easy and intuitive**

Objectives:

12. Introduce a Black Country-wide and intuitive approach to signing
13. Provide clear route maps in a range of formats including using smart technology, apps, personal journey planning etc.
14. Provide cycle parking at key destinations at a sufficient level to accommodate demand
15. Introduce West Midlands wide cycle hire scheme
16. Fully integrate cycling into the current transport network, including public transport
17. Make use of smart technology and open data in planning for cycling
18. Tailor schemes to match a range of abilities and ensure that age, gender and culture is not a barrier

## **Aim 4: Normalise cycling to reduce inequalities**

Objectives:

19. Use a range of marketing tools to promote the benefits of cycling, including engaging with media, social media at a Black Country and local community level
20. Presenting cycling as something that everyone can do by removing barriers to cycling
21. Engage with schools/universities, businesses, communities and new residential developments, particularly with people who are at a transition point in their life where their new travel habits are not established
22. Engage with job centres and employment providers to promote cycling as a viable transport mode to access jobs, education and skills opportunities and to reduce barriers such as affordability of bikes
23. Develop new and support existing leisure events and facilities to nurture and develop a culture of cycling and active travel

## **Cycle Route Design**

We will therefore aim to achieve good design for cycling in accordance with the five core design outcomes for cycle infrastructure network, which are:

- Safety
- Directness
- Comfort
- Coherence
- Attractiveness

Each of them are closely related to one another and is underpinned by the key principles of safety, directness, comfort, coherence, and attractiveness, based on the London Cycle Design Standards and Welsh Active Travel Guidance and set out in **Table B** above.

## **Proposed Approach to Cycle Routes**

We have undertaken detailed evidence-based analysis of existing and future travel patterns and trip attractors as well as desire lines to determine a priority list of interventions. This is set out in detail in the Implementation Plan methodology.

The approach we will take is to create an initial '**core or primary network**' across the Black Country that aligns with the desire line corridors that provides a strong framework to build a more intensive network that ultimately would provide a dense network (moving towards a 500m or 250m mesh density<sup>6</sup>) in line with the emerging National Infrastructure Plan. We propose that the routes and networks that have been shortlisted through the evidence based analysis would be part of the core network, although we recognise that there are existing cycle corridors that form the core network.

These routes strongly relate to the strategic investment priorities and corridors, the major employment and housing hubs and access to public transport. The designation of '**primary route**' will infer a design approach that has high levels of segregation and is capable of accommodating significant numbers of cyclists.

The **secondary network**, whilst still of strategic importance, will focus on more local trip attractors such as schools, colleges, local shopping and community centres and employment sites. The design of these routes would include good levels of segregation as well as filtered permeability and quieter routes.

The **local route network** provides the very local links 'from the doorstep' and need not form any part of a designated route but use quieter residential streets and take advantage of filtered permeability with pedestrians and cyclists having access through streets where vehicular movements are restricted etc. Traffic management and traffic calming through, for example 20 mph areas and zones would be important elements of these networks, as well as some signposting.

Importantly, all suggested priority corridors comprise a mix of primary, secondary and local routes which propose a variety of interventions ranging from significant investment in segregated routes to 20mph zones and filtered permeability.

Existing Network (**Figure 1**) – There is already quite an extensive cycle network across the Black Country and these routes have been captured and reflected in this strategy. Many of these routes do coincide with those corridors that have been identified as investment priorities through this demand-led approach. However, surveys and stakeholder engagement has supported the view that the facilities are variable in quality and often do not meet the five core design outcomes of being safe, direct, comfortable, coherent and attractive and as such would need to be reviewed and redesigned as part of the design and development of the new routes.

### **Whole route approach**

We recognise the need for a 'whole route' approach in terms of continuous and connected routes and networks and a whole system approach where the design process optimises the environment, highway space and ancillary facilities to achieve efficient movement of people rather than discrete mode by mode designs. There are many examples within the region and elsewhere with highway infrastructure being designed to meet a single mode such as public transport or increased cars but where opportunities to improve cycling or walking are missed or indeed where current facilities are removed or redesigned to a poorer offer. A different approach to planning, design and auditing of the highway design process will require training, mentoring to share best practice and experience. We propose to introduce a programme of training of design engineers, safety auditors and transport planners to begin this process. This would, in the first instance seek to establish an 'expert panel' to provide support and direction to colleagues within the highway, planning and transport authorities as well as a cascading of skills, knowledge and expertise. A useful addition to this would be the creation of a design panel where schemes, perhaps selected according to scale of investment or importance to the overall transport network, are reviewed and design recommendations made prior to approval for funding.

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<sup>6</sup> Definition of Mesh Network taken from the emerging National Cycling and Walking Infrastructure Plan.

## 5. Walking Strategy

Walking is an easy low cost activity, which requires no specialist or expensive equipment. Walking can be integrated with any trip to work, school or the shop. Doing just a little bit more can significantly improve a person's health and well-being.

Walking is an important component of having vital and viable communities and town and city centres. International and UK studies have shown that pedestrians spend more than people arriving by car, making places better for walking can boost footfall and trading by up to 40% and that good urban design can raise retail rents by up to 20%. The perception however is often very different and a study conducted in Bristol found that retailers overestimated the number of customers arriving by car by almost 100%.

Improving the level of walkability in an area has a wide range of benefits, including:

**A healthier population** – Countries where people walk more have lower obesity rates - Walking briskly for 30

minutes a day can help lower weight and guard against heart disease.

**An improved local economy** – People walking to local shops have been found to spend more time and more money than people driving.

**More attractive neighbourhoods** – Walkable streets tend to be more attractive than those in less walk-friendly and more vehicle dominated streets.

**Mode shift** – Walking can replace many short car trips, which contribute more to local pollution and congestion.

**Safer communities** – Streets with more pedestrians attract more people that encourages improved safety, perceptions of personal security and lower crime levels, compared to other streets

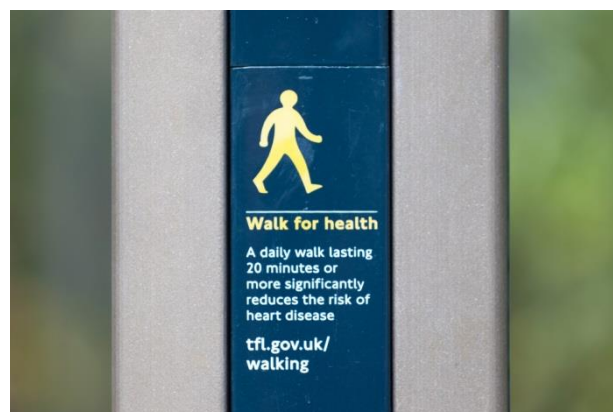
Within the Black Country an extensive walking network already exists with most highways providing footways on both sides and the aim of this strategy is therefore to target improvements on key walking areas and existing and new trip attractors. A key objective for the Black Country is to encourage people to walk more for short journeys, especially under 1 mile and this may be more about marketing and promotion than just infrastructure provision.

Measures are needed to tackle both the behavioural and wider determinant issues that influence walking, whether for travel or recreation. Walking for recreation is associated with access to facilities, aesthetics, parks and open spaces. On the other hand, walking for travel is associated with connected street and path networks, public transport, and higher residential densities. An understanding of the barriers and motivations that influence people's decision or ability to walk is a key step for individuals, organisations, and communities to make the behaviour changes required that encourages more walking.

Work done for the City of Wolverhampton as part of their Active Travel Strategy showed that people identified the need for more leisure routes; more crossing facilities; improved surfaces and street lighting as features that would encourage them to walk more. They also highlighted the role supported walking groups could play in encouraging increased and sustained levels of walking. The Scottish walking strategy highlighted weather, health problems, time and distance as barriers with just 9% stating there were no barriers to them choosing to walk.

Evidence also shows that other factors can act as barriers to people walking such as physical barriers, availability and accessibility of paths, poor quality walking surfaces, nonexistent or inappropriate crossing arrangements that give little time to cross, and high speed traffic. There may also be practical barriers such as physical, medical and economic obstacles to physical activity and cost, safety, access, time pressures and health issues may be significant in certain social groups.

It is known that people tend to overestimate walking time and distance, often being misled by inaccurate perceptions of local walking geography and inadequate information. Knowledge barriers can be a deterrent also and access to information, signage, and online resources can have a socio-cultural dimension. These aspects have been considered in the development of complementary measures included within the Implementation Plan.



*Image courtesy of Eltis.org*

We propose to take a 'whole street' approach to design to ensure that all walking routes, but especially those between principle destinations, are well signed, legible, and provide attractive and safe feeling environments. The layout, materials and design, including street furniture, signage and lighting need to take account of people with mobility disabilities, those people that require resting places and avoiding situations and layouts that introduce unnecessary conflicts between pedestrians, cyclists and motor traffic. The approach we advocate here is one that prioritises investment in the principal destinations such as public transport stops and stations, local centres, city and town centres and education, hospital and employment locations.

Walking should be fully embedded in new development schemes through the design of high quality walking networks, active travel promotion and car parking standards in order to provide high standards of connectivity between the new land uses within the site and established trip generators and attractors. Similarly, new road schemes and other transport infrastructure projects should include high quality infrastructure to enhance permeability and encourage walking.



*Image courtesy of Eltis.org*

We recognise that the walking routes would also provide valuable jogging and running routes, especially those routes that access greenways and parks and here signage that provides times and distances can be

valuable to encourage walking and running as part of a healthy lifestyle. The explosion of the use of step counters and use of social media and apps to record activity levels will also be considered both to promote walking but also to assist in gathering data and monitoring benefits from individual investments. Campaigns such as the One You campaign launched by Public Health England, Beat the Streets and Couch to 5k (NHS Choices) schemes use these technologies and people's willingness to record their personal data.

There are a number of good practice and detailed design guides that give advice on creating walkable environments and detailed design advice is therefore not included here. Table A in Section 2.2 provides guiding principles drawn from best practice documents.

To achieve our vision and wider objectives we set out specific aims and objectives to underpin the development of a pedestrian friendly Black Country.

## **Aims and Objectives**

### **Aim 1: Safe, pleasant-to-use route infrastructure**

Objectives:

1. Provide high quality and well lit pedestrian footways on all highway routes
2. Improved pedestrian crossings to reduce severance caused by heavily trafficked roads
3. Have conveniently located and well-designed crossing facilities suitable for all users.
4. Provide more, well located, greenways and off-road pedestrian routes to increase walking options where possible.
5. Utilise Travel Plans to improve cycle access to and within Education sites, Residential sites, Employers and large traffic generators

### **Aim 2: High-quality networks with access from neighbourhoods and transport hubs**

Objectives:

6. Link routes up in coherent, legible networks
7. Review and improve PROW and alleys / connecting routes to encourage walking to key destinations such as schools and local shopping
8. Provide open and easy access for walking to bus and Metro stops and the local bus and railway stations, including route signage and consider these measures before considering extending park and ride car parks
9. Improved pedestrian connections to jobs, education and local services
10. Ensure seamless end-to-end journeys where walking can be easily accommodated
11. New development to be designed to include high quality infrastructure that supports walking and cycling

### **Aim 3: To have an inviting and engaging urban environment**

Objectives:

12. Ensure the design, lighting, landscaping and general environment provides a feeling of safety and security
13. Have a more 'open' approach that allows people to walk freely along the routes of their choice – requiring a review of on-street furniture and reduce/remove the use of guard rail unless strictly necessary.

#### **Aim 4: Ensuring access for all users**

Objectives:

14. Balance user needs with intelligent use of infrastructure design – e.g. contrasting colours in footways; well-located and designed crossing facilities with adaptations for disabled users as appropriate.
15. Ensure close involvement with disabled user groups to ensure appropriate facilities and assist in addressing conflicting needs.

#### **Aim 5: Rebalancing the environment to make it calm and safe for all**

Objectives:

16. Introduce targeted interventions where traffic levels and space allow
17. Balance the needs of all users and learn from experience in the design of the spaces

#### **Aim 6: Attractive local streets and spaces**

Objectives:

18. Vehicle speed reduction measures in residential areas and the promotion of an accelerated roll-out of 20 mph areas as set out in the West Midlands Cycling Charter and Movement For Growth: The West Midlands Strategic Transport Plan
19. Community led traffic speed awareness and enforcement initiatives
20. Speed of traffic on the principle road network to be considered in terms of impact on community severance and connectivity as well as traffic flow and safety

#### **Aim: Everyone be able to access information to enable clear way-finding**

Objectives:

21. Provide high quality and frequent on and off-highway signage
22. Provide up to date route maps and facilities in a range of formats
23. Provide mile markers on leisure routes to encourage more walking for health
24. Make imaginative use of new technology and trends to encourage more active modes of travel e.g. counting steps and walking as a mode of transport

#### **Aim: Promote walking as inclusive and healthy transport mode**

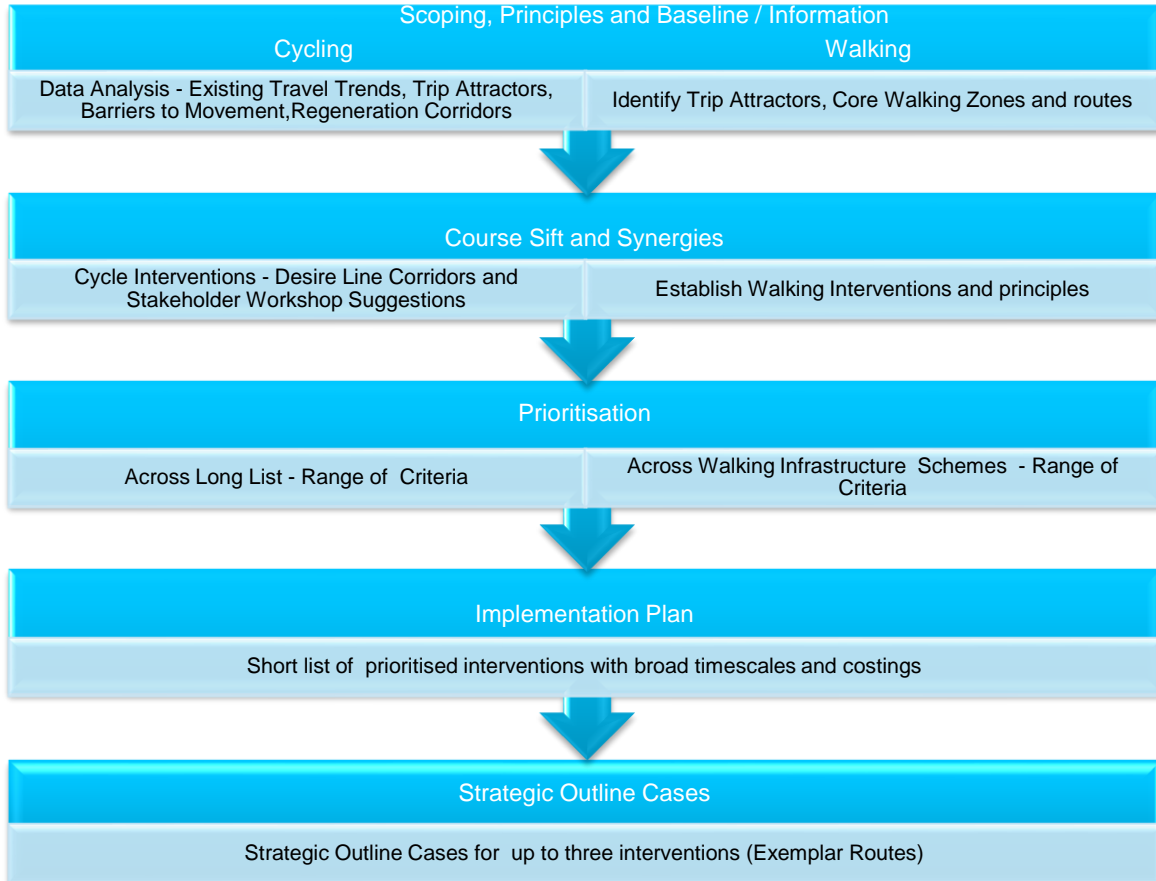
Objectives:

25. To utilise marketing and communication tools to promote the benefits of walking, for example led walks; walking groups and local walking route suggestions
26. To support activities and programmes that remove barriers to walking

We have undertaken detailed evidence-based analysis of existing and future travel patterns and trip attractors as well as desire lines to determine a priority list of interventions. This is set out in detail in the Implementation Plan Methodology.

## 6. Implementation Plan: Methodology

The methodology for preparing the strategy was agreed with the client team and is broadly based on the emerging approach contained within the draft National Cycling and Walking Infrastructure Plan Guidance on Preparing Cycling and Walking Infrastructure Plans.



### 6.1 Scoping, Principles and Baseline

A key early task for scoping the strategy and implementation plan was to confirm the study scope and methodology with key stakeholders. Local Authorities in the Black Country and Birmingham and wider stakeholders drawn from organisations with an interest in cycling, walking, sport and health were consulted through two workshops to help firm up the scope and content of the strategies for walking and cycling and the Implementation Plans. See **Appendix 1** for the note of Workshop 1 and **Appendix 2** for the note of Workshop 2.

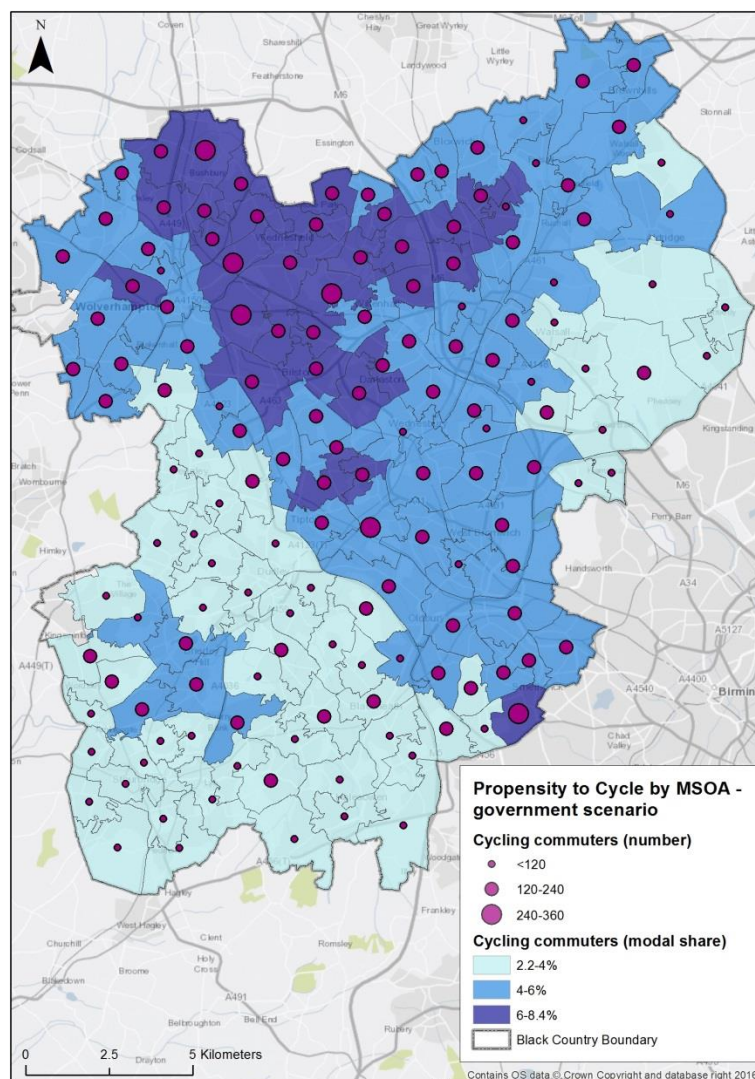
Identifying infrastructure priorities was then undertaken by mapping and layering information from a variety of sources for the Black Country area, including stakeholder input and a wider range of travel, economic, social and health data. The overarching objective of this work is the definition of a demand-led cycle and walking network, determined by current trip patterns, trip attractors and potential future demand and attractors, rather than based on current provision.

### 6.2 Baseline Data

The following data has been assembled and analysed to inform the strategy and implementation plan and to identify the key trip destinations. The associated raw data, tables and maps are contained in **Appendix 8**.

- Indices of Multiple Deprivation
- Census health data
- Census car ownership and households without access to a car
- Employment data including workplace zone, numbers and locations of people in work, training or education
- Trip Patterns across the Black Country to identify where cycling and walking might form part or the whole journey
- Existing cycle routes mapped (Sources: local area cycle maps; Sustrans national cycle network plans and on-line resources) **Figure 1**
- Suggested routes and target areas derived from Workshops 1 and 2 as well as route suggestions provided by other contributors
- Housing sites and future development sites including Garden City Locations (**Appendix 6**)
- Hospital sites and staff numbers
- Childhood obesity data (Source: National Child Measurement Programme)
- Propensity and potential to cycle maps and cycle 'heat maps'

The Propensity to Cycle Tool suggests the areas with the highest potential for cycling based on commuter numbers, trip distances and hilliness and it can be seen from the map below that in the case of government scenario (i.e. doubling cycling in a decade) the highest modal share of cycling would be observed in north of Black Country (Wolverhampton and Walsall) and Smethwick, followed by Sandwell and parts of Dudley.





### Existing Travel Trends

Analysis of 2011 Census data was undertaken to understand Black Country residents' travel to work patterns and trends, in terms of distances travelled, the travel flows between areas, and mode of transport. Also considered are car ownership levels. The data showed that half of the trips taken to work of Black Country residents are less than 5km and within the same district but only 1-2% are by bike, providing significant potential for mode shift to cycling.

Looking at travel to work flows for Middle Super Output Areas (MSOA), in the MSOAs where the most people travel to, the highest number of trips came from within that MSOA or a neighbouring MSOA, providing further indication of large volumes of very local movements and relatively short trips. These trends are important when considering desire line corridors for cycling. Maps and raw data are contained in **Appendix 8** respectively.

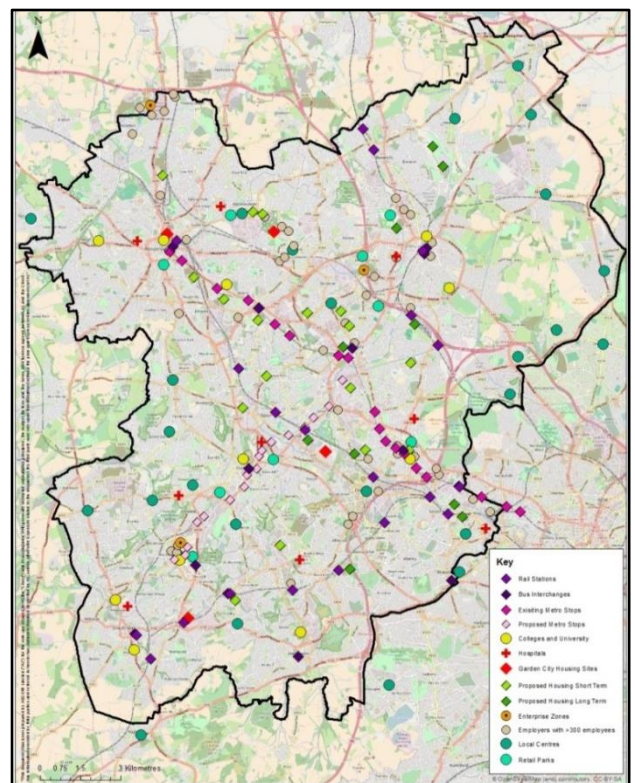
For walking, distance travelled to work to Census Workplace Zones has been analysed. Workplace Zones are a suitable geography for workplace-based statistics and outputs. Unlike Output Areas (OAs), which were originally created for the analysis of population statistics using residential population and household data, workplace zones provide greater consistency in terms of the number of workers or businesses contained within an area.

The data shows that there are fourteen workplace zones that have over 250 commuters travelling less than two kilometres to work (data provided in **Appendix 8**). This length of journey provides a significant potential for mode shift to walking. The workplace zones have been analysed to identify what are the likely major employment sites within each zone. Due to the small area of each workplace zones it was relatively easy to identify the principal employer in each case. For example Walsall Manor Hospital and Merry Hill shopping centre in workplace zone E33020882 and E33019690 respectively.

### Existing and Future Trip Attractors

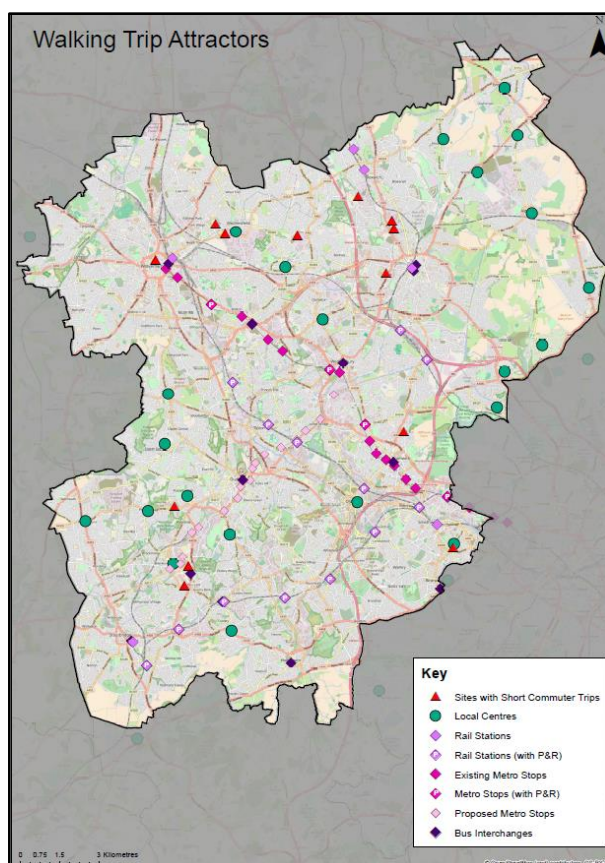
The following key attractors within and bordering the Black Country has been mapped (shown opposite and in **Figure 2**) to understand where there are clusters of significant trip arrivals where cycling infrastructure should be focused;

- Public transport interchanges (rail, bus and metro stops)
- Colleges and universities
- Hospitals
- City, town and local centres
- Enterprise zones and large employers (over 300 employees)
- Large out of town centre retail centres
- Proposed large housing sites
- Proposed transport stops/stations



For walking, where trip distances would be lower, the following key attractors within (shown opposite and in **Figure 3**) and bordering the Black Country have been separately mapped to understand where there are clusters of significant walking trip arrivals;

- Employment sites with high rates of short (under 2km) commuter journeys (as identified using the above methodology)
- Public transport interchanges (rail, bus and metro stops)
- City, town and local centres
- Proposed transport stops/stations (on new routes)



### *Barriers to Movement*

Physical barriers to movement were also considered by the project team with input from the stakeholder and client group as well as in the development of the Outline Business cases for the shortlisted cycle routes.

For cycling, general barriers to movement were looked at firstly that consisted of railway lines, motorways, strategic roads and canals/ivers. These are shown in **Figure 4**.

For walking, more specific barriers to movement were looked at that caused significant severance. These have been mapped (shown in **Figure 5**) and consist of;

1. Wolverhampton City Centre Ring Road (*large roundabouts and dual carriageways with high volumes of traffic, subways*)
2. M6 Junction 10 (*inadequate walking infrastructure and crossings, no alternative route to cross the M6 in the vicinity, very high volumes of traffic*)
3. M6 Junction 9 (*inadequate walking infrastructure and crossings, no alternative route to cross the M6 in the vicinity, very high volumes of traffic, secondary school catchment areas either side of the junction*)
4. Bescot Stadium Rail Station (*on key line between Walsall and Birmingham, no access for pedestrians from southwest of the station where there is considerable housing*)
5. Tame Bridge Parkway Rail Station (*on key line between Walsall and Birmingham, no access for pedestrians from northeast of the station due to the presence of the M6 where there is considerable housing*)
6. Brierley Hill High Street to Merry Hill Centre (*no direct east to west/west to east pedestrian links between the two, Dudley Canal acts as a physical barrier*)

These specific barriers to movement were also identified to be relevant for cyclists, and as such are highlighted in the appropriate cycle infrastructure business cases.

### *Cycling Attractor Thresholds*

From the long list of key attractors, thresholds have been applied to form an initial sift that can be layered with other information to draw out clusters of significant trip generators.

The thresholds used for the key attractors to filter the cycle route priorities are as follows;

<b>Attractor</b>	<b>Threshold</b>
Railway Stations	500,000+ passengers per year
Bus Interchanges	20,000+ passengers per year
Metro Stops	1,000+ passengers per day
Colleges/Universities	7,000+ students
Hospitals	500+ beds
Short term and long term future housing	300+ units
Large employers	500+ employees
Local Centres	10,000+ people living within 1km
Retail Parks	10,000+ people living within 1km

This sift, together with the following data and information, has been mapped to understand priority areas, travel flows and severance;

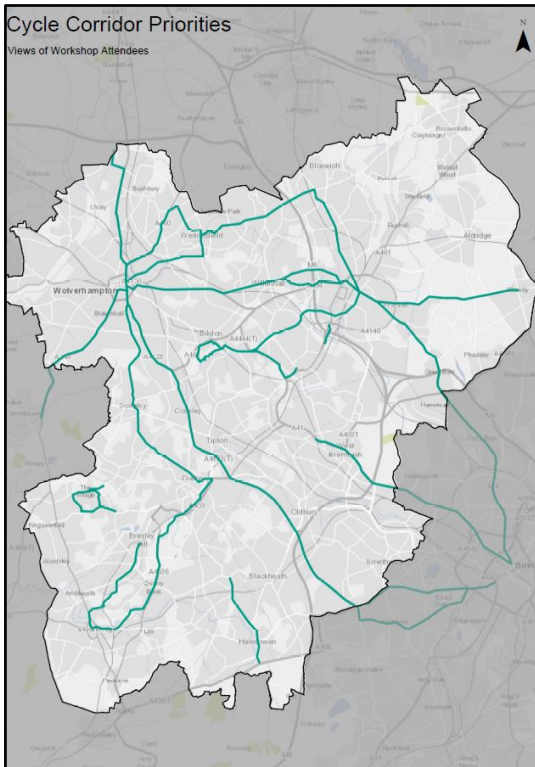
- Key investment/regeneration corridors outlined in the Black Country Core Strategy and Black Country LEP;
- Key employment areas, based on the 2011 Census data for MSOAs that have the highest travel to work flows from within the Black Country;
- Key barriers to movement - consisting of motorways, strategic dual-carriageway roads and railway lines.

This is shown in **Figure 6**.

### *Cycle Desire Line Corridors*

From the information above and existing travel trends, indicative desire line corridors for cycle routes were identified. These are focused on local movements to existing key employment areas and future investment growth priority areas, due to the majority of travel to work trips being very short, and to reflect the principal objective of improving access to jobs. These provide corridors of where people currently travel and seek to forecast future travel demands. These are shown in **Figure 7** and are summarised below with a brief justification to why they have been identified / emerged through this analysis:

- **Wolverhampton to Walsall** (strategic roads barriers, a key investment corridor, significant employment north of the corridor)
- **Dudley-Russell's Hall-Pensnett** (significant employment, a key investment corridor, many local movements, connecting to future Metro stops)
- **Oldbury, Smethwick, West Bromwich triangle** (significant employment, a key investment corridor, several barriers to movement, key railway and bus station, future housing)
- **Wednesbury – Darlaston - Walsall** (significant employment, motorway and rail barrier, connecting Walsall to Metro, local centres)
- **A449 Stafford Road** (a key investment corridor, future housing, Enterprise Zone)
- **Wolverhampton to Wednesbury** (residential areas, future housing, large metro stops)



### Workshop Suggestions

In addition to the methodology used above, the attendees of the two workshops were asked to identify and map the key cycle corridors and routes where there is existing or latent demand. These are contained in **Appendix 8** and shown opposite.

## 6.3 Corridors and Routes: Long List

The data has been variously mapped, analysed and compared to provide a 'long list' of trip attractors, potential walking zones and cycle routes to inform and derive a long list of potential investment priorities.

### Cycling

A long list of potential corridors and routes were generated consisting of all suggested routes from the workshops and the desire line corridors from the mapping exercise. There are a number of route synergies between the workshop and mapping exercises. The long list of suggested routes and corridors are listed in Table C.

**Table C: Cycle Routes and Corridors: Long List**

Route/Corridor	Suggested Infrastructure	Identified through workshop	Identified through mapping exercise
<b>Wolverhampton to Walsall</b>	<ul style="list-style-type: none"> <li>Primary Route: A454 Willenhall Road and Wolverhampton Road – high quality segregation. Would require significant highway interventions</li> <li>Parallel Route: Utilise canal towpaths, parks and existing infrastructure (subject to audits and upgrades)</li> </ul>	✓	✓
<b>Dudley - Russells Hall – Pensnett/Brierley Hill</b>	<ul style="list-style-type: none"> <li>Segregated cycle lanes from Dudley to Brierley Hill and Pensnett</li> <li>Canal towpath upgrades</li> </ul>		✓
<b>West Bromwich triangle (&amp; Oldbury, Smethwick)</b>	<ul style="list-style-type: none"> <li>Segregated routes from Wednesbury, Oldbury and Smethwick to West Bromwich</li> <li>Upgrades to the local canal towpaths</li> </ul>		✓
<b>Wednesbury – Darlaston – Walsall</b>	<ul style="list-style-type: none"> <li>Segregated cycle lanes from Wednesbury to Walsall via opened up link south of M6</li> </ul>	✓	✓

	Junction 10		
<b>A449 Stafford Road to i54 Enterprise Zone</b>	<ul style="list-style-type: none"> <li>A449 Stafford Road – high quality segregation. Would require significant highway interventions; highly costly.</li> </ul>	✓	✓
<b>Wolverhampton – Bilston - Wednesbury</b>	<ul style="list-style-type: none"> <li>Upgrade of canal towpath to provide access to future housing sites. Highly feasible.</li> </ul>		✓
<b>A449 Penn Road: Wolverhampton City Centre to Wombourne</b>	<ul style="list-style-type: none"> <li>Space constraints on Penn Road provide very few opportunities for high quality segregated cycle infrastructure</li> </ul>	✓	
<b>A459 Dudley Road: Halesowen</b>	<ul style="list-style-type: none"> <li>Potential to upgrade existing on road cycle lanes on Dudley Road. Potential to integrate with proposed Hagley Road SPRINT scheme.</li> </ul>	✓	
<b>A4123 Wolverhampton Road: Dudley - Hagley Road</b>	<ul style="list-style-type: none"> <li>Space to accommodate high quality cycling infrastructure without much intervention to highway layout.</li> </ul>	✓	
<b>A4123 New Birmingham Road: Wolverhampton – Dudley</b>	<ul style="list-style-type: none"> <li>Space to accommodate high quality cycling infrastructure without much intervention to highway layout.</li> </ul>	✓	
<b>B4151 Sutton Road: Walsall – Streetly</b>	<ul style="list-style-type: none"> <li>Very wide grass verges bordering carriageway could accommodate a two way segregated cycle lane.</li> </ul>	✓	
<b>A34 Birmingham Road: Walsall - Great Barr</b>	<ul style="list-style-type: none"> <li>The route could be jointly implemented with Birmingham City Council, with them continuing the route at the same standard to Birmingham City Centre.</li> <li>space constraints to provide quality segregated infrastructure.</li> </ul>	✓	
<b>A34 Green Lane: Walsall – Bloxwich</b>	<ul style="list-style-type: none"> <li>Whilst there are some space constraints along the route, there are grass verges where cycle lanes can be implemented, and some existing on-road cycle lanes that can be upgraded</li> </ul>	✓	
<b>A459 Wolverhampton Road: Wolverhampton – Dudley</b>	<ul style="list-style-type: none"> <li>To accommodate quality cycle infrastructure, on- street parking bays would need to be removed and dedicated right turn lanes at priority junctions.</li> </ul>	✓	
<b>A4124 Lichfield Road: Wolverhampton – Bloxwich</b>	<ul style="list-style-type: none"> <li>Varying levels of feasibility along the route, some segments would need significant highway interventions.</li> </ul>	✓	

To understand where funding and implementation should be prioritised and provide a short list of routes/corridors, a scoring exercise has been undertaken. All criteria are scored out of three, with scheme feasibility, deliverability and funding potential weighted double the others. The scores are shown in Table D and the score requirements are outlined in **Appendix 9**. The schemes are listed in order of priority.

**Table D: Cycling Routes Prioritisation**

Route/Destination	Total Prioritisation Score	Total	Scheme Feasibility	Scheme Deliverability	Funding Potential	Propensity to Cycle	Quality of existing Infrastructure	Current and Planned Level of Investment	Integration with other transport	Access to Key Destinations	Access to Jobs	Severance	Economic Exclusion	No access to a Car
West Bromwich Triangle	77.1%	<b>31</b>	2	2	2	2	2	3	3	3	3	3	3	3
Walsall to Wednesbury	75.0%	<b>30</b>	2	2	2	2	2	3	3	3	3	3	3	2
A454 Willenhall Road Wolverhampton - Walsall	75.0%	<b>29</b>	2	2	3	3	2	3	2	2	3	2	3	2

A449 Stafford Road Wolverhampton CC to i54	72.9%	<b>27</b>	2	3	3	2	2	1	2	3	3	2	2	2
A34 Green Lane Walsall - Bloxwich	70.8%	<b>27</b>	3	2	2	1	2	3	2	3	3	1	3	2
A4101 Stourbridge Road Dudley to Pensnett and Brierley Hill	69.8%	<b>26</b>	2	2	2	1	2	3	3	3	3	1	2	2
Wolverhampton – Bilston - Wednesbury	68.8%	<b>25</b>	3	3	2	3	2	1	1	2	1	1	3	3
A4123 Wolverhampton Road Dudley - Hagley Road	68.8%	<b>25</b>	3	3	2	1	1	3	2	1	3	2	2	2
A4123 New Birmingham Road Wolverhampton - Dudley	68.8%	<b>25</b>	3	3	2	2	2	3	2	1	2	1	2	2
A4124 Lichfield Road Wolverhampton - Bloxwich	62.5%	<b>24</b>	2	2	2	2	2	3	2	2	2	1	2	2
B4151 Sutton Road Walsall - Streetly	58.3%	<b>20</b>	3	3	2	1	1	3	1	1	2	1	1	1
A34 Birmingham Road Walsall - Great Barr	52.1%	<b>19</b>	2	2	2	1	1	3	1	2	2	1	1	1
A459 Dudley Road Halesowen	52.1%	<b>19</b>	2	2	2	1	1	3	2	1	2	1	1	1
A449 Penn Road Wolverhampton CC to Wombourne	47.9%	<b>17</b>	2	2	2	1	1	3	1	1	1	1	1	1
A459 Wolverhampton Road Wolverhampton - Dudley	45.8%	<b>18</b>	1	1	2	1	1	3	2	2	2	1	1	1

### *Walking*

For walking, investment focus areas have been identified. These highlight areas where there is a cluster of physical barriers, local centres, public transport interchanges and key employment sites with significant short distance commuter trips. For the key employment sites, these have been prioritised to those where the employment focus is also a public attractor such as hospitals and retail centres.

The short list of walking focus areas is as follows and shown in **Figure 8**;

1. **Brierley Hill and Merry Hill** (*physical severance between the two centres, two key short trip employment sites with one being Merry Hill, a bus interchange*)
  2. **Wolverhampton City Centre** (*the ring road is a barrier to movement, albeit with crossing points at key junctions, but with the civic centre a key short trip employment site, the city centre having bus, metro and rail interchange, and a strategic centre*)
  3. **Walsall town centre and Walsall Manor Hospital** (*hospital a key short trip employment site, bus and rail interchange, strategic centre*)
  4. **West Bromwich town centre and Sandwell General Hospital** (*multiple metro stops, bus interchange, hospital as a key short trip employment site*)
  5. **Wednesfield** (*Bentley Bridge Retail Park and New Cross Hospital as key short trip employment sites, local centre*)
  6. **Walsall to Bloxwich employment corridor** (*three key short trip employment sites and bordering the Bloxwich rail station and local centre*)
  7. **Pensnett and Russells Hall** (*Russells Hall Hospitals key short trip employment site, and Russells Hall and Pensnett Local Centres*)
- **Public Transport Interchanges** (*those not included in a focus area above and future metro stops from Dudley to Brierley Hill*)

- **Local Centres** (*those not included in a focus area above*)

For each of the walking focus areas for investment, an audit of existing infrastructure is necessary to identify where pedestrian infrastructure improvements are needed, with sufficient detail obtained on-site to enable the scope and indicative cost of schemes to be estimated. An example Walking Audit report is contained in **Appendix 7**, that targets the following design outcomes;

- Comfort
- Attractiveness
- Accessibility
- Directness
- Safety

In addition, a community audit with various user groups is recommended to ensure needs for the elderly, the visually impaired, mobility impaired, buggy users and children are identified and addressed and to encourage local ownership of the infrastructure design.

The following measures are considered to improve pedestrian provision;

- Resurfaced footways
- Improved lighting
- Provision of CCTV
- Improved/new crossings serving pedestrian 'desire lines'
- Removal of street clutter
- Reduced traffic speeds
- Measures to reduce the dominance of traffic
- Signage and wayfinding

Within each focus area, key employers and schools should be engaged and any existing travel plans reviewed or new travel plans prepared to understand travel patterns to work/school and to identify any current infrastructure, safety and severance issues. This will also be a priority for all types of new developments that attract trips.

For those focus areas that contain metro stops or train stations with Park & Ride facilities, additional measures should be taken to ensure walking is encouraged for the short trip to the station / stop rather than people driving to the park and ride attracted by the incentive of free parking. Engagement should be undertaken with Transport for West Midlands to understand travel trends and possible pedestrian improvements.

In addition to the focus areas, there are a few locations across the Black Country where there are significant severance and barriers to walking movements that would need to be addressed through a specific infrastructure scheme. Their strategic locations are shown in **Figure 8** and consist of;

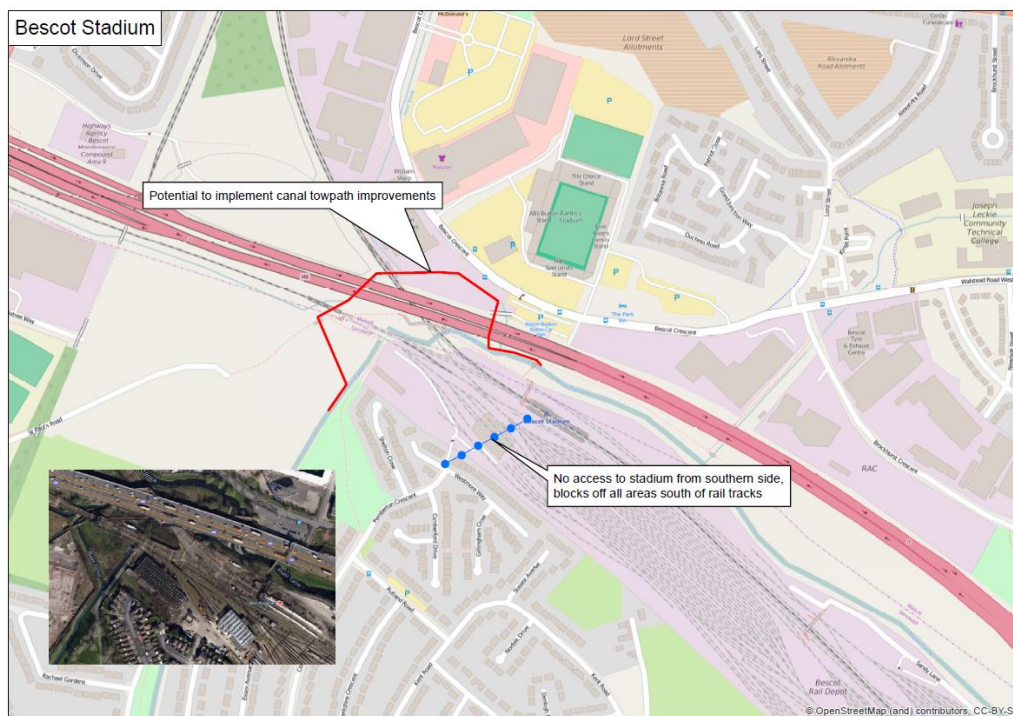
**A. M6 Junction 10** (*inadequate walking infrastructure and crossings, no alternative route to cross the M6 in the vicinity, very high volumes of traffic*)



- B. M6 Junction 9** (inadequate walking infrastructure and crossings, no alternative route to cross the M6 in the vicinity, very high volumes of traffic, secondary school catchment areas either side of the junction)

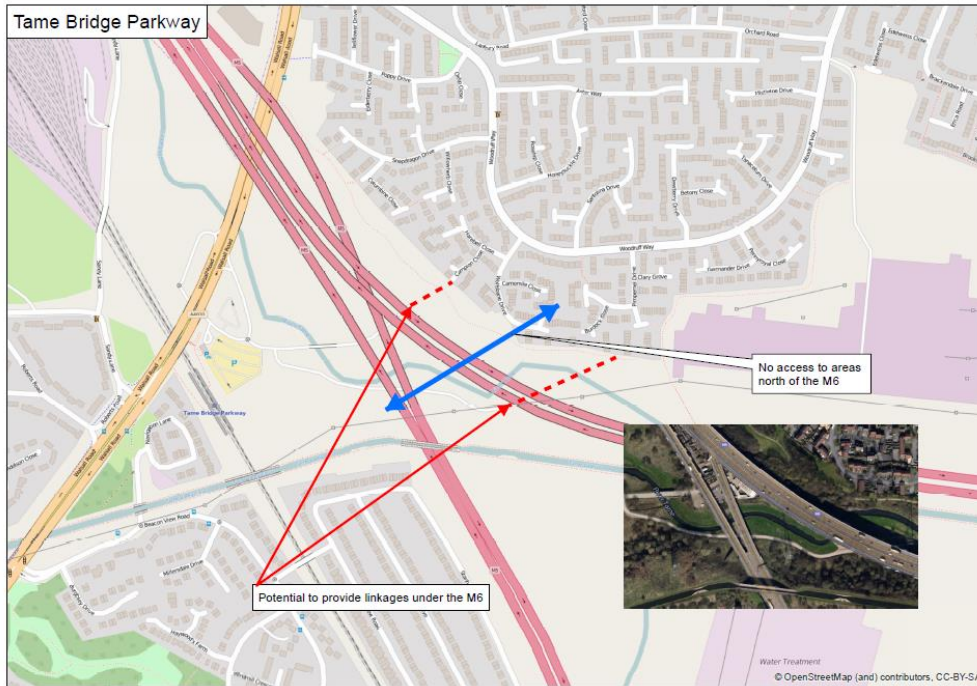


- C. Bescot Stadium Rail Station** (train station and physical barrier)





**D. Tame Bridge Parkway Station** (*train station and physical barrier*)



These locations would benefit from new pedestrian links and infrastructure, to connect areas on either side of the junctions or train stations. Due to these being specific infrastructure improvements, these have been able to be prioritised based on a number of criteria using a scoring method (**Appendix 9**) as follows;

**Table E: Walking Infrastructure Prioritisation**

Location	Rank	Total Prioritisation Score	Total	Scheme Feasibility	Scheme Deliverability	Funding Potential	Quality of existing Infrastructure	Current and Planned Level of Investment	Integration with other transport modes	Access to Key Destinations	Access to Jobs	Severance	Economic Exclusion
M6 Junction 10	3	66.7%	20/30	2	2	3	1	1	1	2	2	3	3
M6 Junction 9	1	73.3%	22/30	2	2	3	1	3	1	2	3	3	2
Bescot Stadium Rail Station	3	66.7%	20/30	2	2	2	1	1	3	2	2	3	2
Tame Bridge Parkway Station	2	70.0%	21/30	3	2	2	1	1	3	2	2	3	2

## 7. Implementation Plan: Outcomes

### 7.1 Strategy Outcomes

As outlined in the previous section, a long list of cycle corridors/routes have been identified and then prioritised based on a wide range of criteria. For walking, focus areas have been generated alongside specific infrastructure schemes to tackle severance.

At a meeting held on 24<sup>th</sup> March 2016 with the client team, a short list of schemes were developed for cycling and the walking zones were refined.

### 7.2 Strategic Outline Business Cases for Prioritised Cycle Schemes

Detailed strategic outline business cases have been prepared for three of the priority intervention corridors / zones, namely:

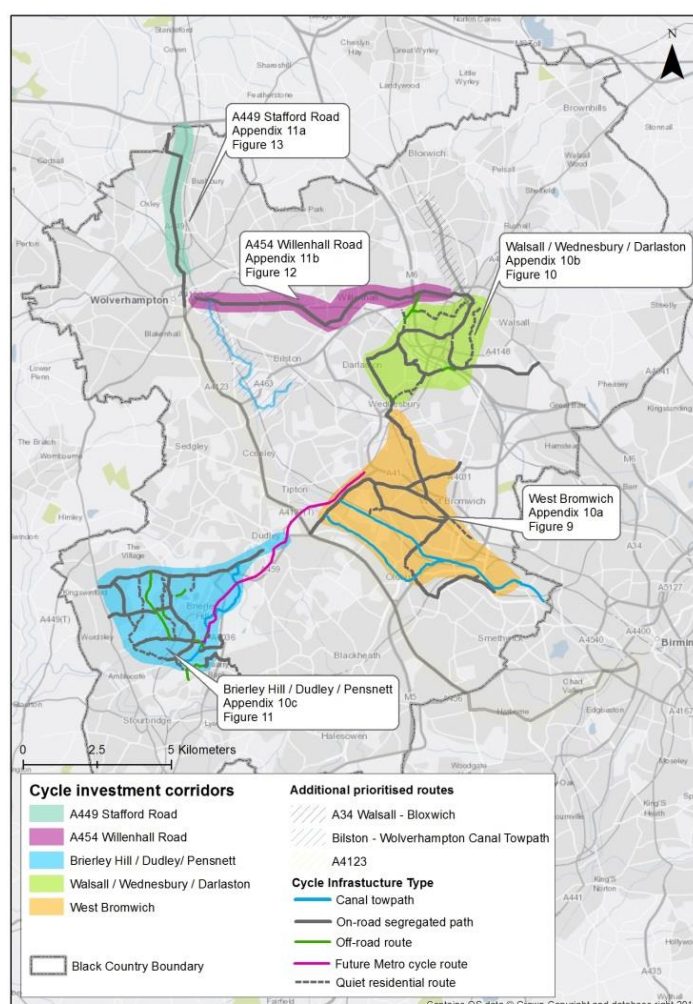
- West Bromwich (**Appendix 10a and Figure 9**)
- Walsall / Wednesbury / Darlaston areas and links (**Appendix 10b and Figure 10**)
- Brierley Hill / Dudley/ Pensnett areas and links (**Appendix 10c and Figure 11**)

High level strategic business cases have also been prepared to support funding bids for highway improvement schemes improvement schemes and these are attached as **Appendix 11** to this report. These cover the following corridors:

- A449 Stafford Road (**Appendix 11a**)
- Wolverhampton – Walsall (**Appendix 11b**)

Each of these five corridors are summarised further below.

Four further schemes; Bilston – Wolverhampton Canal Towpath, the A4123 schemes and the A34 Walsall to Bloxwich route scored highly in the prioritisation table and it is recommended that these additional schemes are put forward for further assessment and feasibility studies.



- **West Bromwich**

In total, more than 34km of new routes are proposed with a varying degree of required investment and level of segregation, ranging from quiet residential streets and canal towpaths to fully segregated cycle paths. The proposed scheme runs along the following links (refer to Appendix 10a):

- Bridge Street/A4196 Holloway Bank/Hill Top/Black Lake/High Street
- Great Bridge Street/Dudley Street
- New Swan Lane
- Horseley Heath/Dudley Port
- Whitehall Road and Greets Green Road
- Stone Street/Tat Bank Road/B4169 St Paul's Road
- A4034 Bromford Lane/Bromford Road
- both branches of Mainline Canal

The area lies entirely in the Sandwell Borough.

The main aim of this corridor is to improve walking and cycling connections between some of the major local and employment centres in the Black Country, including West Bromwich town centre, Oldbury, Great Bridge, Wednesbury and the public transport interchanges. Namely, the area is also home to four major metro stops (West Bromwich, Hawthorns, Wednesbury Parkway, Great George Street), a bus interchange in West Bromwich, Sandwell College, six large employers and a range of future developments; including a new Metro line, new hospital, garden city and other housing developments. There are a number of major barriers to movements of non-motorised users in this area such as the M5 motorway, Wolverhampton-Birmingham rail line, Birmingham-Stourbridge rail line, A454 Black Country New Road and a Metro line. There is some provision for cyclists in the area but it is scattered around and tends to comprise of advisory lanes which are often used as parking spaces, and canal towpaths with unsuitable surfaces and poor perceived safety and security. The NCN 5 runs to the east of the area to Sandwell Valley Country Park and a good quality Midland Metro Walk and Cycleway runs along a section of the Metro line.



*Image courtesy of Google Maps*

According to the 2011 Census, 43% of trips to work by residents of the areas in this part of Sandwell are shorter than 5km but only 3.2% of those are made by bicycle, 14% on foot and 58% (or 12,000 trips) are made by car, indicating a significant potential for mode shift.

According to the Propensity to Cycle Tool the key commuter routes (in terms of numbers) are from Dudley Port through Tividale to Oldbury, Horseley Heath to West Bromwich and Hill Top to West Bromwich whilst the highest potential for cycling is in Dudley Port and Horseley Heath. In the context of Black Country as a whole, these routes have above the average potential.

- **Walsall / Wednesbury / Darlaston areas and links**

In total, more than 22km of new routes are proposed with a varying degree of required investment and level of segregation, ranging from quiet residential streets to fully segregated cycle paths. The proposed scheme runs along the following links (refer to Appendix 10b);

- A4038 Walsall Road/Darlaston Road/Wednesbury Road
- A462 Darlaston Road
- Vicarage Road
- Wood Green Road
- St Paul's Road and Wednesbury Retail Park
- Bescot Crescent/Walstead Road
- Alexandra Rd/Caldmore Road
- An off-road link under the M6
- Jerome Road/Scarborough Rd/Rollingmill Street/Long Street

The area lies within two boroughs: Walsall and Sandwell.

The main aim of this corridor is to connect some of the major local and retail centres in the Black Country, including Walsall, Darlaston and Wednesbury, Wednesbury Retail Park and Junction 10 Retail Park. The area is also home to two major metro stops (Wednesbury Parkway and Great George Street), two bus interchanges in Walsall, Walsall College, three large employers and Walsall Manor hospital. There are a number of major barriers to movements of non-motorised users in this area such as the M6 motorway,

Walsall-Birmingham rail line and the A454 Black Country Route. There is some provision for cyclists in the area but it is scattered and tends to comprise of advisory lanes which are often used as parking spaces and canal towpaths with unsuitable surfaces and poor perceived safety and security.



*Image courtesy of Google Maps*

According to the 2011 Census, 49% of trips to work by residents of the areas in the Sandwell part of the cycle corridor south of M6 (to anywhere) are shorter than 5km but only 3% of those are made by bicycle and 51% are made by car. In the Walsall part, north of M6, 45% of trips to work are shorter than 5km less than 2% of those trips are made by bicycle and 48% of them are made by car. In total, less than 4% are made by bike, 23% on foot and 53% (or almost 4,000 trips) by car in the scheme area.

According to the Propensity to Cycle Tool the key commuter routes (in terms of numbers) are from south Walsall to central Walsall and between Darlaston and Wednesbury and the highest potential for cycling is in the areas north of central Wednesbury. In the context of Black Country as a whole, these routes have above the average potential.

- **Brierley Hill / Dudley/ Pensnett areas and links**

In total, almost 43km of new routes are proposed with a varying degree of required investment and level of segregation, ranging from quiet residential streets and canal towpaths to fully segregated cycle paths.

The proposed scheme runs along the following routes (refer to Appendix 10c):

- B4179 Commonsides/Pensnett Road
- Bromley Lane/Bryce Road
- Moor Street
- NCN54 off-road route between Stourbridge and Brierley Hill
- A4101 link and residential roads between Bromley Lane and A4101 route
- Bull Street link
- link between NCN 54 and Merry Hill
- Merry Hill retail park
- Coppice Lane/Victoria Road/Rose Hill/A4100 Forge Lane
- Dudley Canal upgrade
- off-road link through Sheepwash Local Nature Reserve

Except for the 400m section of the route on Forge Lane (part of Sandwell Borough) the entire area lies within Dudley Borough.

The main aim of this corridor is to improve walking and cycling connections between the major local, shopping and employment centres in Black Country (Brierley Hill, Pensnett Trading Estate (TE) and Dudley) and the residential areas. Also in the area are the biggest hospital in Black Country (Russells Hall), a major retail centre Merry Hill, Brierley Hill Enterprise Zone and a future Metro route. Compared to other Black Country areas there are fewer major barriers to movements of non-motorised users in this area, some of them include freight rail line and A4036 Merry Hill strategic road but also canals with a lack of crossing points. On the other hand, the overall accessibility of the scheme area is also limited – there is no rail or Metro line and the nearest motorway is M5 whilst cycling facilities are limited. Hilliness is considered to be one of the barriers to mass cycling but in spite of being the most hilly area of Black Country it is believed, based on the experience from other cities, that many trips could still be made by bicycle. Currently, there is some provision for cyclists in the area but it is scattered around and tends to comprise canal towpaths with unsuitable surface

and poor perceived safety and security. NCN 54 is not fully opened and it currently runs between Stourbridge and Dudley but it doesn't connect further on to the route in Tipton yet.

According to the Census, 53% of all trips to work by residents of the corridor area are shorter than 5km but only 1.8% of those are made by bicycle, 13% on foot and 64% or more than 16,000 trips are made by car, indicating a significant potential for mode shift.

According to the Propensity to Cycle Tool (PCT) the key commuter routes (in terms of numbers) are from Brierley Hill local centre to the north (Pensnett, Russells Hall) and to the south (Quarry Bank) whilst the highest potential for cycling is in the residential area in the south-west of the corridor, i.e. where there is least deprivation.



*Image courtesy of Google Maps*

- **A449 Stafford Road**

The proposed scheme runs along the A449 Stafford Road corridor between Wolverhampton city centre and i54 at M54 J2 (refer to Appendix 11a). It is a 4.5 mile (7km) long corridor with a dual carriageway, 40mph speed limit for most of its length and with the majority of junctions in the form of unsignalised multiple lane roundabouts. Currently there is some provision for cyclists albeit not along the entire corridor consisting of shared use pavements and a handful of staggered toucan crossings with the cycle route often abruptly ending or joining a busy carriageway.

The main aim of the corridor is to connect i54 at the northern end of the corridor with Wolverhampton City Centre at the southern end of the corridor, University of Wolverhampton, Wolverhampton train, bus and metro station and other smaller employment sites. According to the 2011 Census more than 14,000 people work along the entire corridor and more than 2,000 people both live and work along the corridor.

Viewing in the context of Black Country as a whole, according to the Propensity to Cycle Tool this corridor has one of the highest potentials for cycling.



*Image courtesy of Google Maps*

- **Wolverhampton – Walsall**

A primary cycle route is proposed between Wolverhampton City Centre and Walsall Town Centre, making use of key roads such as the A454 Willenhall Road and The Keyway to provide a quick and direct route between the two centres (refer to Appendix 11b). The route will be approximately 10 kilometres long, and provide access to Willenhall Town Centre and improved access across the M6 Motorway. In addition, a 13km parallel

secondary route is proposed that will link to the primary route and make use of canal towpaths, parks and the upgrading of existing cycle infrastructure to provide access to residential areas, schools and Walsall Manor Hospital. Together, the two routes will provide a cycle corridor with quality infrastructure and direct connectivity to a number of key destinations. Currently there is poor provision for cyclists with no infrastructure located along the primary route, and where it is available it is fragmented.

According to the 2011 Census, more than 18,000 employees work along the A454 corridor between Walsall and Wolverhampton. The top employment destinations across the corridor are the Walsall Manor Hospital and surrounding area (south of the Wolverhampton Road in Walsall), Walsall town centre, Willenhall town centre and Wolverhampton City Centre. These areas have over 5,000 employees working in each vicinity, however the majority of the corridor is a key employment area.

Viewing in the context of Black Country as a whole, according to the Propensity to Cycle Tool this corridor has one of the highest potentials for cycling.



*Image courtesy of Google Maps*

### **7.3 Complementary Measures**

#### **Behaviour Change**

Evidence shows that there is no one solution to changing peoples' behaviours and habits but a number of more or less effective ways. For the successful promotion of walking and cycling, as with other habits an understanding of the motivations is useful to understanding and developing interventions to support people making long term changes. A lot of the promotion of walking and cycling focuses on the risks of being overweight and taking no exercise and on the impacts of road traffic congestion to the economy and local environment. Academic research shows that, whilst this alters peoples' perception of the risks to health and well-being resulting from their lifestyles and their intention to change, on average these messages do not change behaviour.

What seems to be more effective is changing the environment itself to subtly change behaviour. Providing people with the safe environment is one important aspect but complemented by the tools and ongoing support to become more active, choose walking and cycling for shorter journeys and to sustain these habits over time requires consistent and long term approaches.

This strategy is focused on an implementation plan to deliver the infrastructure that will encourage and support more people to cycle and walk more. Alongside the infrastructure we are proposing complementary measures to promote the infrastructure, equip people to take advantage of these facilities and to make and sustain changes to their travel habits. These complementary activities need to include a range of information, smart technology use, promotional and training activities to create an active travel culture and to monitor impacts on investment.



*Image courtesy of TfWM*

Travel planning is a key promotional tool for walking and cycling and Black Country authorities have actively promoted these with the aim of helping businesses, schools and individuals make smarter travel choices. The support of LSTF 'Smarter Choices, Smarter Networks' project and Managing Short Trips run by Transport for West Midlands have supported this activity. Other supporting interventions such as 'WorkWise', (Cycle training and support for jobseekers), 'Letzgogreen' (engagement with schools), 'Future Travel' (sustainable travel for young people), 'Top Cycle Location' programme (engagement with employers), and Bostin Bikes (cut-price bikes provided with cycle training opportunities, a helmet, lights and D-lock) have been promoted in the area.



*Image courtesy of TfWM*

## **Branding**

The value of branding to promote sustainable transport, active travel and increasing physical exercise is understood, creating a specific identity and building 'traction' in the target market. There are already a large number of brands linked to individual campaigns, organisations and activities in the field of sustainable and active transport nationally and locally. At this stage therefore no additional branding is proposed to support the cycling and walking strategies and the Network West Midlands brand will provide an 'umbrella brand'.

Focus will be placed on promoting new infrastructure and initiatives and promoting the health and economic benefits of increased walking and cycling. This will be supported by measures to encourage initial take up, followed by initiatives to embed activities as set out below:

- **Promotion:** Targeting promotional activities towards key groups and promotion of Network West Midlands resources
- **Training:** Providing and promoting the equipment and training needed to ensure participation
- **Support:** Promoting initiatives such as the 'Bostin Bikes' programme and supporting local cycle and walk champions with training for them to provide appropriate activities in their communities
- **Activities:** Exploring opportunities for bike share scheme, provision of local events, led cycle rides and walks, cycle buddy schemes and general business, school and community support, and involvement in national cycling and walking campaigns (e.g. Cycle to Work Day, Bike Week, National Walking Month)



*Image courtesy of TfWM*

## **Mini Holland schemes**

In addition to the major schemes planned in the corridors around key Black Country centres of employment we also want to give the opportunity to smaller local centres to transform local cycling facilities and encourage people to cycle and walk more. Our desired approach is similar to the London's Mini Holland Schemes where substantial changes have been made to streets to support increased cycling and walking. To do this we would allocate funding to local centres which are not be part of the major investment corridors but would benefit from this approach in order to shift the short trips currently made by car to bike and foot. There are a number of centres of high cycling potential in the Black Country and, with the right mix of infrastructure and promotional interventions, a real shift in cycling culture could be delivered here.

There are several reasons why these centres are well placed to stimulate cycling:

- The network of quiet residential roads, open spaces and parks and vicinity of the countryside are perfect for getting novice cyclists involved
- Local public transport is generally more infrequent and trips are dispersed, presenting the opportunity for cycling as an alternative for short trips
- Larger properties make storing a bike easier

There are a number of reasons why people don't cycle now in these areas, including individual attitudinal barriers, physical barriers such as traffic speed and lack of route segregation and issues faced when delivering cycling support. These are not dissimilar to the barriers experienced in the Black Country overall. The Black Country will consider identifying funding opportunities for local districts to bid into. Therefore, the specific objectives for the Mini Hollands here are:

- To improve major roads used by cyclists and pedestrians with segregate lanes and/or proper space provision
- To link and mark quieter residential roads and apply filtered permeability with traffic calming measures to create low-traffic cycle friendly neighbourhoods
- To improve the greenway and canal cycle routes to provide comfortable, safe and attractive off-road links that form a part of the overall cycle network
- To improve the integration with the key public transport interchanges by providing attractive routes and secure parking
- To provide more cycle parking in shopping areas and on residential streets
- To work with key traffic generators, including schools and major employers to deliver smarter travel interventions
- To ensure commitment and leadership in order to begin a long term step change

The following local centres are highlighted as being suitable for this treatment but this is comprehensive and other centres may also be suitable:

- Aldridge/Pool Green
- Stourbridge
- Halesowen
- Bloxwich
- Tettenhall Wood
- Cradley Heath



## **7.4 Implementation Plan**

The implementation plans on the following pages outline the priority schemes and infrastructure for walking and cycling, as well as a plan of supporting measures that will complement the proposed infrastructure.

**Cycling Implementation Plan**

**Cycling Priority Capital Interventions**

Scheme	Route Ref	Timescale	Action/Implementation	Owner/Partners	Cost Estimate (£)	Deliverability Risk				
						Cost	Technical	Land	Risk	
West Bromwich, Brierley Hill-Dudley-Pensnett and Walsall - Darlaston - Wednesbury Schemes have been identified from the evidence based assessment methodology, outlined in the Cycling Strategy. Further details, costing methodology and mapping can be found in the associated business cases in Appendix 10, with the route references aligning to those within Figure 1 of each business case and the associated figure in the report.										
West Bromwich Scheme Corridor <i>Figure 9 Appendix 10a</i>	2	0-3 years	Dudley Street/ Great Bridge Street Two-way stepped cycle track and junction improvements	Local Highway Authority	1,080,000	ü	ü	ü		
	3	0-3 years	Whitehall Road On-road cycle lane, traffic calming and junction improvements	Local Highway Authority	220,000	ü	ü	ü		
	4	0-3 years	Swan Lane On-road cycle lane, traffic calming and junction improvements	Local Highway Authority	310,000	ü	ü	ü		
	7	0-3 years	Tat Bank Road On-road advisory cycle lane, traffic calming and junction improvements	Local Highway Authority	550,000	ü	ü	ü		
	8	0-3 years	Mainline Canal Resurfacing, new and upgraded access points, lighting	Local Highway Authority / Canal & River Trust	2,800,000	ü	ü	ü		
	9	0-3 years	Link to Sheepwash Local Nature Reserve New off-road link and bridge	Local Highway Authority / Canal & River Trust	1,410,000	ü	ü	ü		
	10	0-3 years	NCN 5 Upgrade	Local Highway Authority / Sustrans	990,000	ü	ü	ü		
	11	0-3 years	Public Transport: Cycle parking at major metro stops, 4 railway stations and West Bromwich bus station	Local Highway Authority/ Centro / Network Rail / Metro	480,000	ü	ü	ü		
	6	0-3 years	Bromford Lane Changing traffic regime to one-way with contra-flow cycle lane	Local Highway Authority	670,000	ü	ü	ü		
		3-5 years	Bromford Lane One-way stepped cycle track and junction improvements	Local Highway Authority	710,000	ü	ü	ü		
	1	3-5 years	A4196 On-road lightly segregated cycle lane and junction improvements	Local Highway Authority	5,770,000	ü	ü	ü		
	5	3-5 years	Horseley Heath/ Dudley Port Segregated cycle track and junction improvements	Local Highway Authority	3,340,000	ü	ü	ü		
					<b>Total Cost</b>	<b>18,330,000</b>				
Walsall - Darlaston - Wednesbury Scheme Corridor <i>Figure 10 Appendix 10b</i>	1	0-3 years	A462 on-road segregated cycle lane, traffic calming and junction improvements	Local Highway Authority	890,000	ü	ü	ü		
	3	0-3 years	Vicarage Road quietway with signage, traffic calming and some segregated cycle track	Local Highway Authority	520,000	ü	ü	ü		
	4	0-3 years	Wednesbury Retail Park off-road links and quietway	Local Highway Authority	620,000	ü	ü	ü		
	5	0-3 years	Bescot Stadium Railway Station new off-road link	Local Highway Authority / Network Rail / Centro	430,000	ü	ü	ü		
	6	0-3 years	Bescot Crescent segregated cycle track and junction improvements and quietway	Local Highway Authority	3,440,000	ü	ü	ü		
	7	0-3 years	Alexandra Road quietway with traffic calming	Local Highway Authority	550,000	ü	ü	ü		
	9	0-3 years	Primley Avenue quietway with traffic calming	Local Highway Authority	540,000	ü	ü	ü		
	10	0-3 years	Public Transport stations, cycle parking at all stops and interchanges	Local Highway Authority / Centro / Network Rail/ Centro	320,000	ü	ü	ü		
	2	3-5 years	A4038 stepped cycle track and on-road cycle lane with junction improvements	Local Highway Authority	6,030,000	ü	ü	ü		
		5-10 years	Off-road path under M6 motorway	Local Highway Authority / Highways England	610,000	ü	ü	ü		
					<b>Total Cost</b>	<b>13,950,000</b>				
Brierley Hill - Pensnett-Dudley Scheme Corridor <i>Figure 11 Appendix 10c</i>	2	0-3 years	A4179 On-road cycle lane, traffic calming and junction improvements	Local Highway Authority	360,000	ü	ü	ü		
		0-3 years	Quiet route via Cresset Lane and Mullet Park	Local Highway Authority	570,000	ü	ü	ü		
	3	0-3 years	Disused rail line conversion	Local Highway Authority	470,000	ü	ü	ü		
	4	0-3 years	Bromley Lane segregated cycle track and junction improvements	Local Highway Authority	750,000	ü	ü	ü		
	5	0-3 years	B4180 stepped cycle track, traffic calming and junction improvements	Local Highway Authority	830,000	ü	ü	ü		
	6	0-3 years	Standhill Road on-road cycle lane, traffic calming and junction improvements	Local Highway Authority	680,000	ü	ü	ü		
		0-3 years	Lapwood Avenue on-road cycle lane, traffic calming and junction improvements	Local Highway Authority	580,000	ü	ü	ü		
	7	0-3 years	A4101 quiet route with signage and traffic signage	Local Highway Authority	500,000	ü	ü	ü		
	8	0-3 years	NCN 54 upgrade to Brierley Hill and on road cycle lane and junction improvements	Local Highway Authority / Sustrans	830,000	ü	ü	ü		
	9	0-3 years	Hawbush via Bull Street - off-road and quiet route with signage	Local Highway Authority	460,000	ü	ü	ü		
	10	0-3 years	NCN 54 upgrade to Merry Hill and segregated cycle track	Local Highway Authority / Sustrans	410,000	ü	ü	ü		
	13	0-3 years	Dudley Canal resurfacing and new and upgraded access points	Local Highway Authority / Canal & River Trust	1,020,000	ü	ü	ü		
	14	0-3 years	Public Transport stations - cycle parking at Cradley Heath and Dudley Bus Station	Local Highway Authority/ Centro / Network Rail	110,000	ü	ü	ü		
	1	3-5 years	A4101 Stepped Cycle Track, Service Road and Junction Improvements	Local Highway Authority	5,420,000	ü	ü	ü		
11	3-5 years	Merry Hill Retail Park new off-road link and bridge and segregated cycle track	Local Highway Authority	3,260,000	ü	ü	ü			
	3-5 years	A4100 to Cradley Heath Station on road cycle lane, traffic calming and junction improvements	Local Highway Authority/ Centro / Network Rail	1,020,000	ü	ü	ü			
					<b>Total Cost</b>	<b>17,270,000</b>				
Wolverhampton to Walsall and Wolverhampton to I54 schemes have been identified in the same manner as those above but will build upon existing highway proposal schemes that will provide quality segregated infrastructure along a portion of the corridor. As such, the business cases (Appendix 11) for these schemes have been prepared at a higher level as they will be assessed fully through the business cases of the associated highway schemes.										
Wolverhampton - Walsall Scheme Corridor		0-3 years	Towpath on Canal/Disused Rail Line and access	Local Authority/ Canal & River Trust / Network Rail	1,480,000	ü	ü	ü		
		0-3 years	Shared path through open space/parks and access	Local Authority	460,000	ü	ü	ü		
		0-3 years	Road Cycle paths without interventions to the highway	Local Highway Authority	8,338,000	ü	ü	ü		
		0-3 years	Public transport: cycle parking at Walsall train station and Wolverhampton Interchange, and at proposed Willenhall stop	Local Highway Authority / Network Rail / Centro / Metro	150,000	ü	ü	ü		
		3-5 years	Major roads with significant highway interventions for fully segregated cycle paths	Local Highway Authority	49,000,000	ü	ü	ü		
		3-5 years	Minor roads with highway interventions for full segregated cycle paths	Local Highway Authority	2,834,000	ü	ü	ü		
					<b>Total Cost</b>	<b>62,262,000</b>				
Wolverhampton to I54 Scheme Corridor		3-5 years	Stafford Road major highway intervention to accommodate fully segregated cycle path	Local Highway Authority	49,000,000	ü	ü	ü		
					<b>Total Cost</b>	<b>49,000,000</b>				

**Risk Key:**

Cost	Technical	Land	Overall Risk		
An implementation cost of over £1million is raised as a potential risk	Major highway reconfigurations or infrastructure associated with new or proposed tunnels/bridges are raised as potential risks	Schemes that are located fully/partially outside the highway boundary and/or the land could already be committed for future uses is raised as a potential risk	Potential risk in none/ 1 category	Potential risk in 2 categories	Potential risk in all categories

Funding has not been considered as a risk to delivery here although it is recognised that funding has yet to be identified for most of the schemes

Cost Estimate Sources:	Refer to individual business cases for further details
<ul style="list-style-type: none"> <li>Sustrans</li> <li>Greater Manchester Cycling Design Guidance</li> <li>London Cycle Super Highways Costs</li> <li>Leeds - Bradford Cycle Super Highway Costs</li> </ul>	

Complementary Capital Investment Plans

Scheme	Timescale	Action	Owner/Partners	Cost Type
"Mini-Holland" Schemes	0 - 3 years	Investigate opportunities for Mini-Holland schemes in each district at locations where there are smaller local centres that would benefit from cycling, walking, and urban realm improvements	Local Authorities	Revenue
New Developments and Highway Schemes	0 - 3 years	Ensure existing planned developments such as Bilston Urban Village and Darlaston Enterprise Zone provide quality cycle infrastructure as outlined in the strategy	Local Authorities / Developers	Capital
	Ongoing	Ensure all new developments and transport schemes provide quality infrastructure and cycling facilities, with cycling infrastructure designed as a serious mode of transport and not secondary to vehicular traffic and pedestrians	Local Authorities / Developers	Revenue
Canal & River Trust Future Investment Schemes	0 - 3 years	Integrate existing and proposed "Managing Short Trips" canal improvements with proposed cycle infrastructure schemes	Canal & River Trust / Local Authorities	Capital
Neighbouring Authorities Investment Plans	Ongoing	Ensure new routes within the Black Country align with Birmingham, Staffordshire and Worcestershire routes and investment plans, and provide consistency across cross-boundary routes in terms of signage, infrastructure quality and maintenance	Local Authorities / Neighbouring Authorities	Capital
Current Cycle Network	Ongoing	Maintain current and new cycle infrastructure to a high standard	Local Authorities	Capital

Cycling Supporting Measures

Theme	Timescale	Action	Owner/Partners	CostType
Marketing and Information	0 - 3 years, then ongoing	Develop and promote both a cycle and walking map at a Black Country scale in a range of formats, and keep up to date - web based; paper maps and mobile phone app.	Centro/Local Authorities	Revenue
	Ongoing	Use a range of marketing tools and smart technologies to encourage cycling and promote the benefits of cycling, including engaging with the media - Social media; leaflets; user groups and forums; travel planning	Centro/Local Authorities	Revenue
	Ongoing	Engage with schools/universities, businesses, communities and new residential developments	Centro/Local Authorities	Revenue
	Ongoing	Support leisure events and facilities to nurture and develop a culture of cycling and active travel	Centro/Local Authorities	Revenue
	0 - 3 years	Develop and fund a consistent cycling way-finding strategy between the Black Country local authorities/neighbouring local authorities	Centro/Local Authorities	Revenue
Training and Best Practice	0 - 3 years	Provide a series of workshops and training to designers, Road Safety Auditors and other personnel associated with transport scheme designs to provide best practice on highway designs that integrate with high quality cycle infrastructure	Centro	Revenue
	0 - 3 years	Establish a consistent approach to regional cycling design from existing UK best practice guidelines, and adhere to them for all highway and cycle designs going forward	Centro	Revenue
	0 - 3 years	Create design panels for each Local Authority drawn from experienced cycle design practitioners to review new infrastructure and its provision for cyclists	Local Authorities	Revenue
	0 - 3 years	Ensure Bikeability is offered to all primary schools across the Black Country	Local Authorities	Revenue
	Ongoing	Ensure all future transport (especially cycle) improvements are considered with other assigned works i.e. proposed SPRINT routes, to provide a holistic multi-modal corridor approach	Local Authorities / Centro	Revenue
Supporting Cycle Infrastructure measures	0 - 3 years	Increase levels of cycle parking at bus stops, interchanges and facilities for carrying cycles onboard	Centro/Local Authorities/ Train Operating Companies / West	Capital
	0 - 3 years	Provision of safe and secure cycle parking in schools, with sufficient cycle parking at secondary schools for 20% of the total number of students	Centro/Local Authorities	Capital
	0 - 3 years	Investigate options for a Black Country/West Midlands wide cycle hire or loan scheme; this could include a Brompton Bike style hire scheme and/or a public bike share scheme with docks located at strategic centres, key attractor sites and public transport interchanges	Centro	Revenue (then Capital)
Data Collection	0 - 3 years	Annual audit programme of existing cycle infrastructure in line with Wales/TfL audit tools	Centro/Local Authorities	Revenue
	0 - 3 years	Establish protocol for district-wide data collection & data assembly to support monitoring and review process	Centro	Revenue
	0 - 3 years	Invest in smart technology for data collection	Centro	Capital
Further Programme Development	Ongoing	Complete further feasibility studies and/or business cases for other schemes ranked highly in the scheme prioritisation programme, and build on the existing short term schemes to provide a long term cycle network	Centro/Local Authorities	Revenue

Delivery risk (not including funding risk) for all of the above measures is deemed low and as such a RAG risk assessment is not included

## Walking Implementation Plan

### Walking Investment Priorities

The walking investment focus areas have been identified from the evidence based assessment based on clusters of key walkable employment sites, physical barriers, local centres and public transport interchanges. Details are supplied in the strategy document. There are also focus areas for the remaining Black Country public transport interchanges and local centres, that fall outside a walking investment focus area. See Figure 8 for details.

Scheme	Timescale	Action	Owner/Partners	Cost Type
Walking Investment Focus Areas (Areas 1 - 7 in Figure 8)	0 - 3 years	Audit key walking routes and desire lines to highlight priority areas that are in need of improvement/investment	Local Authorities	Revenue
	0 - 3 years	Review wayfinding to key attractors, routes and local /district centres and ensure is consistent, visible and clear with both time and distance measured signs	Local Authorities	Revenue & Capital
	Ongoing	Where new developments are planned, ensure provision is of a high quality and covers the aims of the walking strategy	Local Authorities/Developers	Revenue
	0 - 3 years	Encourage the community to undertake audits, especially on how existing infrastructure impacts vulnerable groups around key sites such as schools, medical facilities and retirement homes	Local Authorities	Revenue
	Ongoing	Where there are synergies between the focus areas and proposed cycle capital interventions, integrate the schemes and infrastructure where possible	Local Authorities	Revenue
	0 - 3 years	Investigate/ introduce 20mph areas/zones in residential areas as a phased programme. Undertake monitoring and review of early schemes before a wider roll out	Local Authorities	Revenue
	Ongoing	Work with schools and employers to review existing or prepare new Travel Plans to identify safety and severance issues	Local Authorities	Revenue
Local Centre Investment Areas	0 - 3 years	Audit key walking routes and desire lines to/from and within centres to prioritise those that are in need of improvement/investment	Local Authorities	Revenue
	0 - 3 years	Review wayfinding to/from and within local centres and ensure is consistent, visible and clear with both time and distance measures on signs	Local Authorities	Revenue & Capital
	0 - 3 years	Where new developments are planned, ensure provision is of a high quality and covers the aims of the walking strategy	Local Authorities/Developers	Revenue
	0 - 3 years	Where there are synergies between the focus areas and proposed cycle capital interventions, integrate the schemes and infrastructure where possible	Local Authorities	Revenue
Public Transport Investment Areas	0 - 3 years	Existing stops and interchanges; Audit key walking routes and desire lines to interchanges	Local Authorities / Centro	Revenue
	0 - 3 years	Existing stops and interchanges with Park & Ride; engage with Centro to identify travel trends and provide additional measures to encourage walking to stops instead of driving	Local Authorities / Centro	Revenue
	0 - 3 years	Existing stops and interchanges; where new developments are planned in the vicinity to interchanges, ensure walking provision is direct and of a high quality	Local Authorities / Centro / Developers	Revenue
	0 - 3 years	Existing stops and interchanges; Review wayfinding to/from the interchanges and introduce both time and distance measures on signs	Local Authorities / Centro	Revenue & Capital
	0 - 3 years	Existing stops and interchanges; Where there are synergies between the focus areas and proposed cycle capital interventions, integrate the schemes and infrastructure where possible	Local Authorities / Centro	Revenue
	5 - 10 years	Proposed stops and interchanges associated with the Dudley - Brierley Hill new metro route; all of the above measures	Local Authorities / Centro	Revenue
"Mini-Holland" Schemes	0 - 3 years	Investigate opportunities for Mini-Holland schemes in each district at locations where there are smaller local centres that would benefit from cycling, walking, and urban realm improvements	Local Authorities	Revenue
Canal & River Trust Future Investment Schemes	0 - 3 years	Integrate existing and proposed "Managing Short Trips" canal improvements with proposed walking investment schemes	Local Authorities/ Canal & River Trust	Capital

Delivery risk (not including funding risk) for all of the above measures is deemed low and as such a RAG risk assessment is not included

Tackling Barriers to Movement

Scheme	Timescale	Action	Owner/Partners	Estimated Cost/ Cost Type	Deliverability Risk			
					Cost	Technical	Land	Risk
M6 Junction 10	0 - 3 years	Consult with the local community over severance and safety issues associated with Junction 10	Walsall Council / Highways England	Revenue				
	0 - 3 years	Engage with Highways England regarding the potential to improve pedestrian infrastructure across Junction 10	Walsall Council / Highways England	Revenue				
	5 - 10 years	Reopen tunnel to south of Junction 10 for pedestrians and cyclists	Walsall Council / Highways England	Incorporated in Cycle Capital Investment	ú	ú	ú	
	0 - 3 years	Engage with the local schools and identify trip routes to the schools east of Junction 10, to review further improvements for access	Walsall Council	Revenue				
	0 - 3 years	Integrate this scheme with the Willenhall - Wolverhampton Cycle Capital Intervention Scheme	Walsall Council	Revenue & Capital				
M6 Junction 9	0 - 3 years	Consult with the local community over severance and safety issues associated with Junction 9	Walsall Council/ Sandwell Council/ Highways England	Revenue				
	0 - 3 years	Engage with Highways England regarding the potential to improve pedestrian infrastructure across Junction 9	Walsall Council/ Sandwell Council/ Highways England	Revenue				
	3 - 5 years	Reuse disused railway to east of the junction as a pedestrian and cycle route	Walsall Council/ Sandwell Council / Network Rail	£220,000	ú	ú	ú	
	0 - 3 years	Engage with the local schools and identify trip routes to the schools east of junction 10, to review further improvements for access	Walsall Council/ Sandwell Council	Revenue				
	0 - 3 years	Integrate this scheme with the Walsall - Darlaston - Wednesbury Cycle Capital Intervention Scheme	Walsall Council/ Sandwell Council	Revenue & Capital				
Bescot Stadium Rail Station	0 - 3 years	Consult with the local community over severance and safety issues associated with access to the station	Walsall Council/ Sandwell Council / Network Rail	Revenue				
	0 - 3 years	Provide walking and cycling infrastructure along the River Tame to improve access	Walsall Council/ Sandwell Council	Incorporated in Cycle Capital Investment	ú	ú	ú	
	0 - 3 years	Integrate this scheme with the Walsall - Darlaston - Wednesbury Cycle Capital Intervention Scheme	Walsall Council/ Sandwell Council	Revenue & Capital				
Tame Bridge Parkway Rail Station	0 - 3 years	Consult with the local community over severance and safety issues associated with access to the station	Walsall Council/ Sandwell Council / Network Rail	Revenue				
	0 - 3 years	Link pedestrian paths under the M6 to provide access to the station	Walsall Council/ Sandwell Council / Highways England	£100,000*	ú	ú	ú	
	0 - 3 years	Where there are synergies between the focus areas and proposed cycle schemes, integrate schemes and infrastructure where possible	Walsall Council/ Sandwell Council	Revenue				

\*Used towpath costs from Sustrans as an estimate

Risk Key:

Cost	Technical	Land	Overall Risk		
An implementation cost of over £1million is raised as a potential risk	Major highway configurations or infrastructure associated with new or proposed tunnels/bridges are raised as potential risks	Schemes that are located fully/partially outside the highway boundary and/or the land could already be committed for future uses is raised as a potential risk	Potential risk in none/ 1 category	Potential risk in 2 categories	Potential risk in all categories

Funding has not been considered as a risk to delivery here although it is recognised that funding has yet to be identified.

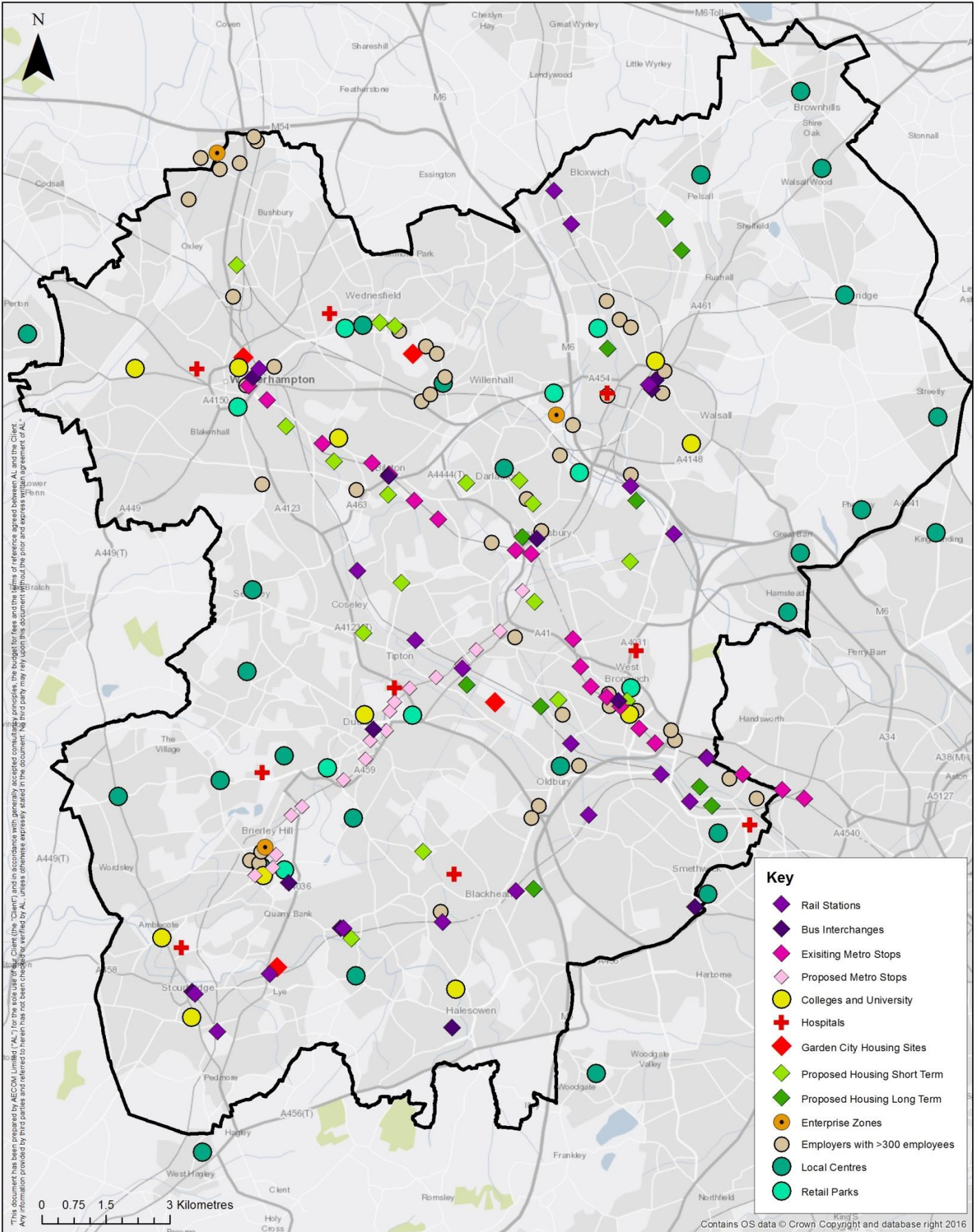
Complementary Walking Measures

Theme	Timescale	Action	Owner/Partners	Cost Type
Marketing and Information	0 - 3 years, then ongoing	Develop and promote both a cycle and walking map at a Black Country scale in a range of formats, and keep up to date - web based; paper maps and mobile phone app.	Centro/Local Authorities	Revenue
	Ongoing	Use a range of marketing tools and smart technologies to encourage walking and promote the benefits of walking, including engaging with the media - Social media; leaflets; user groups and forums; travel planning	Centro/Local Authorities	Revenue
	Ongoing	Engage with schools/universities, businesses, communities and new residential developments and review their associated Travel Plans	Centro/Local Authorities	Revenue
	Ongoing	Support leisure events and facilities to nurture and develop a culture of active travel	Centro/Local Authorities	Revenue
	0 - 3 years	Introduction of timed, timed/distance signage and wayfinding to key destinations	Centro/Local Authorities	Capital
	Ongoing	Support and encourage routes for exercise and wellbeing such as interest trails, volunteer walking groups and walking buddies etc	Centro/Local Authorities	Revenue
	Ongoing	Provide the public with links to online walking and cycling resources through Local Authority and other relevant websites	Centro/Local Authorities	Revenue
Training and Best Practice	Ongoing	Continue pedestrian training for infant school children and introduce where not currently available, and target further possible interventions	Local Authorities	Revenue
	Ongoing	Ensure all future transport (especially cycle) improvements are considered with other assigned works i.e. proposed SPRINT routes, to provide a holistic multi-modal corridor approach	Local Authorities / Centro	Revenue
Data Collection	0 - 3 years	Establish protocol for district-wide data collection & data assembly to support monitoring and review process, in line with the cycling monitoring strategy	Centro	Revenue
	0 - 3 years	Invest in smart technology for data collection, in line with the cycling monitoring strategy	Centro	Capital

Delivery risk (not including funding risk) for all of the above measures is deemed low and as such a RAG risk assessment is not included

The page features an abstract geometric design in the top-left corner, consisting of several thin teal lines that intersect to form a series of triangles and quadrilaterals. The rest of the page is plain white.


## Figures



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<b>Title:</b>	<b>Cycling Strategy Key Attractors</b>
<b>Project:</b>	Black Country Walking and Cycling Strategy

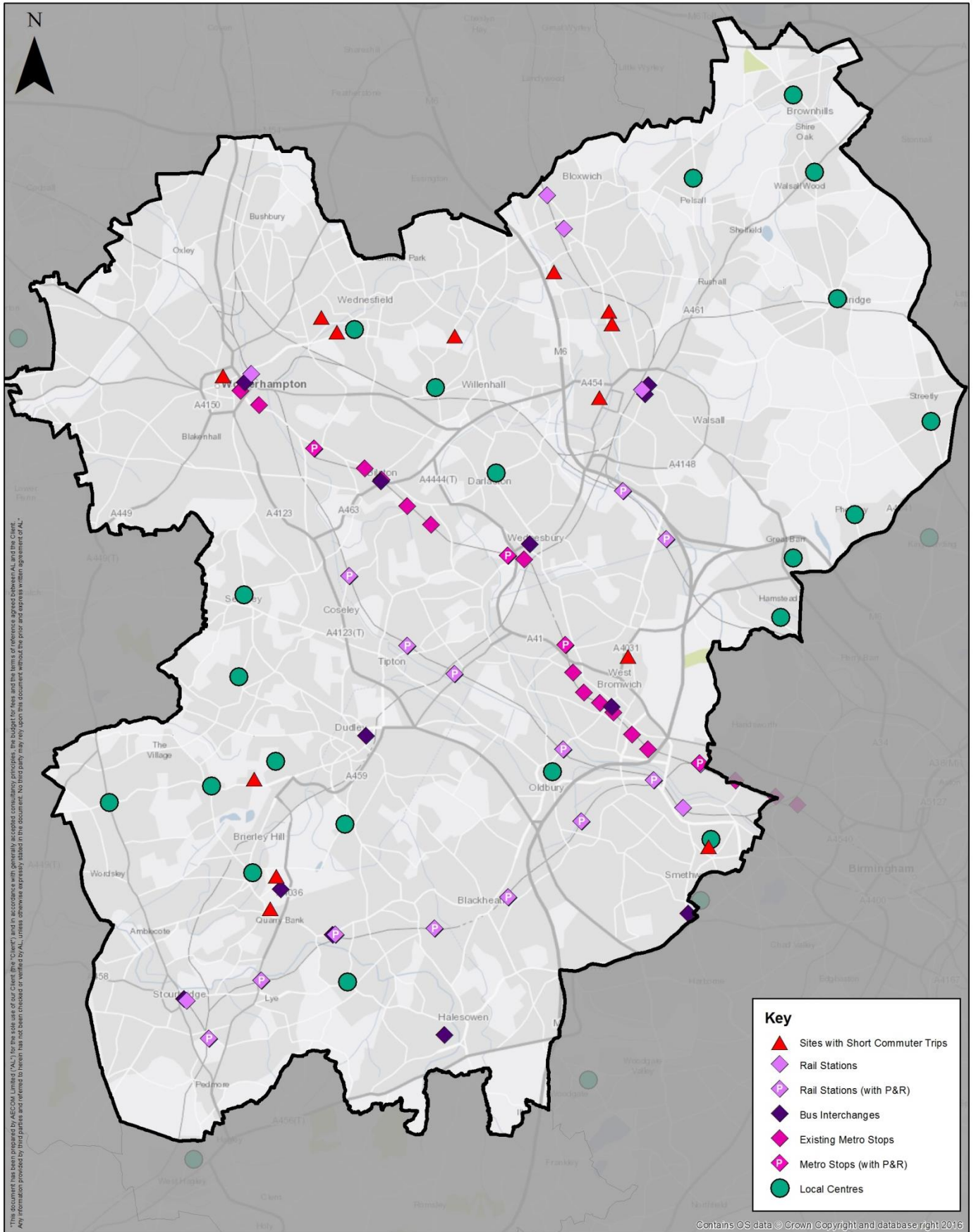


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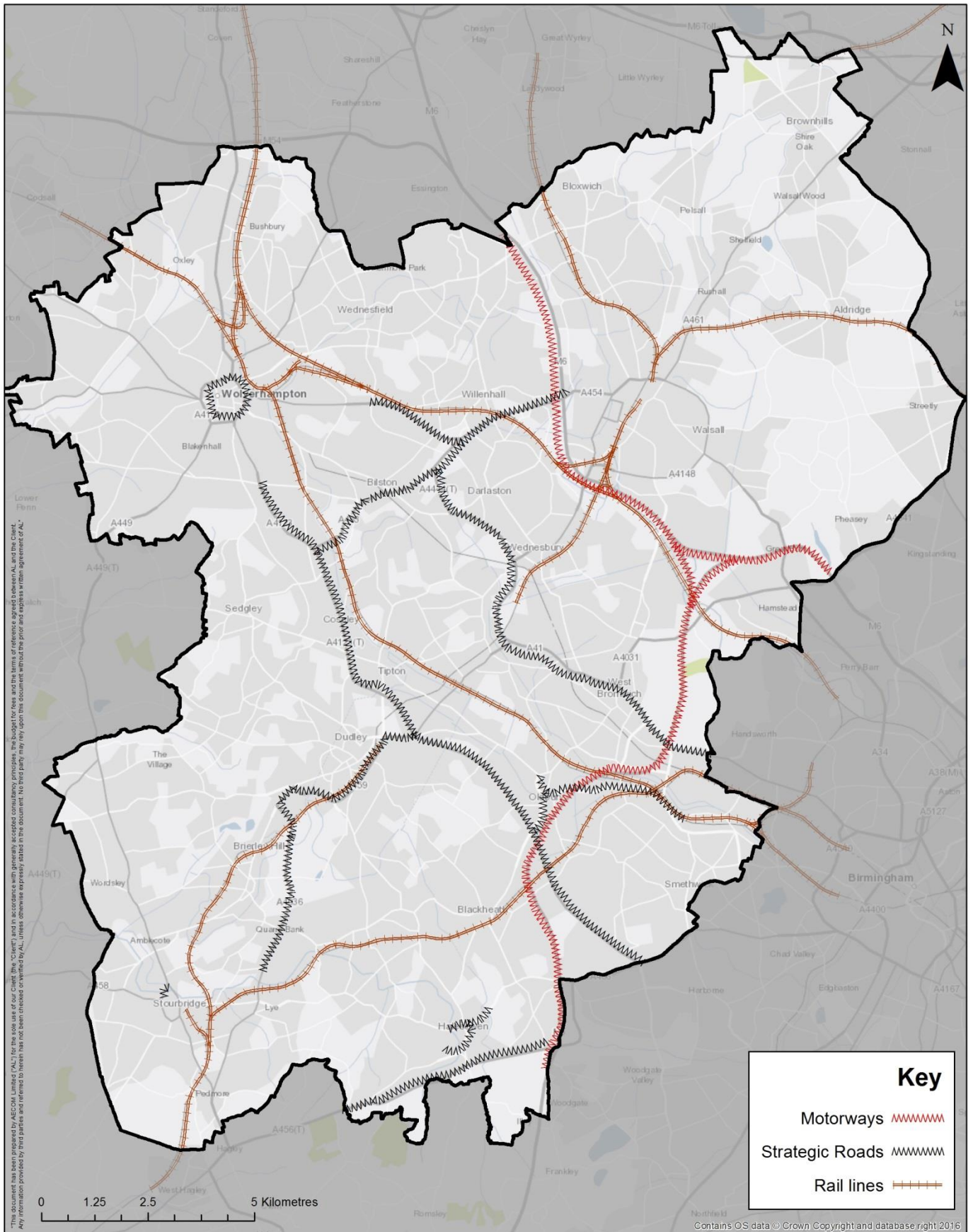
<b>Drawing Number</b>	<b>Figure 2</b>
<b>Date:</b>	June 2016



<p>Title:</p> <p><b>Walking Strategy Key Attractors</b></p>	<p><b>AECOM</b></p> <p>Colmore Plaza, Colmore Circus Queensway, BIRMINGHAM, B4 6AT</p> <p>Tel: +44 (0) 121 262 1900 Fax: +44 (0) 121 262 1999 www.aecom.com</p>	<p>Drawing Number</p> <p><b>Figure 3</b></p>
<p>Project:</p> <p><b>Black Country Walking and Cycling Strategy</b></p>		<p>Date:</p> <p><b>June 2016</b></p>

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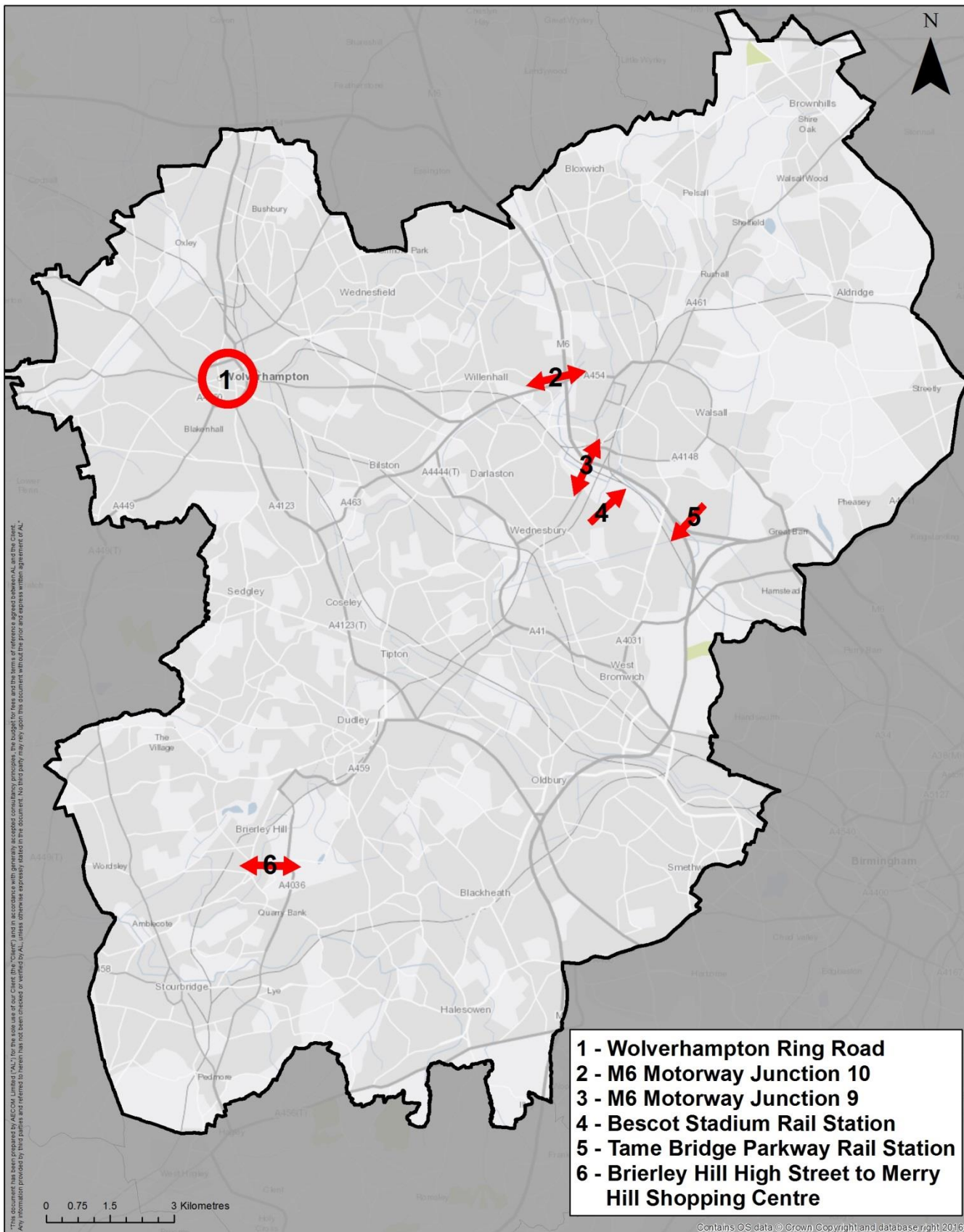


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Key	
Motorways	
Strategic Roads	
Rail lines	

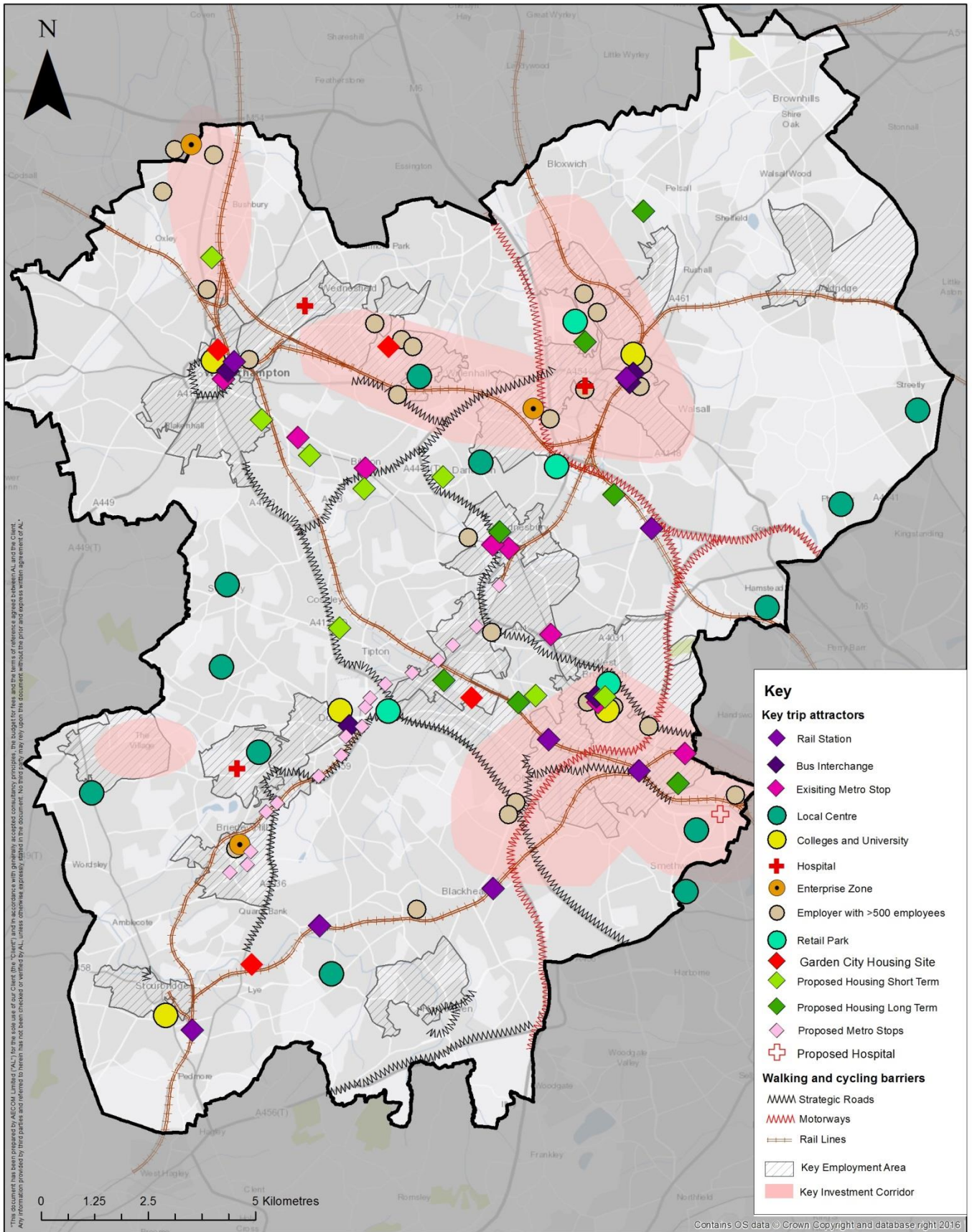
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<b>Title:</b> <b>Physical Barriers to Cycling</b>		<b>Drawing Number</b> <b>Figure 4</b>
<b>Project:</b> <b>Black Country Walking and Cycling Strategy</b>		Colmore Plaza, Colmore Circus Queensway, BIRMINGHAM, B4 6AT Tel: +44 (0) 121 262 1900 Fax: +44 (0) 121 262 1999 www.aecom.com

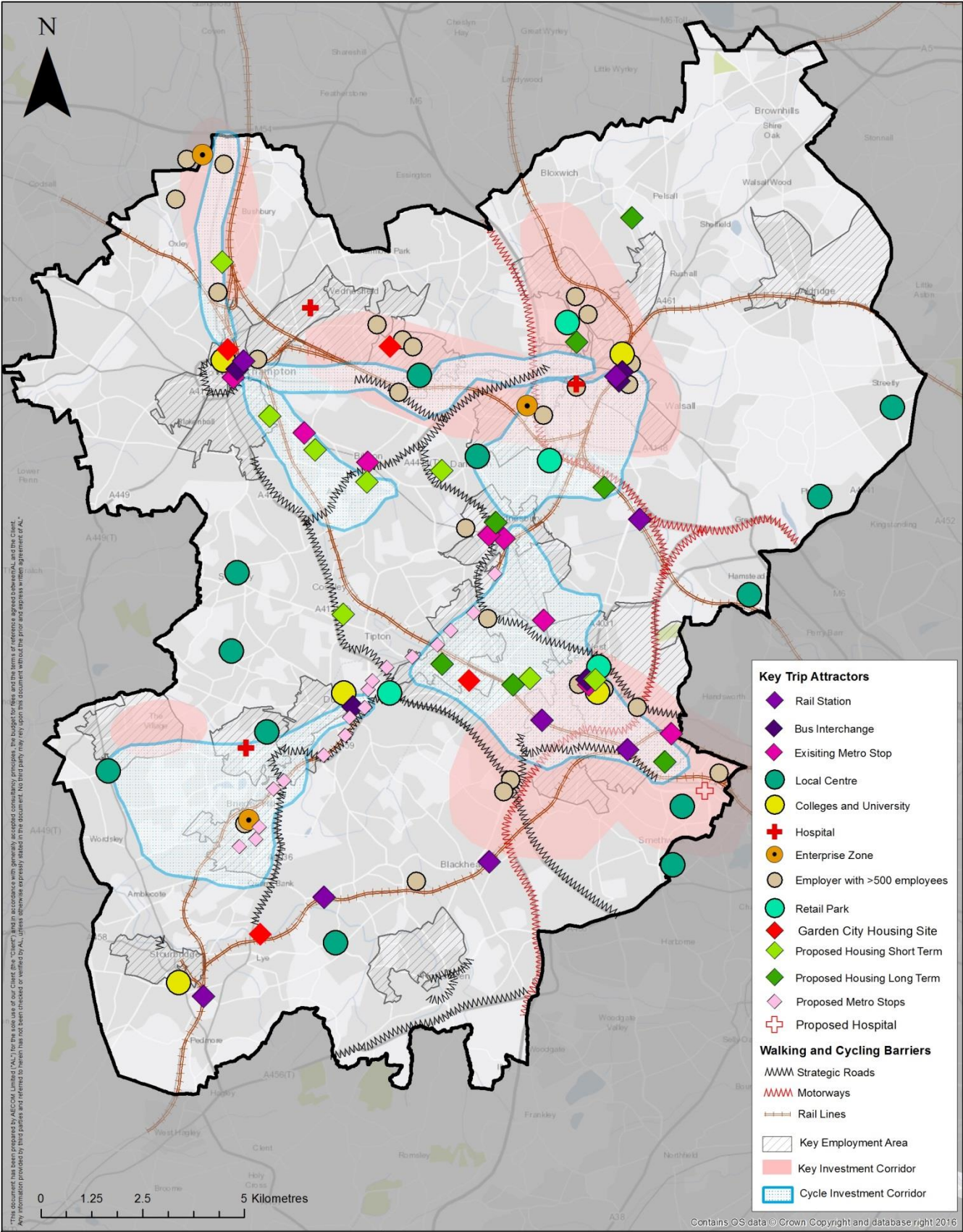


<p>Title:</p> <p><b>Physical Barriers to Walking</b></p>	<p><b>AECOM</b></p> <p>Colmore Plaza, Colmore Circus Queensway, BIRMINGHAM, B4 6AT</p> <p>Tel: +44 (0) 121 262 1900 Fax: +44 (0) 121 262 1999 www.aecom.com</p>	<p>Drawing Number</p> <p><b>Figure 5</b></p>
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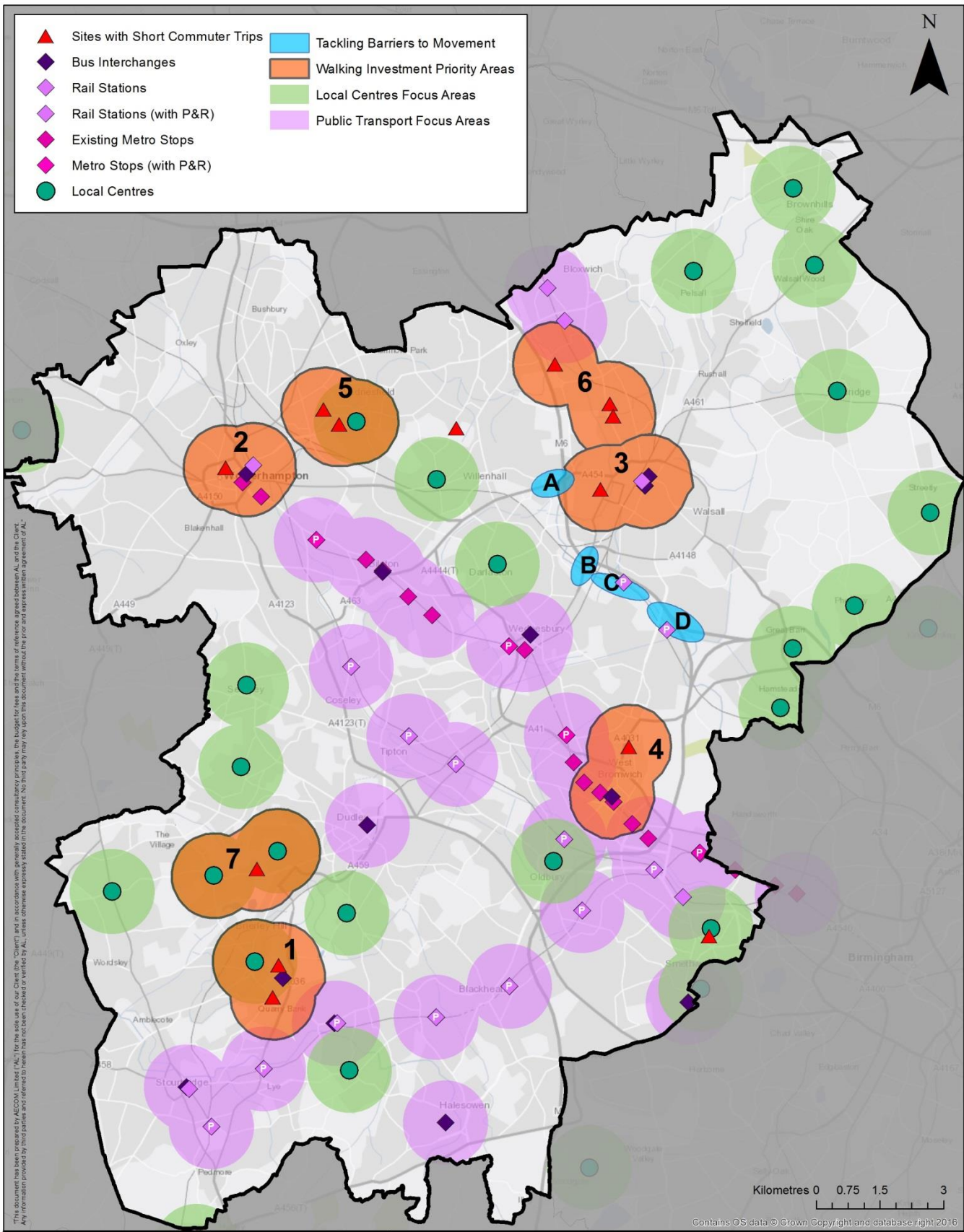
<p>Title:</p> <p><b>Cycling Strategy Course Sift</b></p>	<p><b>AECOM</b></p> <p>Colmore Plaza, Colmore Circus Queensway, BIRMINGHAM, B4 6AT</p> <p>Tel: +44 (0) 121 262 1900 Fax: +44 (0) 121 262 1999 www.aecom.com</p> <p>©Crown copyright. All rights reserved. (Licence 100019139) (2009)</p>	<p>Drawing Number</p> <p><b>Figure 6</b></p>
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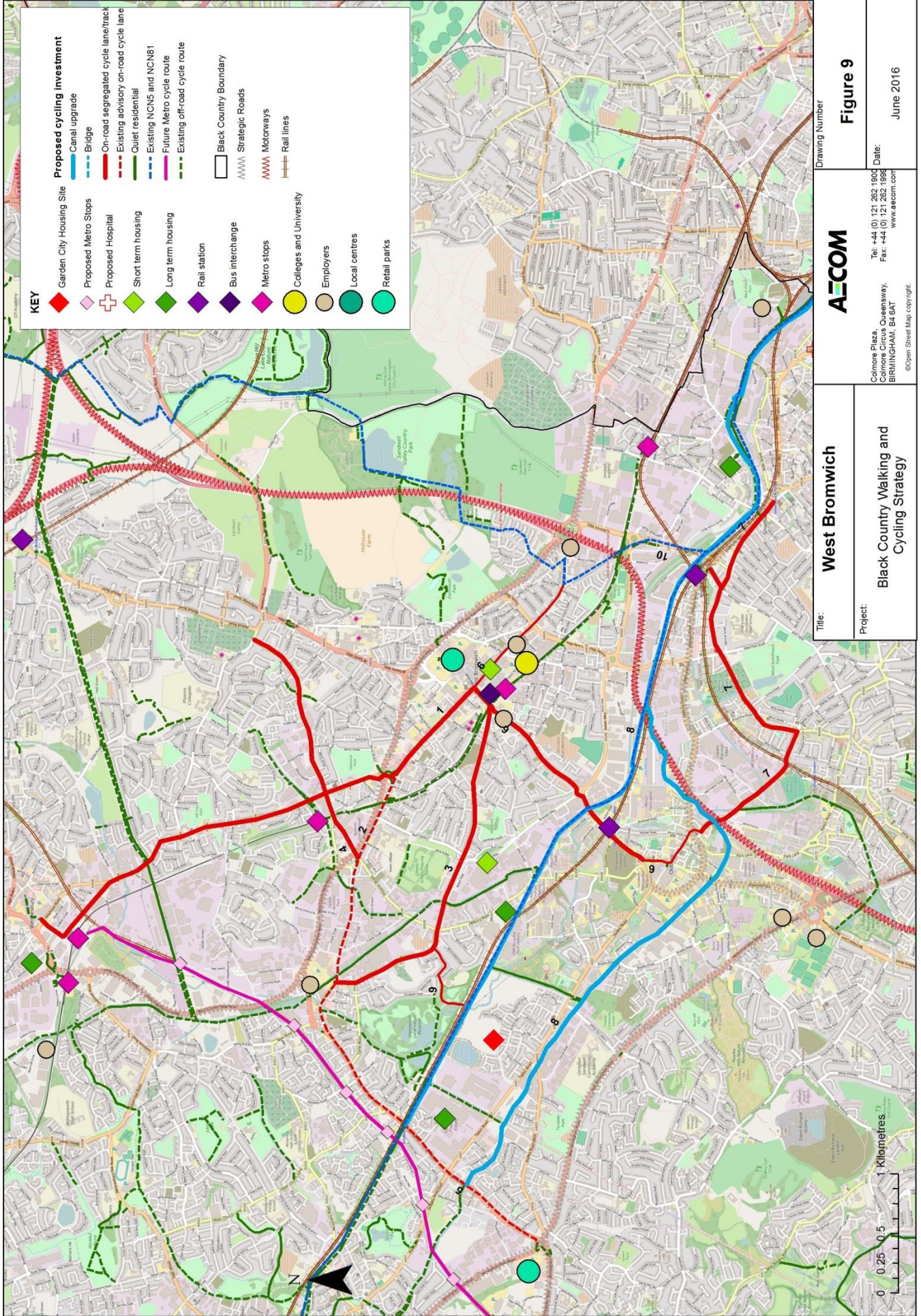
<p>Title:</p> <p style="text-align: center;"><b>Cycling Strategy Cycle Investment Corridors</b></p>	<p style="text-align: center;"><b>AECOM</b></p> <p>Colmore Plaza, Colmore Circus Queensway, BIRMINGHAM, B4 6AT</p> <p style="text-align: right;">Tel: +44 (0) 121 262 1900 Fax: +44 (0) 121 262 1999 www.aecom.com</p>	<p>Drawing Number</p> <p style="text-align: center;"><b>Figure 7</b></p>
<p>Project:</p> <p style="text-align: center;">Black Country Walking and Cycling Strategy</p>		<p>Date:</p> <p style="text-align: center;">June 2016</p>



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<b>Title:</b> <b>Walking Investment Focus Areas</b>		<b>Drawing Number</b> <b>Figure 8</b>
<b>Project:</b> <b>Black Country Walking and Cycling Strategy</b>		Colmore Plaza, Colmore Circus Queensway, BIRMINGHAM, B4 6AT Tel: +44 (0) 121 262 1900 Fax: +44 (0) 121 262 1999 www.aecom.com



Title: **West Bromwich**

Project: **Black Country Walking and Cycling Strategy**

Drawing Number

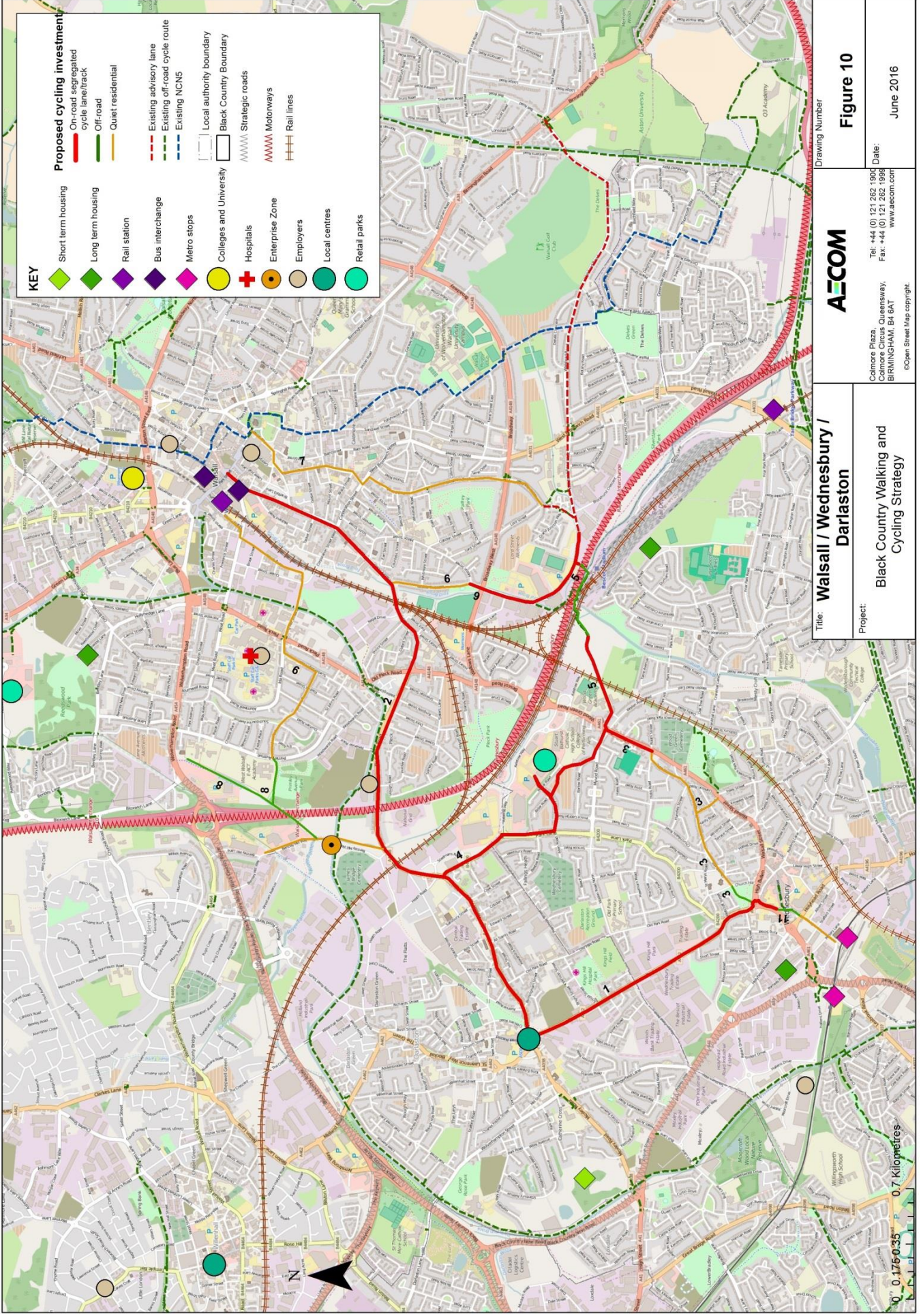
**Figure 9**

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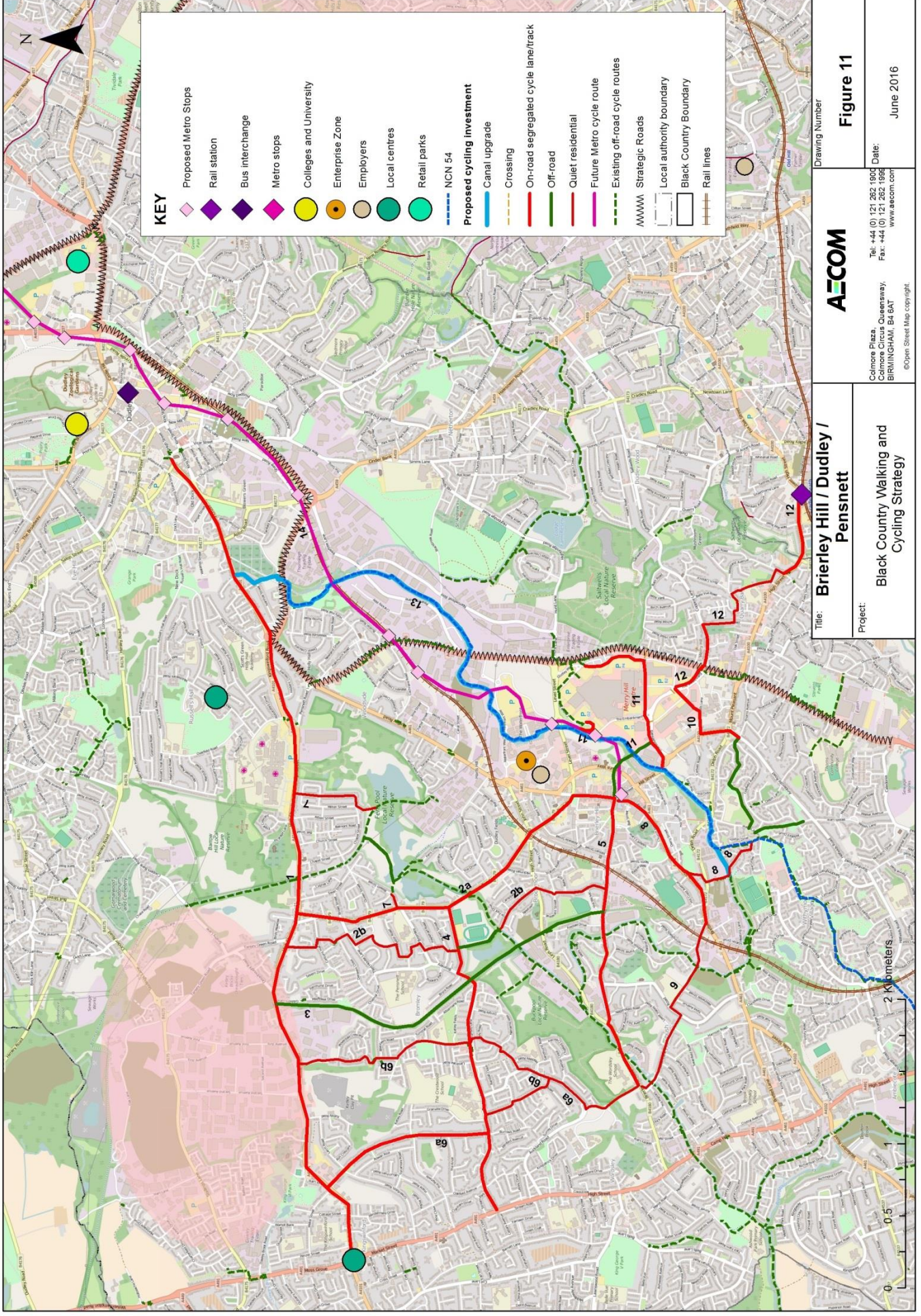


Title: **Walsall / Wednesbury / Darlaston**  
 Project: **Black Country Walking and Cycling Strategy**

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**KEY**

- Proposed Metro Stops
- Rail station
- Bus interchange
- Metro stops
- Colleges and University
- Enterprise Zone
- Employers
- Local centres
- Retail parks
- NCN 54

**Proposed cycling investment**

- Canal upgrade
- Crossing
- On-road segregated cycle lane/track
- Off-road
- Quiet residential
- Future Metro cycle route
- Existing off-road cycle routes
- Strategic Roads
- Local authority boundary
- Black Country Boundary
- Rail lines

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**Figure 11**

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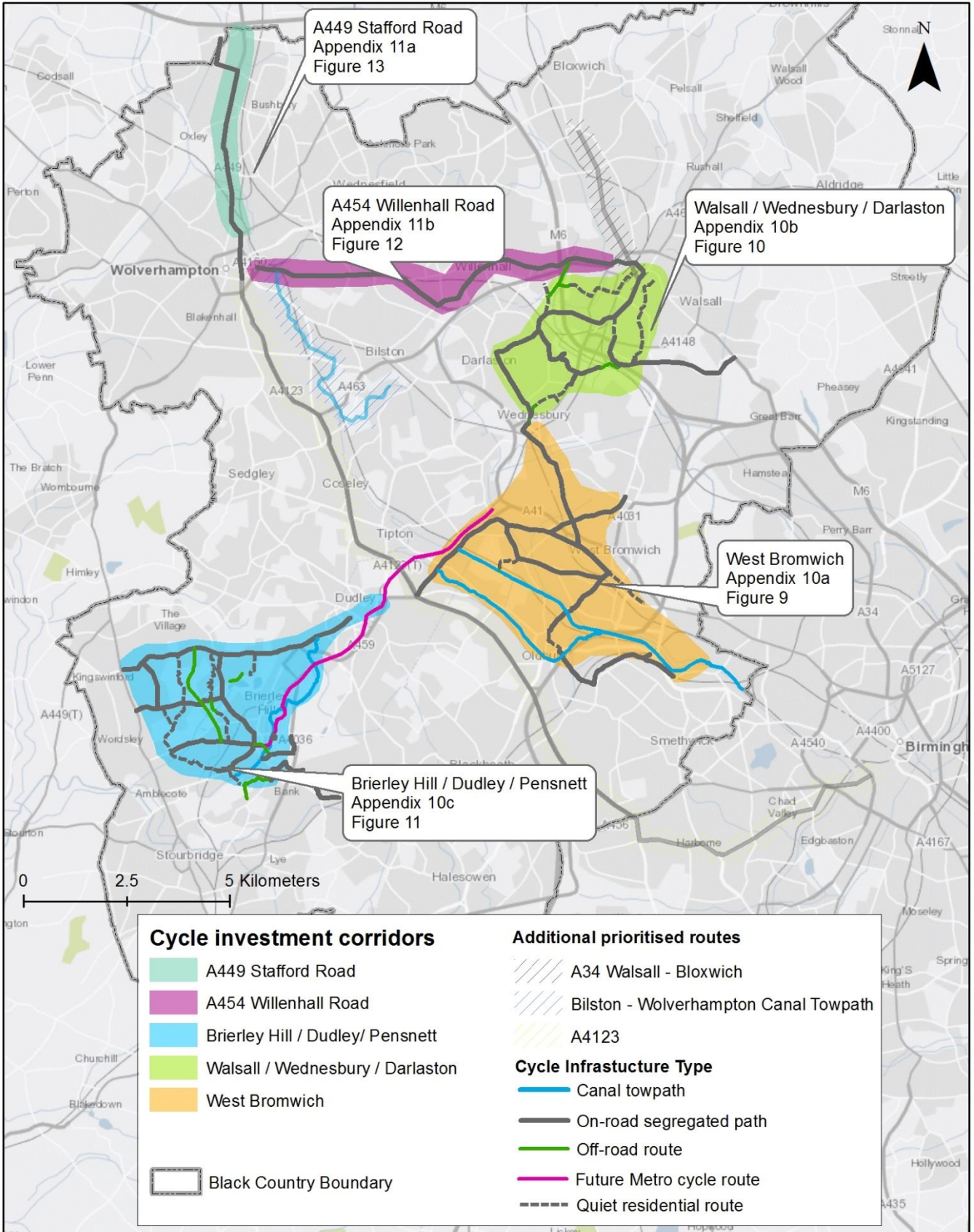
**Title:** Brierley Hill / Dudley / Pensnett

**Project:** Black Country Walking and Cycling Strategy

2 Kilometers

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<p>Title: <b>Cycling Strategy Cycle Investment Corridors</b></p>	<p><b>AECOM</b></p> <p>Colmore Plaza, Colmore Circus Queensway, BIRMINGHAM, B4 6AT</p> <p>Tel: +44 (0) 121 262 1900 Fax: +44 (0) 121 262 1999 www.aecom.com</p> <p>©Crown copyright. All rights reserved. (Licence 100019139) (2009)</p>	<p>Drawing Number</p> <p><b>Figure 12</b></p>
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