

# West Midlands Key Route Network

Wolverhampton to Brownhills



Transport for  
West Midlands

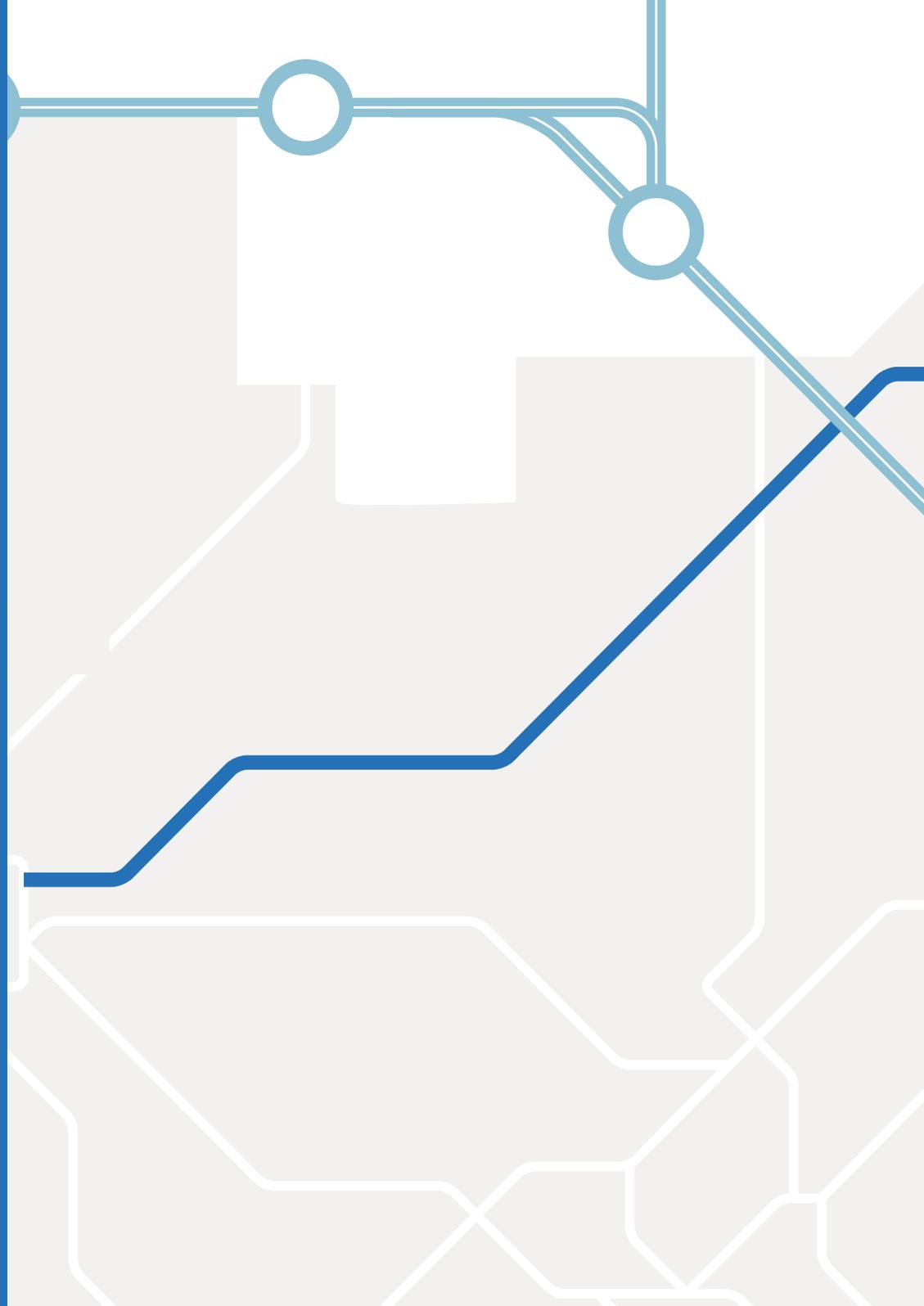
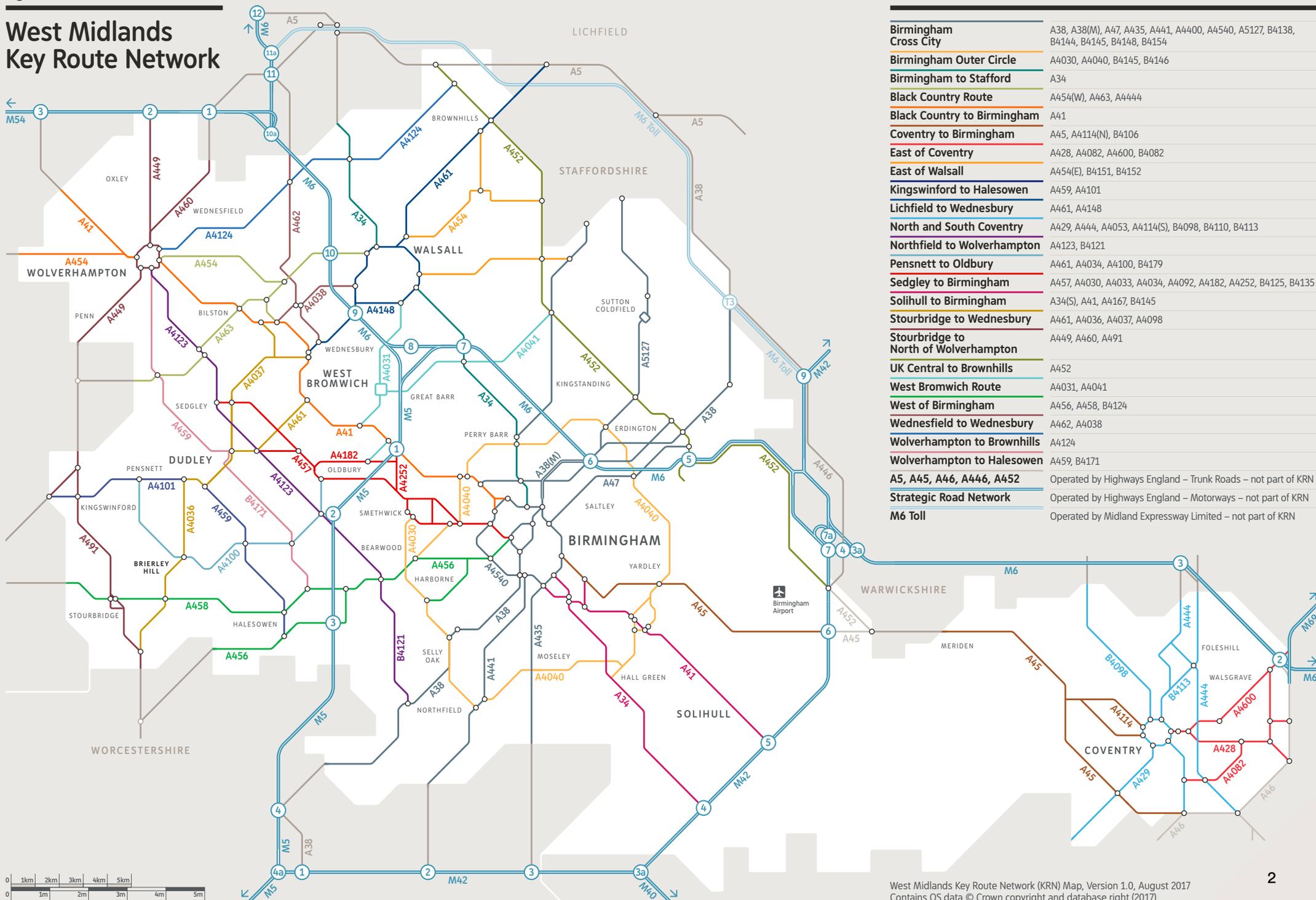


Figure 1

# West Midlands Key Route Network



<b>Birmingham Cross City</b>	A38, A38(M), A47, A435, A441, A4400, A4540, A5127, B4138, B4144, B4145, B4148, B4154
<b>Birmingham Outer Circle</b>	A4030, A4040, B4145, B4146
<b>Birmingham to Stafford</b>	A34
<b>Black Country Route</b>	A454(W), A463, A4444
<b>Black Country to Birmingham</b>	A41
<b>Coventry to Birmingham</b>	A45, A4114(N), B4106
<b>East of Coventry</b>	A428, A4082, A4600, B4082
<b>East of Walsall</b>	A454(E), B4151, B4152
<b>Kingswinford to Halesowen</b>	A459, A4101
<b>Lichfield to Wednesbury</b>	A461, A4148
<b>North and South Coventry</b>	A429, A444, A4053, A4114(S), B4098, B4110, B4113
<b>Northfield to Wolverhampton</b>	A4123, B4121
<b>Pensnett to Oldbury</b>	A461, A4034, A4100, B4179
<b>Sedgley to Birmingham</b>	A457, A4030, A4033, A4034, A4092, A4182, A4252, B4125, B4135
<b>Solihull to Birmingham</b>	A34(S), A41, A4167, B4145
<b>Stourbridge to Wednesbury</b>	A461, A4036, A4037, A4098
<b>Stourbridge to North of Wolverhampton</b>	A449, A460, A491
<b>UK Central to Brownhills</b>	A452
<b>West Bromwich Route</b>	A4031, A4041
<b>West of Birmingham</b>	A456, A458, B4124
<b>Wednesfield to Wednesbury</b>	A462, A4038
<b>Wolverhampton to Brownhills</b>	A4124
<b>Wolverhampton to Halesowen</b>	A459, B4171
<b>A5, A45, A46, A446, A452</b>	Operated by Highways England – Trunk Roads – not part of KRN
<b>Strategic Road Network</b>	Operated by Highways England – Motorways – not part of KRN
<b>M6 Toll</b>	Operated by Midland Expressway Limited – not part of KRN

The Wolverhampton to Brownhills route is a 9 mile/15km section of the West Midlands Key Route Network (KRN) that serves the communities of:

- Wolverhampton;
- Wednesfield;
- Bloxwich;
- Pelsall; and
- Brownhills.

The route provides a key connection to Wolverhampton City Centre, access to the Mander and Wulfrun retail shopping centres and Wolverhampton Rail Station. This route also connects Bentley Bridge Leisure Park in Wednesfield; and Bloxwich and Brownhills District Centres in Walsall.

The route is formed solely of the A4124, considered one of Wolverhampton's busiest arterial routes. The A4124 can be broken down into 3 sections, comprising: Wolverhampton City Centre to Wednesfield, Wednesfield to Bloxwich and Bloxwich to Brownhills.

The Wolverhampton to Wednesfield section of this route starts at the Broad Street junction on the A4150 Wolverhampton Ring Road. At this stage the road is constrained by surrounding transport in the area. Immediately to the east of the Ring Road the A4124 passes over the

Birmingham Canal by means of a single 4 lane bridge and then loses two lanes to pass below the West Coast Mainline. Beyond this bridge the road widens to dual carriageway before returning to single carriageway as it moves past the Royal Mail sorting office. The final section of this stage is Wednesfield Way which is single carriageway throughout and runs along a former track bed of the Wolverhampton & Walsall Railway through to Wednesfield.

Along the Wednesfield to Bloxwich section the road is largely single carriageway through to its junction with the A462. Beyond this junction there is a small section of dual carriageway before the A4124 returns to single carriageway as it passes beneath the M6 and on to Bloxwich. From Wednesfield to New Invention, where the Route meets the Wednesfield to Wednesbury Route, the majority of the fronting properties are well set back from the carriageway.

At Bloxwich, the route then passes through a junction with the A34 (Birmingham to Stafford Route) and remains single carriageway passing through a largely urban area. East of the junction with the B4154 the road leaves the urban area before entering an industrial hub consisting of Walsall Council Waste Management and Environmental Depot amongst other businesses accessible via Coppice Side. As the route approaches Brownhills it passes again through a largely residential area.

This route has no direct connections to the Strategic Route Network (SRN). However, it is connected to the A5 trunk road and the M6 Toll motorway via the A34 from Bloxwich and the A452 from Brownhills. Where this route meets the junction with the A452 it provides connectivity to Stafford in the North and Walsall to the South.

The Wolverhampton to Brownhills route has a number of connections with other routes on the KRN:

### **Stourbridge to North of Wolverhampton Route**

- A4150/A4124 Wolverhampton

### **Wednesfield to Wednesbury Route**

- A4124/A462 New Invention

### **Birmingham to Stafford Route**

- A4124/A34 Bloxwich

### **UK Central to Brownhills Route**

- A4124/A452 Brownhills

These routes provide connectivity to Stourbridge, Wednesbury, Walsall, Birmingham and Birmingham Airport.

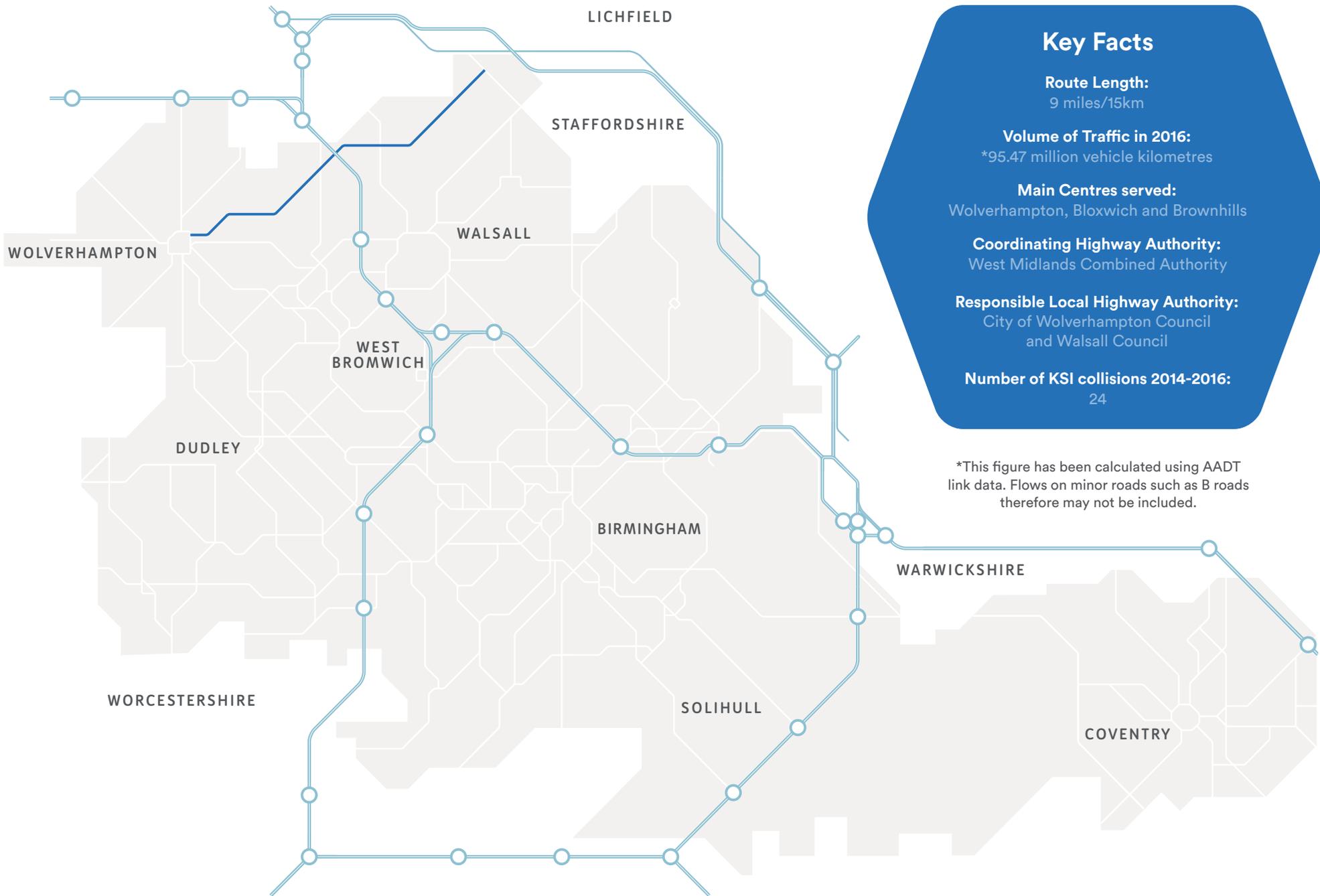


Figure 2

### Congestion, Delay, Reliability

This route represents 3% of the total length of the West Midlands Key Route Network. According to the latest data available from 2016, this route had a minimum annual average daily flow (AADF) of 13,700 vehicles, a maximum of 20,700 with an average of 16,800 AADF.

The route experiences large volumes of traffic, particularly on the sections of the A4124 between:

- the A4150 Wolverhampton Ring Road and its junction with Wolverhampton Road, New Cross;
- its junctions with B4484 Lichfield Road, Wednesfield and the A462 Essington Road, New Invention; and
- its junctions with Creswell Crescent and Livingstone Road at Bloxwich.

The locations of the most significant congestion-related delays (>60 sec/km) are set out in Tables 1 and 2:

**Table 1: AM Peak Congestion Related Delays**

Road	Location	Direction
A4124	Wednesfield Road/Wolverhampton Road/Wednesfield Road, Dace Road, Heath Town, to A4150 Ring road St Davids, Wolverhampton	Westbound
A4124	Wednesfield Road/Wolverhampton Road, Sun Street to Tudor Road, Heath Town	Eastbound
A4124	Lichfield Road, Moat House Lane East to Lakefield Road, Wednesfield	Westbound
A4124	Lichfield Road, Broad Lane North to A462, Cannock Road, New Invention	Eastbound
A4124	Lichfield Road, Squires Grove to A462, Cannock Road, New Invention	Westbound
A4124	Sneyd Lane/Bell Lane/Lichfield Road, M6 Overbridge to Livingstone Road, Bloxwich	Eastbound
A4124	Lichfield Road/Bell Lane/Sneyd Lane, Foundry Lane, Pelsall, to Creswell Crescent, Bloxwich	Westbound
A4124	Wolverhampton Road, Wood Lane to B4154 Norton Lane, Pelsall	Eastbound
A4124	Lichfield Road, Wyrley & Essington Canal Bridge (East) to B4154 Norton Lane, Pelsall	Westbound

Peak hour journey time on the sections of the route experiencing the highest delays has been found to be 150% higher than (i.e. 2½ times) the equivalent free flow time, which is based on the average journey time between 22:00 – 06:00.

A particular impact of the congestion is to create problems with access to Wolverhampton Railway Station, New Cross Hospital and Coppice Industrial Estate Brownhills, Key Industrial Park Wednesfield and industrial areas in North Walsall and Wolverhampton where businesses may supply or rely on just-in-time deliveries.

**Table 2: PM Peak Congestion-Related Delays**

Road	Location	Direction
A4124	Wednesfield Road/Wolverhampton Road/Wednesfield Road, Dace Road, Heath Town, to A4150 Ring road St Davids, Wolverhampton	Westbound
A4124	Wednesfield Road/Wolverhampton Road, Sun Street to Tudor Road, Heath Town	Eastbound
A4124	Wednesfield Road, Steelpark Way to March End Road, Wednesfield	Eastbound
A4124	Lichfield Road, Lakefield Road, Wednesfield to A462, Cannock Road, New Invention	Eastbound
A4124	Sneyd Lane/Bell Lane/Lichfield Road, M6 Overbridge to Field Road, Bloxwich	Eastbound
A4124	Lichfield Road/Bell Lane/Sneyd Lane, Abbotts Street to Cresswell Crescent, Bloxwich	Westbound
A4124	Wolverhampton Road, Wood Lane to B4154 Norton Lane, Pelsall	Eastbound
A4124	Lichfield Road, Wyrley & Essington Canal Bridge (East) to B4154 Norton Lane, Pelsall	Westbound
A4124	Pelsall Road, Croft Crescent to A452 Chester Road North, Brownhills	Eastbound

## **Average Speeds**

The average speed for this route in the AM peak is between 10-20 mph throughout its busiest sections. The areas approaching Wolverhampton City Centre, Wednesfield, Bloxwich and Brownhills are particularly slow during the morning and evening peaks and speed can be as low as less than 10 mph. The sections of the route where average peak speeds are less than 10 mph are as follows:

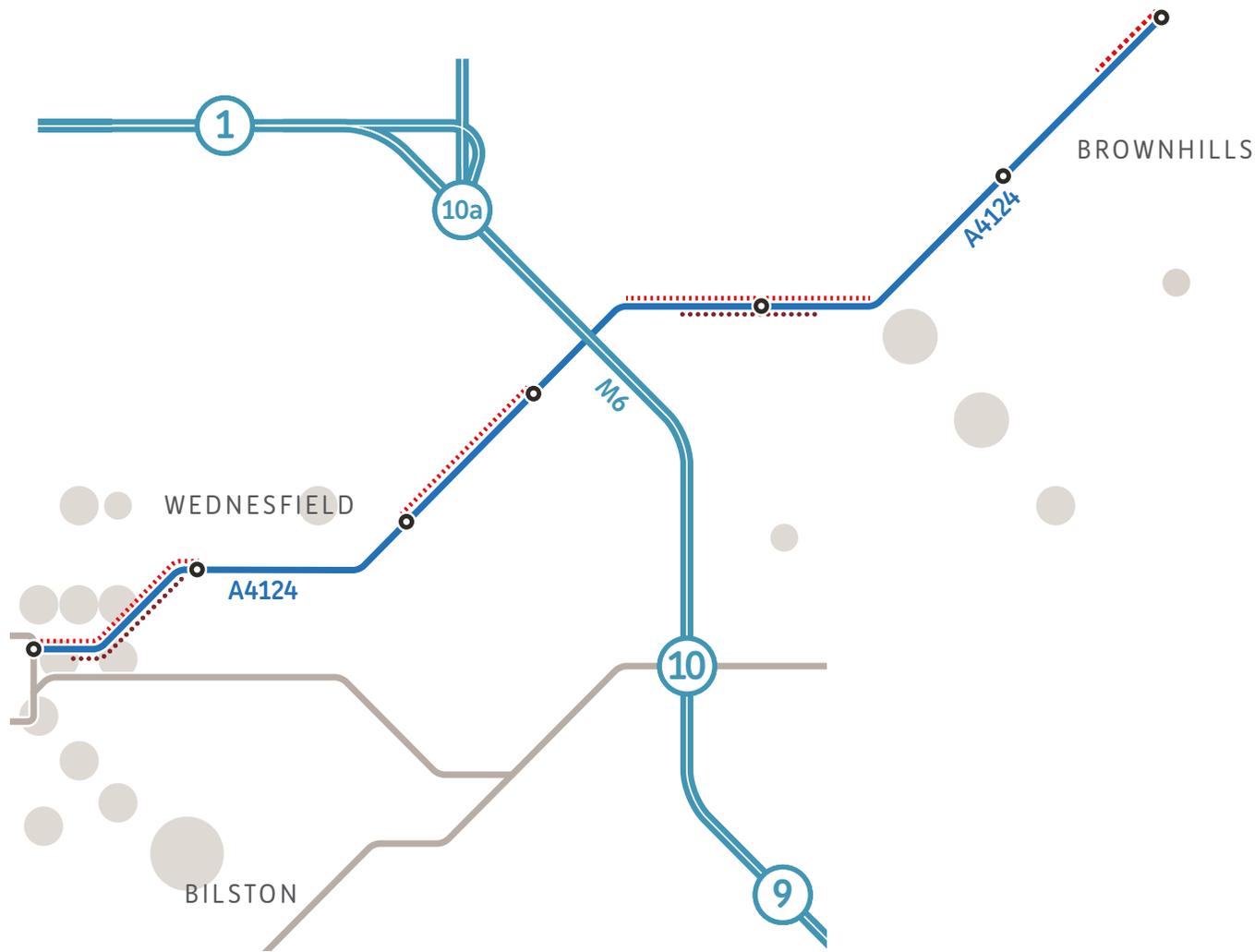
- A4124/A4150 to Deans Road/Tudor Road (inbound towards Wolverhampton only)
- A4124 Bell Lane: B4210 to A34 Stafford Road/ High Street

## **Junction Capacity Issues**

There are currently seven junctions along the route where the evidence suggest there are capacity issues restricting the free flow of traffic in peak hours; these are:-

- A4150 Ring Road St Davids/Wednesfield Road.
- A4124 Wolverhampton Road/Deans Road.
- A4124 Lichfield Road/Hyde Road.
- A4124 Lichfield Road/A462 Essington Road.
- A4124 Bell Lane/A34 Stafford Road.
- A4124 Wolverhampton Road/B4154 Norton Road.
- A4124 Pelsall Road/A452 High Street.

# West Midlands Key Route Network Wolverhampton to Brownhills



## Key

<b>Roads</b>	<ul style="list-style-type: none"> <li> The Route</li> <li> Strategic Road Network operated by Highways England</li> </ul>
<b>Environment, Flows and Junction Capacity</b>	<ul style="list-style-type: none"> <li> Flooding area</li> <li> Congestion area</li> <li> Junction capacity issue</li> </ul>
<b>Route Safety</b>	<ul style="list-style-type: none"> <li> KSI hotspot zone – high number of serious or fatal incidents</li> </ul>
<b>Key Considerations</b>	<ul style="list-style-type: none"> <li> Housing development area</li> <li> Named site of strategic importance</li> <li> District and local centres</li> </ul>



Figure 3

Improving road safety is critical to the overall vision of the West Midlands Strategic Transport Plan – Movement for Growth. The development of a new West Midlands Road Safety Strategy and Action Plan will make reference to the current West Midlands forecasts to achieve a 40% reduction in fatalities and serious injury casualties by 2020, from the 2015 average.

During the 2016 calendar year, we noted the following key statistics on this route:

## Collisions

- 37 collisions, involving 74 vehicles
- Main contributory factor: Disobeyed automatic traffic signal (11% of all collisions)
  - The Killed and Seriously Injured (KSI) ratio for this group is 25% with 17% of all serious collisions being attributed to this group.
- Main contributory factors
  - Careless or Reckless or In a hurry (Driver) (8% of all collisions)
  - Failed to look properly (pedestrian) (8% of all collisions)

## Casualties

- Total casualties: 58
- Killed and Seriously Injured: 8 (14% of all casualties, down 2% when compared to 2015 figure of 6 of 38)
  - Killed: 1 (2% of all casualties, up by 2%)
  - Seriously injured: 7 (12% of all casualties, down by 4%)
- Slight: 50 (86% of all casualties)

## Casualty Types

We noted the following key statistics in relation to casualties falling into specific groups:

- Pedestrians: 6 (a reduction of 5% compared to 2015)
- Powered Two wheel vehicles: 6 (a reduction of 13% compared to 2015)
- Pedal cyclists: 2 (a reduction of 10% compared to 2015)
- Car occupants: 44 (an increase of 29% compared to 2015)

## KSI Clusters

There are two main KSI cluster areas. One is near to Wolverhampton on Wednesfield Road between the A4150 and New Cross Avenue, which is a section of mixed urban single and dual carriageway in a built-up residential area. The other one is near the intersection with the A34 Stafford Road/Bloxwich High Street, a single carriageway section running through a built-up residential area.

# CYCLING

There is limited provision for cycling along this route. In Wolverhampton the railway bridge causes constrictions where the Ring Road meets the A4150. The junction at Dean's Road/Tudor Road and Wednesfield Way causes issues to safety due to its layout. There are some off-road cycling routes between Dean's Road and Nechells Lane.

Within Walsall, the lack of infrastructure and safe junctions cause issues that adversely impact the number of young people cycling to school.

There are some shared use footways in Goscote leading to Pelsall. In addition the canal towpath provides some off road provision however access improvement is required from the main highway.



There is no public transport service along the whole of the corridor but there is a bus service between Wolverhampton and Ashmore operating every 15 minutes. This service provides access to the Wolverhampton City Centre, New Cross Hospital, leisure destinations, employment sites and the intermediate communities. There is also a half-hourly service which extends as far as Pelsall before turning south to Walsall.

The average bus speed along this route is 14mph (data taken from the 89 bus route).

The average total number of daily bus trips is 11,695.

There is an inbound bus lane on the A4124 Wednesfield Road approaching the railway bridge and inbound and outbound bus lanes on the Wolverhampton Road between Grove Street and Inkerman Street, introduced in the bus showcase projects. The bus routes are not identified as part of the Core Bus Network in West Midlands Strategic Transport Plan - Movement for Growth.

In terms of rail, there is no railway along the corridor. However, Wolverhampton station is at the West end of the route and there are two stations on the Chase Line (Rugeley – Birmingham New Street), which crosses the route, at Bloxwich and Bloxwich North. They are services with an hourly (half hourly in the peak) service to Birmingham via Walsall. The Chase Line is in the process of being electrified and an improved service will commence in 2018.

**Table 3: Main Bus Routes**

Road(s) Served	Frequency	Route No.
A4124 Wolverhampton - Ashmore	Every 15 mins	59
A4124 Wolverhampton - Bloxwich - Pelsall - Walsall	Every 30 mins	89

\*Note- All daily averages have been obtained by analysing 15 days data (Mon-Fri) during the month of March 2017.

Of these stations the following have park and ride facilities:

- Wolverhampton
- Bloxwich North

At Wolverhampton there is a committed scheme (Wolverhampton Interchange) to renew and expand the capacity of Wolverhampton Station entrance and extend Midland Metro from St George’s to the station via a stop at Piper’s Row for the Bus Station.

The West Midlands Strategic Transport Plan – Movement for Growth identifies the Pelsall to Brownhills corridor for tram-train or rail introduction as part of reopening the line between Stourbridge and Lichfield, but it is not part of the HS2 Connectivity Package.

# FREIGHT AND LOGISTICS

The AADF data for 2016 has been used to analyse HGV flows on each respective route. This route is predominantly a local route and is of little significance to freight, with AADF data showing there are less than 475 HGVs a day along the length of the route. The average number of HGVs is 401, which constitutes 3% of all vehicles.



## **Resilience**

The route has parallel strategic roads, A460/A5 and A454/A461. There is a considerable degree of resilience contained within the Black Country network. However, there is a lack of intermodal network resilience due to the lack of rail based transport on the route.

Given the existing capacity constraints in the peaks in the Black Country network, a restriction on any of the roads will have considerable adverse implications for journey times on the remainder of this route and surrounding routes.

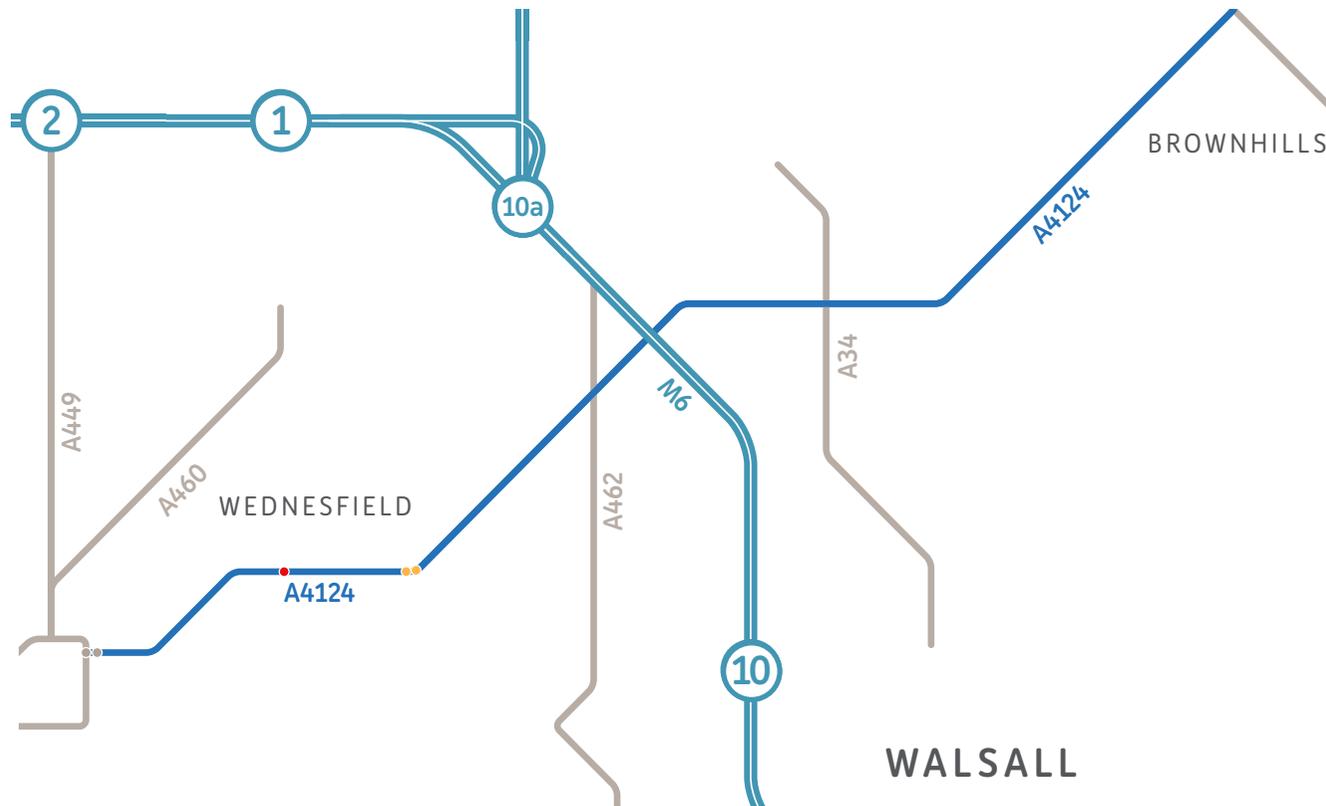
## **Diversion Route**

This route does not form part of the Emergency Diversion Routes used Highways England. However, it is used as an informal diversion route whenever there are problems on the A5 trunk road between Brownhills and Cannock.

## **Flooding**

Flooding on this route impacts overall performance, safety of road users and affects the lives of those living in the vicinity. The evidence gathered indicates that there is one flood zone on this route, between the M6 and A34 junctions.

# West Midlands Key Route Network Wolverhampton to Brownhills



## Key

**Roads**

- The Route
- ▬ Strategic Road Network operated by Highways England

**Asset Location & Conditions**  
(where known & information available)

- CCTV
- Automatic Number Plate Recognition (ANPR) / Journey Time Monitoring System (JTMS) locations
- Traffic Camera locations



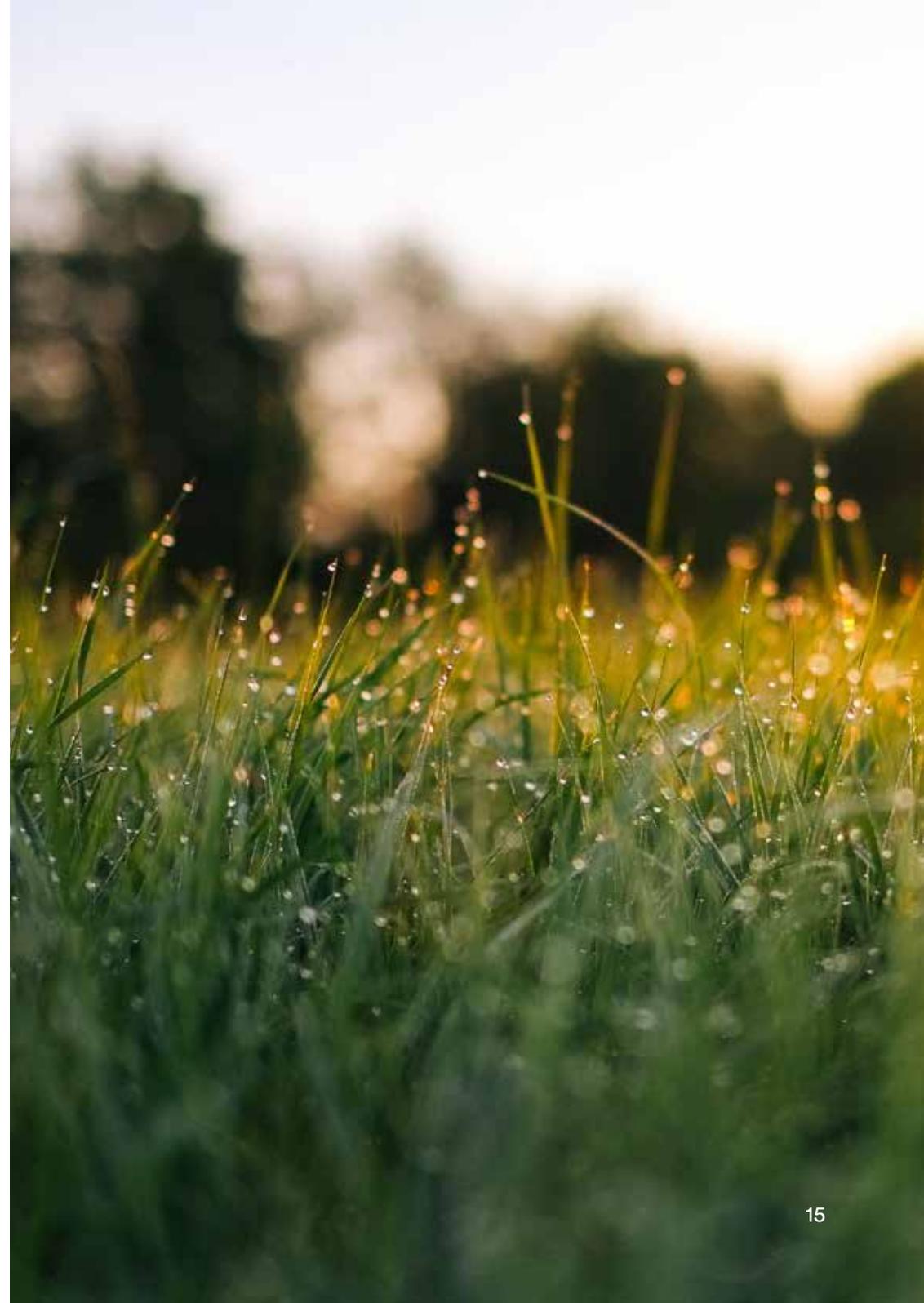
Figure 4

There are inequalities in health between the local authorities within the West Midlands – at local authority level the lowest healthy life expectancy at birth for men is 56.4 years, and the highest is 63.8 years. Amongst women the lowest is 59 years and highest 67.9 years. Similarly there are inequalities in healthy life expectancies within each local authority. Closing this gap in health inequalities and increasing the healthy life expectancy by 2030 is an objective of the WMCA's Strategic Economic Plan.

Around A4124/A34 junction North of Walsall, the population is older especially closer to the Stafford border. Within this area greater proportions of adults are not in employment or live with a disability.

The route also falls within two Air Quality Management Areas (AQMAs); Wolverhampton, which is declared for both Nitrogen Oxide (NO<sub>2</sub>) and Particulate Matter (PM<sub>10</sub>), and Walsall which is declared for NO<sub>2</sub>.

The West Midlands has significant air quality problems. Every year there are between 2,000 and 2,400 deaths caused by air pollution. This is a huge health issue for people in the region, increasing the risk of lung disease and heart disease. There are parts of our region where considerable action such as the introduction of Clean Air Zones (CAZs) is required by Government to improve air quality.



Across the West Midlands the local authorities have a statutory duty to maintain its highway network in a safe condition. This also includes carrying out routine maintenance of highway assets which could include up to 12 specific groups. An Asset Management Plan is produced which aims to ensure that any future issues with the assets could be address in a proactive way.

## Carriageway Condition

The carriageway condition across this route is in an acceptable condition, some deterioration is beginning to show through but it remains in a good and safe condition. Over the past six years there has been a systematic planned programme of capital maintenance carried out across the route.

## Footway Condition

The footway condition across the Wolverhampton to Brownhills route is beginning to show signs of deterioration, this is based on a visual condition assessment undertaken as part of our routine highway safety inspection. Some parts of the route have been part of a systematic planned capital maintenance programme.

## Structures

On this route 20 highway structures were identified consisting of 13 bridges, 3 culverts and 4 retaining walls, which are systematically inspected and maintained.

Refer to the Technical Annex for further details on asset condition.



## Development proposals directly affecting this route

### Housing

- Heath Town Estate 150 dwellings (2017–20)
- Bass Brewery 162 dwellings (2017–20)
- Jennie Lee Centre/Wednesfield School (2017–20)
- Heath Town Estate 75 dwellings (2020–25)
- Wednesfield School 120 dwellings (2020–25)

### Employment

- No significant proposals

## Development proposals indirectly affecting this route

### Housing

- Qualcast Road 100 dwellings (2017–20)
- Horseley Fields / Qualcast Road 300 dwellings (2020–25)
- Assa Abloy Building / Bluebird Trading Estate 240 dwellings (2020–25)

### Employment

- Various Sites in Brownhills 300 jobs (2017–20)

## Committed Transport Improvements (as outlined in Movement for Growth - 2026 Delivery Plan for Transport)

- Springfield Campus Interchange Connectivity

# GLOSSARY

- AADF** – Annual average daily flow
- AQMA** – Air Quality Management Areas
- DfT** – Department for Transport
- EDR** – Emergency Diversion Route
- HGV** – Heavy Goods Vehicles
- HLE** – Healthy life expectancy
- HS2** – High Speed Rail Two
- JTMS** – Journey Time Measurement Systems
- KRN** – Key Route Network
- KSI** – Killed or seriously injured
- LE** – Life expectancy
- LEP** – Local Enterprise Partnership
- LSOA** – Lower Layer Super Output Areas
- MDST** – MDS Transmodal
- MSOA** – Middle Layer Super Output Areas
- PIA** – Personal injury accidents
- SRN** – Strategic Road Network
- STDEP** – Sustainable Transport Delivery Excellence Programme
- TfWM** – Transport for the West Midlands
- TCG** – Tactical Co-ordination Group
- UKTI** – UK Trade and Investment
- UTMC** – Urban Traffic Management Control
- VMS** – Variable Message Sign
- WM** – West Midlands
- WMCA** – West Midlands Combined Authority

**AADF Data:**

AADF counts for A roads on each route:  
<https://bit.ly/2fbapuc>

**Route Safety:**

Reported casualty and accident rates by urban and rural roads, road class, road user type, severity and pedestrian involvement, Great Britain, 2015.

**Committed Schemes:**

West Midlands Combined Authority. Movement for Growth: The West Midlands Strategic Transport plan.

**West Midlands Strategic Cycle**

**Network:**

West Midlands Combined Authority Board Report, 20 January 2017, item 4.3 - Strategic Cycle Network  
<https://bit.ly/2hrrCAi>

**Freight Information:**

MDS Transmodal Data. Provided in Confidence for Midlands Connect Freight Study.

**Enterprise Zones:**

<https://bit.ly/2uZLDTe>  
<https://bit.ly/2u7DCN1>

**Road Haulage Companies:**

UK Trade & Investment Road Haulage Industry, Midlands Hauliers. Provided in Confidence for Midlands Connect Freight Study.

**National Cycle Routes, Sustrans:**

<https://bit.ly/18FFBsT>

**HS2 Connectivity Package:**

HS2 Growth Strategy, Connectivity Programme. GBSLEP. <https://bit.ly/2woBqxp>

**Average Speeds and Congestion Data:**

West Midlands Strategic Highways Phase 2: Key Route Network Definition and Outline Performance. Produced by Mott Macdonald for West Midlands Integrated Transport Authority. March 2016.

**Route Safety:**

Department for Transport. Reported Road Casualties Great Britain, annual report: 2015.  
<https://bit.ly/2hrclDb>

**Air Quality Management Areas:**

Department for Environment, Food and Rural Affairs, March 2017 AQMA Dataset.  
<https://bit.ly/2fEduLf>

**Male and Female Healthy Life**

**Expectancy:**

Office for National Statistics. Life Expectancy (LE) and Healthy Life Expectancy (HLE) at birth for males by Middle Layer Super Output Areas (MSOAs) in England, 2009 to 2013. Published 2015. <https://bit.ly/2vwtxd1>

**Childhood Obesity:**

Public Health England. National Child Measurement Programme data from 2012/13 to 2014/15, aggregated by MSOA. Published 2016  
<https://bit.ly/2p3ocVV>

**Younger Population:**

ONS: 2011 Census aggregate data. Population aged 0-17, as a percentage of total population by LSOA.

**Older Population:**

ONS: 2011 Census aggregate data. Population aged 65+, as a percentage of total population by LSOA.

**Living with a Disability:**

ONS: 2011 Census aggregate data. Households with at least one person living with a disability, as a percentage of all households by LSOA.

**Unemployment:**

ONS: 2011 Census aggregate data. No adults in employment in household, as a percentage of all households by LSOA.

**West Midlands Cycling Charter:**

<https://bit.ly/2xbg4oK>