LEICESTERSHIRE COUNTY COUNCIL

Major Road Network (MRN) Period 2 (2025-2030) – Priority Corridor Identification

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1. Introduction

Originally proposed by the Rees Jeffrey's Road Fund study, the Major Road Network (MRN) sits between the national Strategic Road Network (SRN), i.e. motorways and trunk roads, managed by National Highways and the remaining local road network managed by local authorities.

It includes local authority 'A' roads which:

- have an annual average daily traffic flow (AADF) of more than 20,000 vehicles,
- carry 5% HGVs traffic (if the AADF is lower than 20,000 vehicles),
- support the SRN, and link current or future economic centres and key transport hubs.

The Rees Jeffrey's study recognised that Government had created an effective and well-resourced regime for planning and delivering successive five-year investment programmes for the SRN through the Roads Investment Strategy (RIS).

However, it also highlighted that no such arrangements existed for the most important local authority 'A' roads which are also heavily trafficked, and which often carry a large proportion of commercial vehicles. The performance of these roads is therefore considered to be critical to supporting the local and national economy.

In early 2018, the Department for Transport (DfT) undertook consultation on the creation of the MRN, to define the network, and to establish key principles and a framework for programme development.

In defining the MRN, Government set out five central policy objectives, which would form the basis of investment assessment criteria for MRN schemes:

- **Reduce congestion** – alleviating local and regional congestion, reducing traffic jams and bottlenecks,
- **Support economic growth and rebalancing** – supporting the delivery of the Industrial Strategy, contributing to positive economic impacts across all regions,
- **Support housing delivery** – unlocking land for new housing developments,
- **Support all road users** – recognising the needs of all users, including cyclists' pedestrians and disabled people; and,
- **Support the Strategic Road Network (SRN)** – complementing and supporting the existing SRN by creating a more resilient road network in England.

As part of the consultation, DfT also provided an indicative national MRN plan as a starting point for discussion and invited Sub-National Transport Bodies (STBs), such as Midlands Connect, (the representative STB for East and West Midlands), to work with Local Highway Authorities (LHA) and submit an MRN proposition for their region, for consideration.

In December 2018, following consideration of DfT's consultation results and more detailed discussion with STBs, Government confirmed which roads would form part of the MRN.

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For Leicestershire the confirmed network included the following roads: A50, A6, A607, A47, A563, and parts of the A5630 (Anstey Lane), A5460 (between M1 J21 and Fosse Park), A426 and A4304 (Lutterworth) and A6004 (Loughborough), as shown in Figure 1.

The MRN in Leicestershire falls into one or more of four main groups: radial routes through the County to the City; key connections from the SRN into the County Towns or the City; key connections to major infrastructure such as East Midlands Airport; and key connections between the County Towns and the City or other economic centres and major infrastructure out of County.

These routes play a vital role not only in the everyday lives of the County's population in facilitating travel to work, to school and access to essential services but also play a key role in the economy enabling the movement of goods and services through the County and beyond. In the case of emergencies on the SRN, Leicestershire's MRN routes are also utilised extensively as diversionary routes.

Finally, it is interesting to note that the majority of the MRN/SRN is based within or to the west of the County. The MRN to the east of the County largely provides access to the SRN, housing and industrial areas out of County.

Figure 1. Major Road Network (MRN) in Leicestershire

2. MRN Assessment Framework

In order to help determine which local authority 'A' roads formed part of Midlands Connects' Midlands MRN proposition to DfT in 2018, Midlands Connect (MC) developed an '*Assessment Framework'*, to score and rank road performance and economic importance.

Reflecting Government's high-level MRN policy objectives and the route criteria specified by the Rees Jeffrey's Road Fund, the framework focused on journey time and reliability, housing and economic growth, resilience and connectivity for the SRN and the support of all road users.

Two main scoring criteria were defined, covering 'conditional outputs' targeted towards journeys and 'economic objectives' targeted towards growth, resilience, and connectivity.

In addition, to better reflect the varied geography of the Midlands, with major conurbations, large urban areas, and significant rural areas, local authority 'A' roads were classified, as follows, to enable performance to be defined relative to the type of road and its environment:

- **Urban** - i.e. roads in a built-up area
- **Interurban single** - i.e. single carriageway roads linking urban areas, other important locations, major transport hubs
- **Interurban dual** - i.e. dual carriageway roads linking urban areas; other important locations, major transport hubs

2.1 Conditional outputs

Conditional outputs provided aspirational targets for journey time (or speed) and journey time reliability. These aim to consider the greater variability in standard of road on the MRN, recognising the locational constraints on outputs due to the location, road standard and the environment.

The conditional outputs (CO) were defined by MC as:

- **CO1** - No difference between daytime and off-peak journey times
- **CO2** - Travel time in-line with posted speed limit in urban areas or 60 mph or more on interurban routes
- **CO3** - Any journey time is no more than 20% of the average journey time by time of day
- **CO4** - No through traffic / no HGV through traffic in urban areas
- **CO5** - No through traffic / no HGV through traffic in environmentally sensitive areas

2.2 Economic Objectives

Alongside the COs, scoring criteria was also defined to assess strategic and economic importance.

These Economic objectives (E) were defined by MC as:

- **E1** - Access to SRN and provide SRN resilience
- **E2** - Access to the main economic centres in the Midlands
- **E3** - Access to growth sites for employment
- **E4** - Access to commercial markets and global supply chains for freight and business
- **E5** - Access from major housing locations

2.3 Scoring criteria

The following table (Table 1) provides the basis of the scoring criteria used to assess the conditional outputs (CO):

Conditional Output (CO)	Measurable MRTM Baseline Output	Score	
1	Average AM, interpeak (IP) and PM journey time (JT) vs. off peak (OP) journey time (JT)	1	Journey Time (JT) is up to 5% slower
		2	JT is between 5% slower and 15% slower
		3	JT is between 15% slower and 25% slower
		4	JT is between 25% slower and 50% slower
		5	JT is more than 50% slower
2	Off peak JT vs. speed limit journey time.	1	OP JT is up to 5% slower
		2	OP JT is between 5% slower and 15% slower
		3	OP JT is between 15% slower and 25% slower
		4	OP JT is between 25% slower and 50% slower
		5	OP JT is more than 50% slower
3	Average AM interpeak (IP) and PM JT + 20%	1	More than 90% of JTs are within 20% of the average JT
		2	Between 80% and 90% of JTs are within 20% of the average JT
		3	Between 75% and 80% of JTs are within 20% of the average JT
		4	Between 60% and 75% of JTs are within 20% of the average JT
		5	Less than 60% of JTs are within 20% of the average JT
4	Through Traffic as a proportion of total traffic in urban areas. HGV through traffic as a proportion of HGV total traffic in urban areas.	5	More than 90% of total / HGV traffic is through traffic
		4	Between 75-90% of total / HGV traffic is through traffic
		3	Between 50-75% of total / HGV traffic is through traffic
		2	Between 25-50% of total / HGV traffic is through traffic
		1	Less than 25% of total / HGV traffic is through traffic
5	Through traffic as a proportion of total traffic in identified environmentally sensitive areas. HGV through traffic as a proportion of HGV total traffic in identified environmentally sensitive areas.	5	More than 90% of total / HGV traffic is through traffic
		4	Between 75-90% of total / HGV traffic is through traffic
		3	Between 50-75% of total / HGV traffic is through traffic
		2	Between 25-50% of total / HGV traffic is through traffic
		1	Less than 25% of total / HGV traffic is through traffic

Table 1. Conditional output scoring table

The following table (Table 2) provides the basis of the scoring criteria used to assess the Economic objectives (E):

Economic test – Criteria \ Score	1	2	3
Access to SRN and provide SRN resilience	Limited access to SRN or limited SEN resilience	Complements the primary access to the SRN, or forms part of a diversionary route	Forms the primary access to the SRN, or a designated diversionary route
Access to the main economic centres in the Midlands	Limited connectivity to the main Midlands economic centres	Peripheral connectivity to the main Midlands economic centres	Direct access to the main Midlands economic centres
Access to growth sites for employment	Limited connectivity to the Midlands major employment growth sites	Peripheral connectivity to the Midlands major employment growth sites	Direct access to the Midlands major employment growth sites
Access to commercial markets and global supply chains for freight and business	Limited connectivity to/from ports, airports or freight terminals	Peripheral connectivity to/from ports, airports or freight terminals	Direct access to/from ports, airports or freight terminals
Access from major housing locations	Limited connectivity to the Midlands major housing growth sites	Peripheral connectivity to the Midlands major housing growth sites	Direct access to the Midlands major housing growth sites

Table 2. Economic objectives scoring table

3. Identifying Leicestershire's next MRN priority corridor

The next section of the report outlines the assessment and evidence gathering work carried out to identify the County Council's next MRN priority corridor.

3.1 Scope

For the purposes of assessment, the full Leicestershire MRN has been split into 14 routes/ corridors (as shown in Figure 2) – clockwise from the north of the County:

- **A607n** (north) – between the City and the A46
- **A607e** (east) – between the A46 and the County boundary
- **A47e** (east) – between the City and the County boundary
- **A6s** (south) – between the City and the County boundary
- **A426** – between the City and the County boundary
- **A4303** – between the M1 and the A5
- **A563s** (south) – (Soar Valley Way) between the A5460 and the County boundary
- **A5460** – (Fosse Park) between the M1 and the County boundary
- **A563n** (north) – (Lubbesthorpe Way) between the A5460 and the County boundary
- **A47w** (west) – between the City and the County boundary
- **A50/A511** – between the City and the County boundary
- **A5630** – (Anstey Lane) between the A46 and the City
- **A512** – between the M1 and the A6004
- **A6n** (north)/**A6004** – between the City and the M1

Note: Each MRN route was considered as a whole corridor, from end to end. However, the A6 (N) and the A6004 were considered in combination as one corridor as well as the A50 and A511.

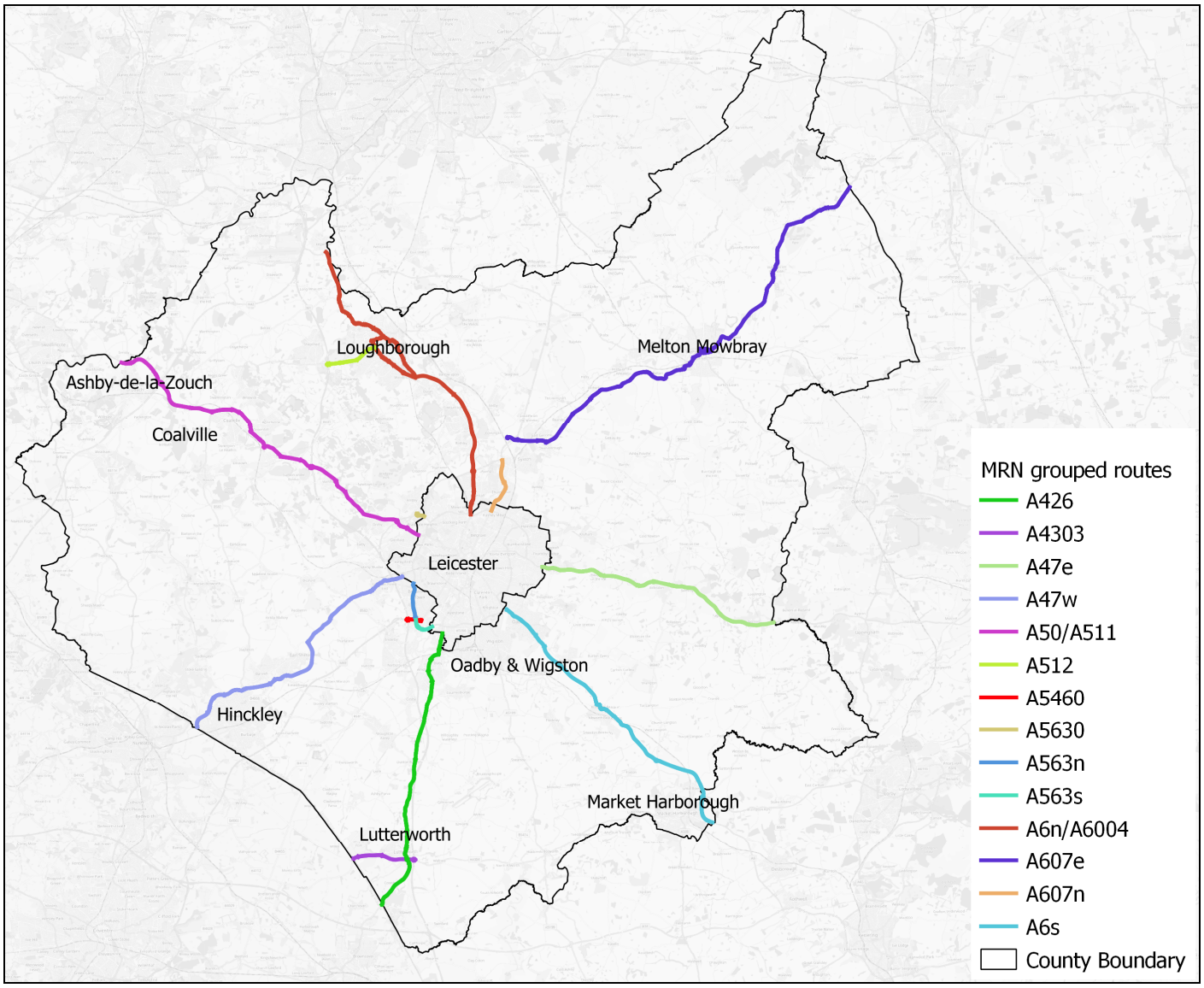

Figure 2. Grouping of routes on Leicestershire's MRN

3.2 Assessment Methodology

Midlands Connects MRN Assessment Framework, including the scoring criteria, outlined in section 2 of this report, has been applied to rank the relative priority of the County's MRN corridors and inform consideration of the authority's next priority corridor.

3.3 Data and Intelligence

Data and intelligence (evidence) held locally by the County Council and Midlands Connect has been used to inform the scoring. This includes:

- Traffic Master journey time data (2019),
- The Council's traffic counts database (2019),
- Development locations from the Council's development map, land use model and district websites,
- Natural England, Sites of Scientific Special Interest (SSSI) locations,
- DEFRA – Air Quality Management Area (AQMA) locations.

Note: MRN routes that pass through or alongside an AQMA or SSSI location are considered for either Conditional Output 4 (CO4) in urban areas or Conditional Output 5 (CO5) in interurban areas.

3.4 Initial Ranking Scores

The results of an initial round of assessment are set out in Table 3 below and in Appendix A of this report. It is important to note that the scoring is based on raw preliminary results.

In some part due to the diverse nature of Leicestershire's MRN, the utilisation of the route and the vehicle mix varies considerably from road to road. Thus, as with any assessment methodology, considerations may need to be applied to preliminary outcomes before definitive conclusions and decisions are reached. These considerations are set out in the next section of the report.

Route	LCC Ref	Conditional Output – Score Summary						Economic Criteria – Score Summary						Overall Total Score
		CO1	CO2	CO3	CO4	CO5	Max Score	E1	E2	E3	E4	E5	Total Score	
A6n/ A6004	LE14/16	3	2	0	0	5	5	3	3	3	2	3	14	19
A4303	LE02	2	5	0	0	0	5	3	3	3	1	3	13	18
A50/A511	LE07/08	3	3	0	0	5	5	3	3	3	1	3	13	18
A512	LE09	3	4	0	0	0	4	3	3	3	1	3	13	17
A5460	LE10	4	5	0	0	3	5	3	3	3	1	2	12	17
A5630	LE13	4	5	0	0	0	5	3	3	1	1	3	11	16
A607n	LE19	3	4	0	0	0	4	3	3	2	1	3	12	16
A426	LE01	3	3	0	0	3	3	3	3	2	1	3	12	15
A47w	LE06	3	3	0	0	4	4	3	3	1	1	3	11	15
A563s	LE12	5	5	0	2	0	5	2	3	2	1	2	10	15
A607e	LE18	2	3	0	0	2	3	3	1	3	1	3	11	14
A563n	LE11	2	1	0	0	0	2	2	3	2	1	3	11	13
A6s	LE15	2	2	0	0	2	2	3	3	1	1	3	11	13
A47e	LE05	2	2	0	0	0	2	3	3	1	1	1	9	11

Table 3. Initial Leicestershire MRN route scoring table

3.5 Considerations of Initial Assessment Outcomes

CO2 considers the difference between off peak journey time and journey time at the speed limit. This assumes that the vehicles using the link can travel at the speed limit and that it is possible to drive at the speed limit along the link.

However, in the case of the A4303, due to the road layout and the vehicle mix these assumptions do not hold. The route carries traffic between the M1 and the A5 and provides links into Lutterworth and Magna Park.

Due to the proximity of these major routes and proximity of industrial areas, a large proportion of the vehicular traffic on this link consists of HGVs. In terms of journey times, these vehicles are not only speed limited, well below the posted speed limit (70mph) , but, due to the road layout, spend much of their journey slowing down approaching roundabouts and speeding back up again on the other side.

This effect tends to skew journey times to such an extent that, when taken at face value, the link appears to be congested even in off peak periods, when in reality, it is not. This example does not demonstrate a fault with the methodology but shows why the outcomes need to be carefully considered.

Furthermore, HGVs also form a higher percentage of the vehicles travelling in the off-peak period. Based on vehicle volume data available for the westbound traffic, during the day there are around 3.28 cars for every HGV; in the off-peak period this drops to 2.58 cars for every HGV. The effects of the road layout can be seen in Figure 3, which shows the vehicle speeds split by vehicle type. It can be clearly seen that cars and HGVs are generally travelling below the speed limit for much of the link length.

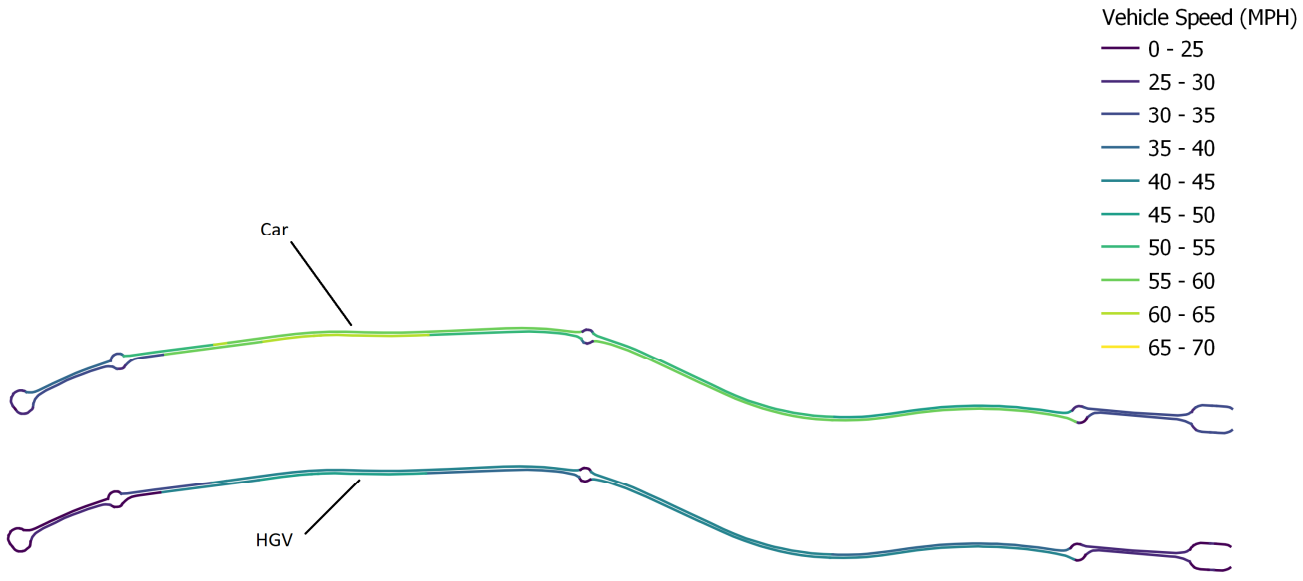

Figure 3. Vehicle speed by vehicle type *(A5 to the left, M1 to the right)*

The effect of vehicle mix and road topology against the posted speed limit (CO2) is also of consideration the A5460 and A5630. These have signal controlled sections that have relatively high posted speed limits. In order to redress this, the CO2 scores for these 3 routes have been capped at the CO1 score so as to still provide an indication of overall congestion levels.

CO4 and CO5 consider through traffic and HGV through traffic in urban and inter-urban settings, however, the MRN routes through Leicestershire generally provide links from the SRN to the County Towns or the City. Whilst, MRN routes in Leicestershire carry large numbers of traffic through the day, apart from a small number of these routes, typically traffic is not moving along the whole route but tends to cluster around other key SRN and MRN routes.

A good example of this is the A50/A511 corridor. This link crosses the outer ring road of the City, the A46, the M1 and the A42 and although the link carries a high volume of traffic along its length through the day, the bulk of this traffic isn't moving between the City and the County Boundary, as shown in Figure 4.

This can be seen quite clearly when the traffic volume is split by vehicle type. HGV traffic on the A50/A511 tends to be concentrated around the key junctions with the SRN, as shown in Figure 5. Other routes lend themselves more easily to the end to end link type classification such as the A47 east where the bulk of the traffic leaving the City is heading out of County or the A607 north between the City and the A46.

To address considerations relating to CO4 and CO5 for future assessment of the MRN, it would be beneficial if additional permanent traffic counter infrastructure was added on the MRN, specifically around the junctions of the MRN and the SRN. A plan showing the location of proposed additional traffic counters is shown in Appendix B

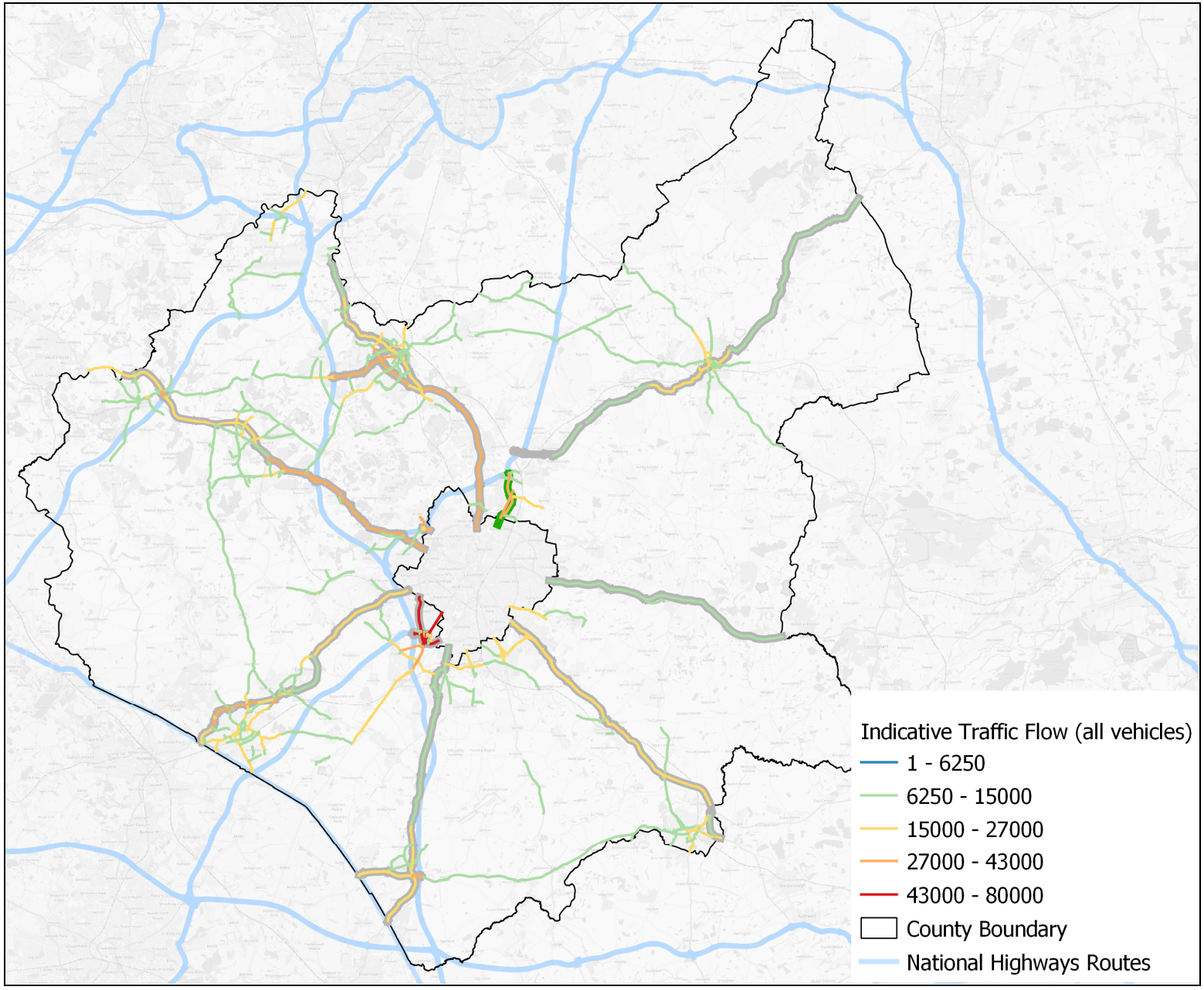

Figure 4. Indicative traffic flow based on 12-hour manually classified counts

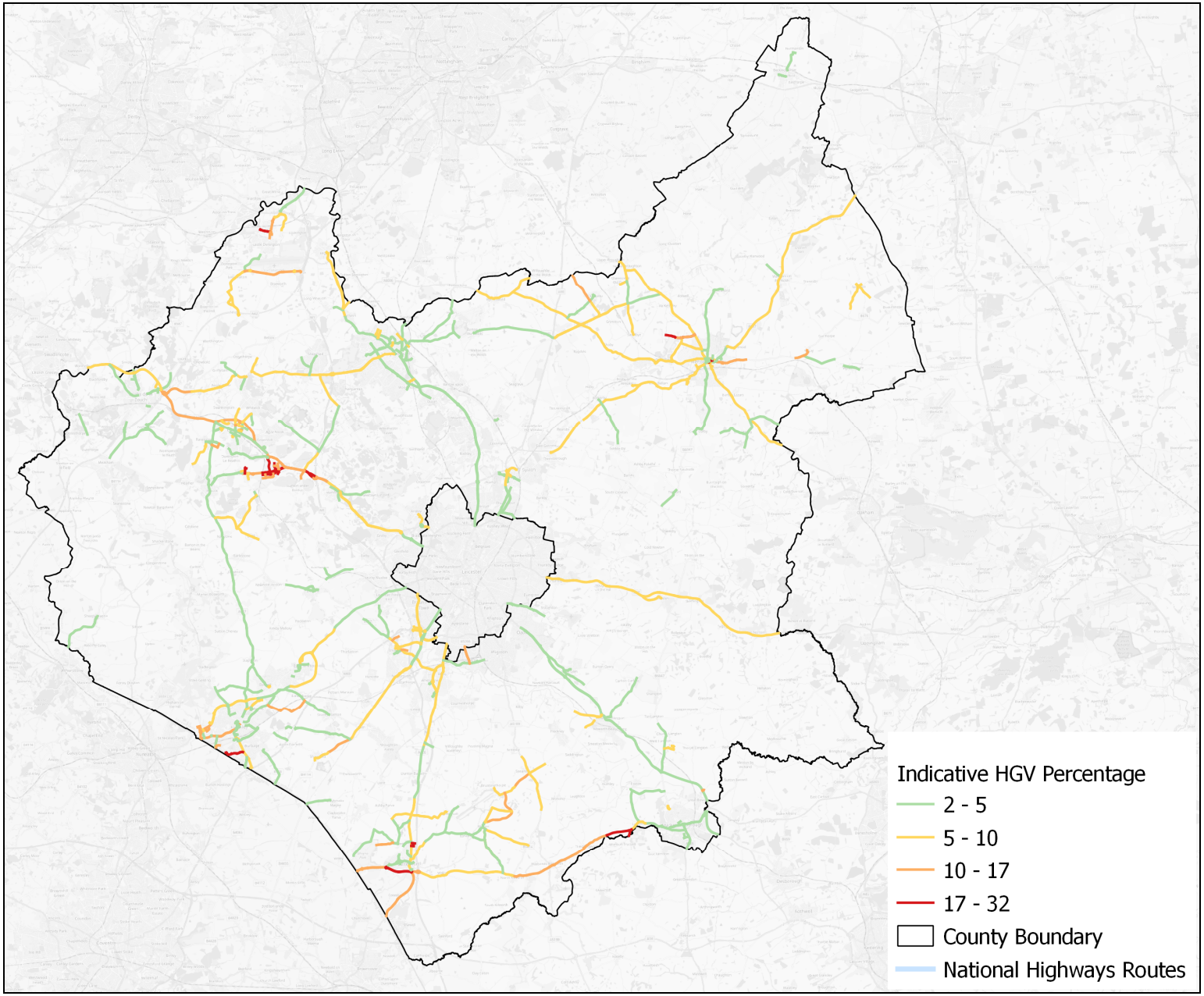

Figure 5. Indicative HGV percentage of traffic volume based on 12-hour manually classified counts

3.6 Final Ranking Scores

Taking the considerations of the initial assessment outcomes into account, the relative rankings of the top 7 corridors change. As highlighted in the final ranking table below (Table 4), the A4303 and A5630 move down to joint 6th place; the A5460 moves up one place and the A607n moves up to join the A5460 in joint 4th place.

Applying the MC criteria produces a route ranking table where the highest to lowest ranking of the 14 routes are covered by 8 points and the top 10 are covered by only 4 points. The top 5 highest ranking routes are the A6 north/A6004 (Loughborough), A50/A511 (Coalville and Ashby), A512 (Loughborough), A5460 (Fosse Park) and A607 north (between Leicester and the A46 at Hobby Horse roundabout).

These scores are also shown graphically for comparison in the Figures 6, 7 and 8.

Route	LCC Ref	Conditional Output – Score Summary						Economic Criteria – Score Summary						Overall Total Score
		CO1	CO2	CO3	CO4	CO5	Max Score	E1	E2	E3	E4	E5	Total Score	
A6n/ A6004	LE14/16	3	2	0	0	5	5	3	3	3	2	3	14	19
A50/A511	LE07/08	3	3	0	0	5	5	3	3	3	1	3	13	18
A512	LE09	3	4	0	0	0	4	3	3	3	1	3	13	17
A5460	LE10	4	4	0	0	3	4	3	3	3	1	2	12	16
A607n	LE19	3	4	0	0	0	4	3	3	2	1	3	12	16
A5630	LE13	4	4	0	0	0	4	3	3	1	1	3	11	15
A4303	LE02	2	2	0	0	0	2	3	3	3	1	3	13	15
A426	LE01	3	3	0	0	3	3	3	3	2	1	3	12	15
A47w	LE06	3	3	0	0	4	4	3	3	1	1	3	11	15
A563s	LE12	5	5	0	2	0	5	2	3	2	1	2	10	15
A607e	LE18	2	3	0	0	2	3	3	1	3	1	3	11	14
A563n	LE11	2	1	0	0	0	2	2	3	2	1	3	11	13
A6s	LE15	2	2	0	0	2	2	3	3	1	1	3	11	13
A47e	LE05	2	2	0	0	0	2	3	3	1	1	1	9	11

Table 4. MRN Route Scores

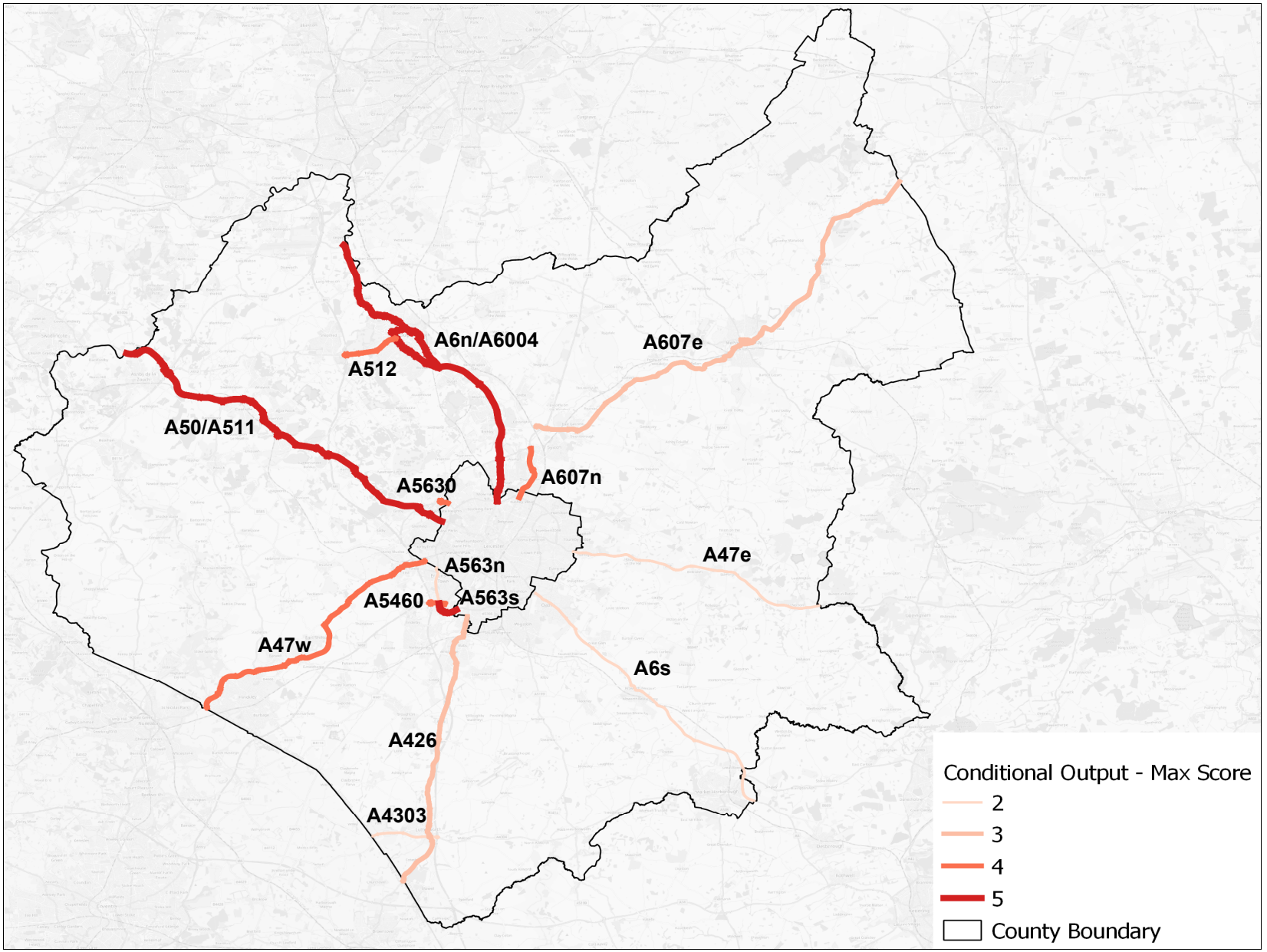

Figure 6. Conditional Output (CO) scores by route

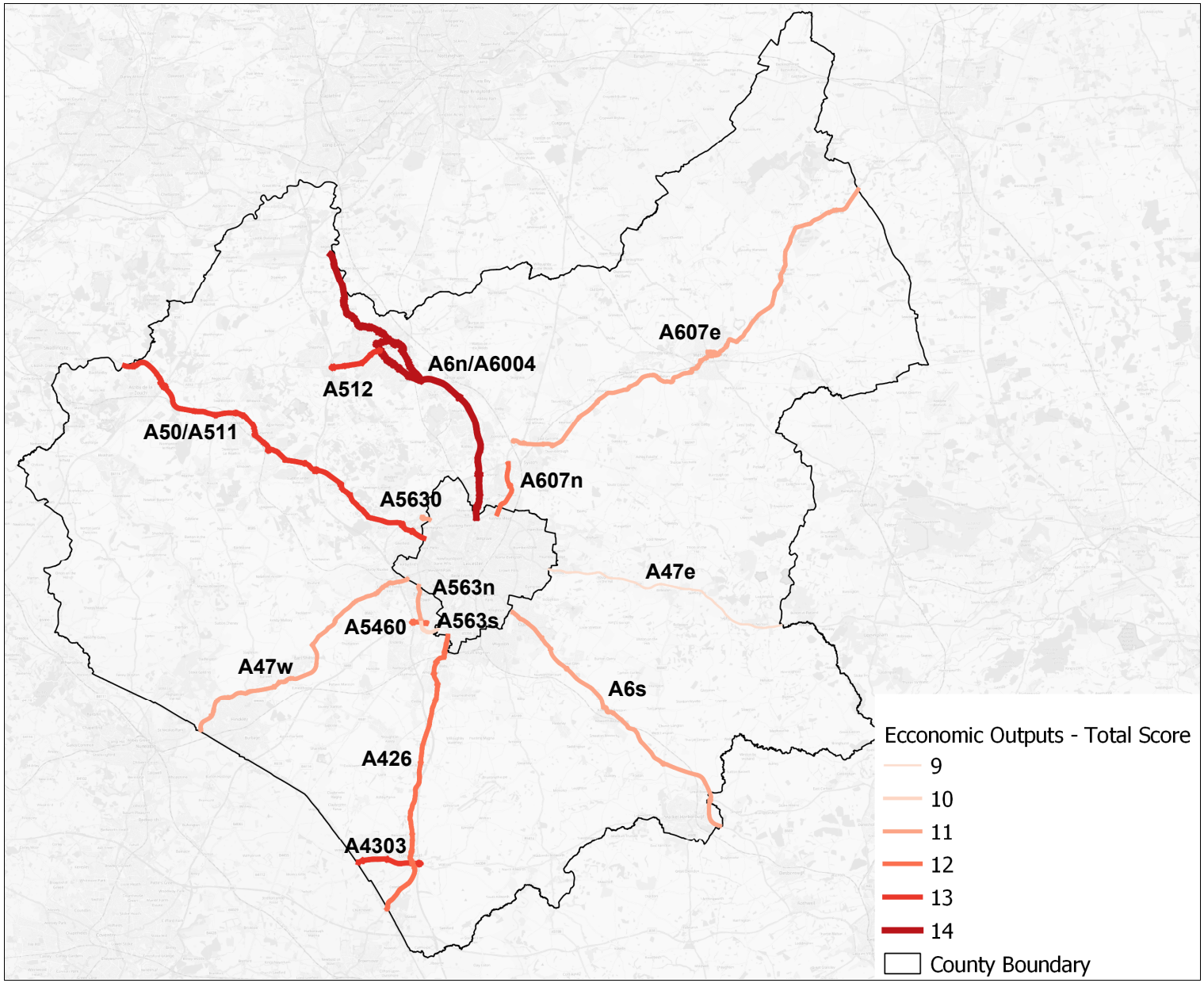

Figure 7. Economic objectives (E) scores by route

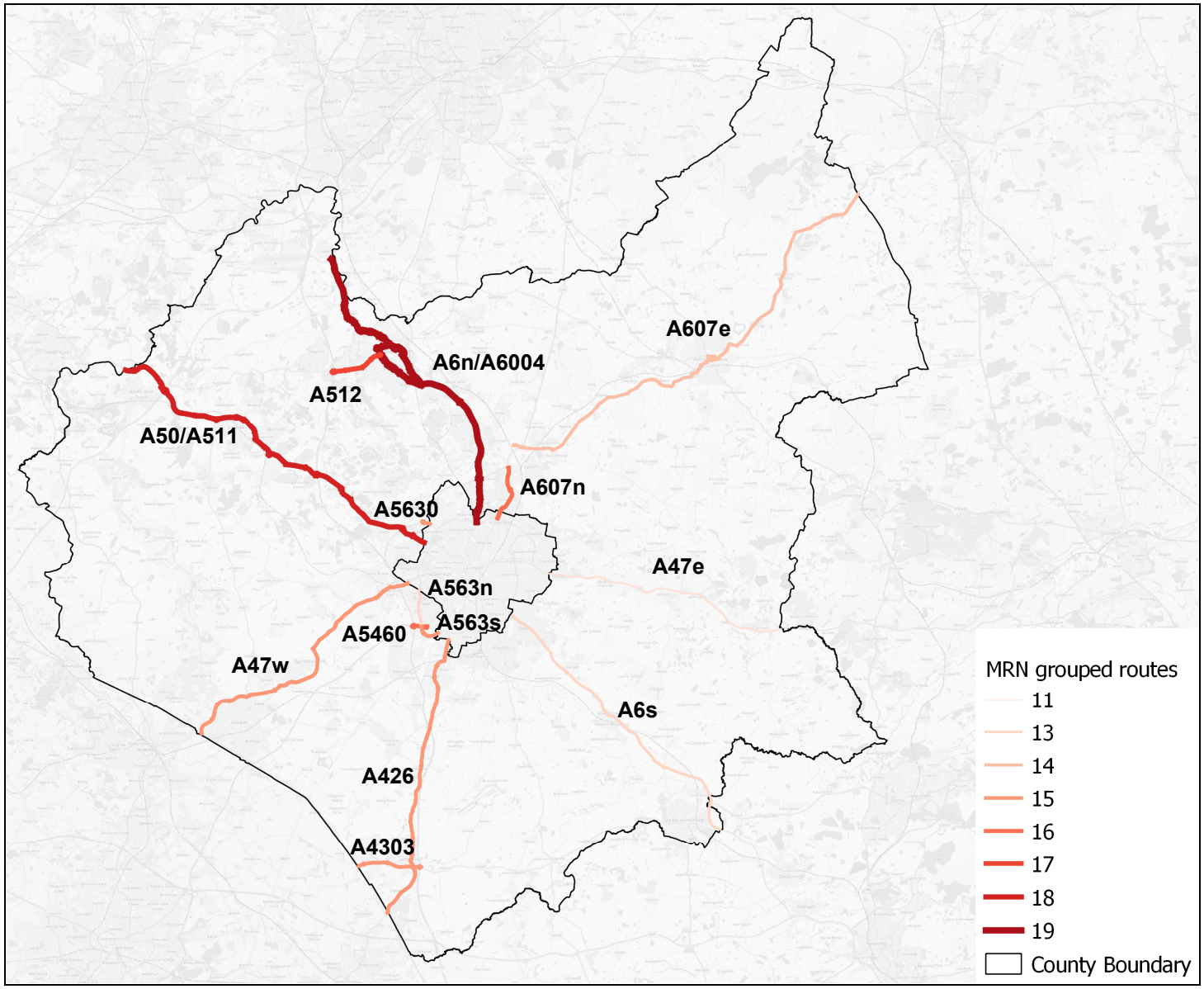

Figure 8. Overall score by route

4. Conclusions and Recommendations

The route assessment carried out, considered the full extent of the County's MRN and represents the most robust evidence base available at present, making use of data and intelligence held or accessible by the Council and Midlands Connect.

The regional appraisal and scoring framework, used originally by MC to define the midlands MRN has been adapted and used to rank the relative priority of the County's MRN corridors.

Based on the MRN route assessment carried out and the final ranking in Section 3.6, it is recommended that the:

i. A6n (north) corridor between the Leicester boundary and Kegworth (including A6004/Epinal Way in Loughborough) is the County Council's next priority MRN corridor.

ii. A6n /A6004 corridor provides an immediate focus for further investigation at a corridor-level, to enhance the A6/A6004 evidence base, and to use it identify potential conceptual solutions and a strategic narrative for future investment.

iii. Coverage of permanent traffic counter infrastructure is increased on the MRN, particularly around key junctions and the SRN.

Appendix A Route Definitions and Scoring

Route LE01 - A426

The A426 runs from the City Boundary to the County Boundary (12.73 miles) passing through Dunton Bassett and Lutterworth and is classified as inter-urban; the A426 provides access to the A563 Leicester outer ring road, the A4303/A4304, indirectly to the M1 (via the A4303) and the A5. It provides a part of diversionary routes for the M6 and the A5. Indirectly, the A426, provides access to Magna Park (via the A4303) and Rugby (via the A426 out of County).

Route:	A426 - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	42:38	3
	Average off-peak journey time	35:32	
	Percentage difference	19.97%	
CO2			
	Average off-peak journey time	35:32	3
	Journey time at speed limit	30:24	
	Percentage difference	16.85%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	58.01%	3
	Percentage HGV through traffic - inter-urban	42.39%	
	Max score		3

Route:	A426	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M6 access - Diversion route M6/A5	3
E2	Access to the main economic centres in the Midlands	
	- Leicester - Rugby (indirect)	3
E3	Access to growth sites for employment	
	- Magna Park (indirect) - Planned/ongoing extension to Magna Park - Symmetry Park	2
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Leicester (direct) - Lutterworth (direct) - Rugby (indirect) - Lutterworth SDA (one end of planned spine road connects to A426) - Whetstone Pastures Garden Village proposal	3
	Total score	12

Route LE02 - A4303

The A4303 runs between the A5 and the M1 passing to the south of Lutterworth. This route is classified as inter-urban; as well as the A5 and M1, the A4303 provides access to the A426 and the A4304. It provides a part of diversionary routes for the M69, M1 and the A5. This route provides access to Magna Park and Lutterworth.

Route:	A4303 - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	08:11	2
	Average off-peak journey time	07:46	
	Percentage difference	5.49%	
CO2			
	Average off-peak journey time	07:45	5
	Journey time at speed limit	04:46	
	Percentage difference	62.73%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	N/A	0
	Percentage HGV through traffic - inter-urban	N/A	
	Max score		5

Route:	A4303	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M1/A5 access - Diversion route M69/M1/A5	3
E2	Access to the main economic centers in the Midlands	
	- Magna Park	3
E3	Access to growth sites for employment	
	- Magna Park (indirect) - Planned/ongoing extension to Magna Park - Symmetry Park	3
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Lutterworth - Rugby	3
	Total score	13

Route LE05 - A47e (East)

The A47e runs from the City to the County Boundary. This route is classified as inter-urban; the A47e provides access to Leicester and out of County to Peterborough, the A1 and Norfolk.

Route:	A47e - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	28:06	2
	Average off-peak journey time	25:46	
	Percentage difference	9.04%	
CO2			
	Average off-peak journey time	25:46	2
	Journey time at speed limit	23:55	
	Percentage difference	7.74%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	N/A	0
	Percentage HGV through traffic - inter-urban	N/A	
	Max score		2

Route:	A47e	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- A1 access	3
E2	Access to the main economic centers in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
		1
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
		1
	Total score	9

Route LE06 - A47w (West)

The A47w runs from the City to the County Boundary passing through Hinckley. This route is classified as inter-urban; the A47w provides access to the A5 and out of County to Nuneaton and Bedworth.

Route:	A47w - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	43:50	3
	Average off-peak journey time	36:30	
	Percentage difference	20.09%	
CO2			
	Average off-peak journey time	36:28	3
	Journey time at speed limit	30:39	
	Percentage difference	19.00%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	52.39%	4
	Percentage HGV through traffic - inter-urban	78.60%	
		Max score	4

Route:	A47w	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- A5 access	3
E2	Access to the main economic centers in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
		1
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Leicester - Hinckley - Earl Shilton and Barwell SUEs - Lubbesthorpe SUE - North of Hinckley Road Direction for Growth (LFE)	3
	Total score	11

Route LE07 and 8 – A50 and A511

The A50 and A511 run from the City to the County Boundary passing through Coalville and Ashby de la Zouch. This route is classified as inter-urban; the A50 and A511 corridor provides access to the M1, A42 and out of County, Burton on Trent and the A50/A38. It provides a part of diversionary routes for the A46 and the M1.

Route:	A50/A511 - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	57:08	3
	Average off-peak journey time	49:17	
	Percentage difference	15.92%	
CO2			
	Average off-peak journey time	49:15	3
	Journey time at speed limit	39:57	
	Percentage difference	23.28%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	94.75%	5
	Percentage HGV through traffic - inter-urban	28.19%	
	Max score		5

Route:	A50/A511	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M1/A46/A42/A38 access - Diversion route A46/M1	3
E2	Access to the main economic centers in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
	- 16ha of employment is planned at the Money Hill SUE in Ashby - Major sites are coming forward/being granted permission in and around Bardon Hill	3
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Leicester - Coalville - Money Hill SUE - Coalville SUE	3
	Total score	13

Route LE09 – A512

The A512 runs between the M1 and Loughborough. This route is classified as inter-urban; the A512 provides access to the M1 and links Shepshed and Loughborough.

Route:	A512 - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	09:56	3
	Average off-peak journey time	08:08	
	Percentage difference	21.92%	
CO2			
	Average off-peak journey time	08:08	4
	Journey time at speed limit	06:28	
	Percentage difference	25.93%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	N/A	0
	Percentage HGV through traffic - inter-urban	N/A	
	Max score		4

Route:	A512	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M1 access	3
E2	Access to the main economic centers in the Midlands	
	- Loughborough	3
E3	Access to growth sites for employment	
	- Main access route to planned development at LUSEP	3
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Loughborough - Shepshed	3
	Total score	13

Route LE10 – A5460

The A5460 runs between the M1 and the A563 Leicester Outer Ring Road. This route is classified as inter-urban; the A5460 provides access to the M1, M69 and A563 along with Fosse Park, Carlton Park (via the A563s) and Meridian (via the A563n). It provides a part of the diversionary route for the M69.

Route:	A5460 - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	03:36	4
	Average off-peak journey time	02:45	
	Percentage difference	30.37%	
CO2			
	Average off-peak journey time	02:45	5
	Journey time at speed limit	01:30	
	Percentage difference	82.46%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	60.93%	3
	Percentage HGV through traffic - inter-urban	7.86%	
	Max score		5

Route:	A5460	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M1/M69 access - Diversion route M69	3
E2	Access to the main economic centers in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
	- Fosse Park - Carlton Park (indirect) - Meridian (indirect) - Enderby Hub - Lubbesthorpe SUE employment sites	3
E4	Access to Commercial markets and global supply chains	
E5	Access from the major housing locations	
	- Main/ only link to SRN for major growth sites such as Lubbesthorpe SUE	2
	Total score	12

Route LE11 – A563n (North)

The A563n runs from the A5460 to the County Boundary. This route is classified as urban; the A563n forms part of the Leicester outer ring road and provides access to the A5460, M1 (via the A5460) and the M69 (via the A5460) along with Fosse Park, Carlton Park (via the A563s) and Meridian.

Route:	A563n - urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	04:39	2
	Average off-peak journey time	04:11	
	Percentage difference	11.04%	
CO2			
	Average off-peak journey time		
	Journey time at speed limit		
	Percentage difference		
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	N/A	0
	Percentage HGV through traffic - inter-urban	N/A	
	Max score		2

Route:	A563n	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M1/M69 access (indirect)	2
E2	Access to the main economic centers in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
	- Fosse Park (indirect) - Carlton Park (indirect) - Meridian	2
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Leicester - Lubbesthorpe SUE	3
	Total score	11

Route LE12 – A563s (South)

The A563s runs from the A5460 to the County Boundary. This route is classified as urban; the A563s forms part of the Leicester outer ring road and provides access to the A5460, M1 (via the A5460) and the M69 (via the A5460) along with Fosse Park, Carlton Park, Meridian (via the A563n), Leicester, Oadby, Wigston and the A6. It provides a part of the diversionary route for the M69.

Route:	A563s - urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	05:50	5
	Average off-peak journey time	03:44	
	Percentage difference	56.30%	
CO2			
	Average off-peak journey time		
	Journey time at speed limit		
	Percentage difference		
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	44.37%	2
	Percentage HGV through traffic - urban	23.79%	
CO5			
	Percentage through traffic - inter-urban	N/A	0
	Percentage HGV through traffic - inter-urban	N/A	
	Max score		5

Route:	A563s	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M1/M69 access - Diversion route M69	2
E2	Access to the main economic centers in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
	- Lubbesthorpe SUE employment - Enderby Hub sites	2
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Leicester - Lubbesthorpe SUE	2
	Total score	10

Route LE13 – A5630

The A5630 runs from the A46 to the City Boundary. This route is classified as inter-urban; the A5630 provides access to the A46 and Leicester.

Route:	A5630 - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	01:53	4
	Average off-peak journey time	01:15	
	Percentage difference	49.81%	
CO2			
	Average off-peak journey time	01:15	5
	Journey time at speed limit	00:50	
	Percentage difference	50.13%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	N/A	0
	Percentage HGV through traffic - inter-urban	N/A	
		Max score	5

Route:	A5630	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- A46 access	3
E2	Access to the main economic centers in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
		1
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Leicester - Anstey Pastures - Ashton Green SUE	3
	Total score	11

Route LE14 and LE16 – A6n (North) and A6004

The A6n/A6004 runs from the City Boundary to the A453 passing through Loughborough. This route is classified as inter-urban; the A6n/A6004 provides access to the M1, A453, A42 (via the A453), A50 (via the A453) and A46. It provides a part of the diversionary route for the A46 along with indirect links to East Midlands Airport and, out of County, the Rail Freight Interchange, Nottingham and Derby.

Route:	A6n/A6004 - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	01:08:12	3
	Average off-peak journey time	55:39	
	Percentage difference	22.55%	
CO2			
	Average off-peak journey time	54:54	2
	Journey time at speed limit	47:49	
	Percentage difference	14.79%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	(A6004)-38.24% (A6N)-55.77%	5
	Percentage HGV through traffic - inter-urban	(A6004)-94.30% (A6N)-57.27%	
		Max score	5

Route:	A6n/A6004	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- M1/A46/A50 access - Diversion route A46	3
E2	Access to the main economic centers in the Midlands	
	- Leicester - Loughborough	3
E3	Access to growth sites for employment	
	- Rail Freight Interchange - EM Freeport proposals - LUSEP/Loughborough Enterprise Zone	3
E4	Access to Commercial markets and global supply chains	
	- Access to airport (indirect)	2
E5	Access from the major housing locations	
	- Leicester - Loughborough - Broadnook Garden Suburb - Planned growth across the Soar Valley villages	3
	Total score	14

Route LE15 – A6s (South)

The A6s runs from the City to the County Boundary passing Market Harborough. This route is classified as inter-urban; the A6s provides access to Leicester and Market Harborough along with the A14, Corby and Kettering out of County.

Route:	A6s - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	41:11	2
	Average off-peak journey time	36:24	
	Percentage difference	13.15%	
CO2			
	Average off-peak journey time	36:24	2
	Journey time at speed limit	31:41	
	Percentage difference	14.86%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	35.17%	2
	Percentage HGV through traffic - inter-urban	39.51%	
	Max score		2

Route:	A6s	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- A14 access	3
E2	Access to the main economic centers in the Midlands	
	- Leicester - Corby/Kettering (indirect)	3
E3	Access to growth sites for employment	
		1
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Market Harborough	3
	Total score	11

Route LE18 – A607e (East)

The A607e runs from the A46 to the County Boundary passing through Melton Mowbray. This route is classified as inter-urban; the A607e provides access to Melton Mowbray and, out of County, the A1 and A52 (via the A1). It provides a part of the diversionary route for the A46 and the A1.

Route:	A607e - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	01:04:03	2
	Average off-peak journey time	58:33	
	Percentage difference	9.41%	
CO2			
	Average off-peak journey time	58:33	3
	Journey time at speed limit	50:49	
	Percentage difference	15.20%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	26.17%	2
	Percentage HGV through traffic - inter-urban	46.32%	
	Max score		3

Route:	A607e	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- A46/A1 access - Diversion route A46/A1	3
E2	Access to the main economic centers in the Midlands	
		1
E3	Access to growth sites for employment	
	- Melton Mowbray ‘manufacturing zones’	3
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Melton Mowbray	3
	Total score	11

Route LE19 – A607n (North)

The A607n runs between the City and the A46. This route is classified as inter-urban; the A607n provides access to Leicester and the A46. It provides a part of the diversionary route for the A46.

Route:	A607n - inter-urban		
Criteria	Criteria description	Data	Score
CO1			
	Average peak journey time	09:03	3
	Average off-peak journey time	07:28	
	Percentage difference	21.22%	
CO2			
	Average off-peak journey time	06:08	4
	Journey time at speed limit	04:49	
	Percentage difference	27.39%	
CO3			
	Average peak journey time		
	Overall average journey time		
	Percentage within 20%		
CO4			
	Percentage through traffic - urban	N/A	0
	Percentage HGV through traffic - urban	N/A	
CO5			
	Percentage through traffic - inter-urban	N/A	0
	Percentage HGV through traffic - inter-urban	N/A	
		Max score	4

Route:	A607n	
Criteria		Score
E1	Access to SRN and provides SRN resilience	
	- A46 access - Diversion route A46	3
E2	Access to the main economic centres in the Midlands	
	- Leicester	3
E3	Access to growth sites for employment	
	- Leicester	2
E4	Access to Commercial markets and global supply chains	
		1
E5	Access from the major housing locations	
	- Leicester	3
	Total score	12

Appendix B
Indicative Locations for Additional Traffic Counter Infrastructure

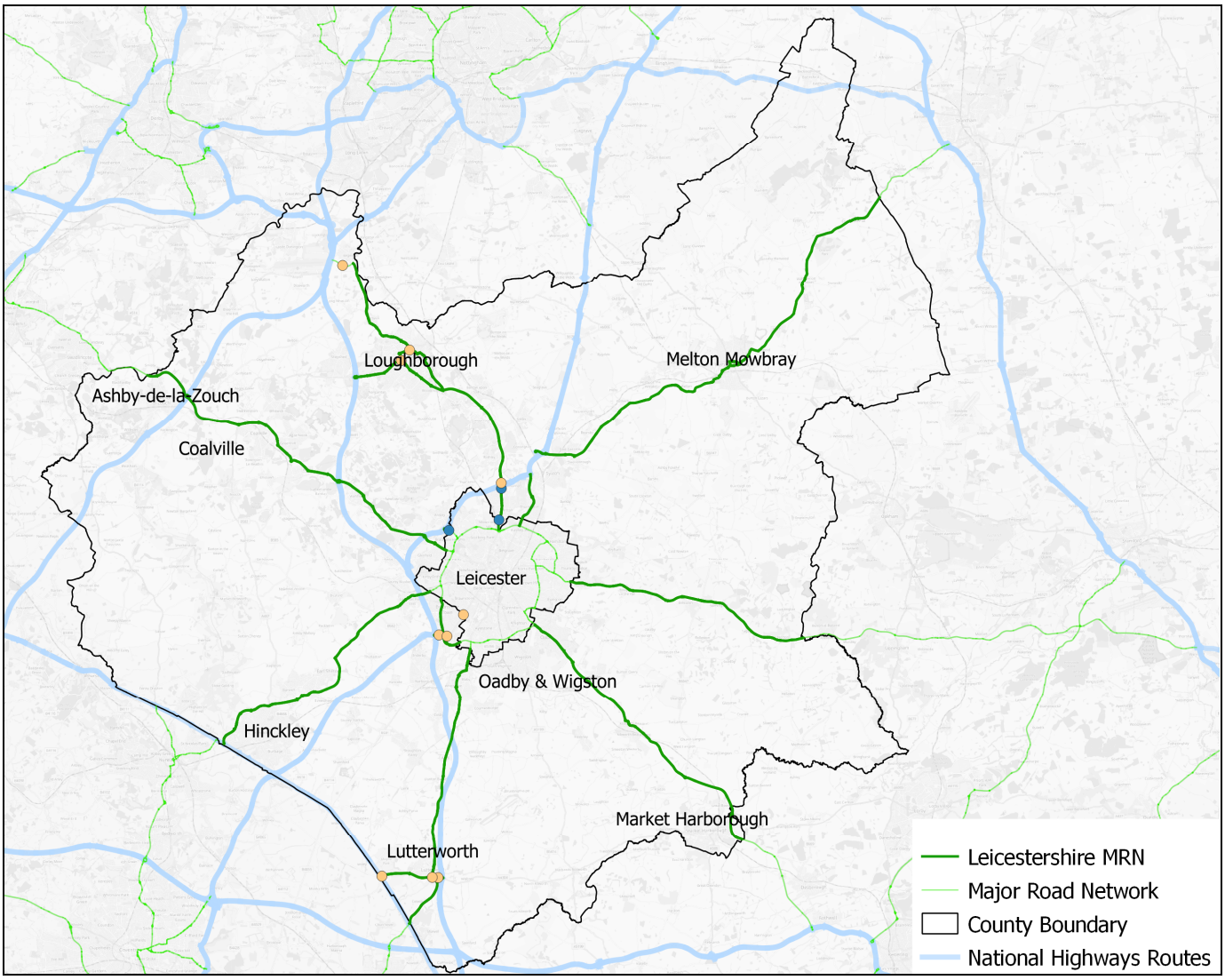

Figure 9. Locations of proposed new (orange) and upgraded (blue) traffic counter sites

fid	route	Suggested action
7	A426	Upgrade
6	A426	New counter
1	A426	Upgrade
2	A426	Repair
5	A4303	New counter
4	A4303	New counter
3	A4303	New counter
30	A47e	Repair
15	A50	New counter
16	A50	Upgrade
17	A511	Upgrade
19	A511	New counter
18	A511	Upgrade
21	A512	New counter
20	A512	Repair
11	A5460	New counter
10	A5460	New counter
12	A5460	New counter
29	A5630	Upgrade
14	A563n	New counter
13	A563n	Upgrade
9	A563s	Upgrade
8	A563s	New counter
22	A6004	New counter
25	A607n	New counter
26	A607n	New counter
28	A6n	New counter
24	A6n	New counter
27	A6n	Upgrade
23	A6n	Upgrade
31	A6s	Repair

Table 5. Locations for additional Traffic Counter Infrastructure

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