

# Inner Orbital MRN Corridors

---

## Introduction

The Inner Orbital Major Road Network encompass a diverse range of highways that support cross regional journeys within approximately 50km of the edge of Greater London. Some routes act as relief corridors for the M25 London Orbital motorway. Many of these corridors are, in fact, clusters of small roads that share a similar function (e.g. all serve a common town or all provide access to a group of ports).

Although these corridors are extremely diverse, they broadly fall into two groups. The first group (IO2 – IO3) are corridors in Kent that run between (and around) Maidstone and the Medway Towns. These corridors serve areas with high deprivation but high housing affordability. The remaining corridors (IO6 – IO11) generally shadow the Strategic Road Network in Surrey, North Hampshire and Berkshire. These corridors serve some of the most prosperous areas of the South East, but have very low housing affordability.

## The corridors included in this pack are:

- **IO2a:** A228/A278/A289 (Medway Ports);
- **IO2b:** A249 (Maidstone – Sittingbourne);
- **IO3a:** A228 (Leybourne – Medway Towns);
- **IO3b:** A229 (Maidstone – Medway Towns);
- **IO6:** A31/A322/A329/A331 (Guildford – Reading) ;
- **IO7:** A25 (Godstone – Sevenoaks);
- **IO8:** A244/A307/A317 (Cobham, Esher and Weybridge);
- **IO9:** A308/A309/A332/A412 (Maidenhead and Slough – Hampden);
- **IO10:** A245/A319/A320/A3046 (Woking); and
- **IO11:** A287/A339 (Farnham – Newbury).

## The Inner Orbital corridors serve several international gateways, which are described in the Radial Corridor packs. These include:

- The Medway Ports and Thamesport, which are described in the **South East Radial MRN Corridors** pack;
- London Gatwick Airport, which is described in the **South Central Radial MRN Corridors** pack; and
- Heathrow Airport, which is described in the **South West Radial MRN Corridors** pack



# Inner Orbital MRN Corridors IO2a

---

## A228/A278/A289 (Medway Ports)

### Description

This corridor encompasses the Major Road Network that connects the Medway Ports (at Chatham/Gillingham) and Thamesport (on the Hoo Peninsula) to the Strategic Road Network. These roads also function as semi-orbital distributor roads for the Medway Towns, which, together, form one of the largest urban populations in the South East.

This part of the Major Road Network serves areas of both high economic productivity and high social deprivation. It will support significant development, particularly employment growth, in the near future.

### The key issues affecting this corridor are:

- **Deprivation:** This corridor has some of the highest deprivation levels in the South-East area. It also has the lowest education levels for any corridor in the South East. There is a risk that the local population may be unable to take advantage of future employment opportunities.

### The key opportunities to consider for this corridor are:

- **High employment growth:** How can the highway network support future employment growth to drive better economic outcomes in this area?

## Economic Context

### Wealth

Median resident earnings along this corridor are £30,511, which is relatively low for the South East.

### Priority Industrial Sectors

The priority industrial sectors on this corridor are:

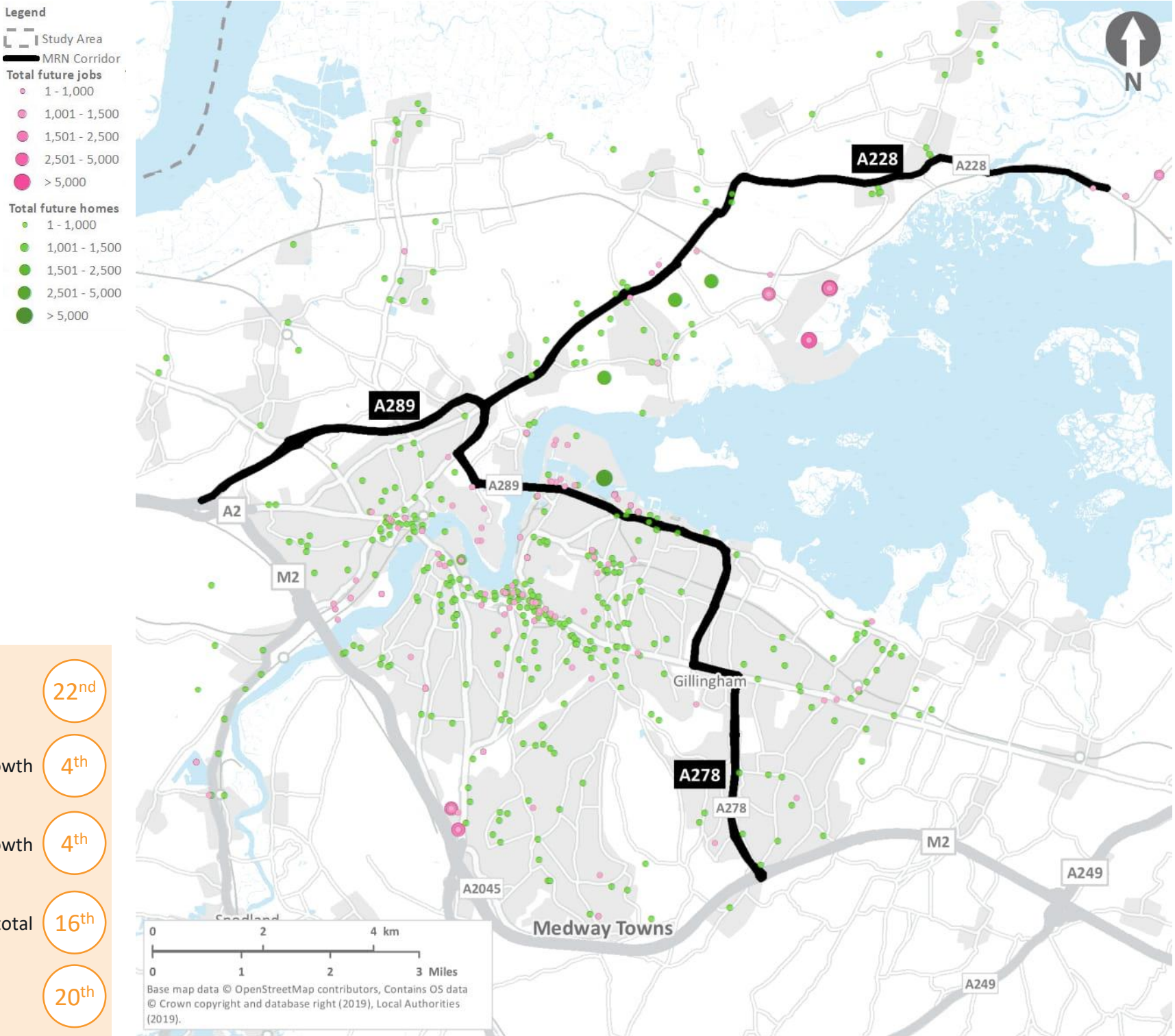
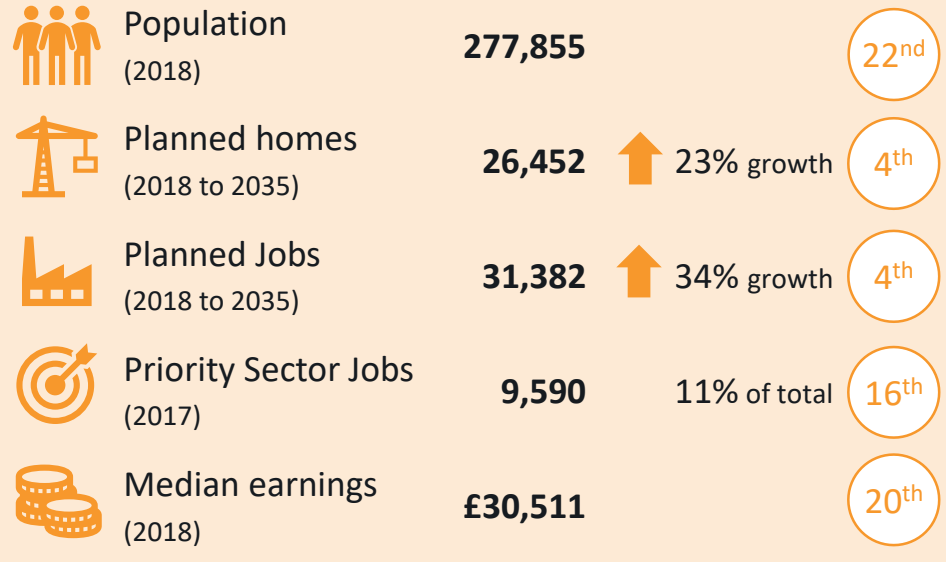
- Advanced manufacturing;
- Transport and logistics; and
- Life sciences and healthcare.

11% of jobs on this corridor are in priority industrial sectors, which is around average for the South East.

### Development

Housing development along this line will be concentrated around the A2 Major Road Network Corridor (SE5b) around Chatham town centre and Rochester Riverside. Significant employment growth is planned at the former Kingsnorth power station site, which is served by the A228.

A major development is proposed at Lodge Hill (former army barracks), which although not shown on this map (as the development is not approved), would also be served by the A228.





## Social Context

### Deprivation

This area has among the highest concentration of deprivation of all the Major Road Network corridors in the South East area. Deprivation is particularly concentrated in Chatham and Gillingham.

### Education

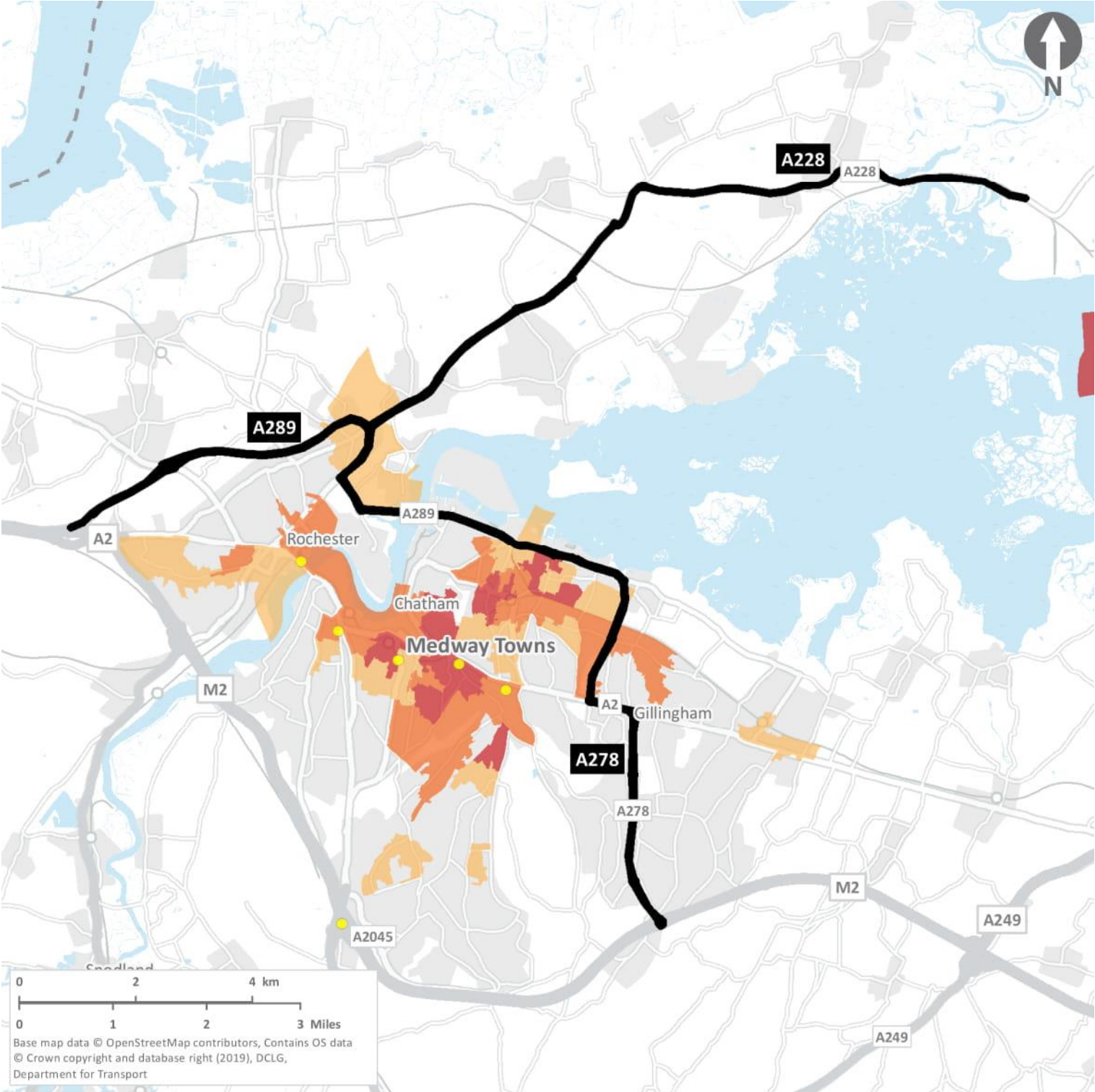
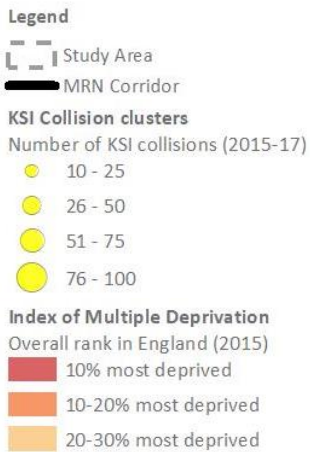
28% of the population is educated to National Vocational Qualification at level 4 or above, which is the lowest level of educational attainment of all the Major Road Network corridors in the South East area.





### Safety

Although there were no several clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17, there were some clusters of incidents nearby (notably in central Chatham and south Gillingham).

### Housing Affordability

This corridor has one of the lowest house prices in the South East. Although earnings are below average in this area, it has the second most affordable housing in the South East area.



	Deprived areas (2018, England)	35%	3 <sup>rd</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	28%	30 <sup>th</sup>
	Average house price (2018, average of corridor's districts)	£240,000	25 <sup>th</sup>
	Housing affordability ratio (House price / earnings)	7.9	2 <sup>nd</sup>



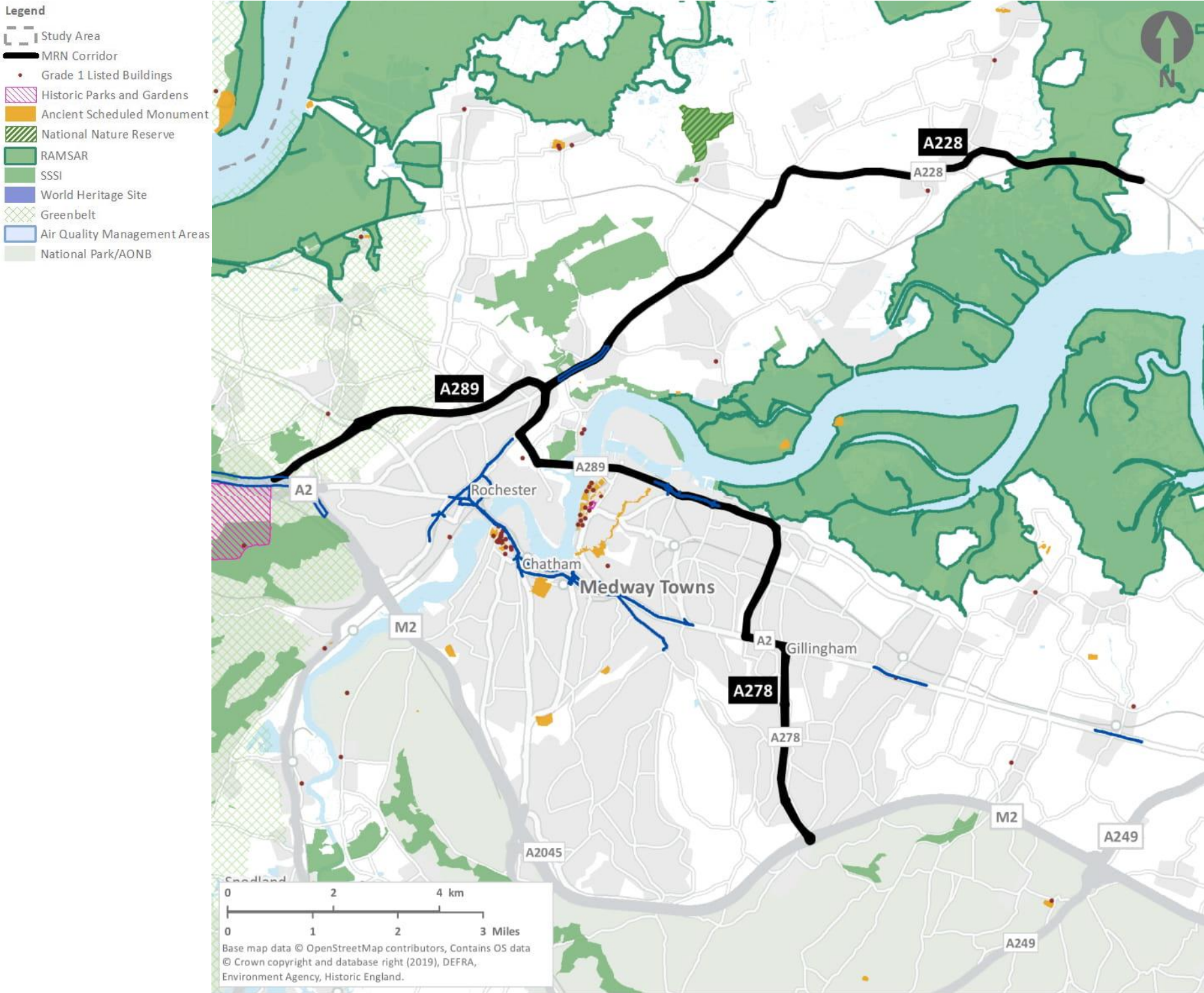
## Environmental Context

### Protected Areas

This corridor passes close to several protected landscapes. The western end of the A289 lies in the London Greenbelt, while the A228 cuts through the Stoke Marshes Ramsar Site. The A278 runs close to Ramsar sites on the southern side of the Medway estuary.

### Air Quality

This corridor runs near several Air Quality Management Areas that are focussed on the A2 (at several locations in the Medway Towns, as well as on the Strategic Road Network) and several roads in Strood.





## Highways

### Demand

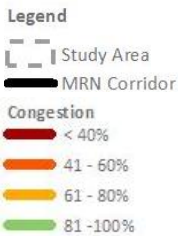
It is estimated that this corridor carries 3,672 vehicles per hour on its busiest section during the AM peak.

### Issues and Opportunities

The Major Road Network performs relatively well, although there are some issues with junctions on the A289 in Gillingham. That said, additional capacity may be needed to accommodate future growth on the Hoo Peninsula.

### Enhancements

Medway Council and the South East Local Enterprise Partnership are proposing to provide additional capacity for traffic joining the **A289 at the Medway City Estate** (near the Medway Road Tunnel).



Peak hour highway demand  
(Vehicles/hour on busiest section)

3,672

3<sup>rd</sup>





# Inner Orbital MRN Corridors IO2b

---

## A249 (Maidstone – Sittingbourne)

### Description

This corridor provides important strategic connectivity between the M2, the M20 and the Port of Sheerness on the Isle of Sheppey. It is expected to support significant future housing development to the in Sittingbourne and the Isle of Sheppey (which is shown off map as the A249 is part of the Strategic Road Network north of the M2).

Many of the issues and opportunities described for IO2a also apply to this corridor, although these tend to be concentrated in urban areas (off map).

### The key issues affecting this corridor are:

- **Deprivation:** This corridor has some of the highest deprivation levels in the South-East area. It also has the lowest education levels for any corridor in the South East. There is a risk that the local population may be unable to take advantage of future employment opportunities.
- **Priority Sector Jobs:** This corridor has a low proportion of priority sector jobs (8%) which may explain its relatively poor economic performance compared to other areas of the South East.

### The key opportunities to consider for this corridor are:

- **High employment growth:** How can the highway network support future employment growth to drive better economic outcomes in this area?

# A249 (Maidstone – Sittingbourne)

## Economic Context

### Wealth

Median resident earnings along this corridor are £30,433, which is relatively low for the South East.

### Priority Industrial Sectors

The priority industrial sectors on this corridor are:

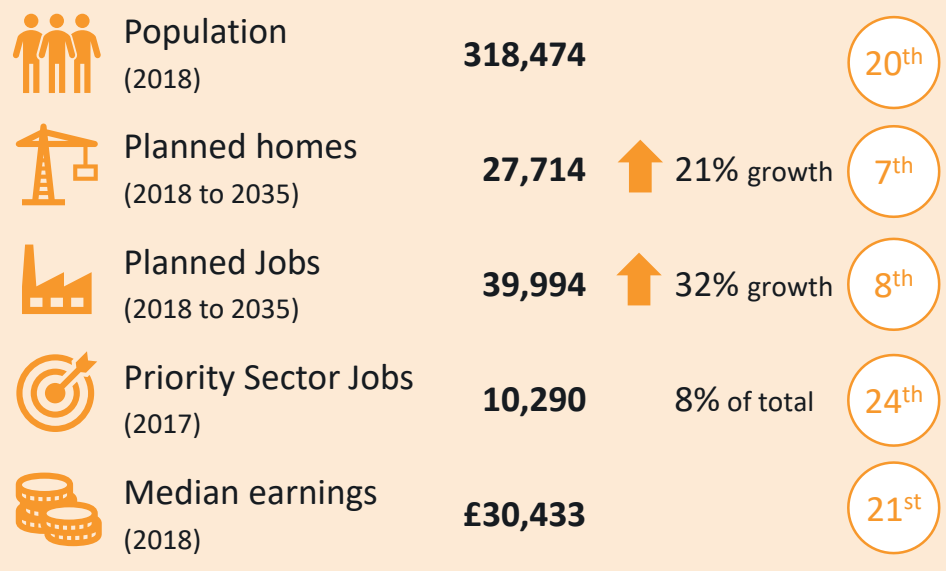
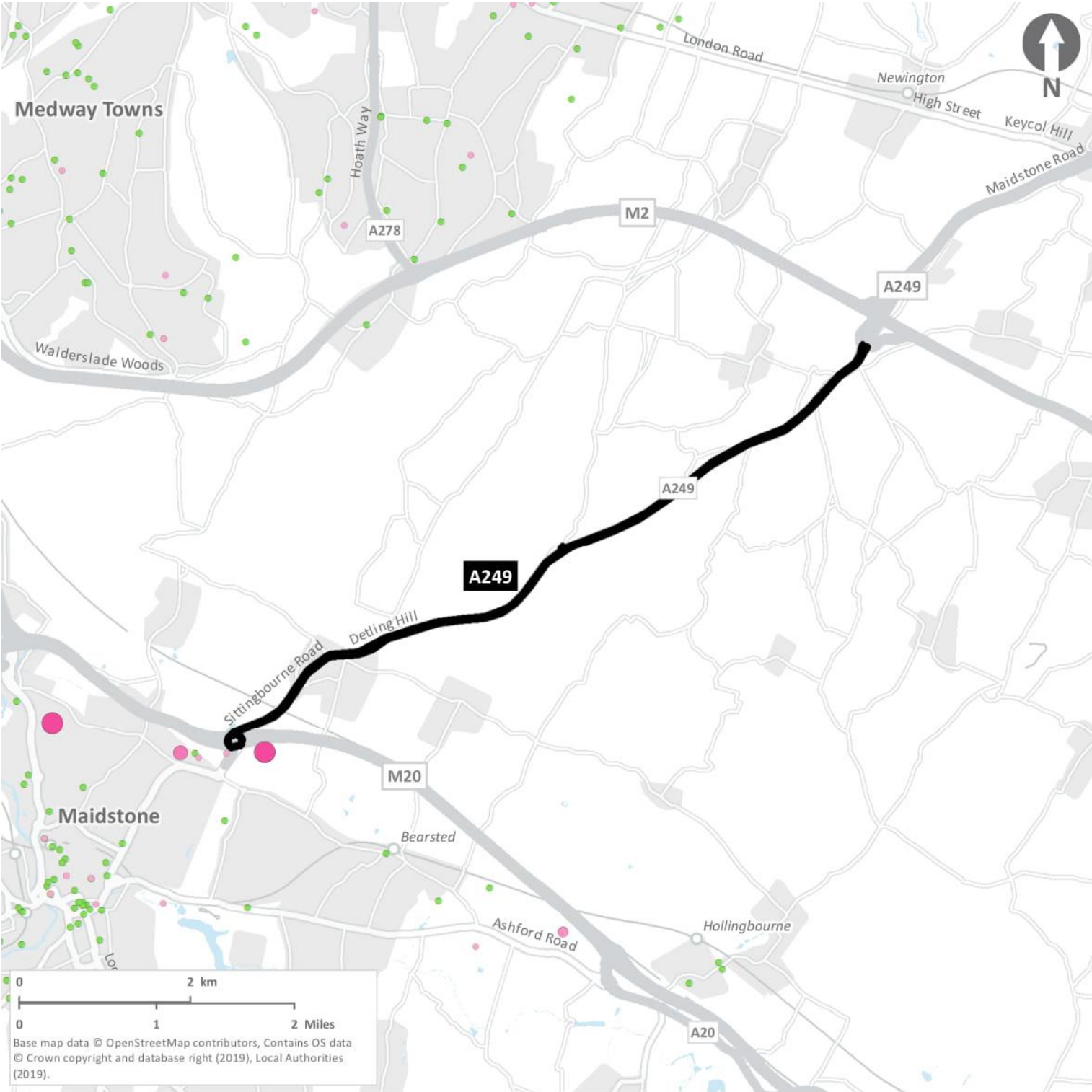
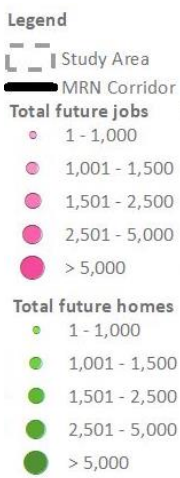
- Advanced manufacturing;
- Transport and logistics; and
- Life sciences and healthcare.

8% of jobs on this corridor are in priority industrial sectors, which is significantly below average for the South East area.

### Development

Housing development along this corridor (which reflects district wide local planning authority data) is relatively high and is expected to be concentrated in Maidstone and Sittingbourne (off map).

Significant employment growth is planned for the junction of the M2 and the A249 (Junction 7).



## Social Context

### Deprivation

Deprivation is relatively high on this corridor and is concentrated in Maidstone and Sittingbourne (off map).

### Education

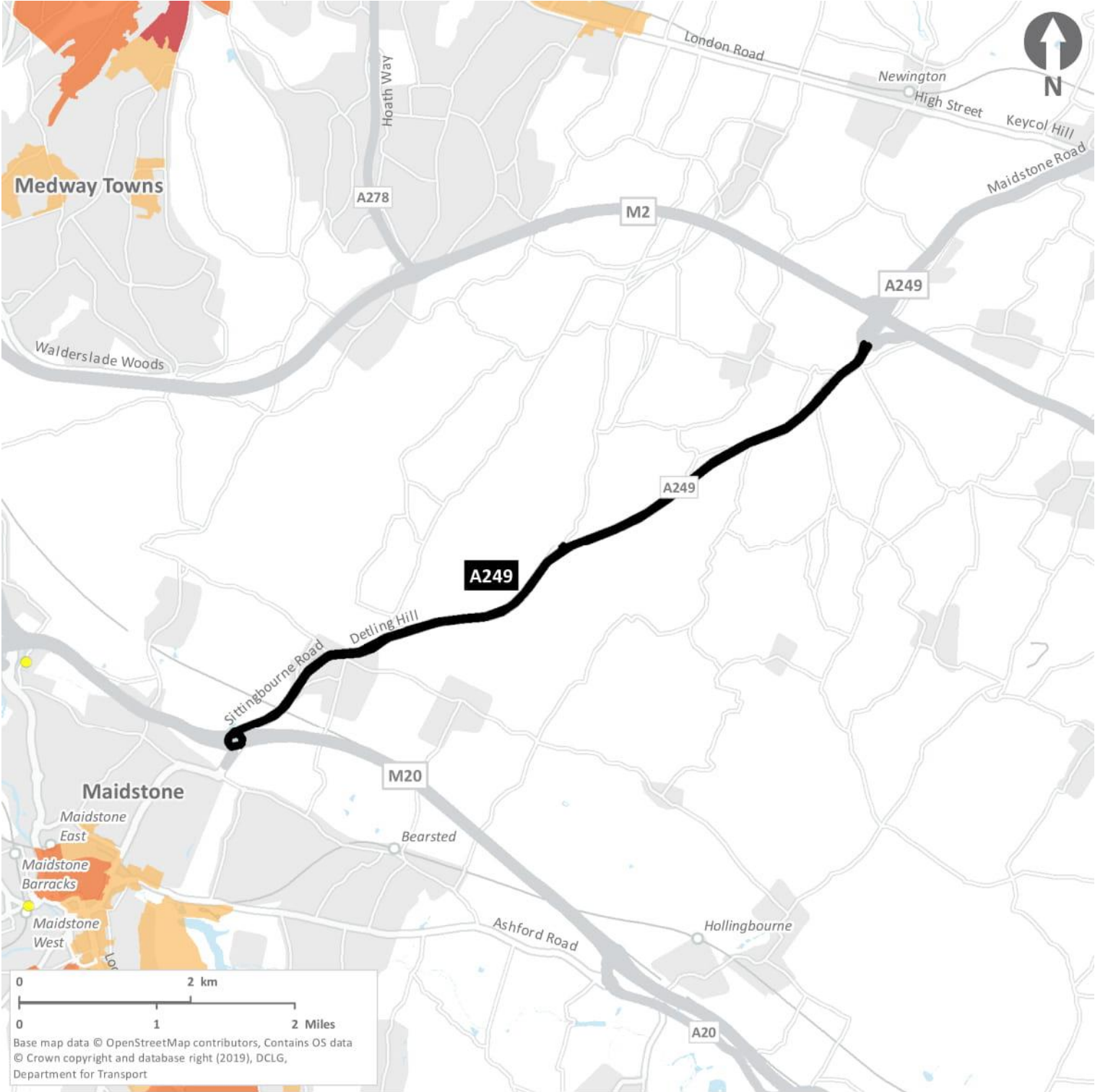
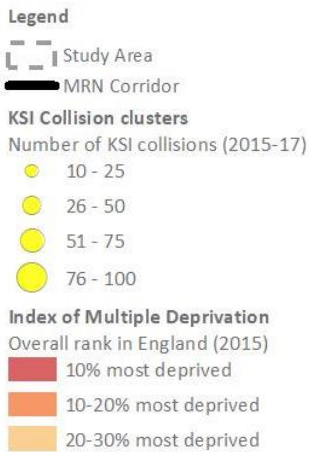
Just 34% of the population is educated to National Vocational Qualification at level 4 or above, which is low for the South East area.

### Safety

There were no clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17.

### Housing Affordability

Housing affordability is relatively high on this corridor due to low house prices in Swale and Maidstone.



	Deprived areas (2018, England)	22%	9 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	34%	22 <sup>nd</sup>
	Average house price (2018, average of corridor's districts)	£269,512	22 <sup>nd</sup>
	Housing affordability ratio (House price / earnings)	8.9	9 <sup>th</sup>



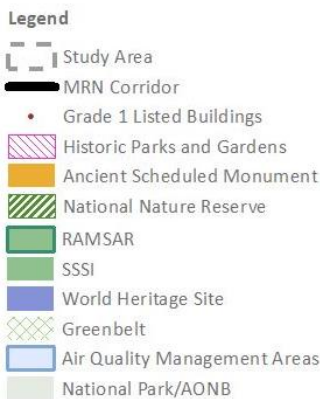
## Environmental Context

### Protected Areas

This route runs wholly through the Kent Downs Area of Outstanding Natural Beauty. It also passes adjacent to a Site of Special Scientific Interest at Boxley Wood.

### Air Quality

There is a significant Air Quality Management Area at the southern end of this route where it intersects with the A20/M20 (which extends into the Maidstone urban area and west along the M20).



# A249 (Maidstone – Sittingbourne)

## Highways

### Demand

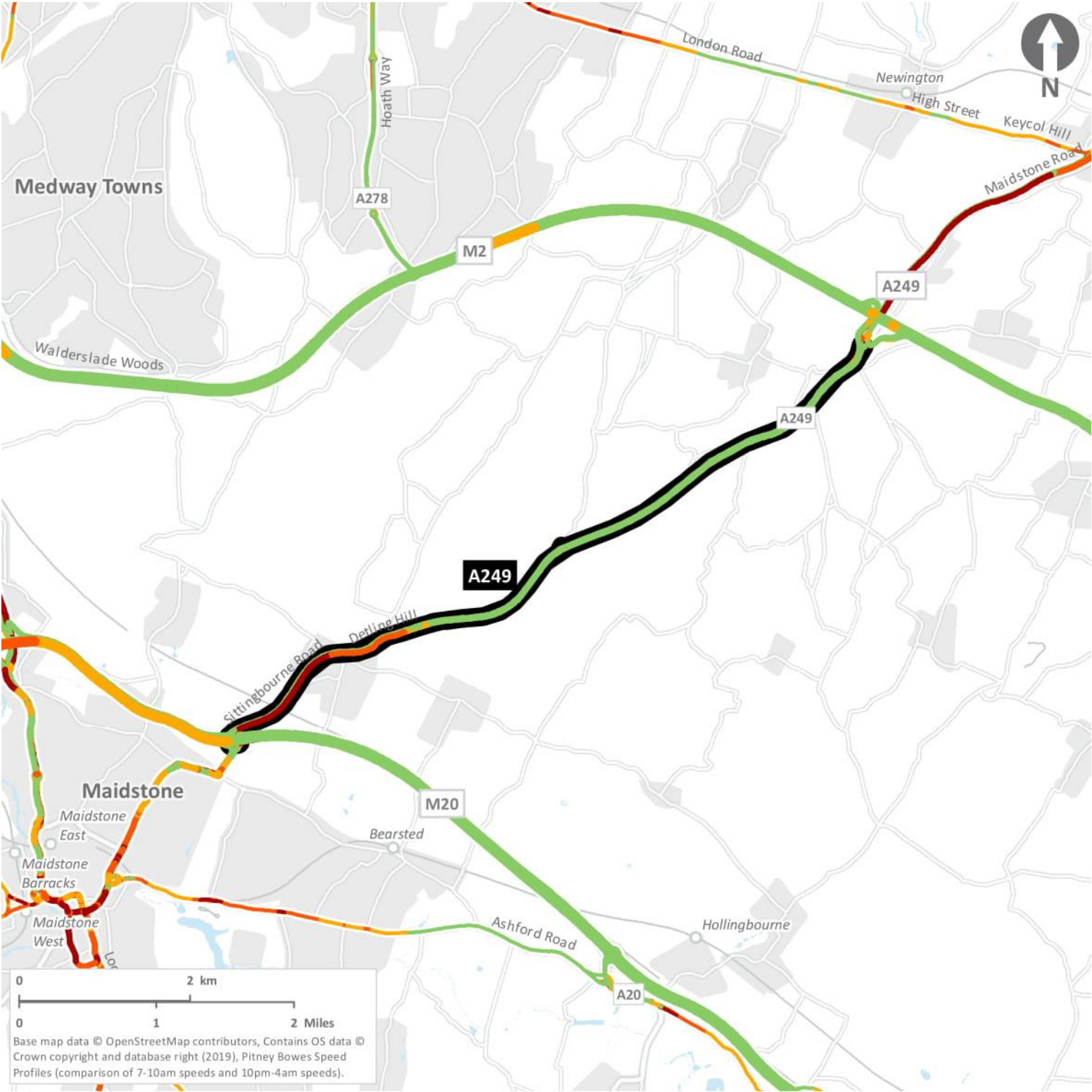
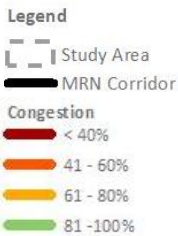
It is estimated that this corridor carries 1,915 vehicles per hour on its busiest section during the AM peak.

### Issues and Opportunities

There are significant issues with congestion at the southern end of this corridor where the A249 intersects with the M20. Here, AM peak traffic speeds regularly fall below 40% of free flow speed.

### Enhancements

Highways England is promoting a scheme to enhance capacity at **Junction 5 of the M2 and A249**. The plans include a flyover for the A249 to separate out ahead movements from those joining the M2 which should address poor performance at this junction.



Peak hour highway demand  
(Vehicles/hour on busiest section)

1,915

18<sup>th</sup>





# Inner Orbital MRN Corridors IO3a

---

## A228 (Leybourne – Medway Towns)

### Description

The A228 provides an important link between the M20 and the A2/M2 Strategic Roads. It also connects Strood and Rochester to Leybourne, Ditton, West Malling, and the west of Maidstone, which are large employment and retail hotspots. It also serves several smaller towns and villages along the lower part of the Medway Valley, and will support significant housing development in the future.

### The key issues affecting this corridor are:

- **Congestion:** There are high levels of congestion at the southern end of this corridor where it intersects with the M20 at Junction 7.

### The key opportunities to consider for this corridor are:

- **High employment and housing growth:** How can the highway network support future employment growth to drive better economic outcomes in this area?

## Economic Context

### Wealth

Median resident earnings along this corridor are £31,977, which is around average for the South East.

### Priority Industrial Sectors

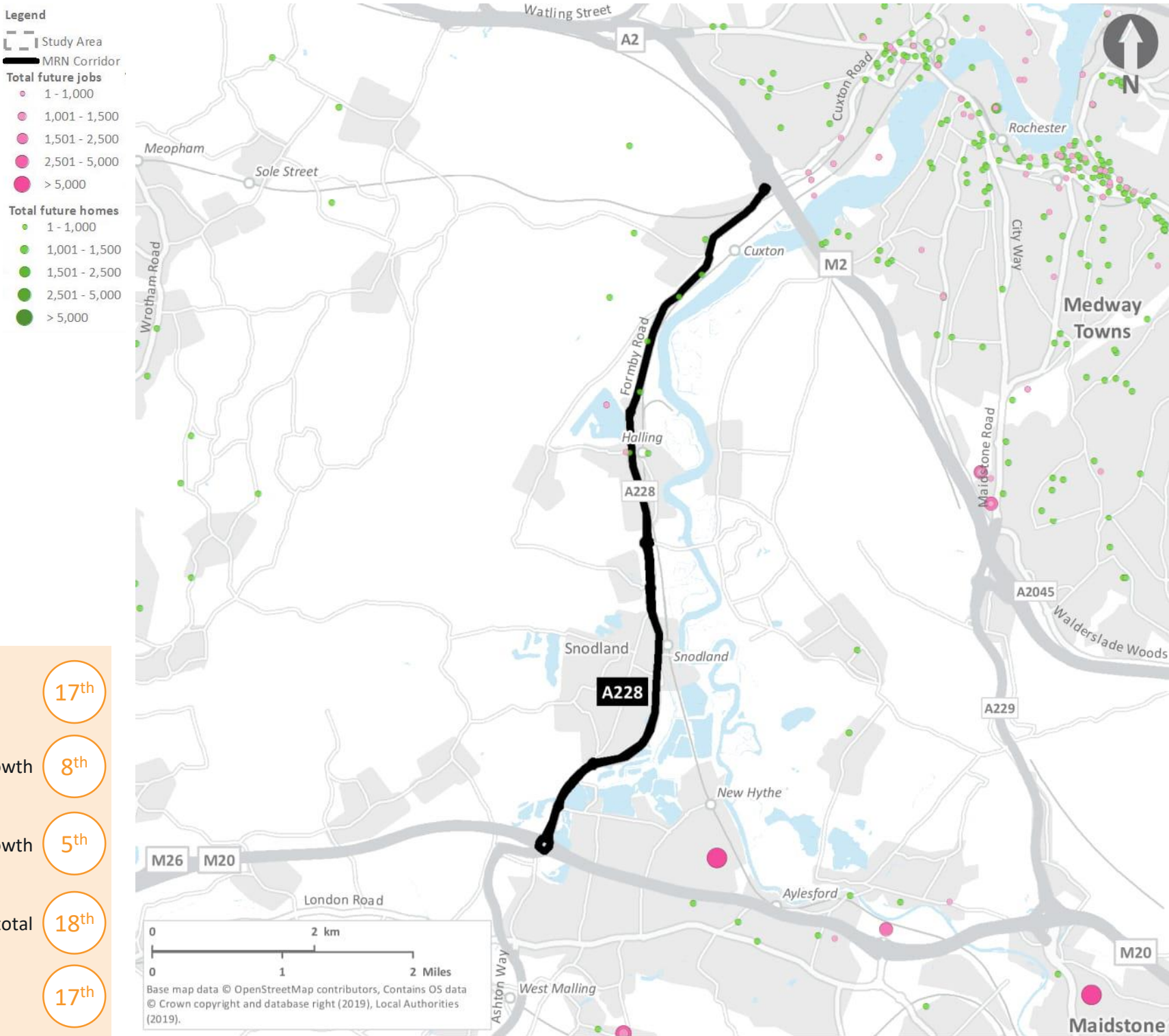
The priority industrial sectors on this corridor are:

- Advanced manufacturing;
- Transport and logistics; and
- Life sciences and healthcare.

10% of jobs on this corridor are in priority industrial sectors, which is below average for the South East.

### Development

Housing developments are generally spread along the northern end of this corridor, notably in Halling and Cuxton. This corridor will also support housing growth in Stood.



	Population (2018)	408,363		17 <sup>th</sup>
	Planned homes (2018 to 2035)	35,255	↑ 21% growth	8 <sup>th</sup>
	Planned Jobs (2018 to 2035)	51,091	↑ 34% growth	5 <sup>th</sup>
	Priority Sector Jobs (2017)	15,485	10% of total	18 <sup>th</sup>
	Median earnings (2018)	£31,977		17 <sup>th</sup>

## Social Context

### Deprivation

The A228 serves a relatively deprived area, although the largest areas of deprivation lie to the north of the road in Medway.

### Education

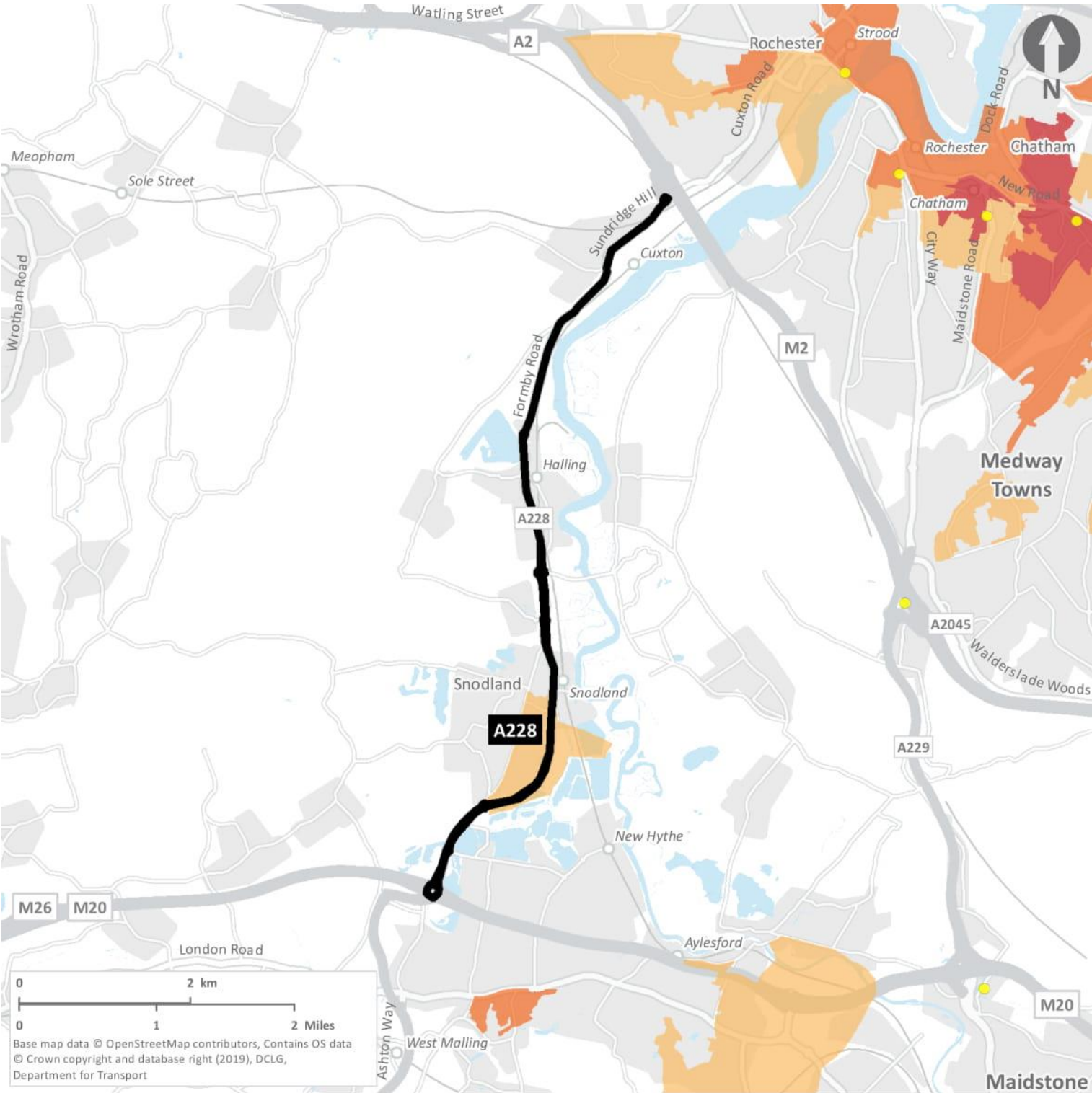
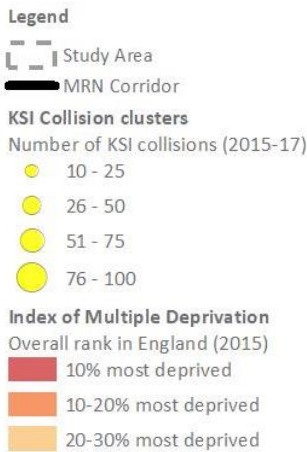
31% of the population is educated to National Vocational Qualification at level 4 or above, which is low for the South East area.





### Safety

There were no clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17.

### Housing Affordability

Housing is relatively affordable on this corridor due to low house prices set against average earnings.



	Deprived areas (2018, England)	26%	8 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	31%	27 <sup>th</sup>
	Average house price (2018, average of corridor's districts)	£272,353	21 <sup>st</sup>
	Housing affordability ratio (House price / earnings)	8.5	5 <sup>th</sup>



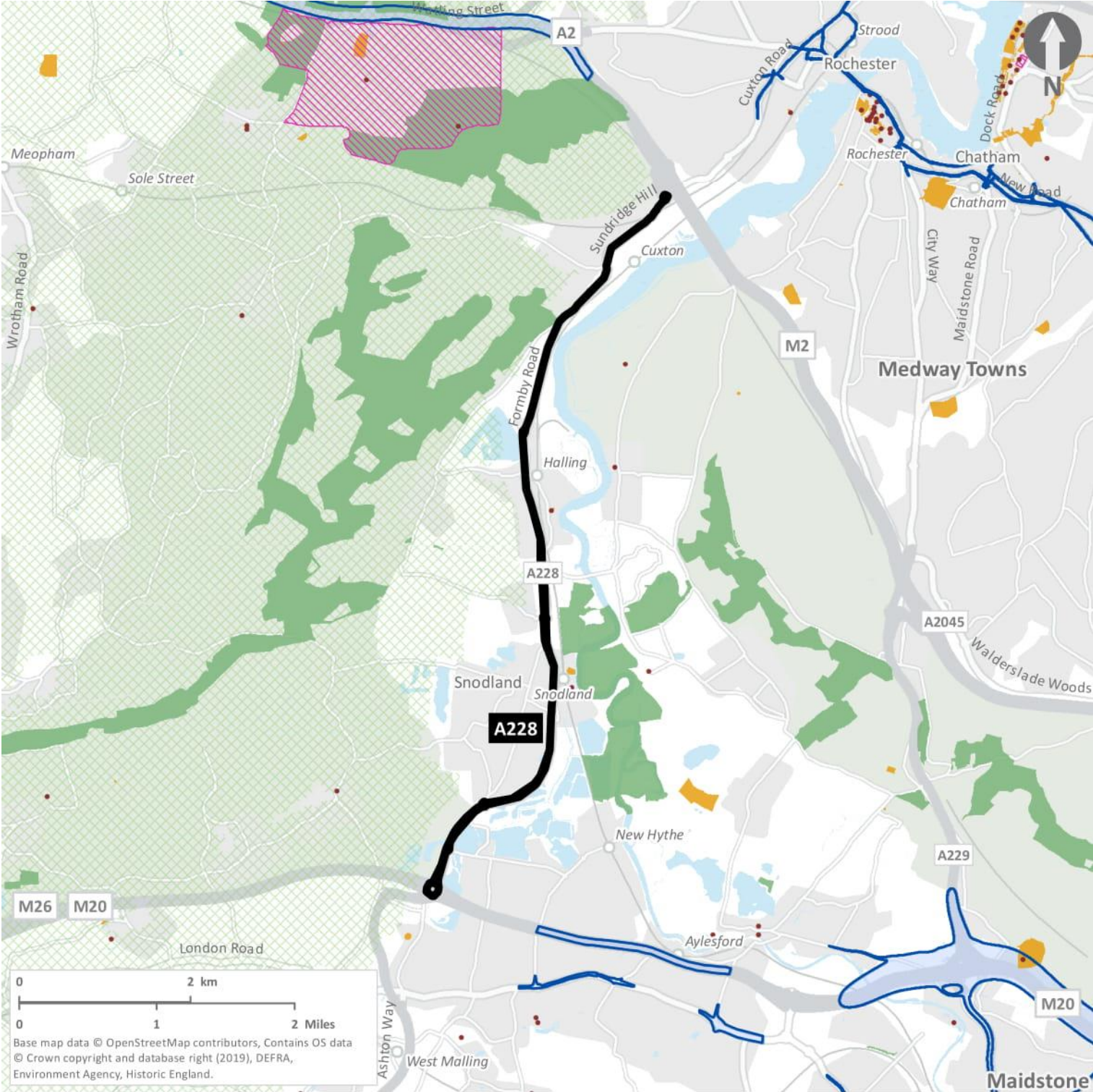
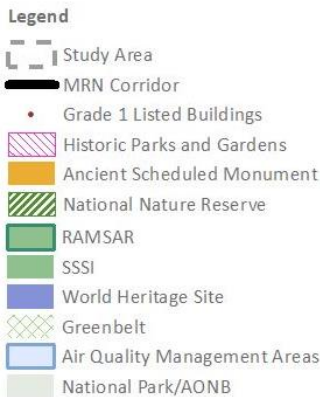
## Environmental Context

### Protected Areas

This corridor runs close to the London Greenbelt (to the west of the corridor) and the Kent Downs Area of Outstanding Natural Beauty (on both sides of the corridor). It also runs close to Sites of Special Scientific Interest at Snodland and Cuxton.

### Air Quality

There are no Air Quality Management Areas on this corridor, although there are similar areas in the urban areas this corridor links.





# A228 (Leybourne – Medway Towns)

## Highways

### Demand

It is estimated that this corridor carries 1,741 vehicles per hour on its busiest section during the AM peak.

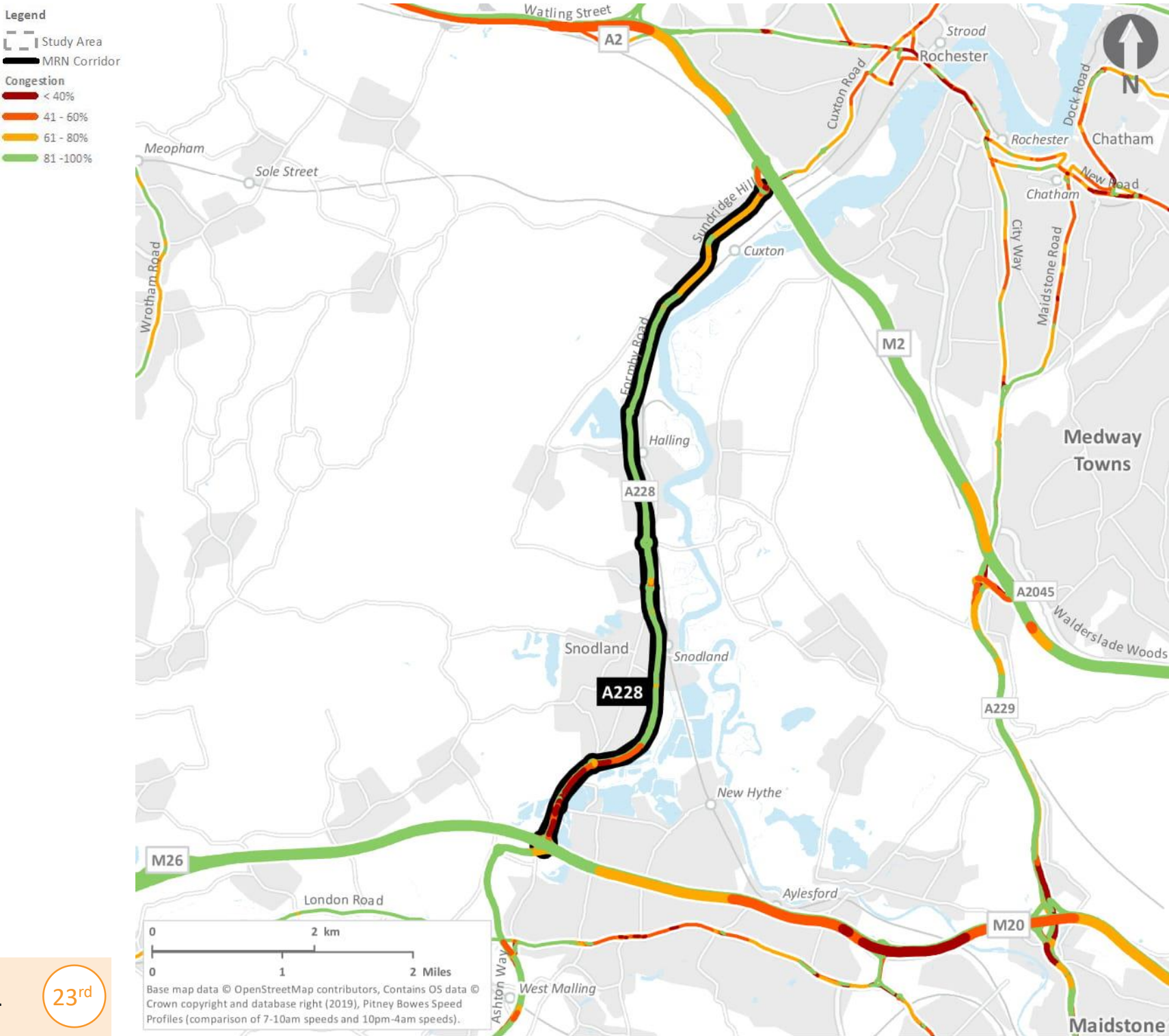
### Issues and Opportunities

This corridor suffers from significant congestion at its southern end, where the A228 intersects with the M20 at Junction 7. Here, AM peak traffic speeds regularly fall below 40% of free flow speeds.

### Enhancements

This corridor has benefited from some investment in recent years to support housing growth such as **Peter’s Bridge to the south of Wouldham**.

Additionally, the **Lower Thames Crossing**, when built, is likely to have an impact on this major road network as one of the interchange points between the M20 and M2.



Peak hour highway demand  
(Vehicles/hour on busiest section)

1,741

23<sup>rd</sup>





# Inner Orbital MRN Corridors IO3b

---

## A229 (Maidstone – Medway Towns)

### Description

The A229 is a short but strategically important corridor that connects the M2 at Blue Bell hill to the M20. It provides a key connection between the Medway Towns and Maidstone. This highway sits almost entirely within the Kent Downs Area of Outstanding Natural Beauty.

### The key issues affecting this corridor are:

- **Congestion:** There are high levels of congestion at both ends of this corridor where the A229 intersects with the M2 at Junction 3 and the M20 at Junction 6.

### The key opportunities to consider for this corridor are:

- **High employment and housing growth:** How can the highway network support future employment growth to drive better economic outcomes in this area?
- **Lower Thames Crossing and Port of Dover expansion:** How will this corridor need to develop to accommodate changes in freight flows between the channel ports and the rest of the UK, particularly when the new Lower Thames Crossing is delivered?

# A229 (Maidstone – Medway Towns)

## Economic Context

### Wealth

Median resident earnings along this corridor are £32,304, which is around average for the South East.

### Priority Industrial Sectors






The priority industrial sectors on this corridor are:

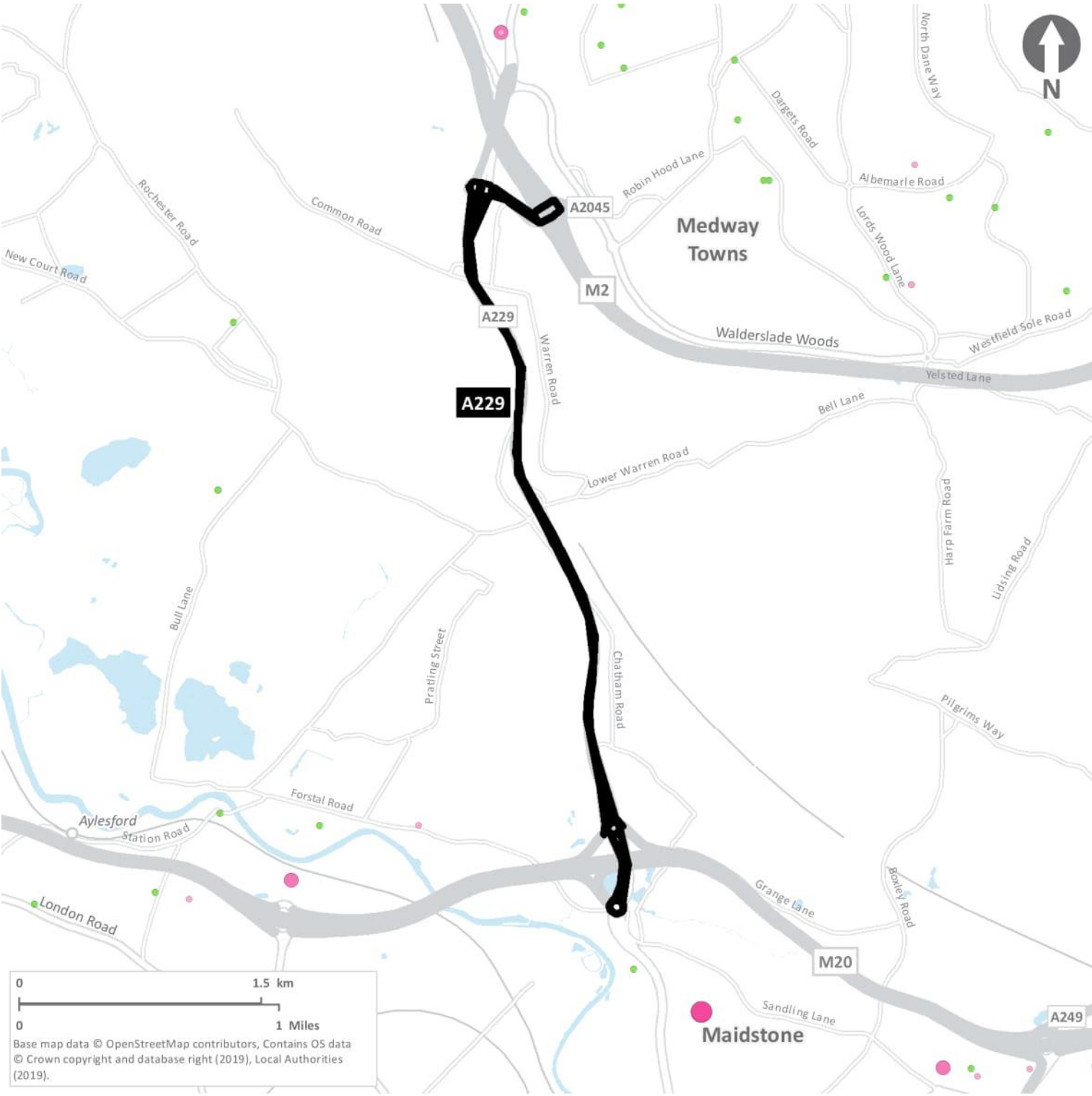
- Advanced manufacturing;
- Transport and logistics; and
- Life sciences and healthcare.

8% of jobs on this corridor are in priority industrial sectors, which is significantly below average for the South East area.

### Development

Housing development is expected to be high in Maidstone and Medway, although most of this development will be focussed beyond the northern and southern ends of this road (off map).

	Population (2018)	300,463		21 <sup>st</sup>
	Planned homes (2018 to 2035)	23,242	↑ 18% growth	9 <sup>th</sup>
	Planned Jobs (2018 to 2035)	42,847	↑ 33% growth	7 <sup>th</sup>
	Priority Sector Jobs (2017)	10,550	8% of total	25 <sup>th</sup>
	Median earnings (2018)	£32,304		15 <sup>th</sup>



## Social Context

### Deprivation

Deprivation levels on this corridor are around average for the South East area.

### Education

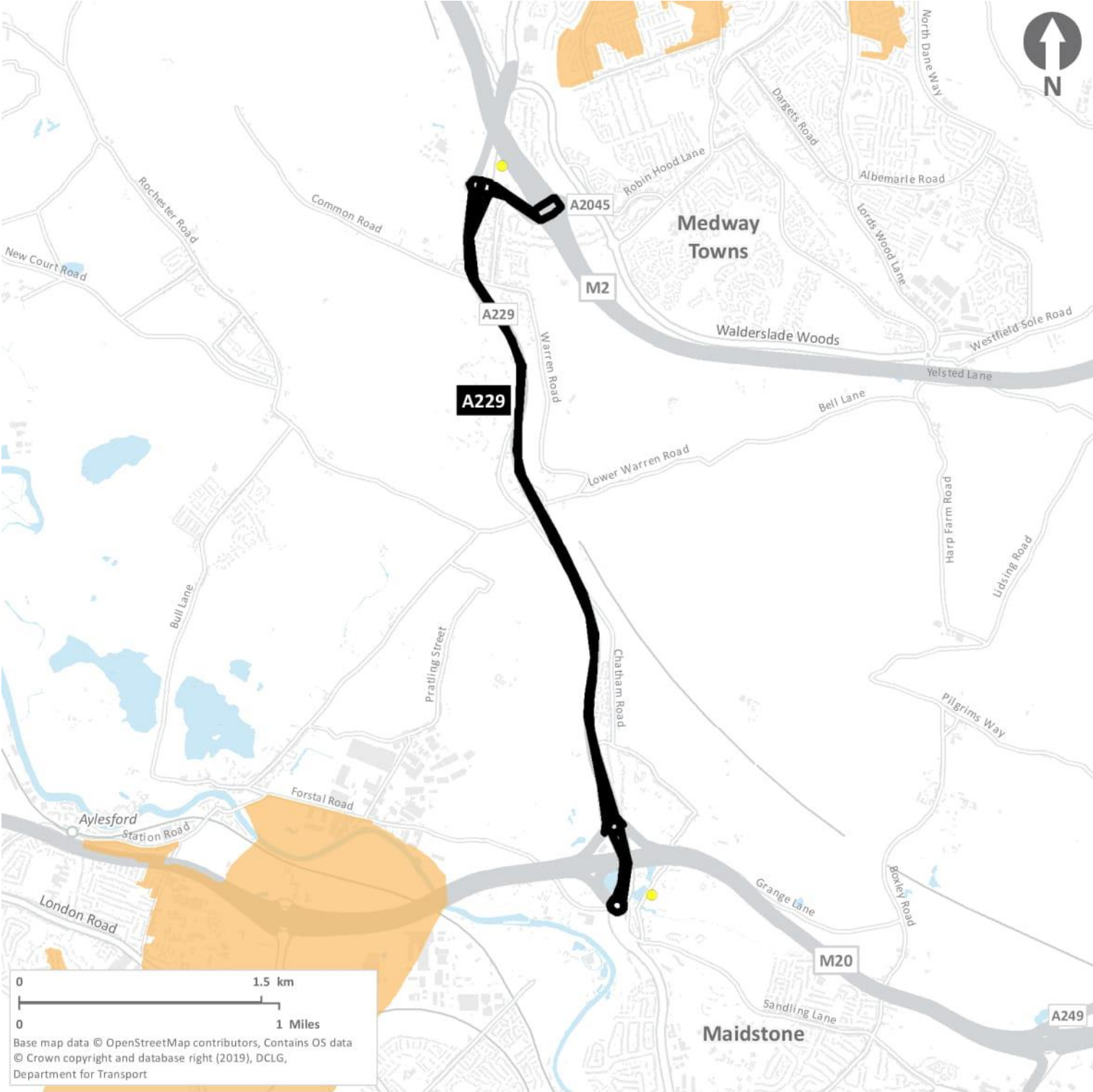
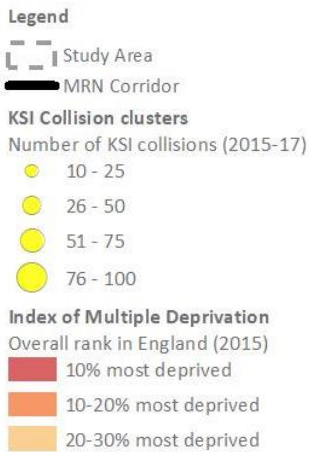
36% of the population is educated to National Vocational Qualification at level 4 or above, which is low for the South East area.





### Safety

There were two clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17 at each end of this corridor.

### Housing Affordability

Housing affordability is around average for the South East area on this corridor (but above average for England).



	Deprived areas (2018, England)	10%	15 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	36%	21 <sup>st</sup>
	Average house price (2018, average of corridor's districts)	£314,596	18 <sup>th</sup>
	Housing affordability ratio (House price / earnings)	9.7	12 <sup>th</sup>



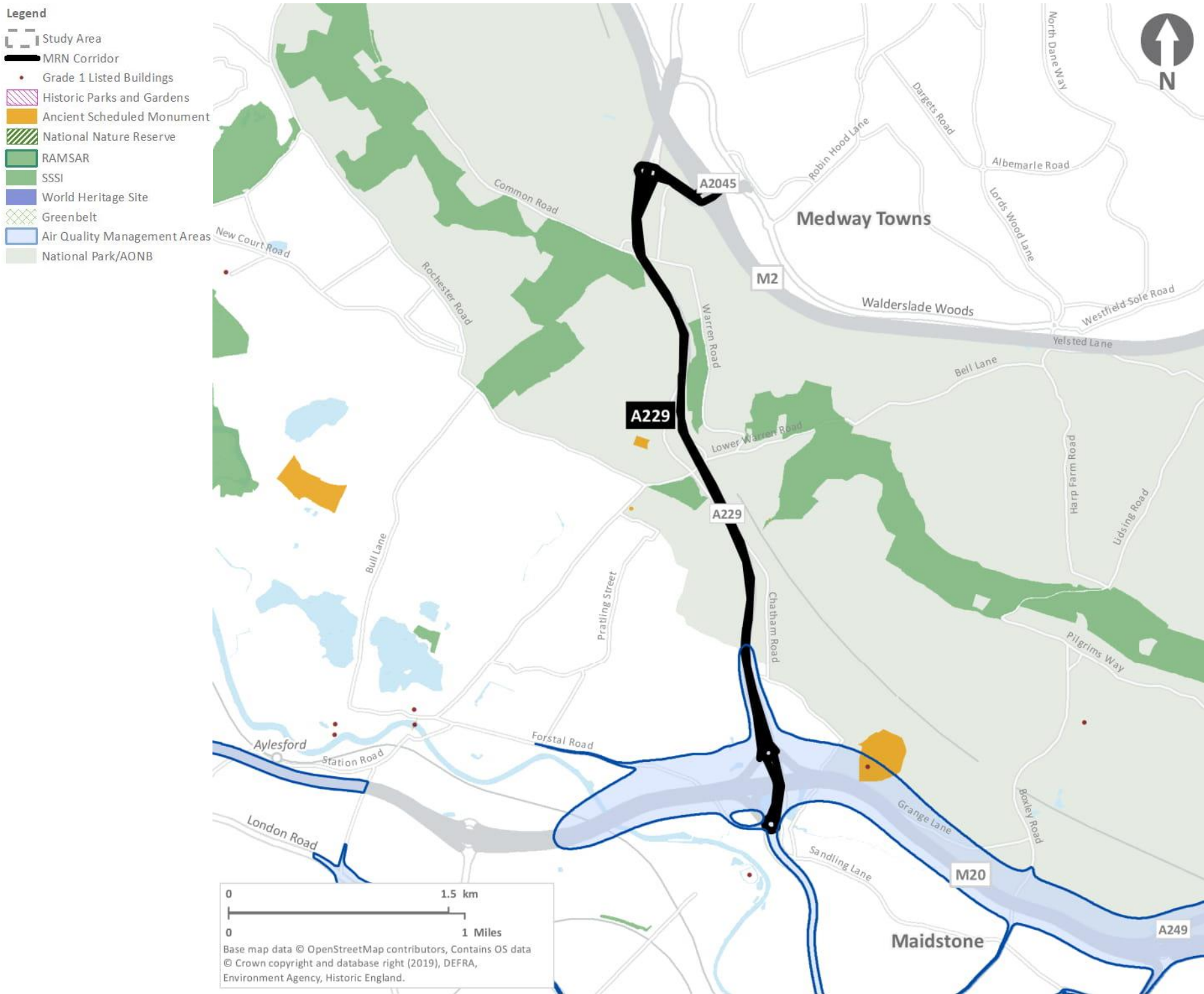
## Environmental Context

### Protected Areas

Most of this corridor runs through the Kent Downs Area of Outstanding Natural Beauty. It also runs through several Sites of Special Scientific Interest at its northern end where it passes through several woodlands.

### Air Quality

There is a significant Air Quality Management Area at the southern end of this corridor, which extends along the M20 motorway and into Maidstone town centre.



# A229 (Maidstone – Medway Towns)

## Highways

### Demand

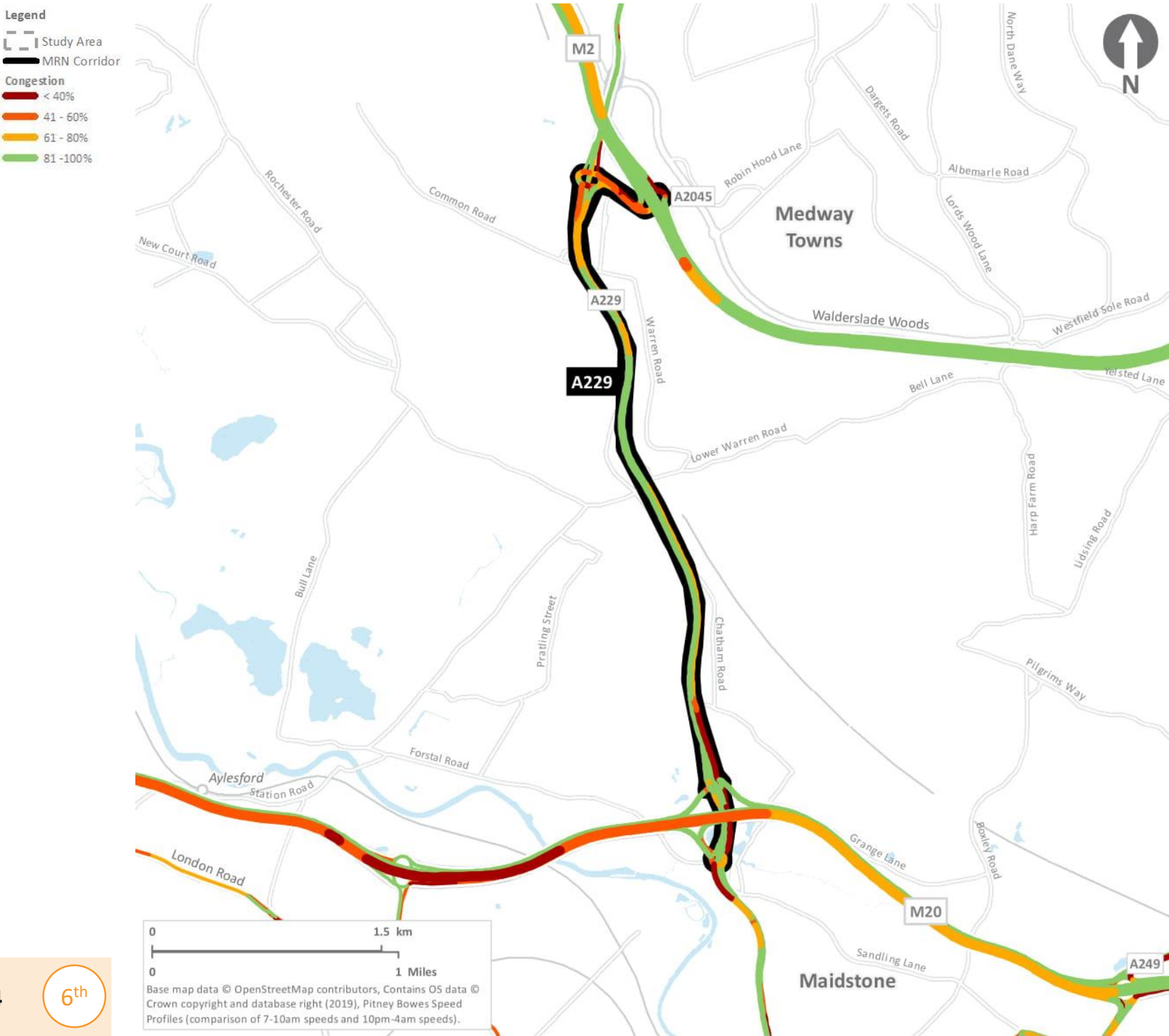
It is estimated that this corridor carries 3,234 vehicles per hour on its busiest section during the AM peak.

### Issues and Opportunities

There are some issues with congestion at the both ends of this corridor where the A229 intersects with the M2 and M20. Here, traffic speeds fall below 40% of the free flow speed during the AM peak.

### Enhancements

Kent County Council is promoting a **Large Local Major scheme** to improve the junction between **the A229 and M2 (Junction 3) at Blue Bell Hill**. This will support any additional traffic that might be drawn towards the **Lower Thames Crossing** if/when this major scheme is delivered.



Peak hour highway demand  
(Vehicles/hour on busiest section)

3,234

6<sup>th</sup>





# Inner Orbital MRN Corridors IO6

---

## A31/A322/A329/A331 (Guildford – Reading)

### Description

This corridor provides a link between the M3 and M4. The A322 passes through the middle of Bracknell and the A331 passes close to several towns in the Blackwater Valley. These roads have the potential to undermine the health and wellbeing of the people served by this Corridor. This corridor serves one of the largest populations of all the Major Road Network corridors in the South East.

### The key issues affecting this corridor are:

- **Congestion:** Congestion is a significant issue on this corridor, particularly on the A31 running West from Guildford, where the average AM peak speed is less than 40% of the night-time speed for significant portions of the route.
- **Road safety and air quality in Bracknell:** The A322 road, which connects the M3 to the M4, currently passes through the middle of Bracknell, which contributes to poor air quality and road safety on this corridor.

### The key opportunities to consider for this corridor are:

- **High growth of priority sector jobs:** How can transport support the growth of the high concentration of Priority Sector Jobs in this area?

## Economic Context

### Wealth

Median resident earnings along this corridor are £35,973, which is high for the South East area.

### Priority Industrial Sectors

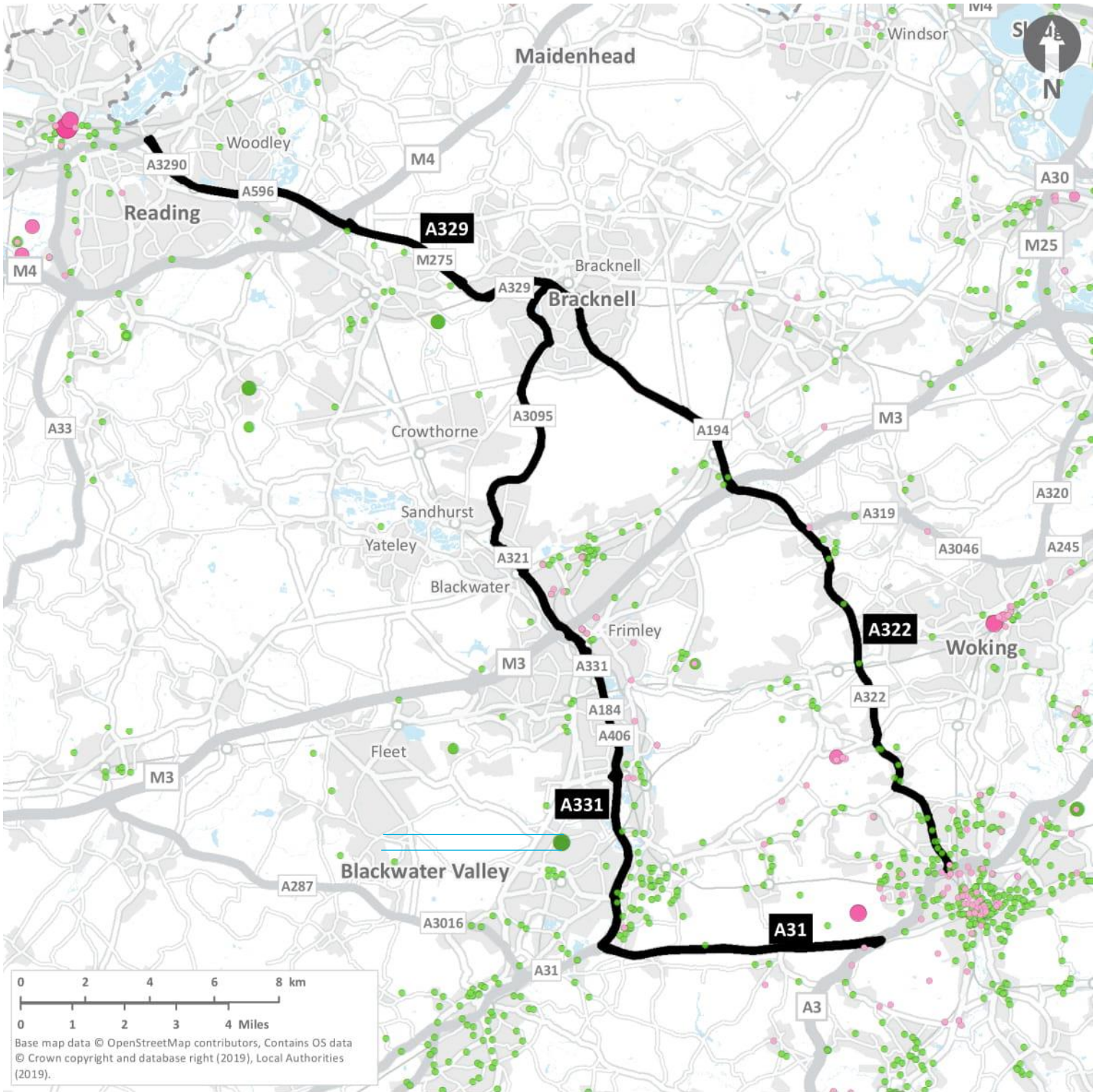
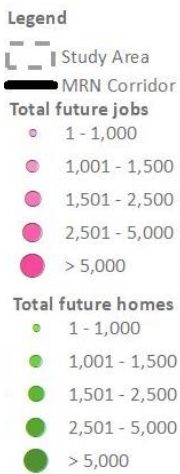
The priority industrial sectors on this corridor are:






- Aerospace and defence;
- Corporate (HQ Operations, etc.); and
- Foreign-owned businesses.

15% of jobs on this corridor are in priority industrial sectors, which is significantly above average for the South East area.

### Development

The majority of housing development planned for this corridor will be concentrated around Guildford, with some additional development in the Blackwater Valley. There will be significant job development in the Guildford area.



	Population (2018)	885,930		2 <sup>nd</sup>
	Planned homes (2018 to 2035)	65,284	↑ 18% growth	11 <sup>th</sup>
	Planned Jobs (2018 to 2035)	71,348	↑ 15% growth	11 <sup>th</sup>
	Priority Sector Jobs (2017)	72,060	15% of total	4 <sup>th</sup>
	Median earnings (2018)	£35,769		6 <sup>th</sup>



## Social Context

### Deprivation

This is one of the least deprived corridors in the South East area. There are small pockets of deprivation scattered across the towns served by this strategic corridor, but very few of these are in the most deprived decile.

### Education

46% of the population holds qualifications at National Vocational Qualification level 4 and above, which is high for the South East area.

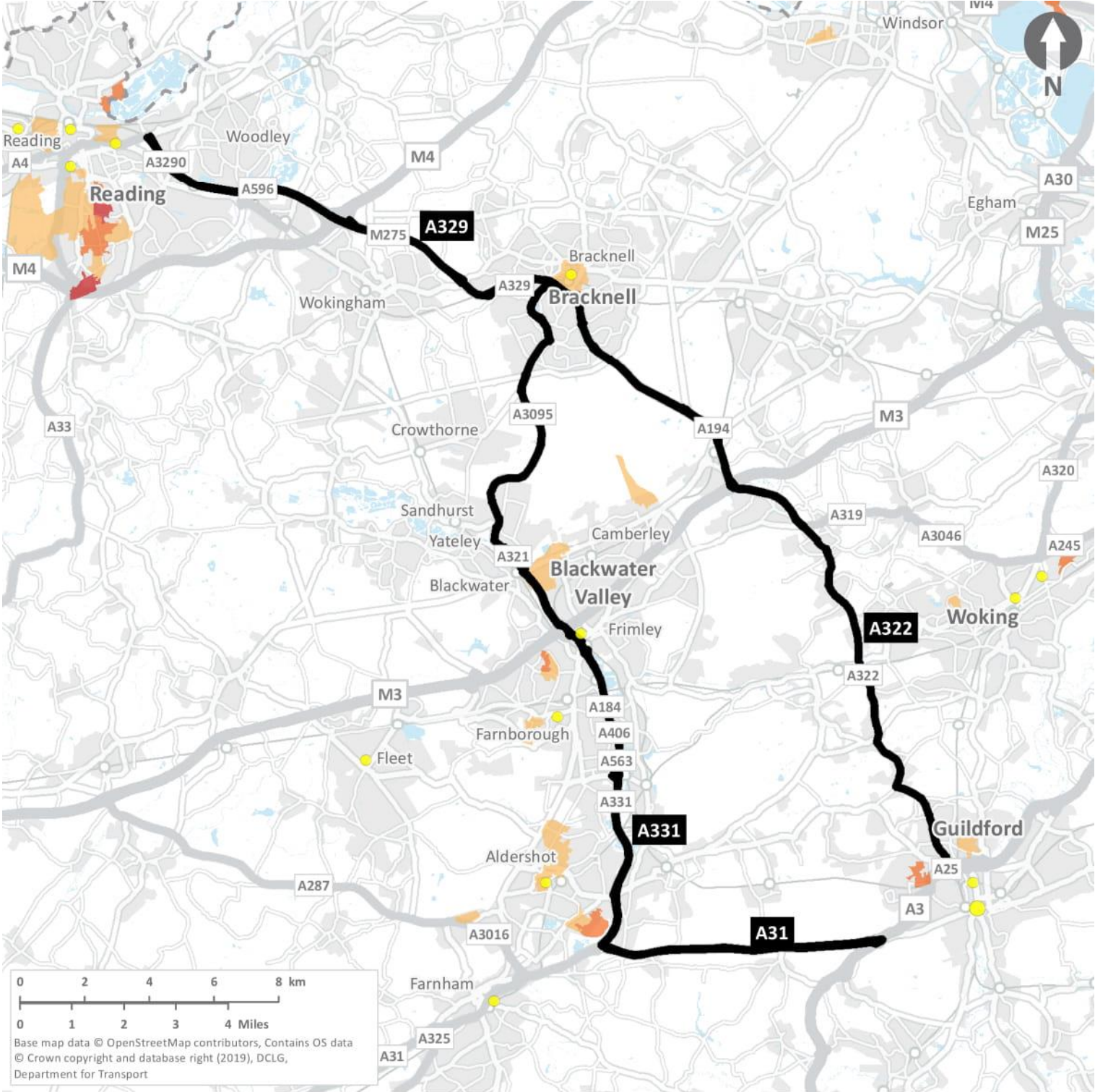
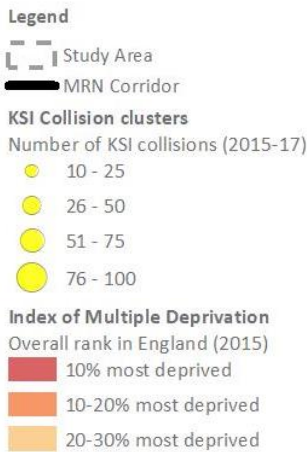
### Safety





There are several clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17, notably in Bracknell Town Centre and areas close to Junction 4 of the M3 at Frimley.

It should be noted that some of the road safety data for this area is understood to be underreported, so the actual position may be more serious than presented on this map.

### Housing Affordability

Although high prices are relatively high on this corridor, earnings are also high (among the highest in the South East area), meaning housing is relatively affordable for residents who live on this corridor.



	Deprived areas (2018, England)	7%	20 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	48%	6 <sup>th</sup>
	Average house price (2018, average of corridor's districts)	£369,756	8 <sup>th</sup>
	Housing affordability ratio (House price / earnings)	10.3	16 <sup>th</sup>



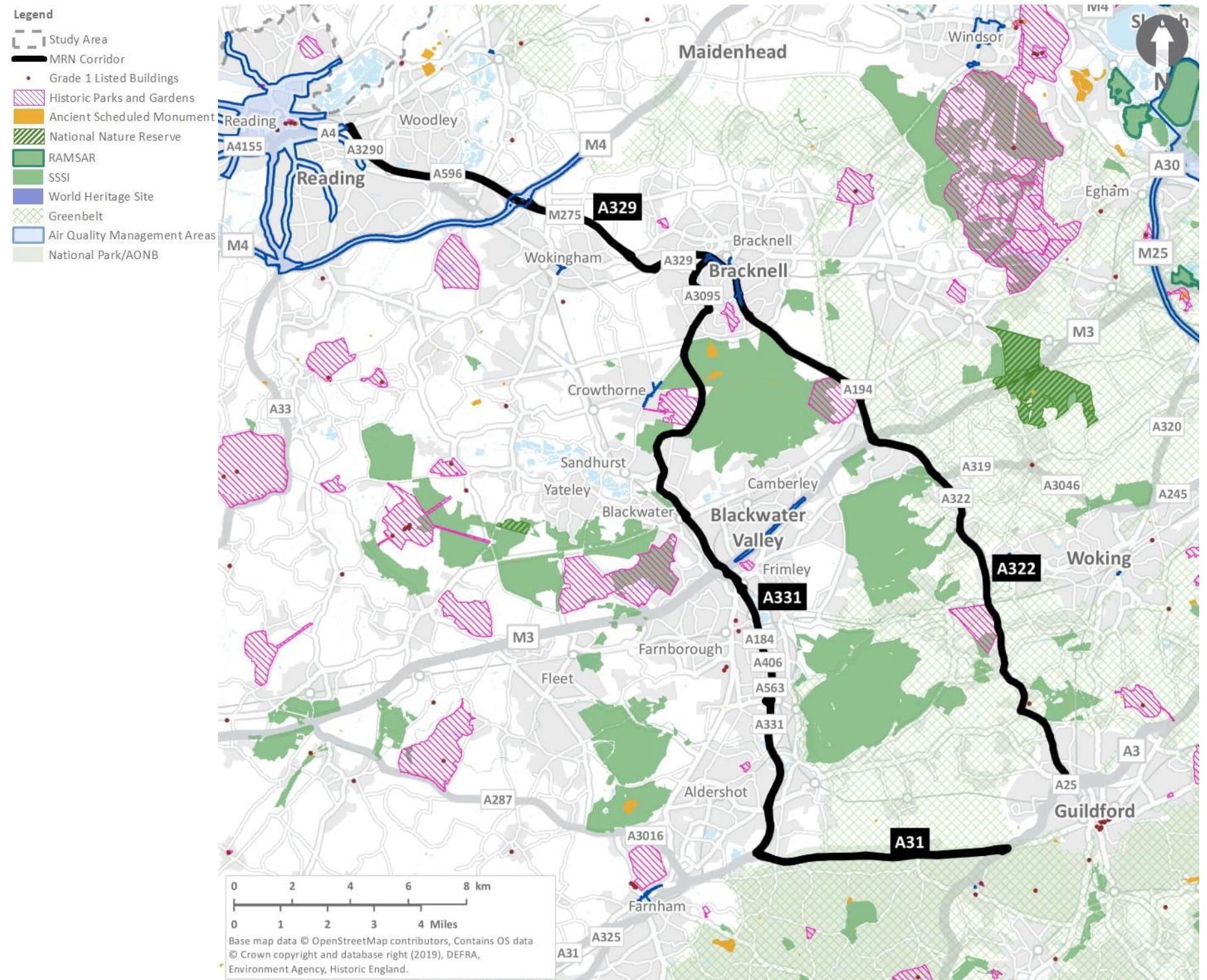
## Environmental Context

### Protected Areas

This corridor passes along the edge of the London Green Belt and alongside several Sites of Special Scientific Interest, historic parks, and gardens.

### Air Quality

The northern end of this corridor is covered by an Air Quality Management Area stretching along the M4 immediately to the south of Reading.





## Highways

### Demand

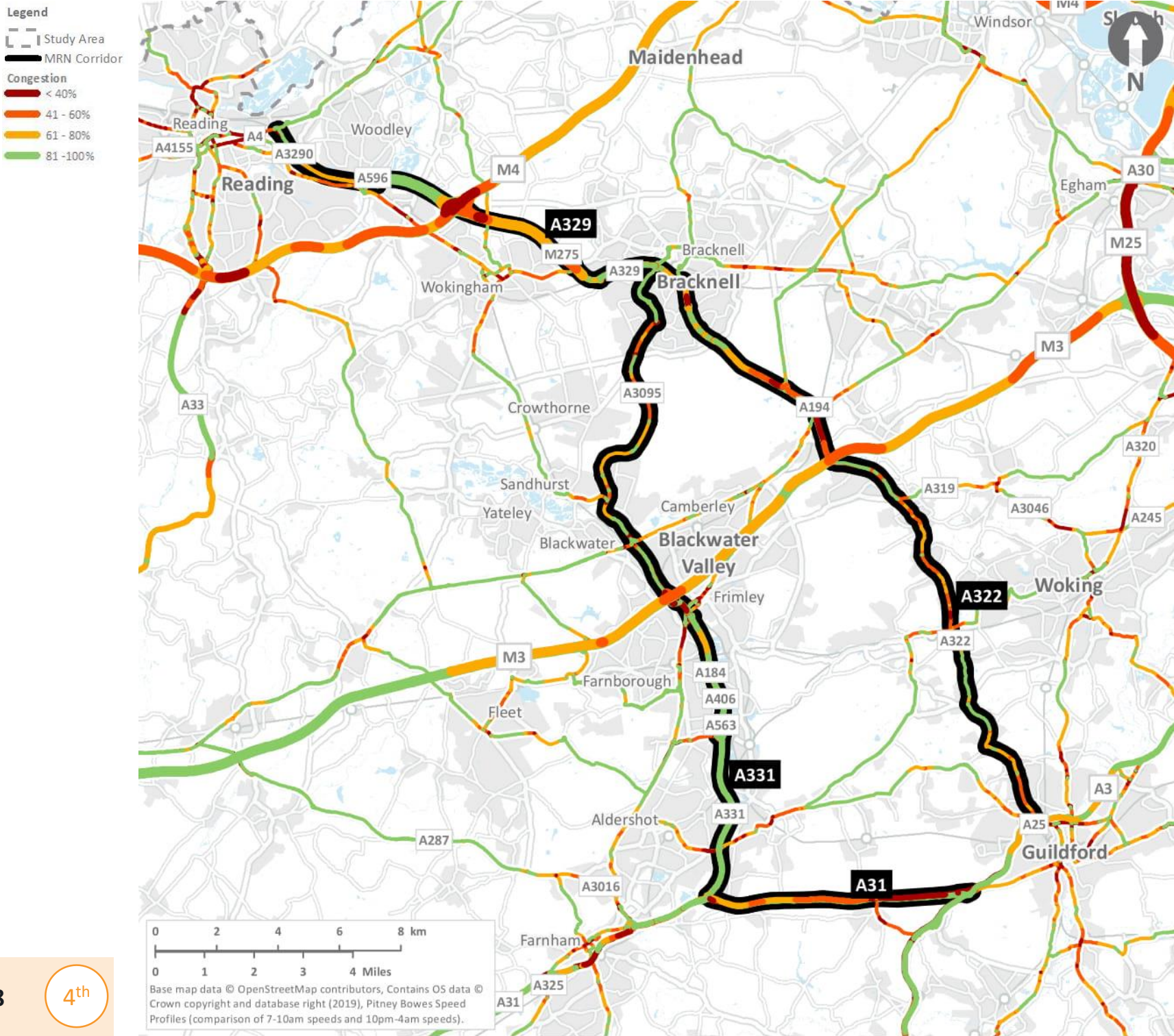
It is estimated that this corridor carries 3,588 vehicles per hour on its busiest section during the AM peak.


### Issues and Opportunities

There are significant areas of congestion along this corridor. The worst congestion on this corridor is on the A31 ‘Hog’s Back’ running west from Guildford, where the average AM peak speed is less than 40% of the night-time speed for a significant part of this highway. The A329 and M275 around Bracknell and Wokingham also experiences similar levels of congestion.

### Enhancements

Highways England is planning to deliver improvements to some **junctions on the A3** in the Guildford area, which may have knock-on benefits for the A31.





Peak hour highway demand  
(Vehicles/hour on busiest section)

3,588

4<sup>th</sup>





# Inner Orbital MRN Corridors 107

---

## A25 (Godstone – Sevenoaks)

### Description

This part of the Major Road Network runs from Godstone in the west to Chipstead (just outside Sevenoaks) in the west. The road runs parallel to the M25 and occasionally is used as a diversionary route for this motorway when it is severely disrupted. This road therefore plays an important role in serving some strategic long distance journeys as well as local and inter-urban journeys.

### The key issues affecting this corridor are:

- **Housing Affordability:** This corridor has very low housing affordability, which could represent a significant barrier to equitable economic growth in the future.

### The key opportunities to consider for this corridor are:

- **Air quality:** Could more be done to protect this sensitive area from poor air quality arising from traffic on this corridor?

## Economic Context

### Wealth

Median resident earnings along this corridor are £33,574 which is above average for the South East.

### Priority Industrial Sectors

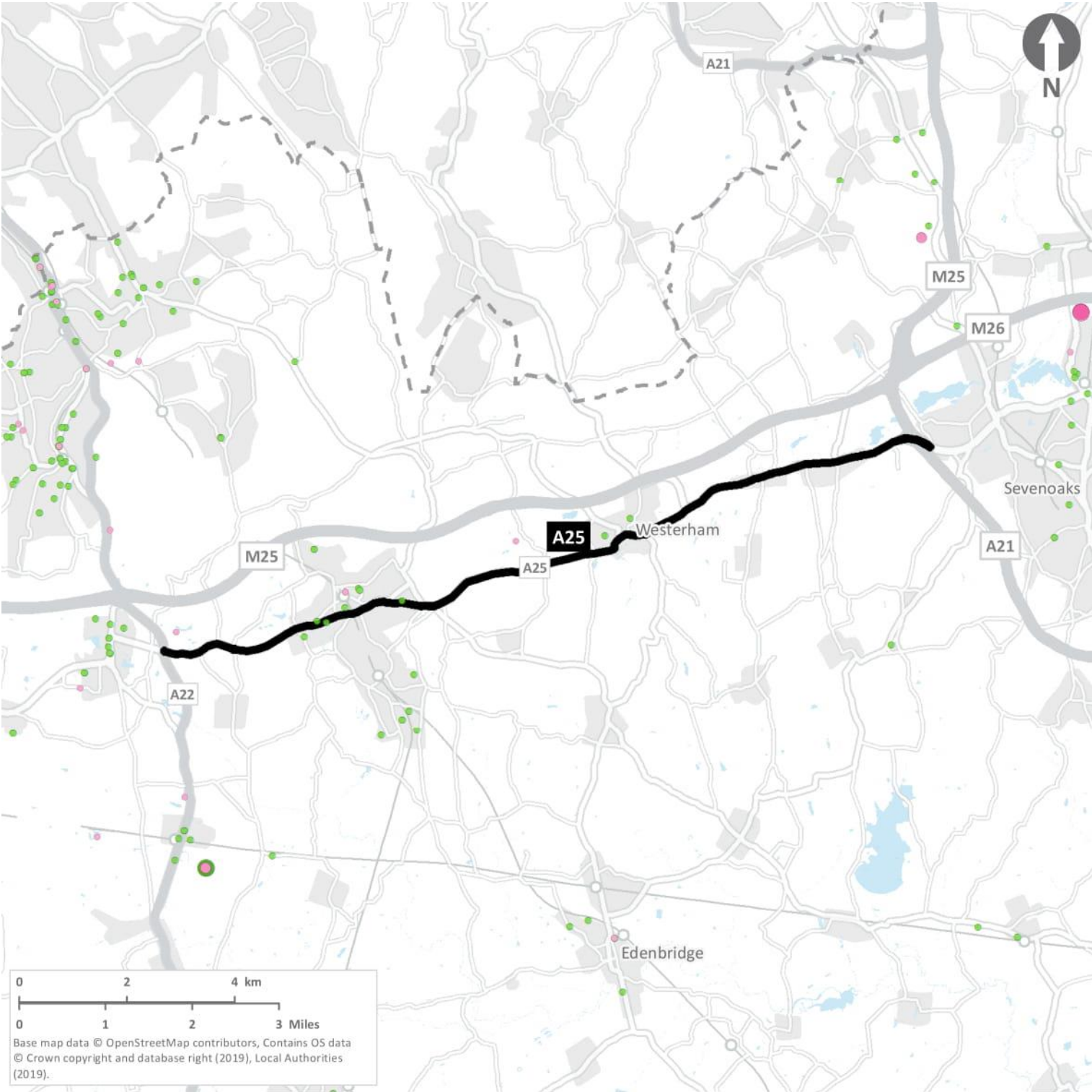
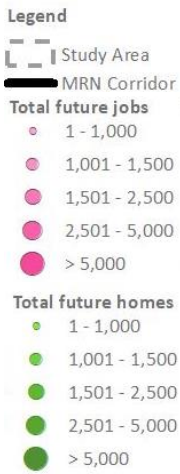
The priority industrial sectors on this corridor are:






- Advanced Manufacturing;
- Transport and Logistics; and
- Life Sciences and Healthcare.

7% of jobs on this corridor are in priority industrial sectors, which is significantly below average for the South East area.

### Development

Housing development along this corridor is expected to be focussed in Godstone and Westerham. Very little employment development is planned for this corridor (although more is planned for Sevenoaks, just off the eastern end of the corridor).



	Population (2018)	207,789		25 <sup>th</sup>
	Planned homes (2018 to 2035)	15,867	↑ 18% growth	10 <sup>th</sup>
	Planned Jobs (2018 to 2035)	10,239	↑ 12% growth	14 <sup>th</sup>
	Priority Sector Jobs (2017)	6,025	7% of total	28 <sup>th</sup>
	Median earnings (2018)	£33,574		11 <sup>th</sup>

## Social Context

### Deprivation

This area does not have any significant issues with deprivation.

### Education

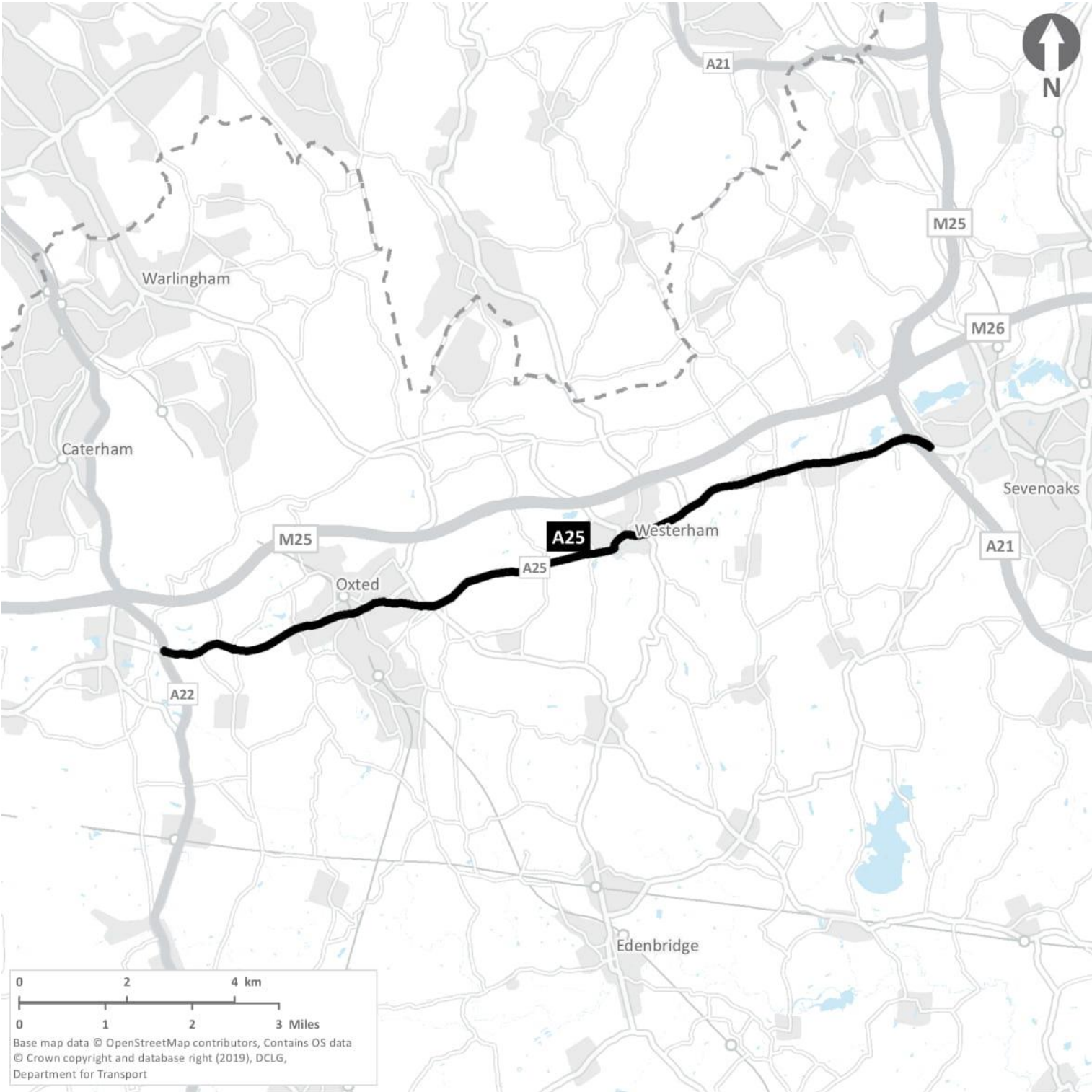
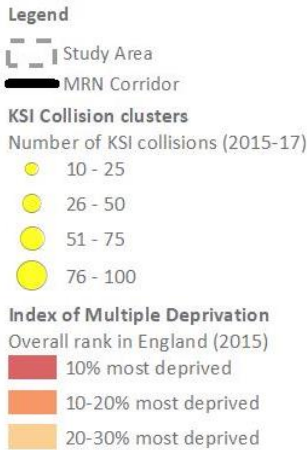
42% of the population is educated to National Vocational Qualification at level 4 or above, which is around average for the South East area.





### Safety

There were no clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17.

### Housing Affordability

Housing affordability is very low on this corridor. This is driven by very high house prices in this area.



	Deprived areas (2018, England)	4%	24 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	42%	15 <sup>th</sup>
	Average house price (2018, average of corridor's districts)	£410,144	6 <sup>th</sup>
	Housing affordability ratio (House price / earnings)	12.2	29 <sup>th</sup>



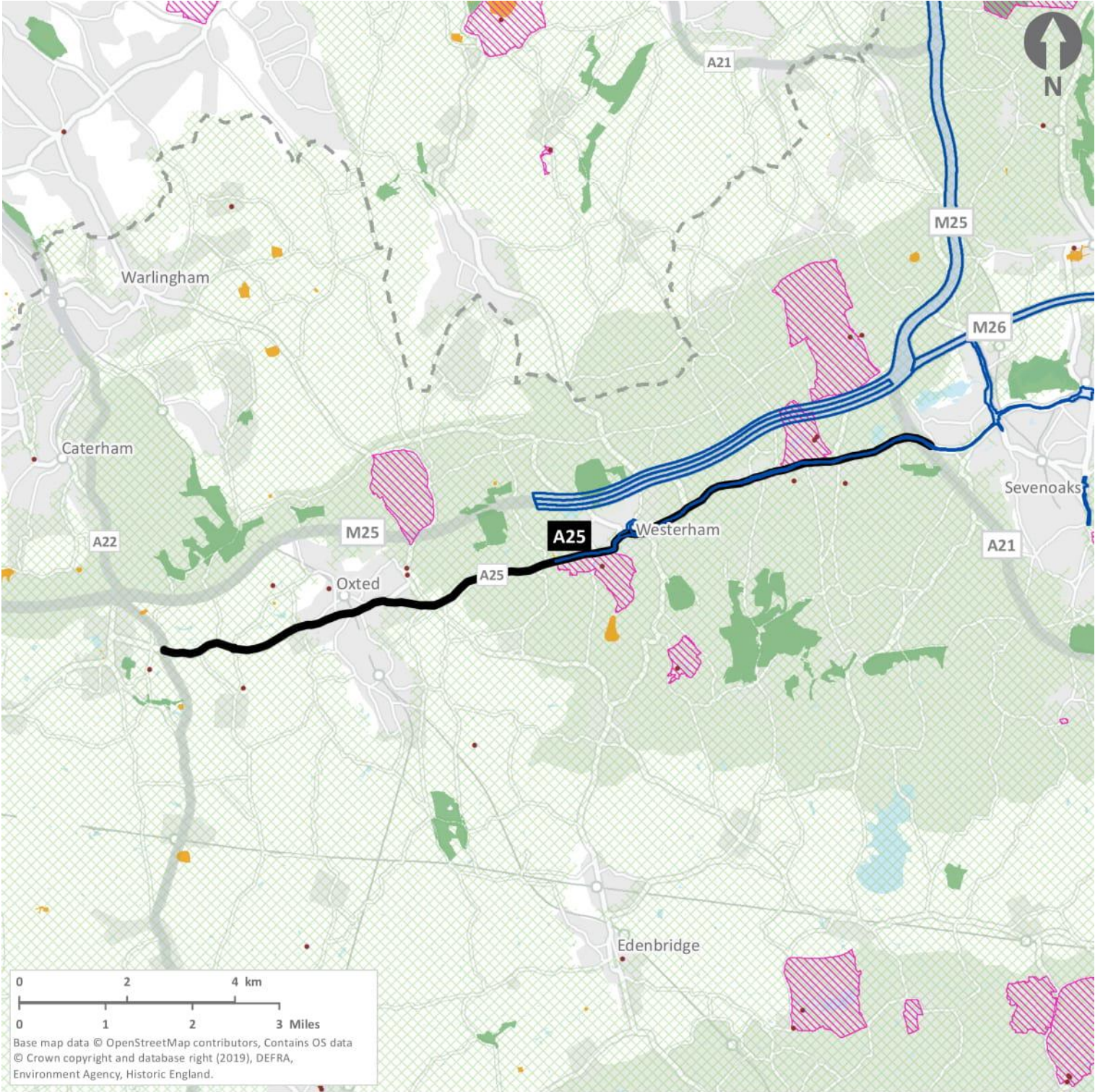
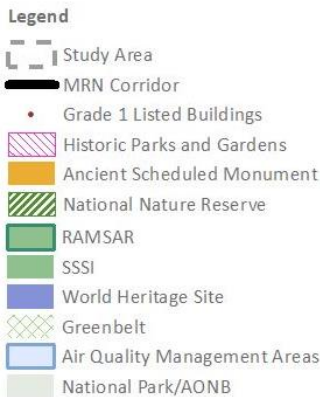
## Environmental Context

### Protected Areas

This corridor runs wholly through the London Greenbelt. The eastern part of the corridor runs through the Kent Downs Area of Outstanding Natural Beauty. This part of the route also runs close to several Sites of Special Scientific Interest and several historic parks and gardens.

### Air Quality

The eastern part of the A25 highway is covered by an Air Quality Management Area. The M25 motorway to the north is also covered by a much larger Air Quality Management Area.





## Highways

### Demand

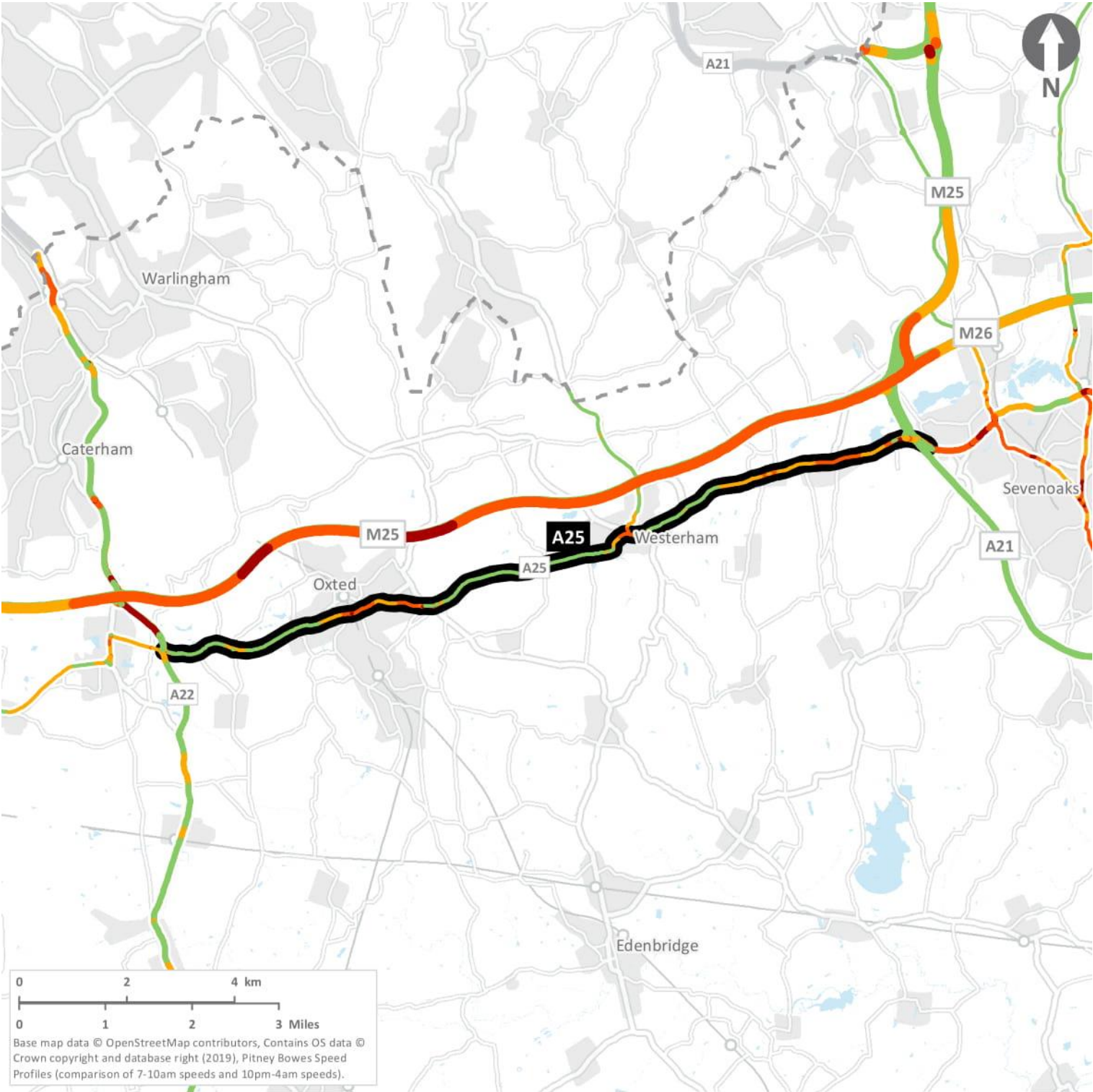
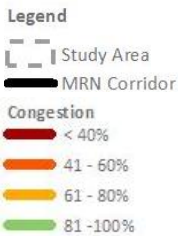
It is estimated that this corridor carries 952 vehicles per hour on its busiest section during the AM peak.


### Issues and Opportunities

Although traffic flows are relatively low on this corridor, parts of it experience some congestion during the AM peak, where traffic speeds fall below 60% of the free flow speed. This tends to happen within the urban areas on this corridor (e.g. Oxted and Westerham).

### Enhancements

No significant enhancements are currently planned for this corridor.



 Peak hour highway demand  
(Vehicles/hour on busiest section)

952

29<sup>th</sup>





# Inner Orbital MRN Corridors IO8

---

A244/A307/A317  
(Cobham, Esher and  
Weybridge)

## Description

This corridor encompasses the Major Road Network that connects Cobham, Esher and Weybridge to each other, to Greater London, and to the M25. This corridor runs through mostly urban areas. It serves one of the most prosperous (and least affordable) areas of South East England.

## The key issues affecting this corridor are:

- **Housing Affordability:** This corridor has the lowest level of housing affordability of all the Major Road Network corridors in the South East. This could represent a significant barrier to sustainable, equitable economic growth in the future.
- **Congestion:** Congestion is a significant issue across many parts of the Major Road Network in this area.

## The key opportunities to consider for this corridor are:

- **Public transport opportunities:** Given the relatively high population density on this corridor, can public transport help address the significant congestion issues highlighted above?

## Economic Context

### Wealth

Median resident earnings along this corridor are £36,938 which is among the highest in the South East.

### Priority Industrial Sectors

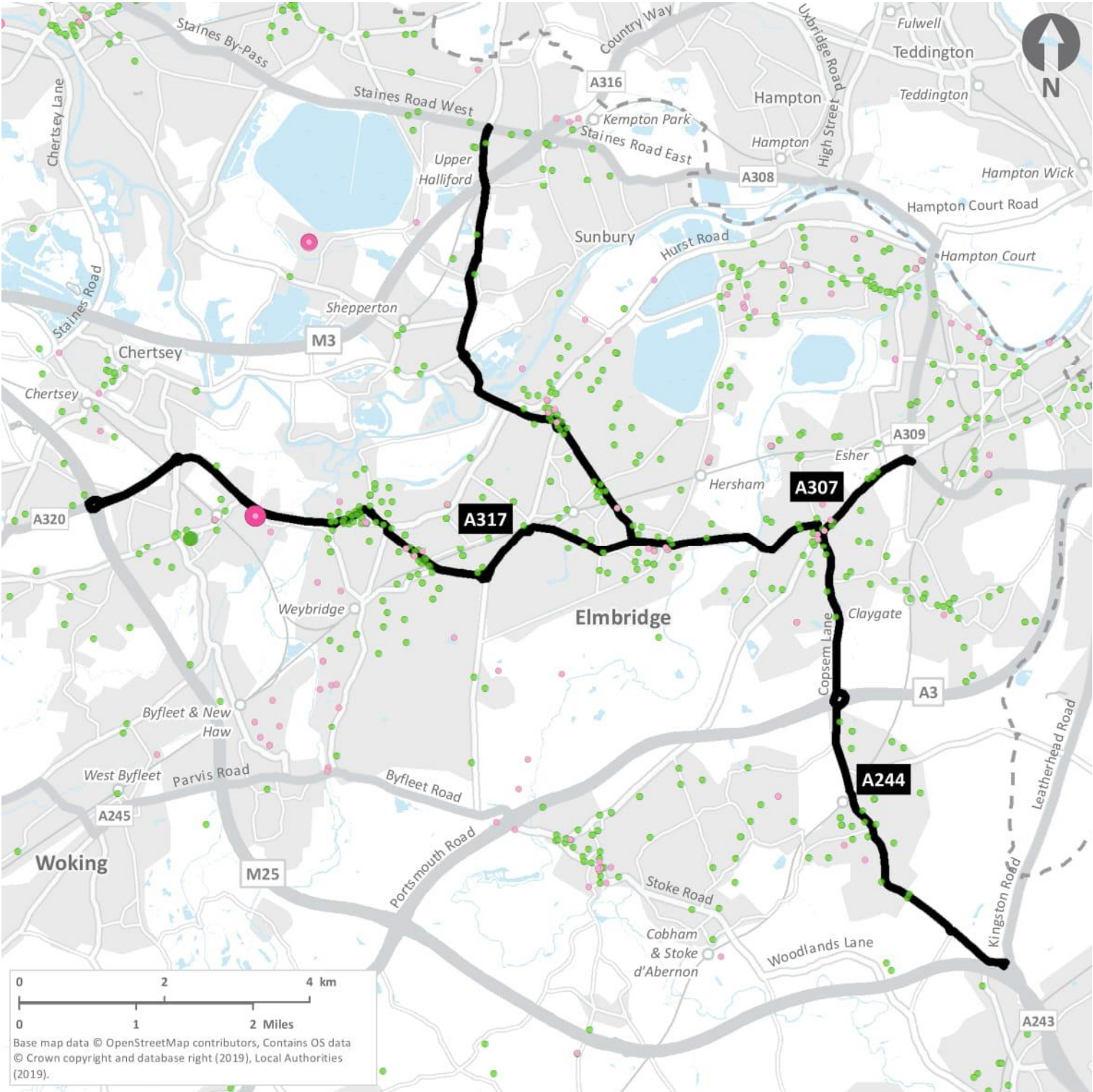
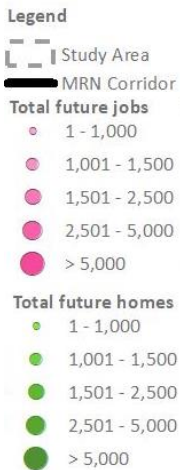
The priority industrial sectors on this corridor are:






- Aerospace and Defence;
- ICT and Digital Media; and
- Pharma.

11% of jobs on this corridor are in priority industrial sectors, which is around average for the South East.

### Development

Housing development is generally spread across a large number of smaller sites, most of which appear to be close to the Major Road Network. Employment growth sites tend to be fewer in number, but much larger in scale. One of the largest employment growth sites in Addlestone is located directly on the western limb of this corridor (on the A317).



	Population (2018)	323,960		19 <sup>th</sup>
	Planned homes (2018 to 2035)	18,190	↑ 13% growth	21 <sup>st</sup>
	Planned Jobs (2018 to 2035)	16,069	↑ 10% growth	18 <sup>th</sup>
	Priority Sector Jobs (2017)	16,450	11% of total	17 <sup>th</sup>
	Median earnings (2018)	£36,938		3 <sup>rd</sup>



## Social Context

### Deprivation

This corridor has very few deprived areas. It is among the least deprived Major Road Network corridor in the South East area.

### Education

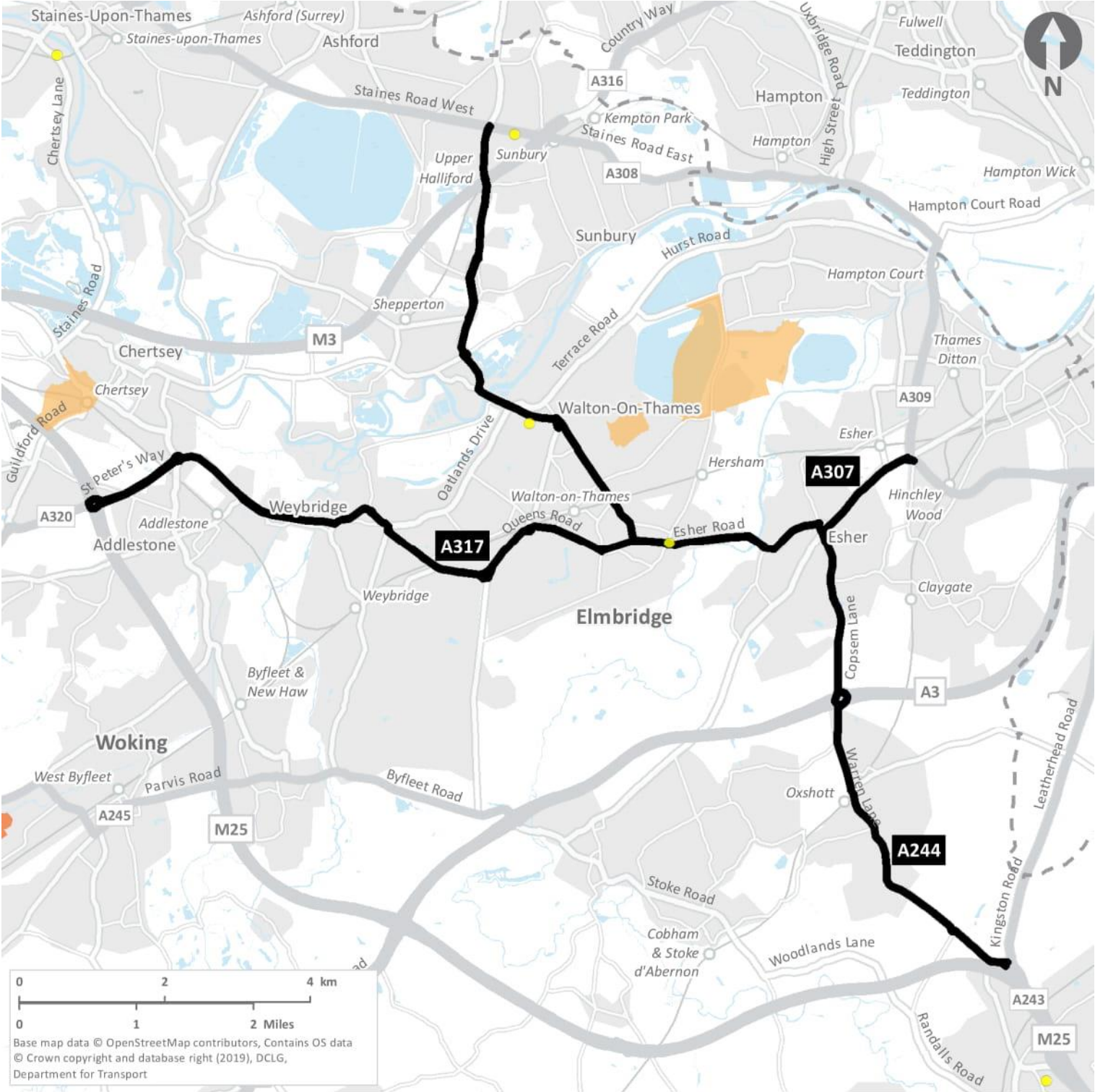
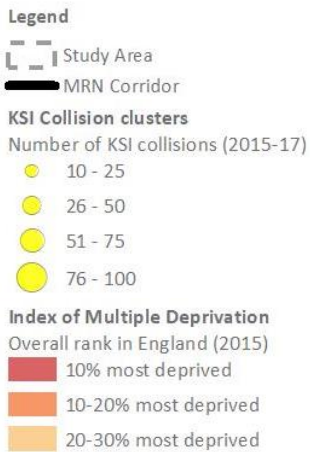
This corridor has the (joint) highest educated population in of all the Major Road Network corridors. 50% of the population is educated to National Vocational Qualification at level 4 or above.





### Safety

There were several clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17, notably in Walton-on-Thames and Elmbridge.

### Housing Affordability

This corridor has the highest average house prices of all the Major Road Network corridors in the South East. This means that it has the lowest affordability ratio for any corridor in the South East.



	Deprived areas (2018, England)	3%	27 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	50%	1 <sup>st</sup>
	Average house price (2018, average of corridor's districts)	£463,968	1 <sup>st</sup>
	Housing affordability ratio (House price / earnings)	12.6	30 <sup>th</sup>



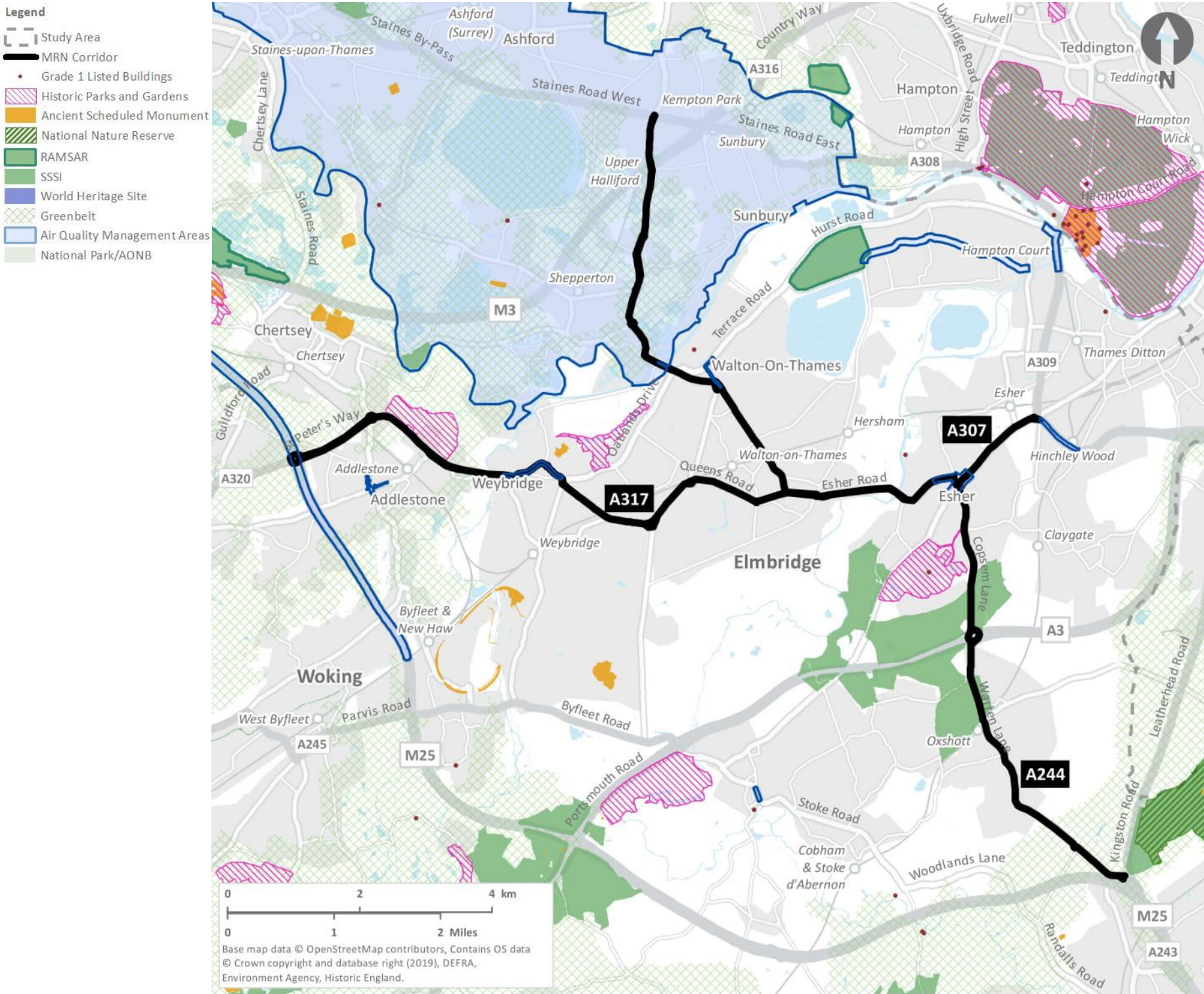
## Environmental Context

### Protected Areas

This corridor is located on the London Greenbelt. It also runs through several Sites of Special Scientific Interest (e.g. Esher Common) and alongside several historic parks and gardens (e.g. Woburn Park).

### Air Quality

There are several large Air Quality Management Areas in this area. The largest, which covers part of the A244, is located to the north of Weybridge. There are also smaller Air Quality Management Areas covering the A317 in Weybridge and the A307 in Esher.





## Highways

### Demand

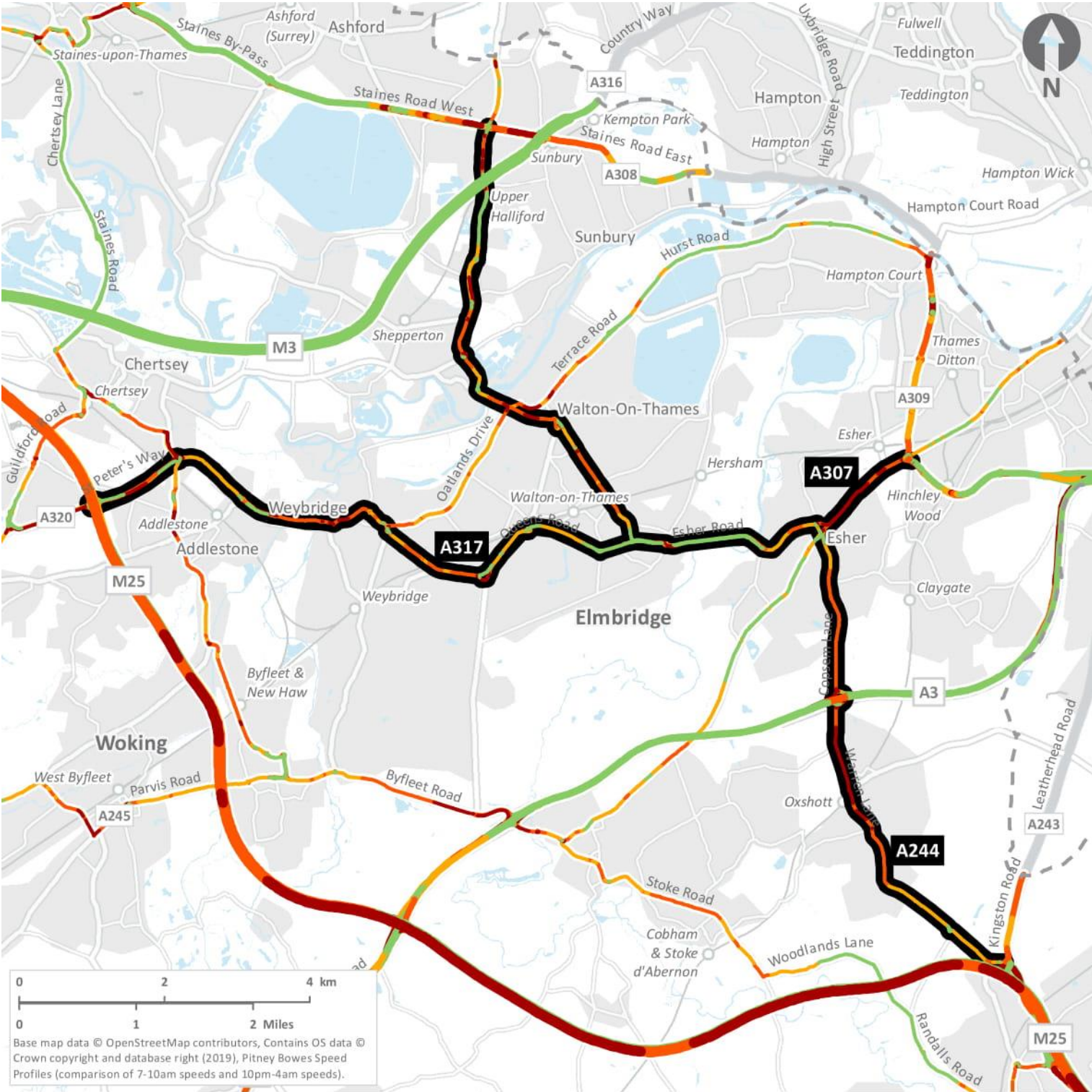
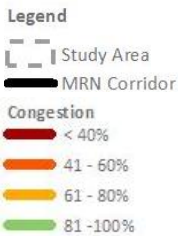
It is estimated that this corridor carries 2,305 vehicles per hour on its busiest section during the AM peak.

### Issues and Opportunities

There are significant congestion issues across almost every section of the Major Road Network in this area. There are several areas where AM peak traffic speeds fall below 40% of free flow speeds, notably on the A307 and the A244 in Esher.

### Enhancements

Surrey County Council is developing a **package of improvements to junctions on the A320**, which should benefit traffic flows on this corridor, particularly in the Addlestone area.



Peak hour highway demand  
(Vehicles/hour on busiest section)

2,305

15<sup>th</sup>





# Inner Orbital MRN Corridors 109

A308/A309/A332/A412  
(Maidenhead and  
Slough – Hampden)

## Description

This corridor runs between Maidenhead, Windsor, Staines and the Greater London boundary at Hampden. A short section of this corridor is classified as part of the Strategic Road Network (hence a small gap is shown for the first part of the Staines bypass on the maps).

Part of the corridor serves as a high capacity bypass for Staines and a high-capacity link between Windsor and the M4 motorway. It acts as a diversionary route for the M25 and M4 and can be affected by incidents and congestion on this motorway, particularly between Junctions 13 and 15 of the M25.

## The key issues affecting this corridor are:

- **Housing Affordability:** This corridor has very low housing affordability, which could represent a significant barrier to equitable economic growth in the future.
- **Air quality:** This area has a very high concentration of Air Quality Management Areas. It is also close to Heathrow Airport. This suggests there are significant air quality concerns and, given Heathrow's planned expansions, risks on this corridor.

## The key opportunities to consider for this corridor are:

- **Heathrow Expansion:** How can the transport system develop to ensure that Heathrow's expansion does not add additional pressure to already congested parts of the Major Road Network in this area?





## Social Context

### Deprivation

Although deprivation levels on this corridor are around average for the South East area, there are significant variations across the area it serves. Deprivation is particularly concentrated in Slough.

### Education

This corridor has the (joint) highest educated population in of all the Major Road Network corridors. 50% of the population is educated to National Vocational Qualification at level 4 or above.

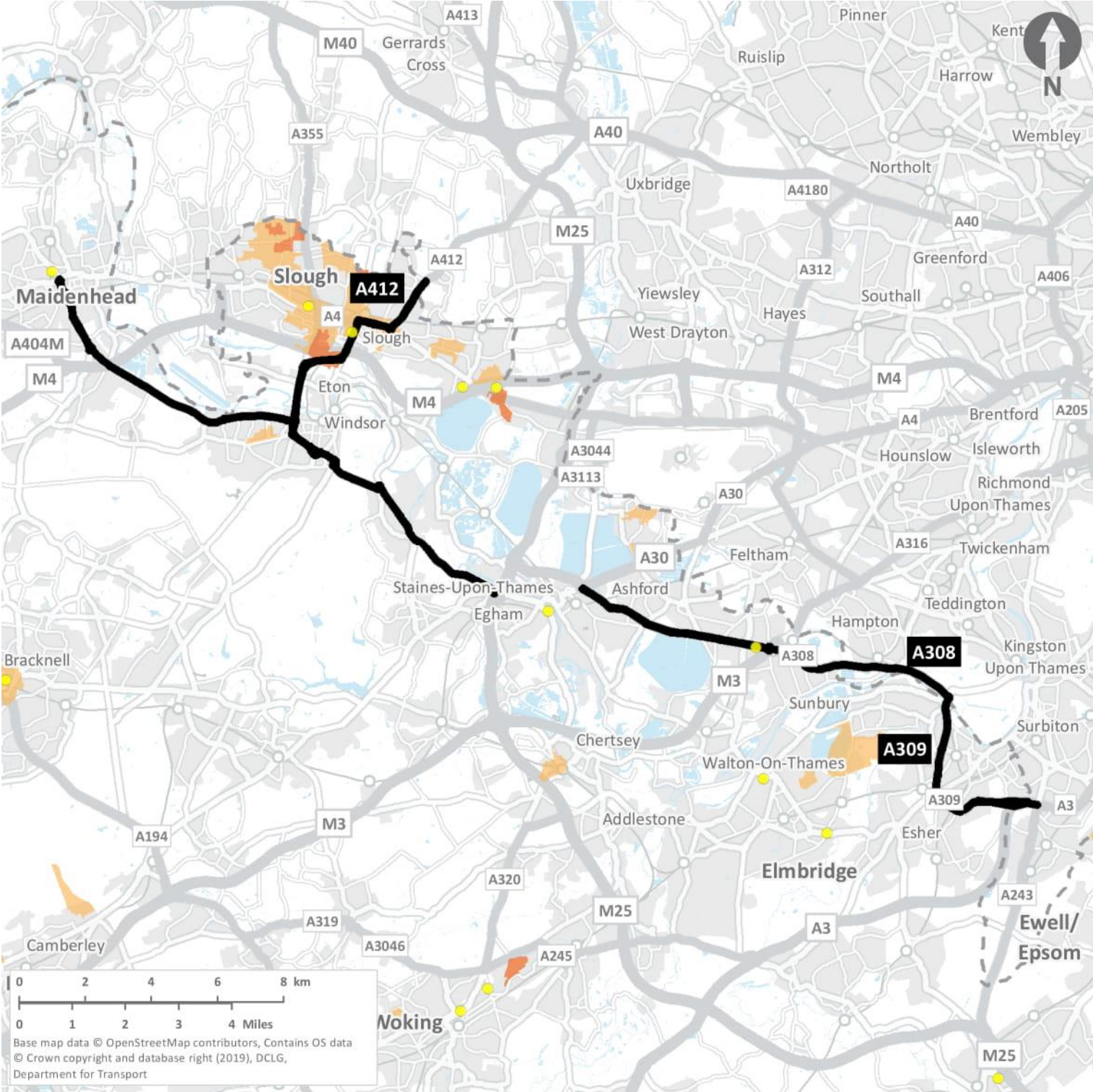
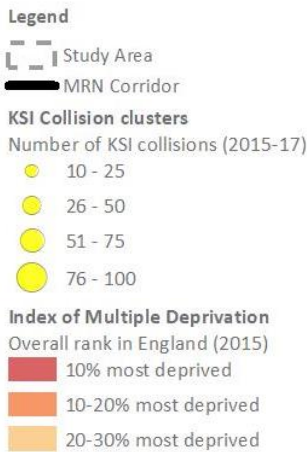
### Safety





There were several clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17, notably in Slough and Staines.

It should be noted that some of the road safety data for this area is understood to be underreported, so the actual position may be more serious than presented on this map.

### Housing Affordability

Housing affordability is particularly low on this corridor. This is driven by very high house prices in this area.



	Deprived areas (2018, England)	9%	16 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	50%	1 <sup>st</sup>
	Average house price (2018, average of corridor's districts)	£434,057	3 <sup>rd</sup>
	Housing affordability ratio (House price / earnings)	12.0	27 <sup>th</sup>



## Environmental Context

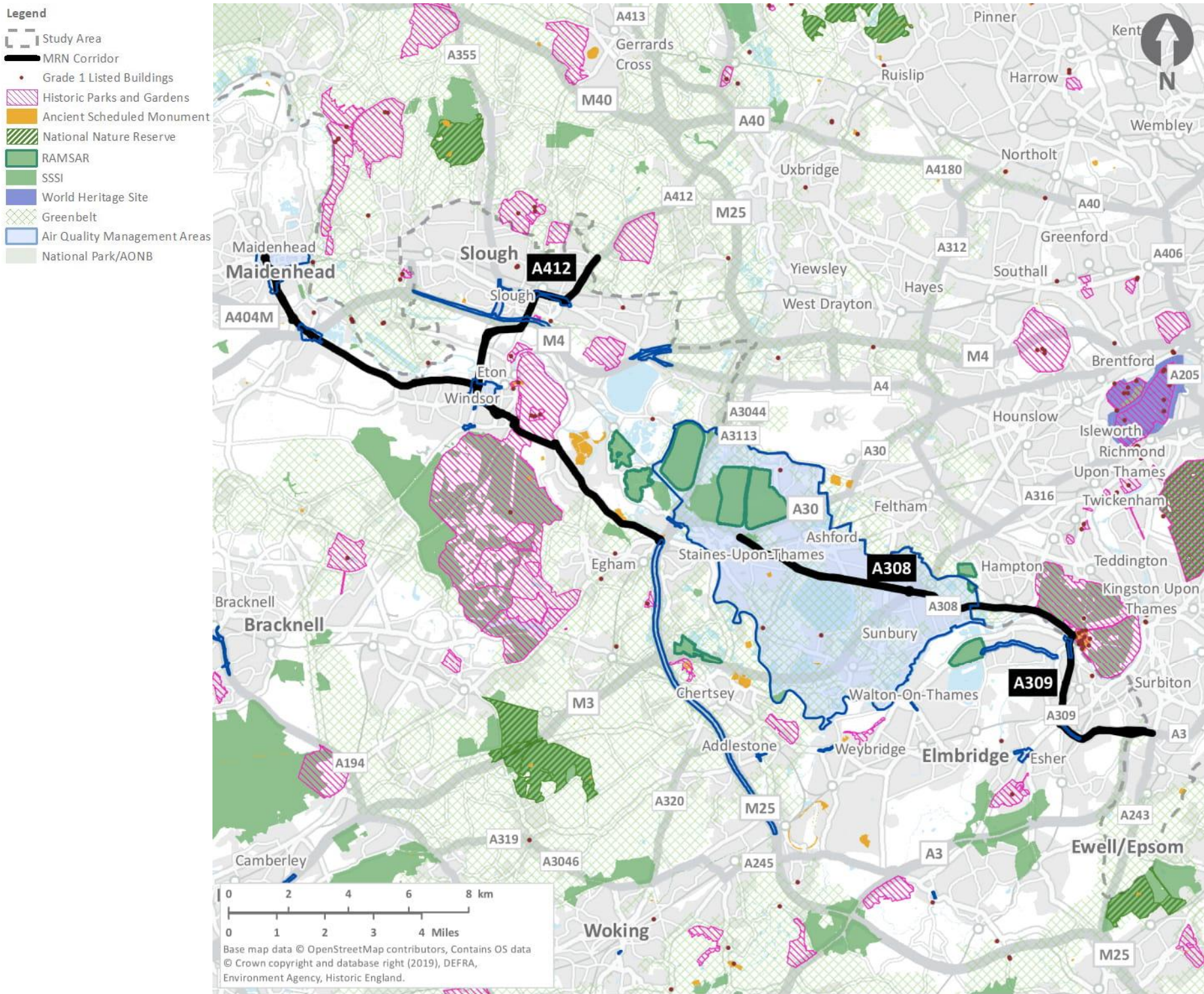
### Protected Areas

This corridor runs through or adjacent to a wide range of significant protected areas. The largest of these is the London Greenbelt, which covers most unurbanised areas on this corridor.

Several parts of this corridor also pass through or close to Ramsar sites and Sites of Special Scientific Interest. The route also passes through Windsor Forest and Great Park, which is a Special Area of Conservation.

### Air Quality

There are several large Air Quality Management Areas covering this route, most significantly near Maidenhead and around Staines and Sunbury.





## Highways

### Demand

It is estimated that this corridor carries 2,341 vehicles per hour on its busiest section during the AM peak.

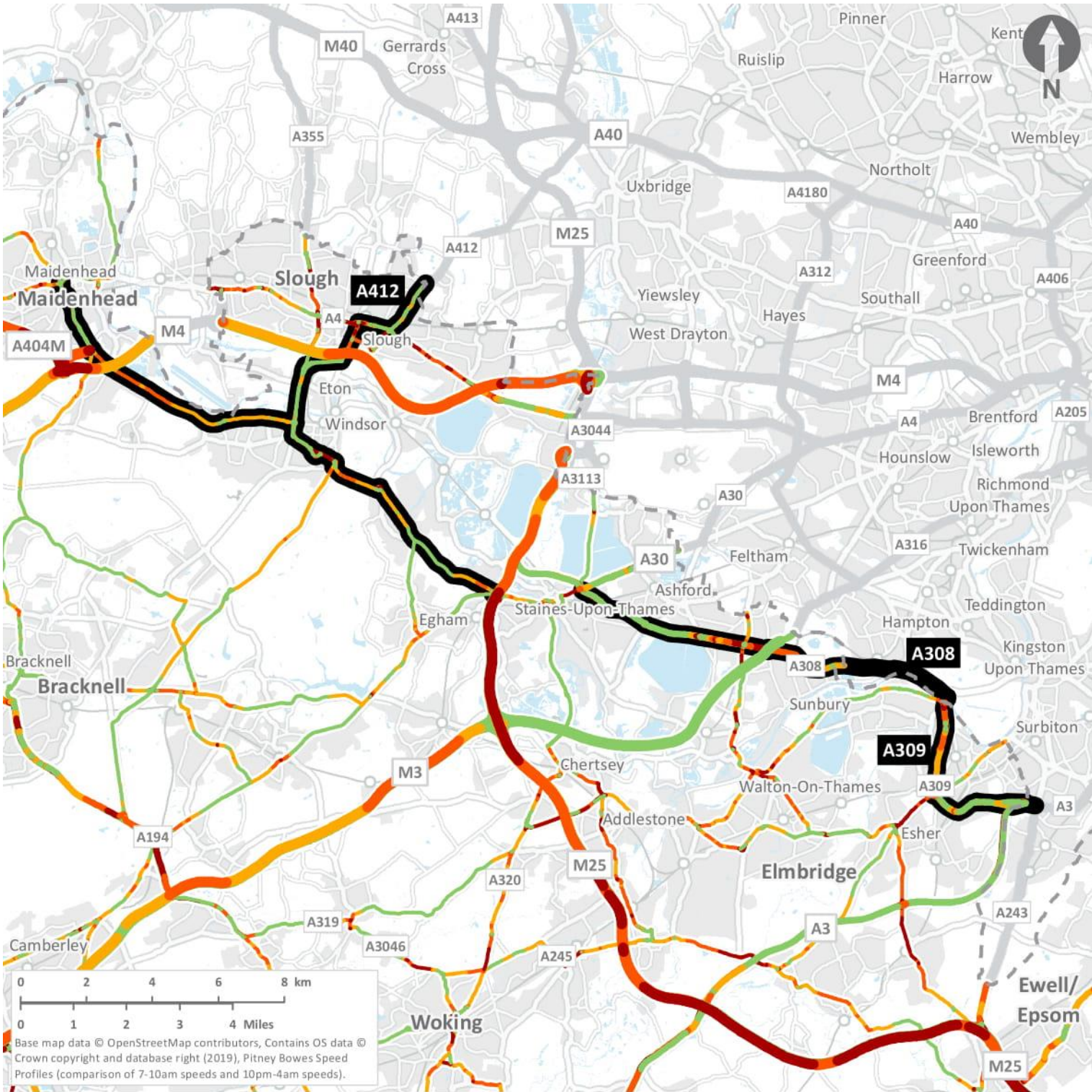
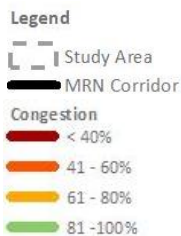
### Issues and Opportunities

The performance of this corridor varies significantly across the route. Some areas flow well, even during the AM peak, whereas others (e.g. Sunbury) experience significant congestion, where AM peak speeds fall below 60% of free flow speeds.

### Enhancements

The Royal Borough of Windsor and Maidenhead is planning to deliver improvements at several junctions around **Maidenhead town centre**, including at

- A4/A308 roundabout;
- A308/Stafferton Way/Rushington Avenue roundabout; and
- A308(M)/A308/A330/The Bingham's roundabout (this scheme is also supported by the Thames Valley Local Enterprise Partnership).



Peak hour highway demand  
(Vehicles/hour on busiest section)

2,341

14<sup>th</sup>





# Inner Orbital MRN Corridors IO10

---

## A245/A319/A320/A3046 (Woking)

### Description

This corridor encompasses the Major Road Network that connects Woking to neighbouring major economic hubs (e.g. Guildford) and the Strategic Road Network. It serves one of the most prosperous areas of the South East. Much of the area served by this corridor is urban in nature.

### The key issues affecting this corridor are:

- **Housing Affordability:** This corridor has very low housing affordability, which could represent a significant barrier to equitable economic growth in the future.
- **Congestion:** Congestion is a significant issue across many parts of the Major Road Network in this area.

### The key opportunities to consider for this corridor are:

- **Public transport:** The largest employment development sites in this area are located near public transport hubs. How can the public transport network develop to encourage commuters to use sustainable transport modes to access these jobs?

## Economic Context

### Wealth

Median resident earnings along this corridor are £37,704 which is among the highest in South East.

### Priority Industrial Sectors

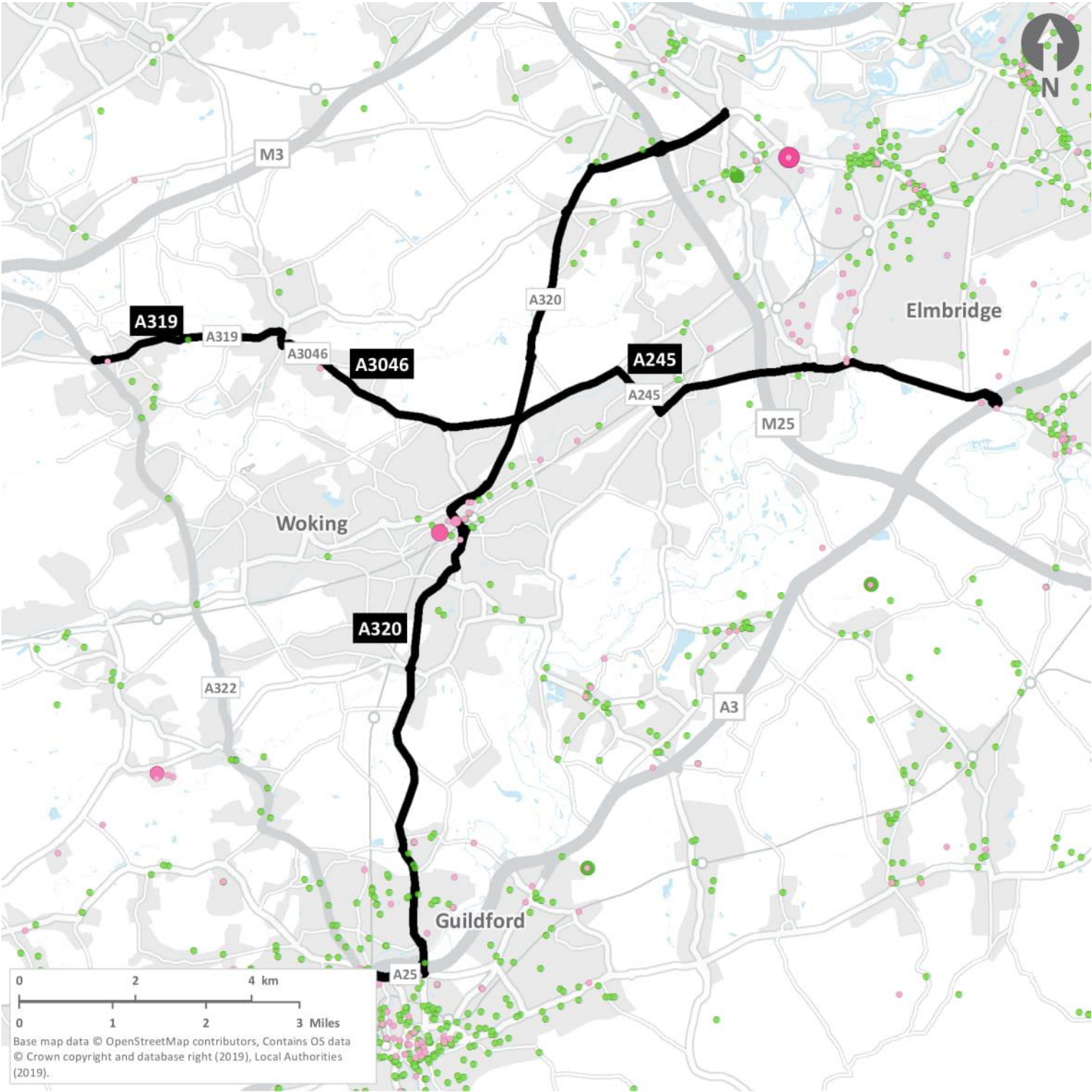
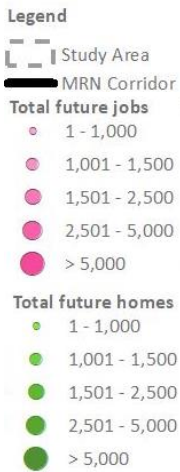
The priority industrial sectors on this corridor are:






- Aerospace and Defence;
- ICT and Digital Media; and
- Pharmaceuticals.

11% of jobs on this corridor are in priority industrial sectors, which is around average for the South East.

### Development

Housing development is clustered towards the southern end of this corridor in the Guildford area. Employment growth is focusses around Woking town centre and Addlestone (on the north east end of the corridor).



	Population (2018)	562,556		9 <sup>th</sup>
	Planned homes (2018 to 2035)	36,386	↑ 16% growth	16 <sup>th</sup>
	Planned Jobs (2018 to 2035)	60,393	↑ 20% growth	10 <sup>th</sup>
	Priority Sector Jobs (2017)	32,100	11% of total	15 <sup>th</sup>
	Median earnings (2018)	£37,704		2 <sup>nd</sup>



## Social Context

### Deprivation

This is one of the least deprived corridors on the Major Road Network with the South East area.

### Education

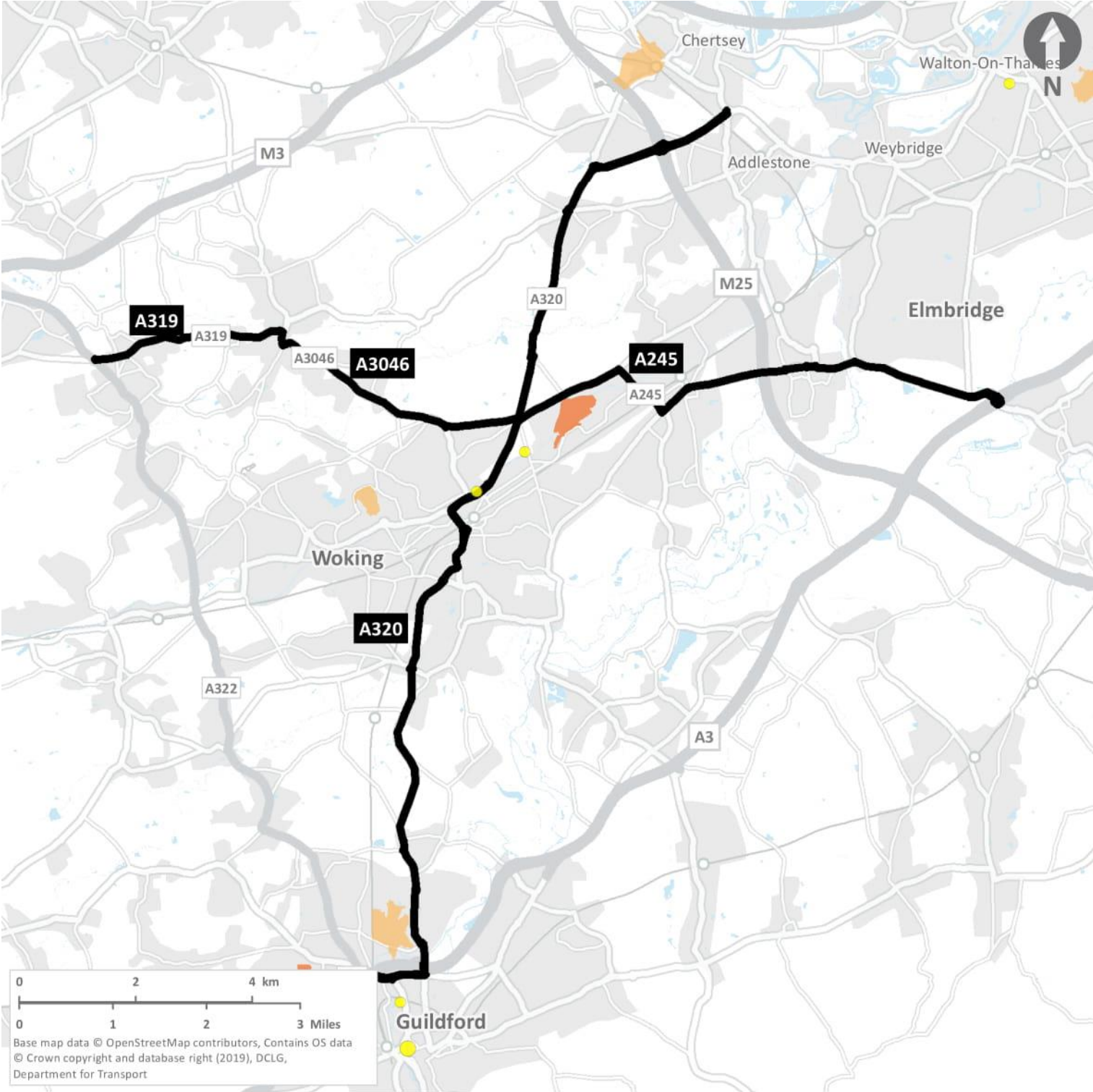
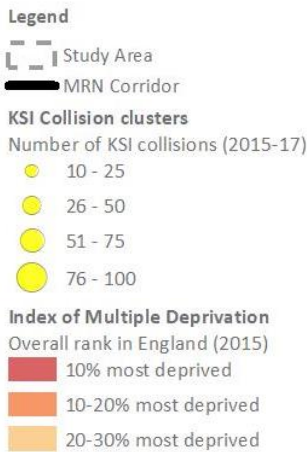
This corridor has the (joint) highest educated population in of all the Major Road Network corridors. 50% of the population is educated to National Vocational Qualification at level 4 or above.

### Safety

There were several clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17, notably in central/north Woking and in Guildford town centre.

### Housing Affordability

This area has among the lowest levels of housing affordability in the South East area. This is driven by extremely high house prices, which are among the highest in the South East.



	Deprived areas (2018, England)	3%	26 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	50%	1 <sup>st</sup>
	Average house price (2018, average of corridor's districts)	£451,415	2 <sup>nd</sup>
	Housing affordability ratio (House price / earnings)	12.0	28 <sup>th</sup>



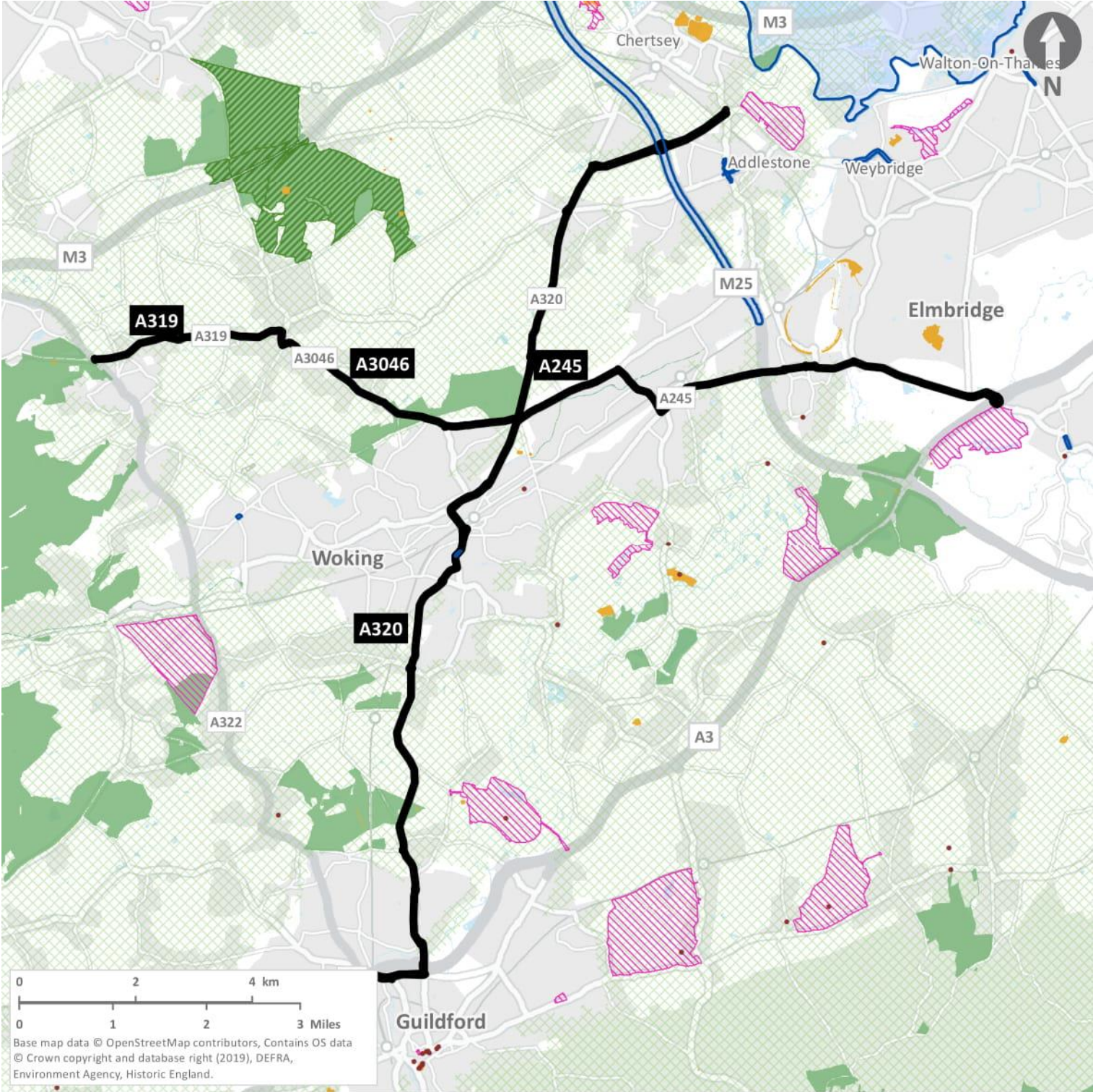
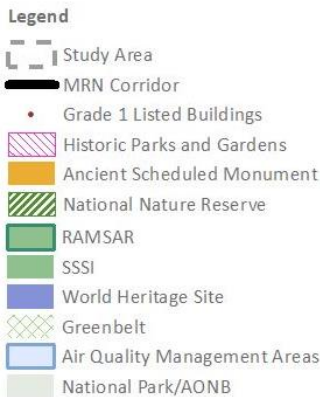
## Environmental Context

### Protected Areas

This corridor passes through several protected areas, the most significant of which is the London Green belt. It also passes through several significant Sites of Special Scientific Interest.

### Air Quality

The Major Road Network crosses an Air Quality Management Area on the M25 in the north of this corridor.





## Highways

### Demand

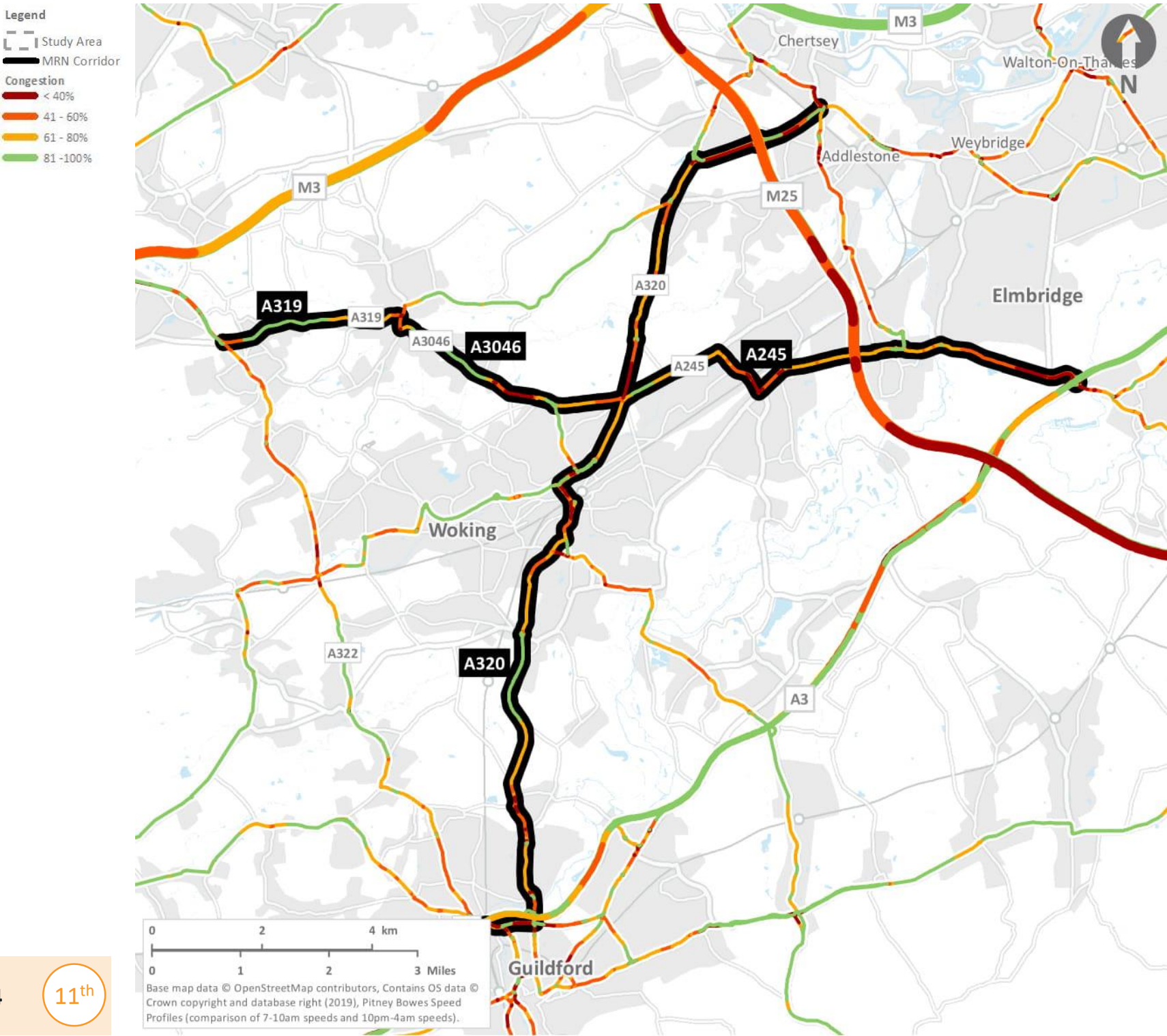
It is estimated that this corridor carries 2,394 vehicles per hour on its busiest section during the AM peak.


### Issues and Opportunities

Significant parts of the Major Road Network suffer from congestion in this area. There are numerous locations where the AM peak traffic speed falls below 60% (and in some cases, 40%) of free flow speed.

### Enhancements

Surrey County Council is preparing a package of measures involving around a dozen junction improvements for the Major Road Network in this area. This package would deliver **improvements to junctions on the A320 and the B3121.**





Peak hour highway demand  
(Vehicles/hour on busiest section)

2,394

11<sup>th</sup>





# Inner Orbital MRN Corridors IO11

---

## A287/A339 (Farnham – Newbury)

### Description

This corridor connects two important economic hubs, Basingstoke and Guildford. It runs through rural and semi-rural landscapes.

### The key issues affecting this corridor are:

- **Imbalance of housing and employment growth:** According to Local Planning Authority data, relatively few jobs are currently planned on this corridor. This is partly due to data gaps in this part of the South East, it also may be due to thresholds applied to the economic context maps (sites with fewer than 50 jobs are not shown). This does suggest, however, that many new residents will need to seek employment outside this corridor.

### The key opportunities to consider for this corridor are:

- **High housing growth:** How can the highway network support future housing growth to drive better economic outcomes in this area?

## Economic Context

### Wealth

Median resident earnings along this corridor are £35,199 which is relatively high for the South East.

### Priority Industrial Sectors

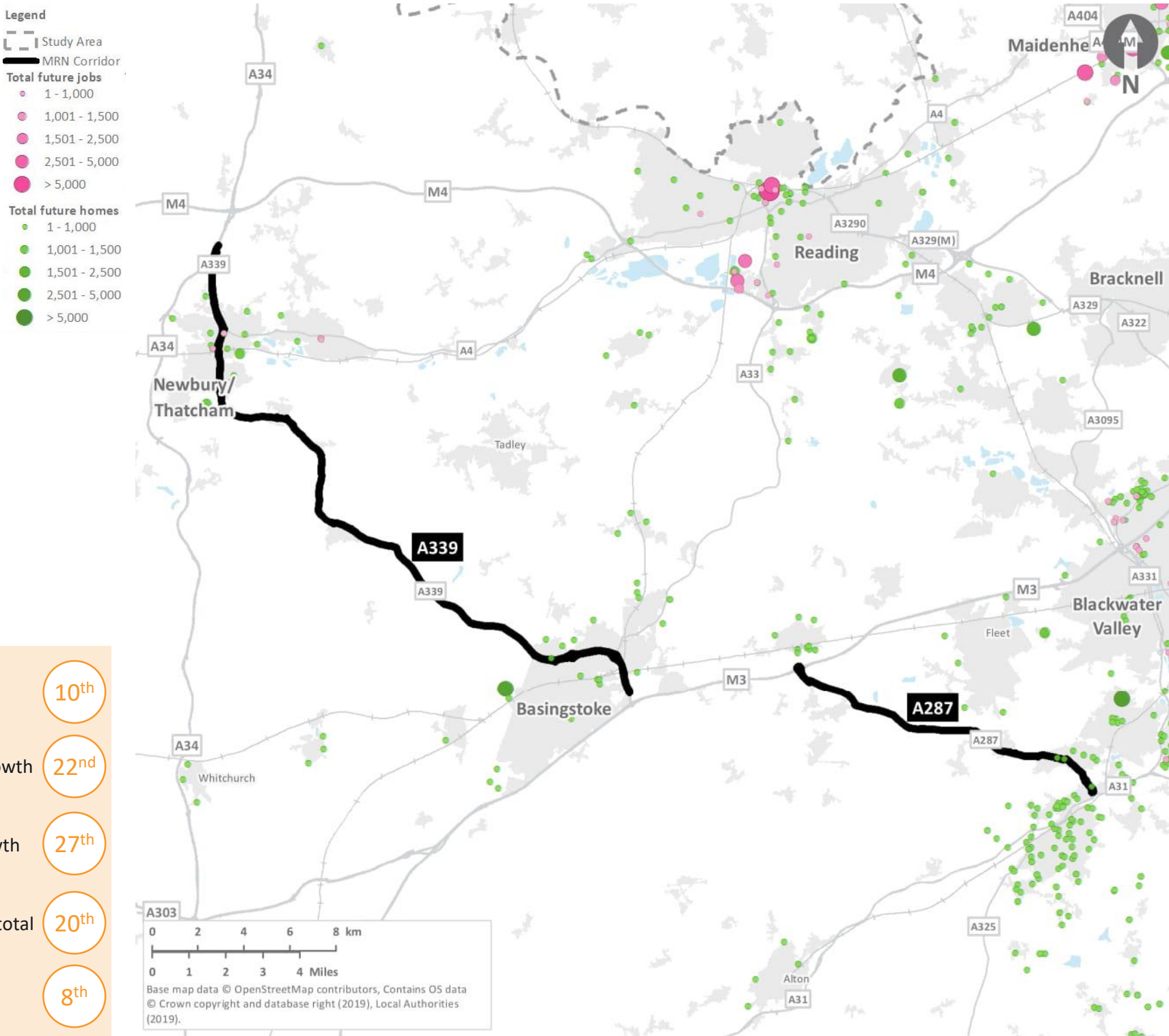
The priority industrial sectors on this corridor are:

- Aerospace and Defence;
- ICT and Digital Media; and
- Pharmaceuticals.

10% of jobs on this corridor are in priority industrial sectors, which is below average for the South East.

### Development

Housing development along this line will be concentrated in Newbury, Basingstoke and the Blackwater Valley. There is a particularly large cluster of (relatively small) housing developments planned in Farnham (Blackwater Valley).



	Population (2018)	556,159		10 <sup>th</sup>
	Planned homes (2018 to 2035)	29,958	↑ 13% growth	22 <sup>nd</sup>
	Planned Jobs (2018 to 2035)	3,054	↑ 1% growth	27 <sup>th</sup>
	Priority Sector Jobs (2017)	25,410	10% of total	20 <sup>th</sup>
	Median earnings (2018)	£35,199		8 <sup>th</sup>



## Social Context

### Deprivation

There are small pockets of deprivation in Basingstoke, the Blackwater Valley and Newbury. That said, this Major Road Network corridor is among the least deprived in the South East area.

### Education

44% of the population is educated to National Vocational Qualification at level 4 or above, which is high for the South East area.

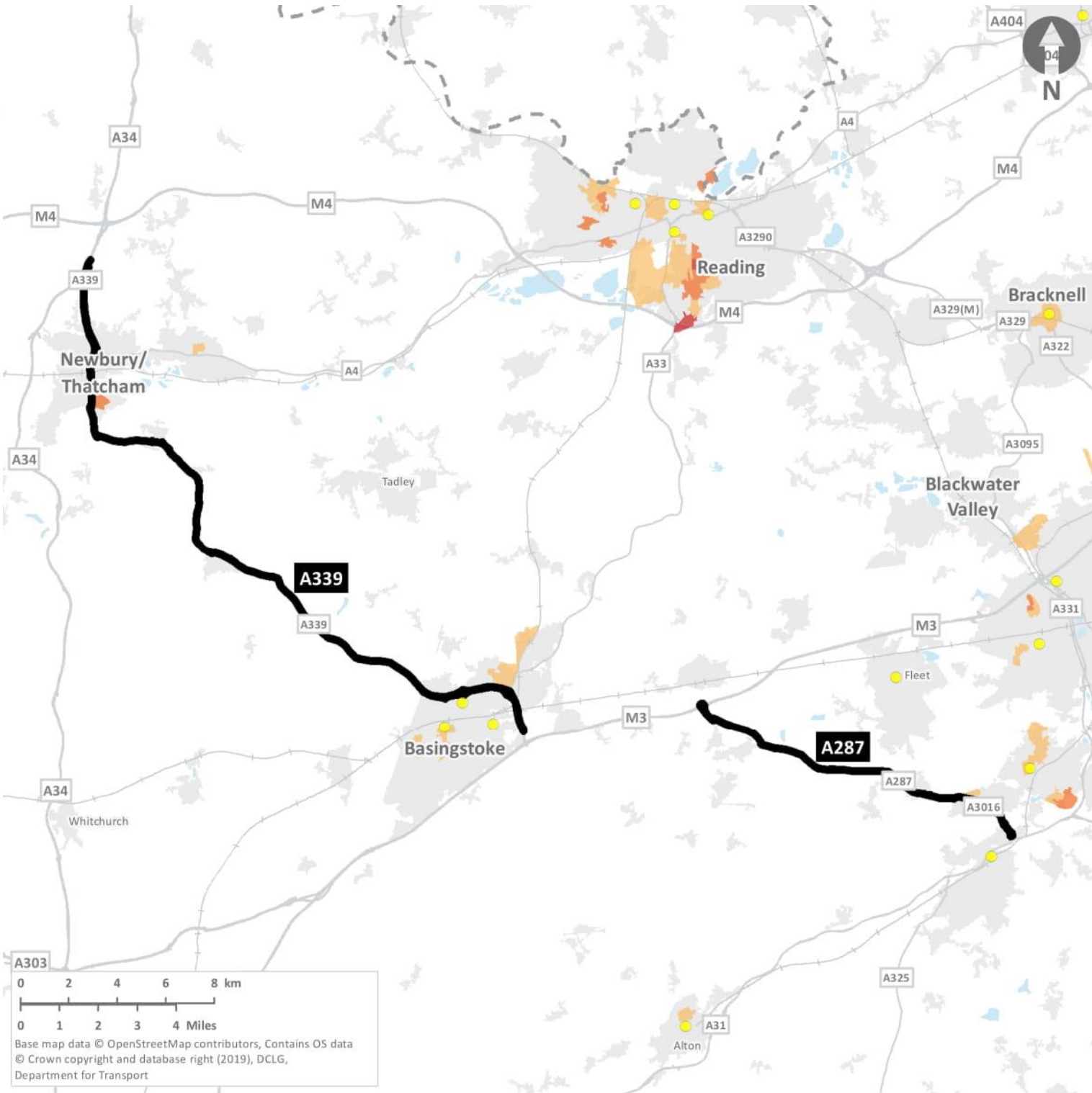
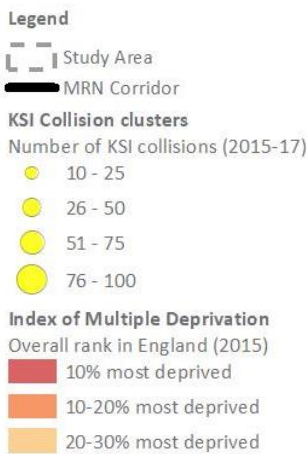
### Safety





There were several clusters of incidents resulting in people being Killed or Seriously Injured on this corridor during the period 2015-17, notably in Basingstoke and Farnham (Blackwater Valley).

It should be noted that some of the road safety data for this area is understood to be underreported, so the actual position may be more serious than presented on this map.

### Housing Affordability

Housing affordability on this corridor is below average due to high house prices in this area.



	Deprived areas (2018, England)	2%	28 <sup>th</sup>
	Highly educated population (2018, % NVQ Level 4 or above)	44%	11 <sup>th</sup>
	Average house price (2018, average of corridor's districts)	£368,625	9 <sup>th</sup>
	Housing affordability ratio (House price / earnings)	10.5	19 <sup>th</sup>

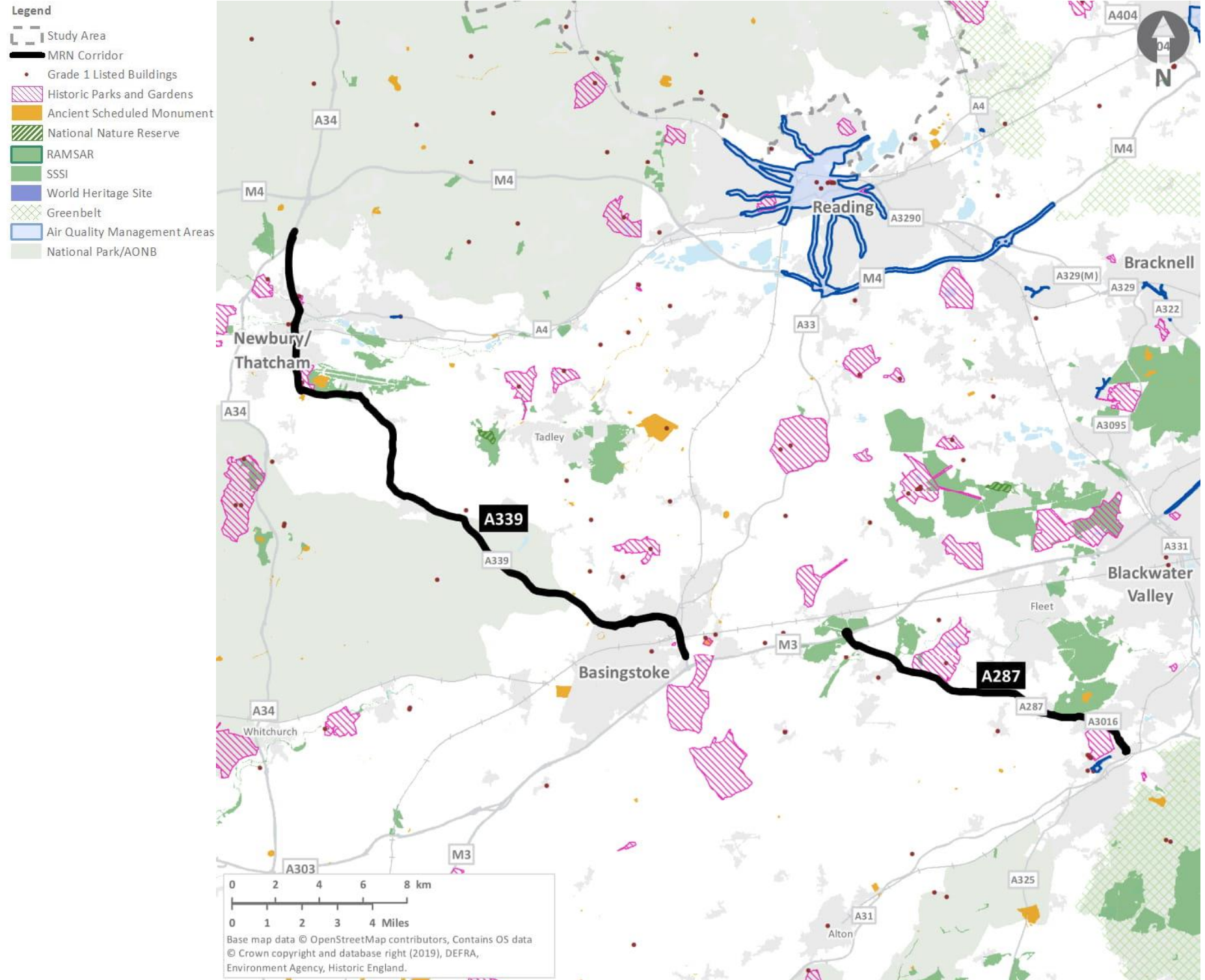
## Environmental Context

### Protected Areas

The western end of this route begins in the North Wessex Downs Area of Outstanding Natural Beauty and passes through the same protected landscape between Basingstoke and Newbury. The eastern part of this corridor runs through several Sites of Special Scientific Interest and historic parks and gardens.

### Air Quality

There are a small Air Quality Management Areas just off the south eastern end of the corridor in Farnham (Blackwater Valley).





# A287/A339 (Farnham – Newbury)

IO11

## Highways

### Demand

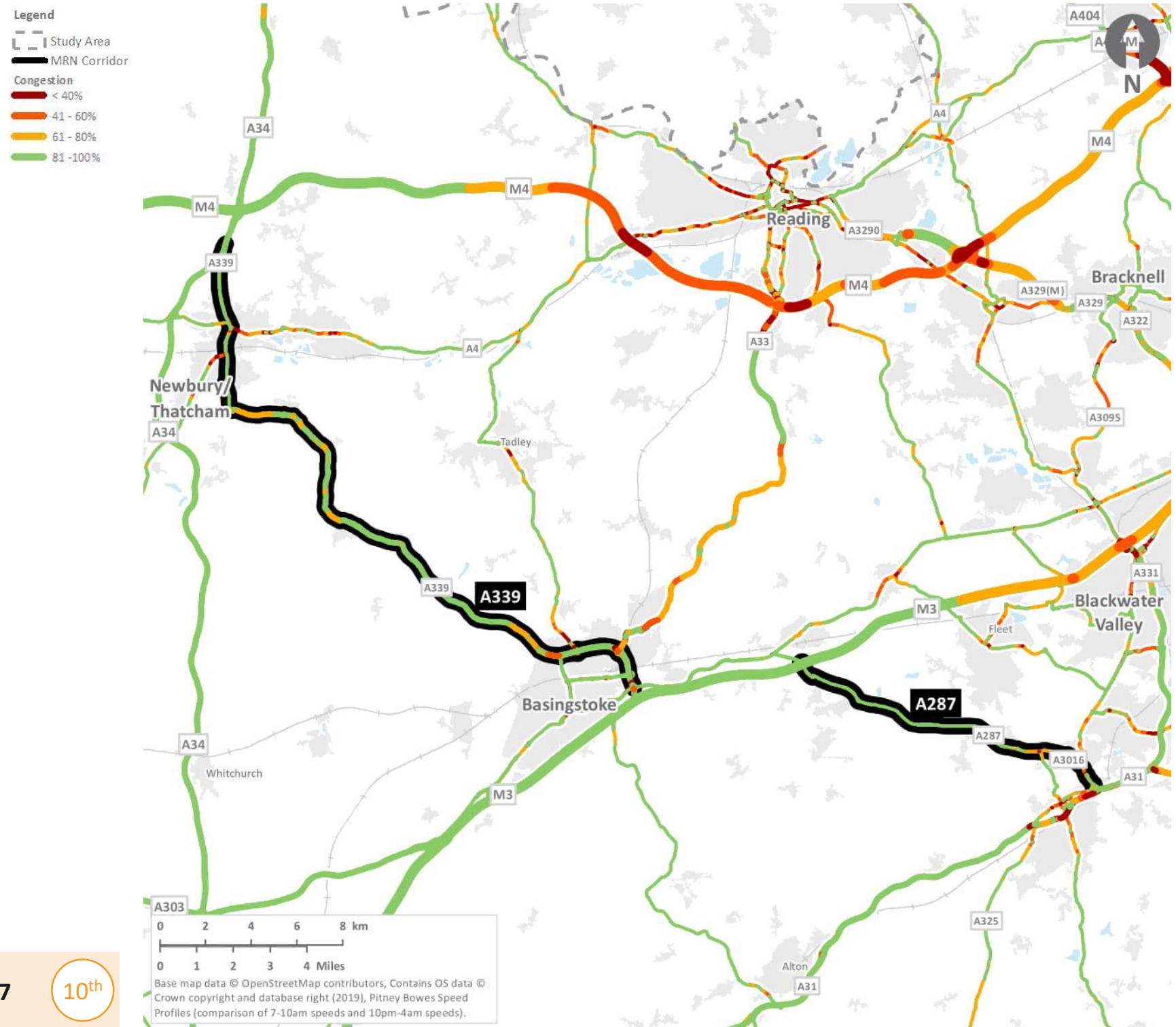
It is estimated that this corridor carries 2,597 vehicles per hour on its busiest section during the AM peak.

### Issues and Opportunities

The Major Road Network on this corridor generally performs well. There are some areas of congestion at junctions on the A339, where average traffic speeds during the AM peak fall below 60% of free flow speeds. There is a risk that congestion will worsen when new housing developments (particularly in the north of Basingstoke) come on line.

### Enhancements

Surrey County Council is developing plans for a Large Local Major scheme at **A31 Hinkley's Corner**, which will provide an underpass to separate the A31 through traffic from local traffic. This may have knock on benefits for the A287.



Peak hour highway demand  
(Vehicles/hour on busiest section)

2,597

10<sup>th</sup>

Steer

28-32 Upper Ground

London SE1 9PD

+44 20 7910 5000

[www.steergroup.com](http://www.steergroup.com)

[marketing@steergroup.com](mailto:marketing@steergroup.com)

steer