

A Major Road Network for England Report Summary

A Rees Jeffreys Road Fund Study







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We need a clear focus on the roads that matter most

Roads are vital to the economy and for mobility to support quality of life. They account for 89% of all personal travel – by car, bus, coach, cycle and motorbike - and 86% of all inland freight movement.

England's economy – nationally and regionally – needs a designated, coherent network of major roads with a good geographical coverage. They must be fit for purpose to meet the needs of business and society – an economic backbone for the country.

The Strategic Road Network (SRN) of motorways and trunk roads run by Highways England carries a third of the nation's traffic on only 2% of the road mileage. But this vital 4,200 mile network does not on its own comprise all the 'strategic' roads that matter in supporting regional economies.

We have identified another 3,800 miles of roads that are missing out: the 'strategic' local authority-controlled 'A' roads – also heavily trafficked, especially with commercial transport, providing essential connectivity by filling the gaps in the SRN.

Together these constitute an 8,000-mile Major Road Network (MRN) - carrying 43% of England's traffic on 4% of its roads.

The Rees Jeffreys Road Fund has, since its inception in 1950, provided support for education and research in all forms of transport. It helps to fund projects that improve safety, the roadside environment and rest facilities for motorists and other road users.





The Major Road Network needs a consistent approach to planning, regardless of ownership

The Major Road Network's roads are controlled by some 150 local highway authorities, along with Highways England. No change in responsibilities is required; it makes sense to avoid upheaval, and to retain local authority control for major roads embedded in their communities.

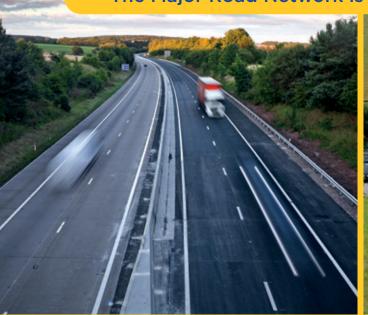
But to fulfil its potential in supporting the wider economy, the Major Road Network has to be planned, managed and funded in a consistent way.

This would mean the local authority Major Roads having the same planning and funding certainty as Highways England has for the Strategic Road Network.

It needs strong collaboration between local highway authorities and Highways England on a regional basis to manage and develop the Major Road Network.

The emergence of the new sub-national transport bodies (STBs) – part of the devolution agenda across England – should make this collaboration easier and more effective. The MRN is a natural focus for an STB exercising its roads functions, as it provides broader connectivity than the SRN alone.

The Major Road Network is a more logical, integrated network of national and regional roads







The MRN has to serve its users well - and be more broadly fit-for-purpose

The Major Road Network needs to be 'fit for purpose' to deliver its potential - through the coming together of six essential components:

- fit for its users understanding their expectations for a decent and safe overall service, and setting out to meet them. The performance standards being aimed for - varying across the network by type of road - need to be clear to all;
- fit-for-purpose operational and asset management making the best use of capacity, keeping users fully informed and traffic flowing; and maintaining the asset condition in the most costeffective way;
- fit-for-purpose safety management the Network has to be safe. Predictive risk assessment should increasingly be used to target safety measures and make the road infrastructure more forgiving;
- fit for the communities it passes through and for the
 environment addressing the adverse impacts from noise,
 air pollution, severance and visual intrusion; and integrating
 mitigation measures into the ongoing management of the road;









- **fit for the urban context** The Major Road Network has more roads through towns and conurbations than the Strategic Road Network alone. So it's all the more important to deal with the risks faced by vulnerable road users, to tackle conflicts between 'movement' and 'place', and to fit in with the wider, multimodal transport policies that are needed to make larger urban areas work.
- a fit-for-purpose planning regime assessing performance against service level aspirations. Where there are deficiencies in the service that can be offered, the network operator should lead on value-for-money proposals for improving those sections of route. It also provides for integration with spatial and economic planning.

So the Major Road Network will be a dynamic concept, evolving in extent and quality, as needed, to maintain service levels.

These requirements for making a Major Road fit for purpose could be expressed in a high level Code of Practice, developed in collaboration by all the network operators; much is already reflected in Highways England's licence conditions and performance targets.

The MRN highlights the principles of roads supporting the well-being of users and wider society as well as economic growth.







The Major Road Network concept can overcome the growing divide between the SRN and the rest of England's roads

The contrast in the planning and funding regimes between the Strategic Road Network (SRN) and local roads is now stark.

The Government has committed to investing more than £70 billion in transport infrastructure to drive economic growth. £15 billion of this is to be spent on the Strategic Road Network up to 2021. 'Roads reform' is a new regime that gives the network's new

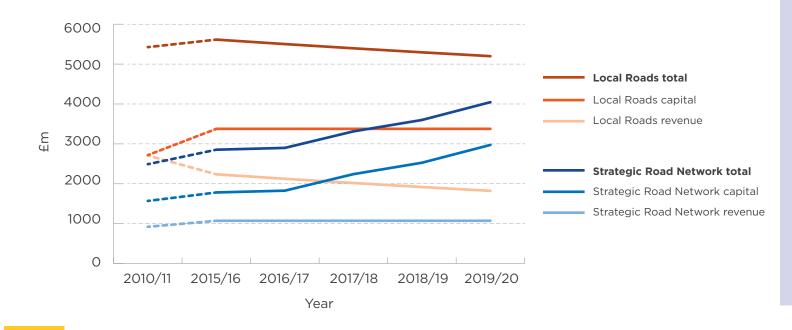
operator, Highways England, planning and funding certainty to deliver successive five-year investment plans. That's accompanied by targets for user satisfaction, network performance and condition, and scrutiny from a quasi-regulator.

There is no equivalent to this agenda for local highway authorities, responsible for 98% of England's roads. They have had

to cut road maintenance as part of the government's austerity programme, and face complex capital funding arrangements - without sufficient certainty of comprehensive five-year commitments

Greater maintenance backlogs exist on the local authority road network than on the SRN, and the quality of service to users is generally not as good.

Current and forecast capital and revenue expenditure (£m) for the Strategic Road Network and all local roads



Under the Major Road
Network concept, the
benefits of the Highways
England planning and
funding regime could
be extended to the local
authority Major Roads.
This would include fiveyear planning and funding
certainty, and targets for
network performance and
condition as well as user
satisfaction.



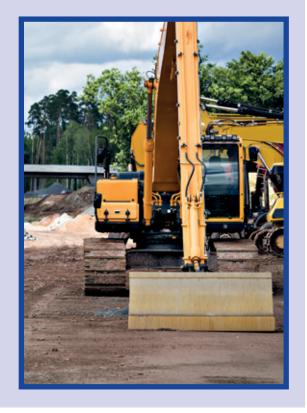
Broadening the scope of the proposed National Road Fund would be one way of addressing the funding gap

From 2020, it is expected that 'strategic roads' will be funded from a National Road Fund, with income from Vehicle Excise Duty (VED) receipts in England – a real breakthrough, moving back towards the principle of users paying for the service given.

The stability and certainty provided by a National Road Fund (NRF) should improve the efficiency and delivery of road investment on the SRN. If the NRF were to be used to part-fund local authority Major Roads as well, it could work much more effectively. Those paying VED use local authority roads at least as much as the Strategic Road Network, and can't tell the difference between them.

On certain assumptions, there should be headroom in the Fund after meeting Highways England's commitments, enough to make a real difference to the funding of local authority Major Roads. And, as long as this were additional to local authorities' existing revenue sources, it would free up resources for them to tackle the deteriorating condition of their minor roads.

Whatever approach Government decides to adopt, MRN status provides a more objective basis for targeting investment on the roads that matter most for the nation's economy.







The impacts of new technologies can't readily be predicted - but there are opportunities to be seized

Sustaining a fit for purpose Major Road Network over the longer term must involve making the most of the huge potential from exploiting new technology developments.

Technological change is already transforming the travel and transport landscape – with profound impacts in the future for Major Roads and how they are best managed and maintained. People and firms are making journey decisions differently, and will be facing new choices about the use of private and public transport. Traffic on a more data-enabled MRN can be managed to improve performance and user satisfaction.

While modest levels of vehicle automation are rapidly penetrating the market and beginning to deliver safety benefits, the prospects and timescales for higher levels of vehicle automation remain uncertain. Government is leading regulatory reform and supporting

technical development to facilitate real-world trials. Current expectations may be optimistic just now: but operators of the Major Road Network need to be able to gear up for them, given the potential gains in capacity and safety over the longer term.

Our framework allows the Major Road Network to exploit the inherent flexibility of road transport to adjust to changes in usage as they evolve.





Rising demand is the other big long-term challenge - with no easy solutions

England's population is set to grow by 19% to 2040 – and the Government forecasts that, with a growing economy too, overall traffic levels are likely to increase in the range 19-55% above 2010 levels. Whilst new technologies will provide some relief through better use of network capacity, more highly automated vehicles may also be part of the problem by stimulating demand.

In any case, forecasting future traffic levels has become more challenging. Recent trends in personal travel behaviours and attitudes aren't easily understood, particularly in respect of city journeys, which play a bigger role on the Major Road Network than on the SRN. Traffic volume may grow more slowly on urban roads, but the demands placed on them will increase as we expect a better environment as well as more mobility. Outside cities, on the MRN, growth is expected to be greater over the next 25 years.

So across the network, demand for travel on Major Roads seems set to increase at a faster rate than capacity can be affordably and acceptably increased. More congestion is likely to result, increasing the hours in the week when traffic is delayed and road conditions disrupted. In time this will strengthen the need to consider some method of demand management.

The congestion problem is not going to go away in the longer term, and neither will technology let us off the hook.





Collaboration between highway authorities is the key to making the Major Road Network work. Current devolution initiatives such as sub-national transport bodies can make this more effective

More collaborative network management across the MRN in an area will enable better responses to incidents and other disruption, and provide the basis for a more resilient service. And cooperation on network planning is essential too.

Highways England's Route Strategies, set to determine the next phase of SRN investment from 2020, should adopt a broader network approach to planning and analysis. They need fully to embrace local authority Major Roads, ensuring a wide range of options are addressed to find the best solutions to network congestion problems – irrespective of ownership.

Collaboration on network planning should be more effective where devolution mechanisms such as sub-national transport bodies (STBs) and LEPs are present. Alongside them, combined authorities (CAs) for the major conurbations like Greater Manchester are already designating their own Key Route Networks, which are more extensive than the MRN in their area. We envisage a three-way partnership would emerge to ensure coordination of Major Roads strategy across an entire STB area. This would bring together the CAs holding responsibility in their areas for the MRN links that are part of their Key Route Networks, Highways England for the SRN part of the Major Road Network, and the STB overseeing connectivity across its whole area as well as leading the planning of county links on the MRN.

Where there is neither an STB nor a combined authority, the LEP, or an appropriate grouping of local authorities, could provide an effective basis for regional transport planning.

There is appetite already from Highways
England to work across boundaries with
these new players; but designating the Major
Road Network brings the structure needed
to define responsibilities more clearly.











Next Steps

The Major Road Network provides the framework to refocus effort and investment in roads so as to better support the economy and meet England's needs. It brings together the most important 3,800 miles of local authority 'A' roads alongside the 4,200 mile Strategic Road Network. We suggest that:

- Government, Highways England and local authorities embrace the concept of the Major Road Network and its rationale – and that it be adopted for their areas by the new STBs.
- Highways England and local authorities take on the task of collaboration on a network basis, on planning, management and operations - with government incentivising this into the next decade
- Government consider if a National Road Fund, when established, could part-fund qualifying expenditure on local authority parts of the Major Road Network

Without the MRN gaining acceptance, the major investment in roads that is planned risks being too narrowly targeted. It may not be sufficiently focused on the whole network of major roads that meet the needs of users and support economic growth at a regional level.

In this report we present a toolkit for planning and delivering a better service from our major roads that more closely matches the needs of users and communities. It would be for the responsible authorities to develop from this a detailed blueprint for the development of the Major Road Network.







The **Rees Jeffreys Road Fund** has since its inception in 1950, provided support for education and research in all forms of transport. It helps to fund projects that improve safety, the roadside environment and rest facilities for motorists and other road users.

This study has been overseen by a Steering Group drawn from the Trustees, comprising David Bayliss, Stephen Glaister and David Tarrant, and chaired by David Hutchinson. For further information, please see www.reesjeffreys.co.uk

The study has been led by David Quarmby, with Phil Carey as co-author. Sanjay Rana provided GIS expertise, and the study administrator was Frances Leong.

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This is a summary of the Study Report: "A Major Road Network for England". A digital version of the Study Report, and of this Report Summary, may be found at www.futureroadsengland.org and at www.reesjeffreys.co.uk/transport-reports.