Getting there: How sustainable transport can support new development
1 Introduction

Why should new development be based around sustainable transport?

Places that are good to live and work in have good transport. But attitudes are changing on what good transport means.

Since the Second World War, much new domestic housing has been characterised by low-density sprawl. In the last 40 years, new out of town and edge of town business and retail developments have sprung up by the side of main roads. The result has been increasing car dependency, congestion, degraded natural and built environments, and declining high streets.

The rhetoric from some quarters is that these patterns are unavoidable. As this report shows, this is not the case and there are encouraging signs that challenge this view. Plans for house building can encourage well-connected high density communities where walking and cycling are the norm. Efforts to revive the high street need not be boiled down to loosening of parking restrictions, but in plans for thriving, attractive and accessible public spaces where people want to be. Development that supports jobs doesn’t have to be a faceless out-of-town development surrounded by a huge car park, but can be a regeneration project where people arrive via high-quality public transport networks.

Movements such as smart growth and new urbanism have long argued that a more sustainable approach to development can support the economy, increase choice, aid community cohesion and offer affordability.1

Copenhagen, Hamburg and Vienna are among the European cities pioneering denser development with better public transport, excellent support for cycling and walking, and a stronger focus on sustainability and low-carbon growth.2

Such ideas are gaining traction here, too. Local authorities are increasingly taking an imaginative approach to planning and development. Using examples and initiatives from across the country, this report argues that it is possible to base new development around public transport, walking and cycling, and that doing so can support the economy.

The report begins by looking at examples of how spatial planning is facilitating imaginative and sometimes extensive sustainable transport projects as part of the planning process at strategic and local plan level. The report then details examples of where sustainable transport is supporting economic development both in revitalising existing town and city centres, and as an integral part of new business and retail developments. It then looks at housing, presenting examples of good practice in both new developments and in regeneration. Finally, recommendations are offered on how the good practice already going on can be made more widespread.

By planning sustainable transport options as an integral part of development and regeneration from the start, this report aims to show how getting transport planning right can lead to healthier, happier and more economically productive places where people have a genuine choice about how they get around.
2 Policy and tools for delivery

This section identifies how the principle of sustainable development is supported in both national and local transport policies. It then highlights the difficulty many authorities have in transposing these principles into development on the ground before looking at the tools which can be used to help steer development to the most appropriate locations and support sustainable transport.

National level

The need for transport to contribute effectively to sustainable development has long been established. In the last Parliament, the 2011 Local Transport White Paper (Creating Growth, Cutting Carbon) made clear the importance of the relationship:

“Land use planning is critical to transport. Where places (e.g. shops, work and other services) are located in relation to where people live is a significant factor in determining how much people need or want to travel. It is vital that sustainable transport is a central consideration from the early stages of local planning – for example whenever new houses or retail areas are being developed.”

First published in 2012, the National Planning Policy Framework (NPPF) sets out the Government planning policies for England and provides guidance for local planning authorities in drawing up plans and making decisions about planning applications.

Local plans

Local Plans are described by the NPPF as being “at the heart of the planning system.” They contain much policy which is an essential part of sustainable transport, including a framework for future development in relation to housing, the economy and infrastructure. They are also a critical tool in guiding decisions about individual development proposals.

The NPPF is clear that new development should support, and be supported by, sustainable transport. Using the Framework and the supporting Planning Practice Guidance (PPG) and its predecessors, the majority of district-tier local authorities have adopted local plans with policies which support public transport, good walking and cycling facilities, reduced car use and a high quality public realm.

Planning Practice Guidance (PPG) provides guidance on how the Local Plan should be developed, and how the plan should seek to mitigate negative impacts from development:

1. In the development of the plan:

“The transport evidence base should identify the opportunities for encouraging a shift to more sustainable transport usage, where reasonable to do so; and highlight the infrastructure requirements for inclusion in infrastructure spending plans linked to the Community Infrastructure Levy, section 106 provisions and other funding sources.”

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Safe and suitable access to the site can be achieved for all people; and improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.”

The NPPF is also clear on the need for development to be located where impacts from transport can be minimised:

“Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised.”

For individual developments which generate significant movements of people, the NPPF sets out the role Travel Plans should play:

“Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to – accommodate the efficient delivery of goods and supplies; – give priority to pedestrian and cycle movements, and have access to high quality public transport facilities; – create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones; – incorporate facilities for charging plug-in and other ultra-low emission vehicles; and – consider the needs of people with disabilities by all modes of transport.”
2. Mitigating negative impacts of development

“Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements.”

“Travel Plans, Transport Assessments and Statements can positively contribute to:
– encouraging sustainable travel;
– lessening traffic generation and its detrimental impacts;
– reducing carbon emissions and climate impacts;
– creating accessible, connected, inclusive communities;
– improving health outcomes and quality of life;
– improving road safety; and
– reducing the need for new development to increase existing road capacity or provide new roads.”

In the capital, Transport for London’s PTALs (Public Transport Accessibility Levels) is used to assess the acceptability of a development from a transport perspective. This is done by calculating the time and cost of getting to specific destinations by means other than public transport, and then comparing the benefits offered by adding a public transport option to cater for these needs.

The principles which should shape development to maximise the use of sustainable transport modes have been considered in detail. They relate to a number of factors including:
• the area in which development is located
• the location of the development in relation to the wider settlement and the road and public transport networks
• residential densities in the development
• the availability of local jobs, services and amenities and the mix of uses within the development
• neighbourhood and street design
• the use of travel demand management tools including car parking standards and strategies.

Example: Black Country Core Strategy

The Black Country Core Strategy shows how sustainable transport can be pursued strategically through the local plan process. The Black Country Core Strategy was adopted by Dudley, Sandwell, Walsall and Wolverhampton in 2011. It sets out a strategic set of priorities and approaches to underpin the development of their area to 2026.

The strategy aims to support high quality development sites for employment, housing, retail and leisure based on strategic centres and ‘regeneration corridors’. It identifies significantly increased support for public transport as a key element in achieving this.

All new developments are required to provide adequate access for all transport modes with priority being given to improving transport in key corridors through a ‘Smarter Routes’ initiative based on improving public transport, traffic management and better facilities for cyclists and pedestrians.

Commuters are identified as a particular target, with efforts focusing on shifting workers from the roads to sustainable modes. Elsewhere, strategic support is given to moving more freight by rail and waterways.

The document also sets out key transport infrastructure priorities, some of which are shared with Birmingham’s Mobility Action Plan (see page 11), and include:
– Extending the Midland Metro to connect main centres to each other and to Birmingham
– Delivering a Quality Bus Network across the Black Country
– New freight railways from Stourbridge to Walsall and from Walsall to Lichfield

Example: Gloucestershire Local Transport Plan

The Gloucestershire Local Transport Plan runs from 2011 to 2026 and sets an overall aim of “Providing a safe and sustainable transport network within Gloucestershire”.

The plan includes two objectives which relate to sustainable transport and new development:

“to provide a financially sustainable network that is a realistic alternative to car travel as well as being a safety net for those who do not own or cannot use a car.” and to “promote walking, cycling, public transport and carsharing (‘Smarter Choices’ and ‘Active Travel’)

“Evidence suggests that ‘Smarter Choices’ are more cost effective at meeting the LTP goals than other measures, especially to reduce CO2, improve health and quality of life and also to reduce traffic congestion by taking short trips off the network.”

For new development, actions to meet this objective include:
– “Require developers to submit and fund travel plans for their new sites;
– Work with appropriate partnerships to resource travel planning support for businesses;
– Encourage employers to sign up to the Cycle To Work Guarantee, including offering incentives to encourage staff to cycle to work;
– Support funding bids to improve cycling infrastructure, especially to schools and employment sites;
– Use developer funding to kick-start a car club in Cheltenham to link to the Gloucester Car Club.”
Tools such as PTAL and traffic light grading (see below) show that it is possible to shape developments so that sustainable modes of transport can become real options and people choose to use them rather than drive.

**Local Transport policy**

Local Transport Plans were introduced by the Local Transport Act 2000 and are currently in their third iteration. All top tier local authorities in England and Wales are required to have a Local Transport Plan, transposing the principles set out in national policy into local objectives. This shows the tools each local authority intends to use in moving toward a more sustainable transport network.

Local Transport Plans are produced by top tier authorities. Current iterations were agreed in 2011 and many run to 2030. They include an assessment of existing transport patterns and trends, and targets such as supporting economic growth including the provision of housing, reducing carbon emissions, promoting equality including access to employment and services, and contributing to better safety and health, including air quality and active travel.\[^{1,2}\]

In common with Local Plans, many Local Transport Plans include strong, clear statements supporting sustainable transport, but it can be difficult to make these a reality.

**Example: South Yorkshire’s traffic light grading of development sites**

The Sheffield City Region Transport Strategy defines sustainability as "when our towns, communities and transport system can work in a stable way for many years, without causing pollution or other damage.”\[^{3}\]

The strategy considers it important to prevent dependency on the private car, by ensuring that attractive public transport as well as walking and cycling links are in place, supported by incentives to use them.

The South Yorkshire Passenger Transport Executive has developed a traffic light classification system known as LUTI (Land Use and Transport Integration).\[^{4}\]

This scores development sites according to their accessibility by public transport to assist developers in ensuring that sites are well served by public transport or, if not, that the necessary provision can be made:

- **Green sites** are those located within acceptable distance of the core public transport network (defined as 400m from a bus stop or 800m from a train or tram service). These are suitable for high density development.
- **Amber sites** are located partly within an acceptable distance and may require intervention to ensure they are accessible by public transport.
- **Red sites** are entirely outside the acceptable walking distance and are likely to require intervention to improve access to public transport and allow development to proceed. Intervention could mean diverting or enhancing a public transport service or providing a new one and the developer could be required to fund such an improvement at least for an initial period.

In addition all sites should be designed to facilitate travel by public transport, walking and cycling. Mitigation measures may be required to minimise any adverse impact of the development on the transport network.

**Conclusion**

National guidance and the large majority of Local Plans and Local Transport Plans feature strong, positive language in support for sustainable transport. As the examples in this report show, by combining this emphasis with tools such as a planning traffic light system, development which favours sustainable transport can result.

By integrating sustainable transport and planning, and ensuring local authorities have the skills, confidence and powers to base development around sustainable transport, less car-based development can be achieved.

However, while the strategic intention is good there are still barriers which need to be tackled if such development is to become the norm. Despite some positive examples, there is a dissonance between the stated intention of both national and local policy, and development on the ground. The reasons for the inability of authorities to turn their planning policy rhetoric into practice include:

- The split of responsibilities under the two-tier system where the Local Plan is produced by one authority and the Local Transport Plan by another.
- Culture and experience of many council staff and members concerning sustainable transport. For example, perceived difficulties of dealing with the rail and bus industries, and the fear of having to subsidise public transport services, belief that developers want roads, overstatement of how much development users wish to travel by car, and the impacts of recent relaxations in parking standards.

- Current modelling systems which reinforce past trends and lack of objective led methodologies, for example, modelling tools used by the professionals, such as TRICS and TEMPro.*

- Weak relationships between public transport providers and local authorities at the strategic level.

- Competition between local authorities to attract development.

These factors tend to conspire to undermine policies and strategies that are in principle pro-public transport and which offer people choice in how to get to and around new developments.

* TRICS and TEMPro are computer models used in considering future traffic levels. TRICS is a modelling package used to predict trip rates for different types of development. The TEMPro model is designed to allow detailed analysis of data from the DfT's National Trip End Model.\[^{5}\]
3 Economic development and transport

Revitalising existing urban areas

A strong national economy needs a flourishing network of local economies. But, as the New Economics Foundation and others have shown many high streets and town and city centres across the country are suffering long-term decline.

The last 15 years has seen the high street’s share of overall retail spending fall by 10 per cent and it now makes up just 40 per cent of money spent. Over this period, the shift in focus from the high street to out-of-town and edge-of-town retail developments has been relentless although this is now slowing up. The result is a tough operating environment where out-of-town retail has increased its share of sales. With pressure on high streets also coming from the internet, some argue that the way to respond is for councils to focus from the high street to out-of-town and edge-of-town retail developments which are also in direct support of local Business Improvement District plans for better connectivity for the Broad Street and Quinton areas of Birmingham. It is intended to lower road congestion by offering an aspect similar to a tram with on-board real time information, free Wi-Fi, low-level flooring and low emissions engines.

Outside London, large retail regeneration projects still tend to go hand in hand with large scale car parking. Yet research shows that in fact large numbers arrive by public transport, with the bus being particularly important. Research has estimated that those arriving at retail and leisure destinations by bus spend a combined total of £27.2bn each year of which £2.1bn is spent in town and city centres. The £4 billion 20 year vision was launched in 2014.

Birmingham Connected’s five core objectives are to provide sustainable support to economic growth, make good quality public transport accessible to all parts of the city, reduce pollution and carbon emissions, promote walking and cycling and improve the quality of the public realm.

In line with the Black Country Core Strategy (see page 6), projects to achieve Birmingham’s aims include establishing a network of rapid transit buses, extensions to the Midland Metro tram, the reopening of two suburban rail lines to passengers and the redevelopment of Snow Hill station to go along with work already under way at Birmingham New Street Station.

A £15 million bus rapid transit system known as ‘Sprint’ will initially run on dedicated road lanes between the Broad Street and Quinton areas of Birmingham. It is intended to lower road congestion by offering an aspect similar to a tram with on-board real time information, free Wi-Fi, low-level flooring and low emissions engines.

The scheme includes regeneration of the areas surrounding the station with 200,000 square feet of new retail space expected to bring up to 1,000 new jobs. As well as excellent rail links, the redeveloped New Street station and associated retail will be connected to an extended Midland Metro tram network, also currently under construction with a final completion date due in September 2015.

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Example: Liverpool One development

Liverpool One is a major retail, leisure and housing development in the centre of Liverpool. Completed in 2008, it was intended to reverse the decline of retail in the city centre.

Completed in four years at a cost of £920m and to coincide with Liverpool’s status as Capital of Culture, Liverpool One is regarded as one of the most complex retail developments undertaken in modern times.24

Liverpool One consists of 234,000 square metres of retail space split over 175 retail units, 3,250 square metres of offices and 500 residential apartments. This is supported by 3,000 car parking spaces and a new public transport interchange.

Its central location made transport provision a key consideration in Liverpool One. Although the development attracts significant numbers of visitors by car, it has also been successful in attracting large numbers on foot, cycle or public transport. Liverpool One contains a bus interchange where all main bus routes stop. It is also within walking distance of a number of railway stations.

In 2012, footfall at Liverpool One was of over 26m visitors.25 In 2013, Liverpool One’s car parks received 1.6m cars, while 14m passengers arrived in the city centre by bus during the same period and Liverpool One bus interchange saw a 66 per cent rise in passengers on the previous year.26

Example: Hull

Kingston upon Hull has made sustainable transport and improved public realm integral to initiatives to regenerate the city centre.

In 2007, a new £18m transport interchange was created to serve the city centre. A partnership between the City Council, Network Rail and train and bus operators, it combines a renovation of the city’s railway station with the building of new bus and coach facilities.

The new interchange is one of a number of initiatives to make the city more accessible. It is adjacent to the St Stephen’s shopping centre development, providing sustainable access to the large retail and leisure centre located in the centre of Hull.

The interchange has been central to sustained growth in bus passenger numbers - an important objective of the Local Transport Plan.29

It also lays some of the groundwork for the £25m regeneration of Hull city centre as part of the city’s status as UK City of Culture for 2017. This two-year investment programme includes a large pedestrianisation programme and other major improvements to the public realm designed to attract investment, fill empty retail space, and support tourism – something expected to be worth up to £70m in increased retail turnover.30

Public transport-based regeneration extends beyond retail developments. Wakefield’s Merchant Gate Development is a commercial office development located next to the East Coast Mainline. The scheme not only allowed Wakefield Council to relocate from an out of town, car dependent site to a more sustainable and accessible location, but also saw a new £8.6m station building opened in early 2014 with improved access, a new travel centre and additional retail space.37

Similar to the objectives behind Liverpool One, Coventry is currently developing a central 15 hectare site to revitalise its city centre. Friargate was granted outline planning permission in 2011 and is envisaged to attract new businesses to the city, creating up to 13,400 permanent jobs.

Rather than a greenfield or edge-of-town location, Friargate is located directly adjacent to the city’s main railway station. Sustainable access will be supported by rail links, new pedestrian routes across the city and improved traffic management to relieve congestion on nearby residential streets.28

It is clear that good accessibility and a high quality public realm are central to regeneration. Many towns and cities have been working to improve the offer that their high streets make in this regard. Much of this relies not on massive new building schemes, but small-scale packages of measures intended to transform existing places.
Example: MediaCity, Salford Quays, Greater Manchester

MediaCityUK is an 80 hectares (200 acres) development within the Salford Quays area of Greater Manchester. First facilities opened in 2007, with present tenants including the BBC, ITV and BUPA.

Salford Quays is situated on what was previously the Manchester Docks, which closed in the early 1980s. In 1983, Salford City Council acquired parts of the docks and began a large mixed redevelopment initially focused on residential. By the mid-1990s, it had become clear that the absence of good public transport infrastructure was holding back the development of the site.

Begun in 1997, an extension to the Manchester Metrolink was built to serve Salford Quays, with funding from Greater Manchester Passenger Transport Authority, the European Regional Development Fund and private developers. A £20m dedicated MediaCityUK Metrolink station was added in 2010 and formed part of a wider initiative to support sustainable access to Media City. In 2011, £380,000 was allocated by the DfT for a bus link between Media City, Salford Crescent railway station and Salford Shopping City.

Media City is connected to two National Cycle Network Routes, including Route 556 which offers a car-free journey between MediaCityUK and Manchester city centre along the Manchester Ship Canal and River Irwell River Park. Three hundred cycle racks are also in place around the Media City development.

Getting transport right can deliver big benefits in smaller places, too. When asked, a clear majority of people say they want a vibrant high street with a mix of national brands and local specialists. Mary Portas’s independent review into the future of the high street concluded that “In order to be places that people want to visit, high streets need to be accessible, attractive and safe.”

A suite of measures is needed to allow high streets to prosper. Many of these rely on integrated thinking about transport.

A Local Sustainable Transport Fund project in Telford Town Centre is removing congestion, supporting the economy and encouraging pedestrian and cycling access. The existing city centre ring road is being redesigned with reallocated road space, traffic control measures, a 20mph speed limit and shared space principles. This will contribute to regeneration of the town centre, significantly improved public realm and enhanced movement across the town centre for cyclists and those on foot, and an overall reduction in journey times benefiting businesses in Telford.

Blaenau Ffestiniog has suffered long term economic problems and falling population. A £4.5m regeneration strategy which was completed in 2012 focused on supporting local businesses and attracting investment. The town’s public transport links (the railway in particular) are being used to draw visitors into the town centre and to make walking and cycling more attractive. Numbers of passengers using the railway station more than doubled between 2006/07 and 2010/11 and have continued to rise since.

Driffield in East Yorkshire has improved accessibility and attractiveness of bus and rail. The Driffield Partnership represents public, private and voluntary sectors. The partnership is the main player in the delivery of a long-term plan for the town’s economy, the Driffield Renaissance Plan (2006–16).

After an assessment and public consultation, the poor environment around the train station was identified as one of five priorities to address. Subsequently, an area of unattractive advertising hoardings and portacabins was cleared to create a community garden adjacent to public transport facilities.

This is part of a wider move to improve the overall quality of the public realm. The Dusting Down Driffield initiative has also included action to ‘clean up grot-spots’, improve signage for pedestrians and cyclists and promote Driffield as a destination for rail users.

The DfT’s Local Sustainable Transport Fund (LSTF) has enabled local authorities to bid for funding to support a wide variety of sustainable transport projects. For example, South East Dorset’s successful LSTF bid has funded cycleways, walking and cycling schemes for schools and a car club.

Places with high quality public realm where walking is the norm (Cambridge and York, for example) have long seen the benefit of investing in excellent pedestrian environments. As Living Streets have argued, the quality of pedestrian access has traditionally been undervalued:

“Conventional transportation planning practices treat walking as a minor transport mode and recognise only modest benefits from improved walkability and increased walking activity … this is because walking is more difficult to measure, it is low cost (and, therefore, lower status) and because it is assumed that it will take care of itself.”

City centres which are choked with traffic do not attract people. Places which are easily accessible by public transport or bike, and easy to get around on foot coped much better with the recent deep recession. As a consequence, many local authorities who have prioritised investment in their high street to arrest its decline have prioritised improving sustainable access.

Nottingham, Manchester and Birmingham are putting investment in public transport, and in particular tram networks, at the centre of growth and regeneration plans. Exeter has used a combination of good architecture, good public spaces and access to all modes of transport to regenerate Princesshay area of the city.
Example: Nottingham tram extension

Nottingham's tram system (Nottingham Express Transit (NET)) has demonstrated the economic and regenerative benefits of investing in high quality public transport.

The 14km NET Line 1 opened in 2004. Research has shown the first NET line as contributing significantly to enhancing the image of Nottingham, aiding regeneration in areas adjacent to the line, and having a strong impact on nearby residential market prices both within the city centre and suburban areas.

Nottingham City Council's case for phase two of NET concluded that as part of integrated transport and planning policies, trams had delivered growth in public transport use and reduction in congestion and pollution, as well as assisting in maintaining economic competitiveness.

NET Phase two is currently under development and will extend Nottingham's tram system to the south and south west of the city, and increase the network to 51 stops from the current 24, allowing it to carry 23 million passengers annually, boosting the local economy by up to £300 million a year. 40

Nottingham is also using high quality public transport infrastructure to support its emerging business district. A new area of office accommodation is being established around the transport interchange known as the Hub, offering access to the main railway station (subject of a £60m refurbishment completed in 2014) and links to rail and NET office. 41

Out-of-town business and retail development

The promotion of development designed to attract investment, employment and retail has been a major focus of economic and planning policy in recent years. Transport infrastructure and, in particular, new roads have been at the heart of this, with HM Treasury setting out a £28 billion road-spending plan to 2019 which then-Treasury Minister Danny Alexander referred to as “The greatest investment in our roads since the 1970s”. 42

As former head of supermarket Iceland and high street campaigner Bill Grimsey has noted “The importance of quality urban design, public realm and transport connectivity should be a priority but is often an afterthought rather than the starting point for the design or re-design of a town centre or a high street. It is a critical issue in making the connections between people and places, movement and urban form, nature and the built fabric.” (Grimsey Review: An Alternative Future for the High Street.) 43

There is a wealth of evidence to show that town and city centre regeneration strategies are made more effective by the central early inclusion of public transport and cycling provision and investing in an enticing public realm and improving conditions for pedestrians helps footfall and increases spending.

As an example, the proposed Mill Green development in Cannock, West Midlands is based around 28,500 square metres of new retail space. Despite being under half a mile from Cannock railway station and under three quarters of a mile from Cannock town centre, the development proposal boasts of providing “ample car parking” with 2,000 spaces and extra lanes to be added to local roads to cope with numbers of cars. 44 The compatibility of such development with the sustainable transport principles set out in the NPPF is highly questionable and can be self-defeating with the generated traffic congestion undermining visitor attractiveness and hence the overall value of the development.

As the Town and Country Planning Association has argued “Edge- and out-of-town shopping, generally highly accessible by car but not by other modes, has contributed greatly to congestion, social exclusion, and environmental degradation. As such, retail policy needs to be better integrated with accessibility planning and the planning of people flows and movements for a full range of activities. In-town centres are more accessible by foot and public transport to a far larger number of people and social groups. Thriving town and district centres, with their location at the heart of neighbourhoods and their proximity to commercial and civic functions, create a sense of place in a way that edge- and out-of-town centres cannot.” 45

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Although many developments feature connections to bus routes, very few include sustainable access as an integral part of their design, but in some places progress is being made. Braintree Freeport is an ‘outlet village’-style retail development on the edge of Braintree in Essex. Opening in 1999 on a site adjacent to an existing retail park, the development included in its construction a new railway station intended to improve the sustainability of the development.

Braintree Freeport has 90 stores over a floorspace of 28,900 square metres, including a cinema, bowling alley and swimming pool. The station is served by hourly-stopping rail services. It is relatively lightly used, something not helped by the 1,500 free car parking spaces offered. Improved pedestrian and cycle access to nearby residential areas have been implemented with the expectation of improving use of the station.

Furthermore, the Meadowhall Interchange, serving the Meadowhall Shopping Centre to the north of Sheffield combines a railway station, tram stop, and bus station. The station was opened in 2005 between Castleford and Pontefract, on the line from Leeds and directly adjacent to the retail and leisure developments.

The station has been a significant success. Initial passenger journey forecasts were for around 50,000 annual entries and exits, but the most recent estimate put numbers at over 180,000. This is despite the station only being served by one train per hour in each direction, and the inclusion of 1,800 car parking spaces at Junction 32.

Research suggests that this discrepancy is due to the numbers of people using the station to access the leisure and shopping facilities, “no attempt was made to forecast demand for the nearby leisure complex. As a result the demand forecast was over 50% lower than observed demand – an oversight which could be critical in business case terms.” The area is also well-served by local buses.

At Glasshoughton in West Yorkshire demand for rail access has been underestimated, suggesting that where sustainable access is included, it can be well-used.

Glasshoughton is an area of Castleford in West Yorkshire. Built on the site of the former Glasshoughton Colliery, it includes a large outlet shopping development (Junction 32 – named after the junction of the M62) and a variety of leisure facilities including an indoor ski slope.

Glasshoughton railway station opened in 2005 between Castleford and Pontefract, on the line from Leeds and

In areas such as the Thames Valley, business parks have been the primary location of new office space since the economic boom of the 1980s. Here, over two thirds of the office space is new in out of town locations, often poorly served by public transport. But things are changing and there are signs of improvements in some areas. Reading’s Green Park business park, for example, has seen the percentage of employees arriving by car drop by around 10 per cent following the adoption of a green travel plan in 2001.

Plans for a Reading Green Park railway station were submitted by the Borough Council in 2015. Local planning requirements, corporate social responsibility and changing public expectations all play an important part in making such improvements the norm.

According to research carried out for Green Park, demand for access by car increases with age with those under 35 less likely to regard it as vital in choosing where they work. By contrast, all groups rate good access by public transport and cycling as very significant.

Charles Daddy of commercial real estate agents Cushman & Wakefield has said “The future is business parks like Chiswick Park in West London … [which is] able to offer large floor plates in a landscaped environment within walking distance of town centre amenities.”

Similar trends have long been seen in office space provision. Historically, business parks have made a major virtue of their connection to the road network, with many still using their location next to major arterial routes as a selling point to potential employers looking for an alternative to urban sites.

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Two business parks in the North East have challenged the notion that accessibility by car is the only thing that matters. Both have made sustainable transport a key part of the on-going management of the park and have reduced the percentage of staff arriving by single occupancy car while increasing the number using public transport.

Example: Chiswick Park, West London

Chiswick Park is a Richard Rogers-designed development located on a former bus works in West London, five miles from the West End. The winner of multiple awards for its environmental management, Chiswick Park claims to be the first business park to balance “lifestyle, work, home, and the environment.”

Spread over 13 hectares (33 acres), it is made up of 140,000 square metres of office, retail and leisure space with space for 12,000 staff.

Although the M4 is only two minutes away, up to 75 per cent of those working at Chiswick Park arrive either on foot, or by bicycle, bus or train. Emphasis was put on the provision of good bus, tube and rail access. Crucially, the development offers tenants one car parking place for every 85 square metres of floor spaces – less than a quarter of that offered at other business parks such as Cardiff Gate in South Wales.

Chiswick Park offers a useful template for other business park developments. It combines a high standard of architecture and facilities with a location which makes access on foot, bike and multiple types of public transport easy. This is backed up by the provision of comparatively little car parking space.
Larger business parks with between 1 and 2 million square feet of office space housing 5,000-10,000 employees increasingly market themselves as self-contained communities. Many now combine offices with organised programmes of events, ancillary services such as hotels, restaurants, gyms, and landscaped green space.

Business in the Community report the percentage of people driving to work at Quorum reduced from 65 per cent in 2008 to 55 per cent in 2010.\textsuperscript{14} A very frequent bus service meant public transport use doubled from 19 per cent in 2008 to 38 per cent in 2012. EV charge points have also been installed at three locations.

Also in North Tyneside, the Cobalt business park is the largest business park in Britain. Begun in 1998, the site includes 1.7 million square feet of office space and could eventually house up to 18,000 employees.

The site was originally identified for development because of its close proximity to the A19, but connectivity has since been expanded to take in public transport and cycleways. An on-site travel centre was opened in 2006 and has since been successful in developing a comprehensive public transport network, including high-frequency bus services with over 600 bus services going through the park each day.

Other initiatives include a car-share network, staff cycle pool, discounts on Tyne & Wear Metro and local bus tickets and an on-line travel planning tool. Greener Journeys report that Cobalt achieved a 7 per cent shift away from single-occupancy car travel over a 3-year period.\textsuperscript{59}

Travel options are considered and discussed before tenants move into the park and regular surveys of employees are undertaken to better target transport initiatives.
This section looks at how new town initiatives can integrate sustainable transport, how additional rail services can be used to support new housing, and how measures like bus priority can be used to establish lower car dependency in new developments.

On its own, the provision of sustainable transport infrastructure is rarely enough to ensure sustainable travel habits. Houten in the Netherlands is a new town of around 50,000 people which has achieved and maintained very high levels of cycling. Over 40 per cent of journeys under 4 miles are made by bike.50 Over 40 per cent of journeys under 4 miles are made by bike.51

Houten has a high quality public transport system which offers a range of transport options. This has contributed to a significant increase in the proportion of journeys made by public transport. In 1998, just 6.7 per cent of journeys were made by public transport. Today, 22.3 per cent of journeys are made by public transport.52

Part of the reputation of British new towns is that they have become dependent on the car because they were designed to be that way. Stevenage shows that this is untrue, as well as demonstrating why they have become so. More recent experience of new towns such as Cambourne in Cambridgeshire show the importance of restraining car use and providing good alternatives.

Huntingdon and Cambridge. Begun in 1998, Cambourne is a new town located nine miles west of Cambridge and with a current population of 4,500. Built to cope with pressure for growth in the area, Cambourne was envisaged with high environmental standards, but weak public transport links and a shortage of local services have significantly undermined this objective.53

With 22,000 new jobs and over 38,000 new houses being planned in and around Cambridge by 2031, it was vital that transport lessons from Cambourne were learnt.54 Another new town planned for the area, Northstowe, is to be located on the nearby Guided Busway which runs between Huntingdon and Cambridge.

Although many conventional developments are coming forward which offer residents little choice but to rely on the car, there is also an increasing number where connections to high quality public transport are considered integral to the viability of the development. This trend should be harnessed by both local authorities and developers.

But while Houten maintained and updated its infrastructure, giving cyclists right of way over cars on residential streets, Stevenage has failed to update its facilities and only 2.7 per cent of journeys are now by cycle. Carlton Reid, author of Roads Were Not Built for Cars, has argued that the downfall of cycling in Stevenage was the absence of any restraint on car-use. “[In Stevenage] Dutch-style cycling infrastructure did not entice many residents to switch from cars to bikes. Walking was rejected, too. Where driving is easy, Brits drive.”55

The push for new Garden Cities has similarities with the previous Government’s proposals for ‘eco-towns’. Intended to be self-supporting, carbon neutral (although this did not extend to impacts from transport) developments of between 5-20,000 homes, standards for eco-towns included:

- At least 50 per cent of trips to be made on foot, bike or by public transport
- A minimum of one job per house can be reached by walking, cycling or public transport,
- All transport infrastructure and services to be in place when the first residents moved in
- Ultra low carbon vehicle options
- All homes to be located within ten minutes’ walk of frequent public transport and neighbourhood services

Eco-towns attracted much criticism including significant local opposition. The Planning Policy Statement on Eco-Towns was dropped with the introduction of the National Planning Policy Framework (NPPF) in 2012. Subsequently, only one of the original 17 proposed developments is going ahead in its original format – North West Bicester (see page 30).
Devon County Council has pursued a policy of encouraging new developments in ways that give those living and working in them choice in how they travel. A twin track policy of encouraging new developments near existing public transport links and of upgrading those links has marked out the county from others which have tended to locate development around roads.

The Devon Metro scheme is supporting Exeter’s growth with enhanced rail services. Exeter already suffers road congestion at peak times, but with around 25,000 houses and 20,000 jobs predicted in the area over the next 15 years, significant investment in public transport is required.

Exeter is well served by rail with eight established stations. The Devon Metro aims to build on this strength by creating new stations to support new housing developments and major employment areas and improving rail services and timetabling to meet demand. As set out in the Devon and Torbay Local Transport Plan 2011 – 2026, new stations and services can be developed using existing track and rolling stock, offering a relatively low-cost, high value transport option.

The County Council can also draw on experience in arguing that rail patronage will increase with the introduction of new stations and more frequent services. Digby & Sowton station opened in 1999 serving the large employment and housing areas nearby. Passenger numbers increased nearly six-fold between 2003/04 and 2013/14.

Four new stations are being developed with a fifth at nearby Torbay also planned. Cranbrook is under construction (due to open in Spring 2015) and will serve a new town of the same name. Newcourt is also under construction and will serve a recent major housing development. Marsh Barton will serve a major industrial estate on the west of Exeter and is expected to be operational during 2016, and Edginson (Torbay) is due to follow in 2017/18. There are also longer term plans for two further stations, further embedding the importance of rail to the future transport needs of the area.

Also in Devon, The Kilbridge Group (a specialist infrastructure developer), is well advanced with plans to re-instate the Bere Alston to Tavistock section of the Tavistock-Plymouth railway line allowing the whole line to re-open. The work is to be funded by the proceeds of a residential development of around 750 homes on land to the southwest of Tavistock. The scheme would have a local centre with a new station as its focal point and would adjoining sites for a proposed new school, hospital, extra care housing and open space. Walking and cycling routes would be provided to the original town centre 1.5 km away.

The Transport Planning section of Devon County Council’s website states that reopening the railway line between Tavistock and Bere Alston “would provide a new, sustainable link between Tavistock and Plymouth for commuter journeys, help to minimise traffic on the A386, link Tavistock to the national rail network and also provide an alternative travel option for leisure, education and retail journeys.”

In addition the Council’s Connections From Tavistock to Plymouth, an Option Assessment Report found that “linking Tavistock to the national rail network will have a significant impact on the ability of the town to attract inward investment, economic and employment growth”. It concluded that none of the other seven options for improving transport to Tavistock “stood out as being as effective as Tavistock Rail in fulfilling local and strategic objectives, providing value for money and being as feasible and deliverable.”

It is clear that new development cannot and should not follow patterns which have predominated since the end of the Second World War. Well-known urban planners such as Peter Calthorpe have argued that we continue to build new suburbs on the assumption that families are large, that all jobs require the employee to be in an urban centre between 9-and-5, Monday to Friday, that there are no limits to land and energy, and that traffic congestion can be solved by building more roads. This is inappropriate for current and predicted future needs.

Bus links to new development have also been pursued. Cranbrook, referred to above, has a new bus link which saw 72% growth in the first year, over previous services, and 31% a year subsequently. The fares zones for Exeter have been extended to Cranbrook, bringing down fares by 20%.

Development of large detached houses
Example: Kilnwood Vale at Crawley

Kilnwood Vale is a development of around 2,500 new homes currently under construction as a western extension of Crawley.

As part of the development, local county and district authorities have worked with developers to support and promote sustainable travel with the aim of minimising the amount of traffic generated by the development.

The layout of the development is designed to promote bus travel. Of the three access roads into the development, two will be bus only, protected by rising bollards. The third access road has a bus lane to allow buses to pass any queues of cars on exit. There are also bollards. The third access road has a bus lane to allow development, two will be bus only, protected by rising bollards. The expectation is that additional sections will be added to as development takes place.

Purpose-built sustainable transport infrastructure in the form of busways and new road lanes and stations does more than provide new transport capacity. It also sends a strong message to new and existing residents about the permanence and long-term investment being undertaken. Separating public transport from the existing road network also supports the reliability of journey times and in doing so addresses barriers to changing travel behaviour.

A £100 travel voucher is given to all new households towards the purchase of a bicycle, bus season ticket or rail season ticket. The bus service was introduced when the development was still at an early stage and only a small number of residents in place. Developers have also paid to double services to the local centres of Crawley and Horsham, and for a new Sunday service to be introduced. Peak buses have been timed to connect with fast trains to and from London at Crawley station.

In the longer term, the plan is to operate 14 buses per hour to Gatwick at peak times, and 12 per hour to Crawley.

Example: Shawfair

Scotland’s first new town in 50 years, Shawfair, is being constructed on the outskirts of Edinburgh. It will feature a station on the re-built Borders Railway. Mooted since as far back as 1997, Shawfair is intended as a self-sufficient community. When completed, it will have 4,000 houses, three schools, and shopping and leisure facilities including 1m square feet of retail space.

Much of the transport infrastructure planning is conventional, and the adjacent business park makes much of its copious car parking. Importantly, however, the new town development is being arranged with the railway station at its centre and will offer a journey time to central Edinburgh of under 10 minutes.

The station will be in place and operating before the housing is complete, meaning sustainable patterns of mobility can be established as new residents move in. The first housing at Shawfair is due to be complete in 2015, with the first rail services beginning in the autumn of that year.

Example: Kent Fastrack

Kent Fastrack is a bus rapid transit service linking existing and planned developments around Dartford and Gravesend. Its development has been integrated into long-term plans for the area, with up to 50,000 new jobs and 30,000 more houses expected by 2030-2040.

Fastrack is intended to reduce reliance on the car among existing and future residents by offering short to medium length journeys to major destinations. It offers frequent services on high specification buses with real-time information and on-line and mobile ticket sales.

The first route started running in 2006 with additional sections being added to as development takes place. Existing services link significant destinations including the Darent Valley Hospital, Bluewater shopping centre and Greenhithe and Ebbsfleet International railway stations. Efforts to ensure a high quality service is maintained are exemplified by the decision to replace the original buses in 2015, as some will be up to nine years old by this time.

More than a quarter of Fastrack users have a car available for their journey. By its completion Fastrack is expected to extend to 25 miles (40km). Half of all routes will be on busways with a further 25 per cent segregated lanes. The expectation is that additional Fastrack infrastructure will be paid for largely by developers bringing sites forward.

Investment in new public transport infrastructure to support new development is not always viable. Here, alternative means of supporting behaviour change need to be employed. The DfT’s Smarter Choices programme has shown how effective ‘soft’ transport policy measures can be in encouraging alternatives to the car, combining improvements in the quality of public transport (for example, new and more frequent buses) with better information and support, most typically through travel plans.

Similarly, the DIT’s Local Sustainable Transport Fund (LSTF) supports Local Authorities in implementing packages of small measures in an area or to a transport corridor to improve transport. This includes projects to enhance the provision of – and information about – transport choices, make cycling and walking easier and safer, and work with businesses, schools and leisure providers to help them tackle traffic and transport problems.

Overall, most LSTF projects give excellent value for money, with Benefit-Cost-Ratios of up to 8.5 to 1. For example, Nottingham’s Job Seeker Kangaroo card scheme supports
By September 2013 sales of the jobseekers’ Kangaroo ticket averaged 32,000 per month, enabling job seekers to take 1.1 million public transport trips over the 12 months to March 2014. A review of the scheme showed that 17 per cent of Job Seeker Kangaroo Card holders had found employment and that the offer broadened travel horizons and expanded the areas where people were looking for work.82, 83

There are clear signs that the scheme is creating a shift away from car use, particularly among commuters to the station. A key target for transport at the new development was achieved early when a 20 per cent modal shift away from car journey levels predicted by standard transport modelling was met. New buses offering speedy, direct services operating up to 16 hours a day were launched in 2010. More passengers were carried on some routes in the first 10 weeks of operation than a previous service carried over 12 months.84

The challenge for the future is to take full advantage of the potential of information technology in changing travel behaviour. Government, transport operators, local authorities and developers must work together to use real-time information and journey planning applications as part of the planning for new developments.

Revitalising existing urban spaces

Lord Rogers of Riverside is among those who argue strongly that developing new towns is unnecessary and counterproductive. In supporting well-designed, compact urban development with good public transport connections, he compares the benefits that have accrued to city centres by redeveloping cites with good public transport connections (for example, London Stratford, Birmingham New Street, Manchester city centre) with new towns that generally exist as commuter dormitories.

For other large brownfield sites, a barrier to redevelopment for housing is often the absence of good transport access. As Transport for London and the London Borough of Barking have shown, by dealing with such problems in an integrated manner, they can be overcome.

The need to pursue developments not based around the car is particularly pressing in London. The Greater London Authority and Havering Council are developing plans for up to 4,000 new houses at Rainham in Barking and Dagenham. The plan is using improved rail access to support economic growth, meet housing demand and maintain the setting and heritage of the area. The multi-million pound Beam Park initiative features a new railway station, the business case for which has been funded by Transport for London and developer contributions from a new Tesco distribution centre. If it goes ahead, a new railway station would offer access to employment markets in central London, and to support plans to increase visitor access to Rainham itself.
Example: Barking Riverside major housing development

Barking Riverside is a 185 hectare development site with permission for up to 10,800 new houses on the site of the former Barking Power Station, which closed in 1981. Its completion is dependent on appropriate public transport being made available to serve the site.

Initial housing development on the Riverside site highlighted poor connections to services and transport. Planning permission is dependent on public transport being at the centre of the development, with only 1,500 houses being permitted if the new infrastructure is not forthcoming.

The development is being driven forward by Barking Riverside Limited, a joint venture between the Homes and Communities Agency and Bellway Homes.

Transport for London (TfL) is currently consulting on an extension of the London Overground from Gospel Oak to Barking Riverside along the existing Essex Thameside line and then via a short section of new railway. This scheme has come forward after a proposed Docklands Light Railway (DLR) extension was dropped.

The potential benefits of the scheme also include the construction of new community and leisure facilities, create an interchange with other public transport, cycling and bus improvements and the option of further southward extension.

If agreed, construction of the new rail link could begin in early 2017, with trains running by the end of 2019. Rail services will connect with new local bus services, cycling infrastructure and new green spaces.

Example: Bicester

Oxfordshire County Council intends to reduce the percentage of journeys taken by car in Bicester through modifications to the road layout and investment in sustainable transport. This includes better pedestrian and cycle links between the town’s rail connections, employment and residential areas, improved public transport links to other major towns within the county, and public realm improvements to the centre of Bicester. To help this, County and District Councils are developing a Sustainable Transport Strategy for the town.

Bicester is also home to the only Eco-Town development to go ahead. In line with the original Eco-Town standards, the overall target is to have at least 50 per cent of trips made without a car, with the potential to rise to 60 per cent. Developers intend to promote walking, cycling, public transport and other sustainable options and reduce residents’ reliance on private cars by:
• Making all homes a maximum of ten minutes’ walk from frequent public transport and neighbourhood services
• Locating services and shops together
• Monitoring the carbon impact of transport
• Assessing the impacts on congestion around Bicester
• Providing low carbon vehicle options, including car sharing and electric car schemes
• Committing to ongoing community travel planning.

The experience of the last 50 years is that poor planning leads to reduced overall mobility for communities and increased levels of car dependency. Meeting the pressing need for new housing should be done with a focus on schemes which can support existing settlement patterns wherever possible.

It is clear that sustainable transport must be at the heart of this through high quality infrastructure, information and support that encourages a move away from car dependency, and some constraint of car use. Such measures need to be in place as new residents arrive and establish their travel patterns.

5 Findings and recommendations

Guiding development

It is clearly possible to create new developments, both housing and commercial, that support a significant share of public transport use and that are designed so that public transport is a real and attractive choice.

Making such development more commonplace requires spatial planning to actively promote sustainable transport. The key benefits of this approach are:
• ensuring that new development does not generate congestion on local roads
• reducing social exclusion by improving access for those without cars (and thus also widening access to labour markets and social mobility)
• increasing access to essential and everyday amenities for groups less likely to have a car, such as younger and older people, job seekers, people with disabilities and people on low incomes
• reducing transport’s contribution of greenhouse gas emissions
• reducing environmental degradation through noise and air pollution and traffic domination of the public realm

The key benefits of this approach are:
• increasing the opportunities for healthier, active travel
• relieving development pressure on agricultural and other greenfield land
• creating more attractive places which are more economically viable.

A traffic light system such as that used in South Yorkshire or the PTAL system in London can work alongside planning and transport policies in helping to guide development to locations which offer easy access to appropriate sustainable transport.

Local plans should not only highlight the locations for new development but also demonstrate how they perceive these developments to be linked to the walking, cycling and public transport networks to be implemented over the plan period. The policies should require development to prioritise sustainable transport as part of the planning process and invest in it. The Infrastructure Delivery Plan (IDP) should include provision for walking, cycling and public transport improvements linked to not only the Community Infrastructure Levy (CIL) and section 106 provisions but also to securing investment through other routes.

Lessons for housing development and design

Where good quality sustainable transport options are integrated into development at the planning stage or at the time of major investment they are well-used. Attempting to ‘retro-fit’ sustainable transport into existing conventional development is much more difficult as travel habits have already been established. The current need for substantial housing and economic development provides a major opportunity to establish truly sustainable developments.

It has been standard practice in the UK to provide for the access needs of new development, residential or commercial, by locating it on the road network. The outcomes of this approach have been exacerbated by such locations often being remote from public transport.
Lessons for business and retail development

Efforts to revive the high street require national and local government, and retailers, to work together. Local authorities, competing to offer purpose-built facilities away from the high street, work against this trend and encourage car reliance.

For retail, the trend for nominally high street brands to relocate large new stores in purpose built premises outside existing town centres is profoundly counterproductive. First, it contributes to pressure on town and city centres, many of which are struggling with falling footfall and sales. Second, such development is often car dependent, with stores such as clothes retailers relocating from more accessible town centres sites. Third, there is a presumption that access to new retail development should be predominantly car-based and that this should be regarded as a selling point. When good quality sustainable transport infrastructure has been integrated with new retail development, there is evidence that demand for sustainable transport modes is significantly underestimated.

There continues to be high levels of public support for a revival of town and city centres. Putting sustainable transport at the heart of this in terms of access to and movements around the high street can be very effective. Policy and investment is needed to make high streets easily accessible, high quality places that are destinations in themselves. Making pedestrianisation and public transport links a core part of town and city centre regeneration projects increases their attractiveness to local people, enhances them as the centre of the community and helps to tackle congestion. In contrast, weakening parking restrictions (as favoured by the previous Government) risks choking areas with cars and worsening the setting and attractiveness of traditional shopping areas.

New business developments, where large numbers of people arrive and leave at a similar time, are often able to support high levels of sustainable transport access. That many still promote themselves by the scale of the car parks they offer highlights the weakness of public transport provision outside of our main towns and cities.

Some new business parks are achieving higher standards by promoting themselves as a part of employees’ lifestyle, with social activities and other facilities creating something of an alternative town centre. Planning agreements are being used locally to ensure urban park developments offer excellent public transport links and constrain car access to a degree.
The Department for Transport should amend the process by which LEPs select priority schemes to ensure they support sustainable transport, as set out in the principles of the NPPF. In particular:

- Ensure the development of LEP plans are subject to an open consultation, with alternative ideas sought before they are finalised.
- With the Department for Business, Innovation and Skills, provide strong guidance on choosing transport priorities that support sustainable transport.
- Ensure a level playing field between different transport modal options.
- Include a clear evidence base for transport options that further sustainable development, including supporting public health, town centre regeneration, public and open spaces, heritage and reducing carbon emissions.
- LEPs need a formal link with the planning system to improve their decision making; and improve accountability, with membership structures for LEPs that reflect policy objectives around quality of life, health and wellbeing, and environment, as well as economic growth.87

**Local spatial planning**

Local plans and neighbourhood plans should collectively set out how sustainable transport will be actively supported. They should include measures to overcome unfounded or outdated views of the effectiveness of public transport, include full use of up to date modelling tools and include planning policies covering specific development types. Clear policies and plans should be included covering the future networks for walking, cycling and public transport and these should be linked to the Infrastructure Delivery Plan and Community Infrastructure Levy. Policies should include transport assessment and travel plan requirements which favour sustainable transport.

**Locating new development**

- Location of new housing, with a focus on walking distance to major public transport links and existing urban centres, as well as ensuring easy access to public transport and cycle networks both existing and planned.
- Minimum standards for density of new housing, with standards of between 100 and 200 dwelling per hectare being the norm.
- Housing development should take account of proximity and ease of access to employment centres and services and facilities.
- Street layout and design standards should focus on 20mph maximum speeds, ‘home zone’ street design and a network of safe, convenient and attractive routes for cycling and pedestrians.

**Public transport**

- High quality public transport should provide rapid connections to major centres of jobs and services while other modes are faster and more convenient.
- Larger developments should have dedicated public transport routes with direct high quality pedestrian and cycle links to public transport.
- Clear provision should be made for the integration of all forms of public transport.

**Parking**

- New development should employ parking standards that make effective public transport connections essential.
- New developments should be designed so that car use is actively restrained through, for example, limited parking, while other modes are faster and more convenient.

**Smart travel and behaviour change programmes**

- Residential travel plans should be in place both as part of the construction and marketing of a development, and then part of an ongoing commitment to supporting and extending sustainable transport88.
Transport modelling

Travel patterns are changing and transport modelling such as TRICS and TEMPro need to be revised to reflect this as do the DfT evaluation models. There is growing evidence that people are taking fewer trips – particularly social and shopping trips – as a result of better communications and the availability of online services. The Department for Transport has recently updated its Road Traffic Forecasts to take this on board along with a much wider range of factors and interactions which influence driving levels such as macroeconomic factors such as GDP, population and the price of oil. The models and evaluation assessments need to focus on moving away from ‘predict and provide’ based on historic data towards objective-led assessments to achieve modal shift and incorporate the wider health, environmental and economic benefits of this approach.

The resulting scenarios, while still incomplete or inaccurate about factors such as the cost of motoring, carbon emissions and growing rail capacity, do now include a projection of traffic rates beginning to fall after 2025.

In conclusion

A new relationship is being forged between spatial planning and transport.

Some new development is still being designed without good transport planning, or as if people’s transport needs consisted solely of ample parking spaces accessed by major roads. The undesirable outcomes of this approach include sprawling housing estates where residents are dependent on a car for nearly every journey. It promotes new edge-of-town retail developments that undermine adjacent town centres. It leads to new business parks where, if you don’t have a car, you can’t get a job. And it leaves us unhealthy and unhappy, leading inactive lifestyles where we are unable to escape congested roads, dirty air and high carbon emissions.

It does not need to be like this. As the numerous examples in this report clearly show, more thoughtful and effective alternatives already exist. These approaches are not prohibitively expensive, they do not require a recasting of lifestyles, nor is their application confined to forward thinking parts of continental Europe – they are already working effectively in everyday settings in towns and cities across Britain. In short, a new relationship between spatial planning and transport which is better - economically, socially and environmentally - can be achieved. With a stronger national lead, progress would be more far reaching and faster moving. Planners, transport planners, developers and politicians must work together to make it happen.

TRICS and TEMPro, which currently assume increasing traffic, now need to be amended to reflect changes in predicted background traffic levels in coming years and the potential for well-designed development to take place without increasing car use.

Devolution

Devolved and combined authorities should reflect the benefits of development focused around public transport in their transport and development policies and programmes. To ensure transport and development are properly integrated a clear planning strategy is required, as is the case as in London.

Bus and rail policy

Future bus and rail policies should give priority and weight to serving new developments and making existing places less car dependent. Local authorities and developers should be able to plan for high quality public transport with some certainty. Local authorities should ensure that their bus strategies, and associated quality partnerships or quality contracts, enable good bus services from the start of new developments, and rail strategies and new rail franchises should support non car access to developments.
Campaign for Better Transport’s vision is a country where communities have affordable transport that improves quality of life and protects the environment. Achieving our vision requires substantial changes to UK transport policy which we aim to achieve by providing well-researched, practical solutions that gain support from both decision-makers and the public.

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