

# A Better Connected Essex

## Essex Transport Strategy

# Contents

1. Introduction .....	1
2. Why we need a new transport strategy.....	4
3. Transport strategy themes and outcomes .....	12
4. Supporting people, health, wellbeing and independence .....	14
5. Creating sustainable places and communities .....	31
6. Connecting people, places and businesses .....	50
7. Implementation.....	76
8. Looking ahead and monitoring success.....	85
Appendix A. References .....	88

# 1. Introduction

## 1.1 Purpose of the strategy

“A Better Connected Essex” is our Transport Strategy, or Local Transport Plan (LTP), and sets out our vision for transport in Essex. Every local transport authority must produce and adopt an LTP. This is the fourth plan for Essex and contains our vision for transport and how we will deliver on our objectives.

The LTP has two parts; this strategy and policy document with supporting appendices (glossary, policies and list of supporting guidance documents); and a suite of implementation plans that include a ‘pipeline’ of potential projects.

This plan will set out how we propose to connect our communities to enable residents to travel to where they want to go and allow local businesses to trade effectively with their customers and suppliers. This plan also sets out how we propose to create more sustainable places and communities providing essential policy direction to inform our local planning authorities’ Local Plans for growth and development, and Neighbourhood Plans. It should also influence wider strategic planning documents across the region and guide our partnerships with neighbouring authorities, transport bodies and with central government.

This is a transitional period for Essex that will see the election of a Mayor for Greater Essex, the reorganisation of current Local Authorities, and changes to responsibilities for transport in Essex.

As a result, this plan has two clear purposes:

- It provides Essex with an up-to-date statutory LTP covering the period of transition while new local government structures are established.

- It provides an evidence base and identifies potential transport projects, providing a starting point for the development of a new Greater Essex LTP which will be led by the Mayor and the Greater Essex Mayoral Combined County Authority.

## 1.2 The county of Essex

Essex is a large and varied county with a strong rural character covering an area of over 1,300 square miles.<sup>1</sup> It stretches from the Dedham Vale National Landscape in the north to the Thames Estuary in the south, from the dynamic M11 corridor in the west to the traditional seaside resorts of Clacton and Walton-on-the-Naze in the east. Major population centres include England’s ‘oldest town’, the new city of Colchester; two of its New Towns, Basildon and Harlow; along with the city of Chelmsford, ‘the home of wireless’. Its eastern border consists of one of the longest coastlines in England. To the north are the counties of Suffolk and Cambridgeshire; to the west, Hertfordshire; to the southwest, Greater London and Thurrock; and to the southeast, Southend-on-Sea.

The county is home to two London airports at Stansted and Southend, 58 rail stations, 8 tube stations, more than 400 bus routes, major ports, more than 5,000 miles of road and almost 4,000 miles of footpaths, bridleways and byways<sup>2</sup>.

The county today has a population of 1.54 million<sup>3</sup> which is expected to grow by 7% to 1.64 million<sup>4</sup> over the next twenty years, placing significant pressure on housing, growth, skills, the environment and the transport network if we continue as we are. Most residents live in urban areas with many people living in our largest towns

and cities – Colchester, Chelmsford, Harlow and Basildon, all of which are already experiencing congested roads. While smaller towns on our main railway lines are relatively well connected, connectivity drops off quickly outside of the urban areas, and there are parts of the county such as north Essex and the Tendring and Dengie Peninsulas that are deeply rural and poorly connected.

Growth is planned in new ‘Garden Communities’ with these currently in development at Chelmsford, Dunton Hills, Harlow-Gilston, and Tendring-Colchester Borders. A vibrant mix of land uses, new transport connections to provide local choice, and digital technology to give alternatives to travel will all help to manage the growth challenges in these areas.

Essex is home to 80,800 businesses<sup>5</sup> and provides 712,000 jobs<sup>6</sup>, playing an important role regionally and nationally with its economy worth over £72.5 billion<sup>7</sup>. It supports London’s global success as a home to around 115,000 people who work in London<sup>8</sup>.

Essex also hosts two universities: the University of Essex, and Anglia Ruskin University, and 50+ further education providers (e.g. Stansted Airport College), many of which generate research with world-leading impact.

All of these businesses, institutions, customers and employees rely on the transport network in some way and expect the connections to be reliable and efficient.

### 1.3 The role of transport

Effective transport is essential for the efficient movement of people and goods that supports a sustainable and inclusive economy. Transport connects businesses to their customers and suppliers, and people's homes to workplaces, schools, colleges, healthcare, shops, friends and family, leisure and open space.

More efficient transport increases opportunity and productivity in many ways, as shown in Figure 1.1 on the next page.

Economic growth will improve not only the living standards of people in Essex but also their health and wellbeing, opportunities and life chances. And if delivered well, the transport system can help deliver better environmental outcomes than we see today.

Our ability to reach jobs, education and training, and essential services including healthcare, retail and leisure facilities has a major influence on our overall quality of life. Many of us have benefited from the improvement in personal mobility made possible by rising car ownership. This has offered many people greater choice in when and where they can travel and increased the opportunities available to them, for instance by enabling access to jobs across a wider area. Those without access to a car or those who have difficulty travelling often have more limited choices and opportunities.

The ability to travel is an essential requirement of all our lives; however, the choices we make about when and how we travel can have unwanted impacts on our health, and on the lives of others and the natural world around us such as carbon emissions, pollution, water quality, flood risk, and loss of nature. On the other hand, choosing to build physical activity into our journeys can have positive impacts on our health. The transport network can also include green corridors, such as hedgerows and tree-lined roads, which provide and join up habitats for wildlife and enhance the scenic quality of the area.

The overarching approach of this strategy is that the right mode of transport should be used for each trip to increase the efficiency of travel and to reduce the negative impacts. While some trips are best made by car, many trips have alternative options.

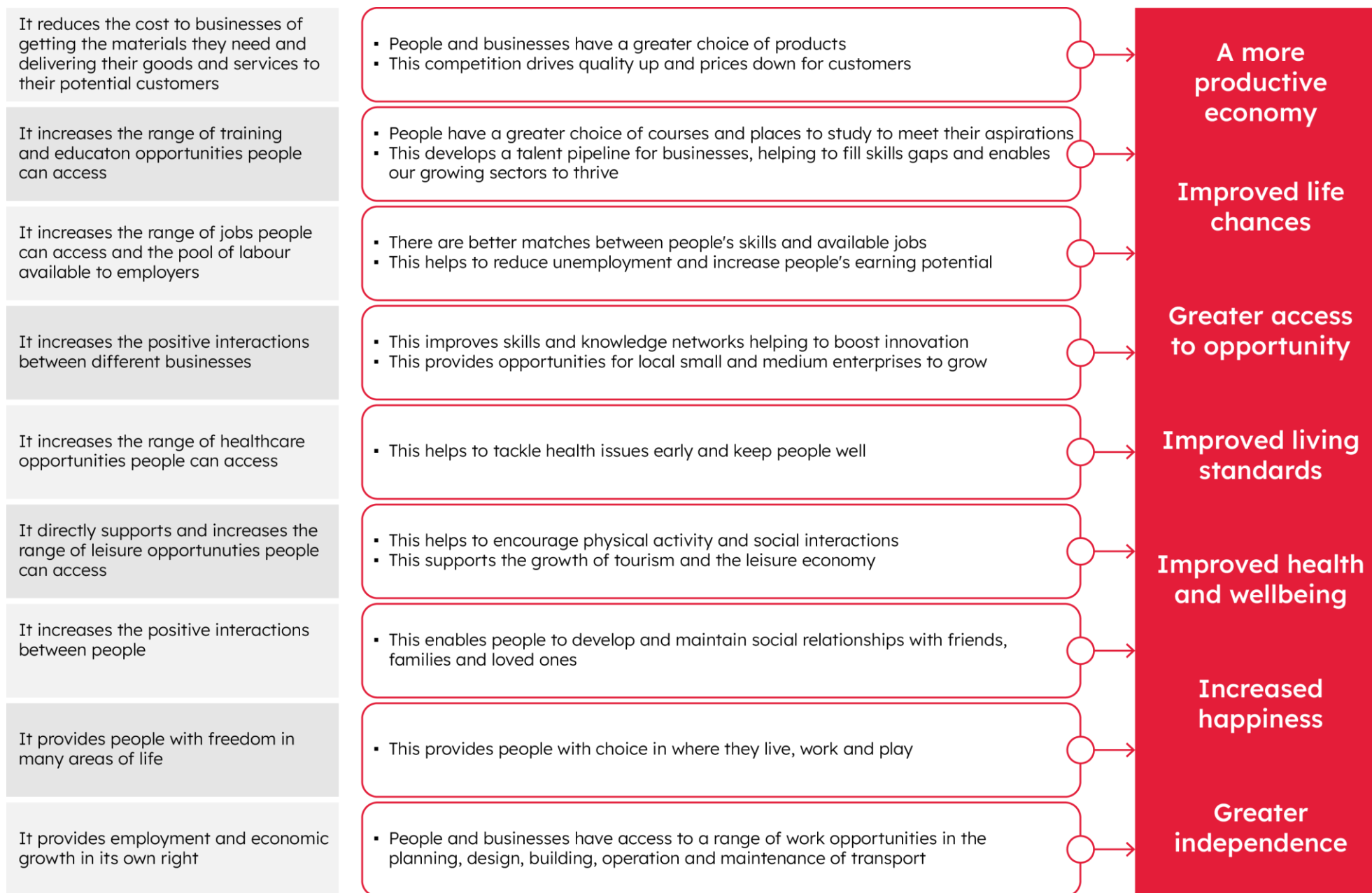
Providing people with real choices is an important part of this strategy. This means working with our partners to focus economic and housing growth in areas where it can be most sustainably delivered. By offering people real choices in transport and digital technologies, we aim to reduce the need to travel and promote new ways of living and working.

While some additional transport infrastructure will be necessary, in particular what's needed to provide more choice to more people, we also need to make better use of what we already have.

This will allow our towns and cities to be built around people, their needs and the environment while also lowering the carbon output of travel in Essex.







**Figure 1.1. The role of transport in delivering better economic and societal outcomes**

## 2. Why we need a new transport strategy

### 2.1 Introduction

Essex is a diverse county and has a great and heavily used transport system. Whether by bus, rail, foot, bike or car, Essex residents use transport to get to school, to the shops, to work, often every day. How we choose to travel influences other aspects of our lives and the world around us. For example, by walking and cycling we can improve our health and wellbeing<sup>9</sup>, while car-sharing can reduce costs<sup>10</sup>. Despite its strengths we know that our transport network needs to improve and provide greater choice and access to opportunities for everyone who lives, works and visits our amazing county.

This is not just the responsibility of the County Council. We will need the support and input of many partners and stakeholders, including borough, city, district (and in future unitary) councils; Active Travel England; our public transport operators for bus and rail; Transport for London; and other bodies such as National Highways who are responsible for the planning, operation, maintenance and delivery of strategic roads in Essex (M11, M25, A12 and A120). We need to work closely with Essex Police and the British Transport Police to ensure that travel is safe and feels safe. We also need to work closely with the Department for Transport who direct all central government funding in transport and also guide the way authorities such as Essex deliver transport strategy and policy. Most of all, we need to work with our residents and businesses so that everyone benefits from a better-connected and more efficient transport system.



This Transport Strategy is first and foremost a document showing our plans and approach to transport across Essex for those who live, travel and visit the county, and the businesses based here. It provides an outline for the effective and efficient delivery of our transport services, informing and guiding how we invest, and where we expect to see investment from others, ensuring value for money to residents and creating a service they want to use.

It is also important that Essex has an up-to-date LTP to provide a stable context during the transition period to new local government arrangements. This will help ensure transport continues to operate and improve, and that relationships with partners can be maintained.

### 2.2 Our vision

Transport is often considered in isolation, but it is really an enabler, underpinning everything we all do. This, our fourth transport strategy, focuses on real outcomes for our residents. It will provide both a long-term plan for transport but will also tackle short- and medium-term challenges.

Our transport plan is led by both our vision for transport in Essex and what evidence (see Chapter 4-6) tells us we need to do and where. This enables us to understand the travel needs of people and businesses in Essex, to raise awareness of the travel options people have, and to enable more sustainable choices and journeys to be made.

***“Our vision is for a safe transport system that supports economic growth and prosperity, provides access to our homes, services, education, work and leisure and enables more sustainable choices and journeys to be made.”***



## 2.3 Transport: the Essex picture

### 2.3.1 Our transport networks

Figure 2.1 below shows our transport network and places. Essex has generally strong transport connections by road, rail, air, and sea.



Figure 2.1. Our Transport Network and Places (source: Ordnance Survey, 2025)

The nationally important roads M11, M25, A12 and A120 run through the county and major local roads including the A13, A127, A130, A131 and A414 all provide good coverage. The county maintains a vast network of roads, over 5,000 miles in total length, together with a footway network of 4,000 miles, 4,000 miles of public rights of way and over 350 miles of cycle routes. In addition, there are over 1,500 highway structures such as bridges and other features such as drains, traffic signals, streetlights and traffic signs. In total, the value of our highway infrastructure is more than £11bn<sup>11</sup> which all needs regular maintenance.

There are three main rail lines from London as well as several branch lines, serving 58 railway stations, with a new station at Beaulieu Park in Chelmsford opening in 2025. Transport for London's Elizabeth Line connects Shenfield and Brentwood directly with central London and Heathrow Airport, while the Central Line serves 8 stations in Epping Forest district in the southwest of the county.

The Essex bus network features over four hundred bus routes and nearly 7,500 bus stops, with 39.6 million passengers carried each year<sup>12</sup>. While there are 37 bus operators in Essex, a small number of national operators dominate service provision. Bus services are mainly focussed around the four largest urban areas in Basildon, Chelmsford, Colchester and Harlow, with some routes offering high frequency services between residential areas, public transport hubs and employment, health, and shopping centres.

Essex has five local bus registered Demand Responsive Transport (DRT) schemes. They provide flexible services for passengers in some of the most rural areas of Essex. Essex also has a Digital Demand Responsive Transport service which enables users to book the service by an

app. This is currently operating as 'DigiGo' in the Braintree and North Chelmsford areas with plans to expand to other areas.

Essex has great potential for walking and cycling, with its relatively flat terrain, numerous short journeys and easily accessible countryside and long coastline.

The Essex cycling network is made up of 366 miles of cycling routes with a mixture of on and off road cycle lanes and trails. The majority of the routes are in the larger cities and towns of Chelmsford, Colchester, Basildon, Harlow and Braintree where investment in the network through the Active Travel Fund is creating good joined up networks. Local Cycling and Walking Infrastructure Plans are also being developed for many areas in Essex, including for more rural market towns and more countywide leisure routes. 177 miles of the National Cycle Network also runs through Essex with National routes 1, 11, 13, 16 and 51 passing through the county. There are also off road leisure routes like the Flitch Way near Braintree.

Essex has a well-established walking network, including 300 miles of the King Charles III England Coast Path and the 81-mile Essex Way within its four thousand miles of public rights of way.

Essex is home to the UK's fourth busiest airport, London Stansted, which handled nearly 30 million passengers and around 310,000 tonnes of freight in 2024<sup>13</sup>. London Southend Airport is also located in Essex and was used by two million passengers in 2019<sup>14</sup>. It continues to recover following the pandemic with an increasing number of flights scheduled for 2025.

The port of Harwich provides nationally important connections to the Netherlands and Denmark as well as transporting 4,235,000 tonnes of freight in 2023<sup>15</sup>. The port of Harwich is now a key

component of Freeport East along with its sister port Felixstowe on the other side of the estuary in Suffolk. Freeports are areas designated by the Government which are subject to different economic regulations, such as tax relief and business incentives, to help create new economic activity.

Essex is also in very close proximity to two other major ports: London Gateway and Tilbury which form part of Thames Freeport. All of these gateways provide economically vital connections to the rest of the UK and beyond.

### 2.3.2 How our people currently get around

The UK Census provides data on the travel patterns of Essex residents to help identify current travel behaviours. For most of the county, most employed residents live and work within Essex and are therefore dependent on local centres for their transport needs. However, we see high levels of commuting into the capital from areas closer to London such as the south, middle and west of the county. Areas popular with London commuters tend to have higher housing costs than other areas of the county. This means that workers in our main urban areas (where wages are typically lower than London) are more likely to commute from places with lower housing costs (such as from Tendring to Colchester).

Car use and ownership in Essex is high with 84% of households owning at least one car or van. In 2021 this equated to 1.38 cars per household, higher than the national average of 1.23<sup>16</sup>.

Car ownership varies by district: for example, Basildon, Harlow and Tendring have the highest proportion of households with no vehicle at all. Nearly half (42%) of Essex households have two or more cars<sup>17</sup>, and these tend to be those living in rural areas and with higher levels of income.

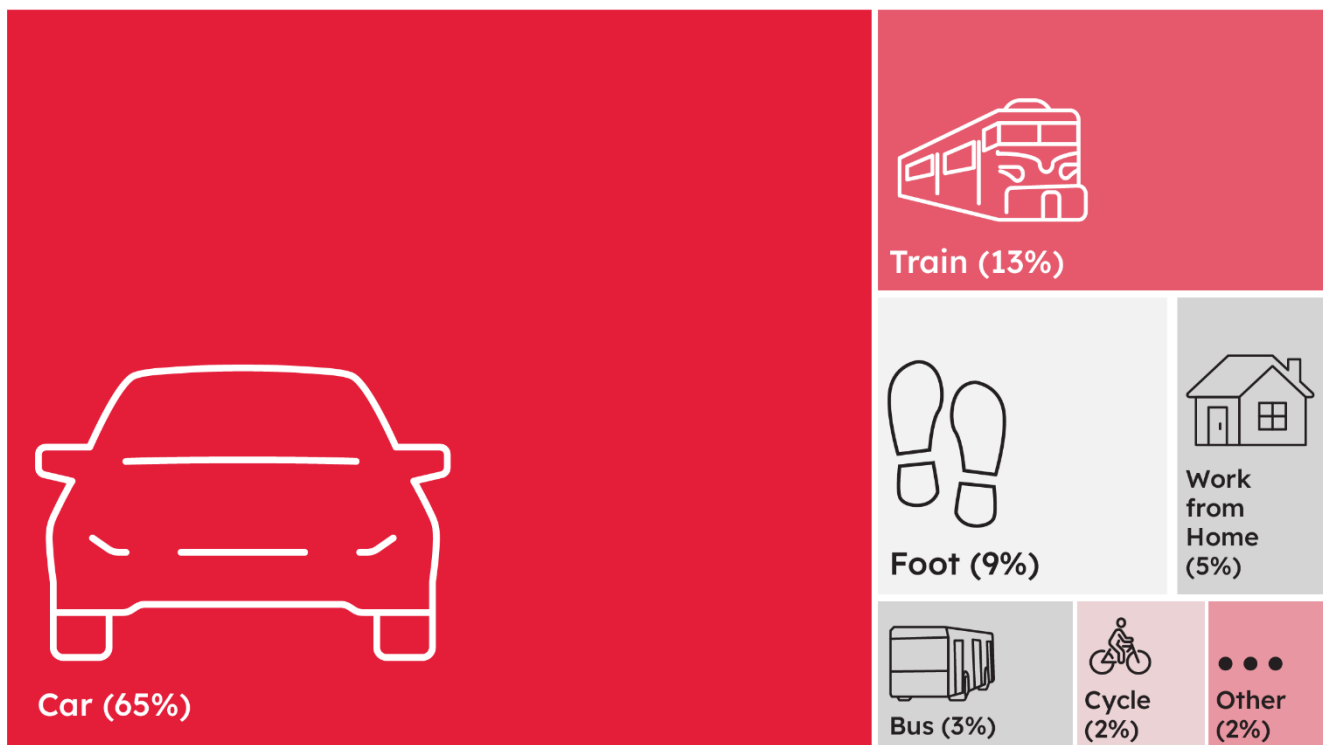


Figure 2.2. How people travel to work in Essex<sup>18</sup>

Figure 2.2 shows how people travel to work in Essex. Across the county 65% of residents' travel to work is by car, with 28% using sustainable modes instead.

Residents in urban areas are more likely to be able to use public transport, walking and cycling as it is likely that jobs and services are nearer to where they live, and equally importantly, because the alternatives to the car exist. 39% of urban residents use public transport, walking or cycling, including 6% by bicycle, to travel to work. With fewer local jobs and less reliable alternatives to the car, the majority of rural residents' travel to work is by car.<sup>19</sup>

Rail passenger numbers have continued to grow since the pandemic. With 58 million entries and exits at Essex stations in 2023/24, passenger numbers have returned to 91% of the 2019 level.<sup>20</sup> Workers have continued to return to the office in greater numbers, new homes have been built near stations and the desire for leisure travel has increased. New journeys are also possible adding to the attractiveness of rail in certain places. The TfL Elizabeth Line opened to Brentwood and Shenfield in 2022 providing direct links and higher frequency services to more areas of central London from these stations. There are now 40% more users of Brentwood and Shenfield stations than there were in 2019.<sup>21</sup>

Bus patronage also continues to increase since the pandemic. Essex's recovery has outperformed national trends, where bus use is still lower than in 2019/20. 39.6 million passengers travelled on local buses in Essex in 2023/24, exceeding the 38 million carried in 2019/20.<sup>22</sup>

Around 1.4 million cycle journeys are completed every year in Basildon, Chelmsford, Colchester and Harlow. Cycling levels have generally increased over the last 15 years, with greatest increases noted in Chelmsford and Harlow.<sup>23</sup>

## 2.4 The need for change

### 2.4.1 Local reasons for change

Essex has bold aspirations, economically, environmentally and in transport. In 2021 we adopted our Corporate Strategy, "Everyone's Essex".<sup>24</sup> Our vision for transport supports and advances these objectives.

Everyone's Essex details 20 commitments to improve the lives of the people of Essex. These commitments are divided into four key areas:

- Strong, inclusive and sustainable economy.
- High quality environment.
- Health, wellbeing and independence for all ages.
- A great place for children and families to grow.

The recommendations of the independent Essex Climate Action Commission<sup>25</sup> are also an important consideration. Transport is responsible for 30 per cent of the UK's greenhouse gas emissions<sup>26</sup> and it is important that travel is decarbonised if we are to meet the UK's climate commitments set by Parliament.

We have a legal responsibility for the environment and biodiversity. Over the last century huge areas of meadows, hedgerows, marshland, orchards and



woodland, together with the wildlife they contained have disappeared in Essex.

Transport can make a difference to all of these commitments and challenges, and this transport strategy details how we will deliver on them.

The age of our residents also tells a story. Essex has high numbers of younger people (17% aged 16 years or less) and older people (21% aged 65 or above). This diversity poses a different challenge. For example, older populations will need transport to help them access services and healthcare, while in areas with younger populations the focus will need to be on accessing employment and education. Both may require different transport solutions, with many needing an alternative to the car.

How our residents commute is vitally important. Reliance on the car puts pressure on a busy road network, so we must invest in alternatives particularly as the county grows.

A large number of people's journeys are short, local trips – in fact, 46%<sup>27</sup> of journeys in Essex are shorter than two miles. We would be able to reduce the pressure on our roads, especially in our busiest urban areas if some of these trips were made using other modes. These journeys could be walkable or cyclable, but we will need to invest in creating safe connected routes and provide training.

Nearly three quarters (71%)<sup>28</sup> of journeys are shorter than five miles in length – cyclable by some but perfect for bus. We will need to enhance and grow bus use if we are ever to reduce congestion on our network and provide the transport choice our residents deserve.

The urban centres in Essex typically have a good choice for many journeys when it comes to transport as most have bus and rail links alongside

walking and cycling options. However, there can be less choice for journeys between urban areas (such as Chelmsford and South Essex) where there is no direct rail service.

The situation is more challenging in rural locations where around one third of our residents live. Getting around in these locations often relies upon the car as public transport options are more limited and less frequent.

#### 2.4.2 Regional reasons for change

Transport and people's desire for travel does not respect district or county boundaries. The broad transport objectives of neighbouring authorities such as Suffolk, Cambridgeshire, Hertfordshire, Greater London, Thurrock and Southend-on-Sea all have an impact on us. We must plan across these boundaries, especially for wider projects related to rail, freight, maritime and planning.

Essex is a member of Transport East, an organisation of the transport authorities of Norfolk, Suffolk, Essex, Southend-on-Sea and Thurrock. Transport East supports improvement to transport for all residents in the East by creating safe, efficient and net zero transport networks over the next 30 years.

Transport East recently published their first transport strategy<sup>29</sup>. It recognises that the region is thriving with talented people, innovative businesses and a wealth of natural resources. Specifically, the strategy embraces the need for a local and tailored approach which reflect the unique nature of the region. This includes diverse rural and coastal communities, the need to manage congestion in towns and cities and supporting our international ports and airports, of which the region has the most in the entire country.

The Transport East strategy identifies six core strategic transport corridors linking key destinations, within and beyond the region which require particular focus. They include the following corridors within Essex:

- London – Harlow – Cambridge – King's Lynn.
- Stansted – Braintree – Colchester – Harwich and Clacton.
- London – Chelmsford – Colchester – Ipswich – Norwich and Suffolk Coast.
- London – South Essex – Thurrock – Basildon – Southend.

These corridors are essential for the economic success of the region through the movement of people and goods and need further investment to enable the region to reach its potential.

We believe that the Transport East strategy presents a great opportunity to deliver transport improvements on a regional scale. It aims to facilitate better public transport connections, more attractive places, more reliable journeys for businesses and goods, and a healthier population using cleaner transport to help protect our environment for future generations.

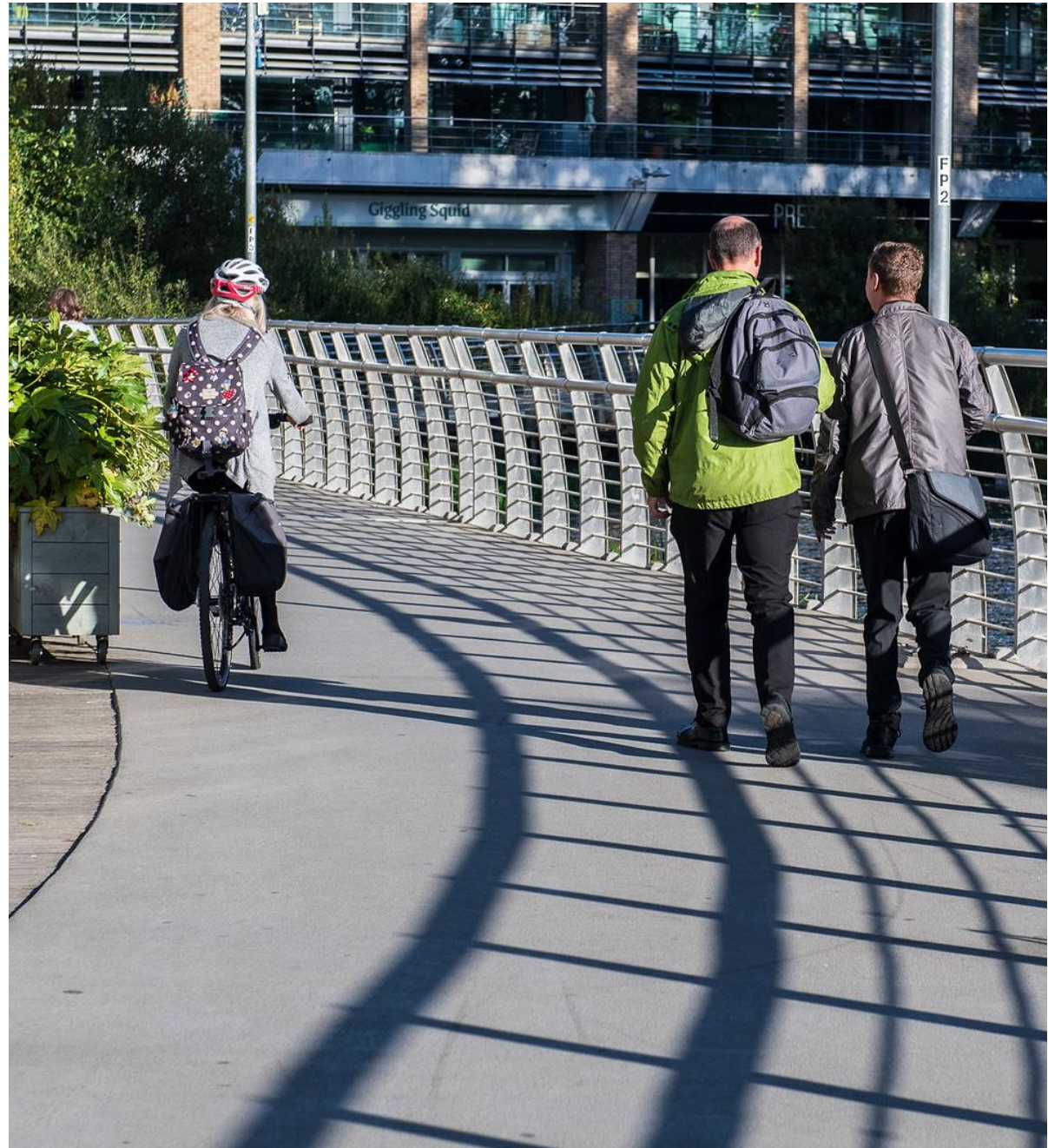
### 2.4.3 National and international reasons for change

The most significant policy, guidance and legislation is national, and there have been important changes since the publication of our last LTP in 2011.

The Government set out several ambitions, or strategic priorities for transport in July 2024<sup>30</sup>, which in turn impact other areas including the economy, health, wellbeing, and the environment:





- Improving performance on the railways and driving forward rail reform.
- Improving bus services and growing usage across the country.
- Transforming infrastructure to work for the whole country, promoting social mobility and tackling regional inequality.
- Delivering greener transport.
- Better integrating transport networks.



The Department for Transport is also, at the time of writing, developing a new Integrated National Transport Strategy for England<sup>31</sup>. At its core will be a single national vision for how transport systems should work together, empowering local leaders to deliver integrated local transport that meets the needs of their local community. The National Transport Strategy is also expected to refresh and update existing national goals associated with decarbonising different modes of transport and promoting active and sustainable travel.








These ambitions reflect the UK's commitment to sustainable, efficient, and accessible transport systems for the benefit of all citizens. This is supported by a number of acts of parliament, publications and delivery programmes including:

	Gear Change: <b>The Cycling and Walking plan for England (2020)</b> <sup>32</sup> providing the Government's vision for walking and cycling, together with new guidance on the design of cycle infrastructure in the form of <b>Local Transport Note 1/20</b> and changes to the <b>Highway Code</b> .
	New approaches to bus service delivery contained within the <b>National Bus Strategy for England (2021)</b> <sup>33</sup> including the need for all local transport authorities such as Essex to develop Bus Service Improvement Plans.
	Rail reform seeks to create Great British Railways and put passengers back at the heart of the railways. The Passenger Railway Services (Public Ownership) Act 2024 <sup>34</sup> provides a framework to bring all remaining franchised passenger rail operations into public ownership, with existing services operated by c2c and Greater Anglia to transfer during 2025.
	A Future of Transport programme <sup>35</sup> that is focussed on securing a 21st Century Transport system by encouraging innovation in new transport services and decarbonisation, for both urban and rural transport.

	The Climate Change Act 2008 <sup>36</sup> sets the UK statutory target for reducing greenhouse gas emissions to at least 100% lower than 1990 levels by 2050. This is known as the 2050 UK Net Zero target. The Act requires the Government to set carbon budgets for five year periods taking into account advice from the Climate Change Committee. <sup>37</sup> The latest, Seventh Carbon Budget (February 2025) sets a target of a 64% reduction in transport emissions by 2035 relative to 2023 <sup>38</sup> . The Climate Change Committee warns that the UK is currently off target and rapid and deep cuts to emissions must be made in all sectors.
	<b>The Road to Zero</b> <sup>39</sup> : The Government's 2018 carbon reduction strategy for road transport and the publication in July 2021 of the <b>Transport Decarbonisation Plan</b> <sup>40</sup> .
	<b>The Plan for Change (2024)</b> <sup>41</sup> : A series of ambitious yet achievable missions to renew the country: <ul style="list-style-type: none"> <li>▪ Kickstart economic growth</li> <li>▪ Build a National Health Service fit for the future</li> <li>▪ Safer Streets</li> <li>▪ Break down barriers to opportunity</li> <li>▪ Make Britain a clean energy superpower.</li> </ul>

	The UK's <b>Modern Industrial Strategy (2025)</b> <sup>42</sup> seeks to create a pro-business environment that plays to the country's strengths including eight growth driving sectors.
	Reform of the planning system including an updated <b>National Planning Policy Framework (2024)</b> <sup>43</sup> to achieve sustainable growth through delivering more homes and their supporting infrastructure where they are most needed. A further update is expected to be consulted on in June 2025 alongside draft National Development Management Policies.
	The Environment Act 2021 sets legally binding targets for biodiversity, air quality, water quality and waste reduction. The <b>Environmental Improvement Plan (2023)</b> <sup>44</sup> provided a commitment that the public should be able to access green space or water, such as woodlands, wetlands, parks and rivers, within a 15-minute walk from their home.

The mainstream adoption of digital technology such as the internet, smart phones, online retailers and peer to peer service providers (e.g. Airbnb, Uber) has also been a major change since 2011. In 2011 less than 10% of shopping was conducted online (versus 26% in 2023)<sup>45</sup>, smartphones and social media were in their infancy, and mobile and broadband data was often expensive and slow.

Prior to the coronavirus pandemic, the proportion of people working from home had been increasing steadily, facilitated by improvements to technology and increased demand for flexible working arrangements. While 73% of workers nationally never worked from home in 2019, we have now reached a situation where just over 10% work from home all the time and more than a quarter of workers are hybrid workers – part travelling to the office / part working at home.<sup>46</sup>

Viewed together, these strategies and trends place greater importance upon the alignment of transport provision with the delivery of other objectives and outcomes, such as economic growth, improved health and wellbeing, better life chances, the use of active and sustainable transport, a cleaner environment and the decarbonisation of the transport network by 2050.



## 3. Transport strategy themes and outcomes

### 3.1 Introduction

Our Strategy is focussed on addressing the changes necessary to deliver our wider ambition for Essex:

- Economic growth and productivity.
- Providing sustainable access to our homes, services, education and jobs.
- Improving the health and wellbeing of people living in Essex.
- Reducing the impact transport has on the environment and protecting it for the long-term.

To enable us to do this we have structured our Strategy around three broad themes.

- Supporting people: health, wellbeing and independence.
- Creating sustainable places and communities.
- Connecting people, places and businesses.

Beneath these themes are nine outcomes. These are at the heart of our plan. We will undertake interim monitoring of these outcomes to understand how our Strategy is having a positive impact on people's lives. As we transition to a Greater Essex Mayoral Combined County Authority our approach will need to be reviewed and updated to reflect the new geography.

### 3.2 Supporting people: health, wellbeing and independence

Everyone needs to travel, and many travel regularly. These different journeys are for a variety of different purposes and the ability to travel, and how we choose to travel, has different impacts on our lives and the lives of those around us.

As the population of Essex grows, it's important that we support all our residents and workers. This means ensuring that everyone has good access to services via a range of modes of transport or alternative delivery models, such as through high quality digital technology.

People need good access to healthcare to support their physical and mental health and wellbeing. Travel can provide access to friends and family, a range of leisure activities and access to open spaces. How we choose to travel can also help us live healthier lives. Travel also needs to be safe and to feel safe for the people using it.

Outcomes	<b>People have inclusive and affordable access to key services</b>
	<b>People enjoy improved physical and mental health and wellbeing</b>
	<b>The transport network is safe, and feels safe, for all users</b>

### 3.3 Creating Sustainable Places and Communities

We need to create sustainable places and communities, in existing locations and new ones, while at the same time protecting the places we live in and enjoy from the negative impacts of transport.

It is important that our roads and other transport systems form part of the places we live and work in, rather than being imposed upon them. Where we need to make changes, these should be proportionate and sympathetic to the local environment and support the role that the transport network has in the local community, as well as for those travelling on it. A high street

needs to encourage people to spend time there and support a range of different businesses, while a residential street should be quiet and a pleasant place to live, and a main road needs to enable traffic movement to support the local economy.

We also need to rethink how we design new places. They need to have a clear sense of local identity and community at their heart. All new developments need to be focused on locations which are or can be made sustainable through reducing the need to travel and offering a genuine choice of transport modes for the long-term. New developments also need to provide schools, shops and other facilities forming new centres for the neighbourhood, reducing the need for new residents to travel further afield and reducing the reliance on car travel for everyday needs. New and existing communities need to be able to integrate, with travel enabling everyone to access a wider range of facilities and job opportunities shared across the new larger population.

Our local places need to be protected to ensure that the landscape, natural habitats and surrounding environment are protected, maintained and enhanced. Enhancing biodiversity can also build upon local character and identity to achieve more attractive places.

Outcomes	<b>All places support the transport needs of all residents</b>
	<b>New developments are designed to be sustainable from the start</b>
	<b>Transport has a reduced impact on the environment and adverse impacts on natural habitats are avoided</b>



### 3.4 Connecting People, Places and Businesses

Effective transport is essential for the efficient movement of people and goods, supporting a sustainable and inclusive economy and enabling businesses to access their workforce, customers, suppliers, and partners. Good, reliable transport links are a priority for local businesses and a key factor for businesses seeking to locate or invest in Essex.

People living in Essex need good access to education, training and employment as this underpins the other opportunities in their lives. Businesses need access to a wide labour pool with appropriate skills and qualifications to drive the growth and success of their business.

Effective transport also requires our roads, footways and cycling routes to be managed and maintained, and to be resilient for the longer term. This includes implementing measures to enable our transport network to adapt to changing environmental risks, such as the weather.

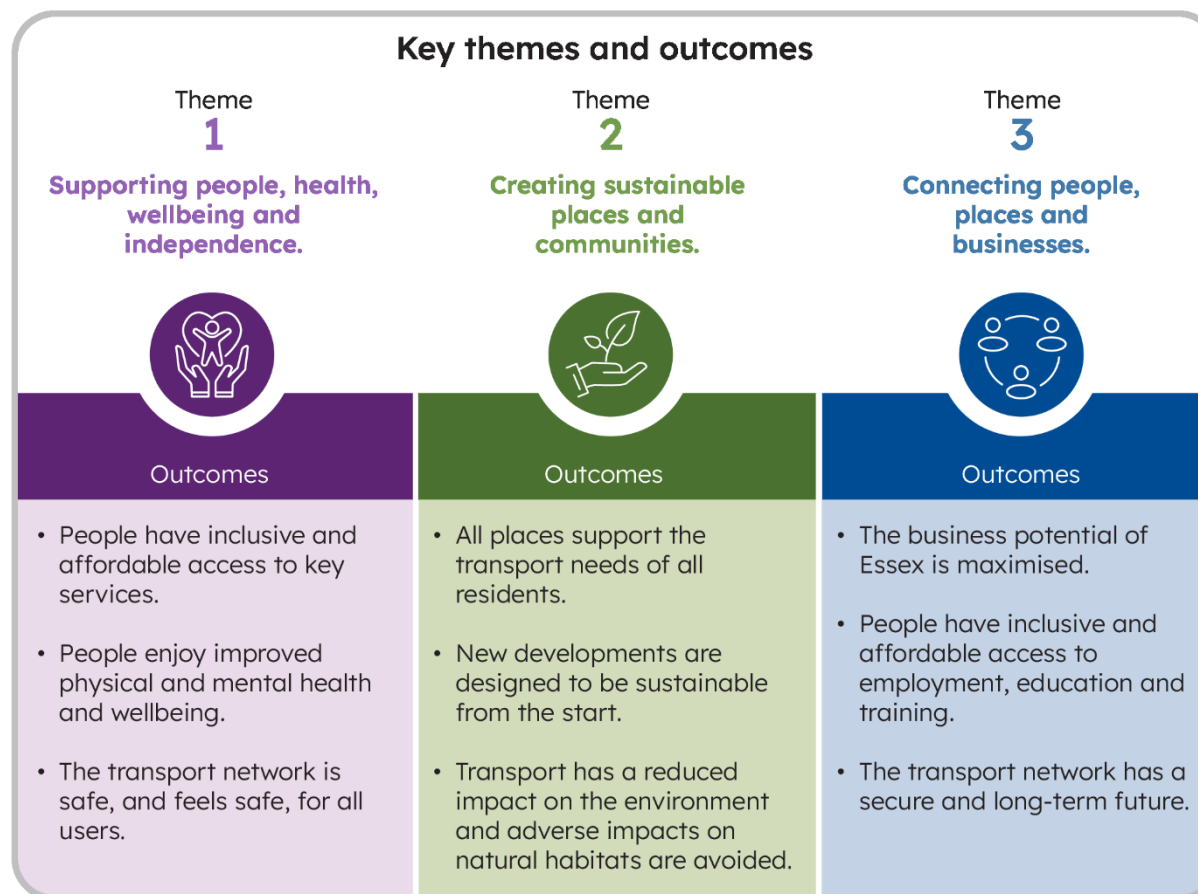


Figure 3.1. Our key themes and outcomes

Outcomes	The business potential of Essex is maximised
	People have inclusive and affordable access to employment, education and training
	The transport network has a secure and long-term future

## 4. Supporting people, health, wellbeing and independence

### 4.1 Introduction

We want everyone living in Essex to:

- Have inclusive and affordable access to key services.
- Enjoy improved physical and mental health and wellbeing.
- Have access to a transport network that feels safe for everyone who uses it.

Our own ability to travel for a wide range of reasons has a major influence on our overall quality of life. Many of us have benefitted from the improvement in personal mobility made possible by rising car ownership over earlier decades. This has offered many people greater choice in when and where they can travel and increased the opportunities available to them. But in many areas, those without access to a car or those who have difficulty travelling have experienced a more limited set of choices and opportunities. And some have needed to use a car more often they would like as safer, healthier and more affordable alternatives have not been seen as a realistic choice.



We want to address this. Our aim is to support everyone to live safe, healthy lives by providing everyone with equal access to opportunities and to promote choice in the types of transport used.

### 4.2 Inclusive and affordable access to key services

#### 4.2.1 Access to essential services

Good access to services enables everyone to maximise their potential and enjoy life more. Our market towns and cities have long played a vital role, with their population size and density supporting a wide range of jobs, shops, services, cultural facilities and leisure activities.

Long-term economic changes such as out-of-town shopping, the growth of the internet and centralisation of services have over time affected when and why we visit towns and cities. Our most successful town centres are those that have been able to adapt to these trends and remain popular places for people to socialise and try interesting cultural and leisure experiences.

However, our rural communities often find it difficult to reach their nearest town centres by public transport. Some rural communities live in what is effectively a 'public transport desert' – which are areas without access to nearby alternative transport other than private vehicles.

Even where people in urban or rural areas can access a town centre by walking, cycling or public transport it may not be their first choice. In addition, many town centres will have a more limited range of shops, services and activities than they did 20 years ago.

The world around us is also becoming increasingly digital, helping to reduce the need to travel to buy

things or receive services. Things like mobile banking, online shopping and remote GP consultations are becoming increasingly commonplace with new apps and technology making this trend more accessible.

While 98% of Essex households have either mobile phones or a computer to access the internet, not everyone has access to good gigabit speed broadband, a reliable 4G/5G mobile signal or the money to buy unlimited mobile data to make the most of this technology.





This is a problem in many of the same rural communities which lack satisfactory public transport as Figure 4.1 shows below.

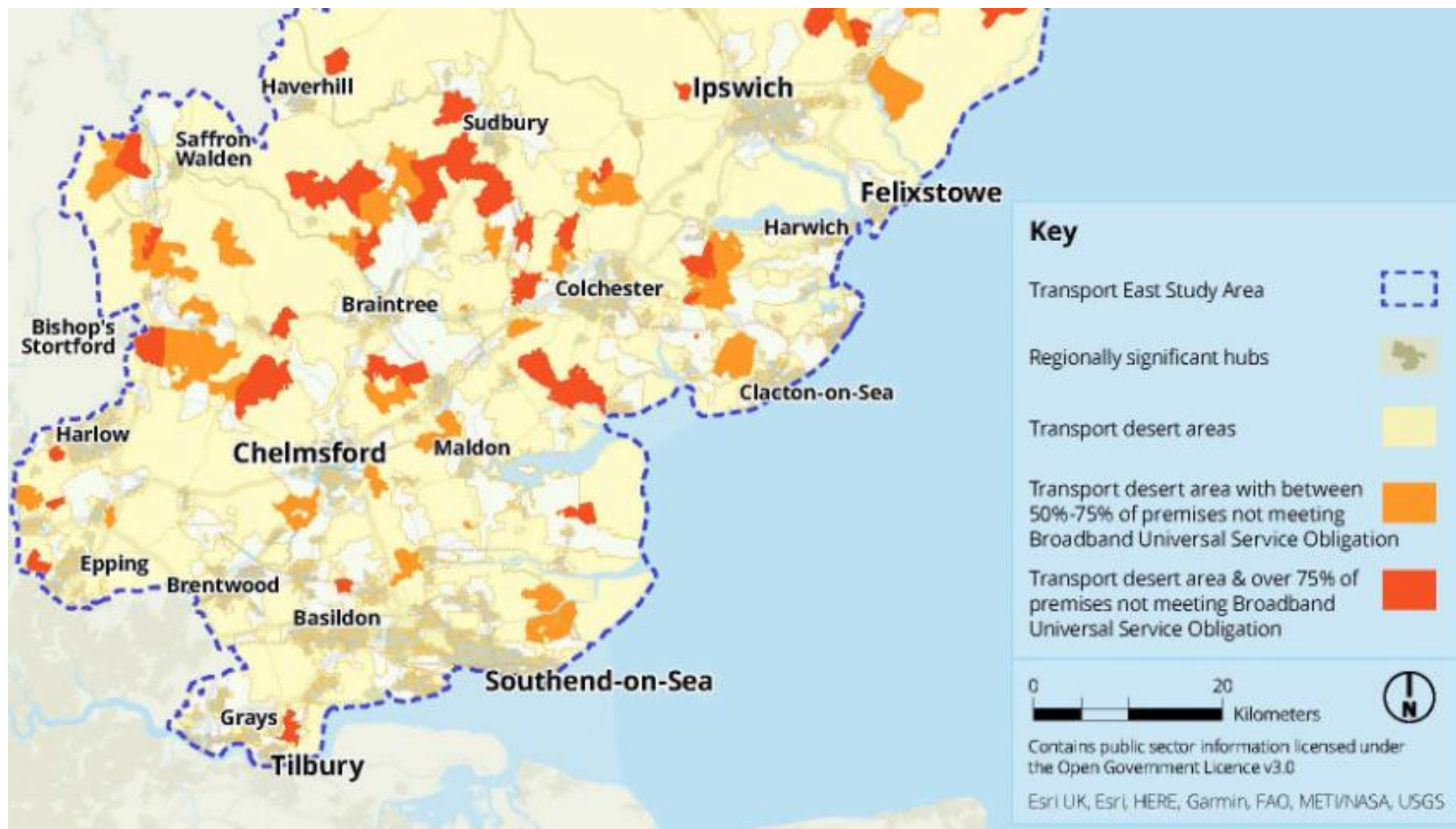


Figure 4.1. Transport Deserts and Broadband Issues in Essex (source: Transport East).

#### 4.2.2 Who is affected?

While many of us take for granted the ability to travel easily from A to B to visit the people, places and services we want, this is not true for everyone. Residents of rural areas, people on low incomes, those without a driving licence and those with mobility issues are all affected by the cost of travel, cost of living and/or suitable alternatives to the car.

Alternatives to the car are becoming more and more important to a growing number of younger people. Nationally, the average age of people passing the driving test has continued to increase in recent years with this now over 24 in 2023/24.<sup>47</sup>

Over the past decade the cost of travel has changed for different types of transport and different groups of people. Total motoring costs for the average car owner are now less than they were a decade ago. Given all public transport modes have seen real price rises this has further increased the perceived attractiveness of the car for many people.<sup>48</sup> At the same time there have been rising cost of living pressures, such as the cost of energy, food or housing, outstripping average wages.

However not all drivers have benefitted from this fall in cost. Car insurance makes up a significant cost of driving for younger people. Nationally, average annual insurance quotes for drivers aged 17 to 21 increased by over £1,000 between 2021 and 2023 to over £3,000 for the youngest age groups.<sup>49</sup>

Travel is also relatively expensive for those on a low income with a need to make difficult choices about how, when and where they spend their money. Owning a car or van is becoming harder to afford for young adults and those on low incomes. Those on lower incomes also increasingly struggle

to rent or own a home in the places with good quality public services or public transport nearby. In these situations, residents must make difficult choices about taking on the extra financial burden of vehicle ownership to access work, essential public services, see friends and family and enjoy their free time. Data on local income deprivation<sup>50</sup> shows that this is a particular issue in parts of Basildon, Canvey Island, Harlow and the Tendring coast.

We also know that some rural residents have difficulty in accessing key services with this hidden by the higher-than-average car ownership<sup>51</sup> in these places. In rural communities in districts such as Uttlesford and Braintree, choices and independence are often limited if people don't have the ability to drive. People may need to rely on friends and family to take them when and where they want to go.

Both older (65+) and younger people (under 25) are more likely to rely on public transport than other age groups to access key services in Essex. Public transport also provides young people with an alternative to relying on parents and caregivers to go to school, meet friends and enjoy leisure activities.

Young people make up a higher-than-average population share in Basildon, Harlow and Uttlesford districts. High car ownership and dependence poses a distinct challenge for young people in Uttlesford away from its main towns and places served by the London to Cambridge rail line.

Older people make up a higher-than-average share of the population in coastal districts such as Tendring (30%), Castle Point (25%) and Maldon (25%)<sup>52</sup> where in some places public transport is infrequent, unreliable and not a credible option to access the range of services that people want.

People are less dependent on a car to get about in our largest urban areas and places close to London. Good quality public transport such as bus and rail connect people to a wide range of opportunities both within and outside of Essex. The size and location of these towns and cities support a wider range of nearby facilities within walking and cycling distance. But the most accessible locations close to rail stations with fast and frequent links to London are increasingly desirable and expensive places to live, meaning that those on low incomes are often priced out.

Low-income families tend to have a greater dependence on bus travel. Historically the cost of bus fares took an increasingly large proportion of their income. The national introduction of a temporary maximum £2 bus fare for most services on 1 January 2023<sup>53</sup> helped to reduce the cost of travel for longer bus journeys or less frequent users. Lower fares have helped to increase the number of people using buses in the county, with more people using buses in Essex in 2023/24 than in 2019/20.<sup>54</sup> This has also helped to support bus routes and retain people's existing access to opportunity.

Walking and cycling provide cheap alternatives for many short journeys. While we have invested in new and improved footways, routes and crossings across the county more can be done to make regular journeys on foot or bike safer and more attractive.

For our ageing population and those who identify as having some form of disability, access to transport can be far from simple. This limits people's ability to go about everyday activities to access the same wide range of opportunities that our county has to offer everyone else.



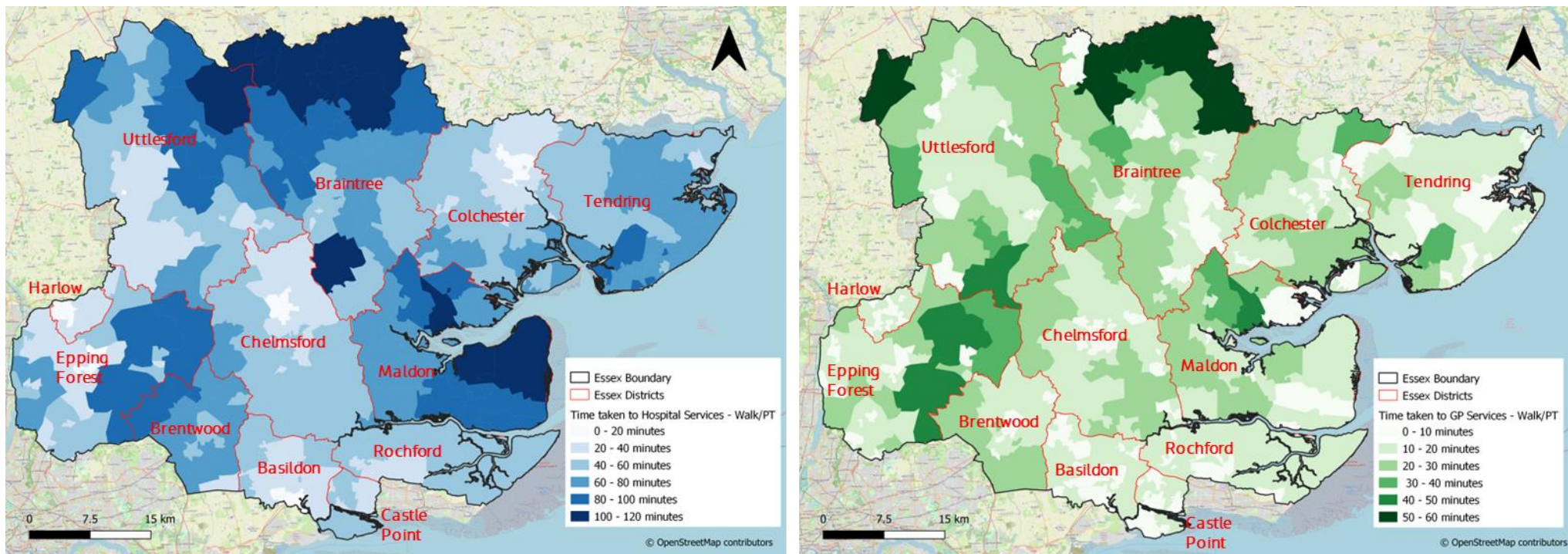


Figure 4.2. Journey Times to Hospitals (left) and GP surgeries (right) by Public Transport (Source: Department for Transport, 2019)

Disability levels vary across Essex with nearly 10% of Tendring residents' day to day activities limited a lot by their condition<sup>55</sup>. While proportionately lower, this is also a key issue in some of our most populated districts such as Colchester, Basildon, Braintree and Chelmsford. We know that it is essential that the design of transport infrastructure for disabled people should be to the highest possible standards – and that there is much to do to offer equal access for disabled people by 2030.

### 4.3 Improving physical and mental health and wellbeing

#### 4.3.1 Access to health services

Adequate access to healthcare is important for people throughout all stages of their life. However, many of our rural communities (such as parts of Braintree, Epping Forest, Maldon and Uttlesford districts) struggle to access a GP within an hour or a hospital in 90 minutes if at all by public transport (see Figure 4.2 above). For some residents the nearest healthcare facility will be in another county.

Just because someone can reach a hospital it is not necessarily the right hospital for their health issue. Some of our hospitals provide a community function for minor injuries and outpatient care

(such as Braintree). A smaller number in our largest urban areas (such as Broomfield Hospital in Chelmsford) provide emergency care. And to provide the best possible medical care and knowledge, some people will need to travel in to or outside of Essex. Southend University Hospital is important for many in South Essex, while Basildon University Hospital is vital for many residents of Thurrock. Some hospitals share services (such as Colchester and Ipswich) and certain conditions are treated at one or two specialist units in the largest hospitals in Essex and neighbouring areas such as Addenbrooke's Hospital, Cambridge. This means that people outside of the largest areas have further to travel for treatment or visiting – with this worse for residents of our rural areas.



### 4.3.2 Physical health

Examining the life expectancy of our residents can help us understand where improved access to transport might support a longer and better quality of life. Life expectancy varies across Essex as does access to healthcare with the two very closely related. The average life expectancy in Essex is 80 years old for males and 84 years old for females<sup>56</sup>, with residents of Tendring, Harlow, and Basildon expected to live two fewer years.

Obesity is a major contributor to serious health conditions such as diabetes and heart disease and will influence how someone can get around. 28% of Essex residents are obese<sup>57</sup>, with the lowest levels found in districts such as Brentwood, Chelmsford, Epping Forest and Uttlesford, where adults typically take part in more physical activity. Despite widespread car availability, higher annual incomes are likely to provide people both with more money and free time to undertake leisure activities that keep them active including walking, running, cycling and other sports.

Despite lower car availability in districts such as Tendring and Harlow, adults are both more likely to be obese and less likely to be active. Less free time and money to spend on leisure activities are contributing factors.

Obesity issues can start early in life. Children are exercising less as they get older, increasing their risk of obesity and poor health in later life. Between the ages of 4 and 10 years there is a jump in the proportion of children who are classed as obese across Essex, but most notably in Harlow, Castle Point, Basildon and Tendring where over 30% of children are physically inactive<sup>58</sup>.

Our transport network has a key role to play in providing residents with a low-cost way to keep active and maintain good health – whether that is through walking or cycling to work or the shops, or to use our transport network, rights of way, parks and open space to walk, jog, run, cycle or ride a horse for leisure and recreation.

### 4.3.3 Wellbeing

We want everyone to feel comfortable, healthy and happy in life. There are various things that we can do to feel well – such as meeting friends and family, taking a pet for a walk, visiting new or familiar places including our parks, countryside and coastline, or undertaking physical activity such as a walk, run or ride.

According to Mental Health UK, walking and other activities that keep us moving help to improve common mental health disorders such as depression and anxiety.<sup>59</sup> This correlates with what the data tells us in Essex. For example, Harlow's residents are more likely to feel anxious and unhappy – and at the same time 30% of its residents are physically inactive.

Access to green spaces is generally good in Essex, with over 80% of residents living in locations considered acceptable.<sup>60</sup> However, in many instances our green spaces are still inaccessible, or access may be limited. Rural communities are particularly affected by a lack of access despite being close to more natural areas.

Some areas may not always be well served due to how a village or town has developed over the years. Busy roads and railway lines can act as physical barriers, and people's perception of access to open space and whether it is available for them can vary.

The ability to travel locally or further afield is a key factor in supporting people feeling well about themselves. Social isolation can have negative effects on our residents' daily lives and the ability to communicate and travel is vital in keeping residents in touch with friends and family.

In rural and coastal areas such as Tendring where public transport is not as good as our major towns and cities, it's those most reliant on public transport to get about (the young and old) that are most at risk of social exclusion. At the heart of both potential transport and community solutions to social exclusion is the need for enough people to make things viable. Future housing and economic growth targeted in the right places can make a positive difference.

## 4.4 The transport network is safe, and feels safe, for all users

### 4.4.1 Physical safety

Keeping people safe and well must be at the heart of any strategy and must enable people to make the most of life's opportunities. It is important that we understand, not only how safe our transport network is but also how safe it feels for its users. The two things are related but not the same.

Physical road safety is typically measured in terms of collisions and the resulting casualties. While casualties had been in long-term decline prior to the pandemic, they have continued to increase since 2021<sup>61</sup> – nearly 700 people are seriously hurt or killed each year on Essex's roads. Much needs to be done to reach Essex's ambition to achieve zero road deaths and serious injuries by 2040.

Road users such as motorcyclists, pedestrians and cyclists are especially at risk making up 49% of all serious or fatal casualties on our roads (see **Error! Reference source not found.** below). Data shows that car drivers are the primary contributor to these collisions.

Serious and fatal casualties by mode in Essex (2021-2023) Younger people aged 16-25 are most likely to be involved in a serious or fatal collision, and 70% of these are young males.<sup>62</sup> The main reason for the difference is young male motorcyclist casualties. 40% of male age 16-25 serious/fatal casualties on Essex's roads are motorcyclists.

There is also a male bias in serious/fatal cyclist casualties on our roads, with 88% of them involving males. Most of these cycle casualties occur in our larger towns and cities. Significant numbers of motorcyclist casualties also occur in these urban areas and on single carriageway main roads in rural areas.

There is also a year on year rise in serious/fatal casualties involving over 55s on our roads. This mirrors long-term trends across the country<sup>63</sup> and in part reflects the sustained growth of driving license and vehicle ownership amongst older age groups, as people who learnt to drive in the 1980s and 90s grow older.

National data also shows that there is an increased casualty rate for those aged over 70, and particularly for those aged over 80 years old, with these groups second only to younger drivers under 24.<sup>64</sup>

#### 4.4.2 Feeling safe – perceptions of safety and crime

If people don't feel safe then they either don't travel – restricting both their ability to have good sustainable access to opportunity, along with improved physical health and wellbeing – or they use private transport which may not be their ideal or the most appropriate choice for the journey. Private transport has its own safety risks (with cars statistically less safe than public transport), as well as financial, economic, social and environmental impacts for users and society.

Perceived safety – or how safe something feels – is harder to measure than physical safety, but an understanding of transport-related crimes is a helpful starting point. Theft (including both bicycles and from the person), vehicle offences, along with stalking and harassment, are the most common reported offences in Essex.

Perception of safety continues to improve in Essex. People felt safer in their local area both during the day and at night in 2022 than they did in 2014.

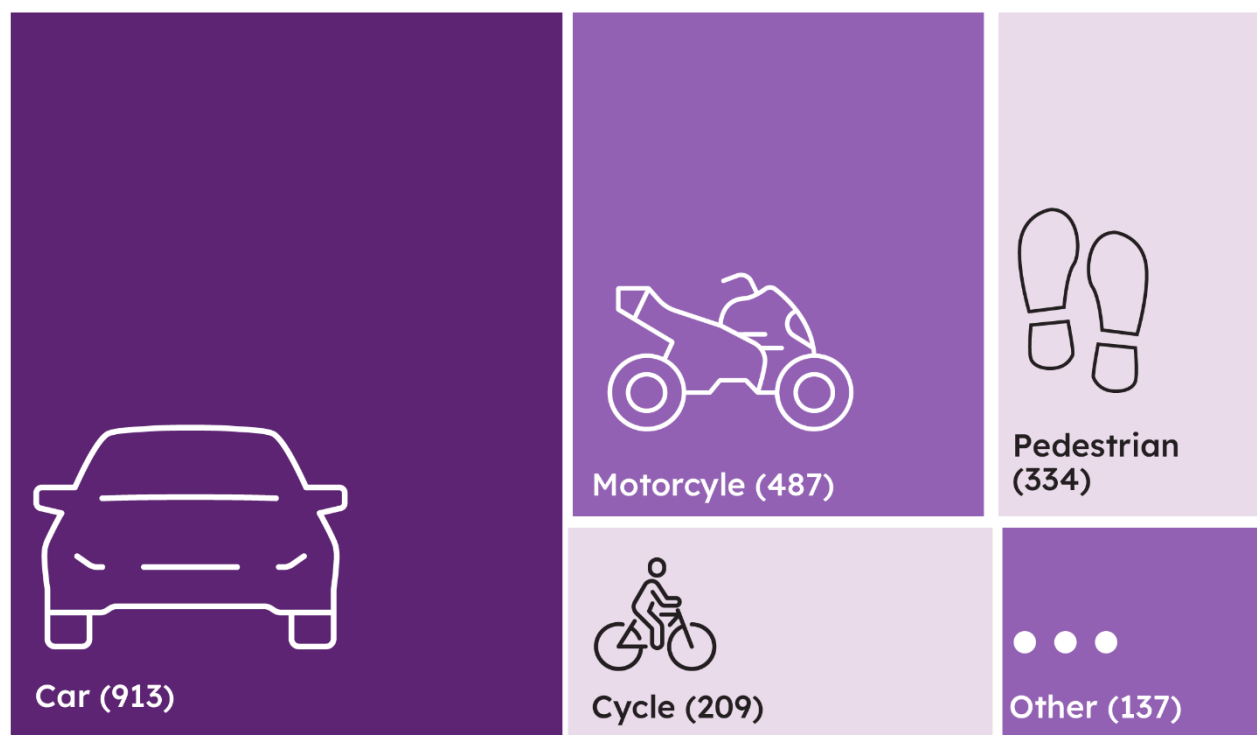


Figure 4.3. Serious and fatal casualties by mode in Essex (2021-2023)

People may be more likely to walk, cycle or use public transport at more times of the day if perceptions of safety continue to improve. Feeling safe is also a crucial factor in encouraging people to access our green spaces more often. 87% of Essex residents feel safe or very safe when outside in their local area during the day<sup>65</sup>. While feelings of safety during the day are consistent across males, females and most age groups, residents with a long-term limiting health condition or illness (LLTI/condition), younger adults (18-24) and residents of the most deprived neighbourhoods<sup>66</sup> are less likely to feel safe versus the Essex average. Females, younger adults and those with a LLTI/condition are all less likely to feel safe after dark.<sup>67</sup>

## 4.5 What are we going to do about it?

We will work closely with all layers of the public and private sector, transport operators, digital infrastructure providers, community groups, charities (e.g. Sustrans), our existing partnerships (such as Safer Essex Roads Partnership) and residents to help deliver our desired outcomes. This applies equally to the planning and design of transport, essential services and new developments. In all of these situations it's important that we work closely with service providers, local planning authorities, developers and stakeholders to improve the quality, safety and accessibility of transport, the delivery of key services and new development proposals.

Key initiatives and policies to achieve these outcomes are provided below. These policies apply to both the County Council and any other organisation (such as local planning authorities, public service providers, developers and transport providers amongst others) whose plans, policies and actions impact how, why and when people and businesses may need to travel.

This chapter provides a summary of the policy with further detail on our guiding principles, actions and supporting documents in **Appendix C**.

### 4.5.1 Understanding travel need – designing for everyone

Good access to a range of services creates vibrant and sustainable communities and helps to prevent the social isolation of more vulnerable groups. Improving access to services helps older people to stay in their own homes, younger people access a better range of education and employment opportunities, and those with disabilities to fulfil their potential.

#### Policy 1. Understanding the travel needs of all people and businesses of Essex.

We will work with partners to ensure that the travel needs of all people and businesses in Essex are clearly understood and reflected in how transport services are planned and delivered, including making effective use of the latest innovation and technology.

We have a responsibility under the Equality Act 2010 to make sure that disabled people can access jobs, education and services as easily as others. We will continue to remove barriers to travel for those with disabilities by ensuring that transport infrastructure is designed, built, operated and maintained so that it is accessible, easy and safe to use by everyone all the time.

As advances in technology enables transport and service provision to evolve, we will work with our public and private sector partners to provide opportunities for everyone to access what they want and need. This will include involving disabled people in the design and testing of solutions from the outset.

It's also important that staff are available to help passengers throughout their journeys, on buses, trains and at bus and rail stations. We will work with the bus and rail industry to secure further improvements to the accessibility of public transport and passenger assistance.

### 4.5.2 Access to key services

Inclusive access to key services requires a full consideration of all non-travel and travel possibilities for any given situation, reflecting local and individual needs.

#### Policy 2. Access to key services.

We will work with partners and service providers to enable everyone living, working and investing in Essex to access key services with a particular focus on resolving inequalities in access to the transport network.

**Alternative service delivery.** We will encourage and support digital innovation to improve the provision of essential services in ways that are less dependent on transport, such as by reducing the need to travel and enabling people to access services from their own home. To support this, we strongly support the rollout of gigabit speed broadband and ongoing improvements to mobile (5G) coverage to areas where it is currently lacking. We will also support initiatives to improve access to digital technology where cost or skills may be an issue.

**Cycling and Walking.** We will continue to develop and deliver long-term plans for improving our core cycling and walking networks, building coherent routes that connect places that people need to get to, whether for work, education, shopping or for other reasons, such as access to parks and open space.



We will continue to focus on our main urban areas where the greatest potential for walking and cycling exists, but we will also not lose sight of coastal or rural locations where improved walking and cycling networks will help residents access to opportunity and increase physical activity.

**Buses.** Many people depend on the bus to get to work every day, and many others make use of the bus to access education, training, other essential services and leisure opportunities.

Our Essex Bus Service Improvement Plan<sup>68</sup> sets out how buses make people's lives better and how bus travel provides wide benefits for society. We will work with bus operators to identify congestion hot spots and potential solutions to improve bus journey times and reliability. We will also work with public transport and health care partners to identify options to improve access to hospitals and surgeries and how long it takes to travel there.

Implementation of the Bus Strategy<sup>69</sup> and Improvement Plans are essential for our transport network to enable people to live full and independent lives.

As technology develops further, we will evaluate opportunities for 'bus' services in the future to be better tailored to passengers' needs with flexible routes and timetables, serving wider rural areas that aren't currently possible with a conventional bus service.

Working with partners and service providers, we will provide attractive, safe, convenient, inclusive, and high quality public transport routes and facilities, designed in line with the latest design standards and guidance. In doing so we will seek appropriate opportunities to provide dedicated space for faster and more reliable public transport services.

We will also deliver high quality rapid transit networks where feasible to improve public transport services within and between our towns and cities, particularly linking new garden communities to nearby towns and cities (see section 6.5.5)

### **Demand Responsive Transport (DRT).**

Community Transport and DRT will help to provide inclusive and affordable access to services, especially for those living in rural areas or transport deserts. We already have five local bus registered DRT schemes and one digital Demand Responsive Transport service known as 'DigiGo' which enables users to book a ride with an app. We will explore every opportunity to expand this network to aid those in rural areas who have limited travel options.

**Lift sharing.** We already work with partners to promote more sustainable forms of car use such as car sharing and car clubs to help to widen

access to opportunity, reduce congestion and carbon emissions. We will continue to explore ways of promoting access to and use of these lift sharing schemes across the county.

**Car Clubs**<sup>70</sup> allow users to access a vehicle without owning one. As car club vehicles are often newer, they tend to have lower emissions than private cars, which helps to reduce carbon emissions and air pollution. Car clubs have grown in popularity across the country in recent years, providing people with a cost effective alternative to owning or leasing a car. Car club vehicles can already be found in our largest urban areas such as Chelmsford and Colchester. We'll continue to explore opportunities to include Car Clubs as part of a choice of transport options in Garden Communities and other relevant new developments.

**Integrating Transport.** We will work closely with Network Rail, Great British Railways, bus and train





operators and other travel providers to improve the integration of travel options. **Mobility hubs** are one example. These are safe and connected places that facilitate convenient access to local bus and/or rail services; shared mobility solutions such as e-scooters, bike share facilities, cargo bike hire, and car clubs; active travel options such as walking and cycling including secure cycle parking; and potentially wider facilities such as parcel lockers or vending machines. We've developed Mobility Hub Guidance<sup>71</sup> applicable to a range of locations from Garden Communities and other large new developments to rural locations (such as a rural travel hub at a railway station). Our Draft Plan for the Tendring and Colchester Borders Garden Community includes mobility hubs as part of a wider range of measures designed to provide residents with alternatives to the private car.

The Essex and South Suffolk Community Rail Partnership will also continue to play a key role alongside the rail industry in helping to ensure that our stations are at the heart of our rural communities.





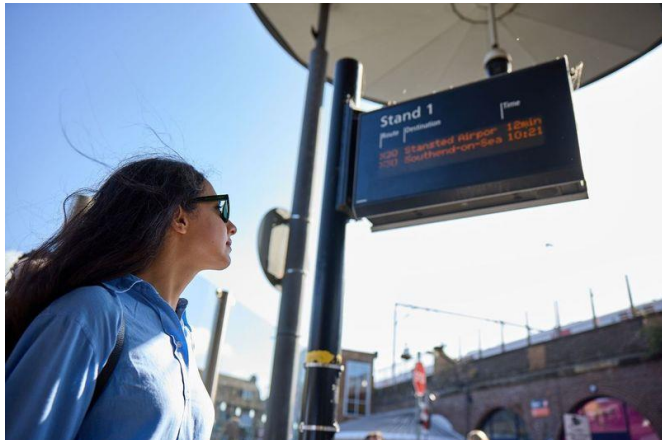
### 4.5.3 Travel information

Reliable, easily available and easy to understand travel information is vital to provide people with the confidence to travel, select the most appropriate travel option for their needs, and make the most of their opportunities.

The County Council is required to provide transport information. Case Study 4.1 shows what we provide through TravelEssex.

We will use new and emerging technologies to provide real time information to passengers, and make sure that travel information is available in a range of formats for everyone.

We will also work with operators to improve the quality of service and fares information and extend and improve the availability of static and real-time passenger information, including seeking developer contributions where appropriate.



#### Case Study 4.1. TravelEssex

TravelEssex is the single brand identity for the Essex bus network. It was introduced as part of an Enhanced Partnership commitment to make access to information about bus services and sustainable modes more easily accessible to the public. It is displayed on all buses running in Essex, roadside printed timetables and marketing material to promote bus use. The roadside infrastructure is also being updated to carry the logo. The new TravelEssex user-friendly webpage (<https://www.travelessex.co.uk>), launched in 2024, is the home for all information relating to bus travel in Essex, and includes travel planning functionality and LIVE bus tracking.

82,000 residents have downloaded the TravelEssex App, introduced in 2023/4, to use the simple travel planning function to plan a sustainable journey or book, pay and track Essex's first Digital Demand Responsive Transport (DDRT) service, DigiGo. The App also enables our implementation team to oversee, intervene, and adjust the service offering, and allow bus drivers to see their passenger pickups and drop offs, routes and their shifts and breaks.



#### 4.5.4 Fares and tickets

It is important that transport across Essex is integrated in a better way, for example ensuring tickets are flexible, buses meet trains and there are facilities which allow easy transfer between modes such as from cycling to rail. Technology already allows for smart ticketing, allowing people to pay for complex journeys in a single transaction. Therefore, we will support the introduction of multi operator and fully integrated 'smart' ticketing potentially through the Essex Travel App.

There is a wide recognition that the purchase of train tickets in particular is far too complex, creating confusion for existing and potential passengers. The current system was designed when 5 day a week commuting was the norm. The cheapest advance tickets are not suited to multi leg and multi operator journeys, and local one-way trips are almost the same price as a return journey.



We will continue to ask the Government and the rail industry for simpler and better rail ticketing for passengers. A simplified, easy to understand national ticket system with the flexibility to reflect the range of journeys people now make is essential. It is also important that everyone finds it easy to buy the ticket they need for their journey.

Many Essex residents will benefit from the extension of the London and the South East contactless payment mechanism in 2025, allowing people to tap in and out at rail stations with a bank card. The Essex Thameside line to Basildon and Shoeburyness went live in February 2025, with roll-out to all stations between Shenfield and Southend Victoria/Witham and London and Stansted Airport expected later in 2025.<sup>72</sup> We'll continue to support the wider roll-out of contactless payment to the rest of the rail network in Essex to increase convenience and reduce confusion for passengers, while still ensuring paper tickets and railcard discounts are available for those that want them.

#### 4.5.5 Walking and cycling (active travel)

Walking and cycling (or active travel) has numerous health benefits including a reduced risk of certain diseases (e.g. heart and lung conditions, some cancers and diabetes). They also provide a positive impact for people's mental health and wellbeing.

Our aim is to encourage more active travel throughout our residents' lives especially for shorter everyday trips such as travelling to school, travelling to work and to see friends.

Working with partners and service providers, we will provide attractive, safe, convenient, inclusive, and high quality walking and cycling routes and facilities, designed in line with the latest design standards and guidance. In doing so we will seek appropriate opportunities to provide dedicated space to create safer, direct walking and cycling routes. We will widen access to active travel through schemes such as 'Essex Pedal Power' (see Case Study 4.2), particularly in areas of high levels of health deprivation and places with poor

access to public transport such as deeply rural locations.

#### Case Study 4.2. Essex Pedal Power<sup>73</sup>

This initiative provides free bikes to residents in the county's most disadvantaged communities to significantly increase cycling, and physical activity levels. Essex Pedal Power launched in Clacton and Jaywick in June 2021, and is now active in Harwich and Dovercourt, Colchester, Basildon and Harlow. Over 3,500 bikes have already been distributed, out of a total of nearly 4,000<sup>74</sup>.



There is a quality support service for all residents who receive a bike, including free Learn to Ride sessions, bike maintenance and led bike rides. All Essex Pedal Power projects are committed to using and developing the local cycling infrastructure, including dedicated cycle paths, cycle lanes on roads, and community bike parking. Since launching, Essex Pedal Power has already made a positive impact to the lives of those who have received a bike, as well as creating new community cycling groups, a brilliant group of volunteers and regular learn to ride training sessions. Riders have increased their life satisfaction score, decreased their anxiety, accessed more employment opportunities and significantly decreased their car journeys. Since launching, employment levels amongst users has risen by 16% in Clacton and 18% in Harwich.<sup>75</sup>



We will work with schools and employers to enhance facilities for cyclists. We will also improve access to local services by joining up public rights of way, walking and cycling networks to form continuous routes.

#### 4.5.6 Widening travel choice

We are committed to providing people with a wider range of realistic choices about how, when and where they travel, to support our environmental and economic goals and enable smoother journeys for everyone.

Building new things isn't the only way to deliver amazing outcomes for people. Encouraging people to make better use of the infrastructure we already have by using appropriate revenue funding streams within the Council and those of our partners is just as important.

During the pandemic behaviours changed and the UK saw increased levels of walking and cycling. We will work with local communities, businesses and other organisations to promote activity and routes and raise awareness of the travel choices people have.

#### Policy 3. Sustainable and active travel choices.

We will encourage existing communities and require new developments to maximise the use of sustainable forms of travel such as walking, cycling and public transport for a safer, healthier and more resilient Essex, with better access to a wider range of opportunities.

A **Travel Plan** is a nationally recognised long-term package of measures that encourages safer, healthy and sustainable travel as well as delivering wider benefits such as air quality. We will use travel planning to promote alternative travel choices for major generators of travel - schools, businesses, and residential developments. Where appropriate, we will require developers, schools, and businesses to provide shared transport options such as car clubs, bike hire, lift share schemes and mobility hubs to help reduce private car use.

Travel plans will need to be produced in line with our guidance<sup>76</sup>. We will regularly monitor and review travel plans to assess progress and the need for any additional solutions to achieve the vision for transport.

We will work with our partners to encourage residents and businesses to switch to alternative travel modes through measures such as:

- Raising awareness of the impacts of individual travel choices and alternatives such as walking, cycling, or taking the bus or train especially for shorter journeys consistent with our 'Safer, Greener, Healthier' approach.
- Travel Information (see Section 4.3.3).
- Making it easier to pay for sustainable travel by supporting the introduction of multi operator and fully integrated smart ticketing for transport services in Essex.
- Providing cycle<sup>77</sup> training to give people the skills and confidence to cycle on our roads and cycle infrastructure.
- Promoting and enhancing access by active and sustainable modes to rail stations, bus stops and airports.
- Supporting further roll-out of cargo bikes for last mile delivery of goods and parcels.
- Supporting further roll-out of e-scooter trials in appropriate towns.





#### 4.5.7 Access to open and green space

We know that Essex residents value parks and open spaces as a key factor in making local areas good places to live<sup>78</sup>. Nationally, the Government wants everyone to live within 15 minutes walk of a green or a blue space<sup>79</sup>. The County Council is responsible for operating and maintaining a number of country parks and outdoor activity centres across the county (see Case Study 4.3 below), supplementing the public parks provided by our borough, city and district councils.

##### Case Study 4.3. Hadleigh Country Park

The creation of an elite mountain biking venue at Hadleigh Country Park for the London 2012 Olympic Games provided an opportunity to expand investment in the area's long-term recreational facilities. Since hosting the mountain biking event, Hadleigh Country Park has developed into a leisure facility and green space. Combining a cafe, bike hire, walking and cycling trails as well as a play area, there is plenty of room and opportunity for everyone to be active whatever their age and fitness level. The investment has delivered a range of benefits including recreation, health and wellbeing, learning opportunities, jobs, biodiversity and countryside management.



We will consider the needs of a wide range of users when planning improvements to create better open spaces, attractive active and sustainable travel routes, and public spaces to encourage more people to connect with local nature and heritage. Developers should fund these interventions where they directly relate to development and ensure their designs are consistent with national guidance.

Essex's Green Infrastructure Strategy<sup>80</sup> and supporting standards champions the enhancement, protection, and creation of an inclusive and integrated network of green spaces. Applying these principles will embed quality multipurpose green infrastructure that provides numerous features (such as active travel, flood management, sustainable drainage systems, improved air quality, biodiversity or recreation) as a part of making and maintaining better places for the benefit of people and nature.

People are more likely to use green spaces and other green infrastructure, if they are well kept and look attractive. Where sites become easier to access, they become more visible, better used and more widely owned and valued by local communities. We will sustain and improve the existing green infrastructure network by engaging and involving our partners, Parish Councils and communities.

We will work with landowners and other partners to ensure that the public rights of way network is well maintained and easy to use by walkers, cyclists and equestrians.

Finally, we will improve access and raise awareness of these green spaces, facilities and activities, hopefully encouraging people to include more exercise and contact with nature into their daily routines, helping to improve wellbeing and social inclusion.

#### 4.5.8 Improving wellbeing

We want people to have greater opportunities to make and keep contact with other people including friends and family. Our plans for improving access for everyone to our places, essential services, open space and travel information while making it easier to pay for travel are all designed to support this ambition.

We will continue to promote the support we provide to Essex residents and organisations through access to our Essex Wellbeing Service.<sup>81</sup> This includes access to emotional health and wellbeing support, free workplace health and wellbeing sessions, Mental Health First Aid training and a volunteering service, recruiting and connecting volunteers with Essex residents who need support with everyday tasks, social isolation and making long-term friendships.

Many Essex villages seem prosperous, but there are also signs of hidden deprivation, social isolation and the potential for people in rural locations to be unfairly disadvantaged for example by lack of access to facilities. We will promote the work of the independent charity, the Rural Community Council of Essex<sup>82</sup> which focuses mainly on these areas, but also provides some services, notably Community Agents Essex<sup>83</sup> and Kinder Essex Coaches<sup>84</sup>, on a countywide basis. The Rural Community Council of Essex works to provide local communities with the skills, resources and expertise necessary to achieve a thriving and sustainable future.

#### 4.5.9 Vision zero

Protecting the public is a vital part of our work to maintain and improve the road network. We are continually seeking opportunities to reduce the likelihood of a collision on the road network and looking at how we can prevent the more serious injuries and deaths from happening.

##### Policy 4. Being safe and feeling safe.

We will work with partners to make travel in Essex safe and feel safe for all users of the transport network.

We believe that the only acceptable number of deaths on the roads is zero and we aspire to achieve this as soon as possible. As an interim measure we will aim to halve the number of deaths and serious injuries by 2030. By 2040 we aim to have zero people killed or seriously injured on our roads<sup>85</sup>.

To achieve this 'Vision Zero' ambition we will:

- Follow a 'safe systems' approach that considers how all elements of the road system (vehicles, infrastructure, speed limits, road users, and post-crash care) work together to deliver better safety outcomes for all road users.
- Continue to work with partners such as the Police and the Safer Essex Roads Partnership to improve road safety.
- Address excessive speed and other reckless behaviour related to serious injuries and deaths.
- Develop targeted campaigns aimed at specific high-risk groups to improve safety.
- Work with employers to not only encourage safer travel to work but also improve road safety for those whose job requires long driving hours.



- Ensure 'safety audits' are undertaken of all proposed designs of new transport schemes or proposals to materially alter existing roads and footways.

We will also continue to work in partnership to create safe environments around schools, creating safe direct walking and cycling routes to school or 'Park & Stride' locations and explore ways to:

- Better manage motor traffic at the start and end of the school day.
- Proactively monitor and evaluate casualty and vehicle collision data for new and existing infrastructure to spot emerging safety issues and act on them.

#### 4.5.10 Travel safety

We want to create an environment where everyone feels safe and secure. We will collaborate with the Police and public transport operators to reduce crime and the fear of crime

when travelling on the transport network, and we will work with developers to facilitate the promotion of safe, well-designed neighbourhoods.

We will work with partners to improve the security of car parking and cycling parking at transport interchanges such as bus and rail stations. We will also promote training initiatives and technology that improve safety and confidence when travelling. These include:

- Our Essex Bystander Intervention Awareness training to challenge poor behaviours that may have become normalised over time. The training aims to empower people to create a safer society for women and girls in Essex.<sup>86</sup>
- The free Travel Guardian all-in-one safety app that enables people to report crimes on trains, buses, trams, taxis, ferries, flights and at stations – helping to ensure safer journeys for everyone.<sup>87</sup>

## 4.6 Summary of our outcomes and activities

Table 4.1. People having inclusive and affordable access to key services.

Planned activities	Where or who to target
Raise awareness of the impacts of individual travel choices and alternatives consistent with our 'Safer, Greener, Healthier' approach	Countywide
Encourage digital innovation such as new apps and that enable the delivery of essential services such as healthcare in ways that are less dependent on travel	Countywide, with a particular focus on people where costs or digital skills are an issue
Support rollout of faster broadband and ongoing improvements to 5G mobile coverage	Rural and deprived areas
Implement our Bus Service Improvement Plan	Countywide with a focus on congestion hotspots, coastal and rural areas, and access to healthcare
Provide attractive, safe, convenient, inclusive and high quality public transport routes and facilities, designed in line with the latest design standards and guidance	Countywide
Explore opportunities to expand our Demand Responsive Transport network	Rural areas, including young and older people
Work with partners to promote more sustainable forms of car use such as lift sharing and car clubs	Countywide
Develop and deliver long-term plans to improve our cycling and walking networks by considering our Local Cycling and Walking Infrastructure Plans	Countywide
Develop and deliver mobility hubs to facilitate convenient access to public transport services, shared mobility solutions, and active travel options. In rural locations these could combine transport, retail and community services.	Countywide, including Garden Communities and other large-scale developments
Work with the Essex and South Suffolk Community Rail Partnership to put our stations at the heart of our communities	Branch line stations, selected main line stations
Design, build, operate and maintain transport infrastructure so that it is accessible, easy and safe to use for everyone	Countywide, with a particular focus on people with health conditions or requiring mobility aid
Work with the bus and rail industries to secure further improvements to the accessibility of public transport and passenger assistance on buses, trains and at bus and rail stations	Countywide, including stations where passengers change buses and trains



Planned activities	Where or who to target
Travel information will make use of new technology and be available in a range of formats for everyone to access	Countywide
Support the introduction of multi operator and fully integrated smart ticketing for transport services in Essex	Countywide
Ask the Government and the rail industry to implement simpler and better rail ticketing	Countywide
Support the wider roll-out of contactless payment to the rest of the rail network in Essex	Countywide
Work with schools and employers to enhance connectivity, parking and other facilities for cyclists and scooters	Countywide
Use travel planning to promote active travel choices across all sizes of development and major existing generators of traffic	Countywide including existing workplaces, schools and proposed developments
Provide training and promote free initiatives to increase people's confidence and participation in cycling	Countywide
Continue to evaluate the suitability of our towns and cities for new electric forms of transport such as e-scooters while we await new national laws	Our larger towns and cities

Table 4.2. Improving physical and mental health and wellbeing

Planned activities	Where or who to target
Develop and deliver long-term plans to improve our cycling and walking networks by considering our Local Cycling and Walking Infrastructure Plans	Countywide
Widen access to Essex Pedal Power – which provides free bikes and a support service for our most disadvantaged communities	Areas with high deprivation or poor access to public transport such as rural locations
Implement our Green Infrastructure Strategy to deliver better quality and more accessible multipurpose green spaces and links for everyone	Countywide
Work with landowners and other partners to ensure that public rights of way are well maintained and easy to use	Countywide
Improve access to and raise awareness of the green spaces, facilities and activities available to the public	Countywide, including our Country Parks

Planned activities	Where or who to target
Support people increase their confidence to travel by improving travel information while making fares and ticketing easier and simpler to understand	Countywide
Promote the support we provide on mental health and wellbeing through our Essex Wellbeing Service	Countywide, including Essex residents and organisations
Promote the work of the independent charity – Rural Community Council of Essex – in tackling hidden deprivation and social isolation in our villages and rural areas.	Rural areas

**Table 4.3. The transport network is safe, and feels safe for all users**

Planned activities	Where or who to target
Follow a safe systems approach in designing and maintaining our highway network	Countywide
Collaborate with partners such as the Police and Safer Essex Roads Partnership to improve safety	Countywide including specific high-risk groups such as motorcyclists, pedestrians, cyclists, men aged 16-25, and people aged over 55
Promote training initiatives (e.g. Bystander training) and apps (e.g. Travel Guardian) to improve safety and confidence when travelling	Countywide including a focus on creating a safer society for women and girls
Collaborate with the police and public transport operators to reduce crime and the fear of crime when travelling on the transport network.	Countywide
Design new and improved infrastructure and promote well-designed neighbourhoods so that they feel safe and secure to use.	Countywide including bus and rail stations
Work in partnership to create safe environments around schools	Countywide
Provide cycle training to develop or improve people's skills and confidence to cycle safely within Essex	Countywide

## 5. Creating sustainable places and communities

### 5.1 Introduction

Essex has many unique landscapes, habitats and species and distinctive cities, towns and villages rich in history and identity. Most people in Essex live and work in our largest urban areas (Basildon, Chelmsford, Colchester and Harlow) or their neighbouring market towns and local centres.

The county's existing transport network is very closely linked with this surrounding townscape and countryside. The look and feel of landscapes, historic buildings, villages, towns and cities have been influenced by nearby paths, roads, railways and waterways. Woodlands and hedgerows are found along paths, roads and railways; grasslands and meadows on verges and embankments; and wetlands and water bodies alongside various routes. Parks, farmland, and coastal habitats also play a significant role in making Essex what it is today. Maintaining and enhancing this high quality natural and built environment is one of our strategic aims.

Our ability to travel is a valuable part of our everyday lives, yet the choices we make about when and how we travel can have unwanted impacts on the people, places and natural world around us. Transport is a major contributor to the release of greenhouse gases and local air quality issues which impact the health and wellbeing of the people of Essex, and the county environment itself.

Our roads, railways, ports and airports also have an impact on the character of our countryside and places and their living things and habitats. Suitable space to expand the transport network is also limited meaning that we can't rely on simply

building more and more of it to cater for potential growth in travel.

Previous patterns and designs of growth have also contributed to a situation where people need a car to get around. With the population of Essex expected to grow by 7% over the next 20 years to 1.64 million<sup>88</sup>, we know that this needs to change. While growth means more homes and good jobs, the way we plan and manage this growth will make a massive difference to the quality of our places and communities.

We want to deliver this growth in a way that enables us to maintain and improve the individual character and quality of our cities, towns, villages, countryside and surrounding natural and historic environment. We need:

- All places to support the transport needs of all residents.
- New developments designed to be sustainable from the start.
- To reduce transport's impact on the environment and avoid adverse impacts on natural habitats.

Creating Sustainable Places will ensure Essex remains a 'destination place of choice' where people want to live, work and visit.

### 5.2 All places support the transport needs of all residents

#### 5.2.1 Our places

Most of our population is found in our four large urban areas and their neighbouring market towns and local centres as set out in Figure 5.1 on the next page.

Our large urban areas are centres of employment, support a wide range of everyday opportunities and have good road access by car but experience busy road networks at peak times. They are also well served by direct rail links to London, although except for Chelmsford and Colchester, not to each other. They also provide the critical mass of people to support local bus networks linking their central areas with their suburbs and surrounding towns.

Where over recent decades shops, services and jobs have moved to out of town locations to provide easy access by car, they have proved less accessible to those walking, cycling or using public transport. Bus services also may be less frequent at weekends or evenings impacting the type of journeys people can make.

Our market towns and local centres typically support a smaller number of jobs and a range of opportunities for everyday needs. However, the wider choice offered by our large towns and the concentration of jobs, shops and services (such as banks and healthcare) in fewer places means that some travel is inevitable.

Many of our most successful market towns and local centres have railway stations providing direct rail links to London and neighbouring large towns and cities. Some towns such as Waltham Abbey, Saffron Walden and Canvey Island have short car, bus and cycle links to their nearby stations. However, others such as Maldon, Great Dunmow and Halstead are some distance away from rail services.



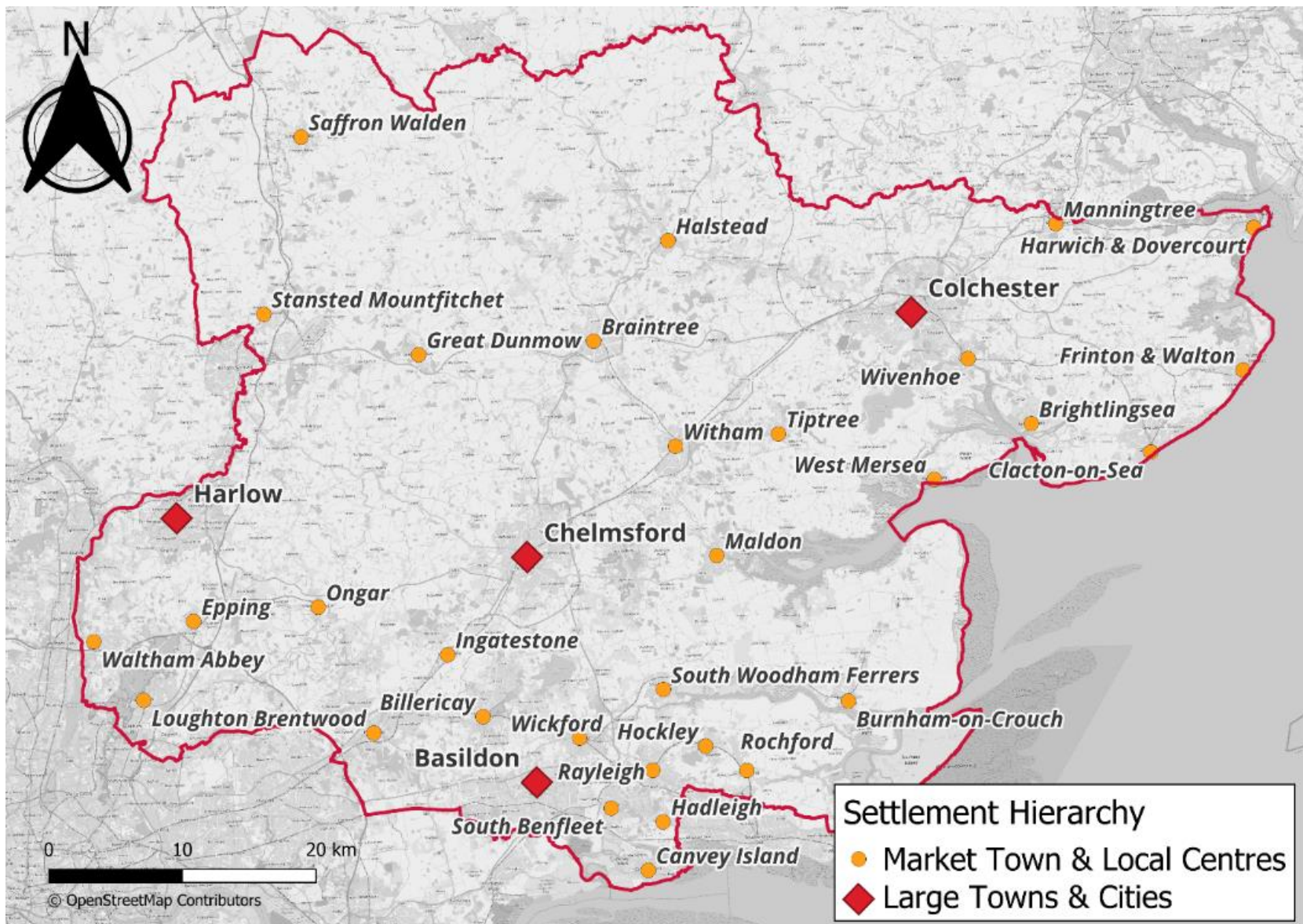


Figure 5.1. Our cities, towns and local centres

Our villages also perform an important local role for their rural community and passing visitors. Depending on their size, they may support functions such as a primary school, church, pub, shop and a GP surgery, accessible on foot. Villages that grew up alongside our main roads and railway stations are typically better able to support the travel needs of residents through public transport.

### 5.2.2 Healthy streets

Residents<sup>89</sup> have told us that clean streets, well maintained roads and footways, and access to parks and open spaces are some of the most important things to make somewhere a good place to live. We also know that good footpaths and access to parks and open space help encourage more physical exercise and improved mental wellbeing for all age groups. This is why we need to consider the principles of 'Healthy Streets' in creating more sustainable places and communities. There are ten indicators (see Figure 5.2 right) that we can use to assess how healthy our streets and places are and what we can do to improve them for everyone.

Walking and cycling should be feasible for many local journeys in every type of place. However, this will depend on how places have developed and how road transport has impacted the ease and experience of moving around by foot or bike.

Urban cycle networks are present in Chelmsford, Basildon, Colchester, Harlow and to a lesser extent Braintree. However, many of our other towns still lack a complete network of good cycling infrastructure and even where it does exist, routes are not always connected, maintained and signed.



**Figure 5.2. Healthy Streets**  
(Source: [www.healthystreets.com](http://www.healthystreets.com))

In our 2024 Essex Residents Survey<sup>90</sup>, 70% of respondents are satisfied with their local area as a place to live. Satisfaction is at its lowest in the district of Basildon (53%), containing one of our postwar new towns. Their planning focussed on providing easy access by the car, impacting how people can move around by other modes of transport with roads often dominating the look and feel of the place.

While Basildon includes an extensive network of walking and cycling routes away from main roads, their layout and design no longer meets best practice.

As we plan for future growth, we know that we need to think and plan differently by designing for people and their needs.



### 5.2.3 Place and movement

In recent decades the planning of transport infrastructure has more often focussed on vehicles rather than our residents themselves.

All roads in Essex are currently classified into three groups, focussed on the road and vehicles using it. This rigid, technical approach does not always reflect changing local needs, the importance of places to our residents, businesses and visitors, and how people of all ages and abilities would like to move around.

Many councils have started to consider a new and more flexible approach which is more people and place focussed, that we call 'Place and Movement'.

Place can be defined as the 'feel' of an area and what people do when they get there; for example, a high street will have shops, cafes and places to sit down, and a local residential street should be quiet with less focus on through traffic. Movement considers moving between, within and around a place and how users are doing it, such as by walking, taking the bus or driving. By classifying our roads and streets differently we can focus improvements on where they make the most sense for the road users and places we are trying to help.



### 5.2.4 Electric vehicles

For us to design and deliver healthy places which put people first, we need to think about different ways to travel. In a rural county, driving will always be the main option for some people, and it's important that we help people make this as sustainable as possible.

Electric vehicles have a key role to play in helping reduce the impact of pollution on our streets and places. No new petrol or diesel cars will be sold after 2030. All new cars and vans will need to be 100% zero emission by 2035<sup>91</sup>. The market share of fully electric cars is increasing, making up nearly 20% of all new cars registered in the UK in 2024<sup>92</sup>.

Good electric vehicle charging infrastructure is needed to enable those who need to drive to convert to electric. Not everyone will have a driveway to charge their car at home. People will also want to quickly charge their vehicle away from home if visiting or travelling around the county. Public charging facilities on street, in car parks or at service stations are an essential part of this change.



Currently electric vehicle charging infrastructure and ownership is concentrated in our urban areas and locations close to major long-distance roads. Public charging facilities are limited in more rural and coastal areas away from major roads, such as in Maldon, Tendring, Rochford, Castle Point and Brentwood, compared to the national average.

Electric cars are more expensive than their petrol or diesel versions, with still only a small second-hand market available to potential buyers. With car ownership and incomes already lower than average in districts such as Tendring, Harlow and Castle Point it is not surprising that they have far fewer electric vehicle owners than the national average.

Nationally the bus industry and public sector are investing in zero emission buses, with 45% of all new buses in 2023 either battery-electric or hydrogen powered<sup>93</sup>. The Government's Zero Emission Bus Regional Area funding has helped to facilitate this trend. Basildon is one area to benefit from this funding, with 55 new electric buses planned for introduction later in 2025<sup>94</sup>. In addition, energy provision across the whole of the East is challenging, so we need to enable the transition to electric vehicles while also managing our natural resources responsibly.





### 5.2.5 Sustainable drainage

Similarly, water is an important feature of many of our places – from our many coastal towns to the Can and Chelmer flowing through Chelmsford or the river Colne alongside Colchester's Castle Park. Our towns and villages also include many smaller streams and rivers that are at risk of flooding their surrounding areas following very heavy rainfall. Alongside heavy rain there is also the potential for longer periods without rainfall, drying out our rivers.

We have responsibilities as both the Lead Local Flood Authority and the Highway Authority to manage flood risk. This involves close co-operation with other risk management authorities (such as the Environment Agency and water companies), as well providing and managing highway drainage<sup>95</sup>. As our weather experiences extremes, it's important that we and our partners do all we can to protect people's homes and businesses from too much or too little water.

One approach is to make more use of better approaches to urban drainage. Appropriately designed, built and maintained Sustainable Drainage Systems (SuDS) are a key part of new development and new transport infrastructure. They are designed to look like natural drainage features to manage stormwater locally.

All major developments are required to incorporate SuDS which should provide multiple benefits:

- Reduce flood risks.
- Reduce pollution risks and improve water quality.
- Improve habitats for a diverse range of plants and wildlife.
- Create pleasant environments for people to spend time in.

As we think about creating sustainable places and communities, it is essential to think broader, and longer term than the immediate future. Land associated with transport infrastructure provides opportunities to reduce wider flood risk. Decisions made now, whether about existing infrastructure, or designing coastal developments in the future, need us to think differently.

### 5.3 Work with partners to design sustainable developments from the start

#### 5.3.1 Supporting growth

Essex's population continues to grow with people living longer and people moving to the county from other parts of the country. We expect that trend to continue with our population forecast to reach 1.7 million by 2043.

We therefore need more homes. As of April 2024, adopted and emerging Local Plans in Essex were already seeking to deliver around 6,900 homes every year up to the early 2040s. The new

minimum housing targets set out by the Government<sup>96</sup> significantly increase this requirement to around 11,600 every year.

The New Towns Taskforce will submit a list of places where new towns could potentially be located to Government in summer 2025, which would be in addition to these requirements.

This new housing needs to take many forms to meet the diverse needs of our future residents. And it's important that we manage this growth in a planned and sustainable way.

We want new developments to achieve the widest possible social, economic, and environmental outcomes. And it's important that everyone benefits, including both our new and our existing residents.

We can successfully cater for growth in several ways. From expanding existing settlements in a sympathetic and proportionate way including regeneration of town centres and previously developed land, to sustainable urban extensions of cities and towns, or creating independent new settlements (such as Garden Communities).



*Image courtesy of Countryside, Landscape design by Randall Thorp*



*Image courtesy of Alison Brooks Architects*

Due to the nature of growth demands in Essex, a combination of all these forms of development will continue to take place.

Well-planned new development encourages economic growth, supports local industries and creates opportunities for investment and jobs in the area. Conversely, badly designed and located development increases congestion and damages the transport network.

### 5.3.2 Locating and designing new developments

How planning works at a local level can be quite complex. Firstly, national planning policy provides a framework for public and private developments. Then local planning authorities (borough, city and district councils) create Local Plans, setting out a long-term vision for employment and housing growth in their area and where this should be located for between 15 to 20 years in the future. With devolution and local government reform, this responsibility will change. The new Greater Essex Mayoral Combined County Authority will be responsible for the new Strategic Development Strategy while our district planning authorities will be replaced by a smaller number of new Unitary Authorities that will take on responsibility for the Local Plan and other planning decisions.

The location and design of new development must consider a range of factors including transport. National planning policy states that the planning system should limit the need to travel and offer people viable sustainable travel options.

It's very important that a clear and credible vision for transport influences the design of new developments from the start. In designing these places, local planning authorities and developers need to have a realistic understanding of transport use and its impacts and how practical and

effective potential solutions to achieve the desired vision will be.

Placing development in locations with existing poor connectivity will make it expensive to provide good transport choice both in terms of infrastructure and long-term service provision.

Local Plans should seek to make effective use of town centre regeneration opportunities and urban brownfield and/or derelict land and buildings prior to promoting greenfield development. In doing so, they should optimise the density of development in city and town centres and other locations that are well served by a variety of transport modes. Inevitably, some development will still need to be outside of these areas. In these instances Local Plans should therefore consider the development of urban extensions or locations where they can maximise the benefits of all types of existing and/or 'committed'<sup>97</sup> transport infrastructure. By doing so they will minimise the need for expensive interventions, such as new roads.

The scale, design and density of development plays a crucial role in shaping how people travel and what infrastructure and services they need. Larger towns and market towns with compact centres are better able to support a wider range of jobs and facilities. The shorter distance from homes means that these activities are more attractive by walking, cycling and public transport than more spread out piecemeal development.

Nationally too many new housing developments have made the car the only mode of travel rather than providing a choice. Residents of new homes typically find it one and a half times faster to reach essential services by car rather than public transport.<sup>98</sup> We want to make sure that essential services are easily accessible for everyone with a new home – whether they are walking, cycling or taking the bus.

### 5.3.3 Garden communities

The concept of Garden Communities has been developed by various councils in close working with Essex County Council to deliver more sustainable and inclusive development. There has been strong national government backing for these larger communities as effective ways of managing growth. They are designed to put the movement of people rather than vehicles first, to offer well designed, sociable neighbourhoods, with an identity that reflects their local environment and setting.

Garden Communities should be large enough to provide a range of homes, job opportunities, education, health, and other essential services to enable residents to meet most of their daily needs in the local area. Supported by appropriate infrastructure, our aim is to encourage short journeys by sustainable and active modes and reduce the need to travel. The planning of this infrastructure should be integrated into the environment to provide wider benefits, with multipurpose green space and infrastructure (including flood management, sustainable drainage systems, habitats, recreation) and tree lined streets. These opportunities need to be provided as early as possible to help embed travel patterns of new residents and provide resilient infrastructure.

Plans for these Garden Communities are making good progress in Essex. They are allocated within adopted Local Plans, have approved masterplans and have either been granted permission or have planning applications awaiting a decision. They will help to contribute to the significant amount of new housing that national policy requires the county to provide between now and the 2040s. Their locations are as follows:

- Chelmsford Garden Community (around 10,000 homes)<sup>99</sup>.
- Dunton Hills Garden Village (around 3,700 homes)<sup>100</sup>.
- Harlow and Gilston Garden Town<sup>101</sup> (around 16,500 homes associated with the Garden Community) – with some in East Hertfordshire).
- Tendring Colchester Borders Garden Community (around 7,500 homes)<sup>102</sup>.

However, there are also challenges in getting development right. A large development is not guaranteed to be a good one, and a poorly planned large development could result in many negative impacts. We therefore advocate the planning of these Garden Communities in line with the principles developed by the Town and Country Planning Association for Garden Cities<sup>103</sup>.

Transport must be at the heart of the principles, planning and delivery of all phases of Garden Communities to make them a success. Funding must be made available for a comprehensive package of transport infrastructure and services. Their location and design must consider how everyone will have good access to opportunities, and the funding, planning and timescales for new transport and community infrastructure must support our strategic vision. The long-term issues and costs of maintaining that infrastructure and the services people need should also be considered.

Garden Communities and large-scale developments will be required to set realistic and evidence based modal share targets and pay for their monitoring and the solutions needed to these. Later phases of the development may not be approved if the targets are not being met and there is no satisfactory strategy in place to address them.

## 5.4 Reduce transport's impact on the environment and avoid adverse impacts on natural habitats

### 5.4.1 Reducing carbon

From heating our homes to filling up our cars, burning fossil fuels releases the greenhouse gases that increase global temperatures. Higher temperatures mean more extreme weather, rising sea levels and loss of plants and wildlife. The Government has pledged to reduce emissions to as close to zero as possible by 2050 to limit the rise in global temperatures. The faster we do it, the less damage we will do to the places we live in.

The Government's "Net Zero Strategy: Build Back Greener"<sup>104</sup> provides an outline route to meeting the emissions target up to 2037 and put the country on course for net zero by 2050. Domestic transport was responsible for 26% of the UK's total greenhouse gas emissions in 2021. With travel

and transport featuring in everyday lives, there are real opportunities to reduce carbon emissions while improving public health and the quality of our places and environment.

We have been working with Transport East to understand what this means for Essex including our current 'transport emissions gap', with this shown in Figure 5.3 (below). This shows that if we continue as we are we will miss our target by a large margin. Accelerating the pace at which we move from petrol and diesel vehicles to zero emission vehicles (such as electric vehicles) will make a significant difference, but we also need to encourage people to shift to walking and cycling for shorter journeys and reduce the need to travel through increased use of digital technology.

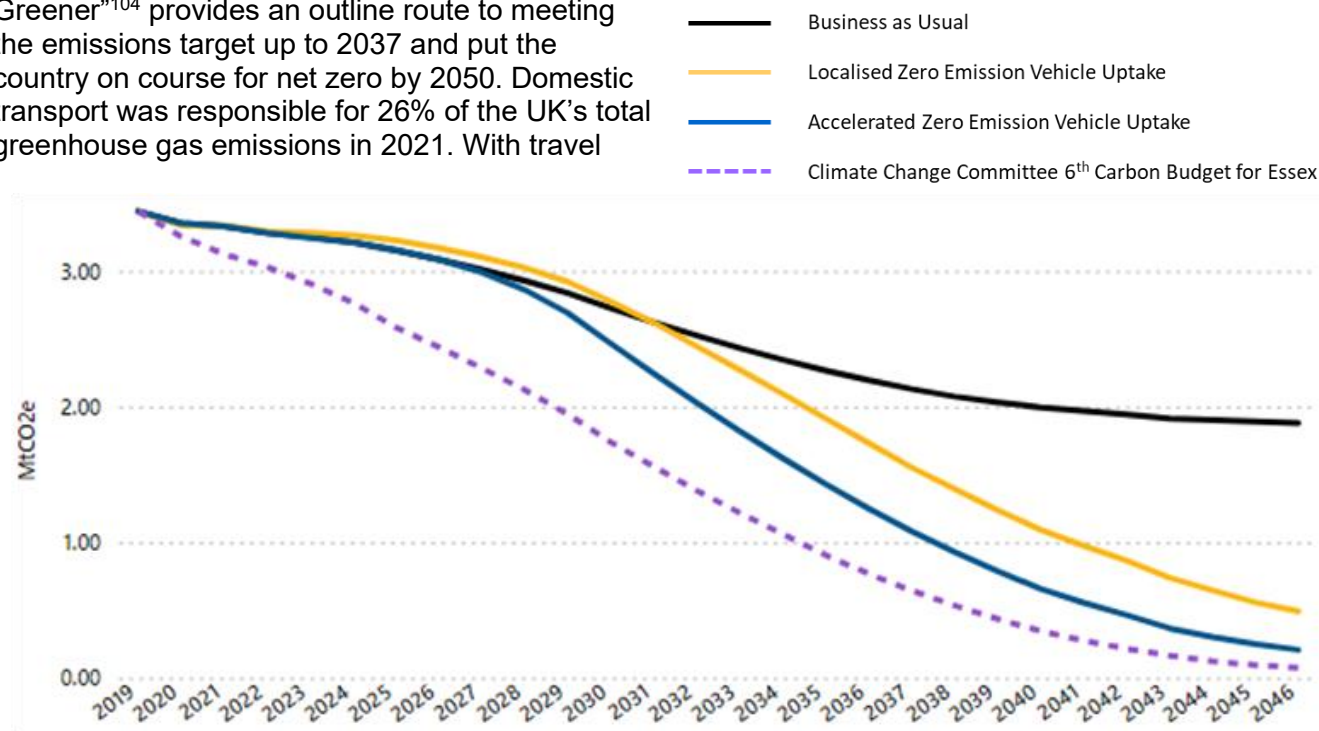


Figure 5.3. Indicative future emissions scenarios for Essex<sup>105</sup>



The pace of change is just as important as the end goal. Where our public transport modes (especially our electric trains) are well used they have a significant carbon advantage over the petrol and diesel car today. Public transport has a vital role to play in helping to bring down emissions as fast as possible in the short- and medium-term through modal shift from cars. The introduction of electric buses in Basildon in 2025, is an example of the type of activity that we can implement with our partners.

### 5.4.2 Air quality

We all know about the importance of fresh air; however, the 'quality' of the air we breathe can also impact our health. Air pollution is the largest environmental risk to public health in the UK.<sup>106</sup> It reduces life expectancy by causing cardiovascular and respiratory diseases and lung cancer. And although air pollution affects everyone, children, older people or people with pre-existing health conditions (such as asthma) are more likely to be vulnerable.

Air quality in Essex is generally good and gradually improving, and we know there is more we can do. Better air quality in Essex will not only improve people's own health and that of their families, but also protect the most vulnerable. Measures to improve air quality such as trees and planting can also have wider benefits such as enhanced biodiversity and reduced flood risk.

Nitrogen dioxide (NO<sub>2</sub>) and fine particulate matter are the main sources of air pollution from road transport. Nitrogen Oxide caused mainly by diesel emissions but also petrol, is highest along our main roads and in our urban centres.<sup>107</sup>

Particulate matter (PM) is everything in the air that isn't a gas. The main sources of man-made PM are the burning of fuels as well as other physical

processes such as tyre and brake wear from vehicles. PM is classified by size (using micrograms per cubic metre or µg/m<sup>3</sup>), with the finest matter (PM<sub>2.5</sub>) of greatest concern as it can reach deeper into our lungs. National air quality regulations state that annual average concentrations must not exceed 20 µg/m<sup>3</sup> for PM<sub>2.5</sub> and 40 µg/m<sup>3</sup> for PM<sub>10</sub><sup>108</sup>. England's Environmental Improvement Plan seeks to reduce the threshold for PM<sub>2.5</sub> to 12 µg/m<sup>3</sup> by 2028.<sup>109</sup>

Air quality is improving with significantly fewer locations having medium or high NO<sub>2</sub> concentrations in 2022 than 2019,<sup>110</sup> and particulates have been reducing over the past decade with all areas of Essex expected to meet the 2028 target. Data from 2023<sup>111</sup> tells us that PM<sub>10</sub> and PM<sub>2.5</sub> are elevated along main roads in our major urban areas and some of our smaller towns (such as urban sections of the A129 between Rayleigh and Brentwood). However annual average PM<sub>2.5</sub> levels do not exceed 9-10 µg/m<sup>3</sup>.



### 5.4.3 Noise

Noise pollution can have a significant impact on our health, beyond just being annoying or disturbing our sleep. National research tells us that living in an area with higher noise levels from traffic can lead to stress and sleep issues, and that these can lead to an increase in an individuals' risk of developing more serious health problems such as heart disease or diabetes.<sup>112</sup> Nationally, many care homes and schools are located close to major roads for easy access, which puts these vulnerable groups at risk of noise related health problems.

Figure 5.4 below on the next page shows that in Essex, noise levels are highest closer to our major roads such as the M11, M25, A12, A13, A120, A127 and A130 where 70 to 75 decibels<sup>113</sup> and over can be experienced. Noise levels fall further from the road network and can be as low as 55 decibels which is considered the expected noise for a normal conversation.



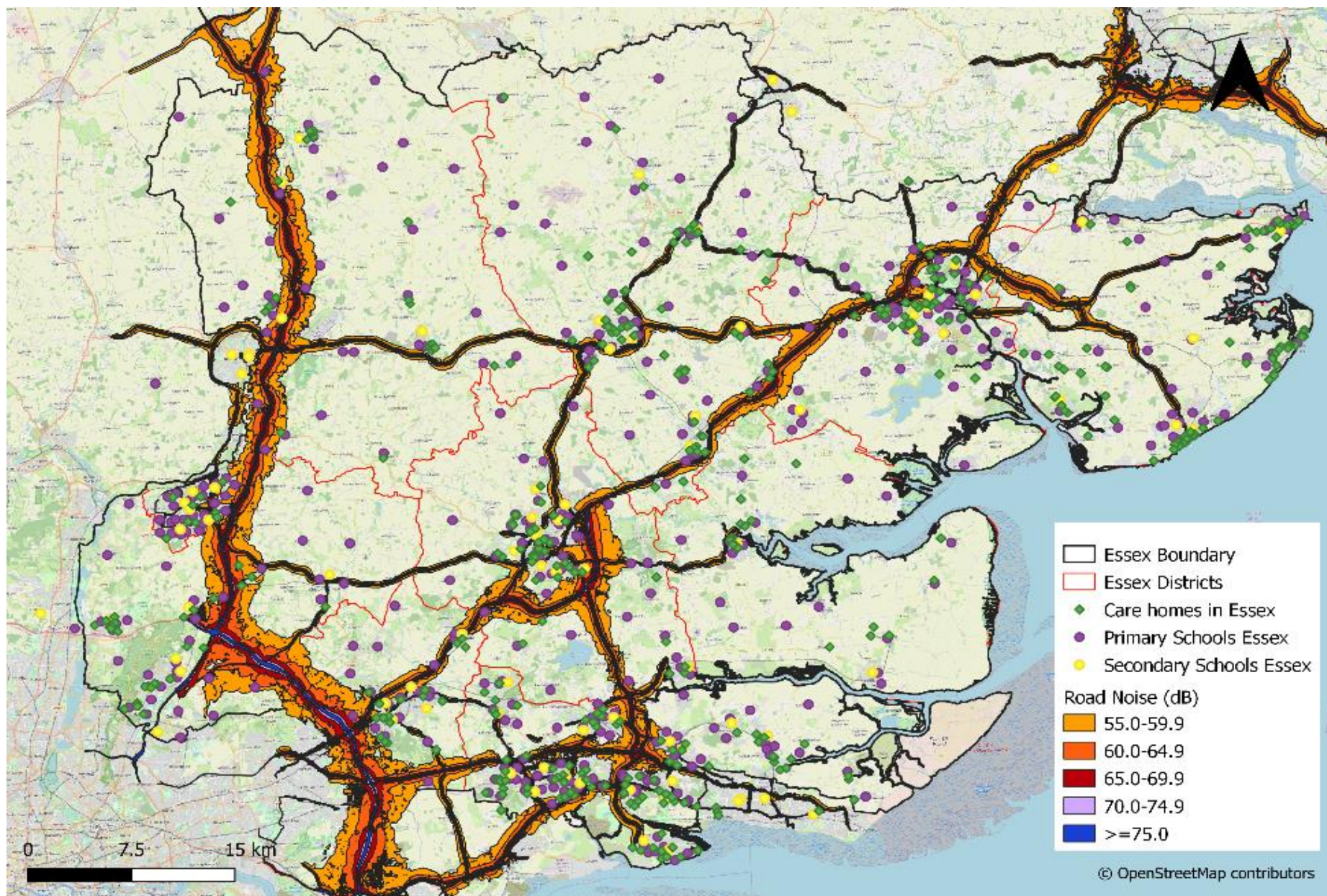


Figure 5.4. Proximity of Schools and Care Homes to Noise produced by major roads (Source: England Noise and Air Quality viewer)



#### 5.4.4 Biodiversity

Essex is fortunate to have a variety of natural landscapes and habitats including our extensive coastline, waterways, reservoirs, lakes and ponds, designated sites<sup>114</sup>, nature reserves, 1,600 local wildlife sites, nine country parks, natural and semi-natural green spaces, and numerous parks and gardens. They give our places character and provide people with much enjoyment and opportunities for outdoor recreation and also support the resilience of our landscape. However nationally many species are in decline, as previous development, pollution and extreme weather cause negative impacts.

Pockets of underused highway land provide an opportunity to improve wider biodiversity. One approach we have adopted is to designate more than 100 sites alongside our roads as Special Roadside Verges<sup>115</sup> to provide important habitats for wildflowers and other native species in Essex.

This includes species that are under threat elsewhere. The Special Roadside Verges have cutting programmes tailored to the species living there. It's critical not to cut the rare flowers until they have set seed. This can create a challenge with the need to maintain the safety function of verges. The Environment Act 2021 introduced a number of measures to support local nature recovery, including Local Nature Recovery Strategies. Essex County Council is the Responsible Authority for delivering the "Essex Local Nature Recovery Strategy"<sup>116</sup> which sets out the existing environmental context, priorities for nature recovery and where new habitat creation can deliver the highest potential environmental benefit.



We also have a duty to conserve and enhance biodiversity, and to report on our actions. 'Biodiversity net gain' is a way of creating and improving natural habitats. It makes sure development has a genuinely positive impact (net gain) on plants and wildlife, compared to before the development. Since February 2024, all major new developments and transport infrastructure projects in Essex will be expected to enhance existing biodiversity and to create new habitats, together with providing resources for the ongoing management of those habitats.

#### 5.4.5 Water quality

Across the national road network, materials are washed off roads and into the environment every time it rains. This liquid is polluted with microplastics, trace metals, oil and other pollutants which enter our rivers, ponds and streams from drains.<sup>117</sup> These materials can enter the food chain, harm organisms, damage aquatic ecosystems and reduce the quality of rivers and lakes for swimming.



## 5.5 What are we going to do about it?

### 5.5.1 Place and movement

We will put people at the heart of how we plan our places and transport systems. Collaboration with the community, public and private sectors is essential to upgrade existing communities and design new developments at the most appropriate and sustainable locations. Key initiatives and policies to achieve our desired outcomes are provided below. These policies apply to both the County Council and any other organisation (such as local planning authorities, public service providers, developers, transport providers amongst others) whose plans, policies and actions impact how, why and when people and businesses may need to travel.

#### Policy 5. Our built environment.

We will aim to protect the places people live, and our historic and built environments from the harmful effects of transport and strive to make places more people focussed with an emphasis on placemaking to make spaces safe and accessible for all.

The approach works with 'Place and Movement' categories sitting on two scales – a horizontal one for 'place' and a vertical one for 'movement' (see Figure 5.5 below on the next page). Each scale is made up of a three-point score, with increasing place function along the bottom (left to right) and increasing movement function along the side (bottom to top). Areas recognised as having a 'high place function' sit on the right side – these are destinations in their own right where we would expect to see lots of different people doing lots of different activities.

In a similar way, roads categorised as having a 'high movement function' represent areas where moving people and goods is the key priority. Our roads and streets are very variable so not all streets classified the same will look the same as each other.

Similarly, a route may also change its 'Place and Movement' function along its length as it goes through towns, villages and the countryside. We will be flexible in how we apply our 'Place and Movement' approach and classifications may change as the role of the road or street changes over time. This will enable us to redesign existing neighbourhoods and design new neighbourhoods so that they are walkable. In fact, we expect all new development to comply with this 'Place and Movement' approach balancing the location specific needs of cyclists, pedestrians, residents, shoppers and local businesses with different vehicles, whatever the location.



### Case Study 5.1. Tindal Square, Chelmsford

We worked with Chelmsford City Council to deliver a new public square at Tindal Square at the heart of the city centre. Previously Shire Hall was separated from the High Street by a road. The scheme created a pedestrian space, enabled an east west cycle link and removed through traffic, creating a safe, uninterrupted active travel route to the city centre.

The square also hosts cultural activities and events such as the 'Tindal Square Summerballoo', a series of interactive and immersive entertainment including acrobatics, a 13ft tall mechanical dragon and a 'Boogie booth'.



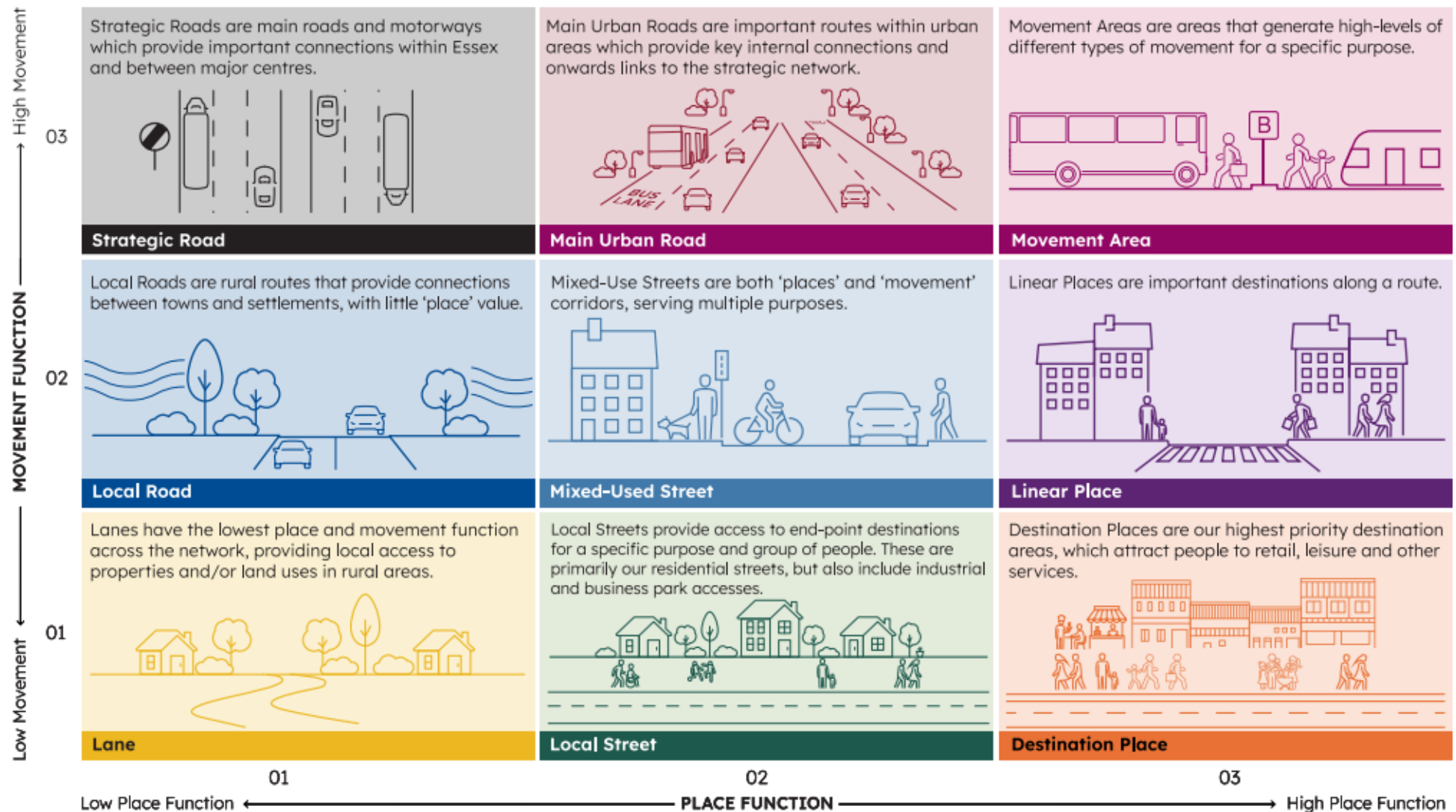


Figure 5.5. 'Place and Movement' in Essex

## 5.5.2 Electric vehicle strategy

Electric vehicles (EVs) have a critical role to play in helping to protect and enhance the Essex environment and support healthy communities. To do this effectively we want people to have access to a reliable, convenient, accessible and fairly priced network of electric vehicle charging points. We have developed a strategy to help facilitate our vision, “The Right Charger in the Right Place”<sup>118</sup> as well as EV parking standards and guidance<sup>119</sup>.

We expect the private sector to continue playing a key role in expanding the EV charging network. However, not all locations will be commercially attractive and not all homes will have the facilities for off-street charging. It is in all of these areas where we will work to secure funding for EV charge points as it is important that we enable everyone in all areas of the county to benefit and provide the framework to support our vision for local transport.

The electric vehicle market is also changing. We will regularly refresh our strategy to look at longer term private car use and EV market share. We will also start to explore the supply of renewable energy to electric vehicle charge points, and how we can enable the conversion of public transport, taxis and freight vehicles to cleaner fuels.

We are also supporting new electric forms of transport and the electrification of public transport. Trials of e-scooters have been running in Colchester, Chelmsford since 2020/21 and Braintree since 2024. We will continue to evaluate their suitability for these urban centres and other places while awaiting new national legislation.

We are already working with partners to electrify bus services across the county. Together with First Bus, we secured £4.8m funding from the Government to fund 55 electric buses in Basildon,

with First Bus investing £25.8m to upgrade the Basildon bus depot<sup>120</sup>. We will support the electrification of bus services across the county to help reduce emissions and noise while delivering better journeys for passengers.

We already have one Digital Demand Responsive Transport service known as ‘DigiGo’<sup>121</sup> which enables users to book a ride with an app. Covering the rural areas in and around Braintree and Great Dunmow our DigiGo on demand service uses electric minibuses to take people into town, to health appointments and to meet friends and family. We will explore every opportunity to expand this network to aid those in rural areas who have limited travel options.

## 5.5.3 Growth

Traditionally we have often designed our places for worst case traffic growth just in case new residents and workers drive causing and adding to congestion. Unfortunately, this has often resulted in the same delays and queues we didn’t want as the car becomes the easiest mode to use affecting everyone’s ability to walk, cycle or use buses to get around. This then creates the negative impacts on people’s health, access to opportunity, the quality of our places and the economy that we didn’t want.

### Policy 6. Integrating planning and transport

We will work with partners to put people and places at the heart of our decisions to secure new development at the most appropriate and sustainable locations.

The “National Planning Policy Framework” (NPPF) (2024)<sup>122</sup> promotes a ‘vision-led’ approach to planning transport. We will adopt this approach to plan new growth. Simply put this means working with residents, our district councils via Local Plans, stakeholders and developers to set an agreed vision for our places and then designing the transport proposals and supporting measures to help achieve this vision.

Local planning authorities are required to prepare and adopt a Local Plan that sets out planning policies and proposals for new developments over a future 15 – 20 year period. In areas with two tier local government, like Essex, these Local Plans are produced by district, borough and city councils, in collaboration with Essex County Council. As the Local Transport Authority and Local Highway Authority, Essex County Council is responsible for defining the transport strategy and policy, this Local Transport Plan, and then inputting into Local Plans on active and sustainable travel, public transport and highway related matters, in line with our strategy. Following devolution and the formation of the Greater Essex Mayoral Combined County Authority the responsibility for setting transport strategy and policy will pass to the new Mayoral Combined County Authority.

All Local Plans in Essex will be expected to develop a local vision for transport in line with this Local Transport Plan. This will include the outcomes we collectively want to achieve and what we will do to achieve them. We will support our local planning authorities and other relevant organisations to do this through the planning process.

This is important because we need to achieve a step change in sustainable land use planning and the provision of new homes. They need to either



have existing (or strong potential for) high levels of inclusive and affordable sustainable transport access to homes, jobs, services and open space.

As of April 2024, adopted and emerging Local Plans in Essex were already seeking to deliver around 6,900 homes every year up to the early 2040s. The new minimum housing targets set out in the NPPF (December 2024) significantly increase this requirement to around 11,600 every year. The New Towns Taskforce will submit a list of places new towns could potentially be located to Government in summer 2025, which would be in addition to these requirements.

Development should be located close to the existing transport network and designed to prioritise and maximise opportunities for walking, cycling and public transport, both within the development and through its connections to our wider existing networks. Locations such as city and town centres and other places already well connected by public transport are the preferred location for new development as they provide the opportunity to make the most effective use of land for housing and other forms of development. Higher densities provide more customers for public transport, shops and services. In turn more people make better use of public transport services and wider consumer choice more financially viable, reducing the need to travel by car.

Connectivity planning will be a key component of all phases of the planning process to make sure that the right locations for homes, jobs and essential services are chosen, planned and developed in line with our vision.

We will also make the most effective use of all available funding sources to deliver the transport infrastructure necessary for sustainable growth.

Since 1973, the “Essex Design Guide”<sup>123</sup> (EDG) has pioneered local design, creating space for innovation and encouraging high quality development. The EDG, and supporting documents and guidance blend national and local policy and guidance documents into an Essex context. They are used as a reference guide by designers and planners to help create high quality places with an Essex identity.

The Essex Design Guide’s aim is to make sure that the movement of people is safe, pleasant, convenient, responds to local context and helps to create good places. This means delivering places that:

- Discourage inappropriate traffic from travelling through residential areas.
- Promote very low driver speeds within residential environments.
- Discourage the use of the private car, particularly for short or local trips.
- Consider Healthy Streets and ‘Inclusive Design’ principles to encourage as much walking, cycling and social interaction by as many groups of people as possible.

We will work with our local planning authorities to require developers to produce a Health Impact Assessment and use the Essex Healthy Places Checklist as part of their planning application. This will consider the positive and negative impacts of travel and transport on residents and the community.

#### 5.5.4 Garden communities

The creation of sustainable neighbourhoods known as Garden Communities is a way to deliver growth sustainably. They are an essential part of our strategy to help ease any negative impact of growth on the county.

Garden Communities are planned around a step-change in integrated active and sustainable transport and multipurpose green infrastructure, to help make cycling and walking safer, more pleasant and provide more convenient alternatives to the car for journeys within and outside of the development (see case Study 5.2 below). The provision for places of work, schools, shops, health and community facilities within Garden Communities can all reduce the need for residents to travel further away.

#### Case Study 5.2. Harlow & Gilston Garden Community – sustainable transport corridors

The Harlow and Gilston Garden Community will include at least 23,000 new homes. The development spans a range of district and County Councils in Essex and Hertfordshire. The Garden Community has identified opportunities to use its layout to incorporate various open spaces and an extensive network of walking, cycling and public transport corridors. The focus will be on a network of sustainable transport corridors promoting public and active travel modes. Sustainable transport corridors will also have a series of ‘micro hubs’ to provide an interchange between bus rapid transit and other transport facilities e.g. cycling. All these initiatives will help to prioritise active travel and reduce the reliance on private vehicles for everyday journeys.

Sustainable developments offer the opportunity to integrate new bus routes, as well as safe, attractive, and direct walking and cycle links into our existing transport networks.

We also know that travel patterns and behaviours are often formed in the early years of a development and can be difficult to change. It’s

vital that developments provide sustainable transport choices to schools, doctors and shops from the start – delaying until the whole development is complete will undermine how sustainable these places could be.

“A New Street Types Model for Essex”<sup>124</sup> builds on the EDG and our ‘Place and Movement’ approach to provide the basis for sustainable planning of new Garden Communities and other large-scale developments. Some of the key features of well-designed neighbourhoods are illustrated in Figure 5.6 (see right).

Developers will need to produce a Travel Plan (see section 4.5.6) in line with our guidance<sup>125</sup> for all major growth proposals, including Garden Communities and other large-scale developments.

### 5.5.5 Sustainable drainage

All new developments whether as part of Garden Communities or smaller sites have a crucial role to play in contributing towards climate mitigation and adaptation. A well-designed Sustainable Drainage System (SuDS) even in private spaces can manage and mitigate both flood risk and surface water runoff created because of new development. Case Study 5.3 shows some examples from Harlow.

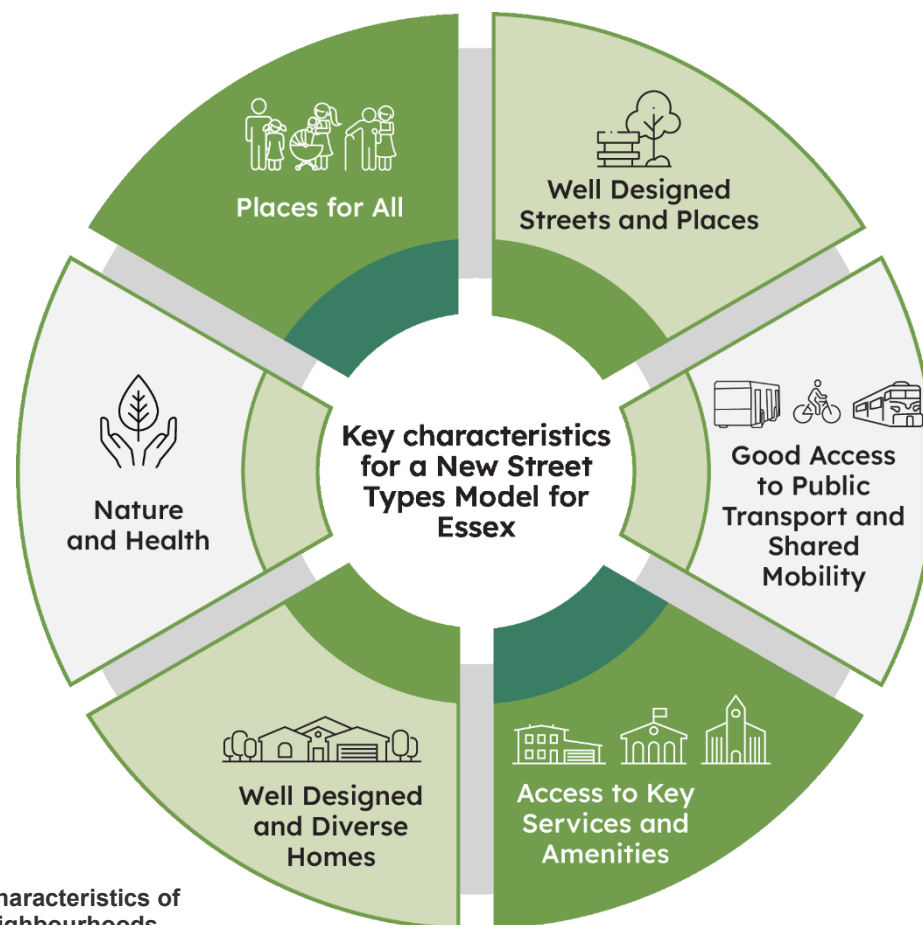


Figure 5.6. Key characteristics of well-designed neighbourhoods

### Case Study 5.3. SuDS in Harlow

Examples of SuDS at Newhall, Harlow.



Early consideration of SuDS during the planning of new developments provides a great opportunity to integrate them into the development to build upon local landscape character and identity and maximise wider opportunities for walking, cycling and access to open space. Essex County Council, as Lead Local Flood Authority, will work with partners and other statutory bodies such as the Environment Agency to promote greater flood resilience to the highway network, ensuring SuDS and Natural Flood Management approaches are employed wherever possible.

### 5.5.6 Improving water quality

We will increase sustainable drainage and tree cover alongside appropriate sections of our transport network. This will help to reduce the amount of water that runs off our roads into the environment, while providing shade and increased protection from flooding. We will prioritise locations with high levels of traffic (30,000 vehicles or more daily) as these are most likely to contribute to water pollution when it rains.

We will work with partners such as Anglian Water and Thames Water to create a pollution reduction strategy that improves the quality of water running off our roads that enter Essex ponds, lakes, rivers and streams.

### 5.5.7 Reducing carbon

To meet government targets it's important that we remove carbon from the transport system and encourage people to use lower carbon travel or other options such as digital technology. We also know that the faster we make these changes the safer and healthier our residents will be.

## Policy 7. Carbon reduction.

We are committed to reducing transport-related carbon emissions through our approach to planning transport and new development in line with government policy.

We will apply our 'Avoid-Shift-Improve' approach to planning transport and development:

- Avoid – avoid or reduce unnecessary journeys, particularly over short distances.
- Shift – empower behaviour change so that residents shift to more alternative modes, such as bus, train, walking or cycling.
- Improve – where road journeys are essential improve vehicle efficiency and quality, reducing the reliance on fossil fuelled vehicles and encouraging electric vehicles.

We also expect this thinking to be embedded into the planning of new development from the very earliest stages. Developing the right locations, at the right scale, with the right range of public and community services, and supporting infrastructure will help to avoid unnecessary journeys and shift necessary journeys to more sustainable modes. Through our role in Local Plans and responding to planning applications, we will require development proposals to show how they will mitigate, adapt and be resilient to a changing climate while supporting the efficient movement of people and goods.

### 5.5.8 Improving air quality

Clean air is a core indicator of a healthy street or place. Our "Essex Air Quality Strategy's" vision<sup>126</sup> aims to reduce exposure to poor quality air so that the people of Essex enjoy improved health and face fewer health inequalities. Our Air Quality Strategy promotes a series of actions building on our existing activities and partnership working to improve air quality in Essex. These include:

- Limiting or reducing the negative impacts of development and transport infrastructure on air quality and minimising new exposure to existing sources of air pollution.
- Encouraging, enabling and supporting the use of public transport, walking and cycling, particularly for shorter journeys or where they form part of a longer journey.
- Raising public awareness including through education (see Case Study 5.4).
- Leading by example by reducing the impact of our activities on air quality.
- Encouraging, enabling and supporting the uptake of low emission and electric vehicles.
- Using green infrastructure such as trees, hedges, etc., in appropriate locations to provide improved air quality as well as many other benefits such as flood mitigation, shading and enhanced biodiversity.

We will also work jointly with our borough, city and district councils to develop effective and deliverable Air Quality Action Plans where poor air quality is a result of transport-related sources of pollution, including the creation of new Air Quality Management Areas, where necessary.



### Case Study 5.4. Air quality educational initiatives

In 2023, through support from DEFRA, we launched a new website 'Essex Air' ([www.essexair.org.uk](http://www.essexair.org.uk)) to raise awareness of air pollution in Essex and highlight the actions people can take to reduce emissions and help protect themselves and their families – and promoting the benefits of more sustainable travel.

Alongside the website, the funding delivered an innovative 'theatre in schools' programme which toured almost 100 schools in Essex teaching more than 5,000 primary school children about air quality. It was also used to undertake air quality monitoring around primary schools in Essex – getting the children involved using backpack mounted sensors on their journeys to school.

Improving children's and adults' understanding of air quality and its impacts is key, and we hope this will help people to make more informed and cleaner travel choices in future.

### 5.5.9 Reducing noise

Reducing road traffic noise is also a core part of Healthy Streets and our 'Place and Movement' approach. It helps to create better places where people are willing to spend more time and interact with each other, supporting local businesses.

We will seek to reduce traffic noise where this adversely impacts significant numbers of people or places categorised as 'noise important areas,' such as schools<sup>127</sup>.

We will lead by example by reducing the noise impacts of our road maintenance and construction activities.

Depending on the context we will also consider appropriate ways to reduce vehicle noise. These could include removing or reducing the number of vehicles in a place to reducing the noise they make (such as encouraging uptake of electric vehicles, lower speeds, quiet surfacing, natural or physical noise barriers).

### 5.5.10 Enhancing biodiversity

We have a duty to consider what we can do to conserve and enhance biodiversity in Essex. We have developed policies and objectives within the "Essex Local Nature Recovery Strategy" (LNRS)<sup>128</sup> to:

- Deliver the necessary action to reverse the current path of decline in our biodiversity.
- Bring about a recovery for nature.

The Essex LNRS aims to deliver practical, county-wide initiatives for nature recovery. It identifies areas of current particular importance for biodiversity and locations where habitat creation or improvement can provide multiple benefits for nature and the environment.

### Policy 8. Our natural environment

We will aim to operate, maintain and enhance a transport network that is sympathetic to and enhances our natural environment and habitats.

We will consider further opportunities to plant wildflower verges and other mixed grassland on appropriate highway land to increase biodiversity and carbon storage, while recognising the need to maintain verges that provide a safety function.

Good design of new development and transport projects involves thinking about biodiversity from the earliest stages of development. Doing this provides the best opportunity to develop solutions that maintain the integrity of our existing internationally important habitat sites as well as enhance our county's wide range of habitats through biodiversity net gain.

Essex's Green Infrastructure Strategy aims to enhance, protect, and create an integrated network of green spaces that's accessible for everyone. The aim is for this green infrastructure to provide many benefits for people and the environment, such as flood and water management, improved air quality, shade from the sun, or recreation. Green infrastructure that is a proper part of our places can also have various transport benefits including making it easy for people to access open space and providing a more pleasant environment for walking and cycling. Trees also help create Healthy Streets. They provide shade and shelter in all types of weather, while distinctive landscapes, plants and wildlife give more interesting things for people to see.

In 2025 we will continue to consider feedback from our 2024 public consultation to develop our LNRS for final review and publication.

## 5.6 Summary of Creating Sustainable Places and Communities Outcomes and Activities

Table 5.1. All places support the transport needs of all residents

Planned activities	Where or who to target
Introduce a 'Place and Movement' approach to help embed the principles of 'Healthy Streets' and manage the transport network effectively for both existing streets and new developments	Countywide
Implement 'well designed neighbourhood principles' in the redesign of existing neighbourhoods	Countywide
Implement our Electric Vehicle Strategy to provide suitable access to a reliable, convenient, accessible and fairly priced network of electric charge points	Countywide
Promote opportunities to convert public transport, taxi and freight vehicles to cleaner fuels	Countywide
Continue to evaluate the suitability of our towns and cities for new electric forms of transport such as e-scooters while we await new national requirements	Our larger towns and cities

Table 5.2. Work with partners to design sustainable developments from the start

Planned activities	Where or who to target
Introduce a 'Place and Movement' approach for planning all new developments	Countywide
Adopt a vision-led approach to planning for new growth and its transport needs – including through all new Local Plans and the identification of monitoring measures	Countywide
Adopt an 'Avoid-Shift-Improve' approach to plan transport and development from the earliest stages of development planning	Countywide
Use connectivity planning to help locate new homes, jobs and essential services in sustainable places that align with our vision for transport	Countywide
Work with LPAs and other partners to allocate developments in Local Plans and deliver new Garden Communities to help meet the significant housing targets set for Essex by the Government	Selected locations countywide
Work with LPAs to ensure that measures proposed in large developments and Garden Communities to promote sustainable transport are deliverable and sufficient to meet the vision for active and sustainable mode share	Larger developments and Garden Communities
Set up Transport Review Groups for larger developments to help the ongoing management of transport impacts	Countywide

Planned activities	Where or who to target
Require effective travel plans for all new homes, new and existing workplaces and schools, including Garden Communities and other large-scale developments in line with our travel plan guides for residential, workplace, school, and large-scale developments and garden communities	Countywide
Monitor the delivery of active and sustainable mode share targets through the Travel Plan with permission for latter phases of development linked to the achievement of modal split targets for early phases in line with our travel plan guide for large-scale developments and garden communities	Garden Communities in Essex
Work with local planning authorities to embed inclusive design principles into all new developments	Countywide
Promote tools, guidance and best practice documents such as A New Street Types Model for Essex, EPOA 2024 Parking Guidance, Mobility Hubs as part of the Essex Design Guide and the Highways Technical Manual to help plan all new developments sustainably	Countywide
Implement 'well designed neighbourhood principles' in the design of new communities	Countywide
Require planning applications to be supported by a Health Impact Assessment (HIA) considering the Essex Healthy Places Checklist	Countywide

**Table 5.3. Transport has a reduced impact on the environment and adverse impacts on natural habitats are avoided**

Planned activities	Where or who to target
Deploy approaches such as sustainable drainage and natural flood management to promote greater flood resilience on the highway network	Countywide
Create and deliver a highways water pollution reduction strategy to improve water quality with partners	Countywide
Adopt an 'Avoid-Shift-Improve' approach to plan transport and development from the earliest stages of development planning	Countywide
Implement our Essex Air Quality Strategy to reduce exposure to poor quality air	Countywide
Develop effective and deliverable Air Quality Action Plans with partners	Places with poor air quality caused by transport
Implement measures to reduce traffic noise where this impacts a significant number of people or noise important areas	Countywide
Reduce the noise impacts of our road maintenance and construction activities	Countywide
Ensure the Essex Nature Recovery Strategy is considered at the earliest opportunity when thinking about the design of transport projects and the location and layout of new developments	Countywide
Consider further opportunities to plant wildflower verges and other mixed grassland on appropriate highway land to increase biodiversity and carbon storage	Countywide
Implement our Green Infrastructure Strategy to deliver 'Healthy Streets' and more accessible green spaces and links that provide multiple benefits for people and the environment	Countywide
Avoid adverse effects from new transport projects on the integrity of internationally important habitat sites	Countywide



## 6. Connecting people, places and businesses

### 6.1 Introduction

The Essex economy is strong and, with an annual output of over £72.5 billion<sup>129</sup>, 25% larger than Northern Ireland. Essex is home to international airports and ports, some of the world's best companies creating world-leading technologies, as well as good schools, growing universities and popular tourist attractions. All of these help drive the economy.

Economic growth is the engine that will drive and enable many of our wider ambitions. The value that Essex contributes to the UK economy is projected to increase by around a third over the next 20 years. As Figure 6.1 (right) illustrates, Greater Essex (including Southend-on-Sea and Thurrock) is home to five growth sectors – construction, energy, advanced manufacturing and engineering, digital technology and life sciences<sup>130</sup> that have the potential to stimulate growth in the wider economy. However, growth and investment in all these sectors are dependent on the ability of businesses to access suppliers, customers, and skilled people reliably and efficiently. And it's crucial that economic growth isn't for its own sake, but aimed at making a stronger, more inclusive and sustainable economy for the whole county.

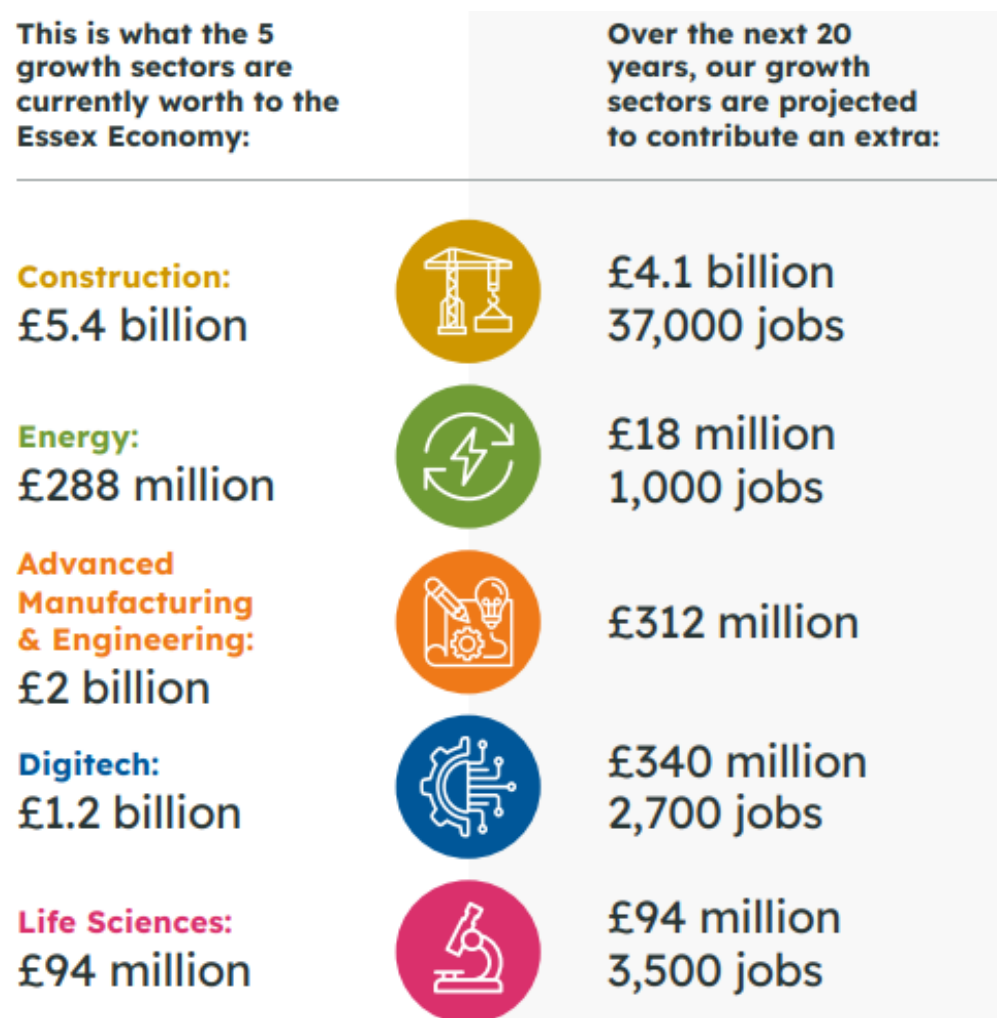


Figure 6.1. Our Growth Sectors. Source Essex Sector Development Strategy, 2023

Everyone benefits from an improved transport network, including people who don't travel much. For instance:

- Students have better access to education.
- Working-aged people have access to a wider range of jobs, and greater opportunities to find a job that suits their skills and lives.
- Employers have better access to the workers, suppliers and partners who fit the needs of their business, and cheaper and more efficient ways of getting their goods to markets.
- Customers, including those who shop online, have quicker and cheaper access to more products as competition between businesses drives quality up and costs down.
- Residents have more choice over where they live and spend their leisure time.

However, we cannot have better connectivity at all costs. It's important that improvements to our transport network also support a healthier and more pleasant living environment for everyone.

Connecting people, places and businesses effectively and efficiently will help Essex secure a stronger, more inclusive and sustainable economy. We want:

- To maximise the business potential of Essex.
- People to have inclusive and affordable access to work, education and training.
- Our transport network to have a secure and long-term future. The everyday tasks of managing, maintaining and future proofing what we already have is just as important as providing new and improved transport.

## 6.2 Maximising the business potential of Essex

### 6.2.1 Journey time reliability and productivity

Customers expect to receive goods quickly and on time. Our shops, factories, construction sites, warehouses, ports and airports, rely on goods being delivered exactly when they are expected. Reliable journeys give businesses and customers confidence that goods will arrive on time, which

helps them to plan how and when they will use these goods, saving them time and money.

Reliable journeys also benefit people travelling for business, commuting, personal appointments or to connect on to a train or aeroplane. If people are confident in how long a journey takes, it enables them to use their time more efficiently. More reliable journeys may also support people's general happiness and wellbeing. Research suggests that congestion, overcrowding and unpredictable journey times for commutes can impact people's mood and stress, affecting how people feel and perform at work and home.<sup>131</sup>

Good transport connections provide Essex businesses with a larger range of suppliers, employees, and customers. This means that businesses are no longer restricted to local markets and can access specialist skills and suppliers. Larger markets give them the opportunity to expand and gain cost advantages from improved efficiency and bulk buying of goods.



Good transport connections also mean that businesses are better able to find potential employees who have the skills they need. Good transport connections also make places in Essex a more desirable place to live, providing people with a wider range of jobs within a set journey time that suit their skills and requirements.

However, not all of our journeys are as reliable and efficient as people and businesses would want. Journey times on major roads in Essex can vary by as much as 30 minutes at peak times, due to congestion. In addition to impacting the delivery of goods, congestion at peak commuting times can make an area unattractive to both existing and potential employees. This in turn influences businesses' long-term decisions to remain or invest in an area.

Figure 6.2 (next page) illustrates how variable journey times are during morning and evening peak periods compared to uncongested conditions. Congestion and delays mainly occur in Chelmsford, Colchester, Basildon, Harlow, towns near the built-up areas of London (such as Loughton and Brentwood) and Southend-on-Sea (Rayleigh and Hadleigh), and on major roads connecting urban areas. In Chelmsford and Colchester, around 43 hours per driver per year are lost to sitting in traffic.

Journey times are most variable on the following major roads:

- M25 between the M11 and Waltham Abbey.
- A12 between Chelmsford and Colchester.
- A13 between the A130, Hadleigh and Southend-on-Sea.
- A120 between the A12 at Marks Tey and Braintree.
- A127 between the M25 and Southend-on-Sea.
- A131 between Braintree and Chelmsford.

- A130 between the A127 and Chelmsford.

## 6.2.2 Strategic connections

Essex has generally strong international, national, regional and local connections by various modes of transport. Nationally and locally important main roads such as the M11, A12, A13 and A127 connect Essex to London. Road travel in the county also benefits from key routes that avoid London such as the M25, A120, A130, A131, A133 and A414 that help to connect our main towns and cities with each other and some of our smaller market towns, as well as to the rest of Britain.

Essex also has a nationally important port, Harwich which provides connections to the Netherlands and Denmark, handling 93% of freight tonnage arriving in Essex by sea. It is connected to the rest of the country via the A120 which is of variable standard.

Felixstowe, in Suffolk is England's largest container port and just across the estuary from its 'sister' port, Harwich. Together they form Freeport East. Freeports are areas designated by Government which are subject to different economic regulations, such as tax relief and business incentives, to help create new economic activity. Containers from Felixstowe use the A12, A120, A130 or the Great Eastern Main Line rail route through Essex to access London and southern England.

There are also very large, nationally significant and growing ports in neighbouring Thurrock at London Gateway and Tilbury. London Gateway is the fastest growing deep-sea container port in the UK with connections to the most global locations of any UK port. Freight traffic and trains to and from these ports impact the same routes (M25, A13, A130 and Essex Thameside rail corridor)

used by Essex residents and businesses to access London, the South East and Eastern England. Tilbury and London Gateway are part of Thames Freeport.

London Stansted Airport and London Southend Airport are also key international connections. As well as being the UK's fourth busiest passenger airport with nearly 30 million passengers in 2024<sup>132</sup>, Stansted Airport is also the UK's third most important airport for freight having seen a 24% increase in air freight (tonnes) between 2011 and 2023 with most recent figures seeing the airport handle just under 300,000 tonnes of freight. Southend Airport was used by two million passengers in 2019 and continues to recover following the pandemic with an increasing number of flights scheduled for 2025<sup>133</sup>.





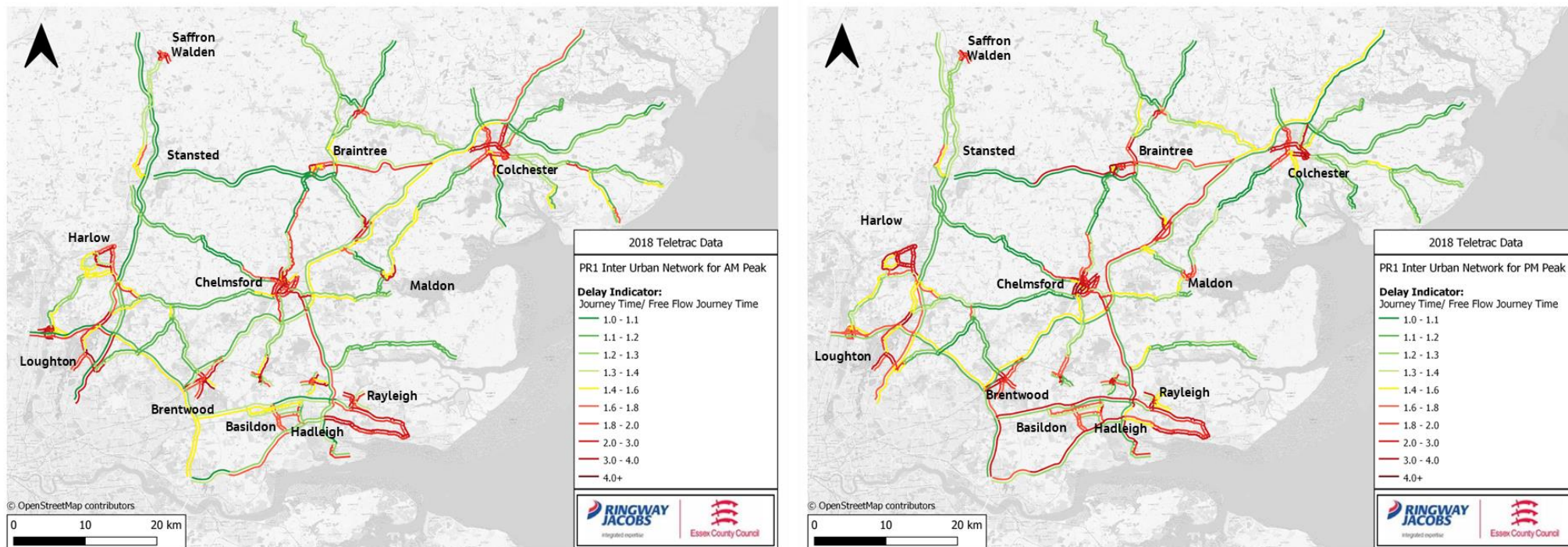


Figure 6.2. Journey time variability in the AM peak hour (left) and PM peak hour (right) in our towns and main roads. Red lines show the areas with the most variability (Source: DfT Teletrac data, 2018).

Our ports and airports are also major employers in their own right. Stansted Airport is the biggest single site employer in the East of England<sup>134</sup>, while the growth of Freeports provide a major opportunity for local people to access higher paid jobs. Therefore, good access to and from our airports and ports by a choice of transport modes are critical for employment and regeneration as well as the movement of goods.

Essex has a good rail network with three main lines and various branch lines linking many of our main towns and cities, including our coastal communities, to London and a range of other destinations. Parts of the west of the county are also served by Transport for London's Central Line and Elizabeth Line. Our rail network also carries

frequent freight services to and from the major east coast ports.

An effective rail network delivers wider benefits beyond just connecting places. For instance:

- Trains emit significantly less carbon than road travel, so shifting passengers and freight from road to rail brings significant environmental and health benefits.
- Rail services provide access from much of Essex to a wide variety of places for healthcare, shopping and leisure activities.
- New homes being built in Essex will benefit from good rail connections to other places. Rail provides access to a wide range of education, training and employment opportunities,

including access to a wide range of jobs in London. Around 115,000 residents commute to London for work<sup>135</sup>, with stations such as Brentwood and Shenfield even more popular since the opening of the Elizabeth Line.

- Rail supports the economy of Essex. Large quantities of freight make use of the Essex rail network and trains provide access to Essex from the rest of Britain, supporting the important tourism sector and our airports.
- Stations also act as an important gateway to our places, with well maintained, good quality and accessible stations important for encouraging investment in and repeat visits to our towns and cities.

While our road and rail links are generally good but heavily used, they will need ongoing investment in maintenance and upgrades to take full advantage of Essex's economic potential including investment in capacity and facilities for freight. Some of this investment in road and rail will need to occur outside Essex, including schemes such as the Ely area capacity enhancement.

### 6.2.3 Freight

Essex is a major freight hub because of our ports, airports and proximity to London, and a net exporter of goods to the rest of the UK. Our major roads move most goods within, in or out of Essex, performing a critical national role in moving freight.

Lorries transported 65 million tonnes from locations in Essex in 2022, with almost half of these (31 million tonnes) moved to another location in the county. Outer London, East Anglia and the South East are also key destinations for lorries from Essex.<sup>136</sup> This obviously has an impact on our network – in 2021, lorries accounted for 12% of traffic on 'A' Roads (e.g. A12, A120) and 16% on motorways (M11, M25) in the county<sup>137</sup>.

Similarly, the ongoing rise in online shopping has seen an increase in the number of vans on our roads along with the number of journeys undertaken and distances travelled. While important to the economy, this increase in motor traffic – vans or heavy lorries – does exacerbate congestion, road condition, air pollution and road safety concerns due to vehicle weights, frequent stops, and the availability of suitable loading/unloading bays, particularly in residential areas.

Rail is much more efficient at moving large volumes of bulky goods such as containers or construction materials over long distances. It also removes lorries off the road network, with environmental benefits as well as improved

journey times and reliability for other road users. However, rail relies on good access to ports, quarries, warehouses and industrial sites, and in Essex, we only have five locations (Chelmsford, Harlow Mill, Harwich, Marks Tey and Southminster) where goods or materials can be transferred on and off freight trains.

The transport of goods to and from Felixstowe, London Gateway and Tilbury impact travel corridors (e.g. M25, A12, A13, A120, A130) used by Essex residents. Felixstowe can move large volumes of goods through containers on the rail network but constraints on the rail network outside Essex such as at Ely in Cambridgeshire limit this and mean that the Great Eastern Main Line and the A12 have a vital role to play in moving goods between Felixstowe and the rest of the UK. Freight trains from Tilbury and London Gateway also use the Great Eastern Main Line in east London.

With further growth in rail freight expected, the rail industry will need to analyse how it best makes use of capacity and enhances the network across Essex, London and beyond. This capacity will be vital in supporting a shift of freight traffic from road to rail and facilitating future port and economic growth of benefit to Essex and the wider region. London Stansted Airport is the third most important airport for freight in the UK<sup>138</sup> after Heathrow and East Midlands Airports, handling around 310,000 tonnes of cargo in 2024.<sup>139</sup> This results in significant freight movements to and from the airport by road, impacting the M11 and A120 in particular.

## 6.3 People have inclusive and affordable access to employment, education and training

### 6.3.1 Employment catchments

People need good access to a range of work opportunities to suit their skills and aspirations to allow them to make the most of their potential. Good access to suitably skilled workers is also a key factor in influencing where businesses choose to locate and invest. Figure 6.3 (on a forthcoming page below) shows built up areas (BUAs) within and close to Essex with over 15,000 jobs and surrounding areas where at least 20% of residents commute to that place. This shows that key centres of employment in and around Essex include:

- The central areas of key towns and cities well served by bus and rail such as Chelmsford and Colchester.
- Industrial estates and business parks well served by car, but less so by public transport, walking and cycling. These can be found in and around all our towns and cities, with examples including the Basildon Enterprise Corridor adjacent to the A127, Springwood Industrial Estate in Braintree, and Chesterford Research Park in Uttlesford district.
- Standalone locations such as London Stansted Airport, the port of Harwich and Dunton Technical Centre.
- Places close to Essex, such as central and outer London, Cambridge and the M11 Corridor, Ipswich, Thurrock and Southend-on-Sea.

New centres of employment will also be created as the economy develops. These will include jobs in our previously mentioned growth sectors (see previous Figure 6.1) as well as those in our



existing sector strengths such as logistics, tourism, culture and the arts, professional services, retail and agriculture. Where possible many firms in a sector (and related sectors) will seek to cluster close together to benefit from shared access to infrastructure, supplier, employment and innovation networks.

In addition to reducing the costs of doing business in Essex this can also provide wider benefits for the economy and environment such as reducing the need for longer journeys. Our Essex Sector Development Strategy notes that all these sectors have the ability to positively influence efficiency, research and development, investment and innovation; and have the potential to provide good secure jobs in the future. To maximise this potential, it's important that these jobs are located in places accessible to everyone.





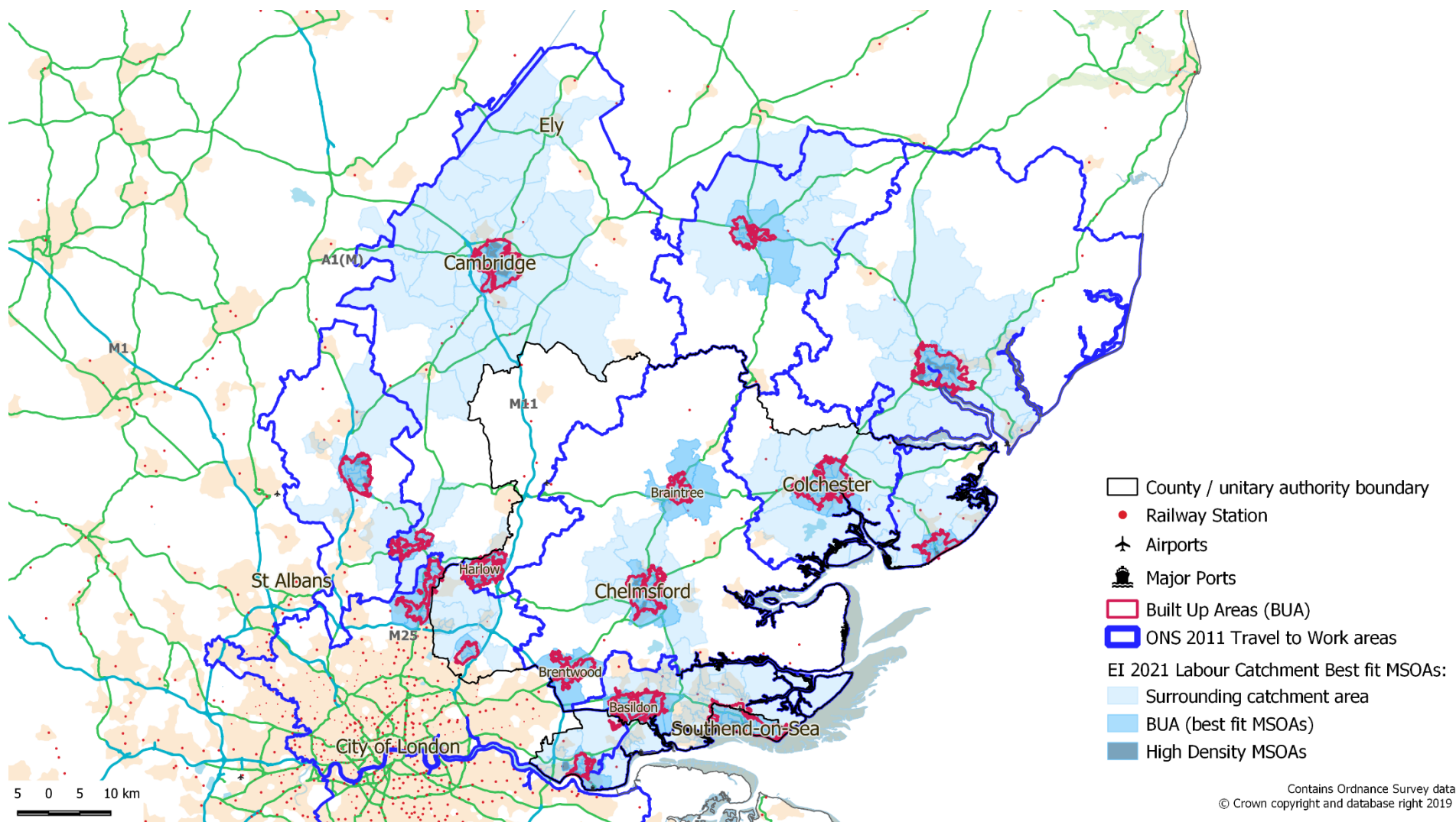


Figure 6.3. Major centres of employment, and their commuting areas within and outside of Essex. (Source: Essex County Council)

### 6.3.2 Home working

The world of office-based work looks different to what it did prior to the coronavirus pandemic. While we don't have specific data for Essex, we can use central London office workers as a guide. In June 2024 full-time workers spent 2.7 days in the office, down from an average of 3.9 days in January 2020.<sup>140</sup> There are also clear preferences for which days of the week people like to attend, with Fridays easily the quietest. Rail data corroborates this. London commuting increased in 2023 but was still at only ~82% of pre-pandemic levels.<sup>141</sup>

Working from home is not an option for everyone; a national study found that only 44% could potentially work from home some of the time.<sup>142</sup> Research indicates that the increase in a mix of travelling to work and working from home, known as 'hybrid working', varies across professions, age groups and income levels. Not everyone will have the space or the mobile/broadband connectivity to work effectively at home, nor even wants to do so.

Chapter 4 previously showed (see Figure 4.1) that there are several 'public transport deserts' (areas with especially poor public transport connectivity) which also do not meet government expectations of satisfactory access to the internet (of at least 10Mb per second download and 1Mb per second upload).<sup>143</sup>

Broadband and mobile connectivity capability continues to advance. Access to effective broadband (currently gigabit) and mobile (currently 4G/5G) connectivity is one of the factors in supporting effective working from home. The government's target is for next-generation, gigabit broadband to be available to 85% of the UK by 2025 and nationwide by 2030. The Government also mandates that new homes must be built with gigabit-capable broadband connections, or the next fastest available should this not be possible<sup>144</sup>. There is low access to gigabit broadband in rural areas surrounding Chelmsford, Brentwood, Witham and Tiptree as well as pockets of north west Essex, the Dengie Peninsula and along the Tendring Coast (see Figure 6.4 below on next page).

Hybrid working can have both positive and negative impacts on the economy and transport, with some impacts still uncertain. People can gain improved work-life balance and personal productivity and save on commuting costs. They may also be more likely to spend money on local shops and services.





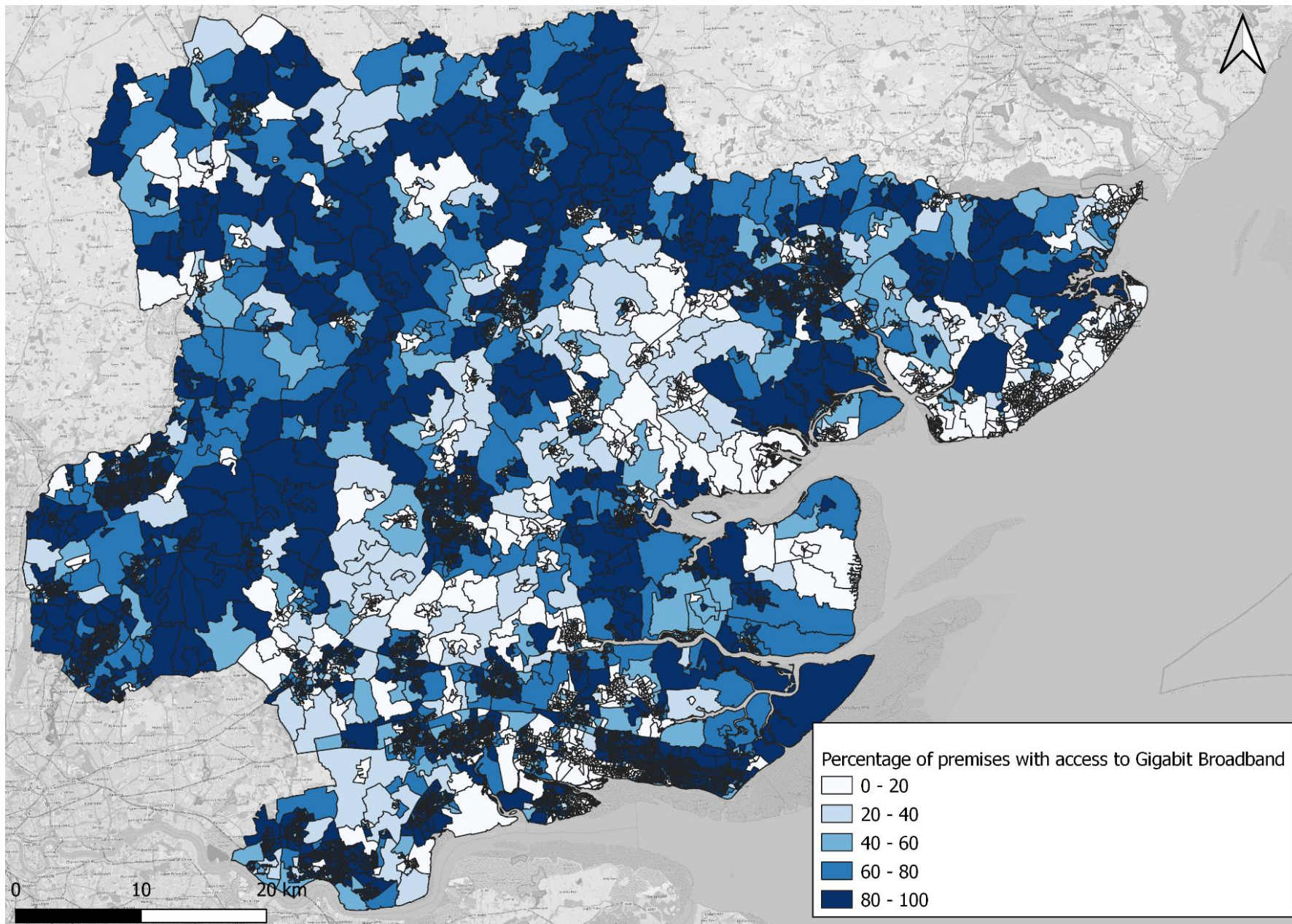


Figure 6.4. Access to Gigabit Broadband (Source: Ofcom, 2022)



However, it's possible that too much working from home could have negative impacts on businesses' efficiency, as there are reduced opportunities for learning and innovation from face-to-face activities.<sup>145</sup> And for some people the workplace is an important part of social interaction and their wellbeing. Our market towns and villages with local character, various things to do and good rail connections to London and other major urban centres, could also become even more attractive places to live if there isn't the need to visit the office every day.

These towns and villages also provide people with the ability to access their everyday needs by

walking and cycling with the added benefit of supporting local jobs. Reduced commuter travel also has congestion and carbon benefits, especially if the journeys were previously made by car.

However, some bus and train services are still running with fewer passengers and sustained low numbers of commuters could reduce their commercial viability in their present form.

### 6.3.3 Access to work

In Essex, 65% of working people travel to work by car or van<sup>146</sup>. Residents in all parts of the county can travel by car to a place of work within 30 minutes. However, this does not mean that they

can access their own workplace within 30 minutes. The quality of jobs available to residents across the county also varies widely.

For example, people in Tendring and Uttlesford have high access to low quality jobs, while residents in Chelmsford have above average access to high quality jobs. People in low income and deprived areas, those who don't have access to a car or van for commuting, and those living in rural areas have poor access to jobs, partly due to poor public transport connections to major centres of employment.

The link between transport and deprivation is most noticeable in Tendring but there are pockets of transport-related deprivation throughout the county. People with disabilities, including mobility difficulties and sensory processing issues, face additional barriers to travel no matter where they live. These barriers may be related to:

- Additional costs, such as having to travel further to a station with step-free access or needing to purchase/lease an adapted vehicle.
- The need to plan ahead and inability to travel spontaneously.
- The need to take a specific route.
- Sensory overload due to noise or visual clutter.
- Physical infrastructure which doesn't meet their needs.
- Inability to access information easily.

As a result, disabled people on average make 30% fewer journeys and overspend on personal transport by 33%. 1 in 4 disabled people in the UK say that restrictions on travel limit their employment options.<sup>147</sup>



### 6.3.4 Access to education and training

People need to be able to access places of education and places of training to learn and progress. This is important both for young people as well as older people seeking new opportunities.

Where people must travel long distances, it may be harder or more expensive to access these services, reducing opportunities to upskill and the chance of employment in the future, locking in low wages and deprivation. Areas with the highest percentage of residents with no qualifications include our coastal communities (such as Canvey Island, the Tendring coast, Rochford, Maldon and parts of the Dengie peninsula), parts of our major towns (such as Basildon and Harlow) and some but not all of our rural communities (see Figure 6.5 below on the next page). The ability to access skilled work, education and training from each of our homes will be one factor, however there will be other reasons (e.g. quality of housing, type of work, schools, leisure attractions) why people choose to move to, stay in or leave where they live.

This results in some places with similar levels of transport accessibility faring quite differently in terms of the skills and life outcomes of their residents. Some of these issues will start at school age where there is a clear urban versus rural divide. Both primary and secondary schools are typically less accessible for rural residents using public transport.

To address this, we provide free home to school transport for children who attend their nearest school and live more than two miles away (reception to year 3) and three miles away (year 4 to 6 and secondary to year 11).

We provide children from low-income families with additional support, giving them access to a wider

range of schools if more than two miles away. We also support children with special educational needs and disabilities with home to school transport. Most areas are within a 20-minute cycle ride from a primary school, making active travel highly accessible, particularly in Harlow and Chelmsford.

However, this accessibility is reliant on safe, direct cycling infrastructure which enables parents to feel comfortable letting younger children cycle, and on schools providing adequate and secure cycle parking. We also want to create safe, healthy and fully accessible environments around schools for all pupils and their families.

Our guidance<sup>148</sup> supports the provision of various measures to create a safer environment around school entrances and nearby streets at the start and end of the school day such as reduced vehicle speeds on nearby streets; safe, direct walking and cycling routes to schools; clear and wide footways for pushchairs; improved air quality; and reduced noise. People have generally good access to secondary schools in our towns, even in coastal communities such as Canvey Island and the Tendring coast, as these are of a sufficient size to host a secondary school. Residents of villages and surrounding rural areas tend to travel further distances than for primary education.





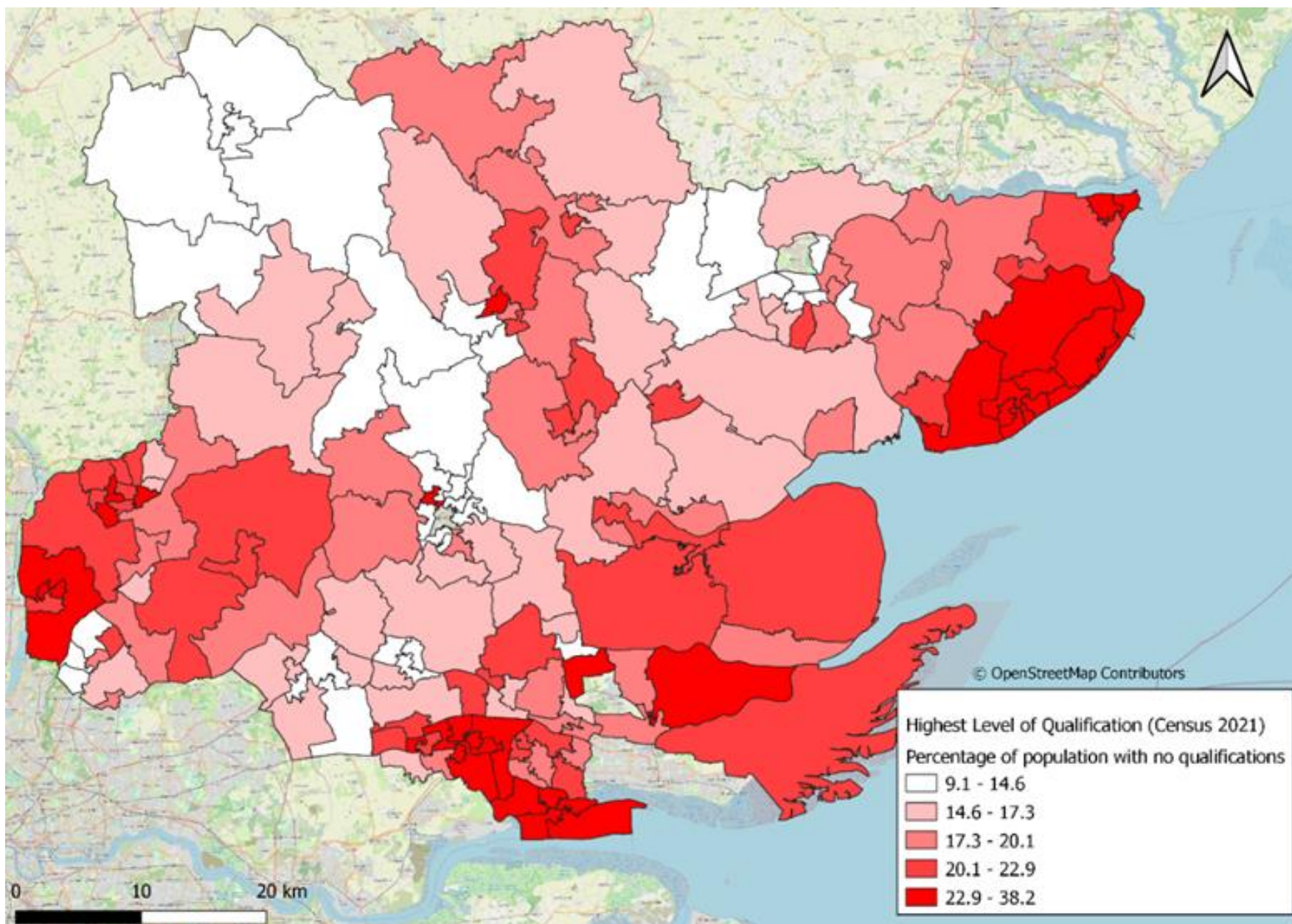


Figure 6.5. Percentage of Essex residents with no qualifications (Source: Census, 2021)



However, Essex (including Southend-on-Sea) has a large number of selective, faith and specialist (e.g. Anglo-European school in Ingatestone) schools that mean children may want to travel further for their education regardless of where they live. While there is funding to support low-income families access this education, for some rural and coastal communities journey times will be too long to be attractive. The University of Essex and Anglia Ruskin University (now also including Writtle College) are centres for higher education as well as innovation. Good public transport, pedestrian and cycling links to their main campuses at Colchester and Chelmsford provide lower cost travel options while living at home. Our

colleges are also continuing to develop new learning programmes in collaboration with industry and the public sector, helping train people in growth sectors such as aviation, construction, energy and digital (see Figure 6.6 on next page).

These are well located for residents of our largest urban areas and now include some but not all places with low skill levels (such as Canvey Island, Basildon, Harlow and Harwich) to support the attainment of locally relevant skills. For places such as Clacton, Rochford, Maldon and Halstead where significant numbers of people need skills these opportunities are still quite distant. And for many rural areas people either have an hour plus

journey to further education establishments, or they are completely inaccessible to them without a car. Difficulty accessing further education and opportunities to gain qualifications limits the future employment and earning potential for young people and adults wanting or needing to upskill or reskill at different stages of their lives. It either forces them to move to places with better connections (if they can afford to do so) or locks them into low-income jobs and continues a cycle of deprivation.



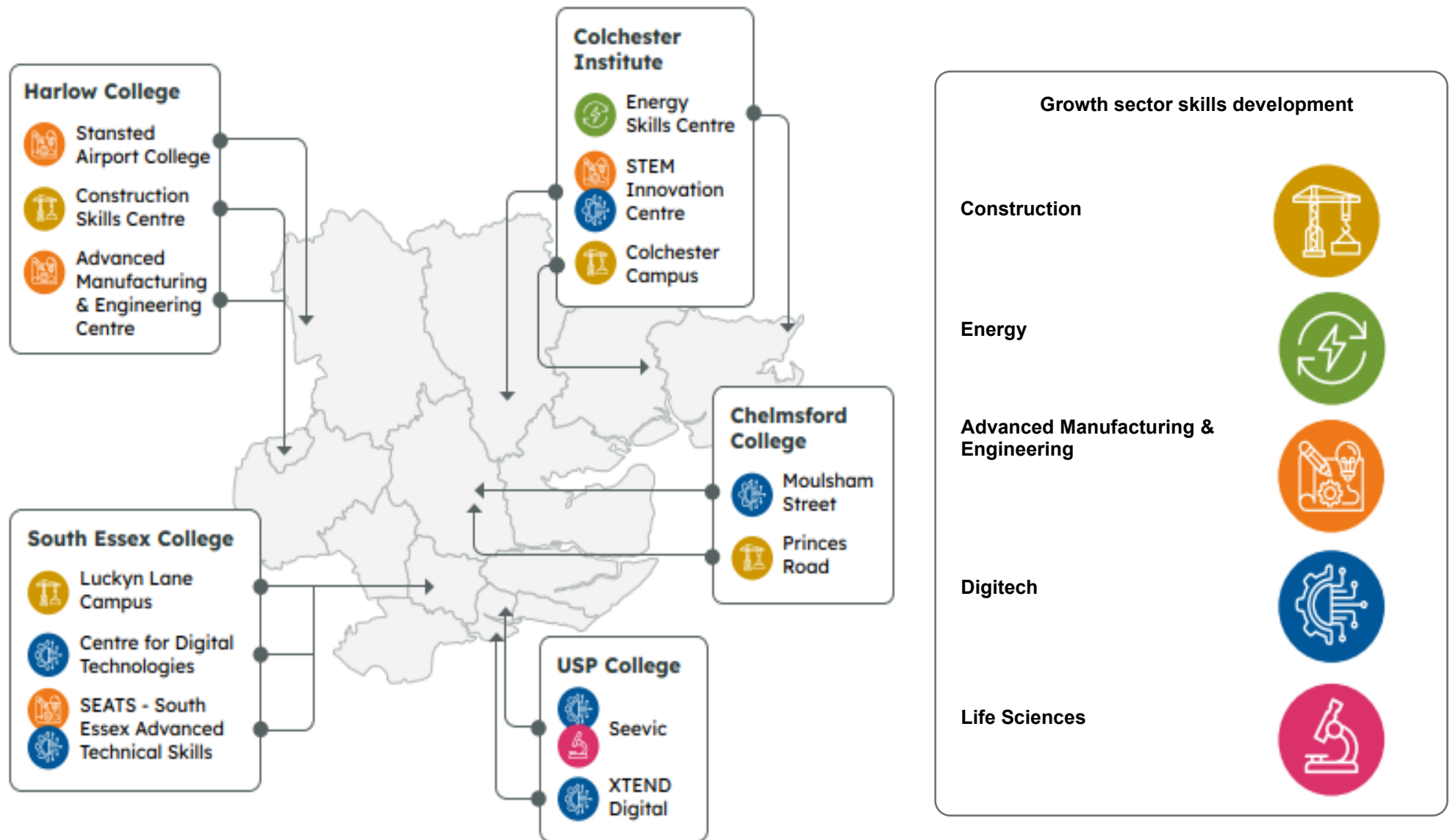


Figure 6.6. Further education linked to our growth sectors (Source: Essex Sector Development Strategy, 2023)



## 6.4 The transport network has a secure and long-term future

### 6.4.1 Network condition

People expect roads, cycle routes and footways to be looked after so that they are safe for everyone who uses them, be that drivers or those cycling and walking. Well-maintained walking and cycling routes encourage more people to travel sustainably, particularly for shorter trips.

Effective maintenance also has economic benefits. The Centre for Economics and Business Research estimates that the overall cost to the economy of potholes on England's roads is £14.4 billion per year.<sup>149</sup> Well-maintained streets and public spaces also aligns with our 'Healthy Streets' approach. Research suggests that an attractive environment for walking, cycling and spending time in helps local businesses perform well.<sup>150</sup>

The condition of Essex's roads has improved since 2012 and our funding requires us to prioritise how we best use our funds to ensure our network is safe.

Where our roads go and their capacity play an important role in connecting people, places and businesses with each other, and are currently classified as:

- 'A': major roads intended to provide large-scale transport links within or between major towns, cities and other counties; typically, these will be roads with a high or medium movement function within our 'Place and Movement' approach (see previous Figure 5.5). For example, the A131 through Halstead can be a Strategic Road, Main Urban Road, Local Street, Mixed Use Street and Linear Place at different points along the route.
- 'B': roads intended to connect smaller towns, and to feed traffic between A roads and smaller roads on the network; typically, these will be roads with a medium movement function within our 'Place and Movement' approach.
- 'C': smaller roads intended to connect together unclassified roads with A and B roads, and often linking a housing estate, industrial estate or a village to the rest of the network; typically, these are more likely to be low movement roads such as lanes or local streets.

Just 3% (2024/25) of our A, B and C roads require maintenance improvement<sup>151</sup>. A, B and some C roads are also typically where we see heavy lorries and other freight movements. Of our unclassified roads, typically used for local trips, 11% (2024/25) need maintenance improvement<sup>152</sup>. These are the routes most used by the widest variety of users and need to be safe for all users.

Our footways have had less investment, with 31% needing maintenance improvement<sup>153</sup>. We need to improve our main pedestrian routes in the busiest areas of our towns and cities, as well as routes connecting to local centres. Our 'Place and Movement' work will put an increased emphasis on people and how they travel, hopefully helping to prioritise improvements in places with high levels of pedestrian activity.





## 6.4.2 Areas of the transport network impacted by changes to the weather

We are facing long-term changes in our weather pattern and temperature beyond natural variations as well as abnormal trends in things such as the timing of the seasons and patterns of rainfall.

The East of England is one of the UK's most vulnerable regions with already the lowest average rainfall and highest average temperatures. Parts of Essex are also vulnerable to flooding from rivers and surface water, and our coastal communities are vulnerable to erosion and flooding from the sea. Drought and hot weather conditions provides a different set of problems, such as drying out the soils that support our infrastructure.

Many of these issues will get worse, given the projected changes to 2080 (see Figure 6.7).

To achieve our vision, it's important that our transport network is flexible, reliable, operates safely and responds to a changing environment. Extreme weather can have significant implications for transport infrastructure with most of our roads and railways designed and built to operate under different environmental conditions. Damage to infrastructure costs money and can have tragic consequences. It also stops people from playing a full role in a functioning economy and society.

We already have high risk areas for flooding including sections of the Colne (Colchester and Halstead), Can and Chelmer (Chelmsford, Great Dunmow), Crouch (Wickford), Roding (Abridge), Stort (Harlow) rivers and parts of Canvey Island.<sup>155</sup>

There is a risk that changes lead to more intense rainfall events overwhelming the existing highway drainage network, or causing rivers or groundwater to flood more frequently in these and other areas. The result would be more frequent temporary closure or damage to the transport network.

In the East of England 7.6% of properties are as of 2024 already at high or medium risk of flooding from surface water, with 2.2% of properties at medium or high risk from rivers or the sea<sup>156</sup>. This is expected to increase and impact more properties.

While we will seek new sustainable drainage solutions and green infrastructure as part of new development to help manage the risk of more frequent flooding, it won't be an option everywhere such as where no new development is planned.

Other key risks<sup>157</sup> that we will need to manage are:

- Coastal flooding and erosion impacts. The East of England is particularly at risk of coastal erosion.
- Risks to bridges from flooding and erosion.
- Risks to ground conditions that can impact roads and railways, such as the failure of slopes, embankments and subsidence.
- Extreme temperatures. Very high temperatures can have physical impacts on transport infrastructure such as softening road surfaces and causing metal infrastructure such as bridges and rail tracks to buckle. High temperatures can also make conditions unpleasant where there is no shade or air conditioning.
- High winds causing problems for high sided vehicles.
- Water scarcity causing problems for businesses, and highways maintenance works.

### Climate Projections by: 2080



**Warmer, wetter winters**



**Hotter, drier summers**



**Rise in sea levels**



**Weather is likely to become more variable**



**Rainfall is expected to be more intense**



**Extreme events could be more frequent**

Figure 6.7. UKCP18 headline projections for Essex <sup>154</sup>

Bad weather not only causes damage to the existing network, it also impacts the durability of repair work. More frequent severe weather also reduces the amount of time we can undertake maintenance and repair work.

As we increasingly shift to electric vehicles and potentially automation, we will also be reliant on the resilience of energy and computer systems for travel. These will need to be resilient to extreme weather, as well as issues such as energy supply, security and cyber-security. For example, the energy network already has its limitations. The National Grid says the electricity network in East Anglia doesn't have the ability needed to reliably and securely transport all the energy that will be connected by 2030.<sup>158</sup>

### 6.4.3 Technology and innovation

Our transport systems, providers and the world around us are continuing to change. Various external trends are influencing this, including the need to reduce carbon (see 5.5.2 for our electric vehicle strategy), changing societal expectations and disruptive technology. There are also innovation opportunities that have links to the transport network which provide wider benefits to people, places and the environment and the other work that the Council does.

Digital technology is already changing transport services, and its impact is expected to grow. It is already impacting daily journeys, with digital train tickets or apps which can replan journeys based on the delays or heavy traffic. Vehicles also have increasing levels of automation with assisted braking, lane keeping and parking now regularly featuring in cars.<sup>159</sup> And, behind the scenes, we use digital tools to make more cost-effective or efficient decisions on how we manage, monitor

and maintain the network or operate our DigiGo demand responsive travel services.

Technology has also made the new shared mobility trials such as e-scooters in Braintree, Chelmsford and Colchester possible, allowing people to hire an e-scooter with a smartphone and a QR code. And although UK regulations have not kept pace with the speed of these developments (note – private e-scooters are illegal except on private land) new legislation on new electric vehicle classes is expected.

Further government policy is also expected in other emerging areas such as artificial intelligence (AI) and autonomous vehicles (AV). AI, for example, provides the potential to analyse enormous sets of data and provide useful insights and efficiencies. These could include:

- Real-time versions of our transport network to model 'what-if' scenarios and send information to traffic signals to proactively fix emerging congestion problems on the network.
- Optimised delivery or demand responsive travel services to make them efficient and attractive to users.
- Enable people to make better informed journey / mode decisions.
- Greater driver assistance in vehicles.
- AVs, especially when combined with AI, could provide more efficient or sustainable journey planning.

Many of these innovations will be positive but there is also a great deal of uncertainty, with potential negative impacts if not managed carefully or risks (such as cyber security) not properly understood.

It's important that the public and private sectors work in partnership to make as many innovative ideas a success as possible.

## 6.5 What are we going to do about it?

We will work closely with our communities and the public and private sectors to help deliver our desired outcomes. Key initiatives and policies to achieve these outcomes are provided below.

These policies apply to both the County Council and any other organisation (such as local planning authorities, public service providers, developers, transport providers amongst others) whose plans, policies and actions impact how, why and when people and businesses may need to travel.

This chapter provides a summary of the policy with further detail on our guiding principles, actions and supporting documents in **Appendix C**.

### 6.5.1 Maintenance strategy

We are committed to the efficient maintenance and management of our transport infrastructure, to make our transport network resilient, safe to use and fit for purpose, supporting the Essex economy over the long-term. Our Highways Infrastructure Asset Management Plan, 'Place and Movement' approach, Speed Management Strategy, Traffic Management Strategy, Development Management Policies, and our Climate Adaptation/Action, Decarbonisation and Green Estate Management Plans guide our day-to-day work.

#### Policy 9. Maintenance and asset management.

We will work with partners to make the transport network safe to use, resilient, and fit for purpose, especially during periods of adverse weather.

We will maintain all our transport infrastructure (such as bridges, roads, footways, cycle paths and public rights of way) to appropriate standards which offer value for money to the Essex taxpayer.

Where appropriate, we will seek to secure developer contributions from new developments to reduce the burden on the taxpayer.

We will continue to prioritise and deliver maintenance based on greatest benefit, deliverability, available funding, policy and guidance. Our 'Place and Movement' approach will be one of the things we consider in making these decisions.

We will proactively monitor the condition of our road, cycle, and pedestrian networks and other pieces of infrastructure such as bridges, streetlights, signs, etc. This will include regular highway safety inspections.

We will also manage and maintain our network with sustainability in mind, by reducing waste, using sustainable products and processes and reusing and recycling materials.

We will work collaboratively with partners and other third parties to co-ordinate maintenance works across our transport networks and minimise disruption to the travelling public. This will include National Highways, neighbouring transport authorities, major generators of traffic such as ports and airports, and utility companies.

We will prioritise winter maintenance such as gritting and salting in line with our current policy to enable people to reach vital services and keep routes open that enable our economy to function.

We will continue to take a proactive approach to making our infrastructure more resilient. We will regularly review where our transport infrastructure is at increased risk, and use green space, trees and natural flood management solutions to reduce the risks and impacts of extreme weather.



### 6.5.2 Managing the network

Our management of the transport network will prioritise journey time reliability for all modes of transport including freight and public transport. We will put the people and businesses of Essex at the heart of our plans by using the full range of data and analytical techniques to ensure that we understand their collective travel needs. Our investment in improving our footway, cycleway, public transport and road networks will focus on those areas which give the greatest benefit to the economy and quality of life.

We propose to adopt a 'Place and Movement' approach to manage our transport network (see section 5.5.2), to strike the right balance the individual needs and characteristics of the different places as well as the journeys people want to make between them.



### Policy 10. Connectivity and journey reliability for all modes of transport.

We will work with partners to plan the transport network in each location so that we balance the needs of local communities while promoting connectivity and reliable journeys for all.

### 6.5.3 Freight

The movement of goods is essential for the success of the Essex economy. It's important that the sustainable distribution of goods considers how the choice of transport mode, route and last mile delivery solution minimises the impact on our people, places and transport network.

### Policy 11. Freight movement.

We will work with partners to support the efficient and sustainable movement of freight.

Our international gateways are a significant generator of freight movements on our network. We will collaborate with Transport East, National Highways, London Stansted and London



Southend airports, ports, and the rail industry, to identify and deliver essential improvements to nationally significant road and rail connections to deliver more reliable journeys, more efficient port and airport operations and better facilities for lorry drivers.

As part of this we will work with our partners to make the case for enhanced freight capacity to support economic growth and a shift from road to rail freight, particularly containers to and from the ports at London Gateway, Tilbury, Harwich and Felixstowe. Port access tracks need to be electrified or new bi/tri-mode (electric, diesel and/or battery) locomotives used to remove emissions. Adding capacity outside of Essex at Ely North Junction, Haughley Junction and for freight passing through London is a top priority.

We will also support London Stansted and London Southend airports to prepare and implement effective and proportionate Surface Access Strategies to provide freight access relevant to their scale, operation and function.

We will work with partners to reduce the impact of freight and delivery vehicles in neighbourhoods, urban centres and villages. This includes directing freight to use the strategic road network and our main roads, where these are the most appropriate routes, rather than local roads.

We will also promote alternatives for last mile deliveries such as e-cargo bikes (see Case Study 6.1), parcel lockers, and community mobility hubs.

### Case Study 6.1. Colchester e-cargo bikes

Colchester City Council used funding from the Department for Transport's e-cargo bike grant fund and Energy Savings Trust to introduce e-cargo bikes to local businesses in Colchester. Since the scheme began, 25 e-cargo bikes have been loaned to five retailers.



Congestion is a problem for Colchester and with the increase of online shopping it is likely more vans and cars will make deliveries. This may lead to increased air and noise pollution. The e-cargo bikes offer a cleaner, cheaper way for businesses to move goods around the city.

### 6.5.4 Rail strategy

Essex County Council is not directly responsible for the rail network or for running trains. Since the 1990s private Train Operating Companies have run most rail services in Essex under franchises agreed with the Department for Transport. The exceptions are Transport for London's Elizabeth Line to Shenfield and the Central Line to Epping and Hainault via Woodford, and freight services which are operated under separate commercial agreements. Network Rail is currently responsible for the operation, maintenance and investment in the rail network.

The Government has recently announced that many of these national rail functions will be managed by a new body, Great British Railways. This means that rail services will undergo a period of change, including the planned nationalisation of

the c2c (20 July 2025) and Greater Anglia (12 October 2025) franchises, and we would like to influence this change for the benefit of Essex. To do so it is essential that we work with national, regional and local partners (e.g. Transport East) to plan rail improvements that provide the greatest benefits to everyone.

Our strategy for rail aims to achieve the following.

- Encourage rail use as a sustainable mode of transport.
- Seek a better service for passengers that is integrated with other forms of transport.
- Reduced journey times, with better sustainable connections and active travel options at stations for onward journeys.
- Provide the rail capacity for both passengers and freight needed to support growth, including where passenger and freight journeys which start or end their journey outside Essex.
- A close relationship with the rail industry and local, regional and national partners.
- Rail improvements that provide the greatest benefits to Essex residents and businesses.

Essex County Council has a strong track record with rail. We played a key role in the development of the 2012 Rail Prospectus for East Anglia that built consensus behind a realistic and technically feasible plan to unlock growth in the East of England. Essex is an active contributor to the Great Eastern Mainline Taskforce and the West Anglia Taskforce and has worked with partners to establish the new Essex Thameside Taskforce to further the case for investment in these key rail corridors. This has helped realise Beaulieu Park station (see Case Study 6.2 on the next page) which is under construction and due to open in autumn 2025.

We want to further expand and improve our rail links, both strategically to places like London, London Stansted Airport, Cambridge, East Anglia and for longer distance travel, and locally to provide better services between rural and urban destinations in Essex. Station and train capacity will need increasing to support growth, including major developments such as at Harlow. Line speed enhancements can enable reduced journey times and make rail more competitive in comparison to road travel.

Frequent reliable services give passengers greater confidence that there will be a train when they need one and reduce the amount of waiting time when changing trains. We plan to work with the rail industry to explore how all Essex stations can be served by a minimum of two trains per hour. We plan to start with Clacton line services to support the regeneration of the coast, but we will also seek opportunities to deliver improvements on all branch lines.



## Case Study 6.2. Beaulieu Park Station

We are working in partnership with Network Rail and Chelmsford City Council to deliver the first railway station to be built on the Great



Eastern Main Line for over 100 years. The station is a pivotal part of our plans for sustainable transport links for the Chelmsford Garden Community and beyond.

We worked with the rail industry and government to make the case for significant Housing Infrastructure Funding to supplement contributions from the South East Local Enterprise Partnership and the developers of Beaulieu – Countryside and L&Q.

With three platforms and a central loop line, it will enable stopping services to call at the station while allowing fast trains to pass through unimpeded. Journey times to London Liverpool Street will be around 40 minutes.

There will also be 500 spaces for cyclists, a bus interchange, pick up and drop off area with dedicated taxi bays and parking for over 700 cars.

With a targeted opening date by the end of 2025, the new station will help to relieve pressure on the busy Chelmsford station, support growth and help reduce car journeys into the city tackling congestion on local roads, reducing pollution thereby making active modes safer and attractive.

It is important to note however that most train journeys do not start and finish at a rail station. Quicker and more reliable end-to-end journeys are also needed, by focussing on the first and last miles to and from a station. We will work with partners to secure better facilities at stations for onward travel via all modes of transport including step free access, secure cycle parking, waiting facilities, travel information and integrated ticketing across different modes of transport. Where appropriate this could include Mobility Hubs (see section 4.5.2).

Rail stations also contribute to how our places look and feel. Stations provide people with first and last impressions to our villages, towns and cities, supporting (or hindering) investment and the accessibility of nearby land for housing and economic growth. We will work with partners to secure better public spaces and access around our stations, and with our Community Rail Partnership and local station adopters help to create those lasting impressions. We will also support the use of underutilised station buildings for a wide range of community and retail uses to generate more economic and social activity in and around stations, which also encourages greater use of rail services.

We will also make the case for simpler, affordable fares and tickets (see section 4.5.4), staff being available to assist passengers throughout their journeys, and improved accessibility for all stations. This is especially important at junction stations such as Marks Tey where passengers need to move between platforms to change trains.

## 6.5.5 Rapid transit strategy

Essex County Council is also working to deliver high quality public transport solutions within and between our growing towns and cities. We know

that to provide people with real sustainable transport options, high quality public transport services must have these features:

- Fast.
- Reliable.
- Frequent.
- Convenient.
- Comfortable.
- Simple to understand.
- Easy to use and be reasonably priced.

Rapid Transit is a range of high quality public transport types which sit between conventional local buses and national rail or London Underground services. They aim to combine the speed and frequency of rail systems with the flexibility, lower cost and simplicity of a bus system. They will complement our rail strategy, Bus Service Improvement Plan and Local Cycling and Walking Infrastructure Plans in providing effective sustainable transport for our residents, businesses and visitors.

To achieve the speed, frequency and reliability that underpins successful Rapid Transit, systems will often include:

- Priority for rapid transit vehicles in road traffic, on a dedicated lane alongside traffic, or on a rapid transit corridor separated from traffic.
- Direct routes with fewer stops to speed up journeys.
- A turn-up-and-go level of frequency so that people have confidence that they can travel when they want.
- Fares collected off the vehicle to avoid delays caused by passengers paying on board.

A high quality passenger experience also requires many other considerations and features in addition to simply being 'rapid'. These often include:

### Case Study 6.3. Colchester Rapid Transit

A new rapid transit system (and link road) is being delivered with £100m of Housing Infrastructure Funding to support the sustainable delivery of a new Garden Community of around 7,500 new homes. Construction is now well underway with dedicated transit corridors and stops, traffic signals and supporting walking and cycling infrastructure. These new measures are being built in advance of the new Garden Community. Further sections of rapid transit infrastructure and an enhanced service will be provided as the Garden Community and its first homes are delivered. The route within Colchester travels from the A12 Park and Ride to the University of Essex and the new Garden Community and will connect new and existing residents with key destinations including the hospital, railway station, city centre and university. Once fully operational users can expect to see improved service levels, with distinct vehicles, unique branding and modern ticketing and stops using the latest technologies.



- A focus on personal safety and comfort on board and at stops.
- Affordable fares.
- Integrated ticketing across services and other modes.
- Easy interchange with other modes. Where appropriate this could include mobility hubs (see section 4.5.2).
- Clear and consistent branding.
- Attractive infrastructure and vehicles.
- Easy to understand and reliable real time customer information systems at the stop and online.

We are delivering our first rapid transit route in Colchester (see Case Study 6.3). Rapid transit will be one of our options to deliver Garden Communities and other Large-Scale developments, as well as improve public transport for existing residents, businesses and visitors in and around our thriving, growing towns and cities. It will provide high quality public transport solutions will not only help to grow the local economy, but will also help reduce congestion, improve accessibility and support environmental objectives.

### 6.5.6 Access to employment, education and training

Our aim is to connect residents to places of employment, education and training.

### Policy 12. Sustainable transport

We are committed to giving people the choice of inclusive, reliable and affordable sustainable transport.

We will focus on addressing any inequalities that exist in the transport network by tackling barriers to travel (such as accessibility, complexity of the transport system and security) for the most vulnerable users, such as individuals living with



disabilities, limited mobility, or long-term limiting health conditions and those within society who are disadvantaged.

We will look to work with partners to improve walking, cycling and public transport connections between residential and employment areas. Our Local Cycling and Walking Infrastructure Plans and Bus Service Improvement Plans will identify and prioritise improvements that enable more people to get to and from potential places of work.

We will provide measures to enable more children to walk and cycle to school safely, such as safer environments outside of school and cycle and road safety training. We will work with partners to explore the potential to deliver locally relevant training programmes in more areas of the county to address skills gaps holding people back and stopping firms from investing.



Through our other functions as a County Council such as education and economic development, we will support businesses in our high-growth sectors to grow and thrive and promote opportunities in the growing sectors of our economy to Essex residents, encouraging the take up of current and future opportunities and provide learners with the best possible chance to realise their potential. To do this we will work with skills providers and business to tie business needs to future skills programmes to transport, and to understand existing skills gaps – supporting our Local Skills Improvement Plan.

Technology will play a key role in enabling people to access services and gain new skills. In particular, we are committed to using existing and new technologies to provide travel information that is easy to understand, available in a range of formats, and can be easily accessed by all.

We will support the ongoing roll out of gigabit speed broadband and improvements to mobile (5G) coverage to enable greater home working and online access to services, especially in rural and deprived areas.

### 6.5.7 Network adaptation

We will maintain, manage, adapt and improve our transport networks in line with our maintenance, climate adaptation/action, decarbonisation and green estate management plans. We will address environment-related risk through:

- Proactively developing our own ability as a council to adapt – by gathering and sharing information and creating a supportive framework both internally and with others.
- Delivering actions that enable our transport network to adapt to changing environmental risks. This could include building resilience, preventing impacts or exploiting new opportunities (such as renewable energy).

To combat the risk of more extreme temperatures and flooding events, we will plant more trees in appropriate and safe locations along our streets. This will provide shading to benefit pedestrians and cyclists, as well as helping to absorb air pollution and reduce the amount of rainwater that reaches our roads and drains. It will also make streets and public spaces more attractive and comfortable places for people to spend time in. We will use planning policy to improve walking and cycling links within and beyond existing and new developments to a range of green spaces that also deliver wider benefits for the environment.

We will consider further opportunities to plant wildflower verges and other mixed grassland on appropriate highway land to increase biodiversity and carbon storage, while recognising the need to maintain verges that provide a safety function.

We expect increases in the risk of surface water and coastal flooding on our road network and adjacent properties. New green spaces and sustainable drainage systems (SuDS) also act as a form of natural flood management and help to reduce the risk and impacts of flooding. We have already published a SuDS Design Guide for Essex<sup>160</sup> and will continue to provide advice on planning applications to mitigate flood risk.

We will continue to review where our transport infrastructure is at increased risk and take an active role in flood defence, coastal protection, and conservation to reduce these risks and impacts on our communities and our transport network.

We are part of the Shoreline Management Plan working group and the Essex Coast Organisation<sup>161</sup>, focusing on the long-term viability of our coast. We also host the Coastal Forum<sup>162</sup>, uniting key stakeholders to manage coastal issues such as planning, green infrastructure, flood risk management, marine management and transport, in Essex more effectively.

### 6.5.8 Innovation

We live in an age of major advances in electric, connected and autonomous vehicles, artificial intelligence, and in digital and communications technology. In related sectors such as energy, housing and the environment, government policy in areas such as climate adaptation, decarbonisation and biodiversity net gain are encouraging organisations to innovate to deliver better societal and environmental outcomes, faster and at lower cost.

Embracing this change and making the most of disruptive ideas and technologies that benefit everyone is part of our plans to shape the future growth and prosperity of Essex and deliver our vision. However, we need to avoid implementing an innovation or technology just because it is new or exciting – it must be appropriate for Essex.

We will work in partnership across the public and private sector, to provide a common approach to innovation, to realise shared strategic ambitions that support economic growth in Essex, the region and UK. Through the other work we do as a Council we will explore the potential for innovation opportunities within the transport sector to provide wider benefits to people, our businesses, education institutions, places and the environment, and for opportunities in other sectors to benefit travel and transport.

The role we take in responding to innovation and technological change will depend on the topic, its level of maturity and how risky it is. For some things we may provide, or partner with someone else to deliver a solution (such as rapid transit infrastructure, travel app, smart maintenance technology, or biodiversity net gain on highways land), in some other cases we will act as a regulator or facilitator (such as e-scooter trials,

public electric vehicle charge points, or the Net Zero Innovation Network included in Case Study 6.4), and in other cases (such as autonomous vehicles, alternative fuels, or artificial intelligence) we will seek to make our voice heard to deliver the best outcomes for Essex.

**Case Study 6.4. The Net Zero Innovation Network**<sup>163</sup> already brings together individuals from a range of businesses, academic institutions and the public sector across Essex to realise our target of being a net zero carbon emission county by 2050. The Network develops a pipeline of innovative solutions across various themes emerging from the Essex Climate Action Commission, including transport, energy, waste, the built environment, and land use and green infrastructure. The pipeline will ensure joined up working and help to secure funding opportunities to deliver transformational green projects.

We will seek to ensure our highway infrastructure caters for the move towards connected autonomous vehicles. We plan to accurately digitise our highway networks and traffic regulation orders to ensure autonomous vehicle systems will safely, accurately, and legally move around our highway network. This will consider the needs of all users.

We will also consider how our range of transport infrastructure and related land could be used to support the introduction of new and innovative technology within and outside the transport sector.

We will support innovation and research in the use of new technology, low carbon freight vehicles and alternative fuels. Where appropriate we will manage the introduction of alternative fuel infrastructure to encourage cleaner travel where

cars or other forms of private transport are essential to access services.

We will embrace innovation and technology where it adds value or saves money, such as the use of drones to inspect our bridges and road structures.

As we have been doing with e-scooter trials in our largest urban areas, we will continue to support the pilot and where appropriate the adoption of new technology which enables more sustainable travel.



## 6.6 Summary

Table 6.1. The business potential of Essex is maximised

Planned activities	Where or who to target
Introduce a 'Place and Movement' approach to help embed the principles of 'Healthy Streets' and manage the transport network effectively for both existing streets and new developments	Countywide
Adopt a vision-led approach to planning for new growth and its transport needs – including through all new Local Plans	Countywide
Prioritise journey time reliability for all modes of transport including freight and public transport	Countywide
Work with partners to make the case for investment in our strategic road and rail links, including to the airports and ports to provide enhanced capacity for freight	Countywide
Work with partners to make the case for investment in better facilities for lorry drivers	Strategic Road Network and other major roads
Work with the Government to explore how their plans for local government finance, devolution and wider policy objectives can enable Essex to play its full part in supporting national economic growth	Countywide
Support our airports in preparing and implementing Surface Access Strategies, including the Sustainable Development Strategy for London Stansted Airport	London Stansted and London Southend Airports
Work with partners and the freight industry to reduce the impact of freight and delivery vehicles on communities and the environment	Countywide including urban areas
Work in partnership to implement our Rail Strategy to influence the delivery of nationalised rail services and plan rail improvements	Countywide
Work with the rail industry to explore how Essex stations can be served by a minimum of two trains per hour	Countywide, starting with Clacton line services
Work with partners to secure better public spaces and access around stations and bring underutilised station buildings into community use	Countywide



**Table 6.2. People have inclusive and affordable access to employment, education and training**

Planned activities	Where or who to target
Tackle barriers to travel such as accessibility, complexity and security to support greater use by everyone	Individuals living with disabilities, limited mobility, long-term limiting health conditions or those who are disadvantaged
Work with organisations such as bus operators and active travel organisations and funders to make the case for new investment	Countywide
Work with partners to improve walking, cycling and public transport connections between residential and employment areas	Countywide
Work with partners to secure better facilities at stations for onward travel via all modes of transport including step free access	Countywide
Provide measures to enable more children to walk and cycle to school via safe, direct routes	Countywide
Deliver locally relevant training programmes to address skills gaps holding people back and stopping firms from investing	Widening access to more areas of the county
Support the rollout of gigabit speed broadband and ongoing improvements to mobile (5G) coverage	Rural and deprived areas
Work in partnership to provide attractive, safe, convenient, inclusive, and high quality walking, cycling and public transport routes and facilities	Countywide
Deliver high quality rapid transit networks where feasible	Within and between our towns and cities, including our Garden Communities
Support the introduction of multi operator and fully integrated smart ticketing for transport services in Essex	Countywide

**Table 6.3. The transport network has a secure and long-term future**

Planned activities	Where or who to target
Implement our Highways Infrastructure Asset Management Plan and supporting plans and strategies to maintain our transport infrastructure to appropriate standards which offer value for money to the Essex taxpayer	Countywide
Proactively monitor the condition of our road, cycle and pedestrian networks and other pieces of infrastructure	Countywide
Manage, maintain and improve our network by considering our Climate Adaption Plan Framework, Decarbonisation Strategy and our Strategy for managing the Green Estate	Countywide
Develop our own ability as a Council to adapt to climate-related risk	Countywide
Deliver suitable actions that enable our transport network to adapt to change	Countywide
Deploy approaches such as Sustainable Drainage and Natural Flood Management to promote greater flood resilience on the highway network	Countywide
Play an active role in flood defence, coastal protection, and conservation to reduce the risks and impacts on our coastal communities and transport network.	Coastal areas
Work with National Highways and neighbouring local transport authorities to provide a common approach to innovation	Countywide
Accurately digitise our highway networks and traffic regulation orders to support future use of our networks by autonomous vehicle systems	Countywide
Manage the introduction of appropriate alternative fuel infrastructure to encourage cleaner zero-emission travel	Countywide
Support the pilot and where appropriate the adoption of new technology which enables more sustainable travel	Countywide

## 7. Implementation

### 7.1 Introduction

The themes and outcomes detailed in the previous chapters lay the groundwork for what we are actually going to do: and it is this implementation which typically matters to people. Implementation is real stuff on the ground, impacting our residents on a daily basis. So, we must ensure that we use the funding available to Essex in the way which gives the most value for money and greatest benefit to residents and taxpayers. This means being led by our vision and what the evidence tells us to, specifically:

- Improve how our transport network works and is maintained for the long-term.
- Make the most effective improvements where these are necessary.
- Consider longer term changes affecting Essex and how and when we travel.

This approach has shaped a series of thirteen implementation plans for different parts of Essex, detailing how we will work with other organisations and the community to deliver the most effective projects. These implementation plans should be viewed alongside this Transport Strategy and reflect its broader vision. Together, this strategy and the 13 implementation plans form the formal Local Transport Plan for Essex.

### 7.2 Understanding what we need to do

To understand what we need to do, we began by identifying the travel issues or challenges facing our residents, and how we could go about solving them. We considered what types of journeys people make and why, the way they choose to travel and how this should influence the need for future investment.

1. Understanding what's important to people and the outcomes that need to be achieved
2. Understanding the journeys that need to be made to achieve the desired outcomes and/or alternatives to travel.
3. Defining the transport problem and the size of the intervention needed to solve it.
4. Thinking about making better use of what we already have.
5. Project identification and development.

Figure 7.1. Our five-stage approach to identifying solutions

Stage 1. We analyse existing data and future trends to understand what is important to our residents, businesses and visitors, what we need to do to deliver our desired outcomes, and what we want Essex to be like in the future. This helps us to identify problems and opportunities that we can explore in more detail in the next stages.

Stage 2. We need to understand the location of the journeys, who needs to make them, and why. Different journeys made by different people for different purposes will have different requirements. We also need to understand whether there are alternatives, not involving travel, which could achieve the same outcomes.

Stage 3. Our next stage seeks to understand what is preventing different types of journeys from being made efficiently or preventing the use of an alternative form of transport. We also need to understand the size of the problem; is it local to a specific place, or does it affect all of Essex? Are specific groups of people affected, or everyone?

We can then identify the possible interventions which would remove the barriers and enable people to make the journey or use a satisfactory non-travel alternative.

Stage 4. Funding is extremely constrained, with demands and costs growing. This means that we need to deliver better value for money, and where appropriate make better use of what we already have.

Stage 5. We will then identify the most appropriate transport solution or non-transport solution to solve the problem.

### 7.3 One step at a time

We won't be able to solve every problem straight away, so we will start with looking at our current network, and how we can make it work better. We'll then consider introducing small scale changes or quick wins, working our way up to major transformational changes where necessary.



Figure 7.2. Our three-step approach to improving transport in Essex

In developing and prioritising solutions we will work across transport and related sectors to plan the optimum sequence of complementary projects (e.g. a skills programme to enable local people to benefit from jobs accessed by a new bus service) in a specific area to maximise the benefits.



This approach will ensure that we make the right amount of change. We'll solve local issues for residents and only introduce major changes where it is needed.

### 7.3.1 Prioritising effective use of the current transport network

Our existing transport network is our biggest and most valuable asset. It is vital that we make the best use of it that we can and also do everything we can to ensure it lasts for future generations. Wherever possible we will prioritise measures that involve:

- Investing in efficient and effective maintenance of our transport infrastructure, for all modes.
- Providing people with choice.
- Providing everyone with up-to-date and easily accessible information in a range of formats to enable them to make better decisions about how and when they choose to travel and what route they take.
- Supporting the delivery of services in ways that reduce the need to travel such as using digital technology, land use planning or more local service provision.

### 7.3.2 Making local changes and improvements

We recognise that there will be situations where making more effective use of the current transport network won't be enough to achieve the outcomes we want. In these cases, we will need to make local changes or improvements. Changes will be focussed on locations where it is needed to enhance:

- Safety for all residents and all modes.
- Access to education and training, essential services including healthcare, retail and leisure facilities, as well as open space and nature.

- Access to future growth locations to support the delivery of new business developments and new homes.
- Connections to and within our major towns and cities, connecting business to wider markets and enabling residents to access a wider choice of work opportunities by a range of modes of transport.
- Resilience to extreme weather and other future trends.
- Deliver improvements to the natural environment through provision of biodiversity net gain in line with the Essex Local Nature Recovery Strategy.

Changes could include improvements to active and sustainable transport infrastructure in the first instance and where necessary the redesign of road links and junctions or could also include ideas like behaviour change campaigns to promote safety, or integrated public transport fares and ticketing where one ticket would cover travel on buses and trains.

The LTP must inform the Strategic Development Strategy, Local Plans and Infrastructure Delivery Plans, in order to secure the required developer contributions and deploy these effectively.

We will seek an 'infrastructure-first' approach ahead of development where possible. We will work closely with our local planning authorities to make the most effective use of all available funding opportunities be it through Government, developer contributions and agreements, or Community Infrastructure Levy (CIL) sources. A key means of funding transport improvements, whether these be walking and cycling, public transport, or car, is through developer funding or contributions so we need to ensure that new developments and developers support our vision.

### 7.3.3 Major investment in the transport network

Our growth ambitions for Essex, alongside ongoing changes in technology and society, means that there will be occasions where something more transformational is required. Investment in our transport network benefits both Essex and the country.

Major investment will be required to make the transformational changes needed to support large growth proposals, including Garden Communities, Nationally Significant Infrastructure Projects, and any expansion planned at London Stansted and London Southend Airports or Freeport East.

Where major transport investment is required, we will make sure that the most appropriate improvements are identified by:

- Putting the safety of our residents first.
- Developing our transport networks for all modes in an integrated way, supporting our vision as well as national government policy and strategy.
- Taking advantage of existing technologies like DigiGo as well as innovations to help transform how people travel.
- Working with local planning authorities to focus transport investment where the greatest growth is needed, such as large-scale urban extensions and expanded or new Garden Communities.
- Seeking infrastructure ahead of development where possible.

- Working closely with key transport partners such as bus operators, the aviation and rail industry, walking and cycling groups, National Highways, Active Travel England and local businesses to improve transport connection to support productivity and economic growth.
- The introduction of electric vehicles requires changes to the infrastructure that supports travel across Essex, with filling stations being replaced with electric vehicle charging facilities. Similarly, alternative fuels such as hydrogen will require its own infrastructure.

The increased need to provide active and sustainable alternatives will require investment in our existing and new walking, cycling, bus and rail networks. This could range from more coherent routes connecting our towns and employment centres, to bus priority measures.

We will also work with the Government to explore how their spending and policy plans for local government finance, devolution and wider policy objectives (housing, industrial strategy) can enable Essex to play its full part in supporting national economic growth. In doing so we will examine how the private sector and new funding models (e.g. the National Wealth Fund) can generate significant investment in our transport networks.

## 7.4 Considering different transport needs

People and businesses need our transport network to support many different journeys for many different purposes, as shown in Figure 7.3.



Figure 7.3. Our different types of journeys

### 7.4.1 Strategic connectivity

Strategic connectivity refers to the use of roads, rail, sea and air which are important to the wider UK economy, especially for the movement of freight. These routes link Essex businesses to their customers and suppliers, connecting Essex with major destinations in the UK such as London, the Midlands and the North, and provide nationally important connections to our airports and ports.

Projects in this category are most likely to involve improving connections for freight, by both road, rail, sea and air, and improving road and rail connections to our main towns, cities, ports and airports. It's possible that these improvements may be located outside Essex but still have an important role to play in growing the Essex economy e.g., Ely North rail junction.

### 7.4.2 Regional connectivity

Regional connectivity helps people get to and between places in Essex, providing access to work, education and training, leisure and retail, access to hospitals as well as connections to our town centres from their surrounding areas.

These are often places that many people want to travel to, and we will seek to improve local rail and bus services, look at the potential for further rapid transit, and work with the providers of these services to provide simple to use and convenient tickets that work across all operators. Where appropriate, walking and cycling will also be explored.

### 7.4.3 Local connectivity

Many of us live in towns where we are dependent on transport connections to get from home to work, or to go shopping, or we live in one village but need to visit the shop in the next village. A large number of these journeys are short, local trips – in fact, 46% of journeys in Essex are shorter than two miles. These journeys could be walkable or cyclable, but we will need to invest in creating safe connected routes and provide training.

Nearly three quarters (71%) of journeys are shorter than five miles in length - cyclable by some but perfect for bus. However, as with walking and cycling, investment, and innovation, is needed to ensure frequent, reliable and affordable bus services are maintained and expanded. And with new developments, these bus services need to be designed in as part of their master planning, road layouts and long-term funding.

In urban areas, shorter trips are well suited to walking, cycling and local bus services, but we also need to support local businesses that are dependent on the road network to transport goods

and materials and to be accessible to their customers. Reducing congestion requires a reduction in vehicle use, particularly short trips, that are easily made in other ways, freeing up road capacity for more essential trips. In rural areas demand responsive transport may provide essential links where commercial bus services are not viable.

### 7.4.4 Community connectivity

Community connectivity is the journeys that are closest to home, connecting children to school, the short walk to the corner shop, or visiting neighbours.

These journeys tend to be the shortest we make and are the easiest to walk or cycle. We will consider changes that improve our streets to make walking and cycling safer and easier. This might be improvements to footways, segregated routes or the introduction of speed limits to create safer streets.

And it is important to note that not everyone can drive or cycle, and some have mobility issues which make walking difficult. We need to provide real choices such as improving bus, Community Transport and demand-responsive options like DigiGo, or making the use of a mobility scooter easier, ensuring no one is disadvantaged.

And community connectivity also needs to support the introduction of more sustainable local deliveries. It is vital, for safety and health and wellbeing to get lorries off local roads, and where practical, even smaller vans. Not every package needs to be delivered by a motor vehicle. For example, Colchester has seen the successful use of e-cargo bikes in the city centre to distribute goods<sup>164</sup>.

## 7.5 Development of projects and interventions

Once we have identified a transport issue, we then need to develop safe, affordable, deliverable solutions and create a pipeline of schemes. This will ensure we are well positioned and ready to take advantage of any funding which becomes available whether this is from Government sources, developer funding and agreements, or from other sources (including CIL).

### 7.5.1 Identifying options

The Government expects local authorities to devise a method for identifying options and prioritising transport projects. Our approach considers whether options:

- Support our strategy outcomes i.e. will it do what we need it to do?
- Are affordable and whether funding is likely to be available.
- How easy or difficult they will be to deliver.

Our Implementation Plans include examples that meet these criteria and these will be developed further as appropriate funding is identified.

### 7.5.2 Identifying priorities

The Department for Transport (DfT) has also developed an Early Assessment and Sifting Tool<sup>165</sup> (EAST) to enable us to assess and compare all types of transport project in a consistent way, regardless of whether they are traditional road schemes, or innovative walking and cycling schemes.

At this stage the most important consideration is how the project will safely solve the problem and support our outcomes.



Taking our preferred options through the DfT's tool, will identify a pipeline of preferred projects to take through to design, funding and delivery.

### 7.5.3 Project development

Projects that require the construction of new infrastructure follow a consistent process:

- **Preliminary design.** To identify the main elements of the project and the impacts. This design is then shared with the public and stakeholders through consultation events.
- **Statutory and legal processes.** We follow all relevant statutory requirements before delivering a project including environmental assessment and equality impact assessment. Depending on the project we sometimes need to get planning permission to do what we want to do, for example, approval to buy land through compulsory purchase.
- **Detailed design.** As the name suggests, the final design will include all of the design details required for the project to be constructed on site.

Some transport projects will need land for construction and operation. We will work with local planning authorities to set out in Local Plans why a project is needed and identify and protect any land required from other development.

Projects which do not require any new physical infrastructure, such as a new bus service using the existing road network or the creation of a training programme for the use of adapted bikes, will still require design and consultation but might also need a more bespoke process such as the creation of resident-led working groups to inform decisions or generate funding.

Projects which do not deliver against our strategic outcomes will not be progressed.

### 7.5.4 Funding

Due to the resources (financial and personnel) required to develop a project, all projects must have a source of funding before it can be developed. Funding may include, but will not be limited to:

- Existing local authority funds, including those of city, district and borough councils, including CIL.
- Additional funding from the Government (often awarded on a competitive basis) or government-related bodies.
- Developer contributions and agreements.
- In-kind contributions from partners (such as GP surgeries raising awareness of new active travel initiatives with their patients).

We will continue to talk to the Government and our local planning authorities to keep up to date with potential funding sources so that we can react quickly when a new funding opportunity becomes available, such as the £100 million additional cycling and walking investment announced in the Autumn 2024 Budget or private sector funding opportunities, such as a planning application for a new development.

### 7.5.5 Delivery

Once funding has been secured and the design agreed, the method of delivery will depend upon the type of project. For example, construction of a new or improved roundabout will follow a different process to new bus shelters, or incentives to use public transport such as discounted tickets.

### 7.5.6 Monitoring and feedback

We will monitor our projects to make sure that they are working as intended and to improve future projects.

Monitoring plans will be created during project development and will always include safety. For example, monitoring casualty reduction rates where a project has been introduced to improve safety; or monitor any change in bus passengers' safety where improvements have been made to public transport.

Our monitoring strategy will include getting feedback from both people who have benefitted from the project and from people who could benefit but have not used it. This will help us to understand how residents and businesses feel about the project and how it might need to be modified to make it more effective.



## 7.6 Working in partnership

In order for our strategy to be successful we must work with a wide range of partners in a variety of ways. Some of our partners will have a direct influence on the type and timing of the improvements we deliver. Others have important knowledge which will help us understand the problems we are trying to solve and what the best solution might be. Almost all of our partners will have an important role to play in spreading the word about our plans for the transport network and helping people to make the best choices for their individual journeys.

We will need to engage and work with the following partners<sup>166</sup> during identification, development, and delivery of transport improvements while also supporting the transition to the new Greater Essex Mayoral Combined County Authority:

### Public sector organisations

- Government departments such as the Department for Transport (DfT) and the Ministry of Housing, Communities, and Local Government.
- National Infrastructure and Service Transformation Authority (NISTA).
- Active Travel England.
- The rail industry including Network Rail and Great British Railways (who will bring the Greater Anglia and c2c franchises into public ownership during 2025).
- National Highways.
- National Wealth Fund.
- Transport East.
- City, District, Borough and Unitary councils (within and adjoining Essex).
- Parish and Town councils.

- Transport for London.
- Emergency services.
- NHS Trusts and Integrated Care Boards.
- Primary and secondary schools, colleges, and universities.
- Safer Essex Roads Partnership.
- North Essex Parking Partnership and South Essex Parking Partnership.
- Environment Agency and Lead Local Flood Authorities.
- Sport England.
- Natural England.
- Historic England.

Other functions and teams within Essex County Council such as education, planning, economic growth, flood and water management and climate change.

- Schools, further education and higher education institutions.
- Essex Local Nature Recovery Partnership.
- Other statutory bodies.

### Private sector organisations

- Local businesses including developers.
- Greater Essex Business Board.
- Public transport operators including bus and coach companies and relevant private sector rail operators.
- Rail freight operating companies.
- Taxi and private hire businesses.
- Road Haulage Association.
- Logistics UK.
- London Stansted Airport and London Southend Airport.
- Freeport East and our other ports.
- E-scooter and bike hire companies such as Dott or Beryl.

- Car manufacturers and electric chargepoint operators.
- Bike and car parking operators such as Cyclehoop and NCP.
- Energy supply networks including UK Power Networks and the National Grid.
- Utility providers such as water, sewage, gas, and telecommunications and digital companies.

### Others

- Local residents and their elected representatives.
- Special interest groups including charities and campaign groups e.g. Sustrans, Living Streets and Sight Loss UK.

We already engage with our partners through a range of activities and events. We have regular forums, working groups, or other routine meetings with many of our public sector and/or private sector partners to help our partners understand the outcomes we are aiming to deliver.





## 7.7 Delivering our strategy

We will deliver our transport strategy through a range of supporting plans and strategies, such as our 'Place and Movement' approach, our Safer Speed Strategy and through our thirteen supporting implementation plans covering twelve overlapping areas of Essex and one on strategic matters. The implementation plan areas have been specifically identified on the basis of transport movements within and between areas across and beyond Essex, recognising that transport of people, goods and services moves between and beyond boundaries. The implementation plan areas are set out in the image (right):





Our implementation plans sit within a hierarchy, as set out below, and are guided by the policies contained within this Essex Transport Strategy but also national policies and strategies. Our transport strategy and accompanying implementation plans sit at the top and provide the policy direction to shape the transport and travel components of our local planning authorities' Local Plans for growth and development, as well as our more detailed strategies and plans on specific topics. It should be noted that the list of documents is not intended to be exhaustive.

**International, national and regional laws, policies, plans, and guidance, such as:**

The Climate Change Act 2008  
National Planning Policy Framework and the supporting Planning Practice Guidance  
National Development Management Policies  
Transport Decarbonisation Plan  
Gear Change



**Future Mobility:**

Urban Strategy and Rural Strategy  
National Bus Strategy  
Plan for Rail  
Transport East Strategy to 2050

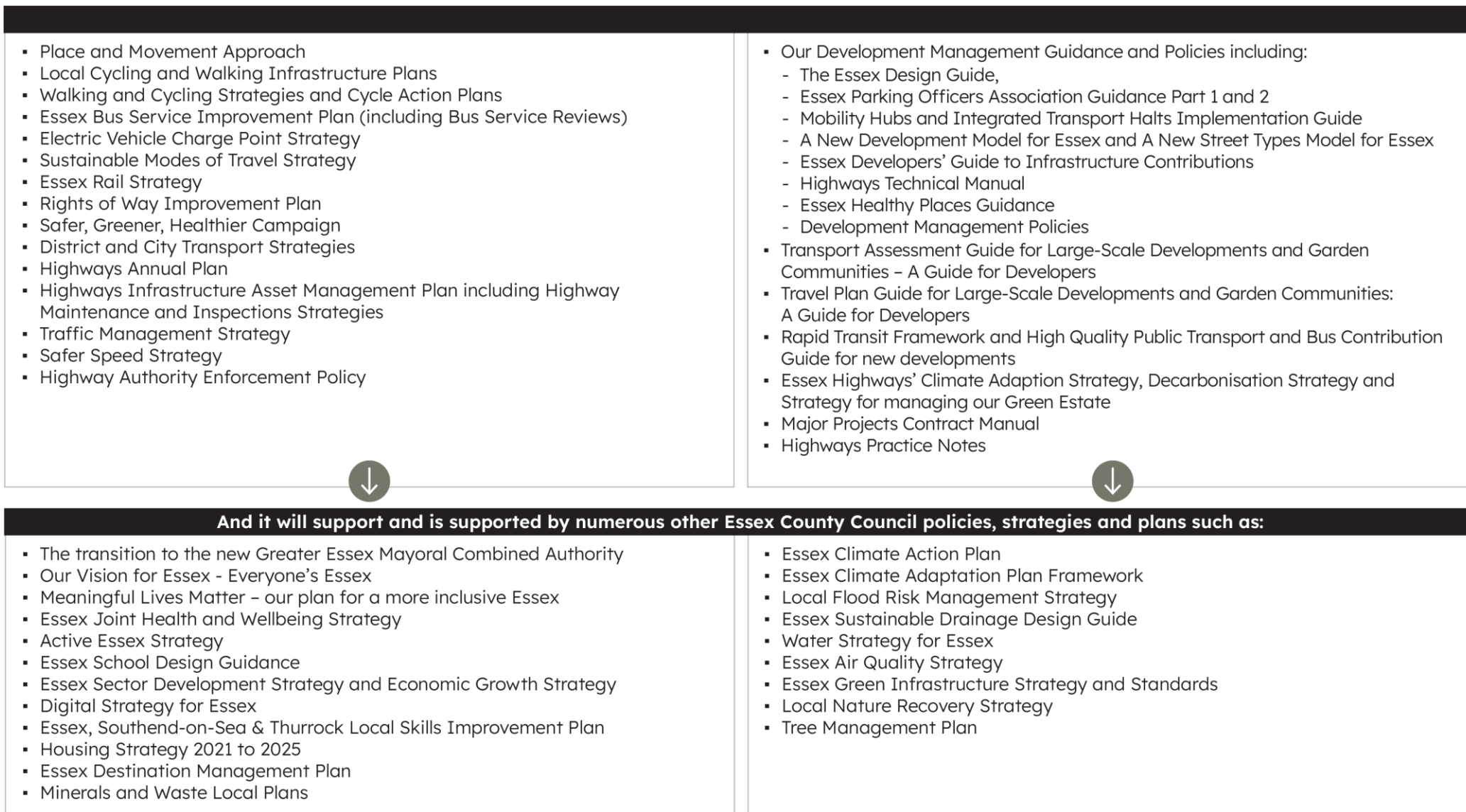


**Local Transport Plan 4 and accompanying implementation plans covering:**

Strategic issues  
South Essex  
Basildon Urban Area  
Epping and Brentwood  
West Essex  
Harlow and Gilston Urban Area  
North West Essex  
Braintree and North Essex  
Tendring Coast  
Colchester Urban Area  
North East Essex  
Chelmsford Urban Area  
Mid Essex



Continued on the next page



**Figure 7.4. Our policy, strategy and implementation plan hierarchy**

## 8. Looking ahead and monitoring success

### 8.1 Scenarios

The world is uncertain, and external trends affect travel and council budgets. These trends include population changes, technology, housing, jobs, government actions, and global politics. These factors make it hard to predict future transport needs, so we consider different future possibilities, or 'scenarios'. Each scenario helps us plan for various outcomes, both within and outside our control, making our plans resilient and flexible. We have looked at different scenarios based on economic growth, transport investment, and the rate of shift to sustainable transport and EVs from now until 2040. We developed eight possible futures for Essex to test our strategy and plans. These scenarios (Figure 8.2) align with Transport East's strategy and our key themes.

Economic Growth
Higher levels of growth delivered in homes and jobs
Lower levels of growth delivered in homes and jobs
Investment in maintaining and improving transport
Higher levels of investment in transport infrastructure
Lower levels of investment in transport infrastructure
Shift to sustainable transport and EVs
Rapid uptake of sustainable transport and EVs
Slow uptake of sustainable transport and EVs

Figure 8.1. Key factors underpinning our future scenarios

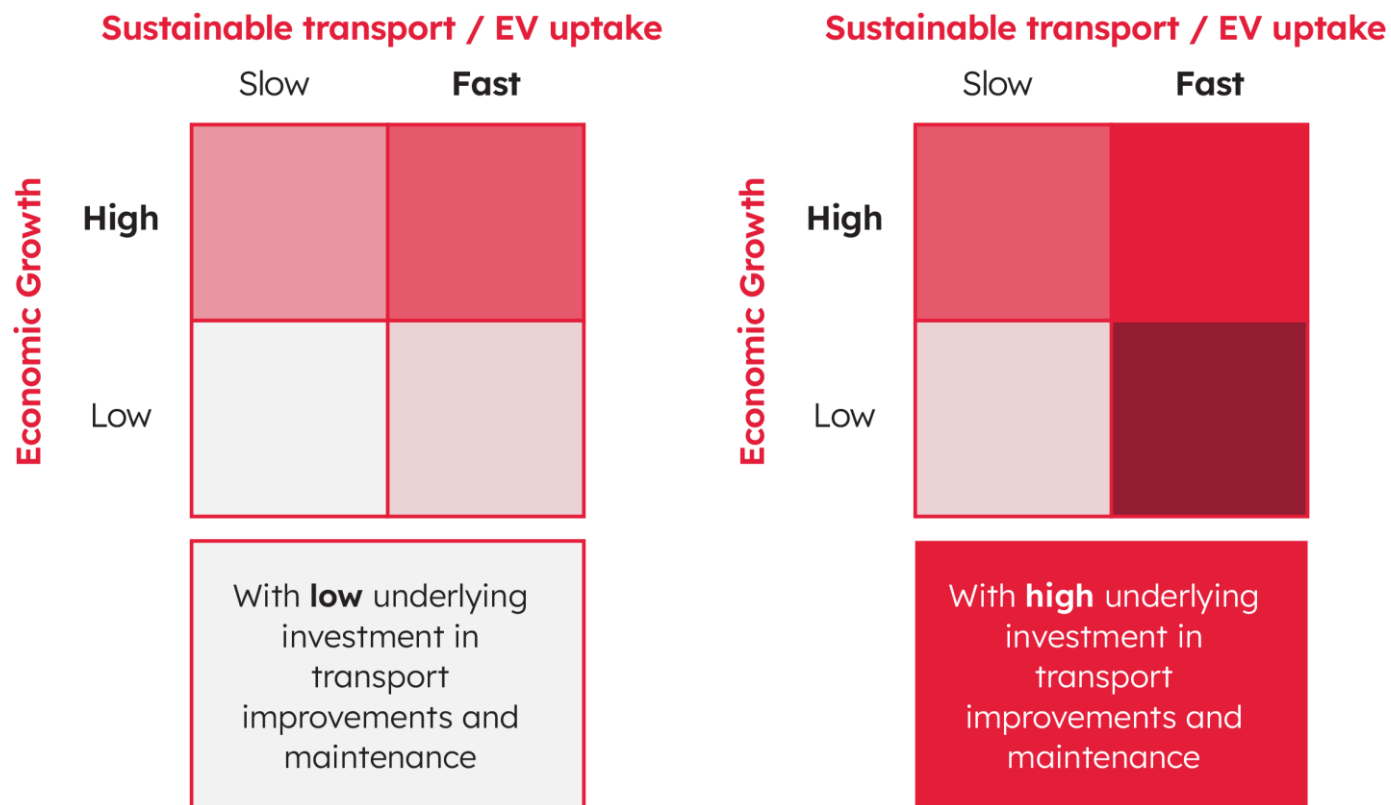


Figure 8.2. Our eight future scenarios

Testing our implementation plans against these scenarios will help us create a resilient vision-led transport strategy.

We will test and adjust our plans based on these scenarios. This will help us identify projects that are more resilient to future uncertainties and prioritise them if we face budget constraints.

While we can't completely future proof our strategy, we can make it as informed and adaptable as possible to handle future changes and uncertainties.



## 8.2 Monitoring Travel in Essex

### 8.2.1 Our approach

To ensure our strategy is effective, we also need to know what works and what doesn't. We will undertake interim monitoring of our actions and use this information to guide future activities and investments.

We will track each of the nine outcomes to see if we are achieving our vision and main goals: supporting people, creating great places, and connecting goods and people.

We will identify key performance and output measures to monitor our strategy. These measures will be collected at different timescales, depending on the complexity of the projects.

#### Case Study 8.1. An example of how we collect and use data for this theme

We are keen to understand how our residents feel about their local community and what issues that might affect them. Our annual residents survey provides us with a comprehensive set of data to understand residents' views on transport related issues, such as public transport satisfaction, physical activity levels etc.

The use of these survey results offers continuous insights on our residents' aspirations and views which enable us to shape our transport vision and ambitions for the future.

Carrying out this survey along with the routine collection of other transport data across the County (including sustainable transport user data, safety and collision data etc.) will ensure that we can effectively monitor the impact of our transport initiatives and make evidence-driven decisions through our strategy.

Our strategy will be monitored at three levels:

- **Strategic Measures:** High-level measures at a county level, like the proportion of people with access to key services.
- **Intermediate Measures:** Measures that quantify success against specific targets, like the proportion of buses that turn up on time for routes between our main towns.
- **Output or Activity Measures:** Measures that show how well we are doing against specific schemes, like the number of upgraded bus stops.

We value feedback from residents and partners, as they are directly impacted. We will regularly seek their input through surveys and focus groups to shape future decisions.

The sections below outline some potential performance measures for each of our outcome and themes.

The transition to the Greater Essex Mayoral Combined County Authority will mean that we need to ensure that data is consistent across Greater Essex. This means that our monitoring will need to be amended and updated to reflect the new geography.

### 8.2.2 Supporting people

The key thematic outcomes are:

- People have inclusive and affordable access to key services (through raising awareness of travel options).
- Improve physical and mental health and wellbeing.
- The transport network is safe and feels safe for all users and to also achieve our Vision Zero 2040 ambition.

Potential performance measures could include:

- Reduction in people killed or seriously injured on our roads, with our ambition for zero KSIs by 2040.
- Increase in percentage of residents with good access to healthcare.
- Increase in percentage of residents with access to open space within 15 minutes.
- Increase in mode share of walking, cycling and public transport in our towns and cities.

### 8.2.3 Supporting places and communities

The key thematic outcomes are:

- All places support the transport needs of all residents.
- Working with appropriate partners to design sustainable developments from the start (ensuring access to key services).
- Reduce the impact transport has on the environment.

Potential performance measures to help us to achieve these outcomes and understand how our existing and new places support our residents include:

- Number of new homes within 15 minutes of high quality public transport.
- Number of EVs purchased in Essex.
- Reduction in number of air quality management areas where transport is the primary source.

## 8.2.4 Connecting people places and businesses

The key thematic outcomes are:

- The business potential of Essex is maximised.
- People have inclusive and affordable access to employment, education and training.
- The transport network has a secure and long-term future (ensuring network resilience and journey time reliability).

Potential performance measures to help us achieve these outcomes and understand how our transport network helps residents and businesses move easily and efficiently include:

- Reduction in delay on key strategic routes in Essex.
- Increase in percentage of residents with good access to employment.
- Reduction in percentage of local roads and footways that require improvement.
- Number of rail station users increasing.

### Case Study 8.2. How we use nationally collected data:

We work closely with our regional partners and national organisations to effectively use data relevant to Essex. Our commitment to partnerships and collaboration ensures that we can review and use broader data which forms a crucial part of monitoring our strategy. This includes transport data from organisations such as the Department for Transport, Active Travel England, our university partners, Office of Road and Rail, and National Highways.

For instance, monitoring data from the Department for Transport on Journey Time to work and education in Essex is effective for us to shape our Implementation Plan priorities. This data will help us understand our residents' ease of access to their main destinations, and with other datasets explore how our residents' travel behaviour has changed.

## 8.3 Using data to modify the strategy

Looking at and understanding data is important for developing our transport plan and transitioning to the new Greater Essex Local Transport Plan. It helps us see how we're doing and gives us useful information to track our goals. This also shows where we need to take more action based on the data.

Collecting 'baseline' data is crucial for our strategy. This initial data shows the current situation before starting any projects. We'll use it to track our progress and the impact of our plans. Choosing the right baseline data is important to compare trends accurately, especially considering changes in work and travel patterns since the pandemic.

The data we collect and analyse early on will be from before we start our initiatives. It will take time to see significant changes in travel patterns in Essex, so the initial results might not show the full impact of our efforts. Some effects will be seen quickly, while others will take longer and will show under a Greater Essex authority. Long-term impacts will also be influenced by factors like living standards and the economy.



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