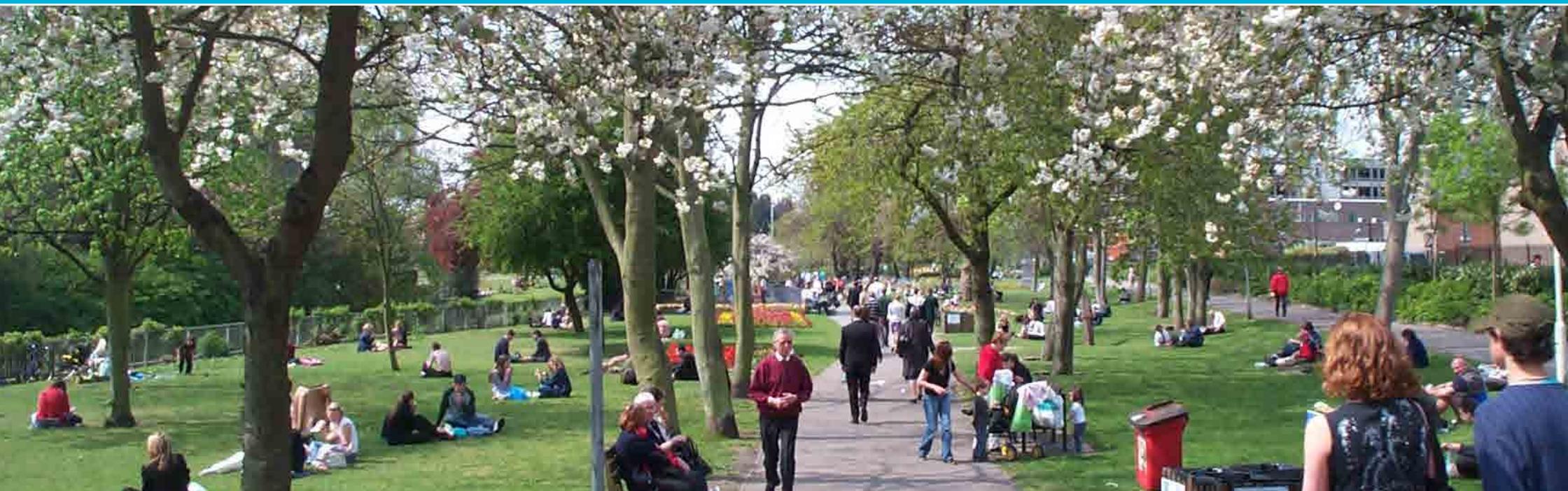


Chelmsford's Future Transport Network

Public Engagement Document



February 2017

 **RINGWAY
JACOBS**


Essex County Council

Contents

Foreword	5
Introduction	7
Vision and Objectives	11
Chelmsford's Transport Network	13
Our Solution: Chelmsford's Future Transport Network	26
Chelmsford City Growth Package	32
Next Steps	37
How to Respond	38
Consultation Questionnaire	39

Foreword

In June 2012 the Queen granted Chelmsford city status. Since then it has continued to develop into a premier destination in the East of England. In the last year, Chelmsford has seen the redevelopment of Exchange Square, John Lewis joining the city's retailers, and other premium shops flocking to Bond Street.

We want to ensure that the roads and travel infrastructure around the city continue to support this positive growth.

Our vision is to continue to provide residents and visitors with the best city experience – offering quick and easy access to open spaces, vibrant cafés, fine dining and first class shopping.

As transformative economic growth continues, businesses and families will choose to move to Chelmsford. But growth will bring more vehicles into the city. And there is only 4% capacity left on the road network. Without change, without improvements, future growth will lead to grid lock on our roads and will impact the economy of Chelmsford.

This simply cannot be allowed to happen. Chelmsford is the driver of the regional economy and it needs a transport network to match.

This is why we are launching Chelmsford's Future Transport Network.

This new approach will focus on making all modes of transport attractive, giving people real choice in the way they travel to work, to the shops, to their family and their friends. This will allow Chelmsford to grow and thrive in the future.

In the historic heart of city there is little space for new roads; here we will focus on removing rat running and, increasing cycling and walking facilities.

In residential communities, where the city centre is less than a 30 minute walk away, we will focus on providing reliable and attractive alternatives to the private car.

On the outer boundary of Chelmsford, we will focus on intercepting traffic before it heads into the city centre. This will be through Park and Ride sites, campaigning for improvements to the A12 and by making sure commercial vehicles are using the most suitable roads.

To kick start this new approach, Essex County Council has secured a £15m investment package to make short term improvements to the Chelmsford transport network by 2020.

There's a huge opportunity here for change. We can't build our way out of this - there simply isn't enough space. The only long term solution is to make cycling, walking and public buses the most attractive and effective way to get to the city centre

And this can really make a difference. Over 5,000 trips to the city centre each day are 2km or less. If city residents decided to get the bus or cycle to work two days out of five, there would be 165,000 less short car journeys each week.

The new approach set out in this document will keep our road network moving, but also improve air quality, reduce queues of traffic outside schools and homes, and create a better quality of life for all residents.

We are now asking you to get involved and help shape how this new approach is delivered – get involved and help us to keep Chelmsford moving.



Councillor Kevin Bentley

Councillor Kevin Bentley

Deputy Leader and Cabinet Member for
Economic Growth, Infrastructure and
Partnerships

Introduction

Chelmsford's Future Transport Network: Creating an attractive, innovative transport system for all users and all types of transport.

Chelmsford is the County city of Essex with an important regional and sub-regional role providing jobs, shopping, healthcare, education, leisure and recreation. Being able to access and move around the city easily and without delay is a key element in maintaining Chelmsford's prosperity and supporting future growth.

Chelmsford's business community is growing. In the last year we have seen the redevelopment of Exchange Square and Half Moon Square, with John Lewis joining the city's retailers and other premium shops joining Bond Street. As a result, Chelmsford's appeal not only in Essex but also across the East of England has increased.

Chelmsford's population is also growing, with families choosing to move to the area, and new homes being built. As this transformative growth continues, the demand for travel on our already busy road network will increase.

Nationally, it is fair to say that investment in transport has not been able to keep pace with population growth. Today, the city's roads are under significant strain with only 4% space

(capacity) left during peak times. This leads to queuing, unreliable journey times, poor air quality, and increased traffic on unsuitable residential streets. It also impacts bus users, and the quality of journeys made by walking or cycling.

These are all consequences of a road network exceeding its 90% operational capacity, whereby it cannot cope with the level of traffic generally, and any incidents on the network (such as an accident, or even a parked delivery vehicle) result in gridlock.

The vision for Chelmsford is to have a transport system which is 'best in class', offering enhanced connectivity, access and choice to residents, commuters, visitors and businesses alike.

There simply is not the available space in the centre of Chelmsford to increase existing road capacity or build new and bigger roads nor would this be the right thing to do as it would generate additional car journeys and quickly use up the new space created. So we must look for ways to make better use of the existing road network in the city centre, and try to divert long distance



To maintain the city's prosperity we must keep people and all traffic moving and give residents, commuters, visitors and businesses more options on how to travel.

The purpose of this document is to set out the current issues and our approach to Chelmsford's future transport network and the purpose of the Chelmsford City Growth Package.

This is to make sure that everyone understands the challenges and related objectives before a consultation on potential interventions later this year.

traffic around Chelmsford or off the road network at the earliest opportunity.

Furthermore, while Chelmsford already has good walking, cycling and bus networks, there are missing links, and facilities in some areas are tired which makes them less likely to attract new users.

In order to positively address and respond to the different challenges and reasons why people travel, Chelmsford's future transport network will adopt a varied and ambitious approach:

- In the city centre, where there is little space for new roads, and where the public realm is an important factor in attracting businesses and visitors, there needs to be a clear focus on investing in alternative and sustainable transport options such as buses, cycling and walking. Any remaining traffic needs to be managed as efficiently as possible with clear and innovative signage to direct traffic onto the most appropriate route and into the most appropriate car parks as quickly as possible.
- Journeys from the residential areas

to the city centre should be made by sustainable means wherever possible, so investment should focus on providing residents with a viable alternative to the private car.

- For journeys from outside of the city the focus will be on intercepting traffic through Park and Ride, encouraging rail use (a new station is proposed at Beaulieu Park) and targeted investment for specific road schemes for long distance journeys, such as widening the A12 (a Highways England road) and the Chelmsford North East bypass.

Large schemes such as the Chelmsford North East bypass remain a long-term objective for the transport network, but such schemes require significant national investment, take longer to develop and implement and are not realistic solutions for short/medium term problems.

Waiting for large road schemes to be funded before focusing on short and medium term issues is not an option. There has to be an immediate focus on what can be achieved to improve our current transport network for current users, as well as catering for future growth.

£15 million has been secured to invest in sustainable transport measures in line with the vision of Chelmsford's future transport network.

This investment will fund the **Chelmsford City Growth Package** – which aims to improve the city's transport network with a focus on sustainable transport options to support future housing and job growth and with highways capacity improvements where appropriate to address congestion hotspots.

The Growth Package will improve the quality of transport options available to people when travelling to and within Chelmsford. It will include a package of smaller scale improvements across all types of transport. These schemes will help manage congestion and keep Chelmsford's road network moving in the future.

The Chelmsford City Growth Package will help to enable a step change in the way people choose to travel around Chelmsford, and support sustainable growth.

During March 2017, we are engaging city residents, workers, businesses, represented groups and visitors on the future transport network approach and introducing the Chelmsford City Growth Package. We want to explain and discuss how the vision, approach and investment of the Chelmsford City Growth Package will improve travel to, from and around the city, and hear about what issues you have identified and which type of solutions you would like to see implemented.

Chelmsford City Council is facilitating new development through their current Local Development Framework. A Local Plan from 2021 onwards is being developed and Chelmsford City Council will be consulting on this later this year.



Vision for Chelmsford to 2036:

For Chelmsford's transport system to become '**best in class**' - rivalling similar cities across the UK - offering enhanced connectivity, and access to opportunities for residents, visitors and businesses to support the sustainable economic growth of the city.

Vision and objectives

We would like to hear your views on the vision and the objectives

To achieve our vision we have set seven objectives to judge all potential schemes against. This will make sure that any new scheme is effective and contributes to achieving our vision.

- **Sustainable and economic growth:** Supporting planned growth, development and jobs.
- **Improved transport network reliability:** To manage traffic levels across Chelmsford's road network to improve journey time reliability and maximising the use of the transport network.
- **Improved connectivity:** To improve accessibility and connectivity into and within Chelmsford, to link communities together and to provide access to key services, transport hubs and opportunities such as jobs and education.

- **Sustainable Transport:** offer an attractive and effective choice in the provision of sustainable travel (buses, cycling and walking) to encourage increased use and reduce pressure on the road network.
- **Attractive Environment:** To protect, enhance and improve the quality of the natural, built and historic environment to enhance residents, workers and visitors quality of life.
- **Healthier Environment:** To reduce the impacts of air pollution and raise health standards through the promotion of walking and cycling.
- **Safe transport network and environment:** To improve safety on the transport network and enhance and promote a safe and secure travelling environment.



The impact of short trips to and from work, where there is only the driver in the car (single occupancy) is significant in Chelmsford. Reducing this even a little would have a large positive impact on the transport network – and on air quality.

Chelmsford's Transport Network

Chelmsford's roads

Cars are the most prominent feature on Chelmsford's transport network and unfortunately, this means that the city's residents, businesses and visitors frequently experience delays and congestion on the city's road network.

The following maps show how busy each road in Chelmsford is in the morning (Figure 1) and afternoon (Figure 2) during rush hours. The maps show how quickly the traffic is moving compared to the typical speed in the off-peak hours (known as free flow speed). The bigger the difference, the greater the congestion and journey time delay on the road. The red colour indicates that the road is moving much more slowly during the rush hour than would be possible outside of the rush hour.

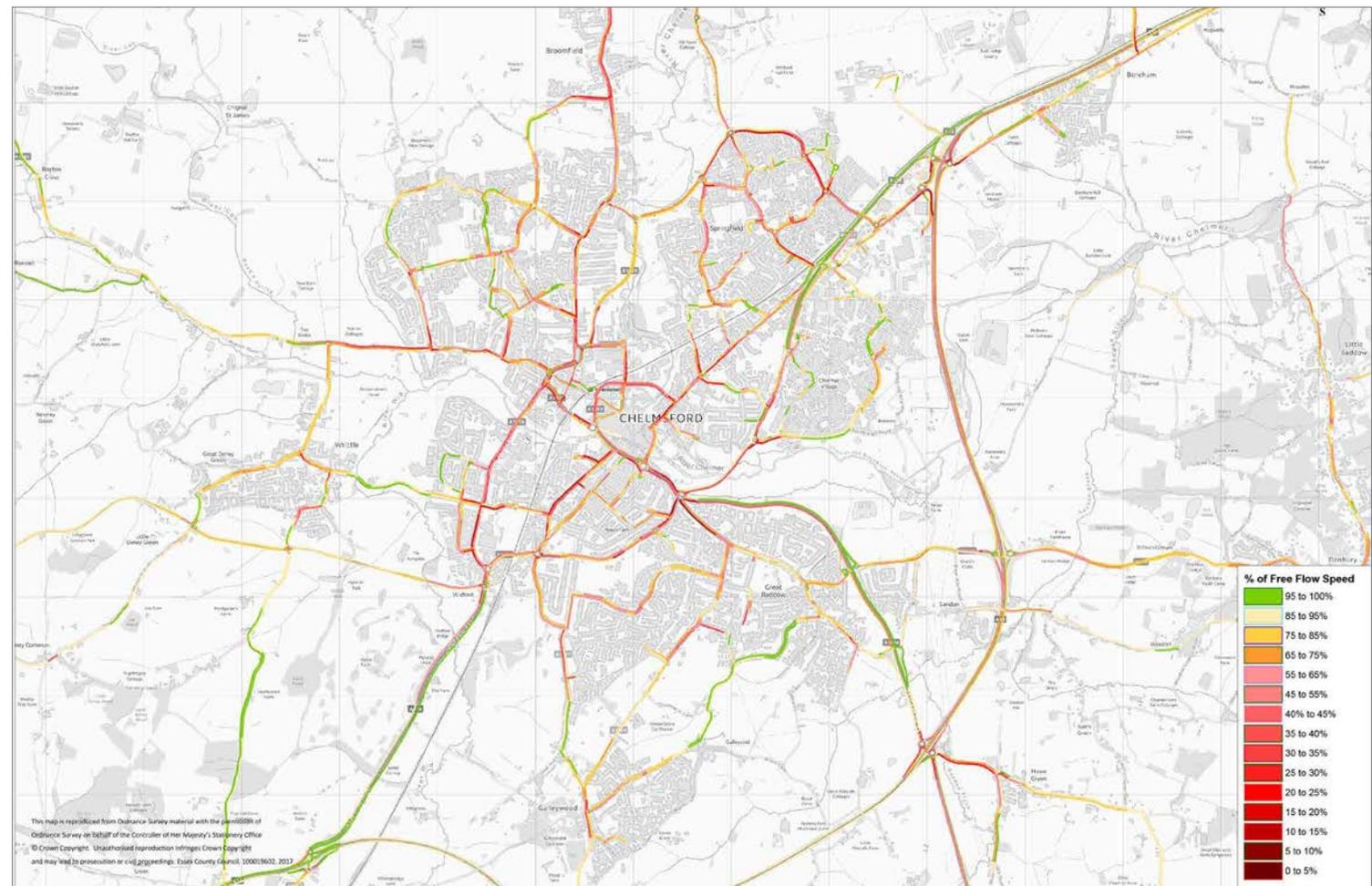


Figure 1: Congestion map showing morning (AM) peak

The corridors with the most severe delays are:
 Broomfield Road, Springfield Road, Chelmer Road, Baddow Bypass, Baddow Road, Princes Road, New London Road, Waterhouse Lane and Parkway.

Traffic Modelling of Chelmsford has identified that, at the moment, in the morning and evening rush hours Chelmsford's road network is operating at approximately 96% capacity. This means that the road network is carrying almost all of the vehicles that it can manage during the rush hours.

The road network can be said to be approaching capacity when it reaches around 90%. The remaining 10% provides flexibility, reliability and resilience. It allows the road network to cope with incidents, maintenance and daily changes in traffic behaviour and volume. Operating without this spare capacity, the Chelmsford road network is more susceptible to excessive queuing and delay, unreliable journey times and poor air quality.

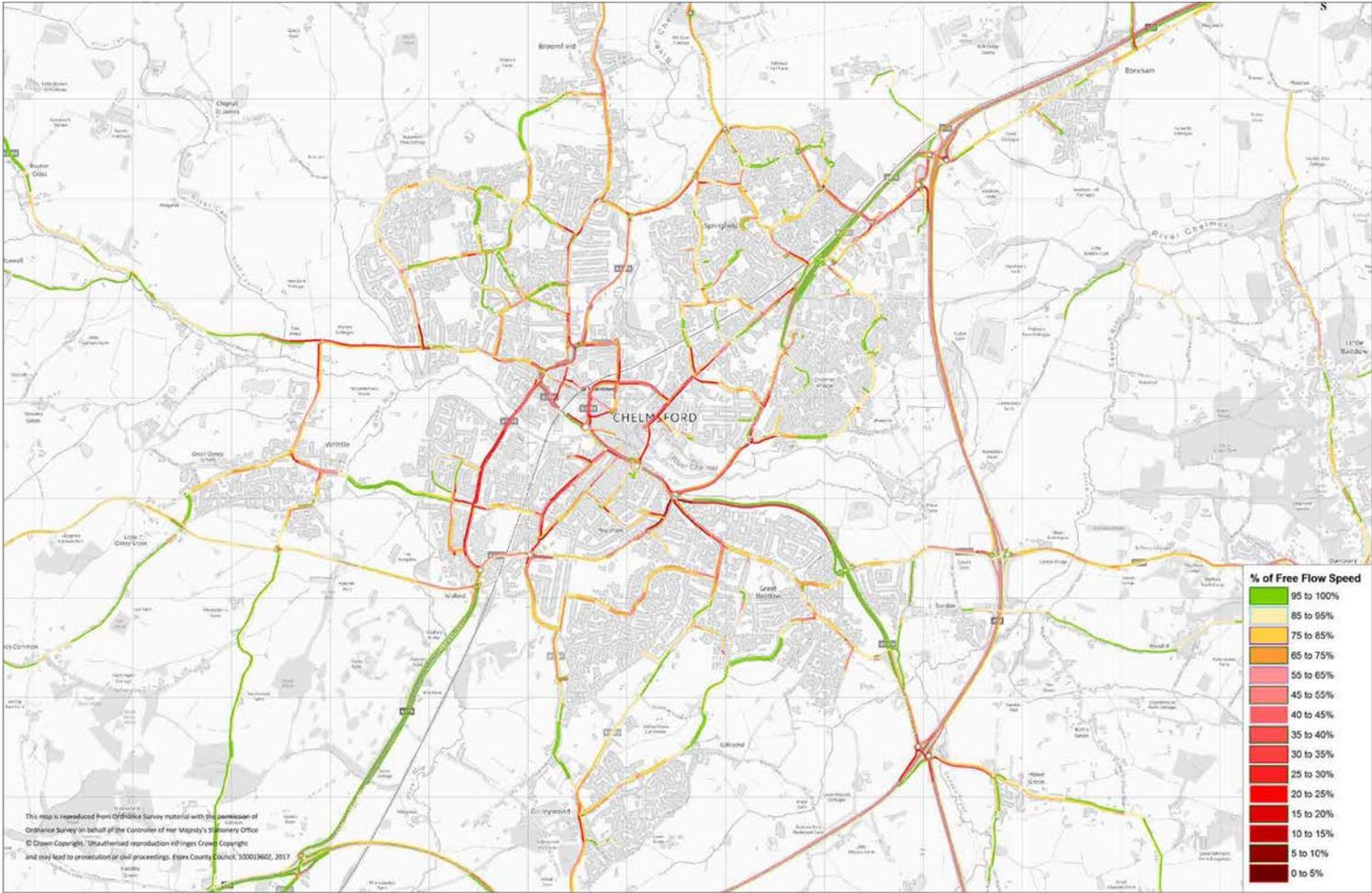


Figure 2: Congestion map showing evening (PM) peak

The impact of 4% remaining capacity

Today's road network is at 96% capacity - this means it simply cannot cope with today's levels of traffic, let alone any future rise in demand.

Key impacts of further traffic growth:

Negative impact on emergency vehicles: Congested roads make it difficult for emergency vehicles to get to an incident in the fastest time that is safely achievable.

Lack of alternative routes: If there is an incident, or road works, there are few, or no alternative routes with enough capacity to accommodate the re-routed traffic. This can lead to the whole network becoming gridlocked.

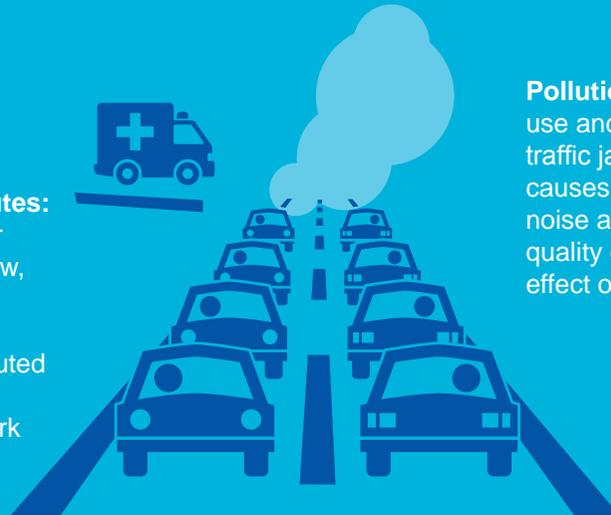
Even further delays and longer journey times: It's the first thing most people notice. But not only does it make journey times longer, it also impacts drivers' stress levels.

We'd like to hear from you about what impacts of congestions concern you the most

Economic competitiveness: A congested highway network which does not support the needs of businesses may cause some companies to relocate away from Chelmsford. The city may also lose its reputation as an attractive place to move a business to or start one up, potentially compromising its competitiveness.

Pollution: High motorised vehicle use and stopping and starting in traffic jams uses more fuel and causes localised air pollution. Both noise and air pollution can impact quality of life and have a detrimental effect on the health of residents.

Road safety: The more vehicles on the road the greater the risk of a collision occurring, which causes even further delays and disruptions on the road network. Collisions have a significant impact on those involved and are also very costly to society.



SOLD

FOR
SALE

Impact on city residents

Not choosing Chelmsford: People may choose not to move to Chelmsford or may move away, while workers may decide not to accept jobs offers from business based in Chelmsford due to the added time and stress of getting into and around the city.

Rat-running: Drivers will start using residential and side roads in an attempt to avoid queuing traffic. This can put unnecessary pressure on less suitable roads and increase the likelihood of collisions, as well as affecting people's perceptions of safety in their neighbourhoods, leading to poor air quality and impact the quality of life for residents.

Work/Life balance: Some people may choose to leave just a bit earlier/later. Not only does this lead to longer 'rush hours' (known as peak time spreading) but it also impacts businesses because employees will spend more time travelling and deliveries will take longer to reach their destinations.



Choosing not to travel - Some people may choose not to travel at all, which on one level could be beneficial for the highway network as it will reduce the number of unnecessary trips being made but for some people it could hinder their independence and quality of life.

Journeys to work (and associated trips) have the most significant impact on the road network and they generate what is known as the peak period for travel. It is therefore this area that the short term schemes focus on. However it is recognised that other reasons for travel (for example shopping trips and through traffic) can generate significant flows, and there are particular issues in the city at weekends.

The Census (2011) journey to work data shows that travel by car is the main mode of transport for residents of the administrative area. Of these car journeys, 14,000 (31%) are less than 5km.

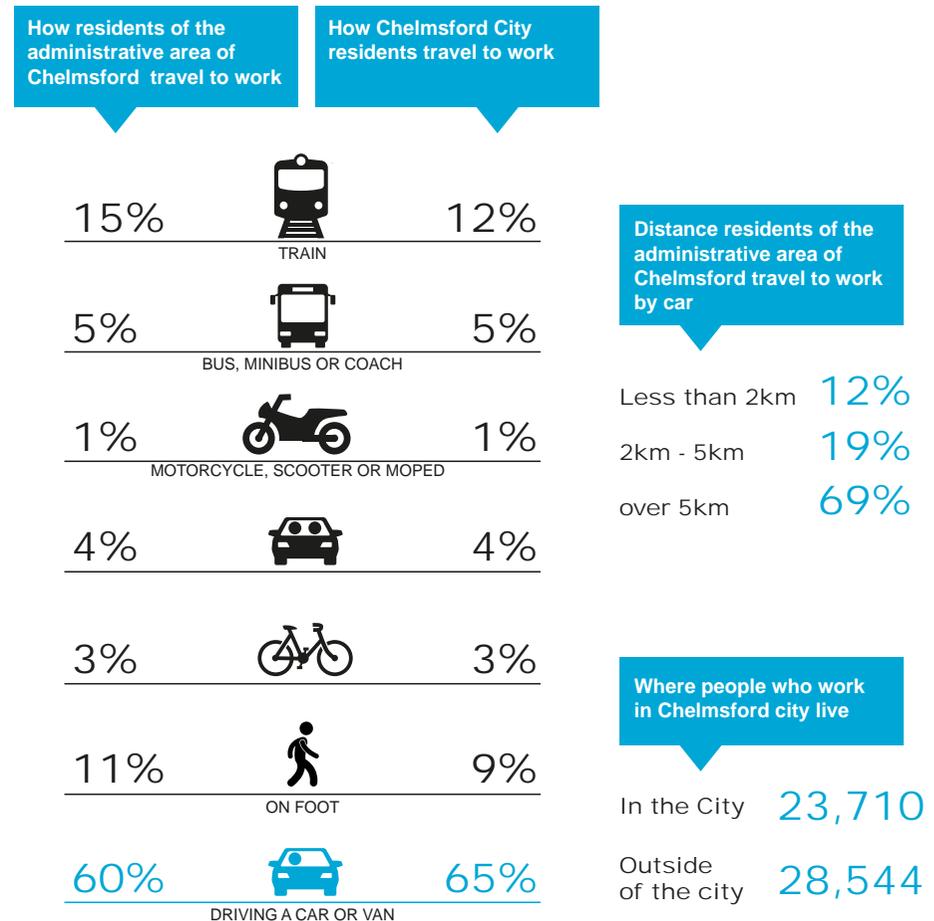
There are other travel options, such as the train, buses, cycling or walking, but these account for a much smaller number of journeys.

Furthermore, almost half of the people who work in the city also live in the Chelmsford city area.

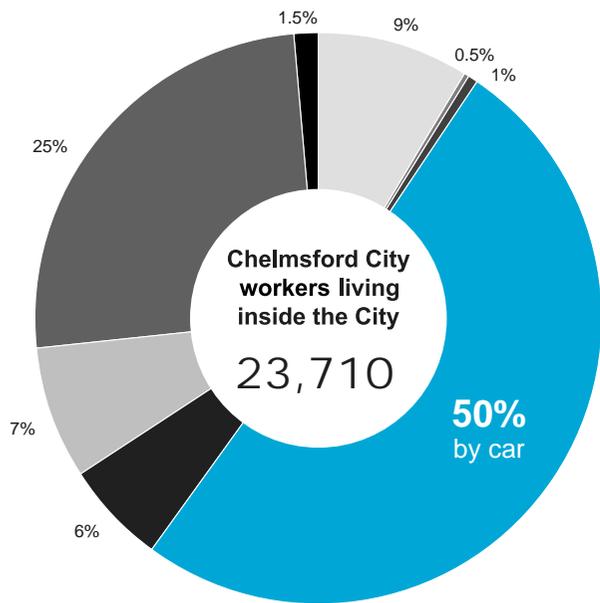
All of this information tells us that the travel choices people make when commuting to work have a significant impact on the number of vehicles on the road. However, many of these trips could be made in other ways which would remove traffic from an already heavily congested road network. But, this will only happen if the alternatives to the private car are made more attractive.

Moreover, many of those travelling into Chelmsford from outside of the urban area could take advantage of Park and Ride facilities to access the city centre, which will further help to relieve pressures on the road network.

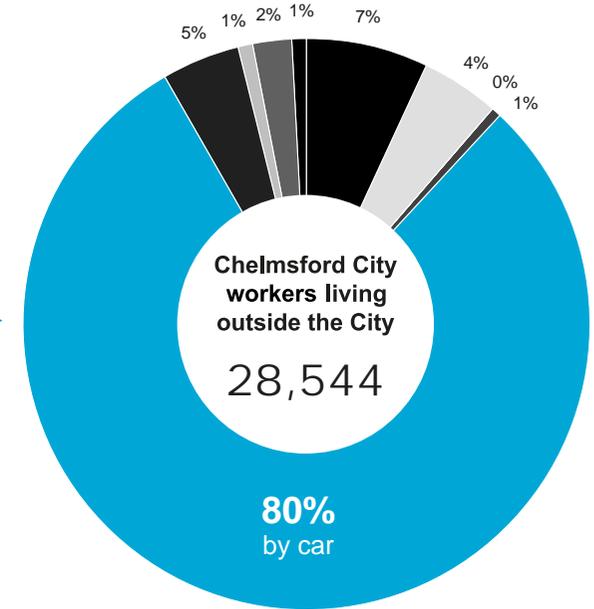
Supporting people to choose more sustainable travel options, such as Park and Ride, buses, cycling and walking, is a key way of reducing traffic on the road network.



We would like to understand what factors are important to you when choosing the type of transport for your journey.



0		2,021
TRAIN		
2,076		1,232
BUS, MINIBUS OR COACH		
57		42
TAXI		
170		204
MOTORCYCLE, SCOOTER OR MOPED		
11,962		22,722
DRIVING A CAR OR VAN		
1,364		1,256
PASSENGER IN CAR OR VAN		
1,800		269
BICYCLE		
5,967		605
ON FOOT		
314		193
OTHER METHOD OF TRANSPORT TO WORK		



We'd like to know if you'd like to see bus journeys prioritised and how we can make using buses more attractive.

Chelmsford's Buses

Chelmsford has a comprehensive bus network, with a Bus Station located next to the Railway Station providing a key city centre passenger transport hub. There are also two very popular Park and Ride services.

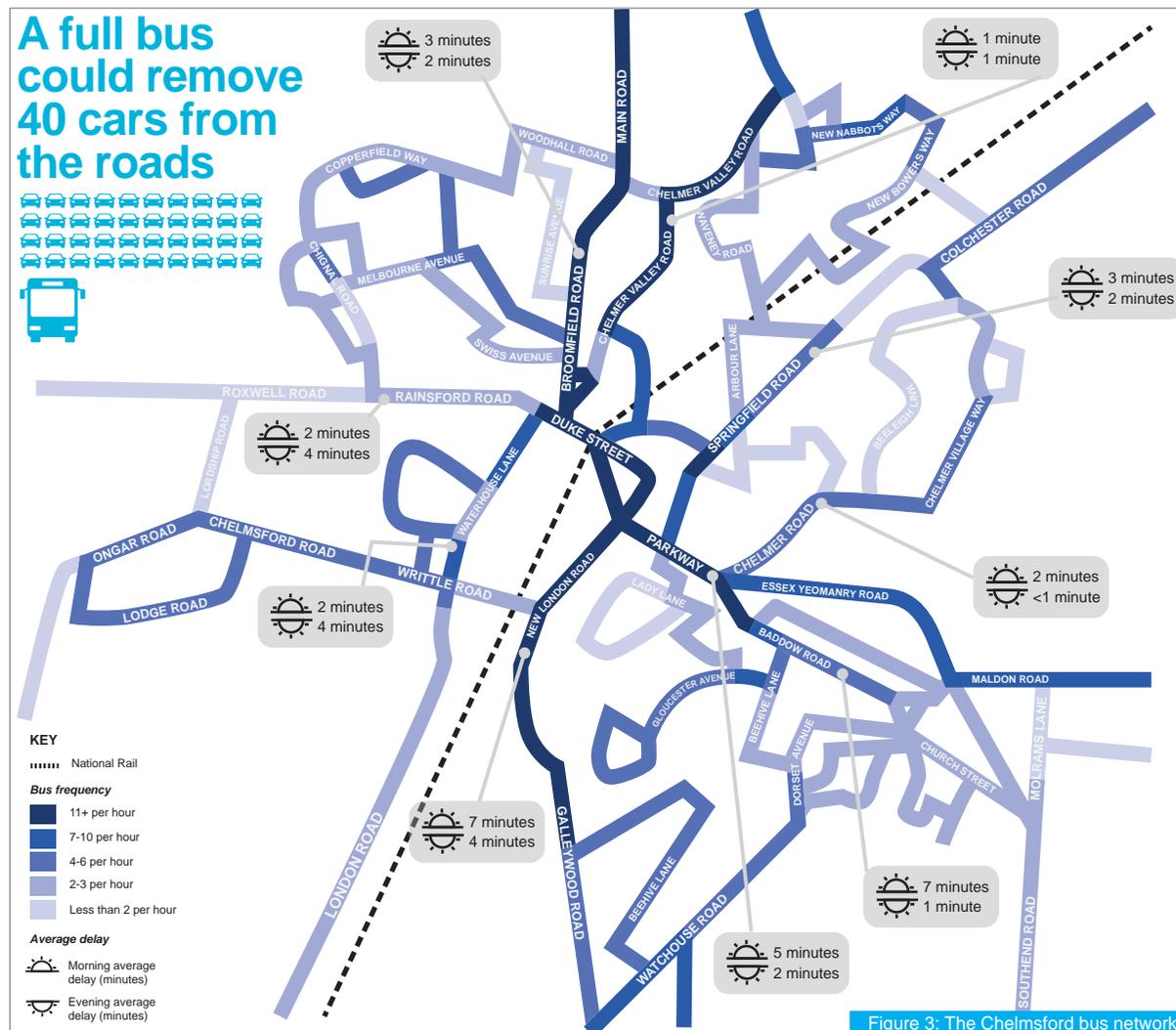
Figure 3 shows the current bus network and the number of buses per hour on each corridor. However, many buses are delayed in the same congestion as other motorised vehicle users.

This delay affects every passenger on each bus and makes buses a less attractive option for journeys than they need to be.

Buses can help to reduce congestion by reducing the number of cars on the road (a bus with 40 passengers could remove up to 40 cars from the road network and only takes up about the space of 3 cars on the road network). Unfortunately for many people in Chelmsford who could feasibly take the bus, the longer journey times and upfront cost make car travel more attractive.



Prioritising buses, shortening journey times and increasing their reliability are key ways to make buses more attractive, enabling them to play a central role in supporting the growth of Chelmsford and contributing to the vision for Chelmsford's Future Transport Network.



If people driving by car to work in or from Chelmsford use an alternative mode

two times
a week, it will take

165,000
car trips off the network every week.

Could you...

Use a bus **TWICE** a week?
Ride a bike or walk **TWICE** a week?

We'd like to know if you think we should be encouraging people to walk, cycle or use the bus to get to the railway station.

Chelmsford's Railway Station and Usage

Located in the heart of the city, Chelmsford Railway Station is the busiest in Essex. The bus station is located adjacent to the railway station and together they act as a transport hub for people travelling into and out of the city. This is reflected in the high numbers of people using the recently redeveloped station.

In 2014/15 there were just over 8.3 million entries and exits at Chelmsford Railway Station which makes it the busiest two-platform station in the county. To put this in context, the second busiest two-platform station in the county – Stansted Airport, had just over 4.5 million entries and exits.

Everyone who passes through the station to either catch, or after catching a train must make additional journeys to and from the station. How people choose to undertake these trips has the potential to impact the road network in a very significant way.

In the future a large amount of housing will be built in or near the city centre. Supporting new as well as existing residents to use sustainable transport such as the bus and cycling to get to and from the railway station is an 'easy win' to reduce pressure on the road network and still maintain economic growth. The proposed new railway station at Beaulieu Park, and sustainable access to it, will also be a vital part of supporting sustainable housing and economic growth.

The recently upgraded hub for cycle parking now accommodates around 1,000 bikes and is generally full showing that cycling to the rail station is already a very popular choice.



We'd like to hear your thoughts on how to promote cycling in Chelmsford.

Chelmsford's Cycle Network and Usage

The Chelmsford cycle network is comprehensive (Figure 4) and well used. Also, it has a huge capacity that isn't currently being used.

The cycle network is incomplete and there are a number of barriers to cycling - physical barriers but also a lack of signage, lack of cycle parking facilities across the city and poorly maintained or poorly lit routes.

Investing in upgrading the quality and safety of existing cycle routes, closing gaps in the cycle network and providing new routes to link new developments with key destinations will support cycling in continuing to be a popular transport choice for residents.

Actively encouraging the use of cycling, walking and public transport for trips to and from the railway station is essential.

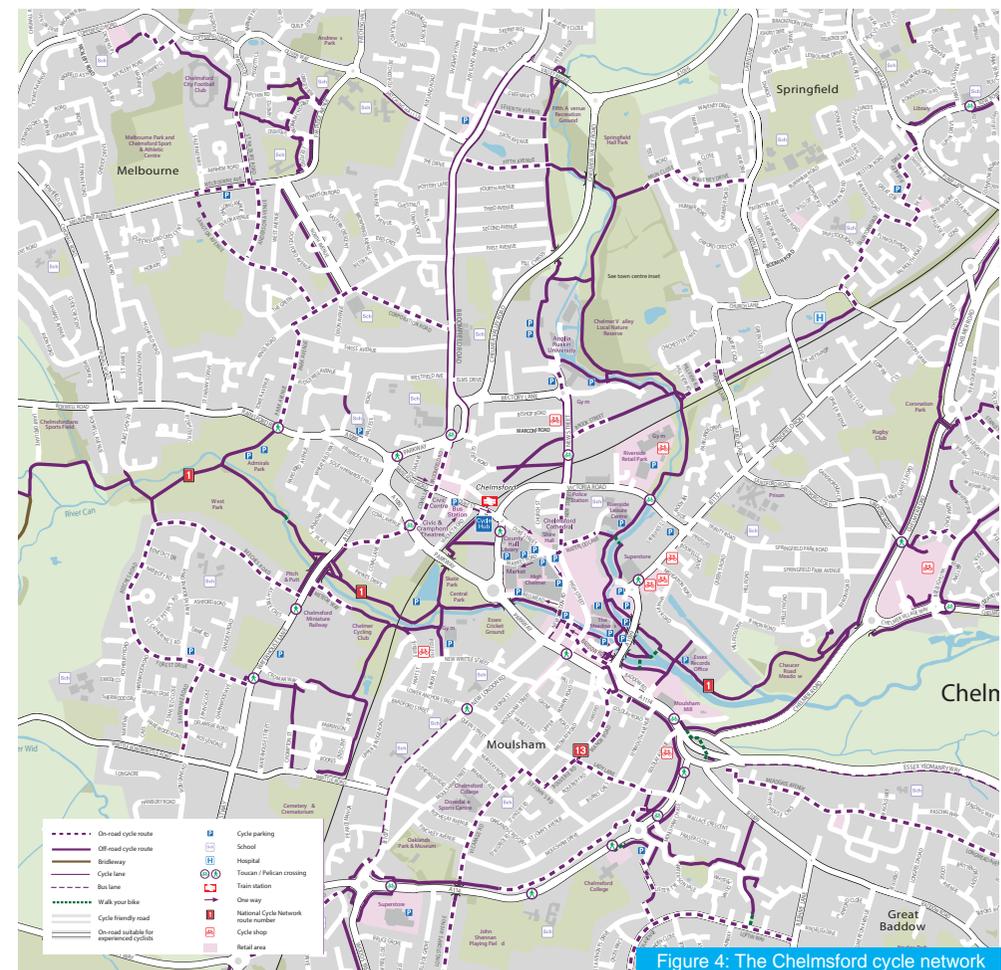
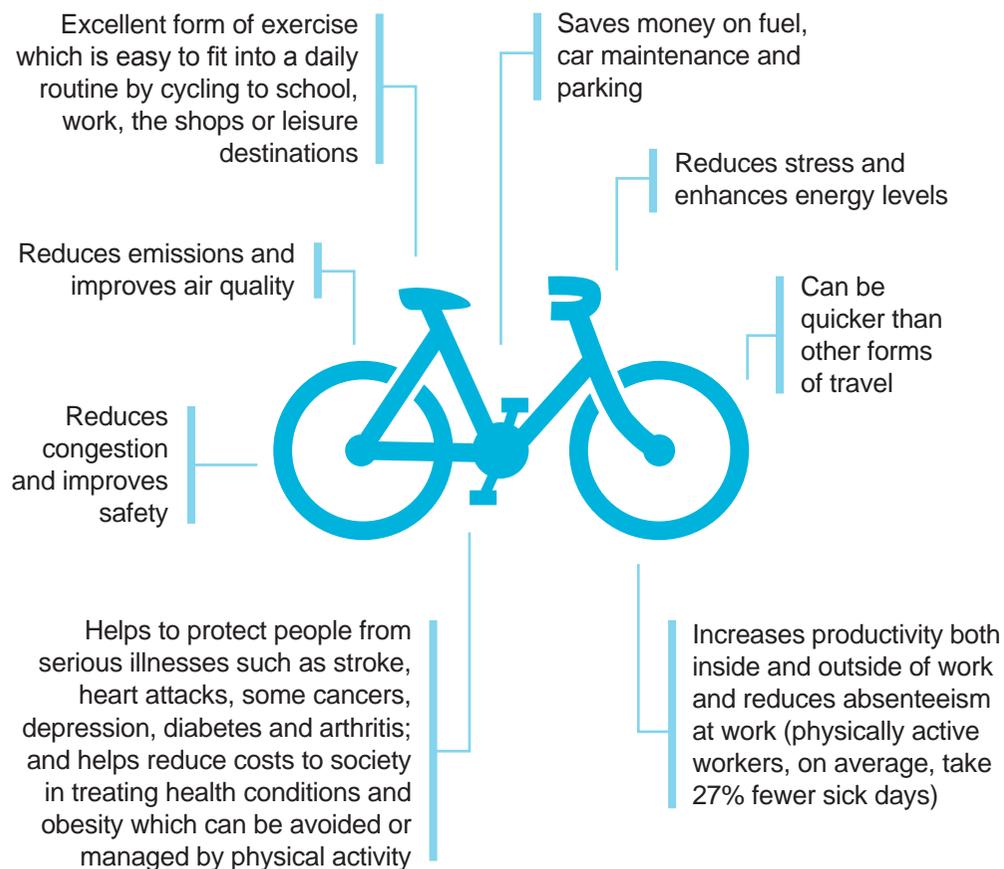


Figure 4: The Chelmsford cycle network

Benefits of Cycling



Across Essex, cycling has seen a 22% increase in seven years (2007-2014). Chelmsford and Colchester have seen the biggest growth.

In Chelmsford approximately 1,800 (7%) 'journey to work' trips are made by bicycle. This number does not include cycle trips made to the railway station, but we do know that Chelmsford Railway Station currently has a cycle hub which can accommodate around 1,000 commuters daily.

It is essential that the number of trips currently being made by car which are less than 5km in length are reduced - a mode shift to cycling is one of the best ways to achieve this.

There is a £4 health benefit for every £1 spent on cycling.

Air Quality Impacts

Local authorities in the UK have been carrying out a review and assessment of air quality in their areas for almost 20 years as per the requirement by the Department for Environment Food and Rural Affairs (DEFRA).

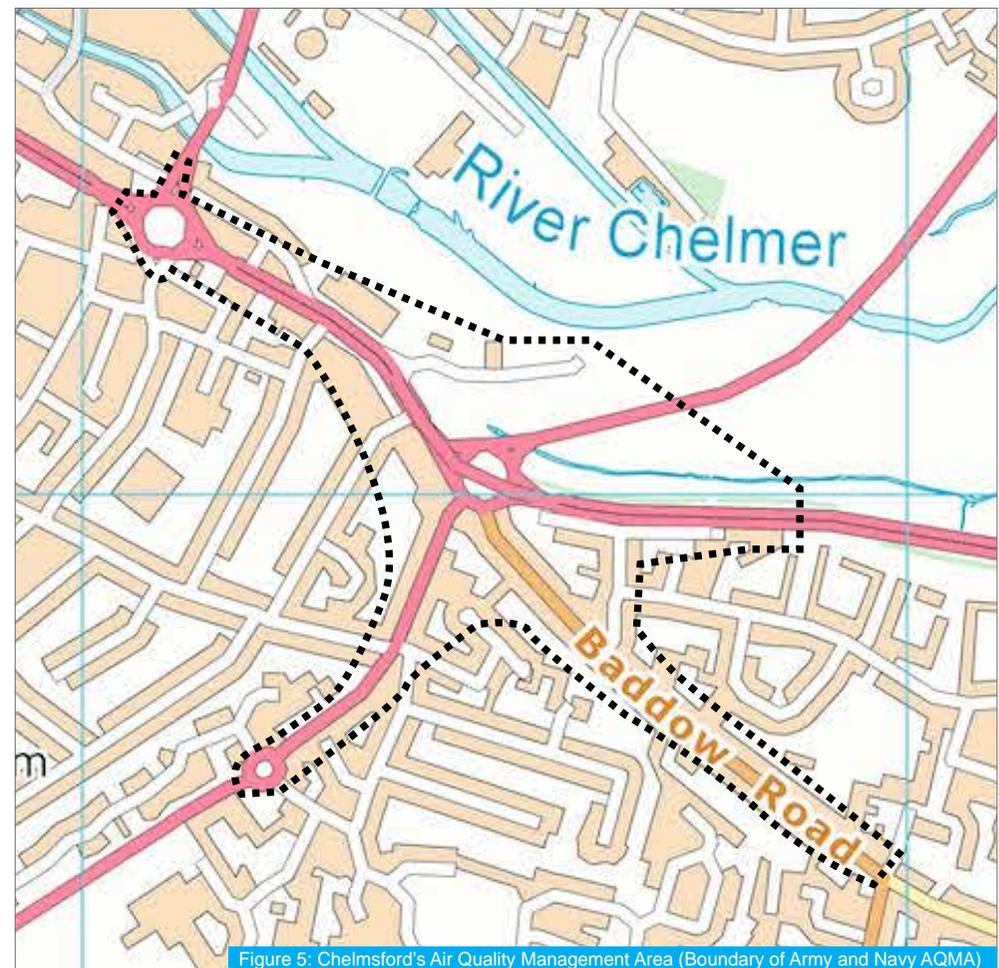
National air quality objectives have been put in place to protect people's health and the environment as long term exposure to poor air quality can have a detrimental effect on both. For example, exposure over time can help to cause or worsen strokes, heart disease, lung cancer, and chronic and acute respiratory diseases, including asthma. Exposure to poor air quality is particularly harmful to children's health as their lungs and other organs are still developing.

If a local authority finds any area where the air quality objectives for particular substances, including nitrogen dioxide and particulate matter, are not going to be met, it must declare it an Air Quality Management Area (AQMA). A Local Air Quality Action Plan with a list of actions to improve air quality in that area is then required.

In December 2005, Chelmsford Borough Council (now City Council) declared an area around the Army and Navy Roundabout as an AQMA (Figure 5 illustrates its extent). The roundabout serves as a junction to the A1060 Parkway, A1114 Essex Yeomanry Way and the A138 Chelmer Road. In addition to these strategic roads, two residential link roads (Baddow Road and Van Diemens Road) also join this roundabout.

Congestion is a major issue on all of the roads that feed into the Army and Navy roundabout, especially during rush hour (peak periods), and particularly along the residential roads. Queuing traffic causes more pollution than free flowing traffic.

Reducing congestion at the roundabout and along the key corridors leading to it is a key way of improving air quality in this area, for both the environment and residents living within or in close proximity to the AQMA.



In the future

Under Chelmsford City Council's Local Development Framework the population for the administrative area of Chelmsford, is set to grow by 12% to about 192,000 by 2021, with the planned construction of 6,000 new homes by 2021 and the generation of around 2,500 new peak hour vehicle trips.

Over the same period, regeneration initiatives and new business developments aim to achieve the creation of an estimated 20,000 new jobs (+24%).

A new Local Plan for Chelmsford is currently being developed which will guide further growth in Chelmsford to 2036. Over the period of 2021 to 2036, Chelmsford is set to grow by a further 14,000 new homes, generating an additional 5,800 peak hour vehicle trips, and 13,000 new jobs.

Chelmsford City Council will shortly be consulting on their Preferred Options for the growth locations as proposed in their new Local Plan. Details can be found at www.chelmsford.gov.uk

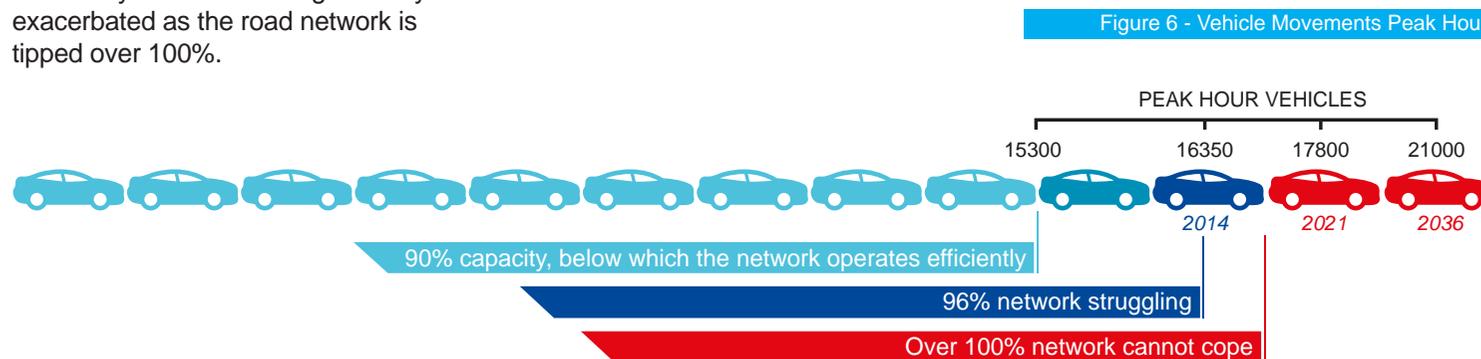
Based on modelling of the city centre road network, we can see that there is very little capacity remaining on the current road network which causes incidents, congestion and unreliability.

Figure 6 shows the number of vehicles currently using the Chelmsford road network and the future predicted growth in the number of vehicles using the road network during peak hours. Figure 6 shows the current number that the road network can carry. As we near 100% capacity we already experience journey time delays. This will be significantly exacerbated as the road network is tipped over 100%.

There is little scope to significantly increase the size or number of roads in the city centre. The current traffic issues will worsen, with traffic demand exceeding the capacity available.

This will cause people to make choices about when they travel and how they travel.

In order to ensure that Chelmsford remains a destination of choice and is able to maintain its status as an employment, leisure and residential centre for the region, we need to make sure that as many journeys as possible from the current and future population of Chelmsford are made by sustainable modes, rather than by motorised vehicle.



The road network already struggles to cope with the level of traffic on the roads - with future growth, we need to provide a real choice of sustainable travel alternatives.



Our solution: Chelmsford's Future Transport Network

The future transport network will focus on the type of journey - short, medium and long distance. This will be achieved through a zonal approach.

Zonal approach

In order to achieve the vision and objectives (set out earlier), the approach is based on applying different types of schemes to different 'zones' - to address the issues facing Chelmsford city now and in the future.



Outer zone

The approach for this zone is to target journeys from outside of Chelmsford.

Schemes will focus on:

- Removing as much traffic as possible on the outskirts of the city using the existing and potential future Park and Ride services
- Encouraging rail use to access Chelmsford from outside the city
- Providing appropriate and innovative signage systems to direct drivers onto the most appropriate route for their final destination. To target investment for strategic schemes for long distance journeys, such as widening of the A12 and the Chelmsford North East Bypass



Mid-zone

The approach for this zone is to target journeys within the city limits (56% of which are currently by car).

Schemes will focus on:

- Targeting investment on providing viable sustainable alternatives to the private car
- Encouraging trips to be made using fast and reliable public transport and safe, high quality cycling and pedestrian network



Central zone

The approach for this zone is to target journeys in the historic heart of Chelmsford.

Schemes will focus on:

- Improving the quality of the public realm, which is an important factor in attracting businesses and visitors
- Improving the quality of the walking environment for residents and visitors
- Providing high quality and sustainable alternative solutions
- Managing remaining traffic as efficiently as possible with clear and innovative signage to direct drivers onto the most appropriate roads for their journey, minimising rat-running, and to move vehicles off the road and into the most appropriate car park as quickly as possible



We'd like to know what you think of the zonal approach to transport planning in Chelmsford.

Outer zone focuses on park and ride, rail and the Strategic Road Network.

Mid zone focuses on bus and cycling.

Central zone focuses on walking, public realm, parking and road network management.

-  Outer zone
-  Mid-zone
-  Central zone

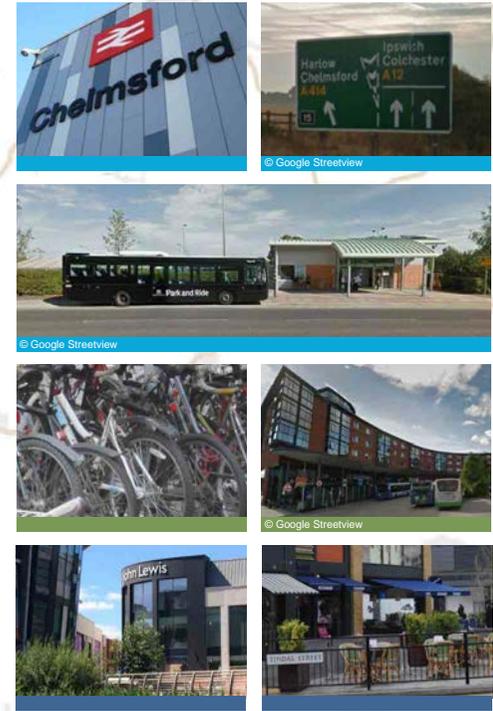


Figure 7: Chelmsford's Future Transport Network

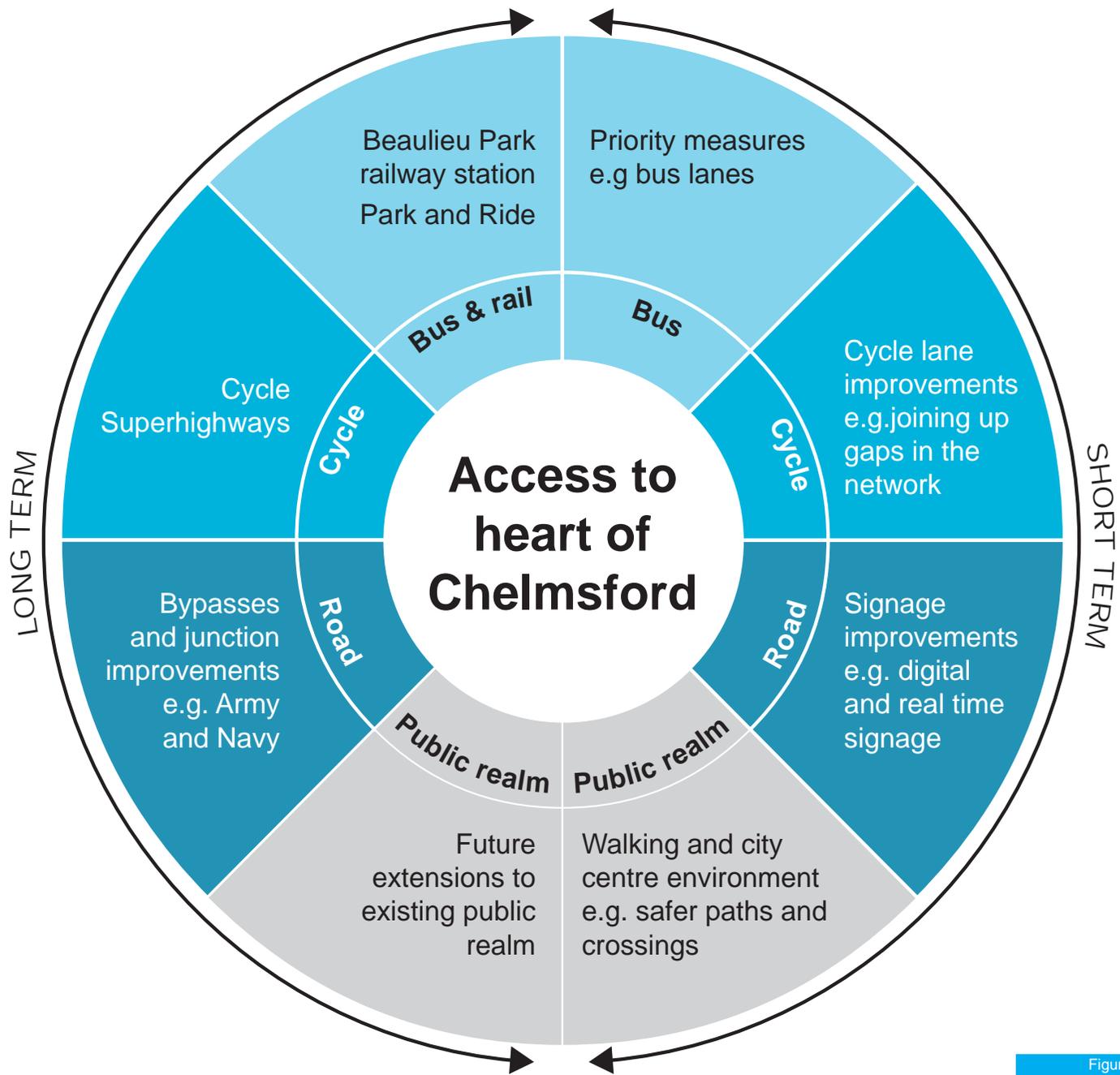


Figure 8: Types of schemes which could be considered as part of the Future Transport Network

Long term schemes

Encouraging people to use public transport or to cycle or walk is vital to keeping Chelmsford moving in the short and medium term. Despite long term schemes still being an important long term feature, it isn't the sole focus or solution for the Chelmsford road network longer term. Investment in roads to improve journeys for drivers is crucial in ensuring that long distance travel is efficient and effective.

The County Council is focused on delivering a number of strategically important schemes in the long term:

Chelmsford North-East Bypass

The Chelmsford North East Bypass between Boreham Interchange and Great Leighs will aim to provide further relief to the North of Chelmsford where a great deal of the housing growth is planned. Chelmsford City Council and Essex County Council are continuing to work together to develop the scheme and in parallel identify funding opportunities to bring this forward.

A consultation on the safeguarded areas for the Chelmsford North East Bypass will take place within Chelmsford City Council's Local Plan: Preferred Option consultation later this year.

A12 widening

Highways England is currently moving forward with Road Investment Strategy Programme proposals to widen the A12 between the M25 and Colchester.

A consultation on proposals to widen between junction 19 (Boreham Interchange) and junction 25 (Marks Tey interchange) has been live, running for 6 weeks from Monday 23rd January until Friday 3rd March 2017. Details of the proposals can be found at www.highways.gov.uk/A12chelmsfordA120widening

The section between junction 15 and junction 19, also referred to as the Chelmsford bypass section of the A12, has not at this stage been included within Highways England's Road Investment Strategy (2015 – 2020). The County Council will continue to work in close collaboration with Highways England to demonstrate the importance of improvements along this section and to lobby for its inclusion in future Road Investment Strategies.

Army & Navy Roundabout

As a key gateway to Chelmsford, we are currently looking at opportunities to make long term improvements at the Army and Navy roundabout.

But, any improvement scheme would have to make sure that it isn't simply pushing the problem to another area or junction, e.g. the Odean roundabout. A new scheme at the Army and Navy roundabout would have to be the right solution for the Chelmsford road network.

Park and Ride expansion

We aim to build on our existing Park and Ride facilities, either through site expansion, additional buses or by providing additional sites, potentially to the west of the city. This would support Sandon which is currently at capacity and will also provide an alternative to driving into the town centre for trips approaching from the west and south-west of Chelmsford.

Beaulieu Park Station

A new railway station at Beaulieu Park is planned to support the growth of North Chelmsford. This facility will provide access to the mainline between London and Norwich for residents living in the Beaulieu Park development area. It is anticipated that the majority of residents will access the railway station using sustainable modes. The new station will also provide convenient access to rail travel for those living in other parts of the County as they may find it easier to use services at Beaulieu Park rather than travelling in to the city centre to use the services at Chelmsford station. These people are more likely to drive and park at the new station.

Other infrastructure

Chelmsford City Council's new Local Plan (up to 2036) will need to identify infrastructure at both a local and strategic level to support the delivery of growth. Examples could include strategic highway links, enhanced cycling infrastructure and more emphasis on high quality bus rapid transit.



What We Can Do Now: Short-Term schemes

We have successfully bid for South East Local Enterprise Partnership 'Growth Deal' funding to keep Chelmsford moving and implement measures to improve Chelmsford's Sustainable Transport Network.

The Chelmsford City Growth Package project has £10m of funding allocated from the South East Local Enterprise Partnership 'Growth Deal', and Essex County Council is contributing an additional £5m.

These funds will be used to kick-start the development of a number of individual schemes to improve sustainable transport. It is hoped that they will increase the use of these travel options and reduce people's dependence on the car, especially for short journeys.

This will help to relieve the pressure on the road network and help us to achieve our vision for Chelmsford's Future Transport Network.

SE-LEP funding and Chelmsford

The South East Local Enterprise Partnership (SE-LEP) has also allocated funding for the A131 between Chelmsford and Braintree, a key corridor into Chelmsford. Through a Route Based Strategy and further ECC contributions, £7m of improvements will be delivered along this corridor to improve journey time reliability, highways capacity, road safety, bus priority measures and accessibility for bus passengers and non-motorised vehicle users by March 2019.

Additionally, South East Local Enterprise Partnership have allocated £3m funding to enable improved walking and cycling access into Chelmsford Station from the northern side, along with public realm improvements, by March 2018.

Separately a Cycling Action Plan for the city is being developed in conjunction with stakeholders, and small scale highway improvements continue to be delivered via the Local Highways Panel.

What we bid for: Chelmsford City Growth Package

An integrated scheme to increase the attractiveness of the City Centre Growth Area to businesses and visitors, and support growth through improved access, congestion reduction, and faster transfer and journey times.

A package of measures is required, aiming to provide (for all users) journey time improvements and improved journey time reliability along key routes into the city centre, along the key central corridor and within the inner ring.



Chelmsford City Growth Package

Objectives for the Chelmsford City Growth Package align with the objectives for the Future Transport

Network, but are more suitable for short term schemes and have a greater focus on sustainable transport.

The Chelmsford City Growth Package will include a number of small schemes that should benefit all types of transport to improve the city's transport network. Figure 9 shows how many different strategies contribute to achieving the transport objectives which will also support future growth.

CONNECTIVITY - To provide high quality transport improvements to enhance connectivity in Chelmsford for all modes of transport.

ECONOMIC GROWTH - To support and facilitate sustainable and economic growth and regeneration.

CAPACITY MANAGEMENT - Reduce congestion and manage traffic distribution across Chelmsford's road network to improve journey time reliability and predictability, maximising the effective capacity through innovative solutions.

SUSTAINABLE TRANSPORT MODES - To encourage increased use of sustainable transport modes and services (bus, cycling, walking) by supporting improved accessibility,

travel choice, community cohesion and social inclusion through the integrated public transport network.

ENVIRONMENT - Contribute to protecting and enhancing the natural, built and historic environment, to maintain a high quality of life and reduce pollution.

SAFETY - Improve safety on the transport network and enhance and promote a safe and secure travelling environment.

RESILIENCE - Secure and maintain all transport assets to an appropriate standard and ensure that the transport network is available for use.

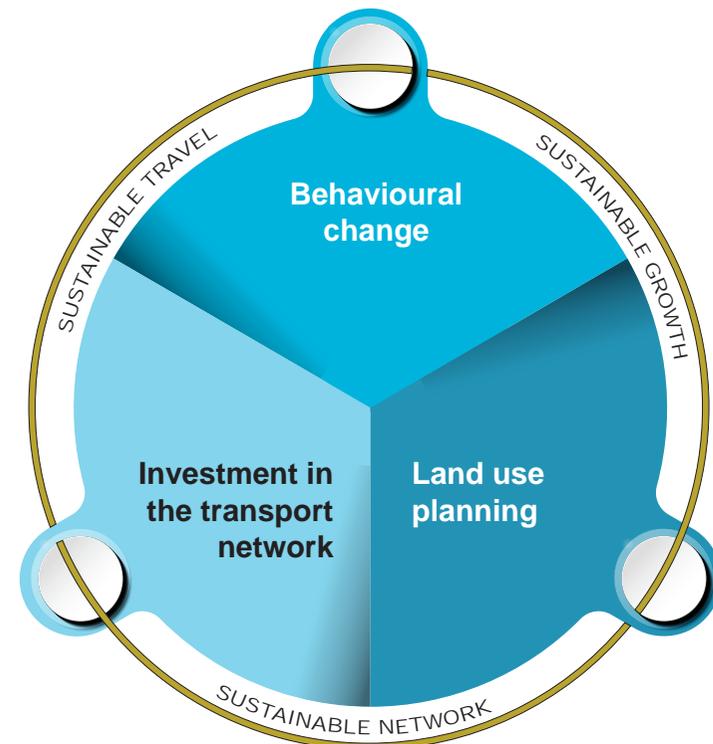
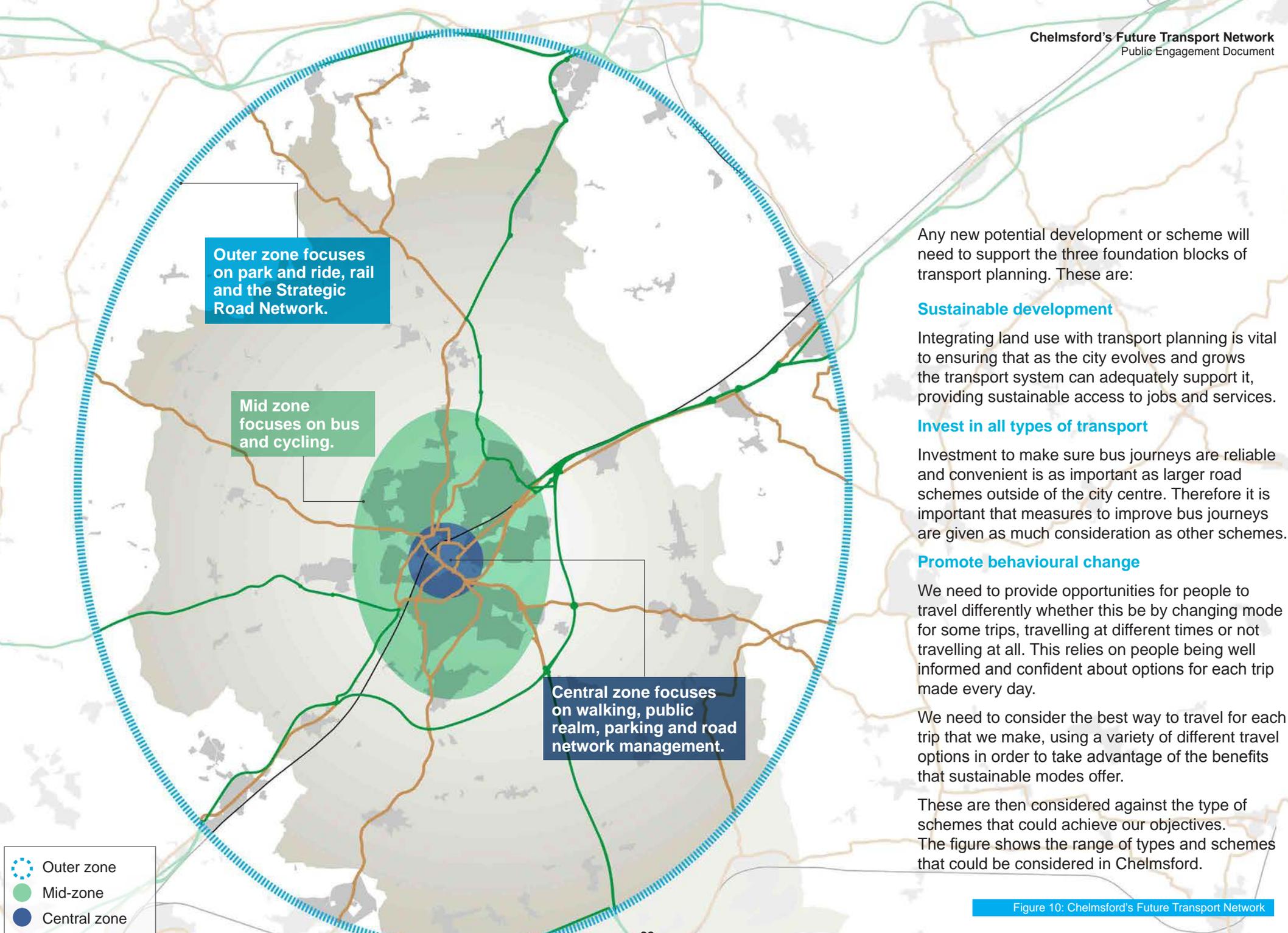


Figure 9: Elements required to achieve Sustainable Transport networks



Any new potential development or scheme will need to support the three foundation blocks of transport planning. These are:

Sustainable development

Integrating land use with transport planning is vital to ensuring that as the city evolves and grows the transport system can adequately support it, providing sustainable access to jobs and services.

Invest in all types of transport

Investment to make sure bus journeys are reliable and convenient is as important as larger road schemes outside of the city centre. Therefore it is important that measures to improve bus journeys are given as much consideration as other schemes.

Promote behavioural change

We need to provide opportunities for people to travel differently whether this be by changing mode for some trips, travelling at different times or not travelling at all. This relies on people being well informed and confident about options for each trip made every day.

We need to consider the best way to travel for each trip that we make, using a variety of different travel options in order to take advantage of the benefits that sustainable modes offer.

These are then considered against the type of schemes that could achieve our objectives. The figure shows the range of types and schemes that could be considered in Chelmsford.

Figure 10: Chelmsford's Future Transport Network

Have we identified the right corridors? If not, please tell us by completing the questionnaire.

Targeting congested corridors

The detailed analysis of issues on Chelmsford's road network shows that schemes within the Chelmsford City Growth Package should focus on the following corridors, in addition to improving general use of Chelmsford's transport network.

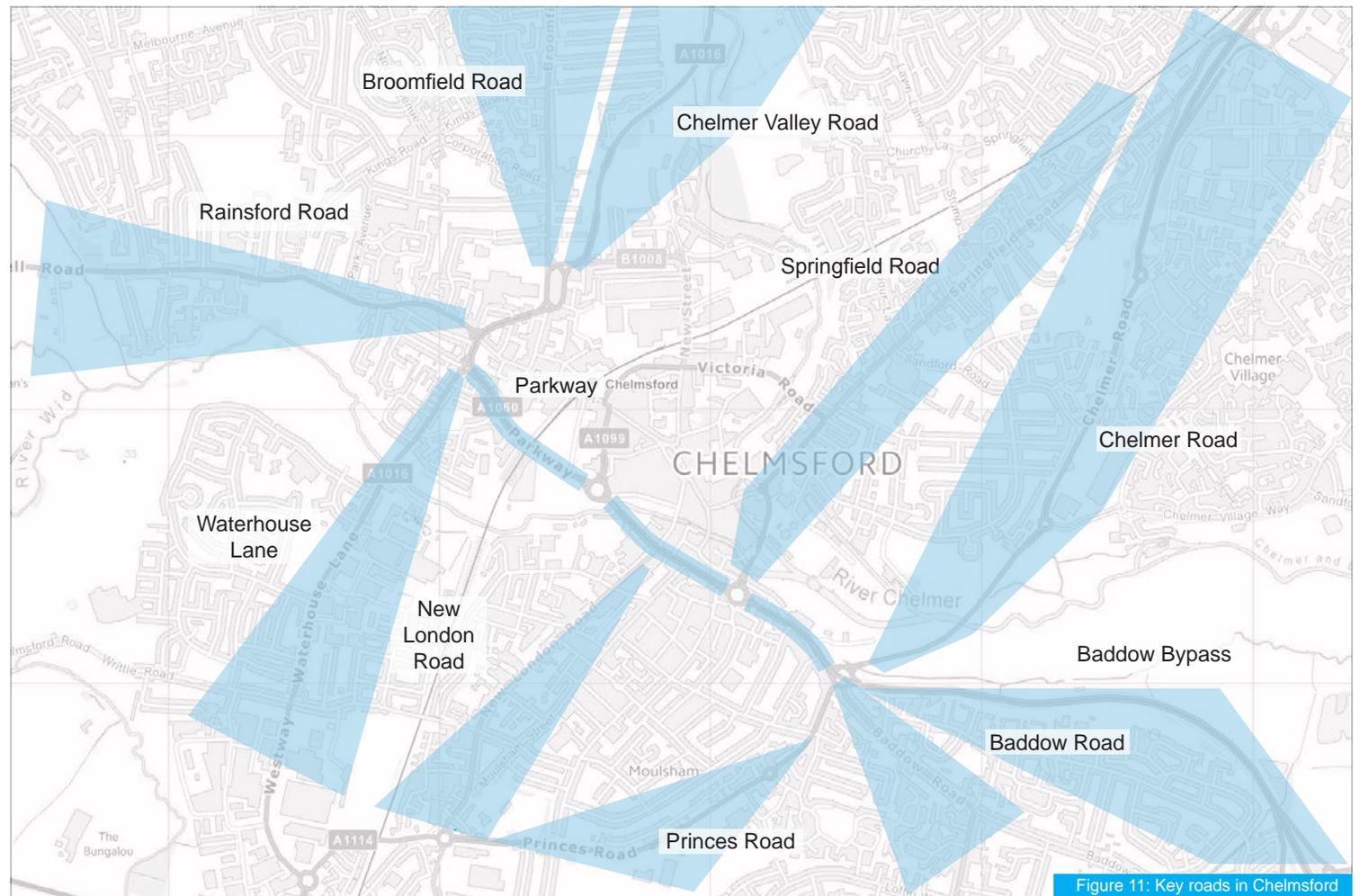


Figure 11: Key roads in Chelmsford

To develop and select improvements or schemes that are in line with the Chelmsford City Growth Package objectives, the project team proposes to focus their solutions in four key areas, all of which are deliverable within the allocated budget and timescale set for the funding to be used.

Below is a summary of the type of improvement or schemes which could be included in the Chelmsford City Growth Package.



Figure 12: Types of transport schemes that can achieve Chelmsford Growth Package objectives

Intelligent transport / technology measures

To help to manage congestion and direct traffic onto the most appropriate route when there is an incident or maintenance, the following measures could be implemented:

- Digital signage that is linked to the Essex Traffic Control Centre can direct traffic coming from outside of Chelmsford to the best route, and if a road was closed it can notify drivers before they reach the route. Part of this measure would also be to remove old signage that directs traffic to less suitable routes.
- Another option is to update the operating system for the city's traffic lights so they run on the most up to date data concerning traffic movements. They should then be more efficient in moving traffic around the city.

Bus Measures

To encourage more people to use buses and to increase the reliability of bus journey times, the following could be implemented:

- Bus priority measures (such as bus lanes or bus gates) along key bus corridors and on heavily congested roads.
- Remove obstructions on existing bus lanes to maximise their impact.
- Prioritise bus access to junctions to ensure free flowing movement of buses through key corridors.

Road Network Measures

To improve traffic flow and circulation within the city centre the following could be implemented:

- Small scale improvements to existing junctions to improve safety and traffic flow, such as widening entrances and exits at roundabouts.
- Widening or redesigning the layout of existing junctions to prioritise the main route and main traffic flow.

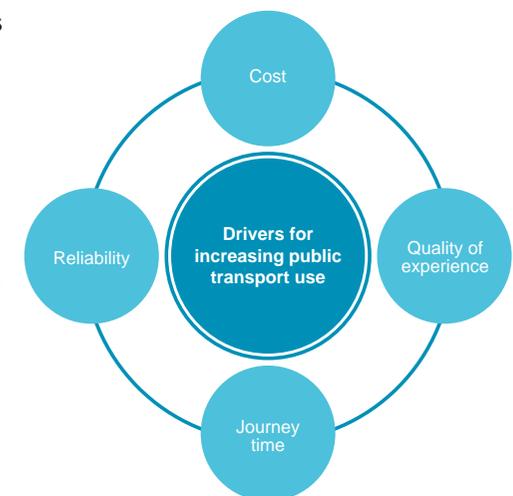


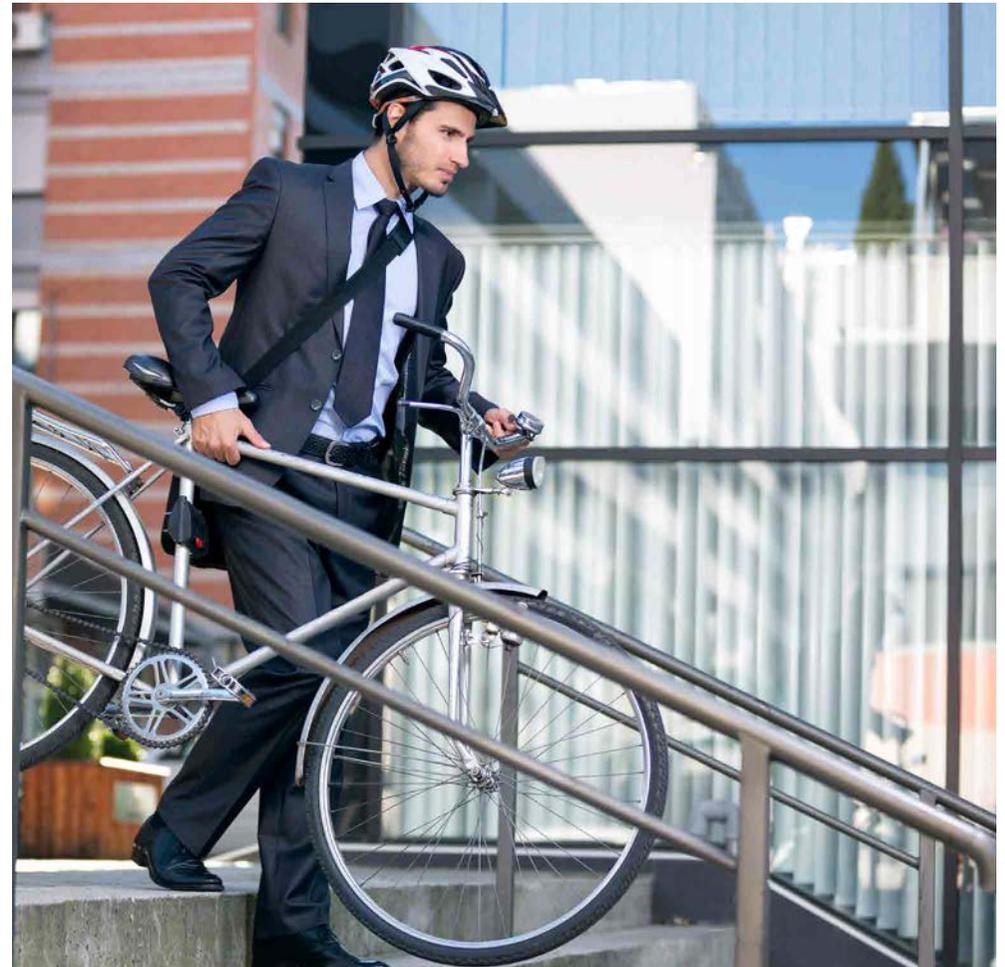
Figure 13: Drivers for increasing public transport use

These improvements and schemes focus on the areas of greatest need and where we can implement measures that achieve a sustainable transport network.

Cycling Measures

To encourage more people to cycle the following could be implemented:

- Complete gaps in the cycle network to create longer and more seamless routes.
- Improve signage so new users can easily navigate their way into and around the city centre and to key services.
- Create additional cycle parking hubs within the city centre.
- Improve safety on the cycle network to ensure people feel at ease using bikes in the city centre.
- Improve crossing with traffic and shared routes with pedestrians to, where possible, create seamless links.



Don't forget to give us your thoughts - simply complete the questionnaire online or at the back of this document.

Next Steps

The purpose of this engagement exercise is to share Chelmsford's Future Transport Network, its vision and objectives. It is also to introduce the Chelmsford City Growth Package and to understand what kind of measures Chelmsford residents, businesses, workers or visitors would like to see in place.

This engagement is to ensure that Chelmsford's Network Strategy, including the issues for the transport network and objectives of the Growth Package are understood. It also needs to make sure that any schemes respond to the views of people who use and depend on the efficient operation of Chelmsford's transport system.

We will use feedback to support the selection process for schemes to be delivered as part of the Chelmsford City Growth Package.

Once this work is complete we will come back to consult on the specific schemes in Summer 2017.

We want to hear your views on Chelmsford's Future Transport Network, which key routes should be prioritised and any thoughts on how to encourage Chelmsford residents to switch to sustainable transport for shorter trips.

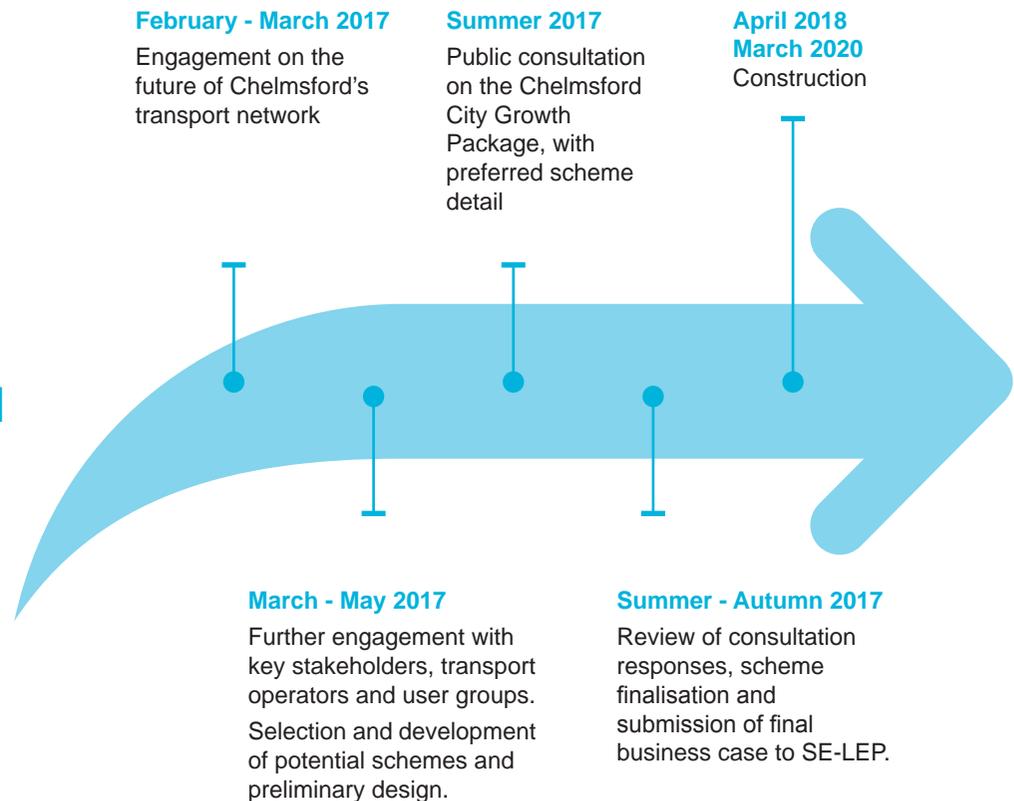


Figure 13: Next steps timeline

How to respond

Please respond using one of the following channels, which have been set up for the specific purpose of this consultation:

Online: www.essex.gov.uk/majorschemes

Email: You can email your response to: ChelmsfordGrowthPackage@jacobs.com

Post: You can post your response and additional material to the following address (please note the address is case sensitive):

Jacobs

Engagement team

CHELM_TRANSPORT

226 Tower Bridge Rd,

London

SE1 2UP

You can find a response form online at www.essex.gov.uk/majorschemes or at the back of this document.

We cannot accept responsibility for ensuring responses that are sent to addresses other than those described above are included in the engagement process. All responses must include at least your name and postcode.

When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of an organisation, please make it clear whom the organisation represents and, where applicable, how the views of members were assembled.



Engagement Questionnaire

You can complete this questionnaire online at www.essex.gov.uk/majorschemes

Question 1) Title: First Name: Last Name:

Question 2) Please tell us your postcode: *(Required)*

Question 3) Please provide an email address:

Question 4) Are you completing this questionnaire on behalf of:

Select one box

- Yourself (as an individual)
- A friend or relative (Please answer using their details)
- A District/Town/Parish Council
- A Voluntary or Community Sector Organisation (VCS)
- A Business
- Other, please specify opposite:

If you are responding on behalf of an organisation, please tell us:

The name of the organisation:

Who the organisation represents:.....

.....

Where applicable, how the views of members were assembled:

.....

Question 5) Do you agree with the County Council’s vision for Chelmsford’s transport system, which offers enhanced connectivity, accessibility and a choice of travel options to residents, commuters, visitors and businesses alike? *Select one box.*

Yes

No

If your answer is “no” please can you tell us why:

.....

.....

.....

Question 6) “The objectives will adequately achieve the vision as long as any future transport schemes are designed with these in mind.” To what extent do you agree or disagree with this statement? *Select one box.*

Strongly agree

Agree

Neutral or undecided

Disagree

Strongly disagree



Question 7) How important are the following factors when considering your most frequent mode of travel for your daily commute?

Please tick one box in each row.

	Very important	Important	Moderately important	Little importance	Not important
Cost	<input type="checkbox"/>				
Convenience	<input type="checkbox"/>				
Environmental benefits	<input type="checkbox"/>				
Reliability	<input type="checkbox"/>				
Distance of journey	<input type="checkbox"/>				
Weather	<input type="checkbox"/>				
Health benefits	<input type="checkbox"/>				
Safety	<input type="checkbox"/>				
Frequency	<input type="checkbox"/>				
Journey time	<input type="checkbox"/>				
Lack of viable alternatives	<input type="checkbox"/>				
Information on travel options	<input type="checkbox"/>				
Provision of direct and well maintained routes	<input type="checkbox"/>				

Question 8) Which impacts of traffic concern you the most? *Please consider your top three (with 1 being the impact which concerns you the most).*

	Please indicate your top 3 only (rank 1-3)
Impact on emergency vehicles	
Impact on the city's economic competitiveness and loss of productivity in businesses	
Lack of alternative routes	
Longer journey times	
Pollution	
Rat-running on more residential streets	
Road safety	
Unreliable journey times	
Other (please specify)	

Question 9) “Buses should have priority on the road network over other motorised vehicles” To what extent do you agree or disagree with this statement? *Please tick one box.*

Strongly agree Agree Neutral or undecided Disagree Strongly disagree



Question 10) If you regularly drive for short and medium distances (less than 5km), what would encourage you to take the bus instead? Please rank your top three with 1 being what would encourage you the most.

	Please indicate your top 3 only (rank 1-3)
Cheaper ticket prices	
Quicker journey times	
More bus lanes	
Priority at traffic lights	
Bus Gates	
More direct routes	
Better quality and cleaner buses	
New facilities on the bus e.g wifi and charging point	
Improved access and egress from key junctions for buses	
More reliable services	
Better information, for example real time passenger information	
Bus stop closer to where I live/end destination	
Higher costs of motoring	
Other (please specify)	

Question 11) “Users of Chelmsford Train Station should be encouraged to walk, cycle or use the bus to get to the station, rather than driving shorter distances (under 5km)” To what extent do you agree or disagree with this statement? Please tick one.

Strongly agree Agree Neutral or undecided Disagree Strongly disagree

Question 12) Would you like to see improved facilities for cyclists and pedestrians in order to encourage people to walk and cycle more often? Please tick one.

Yes No Undecided

Question 13) What would encourage you to walk and cycle more frequently as part of everyday travel? Please rank your top three with 1 being the most encouraging and 3 the least. Please indicate your top 3 only (rank 1-3)

	Rank		Rank
More segregated routes		Free training to improve confidence	
Better connectivity/integration between existing routes		Suitable changing/washing facilities at end destinations	
Better connectivity to the city centre		Improved safety, security and lighting of routes	
Better wayfinding/signing		Removal of street clutter	
Adequate parking at end destination		More benches and resting facilities	
Improved maintenance of routes		Nothing would encourage me to walk and cycle more	
I already walk and cycle as much as I am able		Other (please specify)	



Question 14) Are you concerned about the impact of poor air quality on your health? Please tick one.

Yes No I'm not really aware of the impacts that poor air quality has on my health

Question 15) Do you agree with the zonal approach for achieving the vision set out in this document? Please tick one.

Yes No Undecided

Question 16) Please indicate the level of importance for each zonal elements (1 being highest). Please tick one box only.

	1. Extremely important	2. Very important	3. Important	4. Neither important nor unimportant	5. Not important
Outer zone					
Encouraging rail use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Promotion of existing Park and Ride services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional Park and Ride sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved signage to use the strategic network to its best advantage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Middle zone					
Improved public transport network to encourage increased bus usage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extended and upgraded cycle network with promotion of its use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 16 continued) Please indicate the level of importance for each zonal elements (1 being highest). Please tick one box only.

	1. Extremely important	2. Very important	3. Important	4. Neither important nor unimportant	5. Not important
Inner zone					
Improved pedestrian routes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public realm improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Passenger transport interchange improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved signage, especially to car parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increased cycle parking facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 17) To what extent do you agree or disagree with the following statement “The corridors identified below are the right ones to focus improvements on?” Please tick one.

The road corridors are: Baddow Road/Baddow Bypass; New London Road; Broomfield Road; Springfield Road; Chelmer Valley Road; Chelmer Road; Waterhouse Lane; Princes Road Parkway; Rainsford Road

Strongly agree Agree Neutral or undecided Disagree Strongly disagree



Question 18) Out of the identified corridors, how would you prioritise them? Please rank 1-9, with 1 being highest priority.

	Rank
Baddow Road/Baddow Bypass	
New London Road	
Broomfield Road	
Springfield Road	
Chelmer Valley Road	
Chelmer Road	
Waterhouse Lane	
Princes Road	
Parkway	
Rainsford Road	

Question 19) Is there anything else you would like us to consider?

.....

.....

.....

.....

About you

In order to ensure the continued development of our Diversity and Equality practices, everyone that we work with is asked to complete the information below. You are not obliged to answer any of the questions, but the more information you supply, the more effective our monitoring will be. If you choose not to answer questions, it will not affect your participation. The information you supply below is confidential and will be used solely for monitoring purposes and anonymously in the reporting of the results of this consultation.

- 20) Age:**
- 16 - 20
 - 21 - 30
 - 31 - 40
 - 41 - 50
 - 51 - 60
 - 61 - 70
 - 71 - 80
 - 81 - 90
 - 91 or over
 - Prefer not to say
- 21) Gender:**
- Male
 - Female
 - Prefer not to say
- 22) Status:**
- Single
 - Married
 - Widowed
 - Prefer not to say
 - Other (please state)
.....
- 23) Religion/Faith:**
- Christian
 - Muslim
 - Hindu
 - Buddhist
 - Sikh
 - Jewish
 - None
 - Not sure
 - Prefer not to say
 - Other (please state)
.....
- 24) Ethnicity:**
- White
 - English/Welsh/Scottish/
Northern Irish/British
 - Irish
 - Irish Gypsy or Irish Traveller
 - Any other White background
 - Mixed/multiple ethnic groups
 - White and Black Caribbean
 - White and Black African
 - White and Asian
 - Any other Mixed/multiple
ethnic background
 - Asian/Asian British
 - Indian
 - Pakistani
 - Bangladeshi
 - Chinese
 - Any other Asian background
 - Black/African/Caribbean/Black
British
 - African
 - Caribbean
 - Any other Black /African/
Caribbean background
 - Other ethnic group
 - Prefer not to say



25) Do you consider yourself to have a physical, sensory impairment, learning difficulty or disability or mental health needs?

- Yes
- No
- Prefer not to say

26) Are you currently caring for someone?

- Yes
- No
- Prefer not to say

27) Locality:

- Basildon
- Braintree
- Brentwood
- Castle Point
- Chelmsford
- Colchester
- Epping Forest
- Harlow
- Maldon
- Rochford
- Tendring
- Uttlesford
- Other (please state)

.....

Thank you for taking the time to take part in this consultation.

Confidentiality and data protection

The contact information that you provide will be used to perform internal checks to ensure the validity of responses, such as identifying a duplicate response where responses have been submitted via several routes. We may also use this information to inform respondents of any key updates of the consultation.

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes. These are primarily the Freedom of Information Act 2000 (FOI), the Data Protection Act 1998 and the Environmental Information Regulations 2004.

Under the FOI, there is a statutory Code of Practice with which public authorities must comply and which deals with our confidentiality obligations among other things.

This information is issued by

Essex County Council

You can contact us in the following ways:

By email:

Chelmsfordgrowthpackage@jacobs.com

Visit our website:

www.essex.gov.uk/majorschemes

By post:

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CM1 1QH

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