

Appendix

Local Plan Transport Position Paper

1.0 Context and Responsibilities

Transport is a key aspect of planning and impacts can be greatly influenced by land use planning. The National Planning Policy Framework (NPPF) includes a section on Promoting Sustainable Transport. Further guidance is given in Local Plan National Planning Policy Guidance on Developing Transport Evidence Bases in plan making and decision taking. Colchester Borough Council with partners has commissioned work to support the emerging Local Plan.

1.1 Transportation in Colchester is managed and delivered by a number of different bodies including:

- Essex County Council – the local highway and transportation authority with responsibility for the local road network, much of the walking and cycle network, public rights of way and a limited overview on public transport.
- Highways England – management of the strategic road network including the A12 and A120.
- Network Rail – responsible for the management of the railway infrastructure.
- The Train Operating Company - Greater Anglia – responsible for the delivery of the train services and management of the stations as part of a franchise.
- The Bus Companies – privately owned and operated bus services in a deregulated market, with many of the evening and weekend services operated under contract to ECC.
- Colchester Borough Council – management of public car parks, management of the North Essex Parking Partnership, issuing and managing on street parking permits, and allowing walking and cycling through many open spaces which form key links in the network. Taxis and Private Hire vehicles are also licensed by Colchester Borough Council.

2.0 Developing an Evidence Base

2.1 The evidence base is heavily dependent on external sources much of which is now publicly available over the internet but requires interpretation and blending together to create the overall picture.

2.2 Census Data: provides transport data for travel to work, and includes where and how people travel to work. The census also provides car ownership information. A presentation on the Travel to Work data was given to the committee in October 2015.

2.3 Colchester Travel Diary Survey: this was undertaken in 2007 and even though the data is now 10 years old it provides a comprehensive picture of movement patterns for a wider range of journeys. A presentation on overall transport movements was given to the committee in November 2013.

- 2.4 Google Traffic Flow Maps: Through the development of phone technology, movement data is now collected through mobile phones. Google (and others) publish this data and produce live mapping of the current situation on the road network over the internet. The data is qualitative and can be used to illustrate the relative performance of the road network on different days.
- 2.6 Traffic Modelling: Essex County Council have access to an urban area computer traffic model. The model uses a combination of the 2007 Travel Diary data, the Census and traffic surveys undertaken at the time. This model allows for growth to be tested across the urban area of Colchester. The model's strength is that it will load the traffic onto the network and direct traffic via different routes as traffic builds up. The model allows growth to be added and changes to be made to network and be assessed. However it only models the local road network in the weekday morning and evening peak hours.
- 2.7 The Local Plan Issues and Options scenarios were tested in the model. The report was made available in the evidence base. For modelling purposes growth identified in the current Local Plan (adopted 2008 and reviewed 2014) is included in the base case. Any programmed infrastructure was also included in the base case. The new local plan growth was then added to the model.
- 2.8 Following the publication of the preferred options document (June 2016) further testing has been undertaken which incorporates the planned growth in the local plan up to 2033. This growth includes the start of the Garden Communities in the Local Plan period.

Garden Community Transport Studies

- 2.9 Separate transport studies have also been commissioned for the Garden Communities themselves. These include:
- North Essex Garden Communities – Feasibility Study, 2016: The work contained high-level transport proposals associated with the three broad locations for Garden Communities with a detailed baseline review and analysis of the options.
 - Movement and Access Study, May 2017: Considered how each of the Garden Communities can positively internalise journeys within their developments and maximise their integration and connectivity with the rest of North Essex via high quality modern public transport.
 - Emerging Concept Frameworks with Transportation Appendix - Transport Demand Analysis and Transport Scheme Review: A standalone appendix prepared to provide high level guidance and input on possible transport measures to support the proposed Garden Communities. Considers the existing committed and planned transport schemes and the potential volume of travel demand from the new Garden Communities. This information is then used to identify transport priorities and to prepare a programme of transport measures.
 - Rapid Transit Studies: consultants undertook a Rapid Transit Study for East Colchester in 2016, building on work undertaken for the current Local Plan. The study examined the case for a Rapid Transit system focussed on

serving the proposed Tendring Colchester Borders Garden Community, Essex University and East Colchester, connecting through to the Town Centre. The study identified a number of route and technology options. This work has been expanded upon to include rapid transit to the Colchester Braintree Borders and West of Braintree Garden Community. A short piece of work has been commissioned to understand whether various modes of rapid transit have merit.

Strategic Road Network Studies

- 2.10 The A12 and A120 have been subject to various studies over many years. The Highways Agency undertook a route based study on the A12/A120 in 2014. This resulted in the A12 widening being included in the Roads Investment Strategy (RIS).
- 2.11 Essex County Council have funded the feasibility study for options for the A120 between Braintree and the A12 with the aim of getting this scheme included in the next Roads Investment Strategy.
- 2.12 Options for both the A12 Widening Junction 19 (Chelmsford) to 25 (Marks Tey) and the A120 Braintree to A12 were subject to extensive consultation in early 2017. Both Highways England and ECC have organised local fora to keep local bodies informed. Announcements on next steps for both schemes are expected shortly. The A12 Junction 19 to 25 scheme will then enter the formal Development Consent Order process to enable a start by March 2020.
- 2.13 Consultation on the A12 Widening between junctions 25 (Marks Tey) and 29 (Colchester Northern Bypass) is due to start shortly.

3.0 Overall Movement Picture

- 3.1 Areas with strong economies tend to generate high levels of movement and demand. Movement and travel patterns in Colchester are not untypical of many other locations in the south east around London, with travel to and from work dominating the peak hour demands on the local road and strategic networks. There are a high level of people living and working locally in Colchester, approximately 69%. The census suggests that there is an increase in the proportion of people working at home, especially in the rural areas. In nearly all work place areas the car is the dominant mode for travel to work with 55% share across the Borough.
- 3.2 In terms of travel to work, there are 24,850 people leaving and 22,968 coming into Colchester. The most popular destinations for work outside of Colchester are (in order) London, Tendring, Braintree and Chelmsford. For movements into Colchester those from Tendring, Braintree and Babergh Districts are the highest. The movements to and from Braintree are more or less equal.
- 3.3 Castle Ward remains the most important area for employment with 16,700 work trips coming to or within the ward. There is a unique mix of employment in

commercial, education, retail and leisure sectors within Castle ward which has double the employment levels in the next highest wards of Mile End and Highwoods.

- 3.4 50% of travel to work trips are less than 5km in length (this includes those who work at home). However, the average distance to work is 19km which suggests a disproportionate number of people travelling a longer distance, eg to Braintree and London.
- 3.5 Across the Borough the average level of car ownership is 1.3 vehicles per household, ranging from 0.6 vehicles per household in the town centre to 2.2 vehicles per household in the rural areas. Across the borough 70% of the households have one or two cars a further 10% have more than two cars; 20% of households do not have a car. Car ownership is 524 cars/vans per 1000 people. There are currently 154,200 full or provisional driving licence holders in Colchester (postcode areas CO1 to CO7), which represents an increase of 11,000 since 2012. This is broadly in line with population growth.

4.0 Traffic Flows and Congestion

- 4.1 Essex County Council estimate that traffic congestion in Colchester costs £20million per annum measured as delay time against free flow conditions.
- 4.2 In the urban area daily traffic flows on the A road network have not risen between 2006 and 2015, even though there has been significant housing and population growth. There have however been fluctuations in traffic flows on certain routes. It is unclear why growth in the urban area is static considering the housing and population growth that has taken place. There has been a 5% growth on the rural A roads between 2006 and 2015.
- 4.3 There are many points on the urban road network which experience morning and evening peak hour (08:00 till 09:00 and 17:00 to 18:00) congestion but flow freely outside of the peak times. This is shown on Google Traffic flow maps which also show where the traffic queues outside of the week day peak hours e.g. Saturday mid-morning. There are locations where there are slow moving queues and the efficient operation of the network is susceptible to incidents.
- 4.4 There are locations mainly in the town centre which are also designated air quality areas due to the volumes of traffic, where the built environment forms a canyon and/or diesel engine vehicles make up a significant proportion of the traffic flow.
- 4.5 On the strategic road network (the A12 and A120) there has been traffic growth of around 7% over the period 2006 to 2015. Parts of the A12 carry very high volumes of traffic – 100,000 vehicles per day (vpd), on the section between junction 26 and 27. The section of the A12 north of Colchester carries approximately 74,000 vehicles per day. The A120 east of Colchester carries 37,000vpd and through Marks Tey 25,000vpd.

5.0 Local Plan Growth and Traffic Modelling

- 5.1 The traffic modelling for the growth suggests 40% growth by 2032 in the number of vehicle trips in the peak periods. This is in comparison to the number of vehicle trips in the traffic model base year (2007). The new allocations represent approximately 6% of the peak hour growth. Most of the growth comes from the existing community and existing allocations in the current Local Plan.
- 5.2 With an increase in the number of trips, the modelling shows an increase in total queueing time, a small decrease in the average speed and an increase in travel time and distance. The PM peak exhibits greater variability.
- 5.3 People do respond to congested conditions and change their behaviour – either by travelling outside the peak hours, using an alternative form of transport, working more flexibly or not travelling at all. This has the effect of reducing the number of peak hour trips. However parts of the network are still over capacity. The model outputs suggest some 200 locations, in each of the peaks, where the traffic demand is greater than the capacity.
- 5.4 The traffic model is strategic in its nature and helps identify locations and areas where there is concern on the operation of the road network. The issues at the locations vary, and include capacity constraints on the Strategic Road Network, constraints on the local road network at locations where junctions are in close proximity to each other, and some issues at isolated locations on the local road network.
- 5.5 The outputs of the traffic modelling have been reviewed and locations have been grouped together to provide a strategic overview. This includes the:
- Strategic Road Network
 - Local Road Network – linked junctions
 - Local Road Network – isolated locations.
- 5.6 The key issues have been incorporated into the Local Plan policies including the specific place policies. In addition to the Strategic Traffic Modelling, all sites proposed in the Local Plan have been assessed as part of the Strategic Land Availability Assessment (SLAA), which included an assessment of access to the site, proximity to local services and availability of alternative modes of transport to the car.

6.0 The Garden Community Approach

- 6.1 The Garden Community approach provides a new opportunity to plan the new communities around a step change in integrated and sustainable transport systems for the North Essex area that put walking, cycling and rapid public transit networks and connections at the heart of growth in the area, encouraging and incentivising more sustainable active travel patterns. Specific study work has been commissioned to inform the Garden Communities.

- 6.2 Colchester hosted a Local Plan workshop in 2015 where a presentation on Vision2030 was given by Professor Miles Tight on the potential to deliver a more balanced transport approach by reviewing best practice across Europe and how this more balanced approach can help create a better place.

7.0 Mitigation

- 7.1 Transport in the Local Plan is covered by Policy SP5 Infrastructure and Connectivity; Development Management Policies DM20/21/22 and Place Policies identify infrastructure required to support growth in specific areas of the borough. The evidence base identifies a wide range of measures and these measures need to be considered, prioritised and developed further.

The Local Plan Development Management policies advocate:

- Changing travel behaviour including the promotion of walking, cycling and the use public transport
- Supporting new road and rail infrastructure
- Minimum Parking standards for residential development and maximums for non-residential development and for the inclusion of electric vehicle charging points.
- Requirement for development to be accompanied by a Transport Assessment or Statement.

- 7.2 With regard to the issues identified in the traffic modelling, consultants have suggested a range of measures:

- Basic Traffic Management – such as signing and lining, part signalisation, and changing kerb lines to increase capacity,
- Enhanced Traffic Management – upgrades to and investment in signal control systems especially when there are junctions in close proximity,
- Minor infrastructure – widening of approaches to increase land capacity and left turn slips at junctions which can be delivered within the highway boundary,
- Major infrastructure – major reconstruction to add capacity involving land outside of the designated highway boundary which may involve complex engineering,
- Sustainable and Complementary Measures – improvements to public transport, walking and cycling measures.

- 7.3 It is expected that a range of measures will be used which will include combinations of traffic management, infrastructure and sustainable transport measures. These will need to take into account a number of considerations including Local Plan policies, physical constraints in the urban area, the ability to be able to deliver in a timely manner, and affordability. Improvements would need to be considered along routes and not as isolated junction schemes. Schemes are identified in the Infrastructure Delivery Plan.

7.4 The Garden Community Study work has identified a number of measures including;

- investment in the strategic road network,
- local road network improvements,
- rapid transit with opportunities for park and ride,
- the potential for new rail station to support longer term growth,
- the opportunity to repurpose some road following the investment in the strategic infrastructure,
- improve the walking and cycle routes and make connections to the existing network.

To increase the patronage of the transit systems the layout of development around transit stops will be key; with good walking and cycle connections to local opportunities e.g work, education, leisure, retail and open space. The specific schemes are still developing as the land use concept frameworks are developed further into development plan documents for consultation.

7.5 There are a number of high profile strategic road and rail schemes that have been identified to support growth. These include:

- A12 Improvement, Chelmsford to Marks Tey, junction 19 to 25 – to start by March 2020, included in the Roads Investment Strategy (RIS) 1 programme. Options subject to consultation in early 2017, preferred route announcement expected imminently.
- A12 Improvement, Colchester Northern Bypass, junction 25 to 29 – to start by 2025, identified in the Roads Investment Strategy – options to be developed for public consultation.
- A12 Technology Package – upgrade the digital, information and monitoring systems between the M25 and A14.
- A120 Dualling, Braintree to A12 – scheme being developed by ECC for them to make a recommendation on a preferred route to be considered in the Roads Investment Strategy (RIS) 2 programme.
- Great Eastern Mainline – capacity and speed enhancements – 6 key infrastructure schemes at key locations along the line, combined to complete train fleet replacement by Greater Anglia in 2020 increasing capacity, speed and quality of service.

7.6 Some measures are currently under design or shortly to be delivered including:

- A1124 Lexden Road – including bus priority measures on the approach to the Maldon Road roundabout, changes to waiting restrictions and crossing points
- A133 Ipswich Road/Harwich Road Roundabout scheme (to start on site in 2018) replacing the double mini roundabouts with single islands and widening the link between the two junctions to provide capacity enhancements
- A133 Colne Bank Roundabout Capacity Improvements – identified in the SELEP programme for funding.

7.7 Other schemes at the feasibility stage include:

- St Botolphs Roundabout reconfiguration;
- Colchester Station Forecourt enhancement;
- North Station Complex Improvement;
- Warren Lane/Maldon Road Junction improvements;
- Queen Street Enhancements;
- Public transport improvements;
- Rapid Transit to support the Garden Community growth;
- A120/A133 Link related to the Tendring Colchester Borders Garden community.

7.8 Areas identified in the Local Plan Modelling requiring further investigation either by the relevant authority or through transport assessment or statements include:

- A12 Corridor;
 - A120 Marks Tey
 - A12 Junction 26 slip roads
 - A1124 – approach to A12 junction 26/Essex Yeomanry Way
 - A12 Spring Lane Roundabout and slips roads
 - A12 Junction 28
 - Axial Way/Via Urbis Romanae Roundabout (close to J28 of A12)
 - A12 Junction 28 to 29 link
 - A1132 Ipswich Road approach to junction 29
 - A1132 Ipswich Road
- East Colchester A134/A133 Corridor;
 - Haven Road (between Whitehall Road and Haven Road)
 - Colne Causeway and Haven Road Roundabout
 - A134 Elmstead Road Roundabout
 - A133 Greenstead Roundabout
 - A134 Hythe Quay from Colne Causeway to Maudlyn Road
- South/West Colchester A134 (A1124) Corridor;
 - Lexden Road/Maldon Rd/Southway Roundabout
 - Southway – Maldon Road Roundabout to St Botolph's Roundabout
- Isolated Junctions;
 - Colne Bank/Essex Hall/Cymbeline Way
 - A137 Harwich Road/East Street
 - Circular Road South/Berechurch Road/Pownall Crescent
 - B1023 Shrub End Road approach to Maldon Road/Drury Road
 - Old Heath Road/Wimpole Road Junction
 - Mersea Road/Abbots Road/Normandy Road Junction
 - Brook Street/East Hill/East Street junction.

8.0 Next Steps and Delivery

- 8.1 Work will continue to be undertaken with Essex County Council, Highways England and the other transport providers. Solutions for the issues and areas identified need to be developed. There will need to be a prioritisation process undertaken to match the available level of resources and be able to deliver improvements in a timely manner.
- 8.2 Local Plan Policy (and ECC Development Management Policy) requires that developers will be required to submit Transport Statements and or Assessments, and where necessary to mitigate the travel impact of the development. Developers will be required to either deliver improvements directly or make financial contributions through Community Infrastructure Levy and/or Section106 legal agreements.
- 8.3 The County with local authority input have developed the Growth Infrastructure Framework which identified a shortfall in infrastructure funding across the County. This work has been developed further as part of the Essex Growth Model and now includes many of the projects identified in the Local Plan Growth.
- 8.4 The government has announced a £2.3 billion Housing Infrastructure Fund to deliver infrastructure to support housing and economic growth. The Garden Community authorities are currently investigating the funding process and considering an application.
- 8.5 The National Transport Investment Strategy will use the Vehicle Excise Duty to fund strategic trunk road improvements and some major principal local authority routes. The Roads Investment Strategy 2 programme will be developed over the next year, with schemes identified for funding in this period.
- 8.6 It is expected that funds for more local schemes will continued to be channelled through the South East Local Enterprise Partnership. Funding has been secured for recent improvements but support for future schemes needs to be continued. Highways England have been awarded “designated” funding to be invested in schemes which unlock growth, environmental protection, walking and cycling improvements.
- 8.7 Network Rail are currently developing schemes for consideration for inclusion in their next funding period (Control Period 6). Greater Anglia through the franchise have committed to invest in a complete new train fleet.
- 8.8 It is expected that smaller pots of funding for sustainable transport initiatives will be available for air quality improvements, walking and cycling linked to the healthy living agenda and pressure to commit funding to the National Cycle and Walking Investment Strategy.
- 8.9 Officers will continue to work with all partners to deliver improvements to infrastructure in the borough.