

A12 Chelmsford to A120 widening scheme

TR010060

8.12 Statement of Common Ground with Essex County Council

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A12 Chelmsford to A120 widening scheme
Development Consent Order 202[]

Statement of Common Ground with Essex County Council

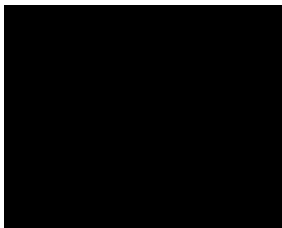
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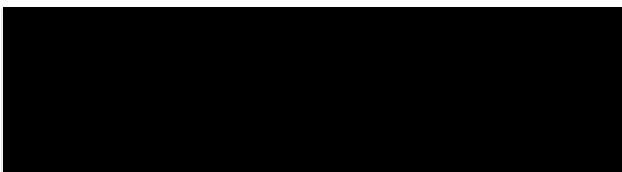
STATEMENT OF COMMON GROUND

This Statement of Common Ground has been prepared and agreed by (1) National Highways Limited and (2) Essex County Council.

There has been extensive engagement on the draft Statement of Common Ground as captured in the Record of Engagement (Table 2.1) and below captures the status of these discussions between both parties. The SoCG will continue to be updated throughout the DCO examination period.



Signed
Phil Davie
Project Director
on behalf of National Highways
Date: 11/04/2023



Signed
Graham Thomas
Head of Planning
on behalf of Essex County Council
Date: 06/04/2023

For the submission of the Statement of Common Ground for Deadline 4, between **National Highways** and **Essex County Council**, updates have been made in the following sections of the document.

Location	Update made
Record of Engagement	Two SOCG meetings, a technical workshop on Main Road and a meeting to discuss WCH detailed design have been held.
Agreed issues	No change.
Issues under discussion	23 topics (2.1, 2.2, 2.4, 2.9, 2.17, 2.22, 2.23, 2.31, 2.32, 2.34, 2.36, 2.38, 2.39, 2.40, 2.41, 2.43, 2.44, 2.49, 2.51, 2.52, 2.53, 2.55 and 2.57) have been updated.
Issues in disagreement	One topic (3.4) moved to issues in disagreement

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1 Introduction

1.1 Purpose of this document

- 1.1.1 This Statement of Common Ground (SoCG) has been prepared in respect of the proposed A12 Chelmsford Widening (the Scheme) made by National Highways Company Limited (National Highways) to the Secretary of State for Transport (Secretary of State) for a Development Consent Order (the Order) under section 37 of the Planning Act 2008 (PA 2008).
- 1.1.2 The Order, if granted, would authorise National Highways to widen the existing A12 to three lanes between junction 19 and 25 in each direction, where it is not already three lanes. This would mainly involve online widening of the carriageway, with offline bypasses created between junctions 22 and 23 (Rivenhall End Bypass) and between junctions 24 and 25 (Kelvedon to Marks Tey). This would be accompanied by junction improvements (junction 19 and 25), construction of new junctions catering for traffic movements both north and southbound (junctions 21, 22 and 24), and removal of existing junctions (junction 20a, 20b and 23).
- 1.1.3 This SoCG does not seek to replicate information which is available elsewhere within the application documents. All documents are available in the deposit locations and/or the Planning Inspectorate website.
- 1.1.4 The SoCG has been produced to confirm to the Examining Authority (ExA) where agreement has been reached between the parties to it, and where agreement has not (yet) been reached and still under discussion, and areas of disagreement. SoCGs are an established means in the planning process of allowing all parties to identify and so focus on specific issues that may need to be addressed during the examination.

1.2 Parties to this Statement of Common Ground

- 1.2.1 This SoCG has been prepared by (1) National Highways (formerly known as Highways England) as the Applicant and (2) Essex County Council.
- 1.2.2 National Highways became the Government-owned Strategic Highways Company on 1 April 2015. It is the highway authority in England for the strategic road network and has the necessary powers and duties to operate, manage, maintain and enhance the network. Regulatory powers remain with the Secretary of State. The legislation establishing National Highways made provision for all legal rights and obligations of the Highways Agency, including in respect of the Application, to be conferred upon or assumed by National Highways.
- 1.2.3 Essex County Council is a prescribed consultee under Section 43 of the PA 2008 as the host highway authority.

1.3 Terminology

- 1.3.1 In the tables in the Issues chapter of this SoCG, “In disagreement” indicates a draft final position, and “Under discussion” where these points will be the subject of on-going discussion wherever possible to resolve, or refine, the extent of disagreement between the parties. “Agreed” indicates where the issue has been resolved.
- 1.3.2 It can be taken that any matters not specifically referred to in the Issues chapter of this SoCG are not of material interest or relevance to Essex County Council, and therefore have not been the subject of any discussion between the parties. As such, those matters can be read as agreed, only to the extent that they are either not of material interest or relevance to Essex County Council.

2 Record of Engagement

- 2.1.1 A summary of the meetings that has taken place between National Highways and **Essex County Council** in relation to the Application is outlined in table [2.1].

Table 2.1 Record of Engagement

Date	Form of correspondence	Key Topic discussed and key outcomes (the topics should align with the Issues tables)
27 June 2016	Letter/Email	Contact key local authorities to identify single point of contact and request a meeting.
July/August 2016	Meeting	Engage with identified officer-level contact for key local authorities to discuss programme for the project, communications and understand local plans and issues which might impact the development of options.
16 September 2016	Members Forum meeting	To inform forum members about the consultation and the principles of a good consultation, as well as providing a project update.
8 November 2016	NMU workshop/meeting	Early engagement with technical stakeholders to get understanding of key issues.
10 November 2016	Road users’ workshop	Early engagement with technical stakeholders to get understanding of key issues.
25 November 2016	Members Forum meeting	Update on progress and the forthcoming consultation, preview of materials for consultation. Update on emerging options / preview options identified for engagement.
23 January 2017	Members Forum	To announce route options for consultation and launch the consultation to local elected members and senior officers. The press will also be invited

Date	Form of correspondence	Key Topic discussed and key outcomes (the topics should align with the Issues tables)
5 April 2017	DCO Planning Meeting	To go through the DCO process with the local authority planning leads, and explain what their involvement will be in the process.
23 May 2017	Environmental Workshop	Three workshops to provide the opportunity to discuss technical issues and to gather feedback for next steps.
30 May 2017	Consultation Response meeting	To discuss their consultation response and answer any specific questions they may have.
7 July 2017	Members Forum meeting	To inform forum members about the consultation, as well as providing a project update.
3 October 2019	Members Forum meeting	Provide an overview of the A12 scheme, including work that has taken place to date and provide an update on the way forward for the scheme, with a focus on the upcoming consultation.
19 February 2020	Members Forum meeting	<p>To provide an overview of how the consultation went</p> <ul style="list-style-type: none"> • How many people attended events • Feedback on the door • Responses received to date (members' forum will be given indication on the most popular route) <p>Feedback on how we can improve future events</p>
21 July 2020	Junction Workshop	To discuss the updates at junctions 20a/20b and the new junction 21.
14 August 2020	Junction Workshop	To discuss the updates at junction 22.
19 August 2020	Members' Forum	<p>To provide a scheme update:</p> <ul style="list-style-type: none"> • Project update • Overview of how the schemes will now be drawn back together • Overview of how, when a PRA is announced, it will be managed (publicity etc)
15 September 2020	Junction Workshop	To discuss the updates of designing junction 24.

Date	Form of correspondence	Key Topic discussed and key outcomes (the topics should align with the Issues tables)
25 September 2020	De-trunking workshop	To discuss the road strategy.
1 October 2020	Junction 25 workshop	To discuss the updates of designing junction 24.
21 October 2020	Workshop	To update on the junction 24 design
23 October 2020	Workshop	To discuss the updates of designing junction 19.
24 November 2020	Local roads workshop	To discuss the road strategy.
26 November 2020	Members Forum meeting	To provide a scheme update: <ul style="list-style-type: none"> • Project update • Design update
1 December 2020	WCH Workshop	To discuss the WCH strategy
4 February 2021	Junction 22 Workshop	Provide an update on design fix 1 and get feedback.
4 February 2021	De-trunking workshop	Provide an update on design fix 1 and get feedback.
22 February 2021	Junction 19 workshop	Provide an update on design fix 1 and get feedback.
26 February 2021	Junction 24 workshop	Provide an update on design fix 1 and get feedback.
26 February 2021	Junction 25 workshop	Provide an update on design fix 1 and get feedback.
4 March 2021	Local roads workshop	Provide an update on design fix 1 and get feedback.
8 March 2021	Members Forum meeting	Provide an update on design fix 1 and get feedback.
8 April 2021	SoCC meeting with Essex planning	To discuss their SoCC response
11 May 2021	Junction 19 to 22 workshop	Provide an update on design fix 2 and get feedback.
18 May 2021	Junction 25 and junction 25 workshop	Provide an update on design fix 2 and get feedback.
24 May 2021	Detrunking workshop	Provide an update on design fix 2 and get feedback.

Date	Form of correspondence	Key Topic discussed and key outcomes (the topics should align with the Issues tables)
7 June 2021	Members Forum meeting	Present design and arrangements for stat con
29 September 2021	A12 Workshop	To discuss the next steps for the project, including further consultations
7 October 2021	Members Forum meeting	Discuss consultation feedback, provide a project update and discuss the supplementary consultation
3 November 2021	Traffic Workshop	Discuss consultation feedback, provide a project update and discuss clarity around specific traffic concerns from Essex County Council.
19 November 2021	Environmental Meeting with Philip Dash	Discuss stat con responses on material assets and waste
3 December 2021	Local roads workshop	To discuss road strategy
10 December 2021	Traffic Workshop	Discuss consultation feedback, provide a project update and discuss clarity around specific traffic concerns from Essex County Council.
27 January 2022	Traffic Workshop	Discuss consultation feedback, provide a project update and discuss clarity around specific traffic concerns from Essex County Council.
9 February 2022	Strategic Collaboration Board	High level meeting with NH and ECC
10 February 2022	De-trunking workshop	Discuss future de-trunking agreement and initial views of next steps.
3 March 2022	Members Forum	To provide an update on the project
9 March 2022	Strategic Collaboration Board	High level meeting with NH and ECC
10 March 2022	De-trunking workshop	Workshop to discuss detrunking process
28 March 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
20 April 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
12 May 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council

Date	Form of correspondence	Key Topic discussed and key outcomes (the topics should align with the Issues tables)
26 May 2022	Place Services meeting	To discuss barbastelle bats and dormice
1 June 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
8 June 2022	Road Users Workshop	To provide an overview of A12 project to road users, including Walking, Cycling and Horse-riding plans
13 June 2022	Councillor Wagland briefing	Meeting with Councillor Wagland to discuss A12 project
20 June 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
15 July 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
22 July 2022	Members Forum	To provide an update on the project
28 July 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
11 August 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
25 August 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council. Concentrating on Environmental issues.
8 September 2022	Construction and OCTMP meeting	Review of OCTMP with Essex County Council.
13 September 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
7 October 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
12 October 2022	Strategic Collaboration Board	High level meeting with NH and ECC
25 October 2022	Stage 5 – Detailed Design workshop	Introduction workshop to Stage 5 Detailed Design.
4 November 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council
10 November 2022	Environment SoCG meeting	To discuss the environmental topics within the Statement of Common Ground
18 November 2022	SoCG meeting	To discuss the Statement of Common Ground with Essex County Council

Date	Form of correspondence	Key Topic discussed and key outcomes (the topics should align with the Issues tables)
29 November 2022	A12 Stage 5 TWG1 November	Stage 5 discipline specific workshop
1 December 2022	A12 Stage 5 TWG2 November	Stage 5 discipline specific workshop
6 December 2022	A12 Stage 5 TWG3 November	Stage 5 discipline specific workshop
16 January 2023	Detrunking meeting	Meeting to discuss detrunking plans
16 January 2023	SO CG meeting	To discuss the Statement of Common Ground with Essex County Council
30 January 2023	A12 Stage 5 TWG1 January	Stage 5 discipline specific workshop
31 January 2023	A12 Stage 5 TWG2 January	Stage 5 discipline specific workshop
2 February 2023	A12 Stage 5 TWG3 January	Stage 5 discipline specific workshop
3 February 2023	A12 Stage 5 TWG4 January	Stage 5 discipline specific workshop
21 February 2023	SoCG meeting – WCH and Main Road	Meeting to discuss WCH and Main Road, Boreham
13 March 2023	SoCG meeting – Highways matters	Meeting to discuss highway matters under discussion including junction 19, junction 21, Main Road and junction 24.
22 March 2023	SO CG meeting – Main Road technical workshop	Technical workshop to discuss Main Road.
28 March 2023	WCH overbridges	Meeting to discuss detailed design of WCH overbridges post DCO

2.1.2 It is agreed that this is an accurate record of the key meetings and consultation undertaken between (1) National Highways and (2) Essex County Council in relation to the issues addressed in this SOCG. Additional correspondence has also taken place with a view to finalising the SoCG.

2.1.3 The issues and matters highlighted in Section 3 of this SoCG summarise the key issues that have been identified in relation to a number of key areas of the DCO application.

3 Issues

3.1 Introduction

- 3.1.1 This section summarises the key issues explored by Essex County Council (ECC) and National Highways.
- 3.1.2 Section 3.2 summarises the issues agreed between ECC and National Highways. The full detail of the issue and the response for National Highways can be seen in table 4.1.
- 3.1.3 Section 3.3 summarises the issues under discussion between ECC and National Highways. The full detail of the issue and the response for National Highways can be seen in table 4.2.
- 3.1.4 Section 3.4 summarises the areas of disagreement between ECC and National Highways. The full detail of the issue and the response for National Highways can be seen in table 4.3.

3.2 Summary of issues agreed

Table 3.1 Summary of agreed issues between Essex County Council and National Highways.

Ref No.	Topic	Issue	Status	Date
1.1	Engagement	Adequacy of consultation	Agreed	18/11/2022
1.2	Detailed drawings	Request for additional detailed drawings	Agreed	28/07/2022
1.3	Cultural Heritage	Historic landscape surveys before construction	Agreed	10/11/2022
1.4	Cultural Heritage	Photographic surveys before construction	Agreed	10/11/2022
1.5	Vegetation	Provision of vegetation reinstatement strategy	Agreed	10/11/2022
1.6	Human health	Consideration of local Health & Wellbeing strategies within the Environmental Statement	Agreed	10/11/2022

Ref No.	Topic	Issue	Status	Date
1.7	Passenger transport	Bus access at Coggeshall Road at Marks Tey	Agreed	27/01/2023

3.3 Summary of issues in discussion

Table 3.2 Summary of issues in discussion between Essex County Council and National Highways

Ref No.	Topic	Issue	Status	Date
2.1	Traffic modelling	Request from ECC for further traffic modelling detail	Under discussion	06/04/2023
2.2	Main Road	Speed limits and enforcement on B1137 Main Road, Boreham	Under discussion	28/03/2023
2.3	Junction 19	Compatibility of Junction 19 with longer-term plans to dual the proposed Chelmsford North East Bypass (CNEB).	Under discussion	01/12/2022
2.4	Junction 21	Uncertainty regarding traffic impact at Duke of Wellington junction (Maldon Road/The Street) and consideration of requirements for future link road	Under discussion	13/03/2023
2.5	Junction 24	Inworth Road roundabout - optioneering process and further design development	Under discussion	01/12/2022
2.6	Inworth Road	Inworth Road – mitigation and pinch points	Under discussion	01/12/2022
2.7	Inworth Road	Inworth Road – mitigation for rat-running	Under discussion	01/12/2022
2.8	Junction 23	Evidence to confirm that the A12 scheme has taken appropriate account of the evolving proposals for the A120 Braintree to A12 scheme	Under discussion	01/12/2022
2.9	Monitoring and evaluation	Monitoring the actual impacts of the scheme in operation for an agreed period after opening	Under discussion	16/03/2023

Ref No.	Topic	Issue	Status	Date
2.10	Walking, cycling and horse-riding	Accordance with the DfT's guidance on cycle infrastructure design (LTN 1/20) across the proposed scheme	Under discussion	01/12/2022
2.11	Structural design and aesthetics	Design of key 'gateway' bridges and evidence of Design Council Review	Under discussion	19/01/2023
2.12	Passenger transport	Location and specification of bus stop facilities (including solar canopies)	Under discussion	01/12/2022
2.13	Passenger transport	Decarbonisation Strategy	Under discussion	27/01/2023
2.14	Passenger transport	Retention and upgrading of all Marks Tey bus stops	Under discussion	01/12/2022
2.15	Passenger transport	Passenger transport facilities in Rivenhall End	Under discussion	27/01/2023
2.16	Construction	Request for ECC Transport teams to be involved in development of Construction Environment Management Plans	Under discussion	18/11/2022
2.17	Construction	Unclear how retained trees and vegetation will be protected during construction	Under discussion	06/04/2023
2.18	Construction	Use of health care facilities in Essex during construction	Under discussion	27/01/2023
2.19	Construction	Greener construction methods by incorporating green methods of working	Under discussion	18/11/2022
2.20	Construction	Access and delays to journey times for school transport	Under discussion	18/11/2022
2.21	Construction	Station Road bridge replacement's impact on access to Hatfield Peverel Station	Under discussion	27/01/2023
2.22	Biodiversity	How biodiversity net gain will be achieved	Under discussion	06/04/2023
2.23	Biodiversity	Impact of the scheme on aboriginal features	Under discussion	16/03/2023

Ref No.	Topic	Issue	Status	Date
2.24	Carbon	Carbon offset. Provision for reduction and offsetting of carbon emissions	Under discussion	10/11/2022
2.25	Carbon	Measurement of carbon footprint of the whole development through its lifecycle	Under discussion	27/01/2023
2.26	Landscape	Photomontage and visualisation – addition of sequential visual effects to be considered	Under discussion	10/11/2022
2.27	Landscape	Development of preliminary Environmental Masterplan and Landscape and Ecological Management Plan	Under discussion	18/11/2022
2.28	Landscape	Opportunities for advanced planting and its implementation	Under discussion	10/11/2022
2.29	Landscape	Analysis of Local Landscape character areas and assessment of National character areas	Under discussion	21/11/2022
2.30	Heritage	Built heritage impact assessment	Under discussion	10/11/2022
2.31	Habitats	Mapping and importance of Barbastelle bats	Under discussion	06/04/2023
2.32	Habitats	Concerns regarding the Dormice survey	Under discussion	16/03/2023
2.33	Habitats	Reporting on badgers and consideration of designated sites	Under discussion	10/11/2022
2.34	Air quality	Air quality and noise assessments	Under discussion	16/03/2023
2.35	Minerals and waste	Evidence that the impacts of the planned IWMF have been taken into account	Under discussion	10/11/2022
2.36	Drainage	Drainage design criteria	Under discussion	16/03/2023
2.37	Replacement land	Internal ECC discussions on Replacement Land	Under discussion	27/01/2023
2.38	Historic environment	Impact of archaeology and geoarchaeology yet to be addressed	Under discussion	16/03/2023

Ref No.	Topic	Issue	Status	Date
2.39	Historic environment	Identification of mitigation areas required	Under discussion	16/03/2023
2.40	Historic environment	Roman roads mitigation strategy	Under discussion	16/03/2023
2.41	Historic environment	Further clarification of Palaeolithic archaeology mitigation strategy	Under discussion	06/04/2023
2.42	Landscape	Veteran tree assessment and management strategy	Under discussion	27/01/2023
2.43	Historic buildings	Requirement for a cultural and built heritage specialist	Under discussion	16/03/2023
2.44	Historic buildings	Requirement for a Historic Buildings Management plan	Under discussion	16/03/2023
2.45	Archaeology	Clarification of roles of the archaeological curators and excavation strategy	Under discussion	15/12/2022
2.46	REAC	Long-term publication and archiving of the archaeological and geoarchaeological resource.	Under discussion	15/12/2022
2.47	Slow Vehicles	Diversion routes through Witham for slow vehicles	Under discussion	16/01/2023
2.48	Construction	Speed limits during construction	Under discussion	27/01/2023
2.49	Social value	Social value plan commitments and identification of how benefits will be ensured	Under discussion	16/03/2023
2.50	Social value	Mitigation of impacts on land allocated for employment and commercial uses	Under discussion	27/01/2023
2.51	Drainage	Plan required for structures, drainage and assets the Highways Authority will become liable for	Under discussion	16/03/2023
2.52	Drainage	Inclusion of a drainage system on Inworth Road	Under discussion	16/03/2023
2.53	Drainage	Amendments to the drainage and Green Infrastructure proposals, pollutant mitigation required.	Under discussion	16/03/2023

Ref No.	Topic	Issue	Status	Date
2.54	Asset information	List and plans required for structures, drainage and other assets for which it is proposed ECC will be liable	Under discussion	27/01/2023
2.55	Little Braxted Lane	Design of Little Braxted Lane to deter HGVs travelling southbound	Under discussion	06/04/2023
2.56	Geoarchaeological assessment	Additional information, in line with the geoarchaeological specialist recommendations	Under discussion	08/12/2022
2.57	Recovery of ECC Costs	Provisions for ECC to recover costs for works associated with DCO	Under discussion	16/03/2023

3.4 Summary of issues in disagreement

Table 3.3 Summary of issues in disagreement

Ref No.	Topic	Issue	Status	Date
3.1	Detrunking	Essex County Council believe that the approach to the de-trunked sections put forward by NH is unacceptable and represents a significant missed opportunity.	In disagreement	08/12/2022
3.2	Detrunking	Junction 22 to Rivenhall End – suggestions made by ECC	In disagreement	08/12/2022
3.3	Detrunking	Junction 24 to Marks Tey – suggestions made by ECC	In disagreement	08/12/2022
3.4	Electric vehicle charging	Investment in electric vehicle infrastructure and renewable energy generation	In disagreement	16/03/2023

4 Issues

4.1 Issues agreed

Table 4.1 Issues agreed between Essex County Council and National Highways.

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
1.1	Adequacy of consultation	Consultation Report, Annex F, Published Statement of Community Consultation [APP-052]	<p>Essex County Council and National Highways recognise the impact that COVID-19 has had on working practices during this time.</p> <p>The Councils' capacity to fully engage with the Stage 1 Consultation has been impacted by the unprecedented impacts of the COVID-19 pandemic. The officer comments have been limited by priority commitments to addressing the COVID 19 response. Site visits were also cancelled due to home working. Whilst some officers could provide limited input, some officers were unable to provide comments on the Stage 1 Consultation at all due to COVID-19 impacts.</p>	<p>Extensive engagement has taken place with the council, including consultation on the Statement of Community Consultation. Engagement has continued since the statutory consultation and will continue to take place as the council is viewed by National Highways as a vital stakeholder in the delivery of the proposed A12 scheme.</p> <p>The project team wrote to the council on this issue on the 11th October 2020. While no response to our letter was received, National Highways consider this has been resolved.</p>	Agreed.	18/11/2022
1.2	Detailed drawings	General Arrangement Plans 1-5 [APP-020] [APP-021] [APP-022] [APP-023] [APP-024]	<p>More detailed drawings that show the current proposed arrangement in sufficient detail are required scheme wide. These should ideally be at 1:1250 scale (rather than</p>	<p>National Highways have provided access to the projects Project Mapper system to allow Essex County Council (ECC)</p>	Agreed.	28/07/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			1:2500), as was produced in support of similar schemes such as the A47 Wansford to Sutton dualling DCO submission. General Arrangement (GA) plans should also be provided for the proposed new and amended structures, as was done for the A428 Black Cat to Caxton Gibbet scheme.	detailed looks of current design plans. Access has also been given to CAD drawings in order to assist ECC with viewing additional information required.		
1.3	Historic landscape survey	Environmental Statement, Chapter 7, Cultural Heritage [APP-074]	Some discussion of the proposed mitigation measures is presented, which include retained mature vegetation, new tree planting and new hedgerow planting. Whilst this form of mitigation can help to soften the visual impact, it can also be subject to change through seasonal changes, pruning or complete removal. It is therefore recommended that further design mitigation methods are fully explored. A photographic survey and historic landscape survey are suggested, to make a record of the historic landscapes, the condition of the heritage assets	A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES. At this meeting, the following information was shared: <ul style="list-style-type: none"> Heritage mitigations are presented in Section 7.10 of Chapter 7 Cultural Heritage. Heritage features helped inform the sensitivity of the 	Agreed.	10/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			and their setting before construction begins.	<p>landscape and are relevant to the assessment of landscape and visual effects.</p> <ul style="list-style-type: none"> Landscape mitigations are also developed with heritage assets in mind. <p>In line with Historic England guidance, historic landscape surveys have been recommended as mitigation, where appropriate, as specified in the Archaeological Mitigation Strategy [APP-118]. Landscape measures to mitigate impacts from the proposed scheme on the setting of heritage assets and an assessment of the effectiveness of mitigation measures, is included in Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074].</p>		
1.4	Photographic survey	Environmental Statement,	A photographic survey and historic landscape survey is	A Statement of Common Ground meeting focusing	Agreed.	10/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		Chapter 7, Cultural Heritage [APP-074]	suggested, to make a record of the historic landscapes, the condition of the heritage assets and their setting before construction begins. This should also provide data for landscaping and embedded (design) mitigation, along with additional bespoke mitigation measures, specifically designed to reduce the impact of the scheme on the setting of the heritage assets that are adversely affected. For example, the construction of banks or a ridge with a gentle back slope towards the heritage asset, along with screening, to soften the visual intrusion in viewpoints to and from sensitive assets. A full account of these proposed mitigation measures should be included within the heritage chapter of the Environmental Statement, along with an assessment of their effectiveness.	<p>on Environment topics was held on 25 August 2022. Where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> • Heritage mitigations are presented in Section 7.10 of Chapter 7 Cultural Heritage. • Heritage features helped inform the sensitivity of the landscape and are relevant to the assessment of landscape and visual effects. • Landscape mitigations are also developed with heritage assets in mind. <p>In line with Historic England guidance, historic landscape surveys have been recommended as mitigation, where</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				appropriate, as specified in the Archaeological Mitigation Strategy [APP-118]. Landscape measures to mitigate impacts from the proposed scheme on the setting of heritage assets and an assessment of the effectiveness of mitigation measures, is included in Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074].		
1.5	Vegetation reinstatement	Environmental Masterplan [APP-086] [APP-087] [APP-088]	Where reinstatement of vegetation/ GI is not possible will the scheme consider offsetting on land parcels adjacent or near to the A12 or contribute to Blackwater River catchment or Whetmead Local Nature Reserve for instance?	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> Figure 2.1 Environmental Masterplan [APP-086] [APP-087] [APP-088] <p>Land within the Order Limits is identified to mitigate the loss of existing vegetation so that off-site offsetting is not required.</p>	Agreed.	10/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				<p>This is shown on the Environmental Masterplan.</p> <p>Paragraphs 9.10.26 to 9.10.31 in Chapter 9: Biodiversity, of the Environmental Statement [APP-076] outline measures specific to how impacts of habitat loss at Whetmead Local Nature Reserve would be mitigated. This includes the creation of new habitat south of the river brain, as shown on sheet 8 of the Environmental Masterplan, part 1 [APP-08].</p>		
1.6	Human health	Environmental Statement, Chapter 13, Population and Human Health [APP-080]	<p>PEIR included references to relevant Health and Wellbeing Strategies including:</p> <ul style="list-style-type: none"> • Essex Joint Health and Wellbeing Strategy 2018 – 2022 • Chelmsford Health & Wellbeing Plan 2019 • The Braintree District Livewell Strategy 2019 – 2023 	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> • Essex Joint Health and Wellbeing Strategy 	Agreed.	10/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<ul style="list-style-type: none"> Colchester Borough Council is part of the Livewell Essex campaign / initiative <p>Essex County Council would expect the Environmental Statement to do the same.</p> <p>ECC notes and supports the inclusion within the PEIR of references to the relevant Health and Wellbeing Strategies that are in place for the areas to be affected by the scheme.</p> <p>ECC considers these strategies and initiatives to be key reference points that the current work and ensuing ES need to reflect, as evidence-based foci of local health and wellbeing priorities.</p>	<p>2018-2022 considered in the ES. See Table 13.15 - Sources for the baseline conditions in Chapter 13: Population and Human Health, of the Environmental Statement [APP-080].</p> <p>The Essex Joint Health and Wellbeing Strategy 2018 – 2022 (the JHWS) was primarily used because this is the overarching strategy for the districts in the study area and responds directly to the Joint Strategic Needs Assessment (JSNA). The JHWS is the statutorily required document under the Local Government and Public Involvement in Health Act 2007 (as amended by the Health and Social Care Act 2012).</p>		
1.7	Passenger Transport		There are concerns over bus access to Coggeshall Road at Marks Tey.	Due to the need to increase the capacity of the A120 – Marks Tey Roundabout, the southern end of the	Agreed	01/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			This is the only way for buses to serve Marks Tey and surrounding villages. As well as carrying key interurban bus services between Colchester and Braintree.	A120 needs to be widened. Due to existing constraints to the north of the A120, the majority of this widening is proposed to be to the south and is not compatible with the existing junction arrangement. The buses use the existing A12 mainline, turn left at the Marks Tey Roundabout, and stop within the bell mouth junction. It is anticipated that the existing bus stop could be relocated to the new southern kerb-line of Coggeshall Road and as such, there would be no meaningful change to the possible bus movements that exist today.		
1.8	Minerals and waste	Environmental Statement, Chapter 11 Material Assets and Waste [APP-078]	The Minerals and Waste Planning Authority (MWPA) notes that the proposed scheme will, without prior extraction, result in the sterilisation of land safeguarded in the Adopted Minerals and Waste Plan. Whilst the MWPA considers that a more positive, sustainable approach to the use of unexcavated minerals	Meetings were held with ECC's Planning Services Team (Minerals and Waste) on the 05 February 2021 and 19 November 2021 to respectively discuss our responses to ECC's Scoping Opinion and Statutory Consultation comments and agree any	Agreed	18/01/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>could potentially have been realised earlier in the Development scheme the MWPA accepts that it has no information to demonstrate that prior extraction opportunities would definitely exist within the Order Limits. Furthermore the MWPA accepts that this is not now practical as the potential benefit is outweighed, when considered on planning balance, by the significant delays this would cause to this strategic DCO proposal.</p> <p>The MWPA accepts the findings of the Minerals Infrastructure Assessment (MIA).</p> <p>The MWPA accepts the findings of the Waste Infrastructure Assessment (WIA).</p>	<p>necessary changes to the scope or methodology for this aspect of the Environmental Statement.</p> <p>A detailed record of our responses was issued to ECC following these meetings, with a summary of these responses also being included in Chapter 11 [APP-078] and Appendix 5.1 [APP-096] of the Environmental Statement.</p> <p>A follow-on meeting was held with ECC's Principal Planning Officer (National Strategic Infrastructure Projects) on the 18 January 2023 to go through Chapter 11 and see how it allies with the comments ECC has made to National Highways in consultation on this aspect of the Environmental Statement.</p> <p>No outstanding issues were identified by ECC at this meeting, and it was therefore recommended by ECC that this issue be</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				reclassified from 'In discussion' to 'Agreed'.		

4.2 Issues under discussion

Table 4.2 Issues under discussion between Essex County Council and National Highways

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
2.1	Traffic modelling	<p>Combined modelling and appraisal report [APP-261]</p> <p>SoCG Appendices A, C, D, E & F</p>	<p>Essex County Council requires further detailed information on the traffic modelling of a number of key junctions affected by the proposed scheme.</p> <p>The COMMA report and Transport Assessment provide the majority of the transport modelling necessary to ascertain the impact of the A12 scheme on the highway network. However, further information is required to:</p> <ul style="list-style-type: none"> • Demonstrate that the proposed new junctions will operate satisfactorily with cycle facilities designed in accordance with LTN1/20 • Confirm the impact of redistributed traffic on local junctions 	<p>National Highways held regular traffic workshops to discuss all concerns regarding traffic modelling with Essex County Council. These meetings were held, as shown in Table 2.1.</p> <p>These meetings were superseded by Statement of Common Ground working group meetings.</p> <p>As of 22 February 2023, the ECC Additional Modelling Requests listed in Appendix F, were shared with ECC on 22 February 2023, these slides are available in Appendix G.</p> <p>In addition, Appendix B of the Applicant's Comments on Essex County Council's Local Impact</p>	Under discussion	06/04/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<ul style="list-style-type: none"> • Establish the reasonableness of strategic journey time modelling at key locations <p>ECC has set out its remaining concerns in the following documents:</p> <ul style="list-style-type: none"> • ECC Amended Walking, Cycling and Horse-Riding Matrix – see SoCG Appendix C • ECC Additional Modelling Requests – see SoCG Appendix F <p>Both of these documents request additional modelling from NH, over and above the ‘SATURN results for Junction 21’ listed to the right.</p> <p>ECC’s response to National Highways Letter dated 1 December 2022 can be seen in Appendix E of this SoCG</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix D.</p> <p>ECC is reviewing the additional information provided on 22 February 2023 and expect to respond to National Highways on this shortly.</p>	<p>Report [REP3-021] included the traffic data pack issued to the Council in May 2022, which provided 195 slide of traffic data, responding to the Council’s previous request.</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
2.2	B1137 Main Road, Boreham	<p>Transport Assessment Appendix C [APP-256]</p> <p>SoCG Appendices A, D & E</p>	<p>Forecast traffic flows on Main Road, Boreham, with the A12 scheme in place, have been modelled assuming reduced speed limits on the B1137. No measures have been proposed by NH to ensure that the reduced speed limits will be adhered to – thereby calling into question the validity of the forecast traffic flows in this location.</p> <p>ECC does not support the proposed speed limit reduction on the stretch of the B1137 between Boreham and Hatfield Peverel to 40mph, because the nature of this road is such that compliance with a 40mph speed limit is likely to be an issue. Further traffic modelling is required to ascertain the impact of 50mph and 60mph speed limits on this section of road.</p> <p>ECC supports the proposed speed limit reduction on the B1137 through Boreham to 30mph. However, a reduction in the speed limit alone is unlikely to be sufficient to ensure lower speeds. ECC consider that a package of measures is required to discourage strategic traffic from routing through Boreham to access Junction 19. These measures could include new pedestrian crossings, village entry treatments and potentially speed cameras, and a</p>	<p>National Highways wrote to Essex County Council on 1 December 2022 to outline the proposed scheme position on Boreham and the B1137 which can be seen in Appendix A.</p> <p>As detailed in Appendix A, the proposed scheme does not see a need for additional interventions but are open to further discussions.</p> <p>A Statement of Common Ground meeting was held on Monday 13 March 2023 to further discuss Main Road, Boreham. The outcome of this meeting was to hold a technical workshop on measures on 22 March. On 6 April 2023 the council provide National Highways with example general arrangement drawings of previously constructed narrowing. The drawings will now be considered by National Highways.</p>	Under discussion	28/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>commitment to delivering suitable measures is required from NH</p> <p>ECC's response to National Highways Letter dated 1 December 2022 can be seen in Appendix E.</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix D</p>			
2.3	Junction 19	SoCG Appendices A, D & E	<p>The proposed improvements at Junction 19 are not demonstrably compatible with wider development proposals in the vicinity of the junction, including the longer-term plan to dual the proposed Chelmsford North East Bypass (CNEB).</p> <p>Although the dualling of CNEB is not yet committed, it will play a key part in supporting planned growth in the area. Better understanding is required of the compatibility of Junction 19 with wider development proposals in the vicinity of the junction, including CNEB.</p> <p>ECC seeks a commitment from NH to a joint study to collectively understand what further changes may be required to the junction in the future – post completion of the A12 widening project – and how these could be delivered.</p>	<p>National Highways wrote to ECC on 1 December 2022, which can be seen in Appendix A, to outline National Highways' position on this.</p> <p>The letter explained that as the dualled CNEB is not a committed scheme it is not provided for in the A12 project design. The dualled CNEB would tie into the strategic road network at junction 19 and ECC should follow the standard process, with an approach to the National Highways Spatial Planning team at the appropriate time. The team is best placed to consider advise on emerging and proposed development and infrastructure.</p>	Under discussion	01/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>ECC's response to National Highways Letter dated 1 December 2022 can be seen in Appendix E.</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix D</p>			
2.4	Maldon Road/ The Street Junction	<p>Environmental Statement Chapter 3, Appendix 3.2, Maldon Road technical report [APP-094]</p> <p>SoCG Appendices A, D & E</p>	<p>Modelling of future 'with' and 'without' scheme traffic flow conditions at the Duke of Wellington junction (Maldon Road/The Street) may be underestimating the impact of the A12 scheme, thereby underestimating the need for additional highway improvements.</p> <p>ECC welcomes the planned widening of the verge platform at the Junction 21 on-slips, to enable the slip roads to be more easily widened in the future to accommodate a future bypass. However, in practice widening of these on-slips at a later date will still represent a significant, disruptive and costly endeavour that will represent a major challenge to delivering a bypass.</p> <p>ECC believes there is a good case for NH providing widened Junction 21 on-slips from the outset, to ensure a future bypass could be constructed off-line and with minimal disruption to the SRN,</p>	<p>National Highways wrote to Essex County Council on 1 December 2022 to outline the proposed scheme position on Junction 21 which can be seen in Appendix A.</p> <p>The A12 project team has undertaken detailed analysis of the proposals for a Maldon Link Road, and this has been outlined in Chapter 3 of the Environmental Statement. A Maldon Link Road proposal does not fall within the scope of the A12 project, but in response to requests from ECC, we provided a capacity note to show what effect a future link might have on junction 21 and the current embankment at the start of junction 21 on-slips could be redesigned to accommodate future widening, which would further help the delivery of a Maldon Link Road.</p>	Under discussion	13/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>and requests that NH amend the design of Junction 21 accordingly.</p> <p>In addition, ECC would like to build on the feasibility work that ECC and NH have undertaken to date to the point of jointly identifying the preferred option for a Maldon Road bypass. ECC is currently scoping this work and would like a commitment from NH to contribute towards the cost of this work and to providing technical design input on the connectivity with Junction 21.</p> <p>ECC's response to National Highways Letter dated 1 December 2022 can be seen in Appendix D.</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix E</p>	<p>This was further discussed in a Statement of Common Ground meeting on Monday 13 March 2023.</p>		
2.5	Inworth Road	Junction 24, Inworth Road and Community Bypass Technical note [APP-095]	<p>The A12 proposals for Inworth Road are insufficiently developed and do not adequately mitigate the impact of the A12 DCO scheme.</p> <p>It is not clear what optioneering has been undertaken in arriving at the current design and location of the proposed new roundabout on Inworth Road. ECC believes that further design development is required to provide</p>	<p>When the project made the decision to relocate the existing Junction 24, National Highways looked at a number of locations in the proximity of Inworth Road. The report on this optioneering assessment is Appendix D within the Scheme Assessment Report Addendum which is accessible here: https://highwaysengland.citizenspace.com/he/a12-chelmsford-to-a120-</p>	Under discussion	01/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>assurance that the roundabout will operate safely and satisfactorily and ultimately be suitable for its intended purpose. This should include providing clarity on the horizontal alignment and forward visibility on the approaches to the roundabout.</p>	<p>widening-scheme-23-to-25/results/a12chelmsfordtoa120widening-schemeassessmentreportaddendum.pdf</p> <p>The principle that sits behind the proposal is to use the Inworth Road Roundabout as the feature that forms the transition between the Strategic Road Network to the local road network and therefore encourages drivers to behave in a manner that is appropriate to the network they are on, considering these networks are very different in nature. As discussed previously, this is a design principle that ECC technical partner Systra agrees with.</p> <p>The request to extend the existing 30mph speed limit on the B1023 north towards Feering, which has been made by local residents and the relevant Parish Council, is one that National Highways agrees with on a technical level. The approaches and exits of the proposed roundabout have been designed in accordance with Manual for Streets which is the appropriate standard for local roads which are not solely focussed on the conveyance of</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				<p>vehicular traffic. Conversely, designing these links with generous geometry akin to the Strategic Road Network would give drivers the wrong impression about the local road nature of the B1023 and Kelvedon Road, and could encourage drivers to accelerate as they approach the proposed roundabout.</p> <p>Considering the above, National Highways doesn't believe it's appropriate to design any junction at this location which is not in accordance with a Manual for Streets 30mph limit. We have however shared 2D models of Junction 24 with Systra, should ECC wish to undertake its own geometry assessments for differing standards.</p>		
2.6	Inworth Road – mitigation measures	Junction 24, Inworth Road and Community Bypass Technical note [APP-095]	<p>Additional measures are required to help ensure the B1023 is able to safely accommodate the expected increase in traffic and measures are required to reduce the potential for rat-running on local roads.</p> <p>While ECC welcomes the proposals to widen pinch points on the B1023 to a minimum carriageway width of 6.1m there are several pinch points which are not currently proposed to be widened.</p>	The proposed enhancements are restricted to the section of B1023 through Inworth settlement where there is a footway on one or both sides. This is to address the existing hazard in the area of pinch points of drivers avoiding oncoming vehicles by over-running the footway, putting pedestrians at risk. The modelled increase in traffic flows would, without mitigation, increase the	Under discussion	01/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>This approach is inconsistent, and the scope of these localised widening works should include the pinch points south of the garden centre, to the junction with the B1022 and Hinds Bridge, to the north of the A12.</p> <p>A knock-on effect of widening pinch points on the route may be that vehicle speeds increase and for this reason measures for encouraging compliance with the proposed speed limits may be necessary. In any case, ECC believes that further walking and cycling improvements should be included in the proposals to offset the impacts of increased traffic on this route.</p>	<p>frequency with which this occurs, so the widening at pinch points mitigates this risk to both address an existing shortfall and prevent a worsening of safety risk in that respect.</p> <p><i>The extent of the widening of pinch points is proposed to prevent over-running, but not to an extent that increases the likelihood of drivers choosing to use higher speeds which is more likely with higher road widths.</i></p>		
2.7	Inworth Road – mitigation measures	<p>Junction 24, Inworth Road and Community Bypass Technical note [APP-095]</p> <p>SoCG Appendices A & E</p>	<p>ECC has investigated a range of measures that could help to reduce the likelihood of vehicles rat-running on local roads and particularly through the village of Messing to access the new junction. The details of these measures were shared in ECC's letter to NH dated 7th February which can be seen in Appendix E</p>	<p>National Highways wrote to Essex County Council on 1 December 2022, which can be seen in Appendix A.</p>	In discussion	01/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
2.8	Junction 23 Kelvedon South	Interrelations hip document [APP-271]	<p>Evidence to confirm that the A12 scheme has taken appropriate account of the evolving proposals for the A120 Braintree to A12 scheme, to ensure that the future delivery of the optimal A120 scheme will not be jeopardised</p> <p>In the DfT's Road Investment Strategy 2: 2020–2025 announcement, it stated that the A12 scheme <i>'will need to take into account evolving proposals for the A120 Braintree to A12'</i>. Appropriate assurance is required to demonstrate that design changes made to the A12 scheme have not added significant unnecessary cost increases to the A120 project or negatively affected its environmental impact</p>	<p>During the design and planning phases of the schemes, the development teams have been collaborating to ensure as far as practicable that the schemes can be delivered efficiently, minimising the impact on the public and key stakeholders. A regular coordination meeting ensures that key information is shared between the project teams and where necessary ensures that technical meetings have taken place, focusing on key aspects of the schemes.</p>	Under discussion	01/12/2022
2.9	Monitoring and evaluation	SoCG Appendices A, D & E	<p>Given current levels of uncertainty we believe that NH should commit to monitoring the actual impacts of the scheme in operation for an agreed period after opening (perhaps 2 years) and reporting the data collected, at a small number of locations to be agreed (likely to include the B1137, DoW junction and the B1023). If this monitoring indicates that the scheme is having a material, unanticipated adverse impact NH should commit to</p>	<p>National Highways wrote to ECC on 1 December 2022, which can be seen in Appendix A, to outline National Highways' position on this.</p> <p>As part of the delivery of road schemes, National Highways does undertake post-opening project evaluations. As example of this can be found for the A556 Knutsford to Bowdon improvement scheme. We are of course happy to discuss this further at future meetings.</p>	Under discussion	16/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>working with ECC to develop, implement and fund suitable mitigation. We believe this should be secured via a DCO requirement.</p> <p>ECC's response to National Highways Letter dated 1 December 2022 can be seen in Appendix D.</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix E</p>	<p>As part of the standard evaluation process that National Highways projects are subject to, National Highways plans to undertake 'baseline' traffic surveys in autumn 2023. This is the last available period when surveys can be done before the planned start of construction works, given the constraints that traffic surveys are not typically undertaken in the winter months of mid-December to mid-February.</p> <p>The exact detail of these surveys, including their location, will be defined during spring to summer 2023. The specification of post-opening traffic surveys in the same location will also be defined.</p> <p>National Highways notes Essex County Council's suggested locations for traffic monitoring, and will take these into consideration when defining the baseline and post-opening traffic survey locations during spring to summer 2023. National Highways will consider further the potential for a commitment to monitoring at specific locations where National Highways is predicting an increase in traffic in</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				its modelling. National Highways will not commit to additional post scheme commitments beyond clearly justified monitoring at specific locations.		
2.10	Walking, cycling and horse-riding	SoCG Appendices A, B, C, D & E	<p>Accordance with the DfT's national guidance on cycle infrastructure design (LTN 1/20) has not been demonstrated at numerous key locations along the length of the scheme; in particular at junctions and proposed pedestrian and cyclist crossing structures.</p> <p>The DfT expects designers to always aim to provide infrastructure that meets the core principles of LTN1/20. However, there are numerous locations where the design of the proposed cycle infrastructure does not accord with LTN1/20 best practice and adequate evidence has not been provided to justify these design decisions. These locations include:</p> <ul style="list-style-type: none"> • Junction 19 • Payne's Lane Overbridge • B1137, Boreham • Gershwin Boulevard Overbridge • Little Braxted Lane Overbridge 	<p>National Highways wrote to Essex County Council on 1 December 2022 to outline the proposed scheme position on walking, cycling and horse-riding which can be seen in Appendix A.</p> <p>As discussed in the Statement of Common Ground meeting of 4 November 2022, we have included the WCH matrix as Appendix B to this document.</p> <p>In terms of implementing 5m radii on the ramps, and reducing switchbacks, I would like to reaffirm that the Stage 5 detailed design team have been instructed to amend the minimum radii of 5m on zig-zag ramps and 4m throughout, and the consider minimising the overall ramp lengths whilst taking into account the various existing and future desire lines in the vicinity of these structures. The detailed design workshops will ensure that the council is aware of how the design is evolving and you will be able to see</p>	Under discussion	01/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<ul style="list-style-type: none"> • Junction 21 • Eastways/Colchester Road • Rivenhall End • Henry Dixon Road • Snivellers Lane Overbridge • Ewell Overbridge • Junction 24 • Potts Green Overbridge • A120 dumbbell link • Junction 25 southern approach • Marks Tey Overbridge <p>NH has stated that, at the detailed design stage, it will aim to improve the cycle infrastructure shown on the DCO plans to better accord with LTN1/20 at a number of locations. However, ECC has no guarantee that this will be possible, or that the impacts would be acceptable.</p> <p>LTN 1/20 sets out Government best practice for the provision of walking and cycling infrastructure and is strongly supported by ECC as a means of encouraging active travel. Non-compliance with LTN 1/20 detracts from</p>	<p>how the instruction is being implemented. To that end, we look forward to working with the council's technical experts as part of the Technical Working Groups where the arrangement of these structures can be discussed and agreed as the design evolves.</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>this aim and should be minimised as far as possible</p> <p>ECC has reviewed NH's 'Crossings Matrix' and found it to be incomplete and insufficient in providing justification for the A12 scheme's cycle infrastructure proposals</p> <p>ECC has provided an amended version of the 'Crossings Matrix' to the A12 project team; updating it to include:</p> <ul style="list-style-type: none"> • Comments on the information provided by NH, including specific requests for further evidence • A comprehensive list of all the locations where ECC has concerns about the quality of the cycle infrastructure provision • Confirmation of those locations where ECC is seeking and improvement to the design of the DCO scheme to encourage a larger shift to active travel. <p>The amended 'Cycling matrix' can be seen in Appendix C.</p> <p>A copy of the WCHAR Review Report has not been provided as part of the DCO documentation. However, ECC would like to review this, in order to better understand the rationale for the</p>			

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>proposed walking and cycling measures proposed in the A12 scheme.</p> <p>ECC needs to be confident, through the provision of appropriate evidence and legal agreement, that the A12 scheme will be amended to better accord with the core principles of LTN1/20 – as set out in the amended ‘Cycling Matrix’.</p> <p>ECC’s response to National Highways Letter dated 1 December 2022 can be seen in Appendix D.</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix E</p>			
2.11	Structural design and aesthetics	SoCG Appendices A, D & E	<p>Design of key ‘gateway’ bridges too utilitarian.</p> <p>Design of Paynes Lane and Marks Tey overbridges, should be reviewed.</p> <p>ECC believe that the Design Principles document should be amended to include further detail on how structures will be designed to a high quality, and that this document should be certified by the DCO.</p> <p>Evidence of Design Council review required.</p>	<p>National Highways wrote to Essex County Council on 1 December 2022 to outline the proposed scheme position on walking, cycling and horse-riding which can be seen in Appendix A.</p> <p>National Highways has held several meetings with CCC, Essex County Council (ECC), Countryside Zest and Beaulieu Park Station seeking to agree <u>Paynes</u> lane Bridge layout and connectivity. As the scheme enters detail design, National Highways will engage with CCC and ECC to agree</p>	Under discussion	19/01/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>ECC's response to National Highways Letter dated 1 December 2022 can be seen in Appendix D.</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix E</p>	<p>detailed design of the bridge and associated structures. National Highways is currently preparing a document to aid discussions on the bridge detailed design.</p>		
2.12	Passenger Transport		<p>Location (in the form of an overall plan), and specification of bus stop facilities (including solar canopies, real time information etc.) and other bus infrastructure affected or required in connection with the scheme to be provided and agreed with Essex County Councils IPTU Infrastructure Team, prior to and during the detailed design process.</p>	<p>This will be included in the detailed design stage. Bus operating companies Essex CC together will determine routes on the amended network, and stops will then be determined. Stop locations and infrastructure (shelters etc) will all be determined at detailed design stage.</p> <p>National Highways held an open event on 8 June 2022 regarding public transport, active travel and other interest groups such as motorcycle users. Public transport (PT) representatives (ECC and operators) were invited but none were able to attend. We recognise that review of PT routes will need to be undertaken by ECC and operators reflecting the new network form. We would welcome engagement with ECC and PT operators regarding these amended routes. Once routes are identified,</p>	Under discussion	01/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				bus stop location and form can then be determined and this will form part of detailed design process, and will be subject to both independent Road Safety Audit (to GG 119), and Walking Cycling and Horse-Riding Review (to GD 142)		
2.13	Decarbonisation Strategy	Environmental Statement, Chapter 15, Climate [APP-082]	<p>There are concerns that proposals do not meet the current Government's objectives in the Decarbonisation Strategy.</p> <p>ECC is concerned with the level of commitment that the proposals currently show when compared with the current Government's stated objectives in the recent Decarbonisation Strategy.</p>	<p>National Highways' approach to assessment is in line with the National Policy Statement for National Networks (NPSNN), paragraph 5.17 of which states that applicants should provide evidence of the carbon impact of the project and an assessment against the UK Government's carbon budgets. While noting that <i>'it is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet the targets of its carbon reduction plan targets'</i>, paragraph 5.18 of the NPSNN goes on to state that <i>'any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets'</i>.</p>	Under discussion	27/01/2023

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				<p>As set out in paragraph 15.11.8 of ES Chapter 15: Climate [APP-082], the assessment makes a comparison with national carbon budgets and shows that the construction of the proposed scheme is estimated to contribute approximately 0.022% of the fourth carbon budget. Operation of the proposed scheme is estimated to contribute approximately 0.002% of the fourth carbon budget, 0.009% of the fifth carbon budget and 0.015% of the sixth carbon budget. It is considered that this magnitude of emissions from the proposed scheme in isolation would not have a material impact on the ability of the UK Government to meet its carbon budgets, and therefore is not anticipated to give rise to a significant effect on climate, in line with the position set out within paragraph 5.18 of the NPSNN.</p> <p>It should be noted that this assessment is conservative. For example, given current policy commitments within the Department for Transport's Transport Decarbonisation Plan (TDP) (published July 2021), changes in</p>		

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				<p>operational road user emissions as a result of the proposed scheme are considered to be an overestimate, as the uptake of new electric vehicles in future years would be expected to be higher than the proportions used in the national projections included in the Department for Environment, Food and Rural Affairs' Emissions Factor Toolkit (v11) used for the assessment. For example, a sensitivity test undertaken to assess the potential effect of the TDP on operational road user greenhouse gas (GHG) emissions (summarised in Table 15.24 of ES Chapter 15: Climate [APP-082]), suggests that the TDP has the potential to reduce the contribution made by the operation of the proposed scheme to approximately 0.006-0.008% of the fifth carbon budget and 0.006-0.009% of the sixth carbon budget. In addition to the TDP, National Highways has recently published its own 2030/2040/2050 Net Zero Highways Plan. This plan includes commitments to ensure that National Highways' corporate GHG emissions will become net zero by 2030, its maintenance and construction activities will become net zero by</p>		

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				<p>2040 and road user GHG emissions on the strategic road network will become net zero by 2050. Again, the impacts of these commitments have not been factored into the proposed scheme assessment.</p> <p>National Highways recognise it has a key role in the development and maintenance of the SRN that will facilitate the journey to net zero GHG emissions. As part of this, the National Highways Net Zero Highways Plan sets out commitments to develop a blueprint for electric vehicle charging and energy storage by 2023, and to report to government on global HGV technology trials and set out proposals for trials in the UK in 2022.</p> <p>Furthermore, additional measures (which have not been accounted for within the assessment) are being considered as part of the ongoing detailed design process in order to further avoid or reduce GHG emissions during the construction stage, where practicable and cost-effective, including:</p>		

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				<ul style="list-style-type: none"> • using electric (or alternative lower-carbon fuel) construction equipment instead of conventional diesel-powered construction plant • using vehicles fitted with telematics and start/stop technology • using onsite renewable energy generation and storage to reduce diesel generator use and power taken from the grid • using low resource and low energy solutions for the site compound, offices and welfare facilities • ensuring availability of grid connections for compounds (maximising access to lower carbon-intensity energy from grid electricity) <p>Measures will also be taken to further avoid or reduce GHG emissions associated with the consumption of raw materials, where practicable and cost effective, including:</p> <p>The design specification, which will be developed as part of the detailed design, would aim to reduce or</p>		

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				avoid, where practicable, the use of carbon intensive materials (e.g. concrete and cement). Where this is not practicable, material volumes or processes would be substituted with lower intensity replacements where practicable and if achievable within the bounds of the design standards for safety and quality. In order to help guide this process, a voluntary 30% carbon reduction target has been set for the embodied carbon associated with the proposed scheme, progress against which would be determined and assessed with reference to PAS:2080 (the British Standard for managing carbon in infrastructure).		
2.14	Passenger Transport – Junction 25, Marks Tey		<p>Retention and upgrading of all Marks Tey bus stops – in particular on the dual carriageway section of the A120 between the proposed Marks Tey station junction and the A12 overbridge.</p> <p>Currently it is not clear from the GA drawings how passenger transport provision will be impacted at this location as well as the inter-relationship with the proposed new build WC over bridge. It is felt that there are potentially opportunities to integrate</p>	<p>This will be included in the detailed design stage. Bus operating companies and Essex CC together will determine routes on the amended network, and stops will then be determined. Stop locations and infrastructure (shelters etc) will all be determined at detailed design stage.</p> <p>National Highways held an open event on 8 June 2022 regarding public transport, active travel and other interest groups such as</p>	Under discussion	01/12/2022

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			Walking, Cycling and Passenger Transport measures at this location to make the best use of the proximity to Marks Tey Railway Station which currently sees over 300,000 entries and exits (21-22 data – a 50% reduction to 20-19 data)	motorcycle users. Public transport (PT) representatives (ECC and operators) were invited but none were able to attend. We recognise that review of PT routes will need to be undertaken by ECC and operators reflecting the new network form. We would welcome engagement with ECC and PT operators regarding these amended routes. Once routes are identified, bus stop location and form can then be determined and this will form part of detailed design process, and will be subject to both independent Road Safety Audit (to GG 119), and Walking Cycling and Horse-Riding Review (to GD 142)		
2.15	Passenger Transport. Junction 22 to 23.		Under the existing situation the passenger transport facilities are inadequate with the bus stop facility on the A12 mainline needing to be closed. With the introduction of the scheme opportunities need to be maximised to improve the situation for passenger transport facilities in the Rivenhall area particularly along the de-trunked sections of carriageway	ECC as Highway Authority will need, in liaison with the Public Transport operators, to determine how bus routes should work on the amended road network. Once this has been determined, then the design of bus stops (locations and form) can be investigated as part of A12 scheme detailed design.	Under discussion	27/01/2023
2.16	Construction	First iteration Environmental	Essex County Council has requested that Essex County Council Transport teams are involved in the development	Draft first iteration Environmental Management Plan (EMP) and Outline Construction Traffic	Under discussion	18/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		Management Plan [APP-184]	<p>and implementation of Construction Environmental Management Plans.</p> <p>ECC Transport teams need to be involved closely, as this will provide a means through which to help manage the impacts. In addition, ECC trusts there will be further engagement with the various stakeholders involved (such as local authority Environmental Health teams), together with engagement with the various local communities themselves who are likely to be affected in order to better understand and manage these impacts.</p>	<p>Management Plan (OCTMP) shared with ECC and relevant Local Planning Authorities in June/July 2022 prior to DCO submission.</p> <p>As part of discharging the requirements both the second iteration EMP and OCTMP will need to be approved before commencement.</p> <ul style="list-style-type: none"> • EMP – consultation with relevant planning authorities, this includes consultation with environmental health officers • OCTMP – consultation with local highway authority <p>Traffic management working groups will be set up. Part of the remit of this group is to engage with the council on the CTMP.</p> <p>The OCTMP proposes multiple forums with stakeholder groups including local authorities, emergency services, business groups and communities with the intention of agreeing traffic management arrangements that, where practical,</p>		

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				<ul style="list-style-type: none"> Minimise the impacts of the scheme on road users, communities and businesses Provide safe traffic management design (considering the A12, formal diversion routes and impacted local routes)		
2.17	Construction – retention of trees and vegetation during construction	Retained and Removed vegetation plans [APP-035] [APP-036] First iteration Environmental Management Plan, Appendix A, Register of Environmental Actions and Commitments [APP-185] Appendix 9.14: Biodiversity Net Gain	Unclear how retained trees and vegetation will be protected during construction through Construction Environmental Management Plan. ECC is currently reviewing the information provided on this within National Highway's response to our Local Impact Report [REP3-021] and intend to respond shortly.	Retained and Removed Vegetation Plans [APP-035] [APP-036] showing the vegetation that is intended to be removed and retained has been submitted as part of the DCO application. The Register of Environmental Actions and Commitments (REAC) included within the first iteration EMP [APP-185] includes commitments that are relevant to retention of existing vegetation which would be implemented in accordance with the Retained and Removed Vegetation Plans [APP-035] [APP-036] and all trees to be retained would be protected throughout the construction period in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. As identified in the Landscape and Ecology Management Plan (LEMP)	Under discussion	06/04/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		report [APP-138] First Iteration Environmental Management Plan, Appendix I, Landscape and Ecology Management Plan [APP-193]		(Appendix I of the first iteration EMP [APP-193]): <ul style="list-style-type: none"> Details on how individual trees would be protected and retained, and which site-specific construction methods would be used to safeguard trees and their roots, will be provided in an Arboricultural Method Statement and Tree Protection Plan, which would be prepared during the detailed design phase, refined following final design agreement and in place prior to works affecting trees commencing and appended to the EMP. <p>Appropriate fencing would be installed to protect existing trees and ensure no construction activities affect the RPAs. All temporary fences would be regularly checked to ensure they have not been moved during construction.</p> <p>An updated comment regarding retained trees can be seen in the Applicant's response to Essex</p>		

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				County Council's Local Impact Report [REP3-021], specifically page 42.		
2.18	Construction - Use of local health-care facilities.	Chapter 16: Cumulative Effects of the Environmental Statement [APP-083]	The on-site workforce will require care and it is noted that for offsite care Health facilities in Colchester are shown as to be used. The proposal should engage with Health England to ensure sufficient capacity is available.	The majority of our workforce would generally seek GP or any other any healthcare support within their local home community, be they travelling or local residents of Essex. Due to the nature of the proposed scheme and specific skills required for certain aspects of construction, it is unlikely that many of these workers would be present for a duration of more than three months. Workers would be supported by their respective companies' occupational health schemes, and due to the relatively short duration of stay, it is unlikely that many would register with local GPs or other health services. Most of these workers would return to their permanent homes at weekends and would likely access their home health services if needing medical attention. Furthermore, as working age adults, this cohort is less likely to seek healthcare than other age groups. It is also unlikely that workers would relocate with their families due to the relatively short	Under discussion	27/01/2023

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				duration that most workers would be engaged with the construction for the proposed scheme. On the above basis, it is not considered that there would be a likely significant contribution to cumulative demand on health services from the proposed scheme. This assessment is presented within Chapter 16: Cumulative Effects of the Environmental Statement [APP-083].		
2.19	Construction – Air quality	First iteration Environmental Management Plan, Appendix E, Dust Management Plan [APP-189]	More needs to be done regarding green construction methods and tools. It is insufficient and inappropriate to simply mention that the scheme will ensure construction traffic isn't 'dusty'. The opportunity should not be missed to incorporate green methods of working.	<p>The outcome of the air quality environmental impact assessment was discussed with ECC and Local Planning Authorities on 16th March 2022.</p> <ul style="list-style-type: none"> The construction dust risk is considered to be 'high' in accordance with DMRB LA 105 Tables 2.58a and 2.58b With standard construction phase mitigation measures in place, it is unlikely there would be significant air quality effects resulting from construction dust. <p>A Dust Management Plan is included within Appendix E of the first iteration EMP [APP-189]. This plan includes control measures to minimise potential emissions of</p>	Under discussion	18/11/2022

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				<p>fugitive dust during construction, for example:</p> <ul style="list-style-type: none"> • Ensure an adequate water supply on the site for effective dust/particulate matter suppression should it be required • Implement a wheel washing system with rumble grids or other suitable methods to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable • Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, where site size and layout permits <p>Undertake regular onsite and offsite visual inspections, where receptors (including roads) are nearby, to monitor dust control measures, record inspection results and make the log available to the local authority upon request.</p> <p>As a minimum Non-Road Mobile Machinery (NRMM) must comply with the NRMM (Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018, however when selecting NRMM</p>		

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				electric, hydrogen, hybrid and fuel-efficient plant would be the first preference where reasonably practical, unless unavailable or inappropriate for the activity.		
2.20	Construction Access - General	Outline Construction Management Plan [APP-272]	<p>Delays to journey times for school transport and attractiveness of alternative routes during this time.</p> <p>A development of the type as proposed, particularly in its construction phase, will affect journey times for walkers, cyclists and road users. This will have an impact on school transport times and options for school children travelling to school independently, by provided for or private transport. The consultation does not comment specifically on these issues at this time; hence its impacts cannot be properly evaluated.</p>	<p>The Outline Construction Traffic Management Plan [APP-272] was shared with ECC prior to DCO submission.</p> <p>In addition, a Statement of Common Ground meeting focusing on Construction was held on 11 August 2022. The A12 project also attended an OCTMP workshop with ECC on 8 September 2022.</p> <p>The OCTMP proposes multiple forums with stakeholder groups including local authorities, emergency services, business groups and communities with the intention of agreeing traffic management arrangements that where, practical:</p> <ul style="list-style-type: none"> • Minimise disruption to all road users, business and communities • Ensure the safety of all road users, including walkers, cyclists and horse riders 	Under discussion	18/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				<ul style="list-style-type: none"> Keep public traffic on A12 and (where possible) construction traffic off local roads 2 lanes of traffic on A12 Weekday daytime <p>Co-ordination of works to minimise carriageway closures</p>		
2.21	Construction Access – Station Road	Outline Construction Traffic Management Plan [APP-272]	Replacement of the Station Road bridge will severely affect access to Hatfield Peverel Rail Station, in effect removing all sustainable access from the village and the majority of users south of the line, it will also mean that car access is circuitous around a number of lanes unsuitable for increased levels of traffic.	<p>Further statement on Station Road to follow.</p> <p>Full details of the proposals for the works whilst Station Road is closed can be found the Outline Construction Traffic Management Plan [APP-272] at section 5.9.</p>	Under discussion	27/01/2023
2.22	Biodiversity net gain	<p>First iteration Environmental Management Plan [APP-184]</p> <p>Appendix 9.14: Biodiversity Net Gain report [APP-138]</p>	<p>1. The means by which biodiversity net gain will be achieved on the project should be clearly demonstrated. This could include:</p> <p>a. Wildlife crossings and green corridors could be better utilised in order to prevent habitat fragmentation.</p> <p>b. Additional opportunities for street tree planting in line with recent updates to the National</p>	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> Landscape and ecology mitigations are shown on Figure 2.1 Environmental Masterplan 	Under discussion	06/04/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		<p>Figure 2.1 Environmental Masterplan [APP-086] [APP-087] [APP-088]</p>	<p>Planning Policy Framework (NPPF).</p> <p>c. More crossing points to link up green spaces allowing them to be multifunctional and accessible to different use groups.</p> <p>Preservation and protection of existing woodland with a suitable buffer to prevent any ecological impact. If it is proposed the benefits outweigh the ecological disturbance, then any losses should be compensated so with a suitable scheme. Include hedgerow/verge improvements.</p> <p>Under the Environment Bill 2021, NSIP developments are required to deliver a minimum 10% biodiversity net gain. The County Council wishes to understand how this will be achieved and to work with NH on the measures that will be implemented as part of the scheme to achieve this requirement</p> <p>Generally, from a policy perspective, the scheme provides a significant opportunity to deliver the wider aims identified within Everyone's Essex, our plan for levelling up Essex. While the scheme as proposed is aligned with the Essex Local Transport Plan (LTP) connectivity outcome there are</p>	<p>[APP-086] [APP-087] [APP-088].</p> <ul style="list-style-type: none"> Defra metric 3.0 is being applied to the proposed scheme, with the aim of maximising biodiversity value. The proposed scheme is exceeding 10% net gain. Net loss or gain calculations are summarised in Section 9.13 of Chapter 9: Biodiversity [APP-076]. Further details of the methodology and results can be found in Appendix 9.14: Biodiversity Net Gain Report [APP-138]. <p>In Section 9.13 of Chapter 9: Biodiversity [APP-076] and specifically table 9.2 3.2, shows that this scheme will result in a net gain of 25% in relation to habitats, 36% In relation to hedgerows and 157% for rivers and ditches which is more than the 10% requirement.</p> <p>This requirement is not a legal requirement that NSIPs must abide by as the application of the requirements for NSIPs is currently under consultation. That report will not be released until November</p>		

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			<p>significant opportunities to better align proposals with the LTP outcome to Provide sustainable access and travel choice for Essex residents to help create sustainable communities.</p> <ul style="list-style-type: none"> ○ Enabling Essex residents to access further education employment and vital services (including healthcare, hospitals and retail) ○ Maintaining the vitality of our rural communities ○ Encouraging and enabling healthier travel and leisure activities <p>Creating strong and sustainable communities.</p> <p>ECC is currently reviewing the additional information provided by National Highways and intend to respond shortly.</p>	<p>2023, when that obligation comes into effect, however, the scheme is providing well in excess of that 10% that we expect to be applied to assets in the future.</p>		
2.23	Trees	Environmental Statement Appendix 8.4: Arboriculture Impact	<p>While a significant number of trees are being retained, there are a large number, including category A trees and veteran/potential veteran trees that will be removed. There is reference to street tree planting, however, until the actual arboricultural impact can be fully understood it is uncertain whether the</p>	<p>National Highway's design team has specialist arboricultural support who are working with an evolving tree constraints model to inform detailed design through an iterative process. Additional tree survey work will be conducted in the early stages of Stage 5 design to provide individual</p>	Under discussion	16/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		Assessment [APP-122]	<p>proposed landscaping is sufficient mitigation for the tree loss.</p> <p>Although further details will be included in the Generic and Site-Specific Arboricultural Method Statements, it is recommended that further work is done into the feasibility of retaining those trees that are currently considered 'at risk', prior to the Method Statements being produced. There are some important trees featured in the 'at risk' category, namely category A and category B trees, and better clarification on the practicalities of retaining them is necessary to determine the actual impact of the scheme on the arboricultural features on site.</p> <p>ECC is currently reviewing the information provided on this within National Highway's response to our Local Impact Report [REP3-021] and intend to respond shortly.</p>	<p>tree detail with areas currently indicated as groups. This work will focus on identifying potential veteran trees, significant trees, trees covered by Tree Preservation Orders and A and B category trees. This additional information will be used to refine design to minimise impacts on these trees where practicable.</p> <p>It may be feasible to retain some of the trees identified as trees at risk on the Retained and Removed Vegetation Plans [APP-035 and AS-017], including some of the trees with tree preservation orders, potential veteran trees and trees within the Chelmer and Blackwater Navigation Conservation Area that are identified as being lost. This would be determined at the detailed design stage prior to the Arboricultural Method Statement and Tree Protection Plan being produced.</p> <p>An updated comment regarding trees can be seen in the Applicants response to Essex County Councils Local Impact Report [REP3-021] specifically pages 40 - 43.</p>		

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2.24	Carbon offset	ES, Chapter 15, Climate [APP-082]	<p>Adequate provision for reduction and offsetting of carbon emissions, both embedded and operational, need to minimise the development’s carbon footprint and mitigate the effects of climate change and with reference to planning principles set out nationally and locally including:</p> <ul style="list-style-type: none"> • National Planning Policy Framework, S14, para 152 which states: “The planning system should support the transition to a low carbon future in a changing climate <p>[...]. It should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions [...] and support renewable and low carbon energy and associated infrastructure.”</p> <ul style="list-style-type: none"> • The National Networks National Policy Statement (NNNPS) (Department for Transport, 2014) sets out the Government’s policies to deliver the development of Nationally Significant Infrastructure Projects on the national road and rail networks in England. The Secretary of State uses the NNNPS as the primary basis for making decisions on DCO applications 	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> • A number of mitigation measures have been embedded within the proposed scheme to reduce greenhouse as (GHG) emissions. Standard mitigation measures are also proposed to reduce GHG emissions during construction of the proposed scheme. In addition, opportunities for enhancement have been identified to further reduce GHG emissions associated with the proposed scheme going forwards. See Section 15.10 of Chapter 15: Climate, of the Environmental Statement [APP-082]. <p>Reference to relevant national and local policies are provided in Section 15.4 Legislative and policy framework of Chapter 15: Climate.</p>	Under discussion	10/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
2.25	Measurement of carbon footprint of the whole development throughout its life cycle.	Environmental Statement Chapter 15: Climate [APP-082]	<p>To achieve national targets of net zero carbon by 2050, and to reduce the carbon footprint of Essex, the need to decarbonise large infrastructure developments in Essex is significant. Any measuring should be made available yearly and reviewed going forward.</p> <p>The inclusion of the above suggestions will aid the development in not only attaining national low carbon targets, but also in achieving project aims for whole life sustainability and avoiding adverse environmental effects.</p>	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 23 August 2022. Where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> As per DMRB LA 114, and as summarised in Table 15.7 of Chapter 15: Climate [APP-082], greenhouse gas (GHG) emissions have been considered across the life cycle of the proposed scheme, including during construction and over a 60 year operational period. <p>As described in Section 15.12 of Chapter 15: Climate, reporting of quarterly GHG emissions, using National Highway's Carbon Tool, during the construction phase would be undertaken by the Principal Contractor in line with Design Manual for Roads and Bridges LA 114. This facilitates reviewing the performance of the proposed scheme against the carbon estimates developed at the detailed design stage utilising data available</p>	Under discussion	27/01/2023

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				in the construction phase, thereby allowing identification of further GHG emissions reduction opportunities. The data would be evaluated to inform any ongoing monitoring of GHG emissions by National Highways and by Government.		
2.26	Landscape – photomontage and visualisation	<p>Environmental Statement, Chapter 8, Landscape and Visual [APP-075]</p> <p>Figure 8.4 of the Environmental Statement [APP-220]</p> <p>Figure 8.5 photo montage viewpoint [APP-221]</p>	<p>Essex County Council request that Type 3 visualisations be prepared for:</p> <p>- Operation Year 1: Considers impacts on a winter's day during year 1 following completion of all construction, when planted mitigation would not yet have taken effect.</p> <p>- Operation Year 15: Considers the impacts on a summer's day in the fifteenth year after opening, when planted mitigation would have taken effect.</p> <p>Type 3 visualisations, as defined in the TGN 06/19, are considered by ECC to be both appropriate and proportionate.</p> <p>The Type 3 visualisations would include an indication of the mitigation for the Proposed Scheme.</p> <p>Given the scale of this project, it may be necessary that sequential visual effects are considered, especially from the PRoW network. The assessment</p>	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 23 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> Photography and photomontages produced are in accordance with the Visual Representation of Development Proposals Technical Guidance Note 06/19 (Landscape Institute, 2019). Refer to Figure 8.5 photomontages of the ES [APP-221] Proposed methodology for the production of photomontages was included within landscape consultation 	Under discussion	10/11/2022

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			<p>should be supported by winter viewpoint photography only, which ensures a 'worst case scenario' is being appraised, and a standardised baseline is being used. In addition to representative viewpoints, it is expected that illustrative viewpoints will also be required as the purpose of LVIA is not only to provide technical analysis of the potential impacts but also to ensure the public and Interested Parties have a proper understanding of those likely effects.</p>	<p>with local planning authorities and Historic England in February 2021. Final consultation with the local planning authorities and Historic England was carried out following statutory consultation in September 2021 to confirm the location of representative and illustrative viewpoints for the assessment of visual effects and the location of proposed viewpoints for photomontages, for inclusion within the Environmental Statement. No requests for changes to the location of viewpoints were received.</p> <p>Local planning authorities, including Essex County Council (ECC), were consulted on the number and location of representative viewpoints at the scoping stage in October 2020, at the Preliminary Environmental Information Report stage in February 2021 and ahead of the Environmental Statement in September 2021. ECC did not suggest that sequential visual effects</p>		

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				<p>should be assessed within the Environmental Statement during this viewpoint consultation process. Within their response to the Scoping Report included within the Scoping Opinion, ECC stated <i>'The proposed 26no. receptor viewpoints are deemed appropriate. The viewpoints cover the extent of the proposed scheme alignment (within the 1km buffer) including some of the most sensitive areas of change.'</i></p> <p>In accordance with the Design Manual for Roads and Bridges (DMRB) LA 107 Landscape and Visual Effects, Revision 2 (Highways England, 2020) and the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013), the landscape and visual impact assessment (LVIA) within Chapter 8 of the Environmental Statement [APP-075] provides a proportionate assessment, and the assessment of visual effects is based on a selection of representative viewpoints for different receptor groups within the study area. Viewpoints have been selected within a digitally generated</p>		

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				<p>'bare earth' zone of theoretical visibility based on the proposed scheme. The number of viewpoints is considered appropriate based on the presence of the existing A12, other infrastructure and existing lighting; the nature of the proposed scheme which partly comprises online widening; the range and location of visual receptors; and the potential impacts and the likely significant effects. Viewpoints were refined on site to assess the worst case, while remaining representative of views from the receptors identified within the viewpoint descriptions. Five longer distance illustrative viewpoints in excess of 1km from the Order Limits were included within the LVIA.</p> <p>GLVIA3 notes in paragraph 6.21 <i>'It is not possible to give specific guidance on the appropriate number of viewpoints since this depends on the context, the nature of the proposal and the range and location of visual receptors. The emphasis must always be on proportionality in relation to the scale and nature of the development proposal and its likely significant effects, and on agreement with the competent</i></p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				<p><i>authority and consultation bodies.</i> A sequential assessment of visual effects was not carried out because the LVIA aimed to provide a proportionate assessment in line with DMRB LA107 and GLVIA3, and because no request for a sequential assessment of visual effects was raised during viewpoint consultation.</p> <p>The LVIA considers both winter and summer scenarios at year 1 and 15 in accordance with DMRB LA 107, with winter capturing the worst case. Photographs of the existing view from each of the viewpoints have been taken during summer and winter and are presented on Figure 8.4 of the Environmental Statement [APP-220].</p>		
2.27	Development of The Preliminary Environmental Masterplan and the Landscape and Ecological Management Plan.	<p>Figure 2.1 Environmental Masterplan [APP-086] [APP-087] [APP-088]</p> <p>First iteration Environmental Management</p>	<p>It is recommended that these plans include:</p> <ul style="list-style-type: none"> • Hard and soft landscape proposals for new and replacement planting together with vegetation retention to improve the character and quality of the landscape and how this will be managed and maintained – who will be responsible and how will it be funded? 	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> • Figure 2.1 Environmental Masterplan [APP-086] [APP-087] [APP-088] include hard 	Under discussion	18/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		Plan [APP-184] First Iteration Environmental Management Plan, Appendix I, Landscape and Ecology Management Plan [APP-193]		and soft landscape proposals for new and replacement planting as well as vegetation retention. The Landscape and Ecology Management Plan (LEMP) (Appendix I of the first iteration Environmental Management Plan (EMP) [APP-193] outlines the management and maintenance of landscape and ecological features. This LEMP will be updated by the Principal Contractor and included within the second iteration Environmental Management Plan (EMP), as appropriate and necessary, prior to commencement of works.		
2.28	Opportunities for advanced planting in the early stages of construction.	Environmental Statement, Chapter 8, Landscape and Visual [APP-074]	The phased Implementation of new GI of the development construction will allow for the GI to mature and it will provide further benefit of reducing/buffering the aesthetic impact from the construction work. Advanced planting within ecological mitigation areas is welcomed, however the areas of advanced planting have not been identified on an associated plan. Further, it is noted that the Preliminary Environmental Masterplan	A Statement of Common Ground meeting focusing on Environment topics was held on 23 August 2022 where a member of the environment team guided the council through this aspect of the ES. At this meeting, the following information was shared: <ul style="list-style-type: none"> Advanced planting within ecological mitigation areas has been identified for ecological purposes and would be 	Under discussion	10/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			identifies new and replacement planting, however the programme for implementation is not shown.	<p>implemented where programme constraints allow it to be undertaken in advance of the main works.</p> <p>Areas of advanced ecological mitigation are indicated by the green information boxes on the Environmental Masterplan [APP-086, APP-087, APP-088]. For ease of identification, they are on the following sheets:</p> <ul style="list-style-type: none"> • Sheet 1 of 21 (two advanced mitigation areas) • Sheet 2 of 21 • Sheet 4 of 21 (continued across cut line onto Sheet 5 of 21) • Sheet 5 of 21 (two advanced mitigation areas, separate mitigation area to that continued from Sheet 4) • Sheet 6 of 21 (two advanced mitigation areas) • Sheet 7 of 21 (two advanced mitigation areas) • Sheet 8 of 21 (two advanced mitigation areas) 		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				<ul style="list-style-type: none"> • Sheet 9 of 21 (left half only, right half and area to north of new/realigned public right of way / walking, cycling and horse-riding user route to be created later in construction programme) • Sheet 10 of 21 (two advanced mitigation areas) • Sheet 11 of 21 • Sheet 12 of 21 • Sheet 15 of 21 • Sheet 17 of 21 • Sheet 18 of 21 (two advanced mitigation areas) <p>Subject to planning consent and landowner agreement, it is anticipated that these areas would be created in the spring/summer of 2023.</p> <p>The programme for new and replacement planting would depend upon the construction programme for each area of the proposed scheme which will be developed at detailed design.</p>		

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2.29	Landscape Character Areas	Environmental Statement, Chapter 8, Landscape and Visual [APP-075]	<p>The landscape baseline is to be informed by the local landscape character areas (LCAs) defined within the Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessment (Chris Blandford Associates, 2006) and Colchester Borough Landscape Character Assessment (Chris Blandford Associates, 2005), which is welcomed.</p> <p>Blandford Associates, 2006) and Colchester Borough Landscape Character Assessment (Chris Blandford Associates, 2005), which is welcomed.</p> <p>However, given both these documents are now over 15 years old, we would be expecting a detailed localised landscape analysis to be undertaken to understand how the landscape has changed over this period of time and what qualities and characteristics are pertinent to this landscape. On this proviso, it may be necessary for additional landscape receptors to be included.</p> <p>It should also be noted that the baseline makes reference to National Character Areas (NCAs) and the Essex Landscape Character Assessment</p>	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 23 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> The landscape within Chelmsford, Braintree and Maldon districts has been assessed within the Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessment (Chris Blandford Associates, 2006). At the eastern extent of the study area, around Marks Tey, the local landscape is assessed within the Colchester Borough Landscape Character Assessment (Chris Blandford Associates, 2005). The key characteristics of the published local landscape character areas have been reviewed, and additional key 	Under discussion	21/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			(Chris Blandford Associates, 2003) Landscape Character Areas, but these receptors have not been carried through to the assessment (Environment Statement Appendix 8.2 Landscape Effects Schedule). We would expect the NCAs to be assessed accordingly, whilst justification for the exclusion of the Essex LCAs should also be provided.	<p>features identified through site appraisal have been noted within Tables 8.9 and 8.10 of Chapter 8: Landscape and Visual, of the Environmental Statement [APP-075].</p> <p>The assessment of landscape effects has been based on published local landscape character assessment. This approach was established within the Scoping Report in line with DMRB LA 107 and is also in accordance with GLVIA3 which states in paragraph 5.14 <i>'It is essential to decide at the outset what scale of character assessment information is needed to provide a basis for the LVIA and then to judge the value of existing assessments against this. Broad-scale assessments at national or regional level can be helpful in setting the landscape context but are unlikely to be helpful on their own as the basis for LVIA'</i>.</p>		
2.30	Heritage	Environmental Statement, Chapter 7, Cultural	The built heritage impact assessment should be prepared in line with Historic England's guidance GPA3, The Setting of Heritage Assets.	A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment	Under discussion	10/11/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		Heritage [APP-074]	<p>A 1-kilometre study area has been used for designated assets (scheduled monuments, registered battlefields, registered parks and gardens, and grade I, II* and II listed buildings). While a 300-metre study area has been used for all other heritage assets (non-designated).</p> <p>It is understood that a selection of assets will be assessed for potential significant effects beyond the 1-kilometre study area will be undertaken in the Environmental Statement, using informed judgement and forthcoming data from the ZTV study. The study areas indicated are appropriate, although the methodology for the ZTV and how heritage assets will be assessed would need to be clearly set out.</p> <p>Further work is required in this area before the status can be agreed and the below points provide comments, recommendations and areas of concern:</p> <p>a) There is a disagreement with the division of cultural heritage assets and their value as shown in Table 3.1 of 6.3 ES (Appendix 7.2, Cultural Heritage DBA). There is no distinction between the various</p>	<p>team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> Assessments of the contribution of setting to the value of heritage assets, and of the impact of the proposed scheme upon it, have been conducted using professional judgement guided by the methodology in Historic England's (2017a) guidance GPA3, The Setting of Heritage Assets. <p>Consultations meetings focused specifically on the built heritage assessment were also held on 24.11.21 and 3.2.21 with ECC representatives in attendance. A further built heritage consultation meeting was held on 16.5.22, although ECC were unable to attend.</p> <p>All listed buildings, regardless of grade, were assessed to be of high value in line with the advice contained in DMRB LA 106. This is consistent with comments received from Historic England that listed</p>		

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			<p>grades of listing, to show the spectrum which extends through exceptional interest (Grade I), particular national importance or special interest (Grade II*) and special interest (Grade II).</p> <p>b) In addition, the classification of Conservation Areas as being of 'medium interest' along with non-designated heritage assets, underestimates their value and sensitivity. In terms of their protection under the NPPF, they receive equal consideration along with World Heritage Sites, registered parks and gardens, scheduled ancient monuments Grade I, II* and II Listed buildings. The assessment of the significance of the heritage assets should be consistent with the guidance given by Historic England (GPA2, Managing Significance in Decision-Taking in the Historic Environment) and at present this is not the case.</p> <p>The above will also have implications regarding the compliance of the methodology with GPA 3 guidance from NH on setting and impacts. In general, it should be made much clearer how Steps 2 and 3 of the GPA 3 guidance has been implemented, that is, "2.</p>	<p>buildings should be treated as being of equal value in recognition of their legally defined national significance. Under the previous DMRB advice on cultural heritage assessment (HA208/07), only Grade I and II* listed buildings were assessed to be of high value, and grade II medium value. This previous approach was frequently accused of artificially playing down the value of assets listed at Grade II and therefore the new approach, as agreed by Historic England, has been used as a guide for the proposed scheme built heritage assessment but with professional judgement taking precedence.</p> <p>Registered parks and gardens are a non-statutory designation, and their value has been assessed on a case-by-case basis using professional judgement guided by the criteria contained in DMRB LA 106. The value of conservation areas was also assessed on a case-by-case basis using professional judgement guided by the criteria in DMRB LA 106. Conservation areas are designated at a local authority rather than</p>		

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			Assess the degree to which these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated” and “3. Assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it”.	national level and are valued for their contribution to the local historic environment.		
2.31	Habitats-- bats	Environmental Statement, Appendix 9.4, Bat Survey Report [APP-128]	<p>Essex County Council believe that Barbastelle bats should be considered as higher than of county importance due to their rarity and international protection and they should be considered at least of regional importance.</p> <p>We note that there is some uncertainty regarding the significance and importance of the habitats for bat commuting as analysis of the data is ongoing.</p> <p>We would anticipate the inclusion of a map showing the commuting and foraging routes for bats-particularly Barbastelles- to help demonstrate how they utilise the landscape and whether the road scheme will potentially impact on the ability of Barbastelle bats to</p>	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> Barbastelle bats have been assigned County level importance based on the resulting score from Valuing Bats in Ecological Impact Assessment (Wray et al, 2010). This takes into consideration the rarity of species, numbers of individuals present, roosts or potential roosts nearby and the type and complexity of 	Under discussion	06/04/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>effectively use the landscape in the way that they are currently doing.</p> <p>Further, the scores in relation to the statics which recorded Barbastelle were not reported at that time, so further information/clarification on this issue is requested.</p> <p>ECC is currently reviewing the information provided on this within National Highway's response to our Local Impact Report [REP3-021] and intend to respond shortly.</p>	<p>commuting/foraging habitats. The scores for barbastelles for commuting and foraging were 29 and 29 respectively. A score of 21-30 falls within County level importance, and therefore for the purposes of this assessment, barbastelle are considered to be of County level importance.</p> <ul style="list-style-type: none"> See Appendix 9.4 Bat Survey Report [APP-128] for more information. <p>The scores for commuting routes and foraging routes (Wray et al, 2010) were arrived at as follows:</p> <p><u>Commuting</u></p> <ul style="list-style-type: none"> Species – Rarest (20 points) Number of bats – Individual bats (5 points) Roosts/potential roosts nearby – None (1 point) Type and complexity of linear features – well-grown and well-connected hedgerows, small field sizes (4 points) Total score = 30 points (County level) 		

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				<p><u>Foraging</u></p> <ul style="list-style-type: none"> • Species – Rarest (20 points) • Number of bats – Individual bats (5 points) • Roosts/potential roosts nearby – None (1 point) • Foraging habitat characteristics – Isolated woodland patches, less intensive arable and/or small towns and villages (3 points) • Total score = 29 points (County level) <p>The indices presented in Table 5.25 and Table 5.26 of Appendix 9.4 Bat Survey Report [APP-128] should be interpreted with caution. The categorisation of activity level (low, low-moderate, moderate-high or high) is derived from quartiles within the dataset for each individual species, and is therefore only comparable across individual species activity per static location, rather than between different species.</p> <p>An updated comment regarding Bats can be seen in the Applicants response to Essex County Councils</p>		

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				Local Impact Report [REP3-021] specifically pages 64 – 69.		
2.32	Habitats-- dormice	Environmental Statement, Appendix 9.6, Dormouse Survey Report [APP-130]	<p>We are concerned that the response to the planning Inspectorate on Dormice states (on page 201) that “Dormice have been scoped out of the Environmental Statement.” Para 9.7.56 “No dormice or evidence of dormice were recorded during field surveys”</p> <p>However, we query the methodology undertaken, as the report specifies that a presence/absence survey was undertaken following Bright et al. 2006 (Dormouse Conservation Handbook), but no specific details on how the survey was carried out has been provided. In particular, we have concerns about the following statement: “The number of tubes will be appropriate for the habitats to be surveyed, with at least ten tubes in each sample area.” 10 tubes are unlikely to be sufficient sample size to identify presence/absence per habitat block (50 tubes per habitat section would be preferable).</p> <p>Furthermore, we have not found any details on the habitat assessment (Species diversity, structure, landscape</p>	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> • Details of dormouse survey methodology including habitat assessments and results are documented in the Dormouse Survey Report Appendix 9.6 of the ES [APP-130]. This was presented to Place Services at a meeting on 26 May 2022 – Sue Hooton in agreement with the approach. • Nest tubes were deployed at a minimum of 20m intervals in accordance with good practice guidelines (Chanin and Woods, 2003) in suitable habitat along hedgerows and within woodland. The number of tubes in 2017 and 2020 	Under discussion	16/03/2023

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			<p>connectivity etc.) to accompany the presence/likely absence survey. This would be necessary to allow us to have certainty that surveys have been carried out in appropriate locations to further justify likely absence.</p> <p>In addition, Dormouse had been scoped in for further surveys through the Cadent gas main corridor providing connectivity. We seek further information/clarification on this issue.</p> <p>ECC is currently reviewing the information provided on this within National Highway's response to our Local Impact Report [REP3-021] and intend to respond shortly.</p>	<p>combined is summarised in Table 5.2 of Appendix 9.6 [APP-130], and for all but one survey area exceeded the minimum recommended 50 tubes per survey site (Chanin and Woods, 2003).</p> <p>A supplementary Dormouse Survey Report [AS-036] was issued following submission of the DCO application to present the results of additional surveys undertaken in 2022 for the gas main diversion. No dormice or evidence of dormice were recorded during the gas main diversion surveys carried out in 2022. In addition to this no dormice were recorded during previous surveys conducted for the wider scheme in 2017 and 2020. It is concluded that dormice are likely absent from the footprint of the proposed gas main diversion and wider Order Limits.</p> <p>An updated comment regarding Dormice can be seen in the Applicant's response to Essex County Councils Local Impact Report [REP3-021] specifically page 63..</p>		

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2.33	Habitats - badgers	<p>Environmental Statement, Appendix 9.2, Badger Survey Report [APP-126]</p> <p>Fig 9.3, Biodiversity Results for Protected Species Surveys [APP-224]</p>	<p>The Environmental Statement will include information on priority habitats and species.</p> <p>Request for any reports on badgers to be included as a confidential appendix to avoid availability of information being widely accessible.</p> <p>Consideration must also be given to likely impacts on designated sites (international, national and local), protected species and Priority habitats and species - not just significant ones.</p> <p>A non-EIA addendum is also required so that ECC can demonstrate its s41 biodiversity duty for Priority species and habitats.</p>	<p>A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> Appendix 9.2 Badger Survey Report [APP-126] watermarked as CONFIDENTIAL and survey results excluded from Figure 9.3 - Biodiversity Results for Protected Species Surveys [APP-224] All biodiversity effects, both significant and not significant, have been assessed in Chapter 9: Biodiversity, of the ES [APP-076]. <p>Priority habitats and species are assessed within the following sections of Chapter 9: Biodiversity [APP-076]:</p> <ul style="list-style-type: none"> Baseline – Table 9.13 summarised the priority habitats recorded within the 	Under discussion	10/11/2022

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				<p>Order Limits, and the baseline for species of principal importance are detailed within paragraphs 9.8.40, 9.8.72 to 9.8.75, 9.8.110 to 9.8.111, and 9.8.124 to 9.8.130</p> <ul style="list-style-type: none"> • Mitigation – paragraphs 9.10.84, 9.10.104, and 9.10.112 to 9.10.114 • Construction effects – paragraphs 9.11-64 to 9.11.103, 9.11.194 to 9.11.198, 9.11.230 to 9.11.234, and 9.11.255 to 9.11.258 • Operation effects – 9.11.306 to 9.11.319, 9.11.340 to 9.11.342, 9.11.357 to 9.11.359, and 9.11.372 to 9.11.373. <p>National Highways is commitment to working with Essex County Council to understand and provide any further information which would be required.</p>		
2.34	Air quality and noise assessments	Environmental Statement, Chapter 13, Population	The preliminary assessment has concluded that, overall, effects on human health from air quality and noise are uncertain at this stage. Further	A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment	Under discussion	16/03/2023

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		and Human Health [APP-080]	<p>assessment is needed, the results of which will be reported in the Environmental Statement.</p> <p>It is not considered possible for ECC to comment on these important measures at this stage given that human health impacts from air quality noise are at present uncertain.</p>	<p>team guided the council through this aspect of the ES.</p> <p>At this meeting, the following information was shared:</p> <ul style="list-style-type: none"> Human health assessment covered in Section C of Chapter 13 Population and Human Health [APP-080]. <p>In regards to Air Quality, given the inherent uncertainty of air dispersion modelling discussed in ES Chapter 6 Air Quality Section 6.6 [APP-073] National Highways acknowledges the request for monitoring and will continue to discuss this with Essex County Council. National Highways also acknowledges the emerging draft Essex Air Quality Strategy. Since the ES has been made public, (of the four local authorities relevant to the scheme) Braintree District Council has installed new NO2 diffusion tubes in the vicinity of the mini roundabout on The Street and Maldon Road junction.</p>		

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2.35	Evidence is required that the impacts of the planned Integrated Waste Management Facility (IWMF) have been taken into account	Interrelationships document [APP-271] Environmental Statement, Chapter 11 Material Assets and Waste [app-078]	The IWMF will be a significant generator of traffic in the future. The County Council requires evidence to demonstrate that this has been considered adequately in the design of the A12 scheme	The interrelationship document [APP-271] has been updated to include information on the planned Integrated Waste Management Facility. A Statement of Common Ground meeting focusing on Environment topics was held on 25 August 2022 where a member of the environment team guided the council through this aspect of the ES. At this meeting, the following information was shared: <ul style="list-style-type: none"> Waste management infrastructures have been considered in the assessment, see Chapter 11 Material Assets and Waste [app-078] 	Under discussion	10/11/2022
2.36	Drainage	Environmental Statement, Appendix 14.5, Flood Risk Assessment [APP-162]	The highways drainage design for the proposed scheme has primarily been developed in accordance with the Standards and Advice Notes in the Design Manual for Roads and Bridges As part of their drainage design criteria ECC requires:	The proposed scheme follows National Highways requirements as set out in the Design Manual for Roads and Bridges. The Flood Risk Assessment [APP-162] supported by the Surface Water Drainage Strategy demonstrates that	Under discussion	16/03/2023

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			<p>-Allowable discharge rates to minimum 1l/s greenfield runoff rates – Provision of at least 50% betterment on existing/ brownfield discharge rates.</p> <p>- Accounting for half-drain times for the design of attenuation storage facilities</p> <p>-Inclusion of long-term storage when flow matching on a range of discharge rates</p>	<p>there will be no increase in flood risk as a result of the proposed scheme.</p> <p>A fortnightly meeting with National Highways and Essex County Council drainage team has been arranged to start in early April to discuss these matters in more detail.</p>		
2.37	Replacement Land		<p>ECC to discuss internally what their position is with replacement land. Joint meeting to then be had with Witham and Braintree to see how this will be progressed.</p>	<p>The A12 is proposing to replace the lost area of Open Space with similar land that enables the enjoyment of open space.</p> <p>There is an area of open space impacted by the widening of Benton Bridge. This is a Essex Railway Linear Park. We will not sever the linear park but will enlarge the bridge and making the underpass longer. The linear park is potential further affected by the gas main diversion in the vicinity of Benton Hall Golf Club. We are proposing to connect the linear path with a new path parallel to the A12 connecting Benton Bridge to Brain Bridge and the Whetmead Nature Reserve.</p> <p>Full details of the proposed Replacement Land can be found in</p>	Under discussion	27/01/2023

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				<p>the Replacement Land Statement. Area 5, Blackwater Rail Trail refers to Replacement Land for Essex CC.</p> <p>The initial joint meeting between NH, Essex CC, Witham TC and Braintree DC was held on 24th January 2023.</p>		
2.38	Historic Environment – Archaeology: Trial Trenching Report	Environmental Statement Appendix 7.7 Archaeological Trial Trenching Report [APP-114]	<p>The impact on archaeology and geoarchaeology have not been taken into account and so full consideration of Heritage issues have not yet been addressed.</p> <p>The trial trenching report submitted as supporting information for the cultural heritage chapter is only a draft report. A revised version of the report will be required to be submitted with the application.</p>	National Highways has received Essex County Council's comments on the Archaeological Trial Trenching Final Report [APP-115], and a revised report has been produced by the archaeological contractor which will be submitted to the Examining Authority in due course.	Under discussion	16/03/2023
2.39	Historic Environment: Archaeology - Identification of mitigation areas	Environmental Statement Chapter 7: Cultural heritage [APP-074]	<p>More detailed plans locating areas and extent of areas proposed for mitigation need to be submitted.</p> <p>Cross reference of sites identified for mitigation with site identification from Trial trenching report will be required.</p> <p>The following will need further discussion and information to be provided:</p>	<p>This action is in process and the scope which has been subject to negotiation and now confirmed with the stakeholders will be presented in the respective Written Scheme of Investigation, (WSI's).</p> <p>Site nomenclature throughout the WSI's refers to the Site number (going forward)/Land Parcel Number/Colloquial site name.</p>	Under discussion	16/03/2023

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			<p>- Any additional sites for mitigation identified by the curators will need to be included within the final list of sites for mitigation.</p> <p>The details for each site requiring archaeological mitigation summarised in Table 5.1 of the Archaeological Mitigation Strategy and their locations and extents on Figure 7.10.</p>	<p>A plan which clarifies this site by site is currently in production and will be disseminated in due course.</p> <p>Chapter 7: Cultural heritage [APP-074] and the relevant tables will be updated when mitigation scope is finally agreed.</p> <p>At present, discussions on mitigation scope are ongoing. Nine areas where mitigation is known or likely to be required remain outstanding and 24 where no further work is likely to be required remain outstanding. It is hoped that the final scope will be determined by 28/02/23.</p> <p>An updated comment regarding archaeology can be seen in the Applicant's response to Essex County Councils Local Impact Report [REP3-021,] specifically pages 72 – 73.</p>		
2.40	Historic Environment: Mitigation strategy for the Roman roads	Appendix 7.10: Archaeological Mitigation Strategy, of the Environment	The proposed mitigation strategy for the Roman roads (Assets 1, 111, 112, 736, 774, 780) needs to be more considered as an intermittent watching brief would not be considered appropriate for this heritage asset.	National Highways has had a preliminary discussion with the Council's heritage advisors about mitigation for affected sections of Roman road routes. Potential locations for limited trial trenching to confirm the presence or absence of Roman roads and to allow recording	Under discussion	16/03/2023

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		al Statement [APP-118]	A limited trial trench evaluation within the areas where the Roman road is purported to lie and have potential to survive would enable a more controlled and considered approach to investigation as excavation of these features may require more time and resources than would be available during an intermittent watching brief.	<p>before construction will be agreed in due course. This change will be documented in an addendum to Appendix 7.10: Archaeological Mitigation Strategy, of the Environmental Statement [APP-118], and the detailed methodology set out in a forthcoming written scheme of investigation for the archaeological mitigation works.</p> <p>An updated comment regarding archaeology can be seen in the Applicant's response to Essex County Councils Local Impact Report [REP3-021], specifically pages 72 – 73.</p>		
2.41	Historic Environment: Mitigation strategy for areas of high Palaeolithic potential	Environmental Statement - Appendix 7.8: Palaeolithic Palaeoenviro nmental Evaluation Report - Part 1 & 2 [APP-115/116]	The mitigation strategy proposed for the 4 areas of high Palaeolithic potential that have been identified to date includes further evaluation to aid more detailed mapping of deposits of high Palaeolithic potential, however the extent and timetable for this is not clear and there is no consideration for the potential for preservation in situ should nationally significant deposits or sites be discovered which will be impacted upon by the scheme. Further evaluation should be completed prior to the detailed design phase to provide	National Highways is in the process of commissioning further specialist work to more clearly understand the Palaeolithic and palaeoenvironmental resource and the potential impact of the proposed scheme. This work will define clear areas where mitigation may be required, areas which may be confidently de-scoped, and areas where preservation in situ may be appropriate. The Council and their heritage advisors will be consulted	Under discussion	06/04/2023

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			<p>flexibility for scheme design change and therefore provide the opportunity for preservation in situ should nationally important sites of Palaeolithic archaeology be identified.</p> <p>ECC is currently reviewing the information provided on this within National Highway's response to our Local Impact Report [REP3-021] and intend to respond shortly.</p>	<p>on the scope and results in due course.</p> <p>An updated comment regarding archaeology can be seen in the Applicant's response to Essex County Councils Local Impact Report [REP3-021], specifically pages 72 – 73.</p>		
2.42	Landscape: Veteran Tree Survey	Environmental Statement Appendix 8.4: Arboriculture Impact Assessment [APP-122]	<p>There is no reference to a veteran tree assessment or management strategy being undertaken. We note that the ES makes reference to 'potential' veteran trees, however, in order to suitably mitigate, a full veteran survey must be undertaken prior to an Arboricultural Method Statement (AMS) and/or a mitigation strategy being finalised.</p>	<p>Multiple features that are likely to meet the criteria of ancient and/or veteran tree status have also been identified within the Arboricultural Impact Assessment presented within Appendix 8.4 of the Environmental Statement [APP-122]. All features that meet these criteria have been awarded category A grading and are recorded as potential ancient or potential veteran within the tree survey schedule. The word 'potential' is applied to differentiate these trees from verified veteran and ancient trees as defined by the Woodland Trust, however, for the purposes of the Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) they will be treated as veteran trees and protected as per the guidance of the</p>	Under discussion	27/01/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				<p>Ancient Tree Forum and Woodland Trust. Information within the Arboricultural Impact Assessment relating to ancient and veteran trees would be used to inform the AMS and TPP that would be prepared during the detailed design phase.</p> <p>Where appropriate, the AMS will contain detailed specifications for the protection and management of all identified veteran trees through the construction process. Design principles relating to veteran trees, based on standing advice from Natural England and Forestry Commission, are presented in the Design Principles document [APP-280].</p>		
2.43	<p>Historic Buildings</p> <p>Designated specialist for built heritage</p>	<p>Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074]</p>	<p>Unlike the Archaeological environmental specialism, there appears to be no designated specialist for cultural heritage (cultural heritage is taken as meaning above ground, built heritage assets).</p> <p>A built heritage specialist should be appointed to take responsibility for ensuring the appropriate actions are implemented for all Listed buildings, historic parks and gardens, historic landscapes, Conservation Areas and</p>	<p>As mentioned in Section 7.2 of Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074], the assessment has been undertaken and reported by a team of competent heritage specialists, including a archaeology specialist and built heritage specialist. The competent expert responsible for the built heritage assessment is a Heritage Consultant, BA (Hons), MA, Member of the Institute of Historic Building Conservation, and Member</p>	Under discussion	16/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>above ground designated and non-designated heritage assets.</p> <p>ECC is currently reviewing the information provided on this within National Highway's response to our Local Impact Report [REP3-021] and intend to respond shortly.</p>	<p>of the Chartered Institute for Archaeologists (MCIfA) with 24 years' experience of undertaking cultural heritage for major infrastructure and linear projects, including major highways schemes, for which the process of Environmental Impact Assessment has been required.</p> <p>An updated comment regarding veteran trees can be seen in the Applicant's response to Essex County Councils Local Impact Report [REP3-021], specifically pages 41-42.</p>		
2.44	Historic Buildings Management Plan	Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074]	<p>There is an Archaeological Management Plan, but there is no Historic Buildings Management Plan. Some of the many issues that could affect historic buildings and places are perhaps covered in the Dust Management Plan (Appendix E), the Noise and Vibration Management Plan (Appendix K). Yet there is no individual management plan for built heritage, where all the relevant considerations are drawn together. A specific built heritage management plan is therefore crucial,</p>	<p>The Archaeological Management Plan (AMP) is a document specifically required by the DMRB LA 106 methodology. There is no such requirement for a standalone built heritage management plan within DMRB LA 106. This is because, in general, direct impacts on historic buildings area rare, whereas archaeological sites are more usually subject to direct impacts. This is the case for the proposed scheme, where the built heritage assessment, the significant</p>	Under discussion	16/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				<p>impacts identified in Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074], are impacts on the 'settings' of historic buildings; no direct physical impacts are predicted. The mitigation for these impacts therefore largely takes the form of 'embedded mitigation', such as landscape planting and low noise road surfaces. The additional small number of impacts which require specific management are referred to in the AMP [APP-186] which refers to mitigation in the Archaeological Mitigation Strategy [APP-118].</p> <p>National Highways welcomes the fact that Essex County Council agrees that the information provided on assessment is appropriate, the Heritage Impact Assessment Summary tables are comprehensive providing a sufficient description of the asset, and the study area appropriate. In regard to the request to provide more detailed street addresses and post codes for historic buildings, to allow identification, each heritage asset is related to an individual number which is shown on the associated</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
				figures entitled Built Heritage and Historic Landscape, Figure 7.2 [APP-216] of the Environmental Statement.		
2.45	Clear and consistent definition of the role of the archaeological Curators (ECC and Colchester District) in the Archaeological Management strategy and all documents.		<p>Clarification on the role of the archaeological curators is needed in regard to the signing off the archaeological mitigation in the field post excavation work.</p> <p>Clarification of excavation strategy is required.</p> <p>The appropriate publication route for the mitigation needs further consideration.</p>	<p>This is clarified in the Advanced Works Written Scheme of Investigation (WSI) section 8 & 10 which was submitted for review on 12 December 2022.</p> <p>This will also be outlined in the forthcoming Main Works and Palaeolithic WSI's.</p>	Under discussion	15/12/2022
2.46	REAC		An additional action needs to be added to the REAC to secure the long-term publication and archiving of the archaeological and geoarchaeological resource.	<p>This is clarified in the Advanced Works Written Scheme of Investigation (WSI) section 8 & 9.</p> <p>This will also be outlined in the forthcoming Main Works and Palaeolithic WSI's.</p>	Under discussion	15/12/2022
2.47	Slow vehicle diversion routes		ECC is in discussion with NH regarding the diversion of slow moving farm vehicles through Witham. No position has been agreed by.ECC yet.	Witham Town Council would prefer that slow moving vehicles travel through the town centre rather than the current available route, Spinks	Under discussion	16/01/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
	through Witham			Ln/ Spa Rd/ Powers Hall End. Witham Town Council may wish to pursue this with ECC as it would require a change to the existing Traffic Regulation Order through the town centre. National Highways will support the ongoing discussions between ECC and Witham Town Council.		
2.48	Speed limits during construction	Outline Construction Traffic Management Plan [APP-272]	<p>More clarity is required on speed limits during the construction period.</p> <p>ECC believe that the proposed speed limits could have a significant impact on the use of local roads as an alternative.</p>	Further detail on speed limits during construction can be found in the Outline Construction Traffic Management Plan, Section 5.12 [APP-272]. On the A12 National Highways will operate in accordance with the highest safe speed guidance however, for some construction phases available carriageway width will constrain the maximum speed limit. National Highways will work with ECC and other stakeholders in the traffic management forum to agree speed limits on the A12 and where appropriate local roads.	Under discussion	27/01/2023
2.49	Social value - economic impact of construction has not been		It is understood that the construction stage would be expected to provide substantial benefits to the local economy, could provide a significant boost to jobs within the area and to	A Principal Contractor would support local schools and colleges offering apprenticeships, work placements and Science, Technology, Engineering and Maths (STEM)	Under discussion	16/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
	sufficiently explored.		<p>offer and present opportunities for local businesses to increase trade. Economic impacts, both positive and negative, accordingly require greater attention within the ES. However, it will be too late to plan for these benefits in Stage 6 (the construction phase).</p> <p>ECC requests that NH provide a specific plan, with commitments, to identify how the social value benefits of the A12 scheme construction will be ensured.</p> <p>ECC is currently reviewing the additional information provided by National Highways and intend to respond shortly.</p>	<p>ambassadors. Further information is detailed in paragraph 13.17.21 of the Environmental Statement - Chapter 13: Population and Health [APP-080]. National Highways would engage with Essex County Council to support local skills and employment but the Council's requirements for a new construction and roadworks skills training facility and to sponsor or invest in a training facility for heavy vehicle operation relating to construction and roadworks go considerably beyond the scope and budget of the proposed scheme. National Highways would engage with key stakeholders such as Essex County Council as part of the skills and employment target setting process. As part of this process National Highways will consider the councils Skills and Employment Principles for Major Projects and Developments as contained in Appendix 3 of their LIR. Further information is detailed in 13.17.20 of the Environmental Statement - Chapter 13: Population and Health [APP-080].</p>		
2.50	Social value - economic		Within the more detailed assessment of this measure, ECC notes that there	This topic will form part of continued discussions with Essex County	Under discussion	27/01/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
	impact of construction has not been sufficiently explored.		<p>would be temporary and permanent impacts on land allocated for employment and commercial uses and to businesses. This raises some concern to ECC and we would wish to see attention given to appropriate minimisation and mitigation measures in this regard, particularly given.</p> <p>The significant difficulties faced by enterprise and business within Essex as a result of the COVID pandemic. This aligns with extensive work and efforts in which ECC and the other constituent local authorities have been involved since early 2020 to support businesses and jobs within Essex</p>	Council. Further information on this will be provided in the next iteration of the Statement of Common Ground.		
2.51	Drainage-surface water		<p>A definitive list and plans for the structures, drainage and all other assets for which it is proposed the Highways Authority will be liable is required. This should include all necessary information on asset condition such as as-built drawings, materials specifications and inspection reports (if available). A detailed list of information required for each asset category has been provided.</p> <p>The County Council needs to be clear on the assets, including their condition and design life / residual life, for which NH are proposing the Highways</p>	A programme of engagement has been developed to continue discussions with LLFA and Highway Authority. The project technical working group has been set up to undertake such engagement on a regular basis. As the proposed highway drainage design evolve over the coming months, this engagement will include sharing all relevant available information including drainage plans and other drainage assets, seeking feedback from LLFA and highway authority.	Under discussion	16/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			Authority will become liable. This will enable Essex to take an informed position on this. As a general rule the County Council would wish to minimise future maintenance liabilities as far as possible	A fortnightly meeting with National Highways and Essex County Council drainage team has been arranged to start in early April to discuss these matters in more detail.		
2.52	Drainage – Inworth Road		<p>The inclusion of a drainage system on Inworth Road should be included as part of the scheme</p> <p>The existing drainage system is already struggling to cope with current levels of rainfall, which affects traffic flows in this area during severe weather. If traffic flows increase as a result of the scheme upgrading the drainage network is required to ensure that future rainfall events do not cause worsening traffic issues in the area. The supplementary consultation states that a detailed assessment of flood risk will be undertaken; this is welcomed but it is not clear when this will take place or how drainage improvements will be secured.</p>	<p>A review of drainage and flood risk proposals for Inworth Road is currently being undertaken and we anticipate completing this assessment by end of January 2023. This will inform the proposed drainage improvement works which will be accommodated within the Order Limits of the proposed scheme Development Consent Order.</p> <p>A fortnightly meeting with National Highways and Essex County Council drainage team has been arranged to start in early April to discuss these matters in more detail.</p>	Under discussion	16/03/2023
2.53	Drainage – Surface Water		Amendments to scheme-wide drainage and Green Infrastructure (GI) proposals are required to ensure that all impacts on County Council assets are mitigated	This topic will form part of continued discussions with Essex County Council. Further information on this will be provided in the next iteration	Under discussion	16/03/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>to the stringent standards required by the County Council. This includes ensuring that pollution control mitigation is in place for all outfalls from the drainage network, increased detail in terms of drainage design or reassurance that processes are in place to provide this for further review before a formal decision can be made on scheme design and the inclusion of information about how and where biodiversity net gain will be delivered.</p> <p>The current proposals do not include pollution mitigation on all outfalls. This should be included to make sure that this significant piece of infrastructure is held up to the same stringent requirements highlighted within the Essex SuDS Guide, that are placed on smaller scale developments.</p> <p>Although the current design meets national design standards, which allow increases in the level of pollutants in the environment, it still constitutes a worsening of current environmental pollution levels and does not take any steps towards enhancing the natural and local environment, which is a key principle of national and local guidance. The submission of further details on</p>	<p>of the Statement of Common Ground.</p> <p>A fortnightly meeting with National Highways and Essex County Council drainage team has been arranged to start in early April to discuss these matters in more detail.</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>biodiversity impact mitigation is needed to bring the scheme in line with the Essex GI Strategy, 2020, Essex Climate Action Commission recommendations and emerging Essex GI Standards (building on the National GI Framework, which is a commitment from the 25 Year Environment Plan- https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx).</p> <p>It is important that the scheme works with and reflects high-quality multifunctional GI features present both on and off site wherever possible in terms of habitat type, land use, boundary features, scale and location and minimise the introduce of GI features that have single benefit or of no local relevance.</p>			
2.54	Asset information		<p>A definitive list and plans for the structures, drainage and other assets for which it is proposed ECC will be liable is required. This should include all necessary information on asset condition such as as-built drawings, materials specifications and inspection reports (if available). A detailed list of information required for each asset category has been provided.</p> <p>ECC needs to be clear on the assets, including their condition and design life</p>	<p>The Classification of Roads plans were issued to Essex County Council in advance of the submission for Development Consent.</p> <p>More recently, National Highways Project Director has been in contact with the Head of Network Development at Essex County Council regarding the assets to be transferred, and the design standards to be applied. Technical</p>	Under discussion	27/01/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			/ residual life, for which NH are proposing ECC will become liable. This will enable ECC to take an informed position on this. As a general rule we wish to minimise future maintenance liabilities as far as possible.	working groups have also been established and discussions will remain ongoing.		
2.55	Little Braxted Lane		ECC wishes to commence work on the design of Little Braxted Lane and confirm the design elements required to discourage use by HGVs and oversize vehicles in conjunction with National Highways, and will raise this at the appropriate technical working group meeting.	National Highways will proactively work with Essex Highways to design Little Braxted Lane in a manner that deters HGV's and oversize vehicles from travelling southwards from the A12 beyond the access to Colemans quarry, whilst recognising that this will remain an Essex Highways asset. This might include a series of design elements including highway geometry and cross section, signage and road markings, street furniture, including advance signage.	Under discussion	06/04/2023
2.56	Geoarchaeological assessment	Chapter 7: Cultural Heritage, of the Environmental Statement [APP-074]	Additional information, in line with the geoarchaeological specialist recommendations will be required before acceptance of the Design, Mitigation and Enhancement Measures (Section 7.10; 6.1 ES Chapter 7, Cultural Heritage). This includes the requirement for further investigation along the scheme in order to confirm interpretation of the Quaternary landscape model presented within the Paleolithic and palaeoenvironmental	National Highways is in the process of commissioning further specialist work to more clearly understand the Palaeolithic and palaeoenvironmental resource and the potential impact of the proposed scheme. This work will define clear areas where mitigation may be required, areas which may be confidently de-scoped, and areas where preservation in situ may be appropriate. The Council and their	Under discussion	08/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			evaluation report. It is not considered that enough or adequate information has been obtained to confidently de-scope areas of Paleolithic potential or paleoenvironmental significance from the entire scheme. The potential for preservation in situ has also not been considered.	heritage advisors will be consulted on the scope and results in due course.		
2.57	Recovery of ECC Costs		<p>ECC believes the DCO should include provisions to recover costs from NH for works associated with the potential discharge of Requirements, reviewing and approving the detailed design impacting the local road network, carrying out any supervision and inspection of the construction works impacting the local road network, and any additional non-statutory duties placed on us should the Secretary of State grant development consent.</p> <p>Progress on a PPA covering the detailed design stage has hitherto been slow and this remains an area of concern for ECC.</p>	National Highways notes Essex County Council's concern around PPA and funding. A PPA was agreed for pre DCO submission (August 2022) covering Stage 3 activities, these include preliminary design and submission of our DCO. As National Highways is running Stage 4 and 5 concurrently, (Stage 4 being the DCO Examination and Stage 5, construction preparation and detailed design), a PPA is currently under consideration for the detailed design phase.	Under discussion	16/03/2023
2.58	Classification of roads and speed limits	Draft Development Consent	Essex County Council has potential concerns with the proposed classification of and speed limits for		Under discussion	06/04/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		Order [AS-020], Article 15, Article 16 and Schedule 3	<p>some of the local roads listed in Schedule 3 of the draft DCO, and by extensions the standards that will be applied when designing said roads. The council does not agree with all of the speed limits proposed, and considers it important that speed limits are not imposed on local roads that the responsible local highway authority does not agree with.</p> <p>As it stands many of the proposed changes do not comply with national guidance, the council's Speed Management Strategy or the relevant Highway Practice Notes, with some of the proposed speed limits lower than the council would expect. The key principle of the Speed Management Strategy is to ensure that the speed for any road is in keeping with its environment. The consequence of a speed limit which is not suited to the context of the road is that there could be poor compliance with the speed limit, which creates operational and road safety risks.</p>			
2.59	Bridge cross sections	General Arrangement Plans 1-5 [APP-020] [APP-021]	Essex County Council and National Highways have been in dialogue regarding the cross sections of new and amended bridges that will cross the A12, with specific regard to the space		Under discussion	06/04/2023

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
		[APP-022] [APP-023] [APP-024], Structures Engineering Drawings and Sections [APP-031] [APP-032]	provision to be made for pedestrians, cyclists and horse riders. While some changes have been made to some of the cross sections at the request of the council, in accordance with relevant design guidance such as LTN 1/20, the council remains of the view that further changes are still required to ensure the bridges meet the requirements of active users and considers that these changes should be secured through the DCO. Discussions on the further changes requested and the reasoning for these changes is ongoing.			

4.3 Issues in disagreement

Table 4.3 Issues in disagreement between Essex County Council and National Highways

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
3.1	Detrunking	SoCG Appendices A, D & E	Essex County Council believe that the approach to the de-trunked sections put forward by NH is unacceptable and represents a significant missed opportunity. In its current state the de-trunked sections would create significant unnecessary future maintenance liabilities for the Council and be	The council's requirements go considerably beyond the scope and budget of the A12 project. National Highways' Operational Team has developed the following principles for de-trunking standards that National Highways will seek to agree with the council. This was	In disagreement	08/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>detrimental to future development and mode shift objectives.</p> <p>Key sections of the proposed de-trunked A12 should be redesigned, to ensure that they are appropriate for expected future traffic flows, encourage mode shift to more sustainable forms of transport and better accord with the environmental objectives of the scheme.</p> <ul style="list-style-type: none"> • The maintenance liability would be huge, and this is a significant concern for Essex, particularly given the extent and current condition of assets that NH are proposing would be transferred. • A significant opportunity for landscape and carbon mitigation would be lost. Retention of a dual carriageway would detract from the local environment, increase the risk of the road being used inappropriately and fetter future development options along the corridor. • The A12 scheme will be a large generator of carbon and NH need to make the most of every opportunity to offset 	<p>outlined to the council in the letter sent on 4 July</p> <ol style="list-style-type: none"> 1. The de-trunked assets will meet the standard of safe and serviceable operation, as set out in the Design Manual for Roads and Bridges. 2. The condition of the de-trunked roads will be similar to other comparable roads on the Strategic Road Network as measured by the Pavement Condition Key Performance Indicator in Roads Investment Strategy 2: 2020 – 2025 (or any relevant replacement from time to time in force). 3. Prior to de-trunking, maintenance will have been undertaken in accordance with an intelligence-led system designed to achieve optimum intervention for each individual asset by improving asset quality and customer satisfaction whilst 		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>carbon the impact of the scheme.</p> <ul style="list-style-type: none"> The nature of the de-trunked A12 will change beyond recognition. The low traffic flows forecast for the road demonstrate that it will become a local access road only. The A12 scheme needs to ensure that the design of road matches its intended purpose, rather than leave it as an inter-urban highway with potential road safety issues around speeding traffic <p>In addition, information on the condition of the assets which NH are proposing will be transferred to ECC is still required. This has been requested since March and the continued absence of this data is affecting ECC's ability to form a full and informed view on de-trunking</p> <p>ECC's response to National Highways Letter dated 1 December 2022 can be seen in Appendix D.</p> <p>The letter from ECC to which NH were responding on 1 December 2022 can be seen in Appendix E</p>	<p>offering greater value for money.</p> <p>4. Maintenance schemes for de-trunked assets which have previously been identified for delivery through funding in Road Investment Strategy 3: 2025 to 2030 will be completed or funded by National Highways.</p> <p>A further letter outlining National Highways position was sent on 1 December 2022 and can be seen in Appendix A. A meeting was held on 16 January to discuss this further.</p>		

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
3.2	De-trunking. Junction 22 to Rivenhall End.		<p>Inappropriately large highway for predicted traffic flows and missed opportunity for improvements to provision for active, sustainable modes and electric vehicles</p> <p>The DCO proposals should be amended as follows:</p> <p>Jn 22 to Rivenhall End West Roundabout:</p> <ul style="list-style-type: none"> • Reduce eastbound carriageway to one lane, to provide space on northern side of road for enhanced provision for pedestrians and cyclists and additional green infrastructure. • Set aside land for an electric vehicle (EV) rapid charging station and provision for ground mounted solar PV generation and on shore wind to feed renewable energy to charging station. <p>Rivenhall End West Roundabout to Rivenhall End east:</p> <ul style="list-style-type: none"> • Retain one side of the dual carriageway as highway (likely to be the current southbound carriageway) and repurpose 	Answer as 3.1 of Table 4.3.	In disagreement	08/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>the other side with green infrastructure and enhanced provision for pedestrians and cyclists.</p> <p>Reduce size of Rivenhall End West Roundabout and remove Rivenhall End East Roundabout. This may provide some cost savings which in turn could go some way towards offsetting the costs of repurposing one of the carriageways</p>			
3.3	De-trunking. Junction 24 to Marks Tey.		<p>Inappropriately large highway for predicted traffic flows and missed opportunity for improvements to provision for active and sustainable modes.</p> <p>The DCO proposals should be amended to:</p> <ul style="list-style-type: none"> Retain one side of the dual carriageway as highway (likely to be the current southbound carriageway) and to repurpose the other side with green infrastructure and enhanced provision for pedestrians and cyclists Provide simple T-junctions at New Lane, Wishing Well Farm and Easthorpe Road junctions, rather than roundabouts, which may 	Answer as 3.1 of Table 4.3.	In disagreement	08/12/2022

Ref	Issue	Doc Reference	Essex County Council Position	National Highways Position	Status	Date
			<p>provide some cost savings which in turn could go some way towards offsetting the costs of repurposing one of the carriageways.</p> <ul style="list-style-type: none"> Reduce the size of the proposed New Lane and London Road roundabouts. 			
3.4	Provision of space should be made for renewable energy generation and electric vehicle charging points		<p>Essex needs significant investment in electric vehicle infrastructure and renewable energy generation in support of the climate action agenda and energy security in line with Government policy. The transition to electric vehicles and the need for more renewable energy to be generated, stored and used locally demands that more renewables are generated locally.</p> <p>ECC remains of the view that NH should be doing more to promote the switch to electric vehicles and this scheme presents a good opportunity to increase charging infrastructure provision in the vicinity of the Strategic Road Network.</p>	Charging of electric vehicles and alternative fuelling provision are expected to be provided in roadside service facilities, rather than on-network. These are therefore not part of the scheme design proposals.	In disagreement	06/04/2023

Acronyms

Abbreviation	Term
DCO	Development Consent Order
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
ECC	Essex County Council
EMP	Environmental Management Plan
ExA	Examining Authority
LEMP	Landscape and Ecology Management Plan
LOAEL	Lowest Observed Adverse Effect Level
LPAs	Local Planning Authorities
NNNPS	National Policy Statement for National Networks
OCTMP	Outline Construction Traffic Management Plan
PA 2008	Planning Act 2008
PEIR	Preliminary Environmental Information Report
PRA	Preferred Route Announcement
REAC	Register of Environmental Actions and Commitments
SOAEL	Significant Observed Adverse Effect Level
SoCC	Statement of Community Consultation
SoCG	Statement of Common Ground
TWG	Technical Working Group

Glossary

Term	Definition
Members Forum	Forum with elected Councillors in Essex, including County, District, City and Borough Councillors.
Host Authority	Local Authorities in which the proposed scheme passes through.

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References

Appendix D within the Scheme Assessment Report Addendum. Available at:

[Redacted]
[Redacted]

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Appendix A – Letter from National Highways to Essex County Council dated 1 December 2022

Appendix B - NH Walking, Cycling and Horse-Riding Matrix

Appendix C - ECC Amended Walking, Cycling and Horse-Riding Matrix

Appendix D – Letter from Essex County Council to National Highways dated 31 October 2022

Appendix E - Letter from Essex County Council to National Highways dated 7 February 2023

Appendix F – ECC Additional Modelling Requests

Appendix G – National Highways Response to “ECC Additional Modelling Requests”

Appendix A – Letter from National Highways to Essex County Council dated 1 December 2022



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01 December 2022

Sent via email

Dear Billy

A12 CHELMSFORD TO A120 WIDENING SCHEME - ESSEX COUNTY COUNCIL'S POSITION ON THE A12 JUNCTION 19-25 WIDENING PROJECT

I am writing in response to your letter of 31 October 2022: Update on Essex County Council's Position on the A12 Project.

I am grateful for your comments about the engagement that has taken place. It has been thorough and has required a committed, open and collaborative approach from both sides so please pass on my gratitude to the way your team has embraced that.

In this letter I respond to each of the areas you have raised and confirm the A12 project's position, and in most instances confirm what I believe to be the next steps.

Junction 19

In your letter you ask the project to contribute to a joint study on what work might be required to junction 19 for Essex County Council to deliver its dualled Chelmsford North East Bypass (CNEB).

As the dualled CNEB is not a committed scheme it is not provided for in the A12 project design. The dualled CNEB would tie into the strategic road network at junction 19 and ECC should follow the standard process, with an approach the National Highways Spatial Planning team at the appropriate time. That team is best placed to consider and advise on emerging and proposed development and infrastructure.

Boreham and the B1137, including Junctions 20a and 20b

In your letter you support the speed limit reduction from 40mph to 30mph through Boreham but suggest more interventions are required to ensure that the proposed speed limit is complied with. You further state that for the section between Boreham and Hatfield Peverel where the current speed limits change between 40mph, 50mph

and 60mph the council does not currently support the proposal. We sought further clarity on this at our meeting on 4 November 2022. ECC confirmed that the concern is whether a reduction to 40mph would be complied with given the nature of the road.

As reported in the Transport Assessment Appendix C, when the schemes opens the traffic on Main Road is expected to increase by around 180 vehicles in the morning peak hour but reduce by around 90 vehicles in the evening peak hour. The additional traffic in the morning is well within the road's capacity.

Regarding speed limits, you helpfully separated the proposals into the community of Boreham and the section of road between Boreham and Hatfield Peverel.

Boreham community

Boreham has an existing speed limit of 40mph, which is considered high for a large village with many journeys on foot alongside and crossing the road over such a long section of Main Road. This includes journeys for education, employment, and services (for example shops and leisure facilities).

The A12 project has considered the guidance in DfT Circular 01/2013 and the 'Safe System' approach of appropriate speeds for usage. The A12 project has concluded that 30mph limit is appropriate for a road of this nature. The draft DCO includes the required Traffic Regulation to apply this new limit where required. This will only apply to the section without street lighting because where 'a system of street lighting' is present, a default 30mph limit applies and no TRO is needed to replace the signed 40mph limit with a 30mph limit.

Regarding the existing average speed in the relevant section, the information available to us shows this to be 32mph in the middle of the day (10.00-16.00). This suggests that most drivers are already choosing a speed more in keeping with the location and usage than the 40mph posted speed limit.

Typical speed reductions for signed-only speed limit changes are in the region of 1-2mph, and such a reduction would bring a small but worthwhile further benefit, noting that a 1mph speed limit change has been shown to have a typical 5% casualty-reduction effect (research by TRL and others). This suggests that reducing the posted speed limit from the current 40mph to the 30mph proposed by the A12 scheme is likely to result in an average speed consistent with the character of the Boreham settlement and its usage and encourage the growth of active travel. No additional engineering measures are necessary to achieve an average speed that is suitably consistent with the proposed posted speed limit.

Between Boreham and Hatfield Peverel

In the section of B1137 between Boreham and Hatfield Peverel, there are speed limit sections (from southwest to northeast) of 40mph, 60mph and 50mph. Measured speeds over this section show average speeds below the posted

speed limits. This is likely to reflect the relatively confined environment; some frontage development and the narrow adjacent footway because self-evident hazards are most effective in naturally suppressing driver speed.

While the detail of existing speed profile in this section is limited, it suggests that a lowering of the speed limit is both appropriate and safe, and it is likely that a reduction in the limit would deliver a small but worthwhile reduction (typically 1-2mph) in speed. The currently available speed data suggests that there is no necessity for additional engineering measures to be implemented for a reduced speed limit to operate safely.

It is further worth noting that the UK vehicle fleet is increasingly fitted with speed limit monitoring and driver alert technology, and this is likely to provide further benefits over time for both locations.

Considering the above, the A12 project does not see a need for additional interventions, but we are open to further discussions on this matter and I will ask the team to arrange a meeting in due course to discuss this section of the letter in more detail.

Junction 21

The A12 project team has undertaken detailed analysis of the proposals for a Maldon Link Road and this has been outlined in Chapter 3 of the Environmental Statement. A Maldon Link Road proposal does not fall within the scope of the A12 project, but, in response to requests from ECC, we provided a capacity note to show what effect a future link might have on junction 21 and the current embankment at the start of junction 21 on-slips could be redesigned to accommodate future widening, which would further help the delivery of a Maldon Link Road.

In your letter you asked that, in addition to the above requests that the A12 project has already positively responded to, we also pave the widened embankment and undertake a joint study with the council to identify a preferred Maldon Link Road route.

The A12 project does understand the long-term aspirations locally which were captured in the Statement of Common Ground created between Maldon District Council, Braintree District Council and Essex County Council in 2015. I have asked the team to assess what further work might be required to deliver the widened on-slips from the outset as you have requested. The project will arrange a meeting with the council in due course to update you on this and reaffirm what was discussed at the meeting on the 18 November.

With regard to undertaking a joint study to identify a preferred route for a Maldon Link Road, as you are aware the A12 project has provided a detailed technical report in the Environmental Statement on the Maldon Link Road, and that has concluded our work on this matter. However, I have asked the team to upload the following to the shared Teams site:

- The Computer Aided Design (CAD) models created for options shown in the technical report
- SATURN results for options shown in the technical report.

If the council would find it useful, the project would be happy to arrange a meeting to run through the information provided.

Annex N of the Consultation Report provides information on the feedback the A12 project received, including feedback on the potential for a Maldon Link Road.

De-trunking

We have now proposed a meeting for 16 December 2022 where we will provide an update, provide the asset inventory with forward maintenance programme and also discuss next steps.

National Highways is committed to reaching a suitable solution to de-trunking, but this will be a long process, not least as these sections of the A12 will remain the A12 trunk road for a considerable period. I look forward to discussing this in more detail on 16 December.

Junction 24

In your letter you updated the council's position on the B1023 bypass, and provided further comments on the B1023 roundabout, pinch points, walking and cycling improvements, and a range of measures that could "reduce the likelihood of rat-running" on local roads.

Regarding the roundabout on the B1023, as you will be aware, members of the A12 project met with Nathan Smart, Principal Engineer at ECC, on 28 September 2022 to discuss the design of the roundabout in more detail. I have been informed that it was a productive meeting where the team talked through the design. The detailed design team is producing a sketch to show the geometry of the roundabout and visibility achieved against the Design Manual for Roads and Bridges standards for roundabouts.

Turning to your comments about pinch points you first mentioned Hinds Bridge. The A12 project team has considered in some detail the traffic flow over the bridge and whether the project might exacerbate the existing issues when two large vehicles try to pass at this location. We expect a small decrease in traffic over the bridge because of the proposed scheme, but a relatively large decrease to the flow of large vehicles, which currently can cause delays over the bridge. As such the A12 project team believe that no interventions are required as part of the proposed scheme. Further information on the predicted flows over the bridge can be found below. These show predicted traffic in vehicles per hour in the scheme opening year of 2027:

All vehicles

	AM peak	PM peak	24hr total
Without scheme	822	892	11590
With scheme	779	900	10670
Change	-43	8	-920
% Change	-5%	1%	-8%

HGVs

	AM peak	PM peak	24hr total
Without scheme	14	4	116
With scheme	4	2	55
Change	-10	-2	-61
% Change	-71%	-50%	-53%

With regard to further pinch points, our proposed enhancements are restricted to the section of B1023 through Inworth settlement where there is a footway on one or both sides. This is to address the existing hazard in the area of pinch points of drivers avoiding oncoming vehicles by over-running the footway, putting pedestrians at risk. The modelled increase in traffic flows would, without mitigation, increase the frequency with which this occurs, so the widening at pinch points mitigates this risk to both address an existing shortfall and prevent a worsening of safety risk in that respect.

Lastly, as you will be aware from various meetings, with the proposed scheme in place, two vehicles per minute are expected at the busiest peak through Messing and this is well within the capacity of the roads in the village. As such, we are not proposing any further interventions beyond those proposed on the B1023. I am aware that the council has been engaging with both Tiptree Parish Council and Messing-cum-Inworth Parish Council on possible “subtle” interventions. Once you have received feedback from both parishes, we look forward to discussing these further.

Walking, cycling and horse-riding

In your letter you welcome the improvements that have been made to walking and cycling infrastructure, but believe further enhancements are required “in line with best practice (LTN 1/20)”. You further welcome the WCH matrix that we have produced.

In my letter of 4 July, I outlined the extensive WCH improvements we are proposing, which includes approximately 30km of new and improved facilities. All of the facilities will be LTN 1/20 compliant, including bringing 3.5km of the council’s existing facilities up to LTN 1/20 compliance.

Since that letter, we have had further detailed discussions about this, and I am grateful for the council’s inputs into the WCH matrix received by the project on 4 November 2022. I can confirm that I have instructed the team to undertake the additional traffic modelling request outline in the “Surface Crossing” tab.

Turning to the matter of implementing 5m radii on the ramps, and reducing switchbacks, I would like to reaffirm that the Stage 5 detailed design team have been instructed to amend the minimum radii of 5m on zig-zag ramps and 4m throughout, and to consider minimising the overall ramp lengths whilst taking into account the various existing and future desire lines in the vicinity of these structures. I believe that the detailed design workshops will ensure that the council is aware of how the design is evolving and you

will be able to see how the instruction is being implemented. To that end we look forward to working with the council's technical experts as part of the Technical Working Groups where the arrangement of these structures can be discussed and agreed as the design evolves.

The project agrees, as discussed, at our meeting on 4 November 2022 that the WCH matrix will provide a useful additional as an appendix to the Statement of Common Ground.

Monitoring and mitigation

In your letter you ask that the A12 project commits to monitoring traffic flows at certain locations once the scheme has opened, and to report the data. You further request that if this monitoring showed material unanticipated adverse impacts on the local highway network National Highways should work with the council to investigate, develop and implement suitable mitigation.

As part of the delivery of road schemes, National Highways does undertake post-opening project evaluations. An example of this can be found for the A556 Knutsford to Bowdon improvement scheme. We are of course happy to discuss this further at future meetings.



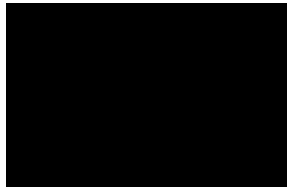
Construction impacts

I am grateful for your positive comments, and of course we look forward to ongoing engagement on this matter.

Concluding remarks

I trust that the above is helpful and clarifies the current position of the project. Your letter and this response provides a way to focus our engagement over the coming months, alongside other matters in the draft SoCG.

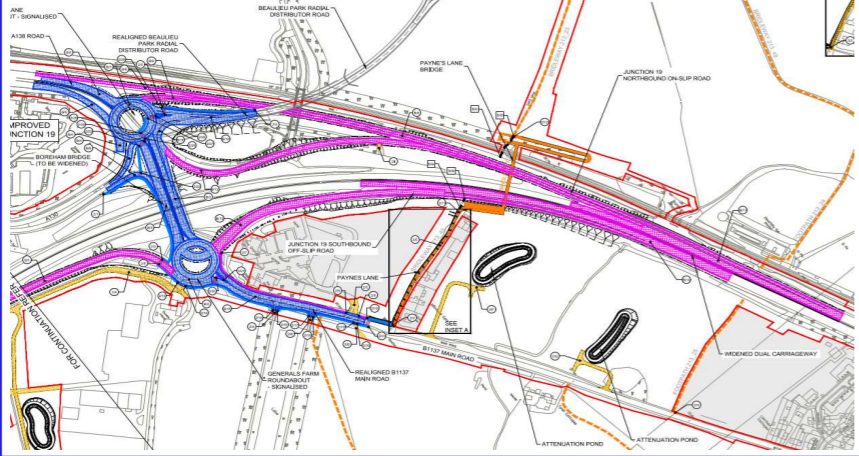
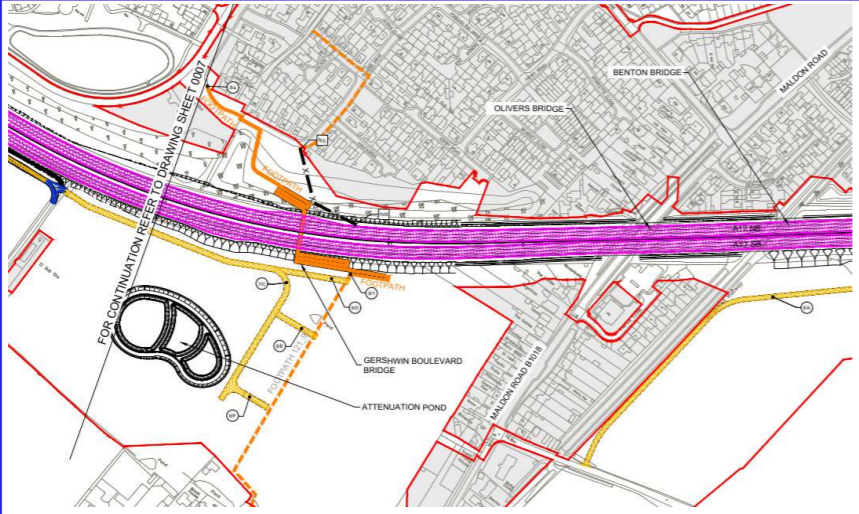
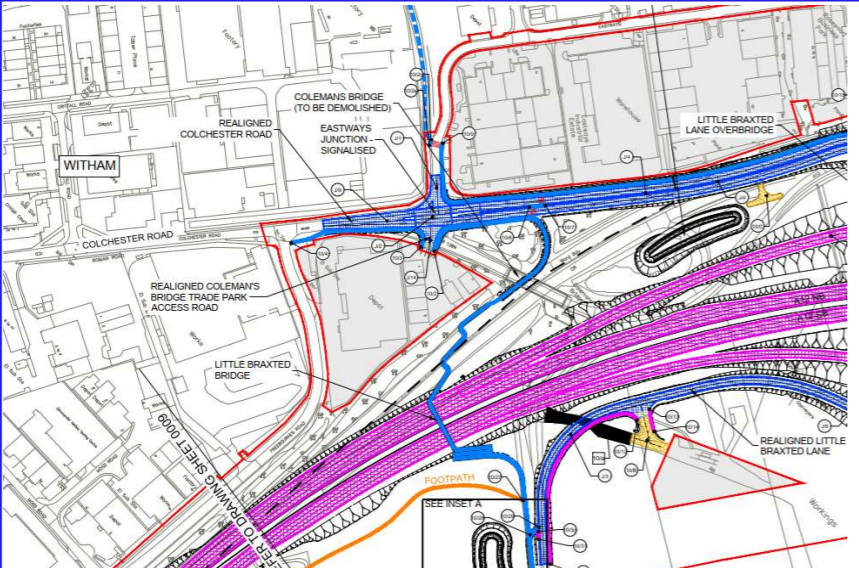
Yours sincerely


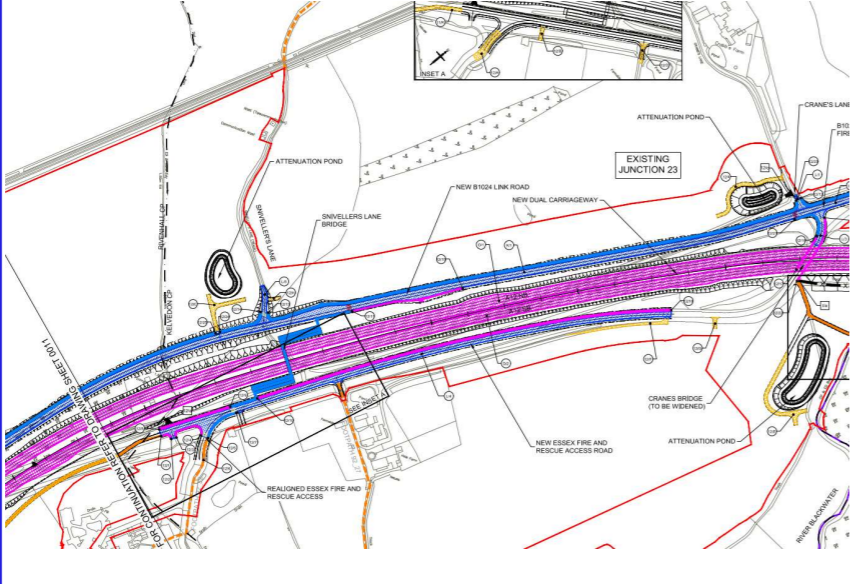
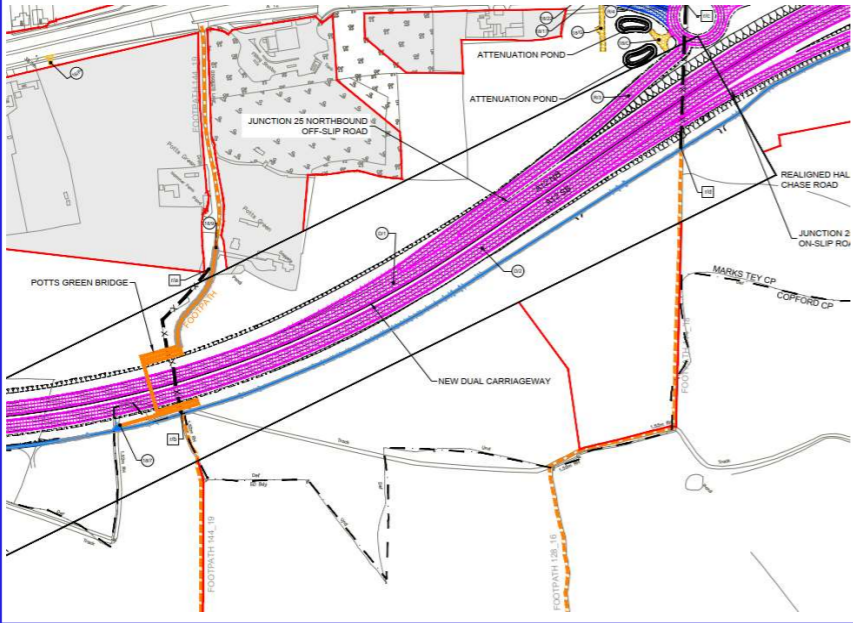
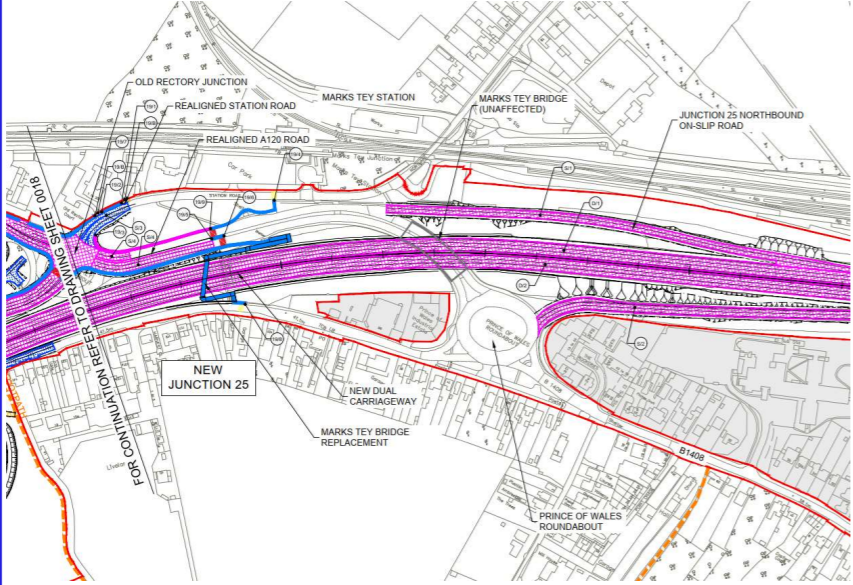


Philip Davie
Project Director – A12 Chelmsford to A120 widening scheme
Email: A12chelmsfordA120wide@nationalhighways.co.uk

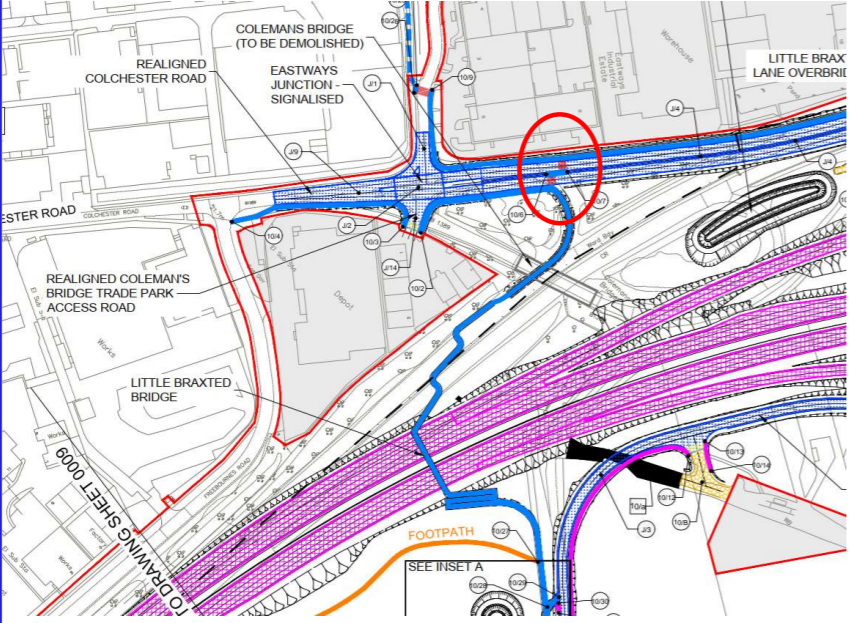
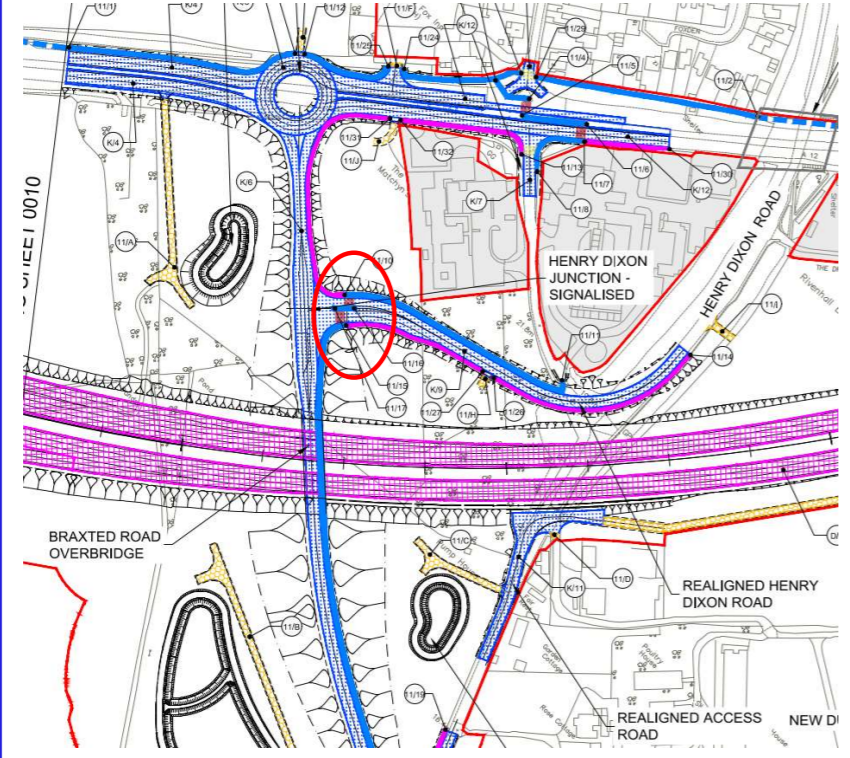
Appendix B - NH Walking, Cycling and Horse-Riding Matrix

NH Cycling Matrix - 'Ramps'

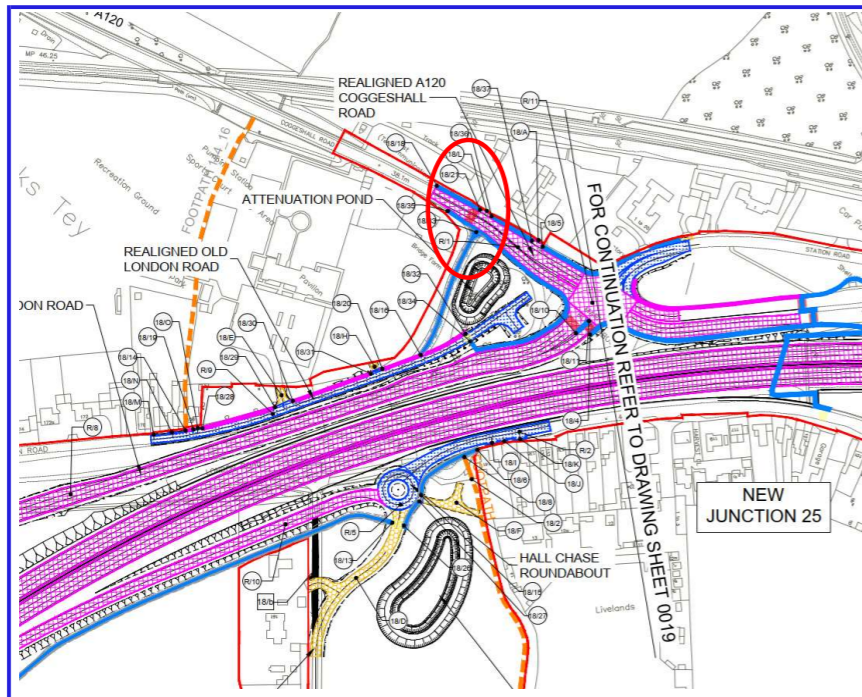
Name/route	Image	User groups	Designed for	Location relative to A12	A12 Chainage (approx.) and General Arrangement Sheet Number	End of bridge	Geometric constraints/scope	Planning aspects	Conclusions: Green: changes for ramp orientation in preliminary design Amber: changes to bend radii only, investigate in detailed design Red: limited changes to bend radii expected to be feasible
Paynes Lane spans A12, northbound merge slip and rail lines		Pedestrians, Cyclists, Ridden horses	Unsegregated Shared Use with 4m clear span	Immediately east of J19	11350, Sheet 2 of 21	Adjacent to northbound carriageway	Ramp direction Low constraint. Note no approved planning permission for station area.	Major development in progress; accommodation of ramp changes seems possible in order to align the route with the proposed commuter route	Investigate option to align ramps parallel to A12 which may better connect with station and investigate scope for minimum 5m radii bends (prelim design)
						Adjacent to southbound carriageway	Ramp direction Need to tie into Paynes Lane with vehicular access to residential and commercial inc agricultural land. Ramp radii Some geometric scope for rationalising ramps in same broad line parallel to A12 but adverse effect on Paynes Lane too high to make this tolerable.	Potential increase in visual impact - altered visual impact would need review. Loss of privacy to Paynes lane residents.	No change in ramps overall alignment. Investigate scope for minimum 5m radii on all bends (detailed design)
Gershwin Boulevard spans A12		Pedestrians only due to existing footpath 121_95 to south	Unsegregated Shared Use with 4m clear span	Between J21 and 22, west of Maldon Road Witham	20150, Sheet 8 of 21	Adjacent to northbound carriageway	Ramp direction and radii Minimal physical constraints, though landscape mitigation would need to be reviewed.	Ramp radii Increased visual impact, even with reviewed landscape mitigation, considered likely. Creating an embankment from the A12 to Gershwin Boulevard will create a physical and visual barrier on the open space along the A12. It would also be more visually intrusive to the residents and require more replacement land to be provided.	No change in ramps overall alignment. Investigate scope for minimum 5m radii on all bends (detailed design)
						Adjacent to southbound carriageway	Ramp direction Bridge serves existing footpath 121/95 and route through open space parallel to A12, unable to realign ramps whilst serving both routes	Potential increase in visual impact - altered visual impact would need review	Investigate scope for minimum 5m radii on all bends (detailed design)
Little Braxted Lane Spans A12 inc J22 slip roads		Pedestrians and Cyclists due to existing NCN to north and lightly trafficked Little Braxted Lane to south.	Unsegregated Shared Use with 4m clear span	West of J22 connects Little Braxted Rd to Colchester Road	22800, Sheet 10 of 21	Adjacent to northbound carriageway	Ramp direction and radii Minimal physical constraints if realigned within the de-trunked A12	Minimal – The change would not have a significant effect on landscape or visual intrusion, it follows the desired route.	Investigate option to align ramps reduce zig zag elements, align with new right of way and investigate scope for minimum 5m radii on all bends (preliminary design)
									No change in ramps overall alignment.

						Adjacent to southbound carriageway	Ramp direction More constrained by adjacent ground levels	Minimal-	Investigate scope for minimum 5m radii on all bends (detailed design)
Snivellers Lane Spans A12 by Essex Fire & Rescue HQ		Pedestrians and Cyclists due to new through route between Witham and Kelvedon, and Essex Fire and Rescue	Pedestrians, Cyclists, Ridden horses Unsegregated Shared Use with 4m clear span	Between J22 and J24 connects B1024 and Essex Fire & Rescue HQ	25400, Sheet 12 of 21	Adjacent to northbound carriageway	Ramp direction Between A12 and B1024 with desire line needing to serve northbound and southbound routes equally Ramp radii scope to amend, move controlled crossing if needed, tie in to bus stop connections	Minimal	No change in ramps overall alignment. Investigate scope for minimum 5m radii on all bends (detailed design)
						Adjacent to southbound carriageway	Ramp direction Between A12 and access road to Essex Fire & Rescue (F&R) HQ with desire line needing to serve northbound and southbound routes equally Ramp radii very constrained between proposed A12 which reuses pavement of existing A12, and F&R access road which also reuses existing A12	Minimal- Less space to unravel the Zig Zag, possible hybrid solution. No Significant impacts visually or landscape as this was part of the old A12.	Investigate scope for minimum 5m radii on all bends (detailed design)
Potts Green Spans A12 south of northbound diverge to J25		Pedestrians only due to surrounding Footpath 144_19.	Pedestrians, Cyclists, Ridden horses Unsegregated Shared Use with 4m clear span	Between J24 and J25 connects de-trunked A12 to PRow to the east	37100, Sheet 18 of 21	Adjacent to northbound carriageway	Ramp direction Scope to use earth bund as part of route, but visual intrusion on Doggetts/Potts Green make this unacceptable. Little or no reduction in route length/directness, so benefit does not justify alteration to design.	Potential increase in visual impact - altered visual impact would need review It would bring users in higher position closer to private property and potential for loss of privacy. Possible hybrid solution between zigzag and embankment	No change in ramps overall alignment. Investigate scope for minimum 5m radii on all bends (detailed design)
						Adjacent to southbound carriageway	Ramp direction Between A12 and access road but scope to amend . Note need to tie into PRow, alterations should not lengthen route	Minimal- The route is to connect to severance to footpath 144_19 moving south which makes the zigzag less sense, but the A12 is proposing a permissive path along the Means of access meaning that if users want to cross would have to go south to then go north.	Investigate scope for minimum 5m radii on all bends (detailed design)
Marks Tey Spans A12		Pedestrians and Cyclists due to wider walking and cycling routes proposed in vicinity and upgrade of A120 crossing to Toucan.	Pedestrians, Cyclists Unsegregated Shared Use with 4m clear span	Replacing existing J25 Pedestrian Bridge	38300, Sheet 19 of 21	Adjacent to northbound carriageway	Ramp direction Issues with the Geometry and changes in levels between A12 and A120 height clearance. Ramp radii On balance no change to overall layout can be justified, provide 5m radii if practicable (note severe constraints)	Minimal- the Loss of some trees on the island between A12 and Station Road to enable the ramp.	No change in overall alignment of ramps 5m radii, on all bends (detailed design)
						Adjacent to southbound carriageway	Not Applicable as route is direct without radii <5m	Not Applicable as route is direct without radii <5m	No change (all radii already more than 5m and no zig-zag ramps)

NH Cycling Matrix - 'Surface Crossings'

Name/route	Image	User groups	Designed for	A12 Chainage (approx.) and General Arrangement Sheet Number	Geometric constraints/scope	Traffic aspects	Conclusions: Green: Amend Amber: Continue discussions with ECC technical officers																																																																																																														
Eastways/Colchester Road		Pedestrians, Cyclists	Pedestrians, Cyclists,	22,900 Sheet 10 of 21	None	None. Movement removed from Eastways/Colchester road/Trade Park junction but remains on desire-line	Green: Amend Amber: Continue discussions with ECC technical officers																																																																																																														
Henry Dixon Road/Braxted Road		Pedestrians, Cyclists	Pedestrians, Cyclists,	24100, Sheet 11 of 21	None	Degree of Saturation over 85-90% shows some congestion. Staggered <table border="1" data-bbox="1982 1060 2448 1375"> <thead> <tr> <th colspan="7">2042</th> </tr> <tr> <th rowspan="2">Arm</th> <th colspan="3">AM</th> <th colspan="3">PM</th> </tr> <tr> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> </tr> </thead> <tbody> <tr> <td>Old A12</td> <td>76.3%</td> <td>13</td> <td>26.4</td> <td>70.0%</td> <td>12.8</td> <td>16</td> </tr> <tr> <td>Henry Dixon Road</td> <td>74.50%</td> <td>9.6</td> <td>28.1</td> <td>75.00%</td> <td>7.1</td> <td>38</td> </tr> <tr> <td>Braxted Road</td> <td>62.80%</td> <td>5.5</td> <td>25.7</td> <td>76.60%</td> <td>3.8</td> <td>31.1</td> </tr> <tr> <td>Practical Reserve Capacity (PRC)</td> <td colspan="3">18.0%</td> <td colspan="3">17.50%</td> </tr> <tr> <td>Cycle Time</td> <td colspan="3">77</td> <td colspan="3">77</td> </tr> </tbody> </table> Single-stage <table border="1" data-bbox="1982 1396 2448 1711"> <thead> <tr> <th colspan="7">2042</th> </tr> <tr> <th rowspan="2">Arm</th> <th colspan="3">AM</th> <th colspan="3">PM</th> </tr> <tr> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> </tr> </thead> <tbody> <tr> <td>Old A12</td> <td>88.5%</td> <td>23.4</td> <td>53.9</td> <td>89.6%</td> <td>28</td> <td>47.3</td> </tr> <tr> <td>Henry Dixon Road</td> <td>89.70%</td> <td>20.3</td> <td>60.2</td> <td>92.80%</td> <td>15.9</td> <td>82.8</td> </tr> <tr> <td>Braxted Road</td> <td>89.30%</td> <td>10.7</td> <td>53.7</td> <td>94.90%</td> <td>13.8</td> <td>81.5</td> </tr> <tr> <td>Practical Reserve Capacity (PRC)</td> <td colspan="3">0.3%</td> <td colspan="3">-5.50%</td> </tr> <tr> <td>Cycle Time</td> <td colspan="3">120</td> <td colspan="3">120</td> </tr> </tbody> </table>	2042							Arm	AM			PM			DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	Old A12	76.3%	13	26.4	70.0%	12.8	16	Henry Dixon Road	74.50%	9.6	28.1	75.00%	7.1	38	Braxted Road	62.80%	5.5	25.7	76.60%	3.8	31.1	Practical Reserve Capacity (PRC)	18.0%			17.50%			Cycle Time	77			77			2042							Arm	AM			PM			DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	Old A12	88.5%	23.4	53.9	89.6%	28	47.3	Henry Dixon Road	89.70%	20.3	60.2	92.80%	15.9	82.8	Braxted Road	89.30%	10.7	53.7	94.90%	13.8	81.5	Practical Reserve Capacity (PRC)	0.3%			-5.50%			Cycle Time	120			120			Amber: Junction works with forecasted traffic, but not as well. Is this drop in performance acceptable?
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Coggeshall Road



Pedestrians,
Cyclists

Pedestrians,
Cyclists

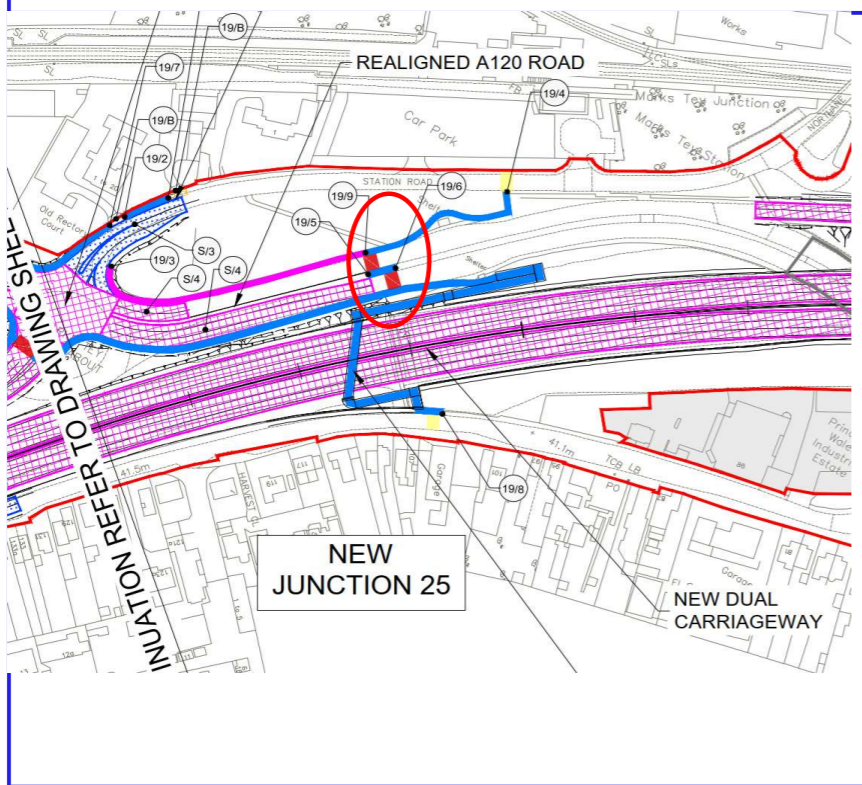
38200, Sheet 18 of 21

None

None. Movement removed from Old Rectory junction but remains on desire-line

Crossing straightened as part of movement exercise and spans single-carriageway

A120 Dumbell Link



Pedestrians,
Cyclists

Pedestrians,
Cyclists

38350, Sheet 19 of 21

None

None - the extended pedestrian green-time does not result in queuing back to Old Rectory Junction or Prince of Wales Roundabout

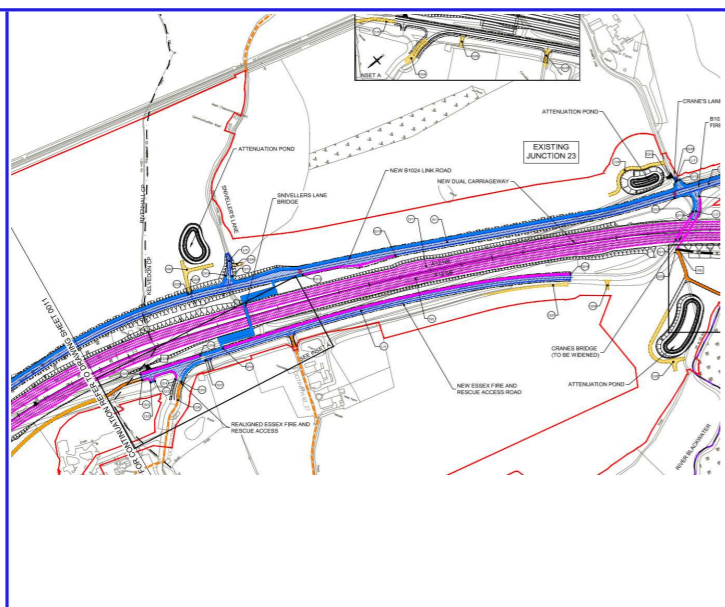
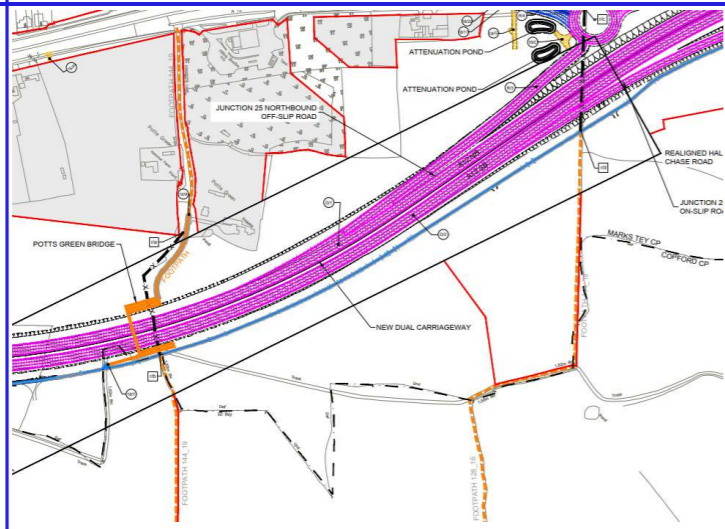
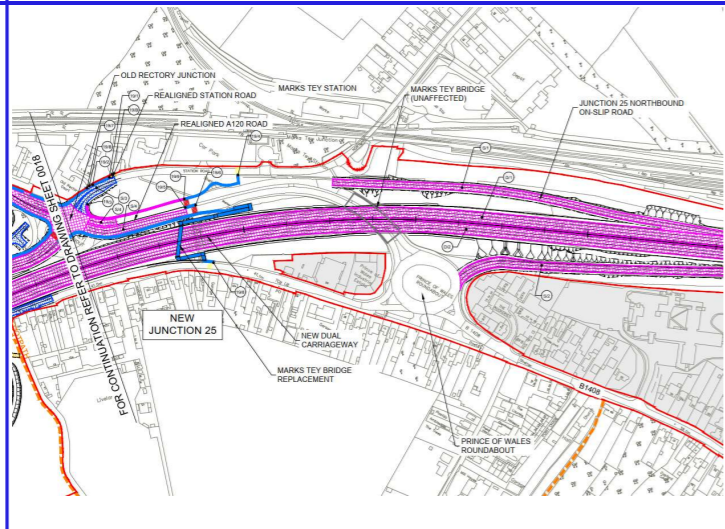

2042 Staggered			
		AM	PM
Junction	Control	LOS	
Old Rectory	Signalised	D	D
Prince of Wales	Unsignalised	B	B
2042 Single-phase			
		AM	PM
Junction	Control	LOS	
Old Rectory	Signalised	D	D
Prince of Wales	Unsignalised	B	B

Straighten crossing in detailed design stage

Appendix C - ECC Amended Walking, Cycling and Horse-Riding Matrix

NH Cycling Matrix with ECC Comments - 'Ramps'

Name/route	Image	User groups	Designed for	Location relative to A12	A12 Chainage (approx.) and General Arrangement Sheet Number	End of bridge	Geometric constraints/scope	Planning aspects	Conclusions: Green: changes for ramp orientation in preliminary design Amber: changes to bend radii only, investigate in detailed design Red: limited changes to bend radii expected to be feasible	ECC Comments DRAFT
Paynes Lane spans A12, northbound merge slip and rail lines		Pedestrians, Cyclists, Ridden horses	Pedestrians, Cyclists, Ridden horses Unsegregated Shared Use with 4m clear span	Immediately east of J19	11350, Sheet 2 of 21	Adjacent to northbound carriageway	Ramp direction Low constraint. Note no approved planning permission for station area.	Major development in progress; accommodation of ramp changes seems possible in order to align the route with the proposed commuter route	Investigate option to align ramps parallel to A12 which may better connect with station and investigate scope for minimum 5m radii bends (prelim design)	Latest proposal for northern ramp appears to be appropriate - subject to confirmation at detailed design
						Adjacent to southbound carriageway	Ramp direction Need to tie into Paynes Lane with vehicular access to residential and commercial inc agricultural land. Ramp radii Some geometric scope for rationalising ramps in same broad line parallel to A12 but adverse effect on Paynes Lane too high to make this tolerable.	Potential increase in visual impact - altered visual impact would need review. Loss of privacy to Paynes lane residents.	No change in ramps overall alignment. Investigate scope for minimum 5m radii on all bends (detailed design)	The design of the southern ramp should be amended to provide a ramp with fewer zig-zag foldbacks, if possible, and 5m radius (minimum) turns where ramp sections change direction – in accordance with LTN 1/20. Insufficient evidence to justify the non-provision of ramp with fewer zig-zag foldbacks. Visual impact and proximity to residential properties would be similar to the northern side – therefore this is not a reason to discount improvements to the southern ramp. The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses
Gershwin Boulevard spans A12		Pedestrians only due to existing footpath 121_95 to south	Pedestrians, Cyclists, Ridden horses Unsegregated Shared Use with 4m clear span	Between J21 and 22, west of Maldon Road Witham	20150, Sheet 8 of 21	Adjacent to northbound carriageway	Ramp direction and radii Minimal physical constraints, though landscape mitigation would need to be reviewed.	Ramp radii Increased visual impact, even with reviewed landscape mitigation, considered likely. Creating an embankment from the A12 to Gershwin Boulevard will create a physical and visual barrier on the open space along the A12. It would also be more visually intrusive to the residents and require more replacement land to be provided.	No change in ramps overall alignment. Investigate scope for minimum 5m radii on all bends (detailed design)	Bridge ramp should be redesigned to provide a more direct route for users, with fewer zig-zag foldbacks, if possible, and 5m radius (minimum) turns where ramp sections change direction – in accordance with LTN 1/20. Evidence has not been provided to prove that all alternative ramp layouts have been exhausted. Further design investigation could reveal suitable alternatives to current design. The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses
						Adjacent to southbound carriageway	Ramp direction Bridge serves existing footpath 121/95 and route through open space parallel to A12, unable to realign ramps whilst serving both routes	Potential increase in visual impact - altered visual impact would need review	Investigate scope for minimum 5m radii on all bends (detailed design)	Bridge ramp should be redesigned to provide a more direct route for users, with fewer zig-zag foldbacks, if possible, and 5m radius (minimum) turns where ramp sections change direction – in accordance with LTN 1/20. Evidence has not been provided to prove that all alternative ramp layouts have been exhausted. Further design investigation could reveal suitable alternatives to current design. The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses
Little Braxted Lane Spans A12 inc J22 slip roads		Pedestrians and Cyclists due to existing NCN to north and lightly trafficked Little Braxted Lane to south.	Pedestrians, Cyclists, Ridden horses Unsegregated Shared Use with 4m clear span	West of J22 connects Little Braxted Rd to Colchester Road	22800, Sheet 10 of 21	Adjacent to northbound carriageway	Ramp direction and radii Minimal physical constraints if realigned within the de-trunked A12	Minimal – The change would not have a significant effect on landscape or visual intrusion, it follows the desired route.	Investigate option to align ramps reduce zig zag elements, align with new right of way and investigate scope for minimum 5m radii on all bends (preliminary design)	'Investigate scope for minimum 5m radii on all bends' falls short of actually providing 5m radii on all bends. This should be committed to and design amended The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses
						Adjacent to southbound carriageway	Ramp direction More constrained by adjacent ground levels	Minimal-	No change in ramps overall alignment. Investigate scope for minimum 5m radii on all bends (detailed design)	Bridge ramp should be redesigned to provide a more direct route for users, with fewer zig-zag foldbacks, if possible, and 5m radius (minimum) turns where ramp sections change direction – in accordance with LTN 1/20. Evidence has not been provided to prove that all alternative ramp layouts have been exhausted. Further design investigation could reveal suitable alternatives to current design. 'Investigate scope for minimum 5m radii on all bends' falls short of actually providing 5m radii on all bends. This should be committed to and design amended The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses


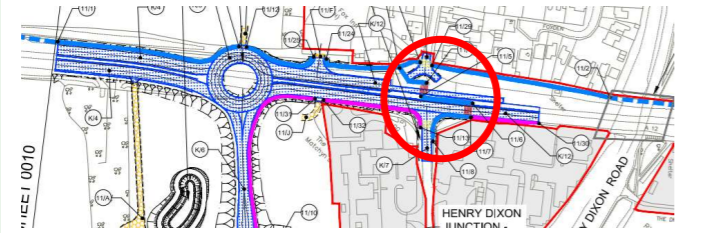
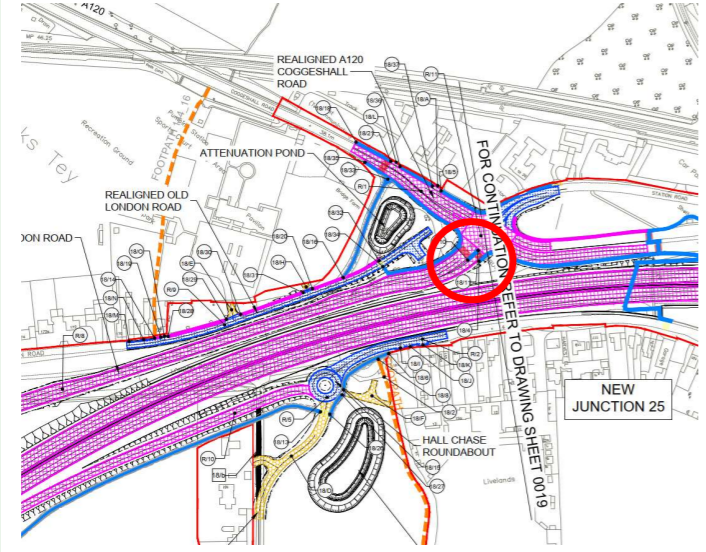
<p>Snivellers Lane Spans A12 by Essex Fire & Rescue HQ</p>		<p>Pedestrians and Cyclists due to new through route between Witham and Kelvedon, and Essex Fire and Rescue</p>	<p>Pedestrians, Cyclists, Ridden horses Unsegregated Shared Use with 4m clear span</p>	<p>Between J22 and J24 connects B1024 and Essex Fire & Rescue HQ</p>	<p>25400, Sheet 12 of 21</p>	<p>Adjacent to northbound carriageway</p>	<p>Ramp direction Between A12 and B1024 with desire line needing to serve northbound and southbound routes equally</p> <p>Ramp radii scope to amend, move controlled crossing if needed, tie in to bus stop connections</p>	<p>Minimal</p>	<p>No change in ramps overall alignment.</p> <p>Investigate scope for minimum 5m radii on all bends (detailed design)</p>	<p>Bridge ramp should be redesigned to provide a more direct route for users, with fewer zig-zag foldbacks, if possible, and 5m radius (minimum) turns where ramp sections change direction – in accordance with LTN 1/20.</p> <p>Evidence has not been provided to prove that all alternative ramp layouts have been exhausted. Further design investigation could reveal suitable alternatives to current design.</p> <p>'Investigate scope for minimum 5m radii on all bends' falls short of actually providing 5m radii on all bends. This should be committed to and design amended</p> <p>The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses</p>
<p>Potts Green Spans A12 south of northbound diverge to J25</p>		<p>Pedestrians only due to surrounding Footpath 144_19.</p>	<p>Pedestrians, Cyclists, Ridden horses Unsegregated Shared Use with 4m clear span</p>	<p>Between J24 and J25 connects de-trunked A12 to PRoW to the east</p>	<p>37100, Sheet 18 of 21</p>	<p>Adjacent to northbound carriageway</p>	<p>Ramp direction Scope to use earth bund as part of route, but visual intrusion on Doggetts/Potts Green make this unacceptable. Little or no reduction in route length/directness, so benefit does not justify alteration to design.</p>	<p>Potential increase in visual impact - altered visual impact would need review It would bring users in higher position closer to private property and potential for loss of privacy, Possible hybrid solution between zigzag and embankment</p>	<p>No change in ramps overall alignment.</p> <p>Investigate scope for minimum 5m radii on all bends (detailed design)</p>	<p>Investigate scope for minimum 5m radii on all bends' falls short of actually providing 5m radii on all bends. This should be committed to and design amended</p> <p>The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses</p>
<p>Marks Tey Spans A12</p>		<p>Pedestrians and Cyclists due to wider walking and cycling routes proposed in vicinity and upgrade of A120 crossing to Toucan.</p>	<p>Pedestrians, Cyclists Unsegregated Shared Use with 4m clear span</p>	<p>Replacing existing J25 Pedestrian Bridge</p>	<p>38300, Sheet 19 of 21</p>	<p>Adjacent to northbound carriageway</p>	<p>Ramp direction Issues with the Geometry and changes in levels between A12 and A120 height clearance.</p> <p>Ramp radii On balance no change to overall layout can be justified, provide 5m radii if practicable (note severe constraints)</p>	<p>Minimal- the Loss of some trees on the island between A12 and Station Road to enable the ramp.</p>	<p>No change in overall alignment of ramps</p> <p>5m radii, on all bends (detailed design)</p>	<p>Bridge ramp should be redesigned to provide 5m radius (minimum) turns where ramp sections change direction – in accordance with LTN 1/20.</p> <p>Evidence has not been provided to prove that all alternative ramp layouts have been exhausted. Further design investigation could reveal suitable alternatives to current design.</p> <p>'Investigate scope for minimum 5m radii on all bends' falls short of actually providing 5m radii on all bends. This should be committed to and design amended</p>
<p>Ewell Overbridge</p>										<p>It appears that a new overbridge is proposed here. It should be designed for pedestrians and ridden horses. Details need to be provided.</p>
<p>Adjacent to southbound carriageway</p>						<p>Adjacent to southbound carriageway</p>	<p>Ramp direction Between A12 and access road but scope to amend . Note need to tie into PRoW, alterations should not lengthen route</p>	<p>Minimal- The route is to connect to severance to footpath 144_19 moving south which makes the zigzag less sense, but the A12 is proposing a permissive path along the Means of access meaning that if users want to cross would have to go south to then go north.</p>	<p>No change in ramps overall alignment.</p> <p>Investigate scope for minimum 5m radii on all bends (detailed design)</p>	<p>Investigate scope for minimum 5m radii on all bends' falls short of actually providing 5m radii on all bends. This should be committed to and design amended</p> <p>The ramps and the bridge itself should be designed in accordance with best practice for pedestrians, cyclists and ridden horses</p>
						<p>Adjacent to southbound carriageway</p>	<p>Not Applicable as route is direct without radii <5m</p>	<p>Not Applicable as route is direct without radii <5m</p>	<p>No change (all radii already more than 5m and no zig-zag ramps)</p>	<p>Bridge ramp should be redesigned to provide 5m radius (minimum) turns where ramp sections change direction – in accordance with LTN 1/20.</p> <p>Drawing does not appear to show radii that are more than 5m, it appears to show 90 degree bends with no radii.</p> <p>Evidence needs to be provided all alternative ramp layouts have been exhausted. Further design investigation could reveal suitable alternatives to current design.</p>

NH Cycling Matrix with ECC Comments - 'Surface Crossings'

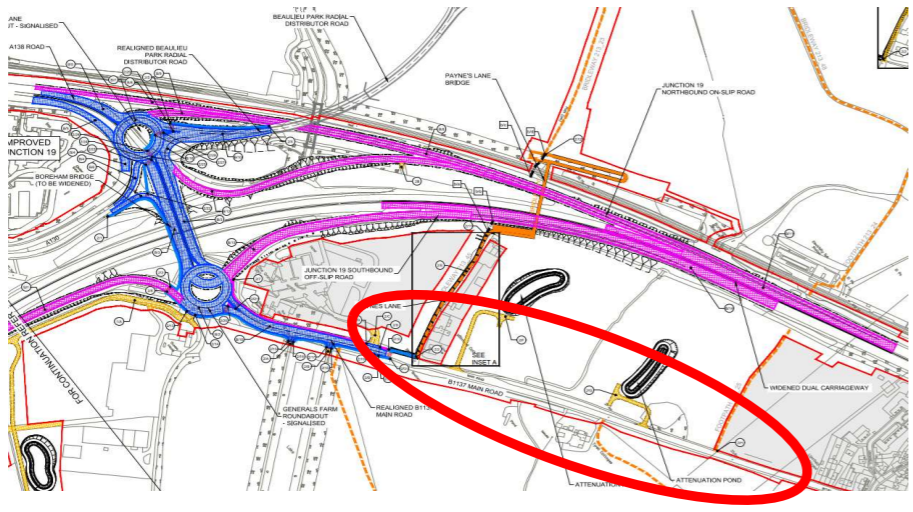

Name/route	Image	User groups	Designed for	A12 Chainage (approx.) and General Arrangement Sheet Number	Geometric constraints/scope	Traffic aspects	Conclusions: Green: Amend Amber: Continue discussions with ECC technical officers	ECC Comments DRAFT																																																																																																
Eastways/Colchester Road		Pedestrians, Cyclists	Pedestrians, Cyclists	22,900 Sheet 10 of 21	None	None. Movement removed from Eastways/Colchester road/Trade Park junction but remains on desire-line	Straighten crossing in detailed design stage	Traffic modelling needs to be provided to demonstrate that the impact of straight across cycle crossings would be acceptable (with separate staggered pedestrian facilities, if required).																																																																																																
Henry Dixon Road/Braxted Road		Pedestrians, Cyclists	Pedestrians, Cyclists	24100, Sheet 11 of 21	None	<p>Degree of Saturation over 85-90% shows some congestion.</p> <p>Staggered</p> <table border="1" data-bbox="1656 947 2012 1178"> <thead> <tr> <th rowspan="2">Arm</th> <th colspan="3">AM</th> <th colspan="3">PM</th> </tr> <tr> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> </tr> </thead> <tbody> <tr> <td>Old A12</td> <td>76.3%</td> <td>13</td> <td>26.4</td> <td>70.0%</td> <td>12.8</td> <td>16</td> </tr> <tr> <td>Henry Dixon Road</td> <td>74.50%</td> <td>9.6</td> <td>28.1</td> <td>75.00%</td> <td>7.1</td> <td>38</td> </tr> <tr> <td>Braxted Road</td> <td>62.80%</td> <td>5.5</td> <td>25.7</td> <td>76.60%</td> <td>3.8</td> <td>31.1</td> </tr> <tr> <td>Practical Reserve Capacity (PRC)</td> <td colspan="3">18.0%</td> <td colspan="3">17.50%</td> </tr> <tr> <td>Cycle Time</td> <td colspan="3">77</td> <td colspan="3">77</td> </tr> </tbody> </table> <p>Single-stage</p> <table border="1" data-bbox="1656 1209 2012 1440"> <thead> <tr> <th rowspan="2">Arm</th> <th colspan="3">AM</th> <th colspan="3">PM</th> </tr> <tr> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> <th>DoS (%)</th> <th>MMQ (PCU)</th> <th>Avg PCU delay (sec)</th> </tr> </thead> <tbody> <tr> <td>Old A12</td> <td>88.5%</td> <td>23.4</td> <td>53.9</td> <td>89.6%</td> <td>28</td> <td>47.3</td> </tr> <tr> <td>Henry Dixon Road</td> <td>89.70%</td> <td>20.3</td> <td>60.2</td> <td>92.80%</td> <td>15.9</td> <td>82.8</td> </tr> <tr> <td>Braxted Road</td> <td>89.30%</td> <td>10.7</td> <td>53.7</td> <td>94.90%</td> <td>13.8</td> <td>81.5</td> </tr> <tr> <td>Practical Reserve Capacity (PRC)</td> <td colspan="3">0.3%</td> <td colspan="3">-5.50%</td> </tr> <tr> <td>Cycle Time</td> <td colspan="3">120</td> <td colspan="3">120</td> </tr> </tbody> </table> <p>Junction works with forecasted traffic, but not as well. Is this drop in performance acceptable?</p>	Arm	AM			PM			DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	Old A12	76.3%	13	26.4	70.0%	12.8	16	Henry Dixon Road	74.50%	9.6	28.1	75.00%	7.1	38	Braxted Road	62.80%	5.5	25.7	76.60%	3.8	31.1	Practical Reserve Capacity (PRC)	18.0%			17.50%			Cycle Time	77			77			Arm	AM			PM			DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	DoS (%)	MMQ (PCU)	Avg PCU delay (sec)	Old A12	88.5%	23.4	53.9	89.6%	28	47.3	Henry Dixon Road	89.70%	20.3	60.2	92.80%	15.9	82.8	Braxted Road	89.30%	10.7	53.7	94.90%	13.8	81.5	Practical Reserve Capacity (PRC)	0.3%			-5.50%			Cycle Time	120			120			Junction works with forecasted traffic, but not as well. Is this drop in performance acceptable?	No, the drop in performance is not acceptable. The junction should be amended to include a straight across cycle crossing with separate staggered pedestrian facilities. This layout should then be reassessed and the results of the traffic modelling provided.
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Coggeshall Road		Pedestrians, Cyclists	Pedestrians, Cyclists	38200, Sheet 18 of 21	None	None. Movement removed from Old Rectory junction but remains on desire-line	Crossing straightened as part of movement exercise and spans single-carriageway	<p>More detailed traffic modelling results need to be provided, in order to enable ECC to be confident that impact of straight across pedestrian crossing is acceptable (queues and RFCs on all arms of Old Rectory)</p> <p>The more detailed analysis in the DCO Transport Assessment (below) shows a staggered crossing, so does not appear to be relevant for a straight across crossing.</p> <p>Plate F 10-16: 2042 PM Peak Future Operation with Scheme Average Queue Lengths</p>																																
A120 Dumbell Link		Pedestrians, Cyclists	Pedestrians, Cyclists	38350, Sheet 19 of 21	None	<p>None - the extended pedestrian green-time does not result in queuing back to Old Rectory Junction or Prince of Wales Roundabout</p> <table border="1" data-bbox="1587 703 2012 1003"> <thead> <tr> <th colspan="4">2042 Staggered</th> </tr> <tr> <th>Junction</th> <th>Control</th> <th>AM</th> <th>PM</th> </tr> </thead> <tbody> <tr> <td>Old Rectory</td> <td>Signalised</td> <td>D</td> <td>D</td> </tr> <tr> <td>Prince of Wales</td> <td>Unsignalised</td> <td>B</td> <td>B</td> </tr> </tbody> </table> <table border="1" data-bbox="1587 861 2012 1003"> <thead> <tr> <th colspan="4">2042 Single-phase</th> </tr> <tr> <th>Junction</th> <th>Control</th> <th>AM</th> <th>PM</th> </tr> </thead> <tbody> <tr> <td>Old Rectory</td> <td>Signalised</td> <td>D</td> <td>D</td> </tr> <tr> <td>Prince of Wales</td> <td>Unsignalised</td> <td>B</td> <td>B</td> </tr> </tbody> </table>	2042 Staggered				Junction	Control	AM	PM	Old Rectory	Signalised	D	D	Prince of Wales	Unsignalised	B	B	2042 Single-phase				Junction	Control	AM	PM	Old Rectory	Signalised	D	D	Prince of Wales	Unsignalised	B	B	Straighten crossing in detailed design stage	<p>More detailed traffic modelling results need to be provided, in order to enable ECC to be confident that impact of straight across pedestrian crossing is acceptable (queues and RFCs on all arms of Old Rectory and Prince of Wales junctions).</p>
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Junction 19		Pedestrians, Cyclists	Pedestrians, Cyclists	24100, Sheet 11 of 21				<p>Redesigned cycling facilities are required at Junction 19 to fully accord with LTN 1/20 (including redesign of all staggered cycle crossings to provide straight across crossings while keeping pedestrian crossing facilities staggered).</p> <p>Traffic modelling outputs are required based on non-staggered crossings, to confirm that junction still has enough traffic capacity to operate satisfactorily with these facilities in place, with no excessive delay that would lead to strategic traffic reassignment.</p>
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<p>Junction 21</p>		<p>Pedestrians, Cyclists & Horse-riders</p>	<p>Pedestrians, Cyclists & Horse-riders</p>					<p>Detailed drawings are required to demonstrate how the proposed WCH facilities on the replacement Wellington Road Bridge will connect with existing WCH facilities on the southern side of the A12 - including safe crossing facilities.</p> <p>The plans currently available are insufficiently detailed to enable the County Council and others to fully understand the proposed arrangement, and particularly the interface with the existing layout in the vicinity of the Duke of Wellington PH. The provision of more detailed plans and GA plans for new and amended structures will ensure Essex can fully review the proposals.</p> <p>It is not clear what facilities are being provided for horse riders to/from and on Wellington Bridge. This detail must be provided and the red line boundary amended, should appropriate facilities require this.</p>
<p>Rivenhall</p>								<p>A straight across segregated cycle & pedestrian crossing of de-trunked A12 should be provided in Rivenhall. Traffic flows do not justify a staggered crossing.</p>
<p>Junction 25</p>								<p>The approach from the A12 should be amended to include a straight across cycle crossing (with separate staggered pedestrian facilities, if necessary). This layout should then be reassessed and the results of the traffic modelling provided.</p>

NH Cycling Matrix: Additional table provided by ECC - 'Links'

Name/route	Image	User groups	Designed for	A12 Chainage (approx.) and General Arrangement Sheet Number	ECC Comments
Paynes Lane to Boreham Village					<p>A continuous and improved off-carriageway WCH route should be provided from Boreham village to Beaulieu via the A12 WCH overbridge, giving access to the new station. This should be provided as part of the scheme and not as a designated funds measure.</p> <p>The existing shared use footway/cycleway on the southern side of Main Road should be widened to better accord with LTN1/20 guidance. Narrowing of the main vehicular carriageway to accommodate the wider footway cycleway should help to reduce general traffic speeds, although additional physical road narrowings/chicanes may also be required to achieve this.</p> <p>The Paynes Lane overbridge provides a high value link from Boreham village and surrounding villages both over to the new station and into new open access areas which have onward WCH routes. Off-road provision linking the new station to Boreham village via the new bridge will reduce severance caused by the A12 and represent a far more appealing route to many vulnerable road users than the proposed new provision alongside the carriageway and across Junction 19.</p>
Hatfield Peverel Village to Witham					<p>It is important that a continuous and segregated walking and cycling route of adequate width is maintained between Witham and Hatfield Peverel (together with confirmation of the maintenance/reinstatement of PROWs). The new provision should be lit to improve accessibility during the hours of darkness.</p> <p>This section of the A12 is currently a well-used link by walkers and cyclists and should be maintained through the new junction arrangement to allow the continued use for walkers and cyclists between the two. The section of cycleway between Wellington Bridge and Witham should be segregated rather than shared use. The number of cyclists and pedestrians is likely to increase significantly in the future, as the housing developments in Witham are built out. The space is available for segregation; it would provide a safer facility in this location and help to encourage active travel more.</p>

DRAFT

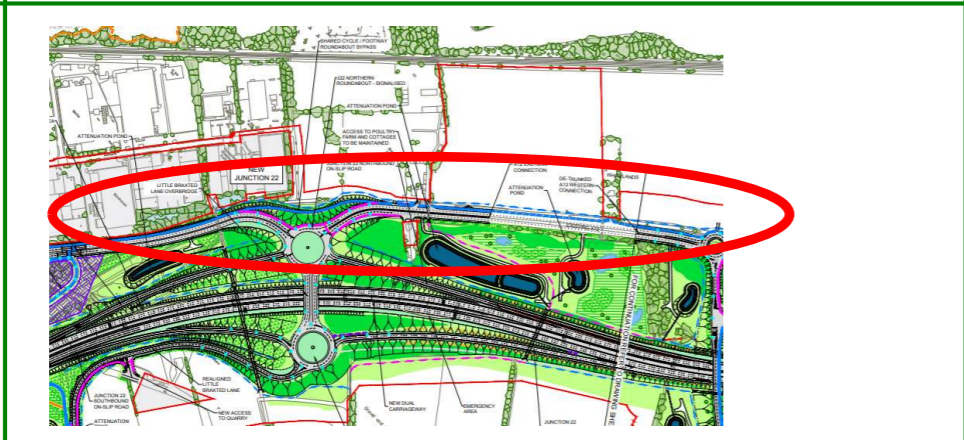
Hatfield Peverel Rail Station to Witham



A new walking and cycling route should be included (within the proposed red line boundary) to north of Junction 21, to connect new developments in Witham to Hatfield Peverel station

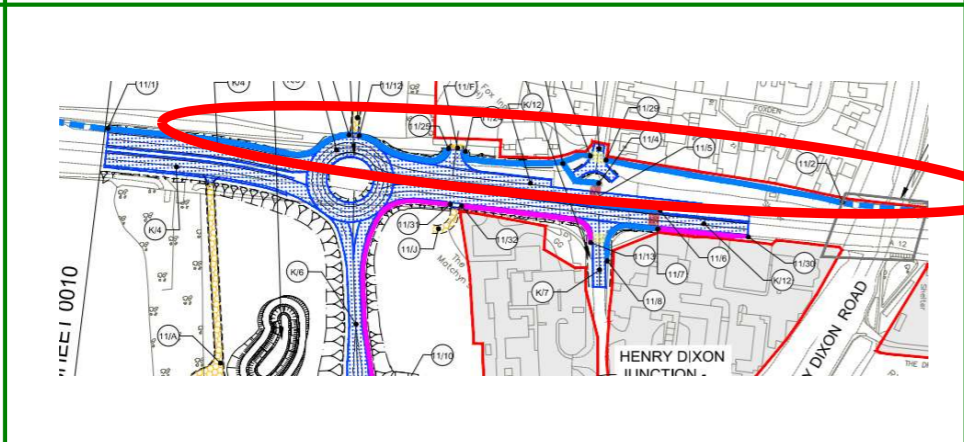
A link through this land would provide the residents of the new development with a safe and car free route to the train station, encouraging sustainable travel and avoiding the busy main road and junctions through Hatfield Peverel.

Junction 22 to Rivenhall



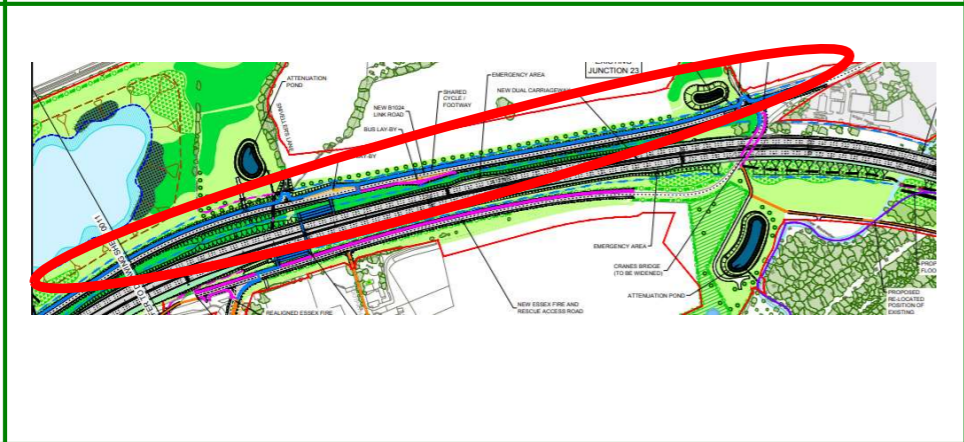
Upgraded walking and cycling facilities should be provided along whole length of de-trunked section to a minimum of 3m wide shared use 2-way cycle/footway.

Rivenhall

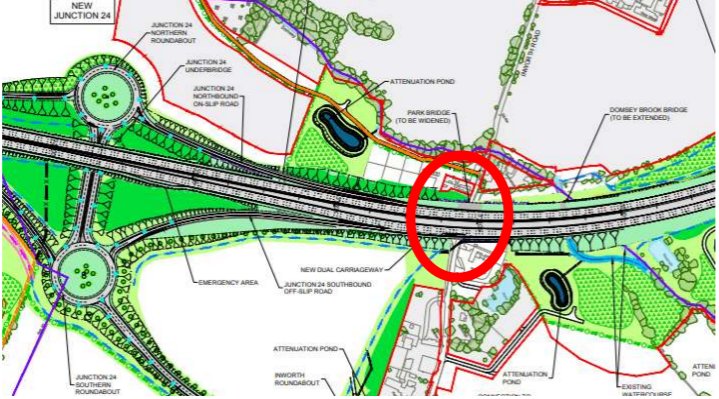

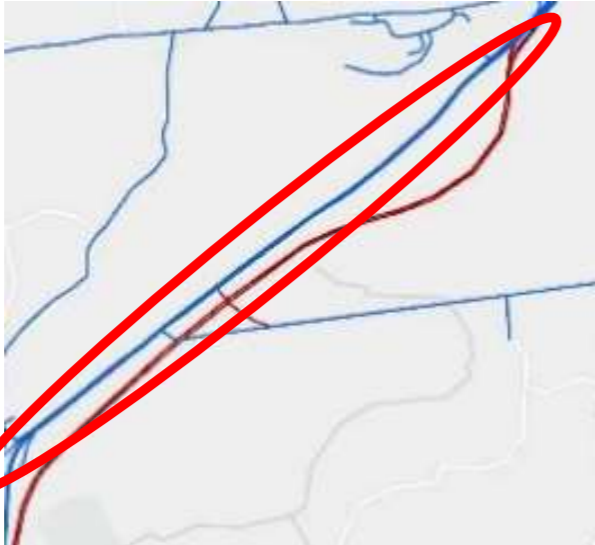


Upgraded walking and cycling facilities should be provided along whole length of de-trunked section to a minimum of 3m wide shared use 2-way cycle/footway.

Rivenhall to Kelvedon



Upgraded walking and cycling facilities should be provided along whole length of de-trunked section to a minimum of 3m wide shared use 2-way cycle/footway.

<p>Inworth Road</p>					<p>Confirmation is required that proposed footway provision under the A12 will accord with Essex design standards</p>
<p>Junction 24</p>					<p>Protection of a route for a footway/cycleway through the A12 scheme area should be provided, north-south from the southern extent of the red line boundary, passing through Junction 24 under the A12, to the northern extent of the red line boundary.</p> <p>It is not clear currently what space provision will be made for this. Clarification of whether a new more direct north-south route through this junction can be provided is requested</p>
<p>De-trunked A12 from Feering to Marks Tey</p>					<p>Widening and resurfacing of segregated WCH route, in accordance with LTN1/20, is required along length of de-trunked A12</p>

Appendix D – Letter from Essex County Council to National Highways dated 31 October 2022



Essex County Council

Philip Davie
Project Director, A12 Widening Project
National Highways

Sent by email

Essex County Council
County Hall
Market Road
Chelmsford
Essex
CM1 1QH

Date: 31 October 2022

A12 CHELMSFORD TO A120 WIDENING SCHEME – UPDATE ON ESSEX COUNTY COUNCIL’S POSITION ON THE PROJECT

Dear Phil,

Thank you for your letter of 4th July 2022 which responds to the letter and requirements document sent by Andrew Cook on behalf of Essex County Council (ECC) on 1st April 2022. Your letter provided a useful update on National Highways’ position on various aspects of the project.

As you will be aware we have had a lot of dialogue on the A12 widening project over the past few months, not least through the Statement of Common Ground (SOCG) working group that has been established, and it follows that the County Council’s position on the project has developed and continues to evolve in response to information that has been set out in the DCO application, undertakings that have been made by National Highways (NH) and changes that have been proposed to various aspects of the scheme. Having engaged with ECC Members and representatives from district and parish councils affected by the project, we are now able to update you on our position on a number of the points raised in your letter. It is our intention to ensure that this position is reflected in our joint SOCG and within the Local Impact Report that we will be submitting to the DCO examination as a host authority for the scheme.

It is worth repeating that the County Council remains a strong supporter of the scheme overall, in recognition of the improvements it will bring to the A12 corridor between Junction 19 and Junction 25 and the wider benefits that are expected. We also welcome the engagement you have undertaken with us on the project which has enabled us to develop a much better understanding of the scheme and its anticipated impacts. We do however continue to have significant concerns about some aspects of the scheme and we continue to believe that material changes to the proposals are required to ensure the adverse effects are minimised and mitigated as far as possible, particularly on the local highway network for which ECC is the highway authority.

Given the project is now at pre-examination stage and parties are preparing for the upcoming examination, rather than respond to all the points raised in your letter of 4th July this letter seeks to summarise key issues that ECC considers remain outstanding. There are other issues on which we wish to continue engagement but the issues set out below are where we believe we should focus our attention in the period up to the examination.

Additional detail to be provided

We welcome the additional information that has been provided to us since our last letter. We are continuing to review the DCO application documents; as you will appreciate there is a lot of information contained within the application, so we would be grateful for your ongoing support in signposting where specific information can be found. Clearly in reviewing the DCO application and other information that has been provided we will continue to have questions, and hence will continue to request clarifications or more detail on certain points as necessary. We are happy to use the shared actions tracker as a means of documenting where we believe further information is needed going forward.

Junction 19

In our response to the statutory consultation ECC opposed the current design of Junction 19 partly on the grounds that the arrangement was not demonstrably compatible with wider development proposals in the vicinity of the junction, including the longer-term plan to dual the proposed Chelmsford North East Bypass (CNEB). While we appreciate that the dualling of the bypass is not committed we do believe it is required to support the growth planned in the area, and as such ECC is concerned that at this stage we simply don't know what works would be required to the junction to accommodate this in future. We believe that a joint study is required to better understand the compatibility of Junction 19 with wider development proposals in the vicinity of the junction, including CNEB, and would appreciate commitment from NH to this given that NH is actively developing the design for this junction. To be clear, we are not asking NH to amend the design of the junction but to work with us to ensure we can collectively understand what further changes may be required to the junction in the future – post completion of the A12 widening project – and how these could be delivered.

Boreham and the B1137, including Junctions 20a and 20b

While the reasoning provided for the removal of Junctions 20a and 20b is understood, one of the consequences of this is a significant increase in forecast traffic flow on the B1137 and this naturally represents an area of concern for the local community and ECC. Fundamentally, while we support the proposed speed limit reduction on the B1137 through Boreham to 30mph we do not believe that a reduction in the speed limit alone will be sufficient, and we consider that a package of measures is required to discourage strategic traffic from routeing through Boreham to access Junction 19. These measures could include new pedestrian crossings, village entry treatments and potentially speed cameras, and a commitment to delivering suitable measures is required from NH.

As we have stated previously we do not currently support the proposed speed limit reduction on the stretch of the B1137 between Boreham and Hatfield Peverel, because the nature of this road is such that we think compliance with a 40mph speed limit is likely to be an issue. We believe that a 60mph and 50mph speed limit along this stretch of the B1137 should both be modelled so that we can better understand the impacts.

Junction 21

We have reviewed the assessment NH have provided on the impacts of the scheme on B1137 The Street / B1019 Maldon Road (Duke of Wellington junction). Whilst we appreciate that the assessment indicates the scheme will not materially worsen the performance of this junction, we believe the new junction (coupled with the closure of Junctions 20a and 20b) will attract more traffic and are not convinced that the modelling is accurately reflecting current and future congestion on the network and it may, therefore, be underrepresenting the impacts.

The Duke of Wellington junction currently operates close to or above capacity at peak times, and the performance of the junction is expected to deteriorate as demand increases in the future. The arrangement of Junction 21 is such that all traffic from Hatfield Peverel will route to/from the A12 via the Duke of Wellington junction, and we believe there is a need for a Maldon Road bypass in future to accommodate forecast growth and ensure local communities can fully benefit from the A12 widening project. We welcome the planned widening of the verge platform at the on-slips to enable the slip roads to be more easily widened in the future to accommodate a future bypass, however in practice widening of these on-slips at a later date will still represent a significant, disruptive and costly endeavour that will represent a major challenge to delivering a bypass.

Our ask of NH on Junction 21 is twofold. Firstly we believe there is a good case for NH providing widened on-slips at the junction from the outset, to ensure a future bypass could be constructed off-line and with minimal disruption to the SRN, and request that NH amend the design of Junction 21 accordingly. Secondly, we want to build on the feasibility work that ECC and NH have undertaken to date to the point of jointly identifying the preferred option for a bypass. We are currently scoping this work and would like a commitment from NH to contribute towards the cost of this work and to providing technical design input on the connectivity with Junction 21.

De-trunking

In our view the issue on which ECC and NH remain furthest apart is on the approach to the sections of the existing A12 which will be de-trunked and transferred to ECC as local highway authority to operate and maintain. We are disappointed that there has been little movement on this and put bluntly continue to believe that the approach to the de-trunked sections put forward by NH is unacceptable and represents a significant missed opportunity.

Since April we have looked at options for the de-trunked sections, drawing on best practice and examples from elsewhere. Based on this we believe the most pragmatic solution is to retain one side of the dual carriageway as highway (likely to be the current southbound carriageway) and to repurpose the other side with green infrastructure

and provision for pedestrians and cyclists. We believe there are many benefits to this, not least of which is the opportunity for the project to increase green infrastructure in support of the Government and ECC's ambitions for net zero, biodiversity and flood control. This approach also presents options to simplify the proposed junctions which may provide some cost savings which in turn could go some way towards offsetting the costs of repurposing one of the carriageways. We strongly urge NH to work with us and other stakeholders to develop the options and build on the initial work we have undertaken.

I would add that information on the condition of the assets which NH are proposing will be transferred to ECC is still required. This has been requested since March and the continued absence of this data is affecting our ability to form a full and informed view on de-trunking.

Junction 24

ECC retains concerns about the proposals for Junction 24 in their current form; in particular we believe that further design development of the proposed new Inworth Road roundabout is required, additional measures are required to help ensure the B1023 is able to safely accommodate the expected increase in traffic and measures are required to reduce the potential for rat-running on local roads.

On the first point, based on the review we have undertaken on the proposed new Inworth Road roundabout to date we have identified several potential design issues such as the proposed design speed and the tie ins with the approach roads including Kelvedon Road. Furthermore, it is unclear currently how existing accesses to Inworth Road in the vicinity of the roundabout will be maintained or how cyclists are expected to navigate the roundabout. It is not clear what optioneering has been undertaken in arriving at the current design and we believe further design development is required to provide assurance that the roundabout will operate safely and satisfactorily and ultimately be suitable for its intended purpose. This should include providing clarity on the horizontal alignment and forward visibility on the approaches to the roundabout.

On the second point, while we welcome the proposals to widen pinch points on the B1023 to a minimum carriageway width of 6.1m there are several pinch points which are not currently proposed to be widened. We believe this approach is inconsistent and that the scope of these localised widening works should include the pinch points south of the garden centre, to the junction with the B1022 and Hinds Bridge, to the north of the A12. A knock-on effect of widening pinch points on the route may be that vehicle speeds increase and for this reason measures for encouraging compliance with the proposed speed limits may be necessary. In any case, we believe further walking and cycling improvements should be included in the proposals to offset the impacts of increased traffic on this route.

Finally, we are currently in the process of scoping a range of measures that we think could help to reduce the likelihood of vehicles rat-running on local roads and particularly through the village of Messing to access the new junction. We will share details of these measures shortly and would welcome a commitment from NH to funding their implementation.

We are grateful for the work that has been undertaken to consider the case for a bypass of Inworth Road as a means of addressing some of the concerns held about the junction arrangement. Having reviewed this work we largely concur with NH's assessment that while the alternative proposal for a bypass of the B1023 put forward by the local community would have some benefits including reduced traffic through Messing, it would increase the attractiveness of the junction and lead to increased traffic overall and through Tiptree.

Walking, cycling and horse-riding

We welcome the improvements that have been made to walking and cycling infrastructure, including the changes that have been made to the northern side of Paynes Lane overbridge. Notwithstanding this, we believe that further enhancement to the proposed walking, cycling and horseriding infrastructure is appropriate at numerous locations, in line with best practice (LTN1/20).

The walking and cycling matrix that NH have produced is welcomed. In some cases further justification for why LTN1/20 cannot be achieved is required. Confirmation is also required of the proposed arrangements for and impacts of the new pedestrian and cycling crossings. We will revert with detailed comments on the matrix shortly.

As a general point, wherever possible provision should also be made for horse riders.

Monitoring and mitigation

There are some locations on the local highway network that are particularly sensitive to changes in traffic flows and patterns, whether that be because they are already operating close to or above capacity or because the scheme is expected to have a significant impact on traffic flows and/or network performance. Given current levels of uncertainty we believe that NH should commit to monitoring the actual impacts of the scheme in operation for an agreed period after opening and reporting the data collected, at a small number of locations to be agreed (likely to include the B1137 through Boreham, the Duke of Wellington Junction and the B1023). It could be that this monitoring can be utilised as part of a wider benefits management exercise and/or post-opening project evaluation that will be undertaken by NH.

Importantly, if this monitoring were to indicate that the scheme was having a material, unanticipated adverse impact on the local highway network we believe NH should commit to working with ECC to investigate, develop and implement suitable mitigation. While we appreciate that any such commitment would need to be clearly defined, there are precedents for such approaches and this would go some way towards providing ECC and stakeholders with assurance that in the event the scheme does have significant adverse impacts on the network these would be identified and, if necessary, addressed. We believe this should be secured via a DCO requirement and would like to discuss how this could work with your team.

Construction impacts

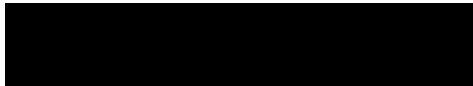
We recognise that the construction impacts of this scheme will be significant, and we share your desire to minimise and mitigate these impacts as far as possible and

ensure local communities and users of the A12 are kept informed about the works. To that end we are largely supportive of the approach set out in the Outline Construction Traffic Management Plan, and welcome NH's commitment to continue engaging closely with us on the development of the Construction Traffic Management Plan. One area we would like clarity on is the proposed speed limits on the A12 during the works, as we believe this could have a significant impact on the use of local roads as an alternative.

Conclusion

In conclusion this response provides a summary of the key outstanding issues on the project where we believe we should focus our engagement over the coming weeks. ECC remains supportive of the project, and our intention is to ensure that the benefits of the scheme to Essex are maximised and we collectively minimise the adverse effects on the local network as far as possible. We look forward to continued close working on the project in the run up to the DCO examination.

Yours sincerely,



Billy Parr
Head of Network Development, Essex County Council

Appendix E - Letter from Essex County Council to National Highways dated 7 February 2023



Essex County Council

Philip Davie
Project Director, A12 Widening Project
National Highways
Woodlands
Manton Lane
Bedford
MK41 7LW

Essex County Council
County Hall
Market Road
Chelmsford
Essex
CM1 1QH

Sent by email

Date: 7th February 2023

A12 CHELMSFORD TO A120 WIDENING SCHEME – FURTHER UPDATE ON ESSEX COUNTY COUNCIL’S POSITION ON THE PROJECT

Dear Phil,

Thank you for your letter dated 1st December 2022 which responded to the letter I sent on 31st October 2022 setting out Essex County Council’s position on the A12 widening project. As discussed I thought it would be helpful to respond in writing. In some cases we would like to request further information and/or clarification and these requests are detailed below.

Junction 19

We note your position on the study of future changes that may be required to Junction 19 to accommodate expected future growth in the vicinity of this junction, namely that this be discussed with the National Highways (NH) Spatial Planning team. While we believe there is good reason for your team to be involved in this work, we have contacted the Spatial Planning team as you suggested and hope we can make some progress on this issue.

Boreham and the B1137, including Junctions 20a and 20b

Your letter helpfully summarises ECC’s position on the proposed speed limit changes on the B1137, which is essentially that the nature of the road (being long and straight, with few frontages on the stretch between Boreham and Hatfield Peverel) is such that we believe there may be issues with drivers not complying with the lower speed limits. You also provided forecast traffic flows in the weekday peak hours and note that forecast traffic is well within the capacity of the road.

We do not disagree that, based on the forecasts, traffic will be well within the link capacity of the road. The increase in traffic in the morning peak will however be material and perceptible. I would add that my understanding is that the modelling

assumes, in simple terms, that traffic will observe the speed limits; if a significant proportion of traffic does not, it follows that the journey times will be quicker and traffic flows will be higher than those forecast.

You note that 'Boreham has an existing speed limit of 40mph, which is considered high for a large village with many journeys on foot alongside and crossing the road over such a long section of Main Road'. We concur that a 40mph through a village the size of Boreham is high, and hasten to add we have looked at various times in the past at reducing the speed limit to 30mph but have concluded that compliance would be an issue. Your letter refers to average speed data which has informed your position that no engineering measures are required to support a reduction in the speed limit; we have not seen this data and to enable us to consider this and inform our representations to the examination I would be grateful if you could send this before 13th February if at all possible.

Notwithstanding that we will consider our position once we have reviewed the aforementioned data, our position and that which we intend to make at the examination remains that a package of measures including an average speed camera system is required to discourage strategic traffic from routing through the village of Boreham to access Junction 19. This view is shared by Boreham Parish Council, Boreham Conservation Society, Chelmsford City Council, the County Council member for this division (Cllr John Spence CBE) and Kemi Badenoch MP. We have identified a range of measures that we think could be suitable and should be explored further, and these are set out in the attached report.

With regards to the stretch of the B1137 between Boreham and Hatfield Peverel, you note that measured speeds over this section show average speeds below the posted speed limit but acknowledge that detail of the existing speed profile in this section is limited. Again, we would appreciate if you could share the average speed data that has informed your position. We note your point about changes to the vehicle fleet having a positive impact on road safety, and while we certainly hope this will be the case this is not in National Highways' control, and it could take many years before this makes a material impact.

Given the above, we would very much welcome further discussion on this matter with your team and would be happy to meet as you suggested.

Junction 21

We note your position on ECC and NH undertaking a joint study to identify a preferred route for a Maldon Link Road, and while we are disappointed this is the case we appreciate your sharing of the CAD models for the options that have been considered and the SATURN results. I don't think the SATURN results have yet been uploaded to the shared Teams site and would be grateful if you could arrange for this to be undertaken as soon as possible. We would also like to take you up on your offer of a meeting to go through this information.

Since the letter you have helpfully confirmed at our SOCG meeting on 18th November 2022 that as well as amending the design you will accede to our request to pave the widened embankments as part of the new Junction 21 to help facilitate the future

delivery of a Maldon Link Road as a separate, subsequent project. We welcome this change and will raise this at examination so that we can ensure it is delivered through the DCO. We suggest a drawing is produced showing the new design including the paved embankments and that this drawing is referenced within the DCO as the basis for the final design, but we welcome your thoughts on this.

De-trunking

As you know NH's current proposals on de-trunking are not acceptable to ECC. While we are pleased that you have confirmed NH is committed to reaching a suitable solution to de-trunking, progress on this has been slow and we remain of the view that significant changes to NH's current proposals are needed. That said, it was helpful to hear in greater detail NH's current thinking on de-trunking at the meeting we had on 16th January (rearranged from the 16th December as originally planned) and the suggestion that NH acknowledge that handing the de-trunked sections of the A12 to ECC in their current form is not acceptable and that the majority of the de-trunked stretches will be rebuilt or as a minimum subject to significant works before handover.

One point that NH have made several times is that reaching a suitable solution on de-trunking will be a long process, and we appreciate that these stretches will remain trunked for several years. ECC see this as a core part of the widening scheme, and in our view it is essential that agreement is reached prior to the end of examination and secured via the DCO or a suitable alternative legally-binding mechanism.

At the date of writing we have still not received an asset inventory for the de-trunked sections, as we have been requesting since at least March 2022, nor in fact any substantive information on asset condition or planned forward maintenance. While I understand that this information takes time to compile, as indeed it will take us some time to review, not having this information makes it difficult for us to take a fully informed view of the assets that ECC will inherit as part of the scheme and may mean we will not have time to fully discuss the representations we may make to the examination on this with you in advance.

As you know ECC has for several months been giving consideration to what we believe is a better alternative to the current proposals for de-trunking, and we shared with you an overview of this work at our meeting on 16th January. We are grateful for the attention you gave this, and I attach a copy of the slides we shared at the meeting. A technical report, which details the work undertaken, will follow in the near future. We would welcome your comments on the report and a further discussion on how we can best progress this.

Junction 24

In my letter of 31st October I set out our three main concerns about the proposals for Junction 24 in their current form; namely the design of the new Inworth Road roundabout, the need for measures to ensure the B1023 is able to safely accommodate the expected increase and traffic and measures required to reduce the potential for 'rat-running' on local roads.

On the first point, we are grateful for the drawing you have provided us showing the geometry of the proposed roundabout as we requested. This is being reviewed currently and we will revert with any comments.

On the second point, with specific regard to the widening of pinch points, we accept that the modelling indicates an overall reduction in peak hour traffic using Hinds Bridge in 2026 and note that for these reasons the A12 project team does not believe that any interventions are required in connection with this bridge. We nonetheless remain of the view that this structure should be widened so that it can accommodate two large vehicles passing in opposite directions because the 2042 traffic data indicates that there will be a 2% increase in AM and 9% increase in PM peak traffic at this location.

As the busier peak hours are the times when incidents are most likely to occur, the increase in peak hour flows, in combination with the expected profile of traffic (including HGVs), means that delays associated with the constraints of the current structure are likely to increase and we believe this would potentially have a significant impact upon journey times and traffic routing. I note also your reasoning for only widening the section of the B1023 through Inworth village, but would say in response that increasing traffic on the B1023 increases the potential for delay and road traffic collisions at other pinch points on this route which are outside of the village.

On the third point, as you know this issue is a significant concern for the local communities impacted. You note that we have been doing some work on “subtle” interventions, which ECC believe could help to reduce the likelihood of traffic using inappropriate routes as a short cut / through route, ensure the B1023 is better able to accommodate increased traffic and mitigate the impacts of the junction on local communities. Attached is a report which sets out the measures we think could be suitable and should be examined further, and we welcome further discussion on this.

Walking, cycling and horse-riding

Whilst we acknowledge that the A12 scheme includes a significant amount of new WCH infrastructure, we are still concerned that accordance with the DfT’s national guidance on cycle design (LTN 1/20) has not been demonstrated at numerous key locations along the length of the scheme; in particular at junctions and proposed pedestrian and cyclist crossing structures. As yet we have not received the additional traffic modelling requested in our updated version of the WCH matrix, or indeed a response to the many design related issues raised within the matrix.

With regard to the specific issue of turning radii on the approaches to WCH bridges, LTN1/20 makes it clear that the core design principle of directness should be aimed for when designing overbridges, in order to allow cyclists to maintain momentum. ECC maintains that:

- zig-zag ramps are inherently indirect and should only be used when other alternatives have been shown to be inappropriate.
- A 4m actual vehicle turning radius is the minimum that NH should be providing on the approaches to cycling overbridges, in order to enable cyclists to maintain momentum.

- 5m minimum external radii should only be considered appropriate where a very low flow of cyclists is likely. On key routes, where higher cycling flows are anticipated, the aim should be to provide something similar to the Belfast example provided in LTN1/20, with the design only diluted from this if absolutely necessary.

Although we are grateful for the ongoing Technical Working Group discussions, ECC has no guarantee that the WCH proposals shown in the DCO plans will be amended to better accord with LTN1/20 and this, therefore, remains a significant concern that we will duly raise at the examination.

Monitoring and mitigation

In response to our request to monitor the operational impacts of the scheme at certain locations, you advised that NH undertakes post-opening project evaluations for road schemes and helpfully provided an example for the A556 Knutsford to Bowdon improvement scheme. We understand that post-opening evaluations are undertaken, as I indicated in my last letter, but what we are asking for here is something more targeted, to address specific concerns about impacts at key locations, together with a commitment to address any adverse impacts revealed by the monitoring. The post-opening evaluations completed by NH do not provide any such commitment.

At the current point in time we are awaiting a response to various queries we have raised regarding the traffic modelling that has been completed to inform the scheme's environmental and transport assessments. It is important that we get this information as soon as possible so that both we and the Examining Authority can be satisfied that the models are sufficiently accurate, and the environmental assessments are, therefore, robust. We are concerned that the model may be underrepresenting existing congestion at some locations, amongst other issues, and this could be skewing the forecasts. If this is the case, the actual impacts of the scheme on the performance of some parts of the local network may be larger than expected and this adds weight to our request for the actual impacts to be monitored and the data made available to ECC and other parties.

We note also that a number of stakeholders have raised concerns that forecast traffic flows on some local roads have changed in some cases significantly between the statutory consultation (June 2021), the 2021 supplementary consultation (November 2021) and the DCO application (August 2022), with little explanation provided for the changes. While we understand and accept that the flows have changed as the traffic model has been updated and refined, some stakeholders understandably have concerns about the considerable reductions in traffic flows and by extension the accuracy of the forecasts. Agreeing to a monitoring programme may help to reassure some stakeholders on this point.

We believe the monitoring programme should include the monitoring of traffic and air quality, for a minimum of one year pre-opening and three years post-opening, at the following locations:

Location	Suggested nature of monitoring
B1137 Main Road, Boreham	Traffic monitoring (all modes) and air quality (NO ²) monitoring
The Street / Maldon Road (Duke of Wellington) junction, Hatfield Peverel	Traffic monitoring (all modes) and air quality (NO ²) monitoring
Little Braxted Road, Little Braxted	Traffic monitoring (vehicles)
Braxted Road / Braxted Park Road	Traffic monitoring (vehicles)
B1023 Inworth Road, Inworth	Traffic monitoring (vehicles)
Kelvedon Road, Messing	Traffic monitoring (vehicles)
B1023 Church Road, Tiptree	Traffic monitoring (vehicles)

We would be happy to set out in more detail our thinking on the monitoring programme, including specific monitoring locations, type of monitoring equipment, the means of making data available and an indication of costs. We would also welcome further discussion on this and, importantly, on the approach for dealing with any unforeseen adverse impacts that the monitoring may reveal.

Construction impacts

Minimising the construction impacts of the scheme particularly on the local road network remains an important issue for ECC, not least in the context of significant concern locally about the considerable impacts the current works between Junctions 25 and 26 are having, and we likewise look forward to ongoing engagement on this. We have reviewed the proposed traffic management forums set out in Table 3.1 of the Outline Construction Traffic Management Plan and would like to discuss in more detail the purpose of these forums, their terms of reference and when they will be set up to satisfy ourselves that they will be effective.

Other points

We note that you said in our SOCG meeting on 16th January that you are working on responses to the list of modelling queries we sent in September, and we require sight of these responses as soon as possible.

Concluding remarks

Thank you for taking the time to consider these comments and the requests included herein. We look forward to continued discussion as we focus our attention on finalising the first draft of the Statement of Common Ground and Local Impact Report.

Yours sincerely,



Billy Parr
Head of Network Development, Essex County Council

Appendix F – ECC Additional Modelling Requests

From: Billy Parr - Head of Network Development <>

Sent: 18 November 2022 09:36

To: Orr-Ewing, David <>

Cc: Davie, Philip <>; Plumridge, Lindsay <>; Gary Macdonnell, Network Coordinator <>; Carmona, Rui <>; Mark Stubbs <>; Sean Perry <

Subject: RE: de-trunking meeting

Thanks for the heads up. The approach to defining the current position on items in the SOCG seems sensible to me. I've copied in Sean and Mark for info also.

We've mentioned that we'd like some additional info from the modelling, and to that end attached is a list with an explanation for each of the requests. We can add this to actions tracker if useful and discuss this afternoon. Perhaps we can also arrange a chat with Mark, SYSTRA and Daragh to discuss any points of detail.

Billy

Additional Model Data Requests – A12 Widening (National Highways DCO Submission Models) – 18 November 2022

The list below identifies a number of additional data requests and queries which have resulted from ECC and SYSTRA's analysis of the submitted A12 DCO package of technical information. It is recognised that the DCO package contains substantial detail on a wide range of specific locations, as well as explanation of the modelling methodologies (via the ComMA) report. The additional data requests are primarily made in order to enable ECC and SYSTRA to obtain clarity on certain matters focused on particular locations, including how the models route traffic between particular origins and destinations, and the composition of traffic which is using specific links, junctions or routes.

Proposed Detrunked Sections

Traffic flow data (including HGV percentages) for detrunked sections in the "with scheme" models – this is to provide additional clarity as to the expected mix of traffic on these sections once they pass into ECC control. The data should be provided at multiple points to represent the change in expected flows where traffic joins and leaves these sections from the ECC network (the DCO TA limits this data to a single reference point in most cases).

Journey time data – requested as an "end to end" journey time along the detrunked sections within the current "with scheme" models – this is requested to enable better understanding of anticipated driver behaviour on these sections of road and to demonstrate that the traffic within the model is using these roads in a manner appropriate for their new status

Junction 21 and surrounding network

Journey time and traffic flow comparison between the B1019/Church Road Junction and A12 Junction 19 (Boreham) for the route via new Junction 21 vs. two routes via Main Road, Boreham (Maldon Road/The Street/Main Road and Church Road/The Street/Main Road) for future year with / without A12 widening scenarios. This is to provide additional evidence as to how great the model shows the difference between these routes to be in terms of speed and convenience.

Duke of Wellington junction-specific data from the Strategic Model – there is a concern that the performance of the Duke of Wellington junction within the strategic model could under-estimate the expected delays to traffic (especially traffic approaching the junction from Maldon Road) and that therefore the potential for traffic to seek to "rat run" via Church Road and/or Remembrance Avenue / New Road is also being under-recognised. Journey time data from the strategic model for the journey from Ulting Road/B1019 Maldon Road to the Duke of Wellington junction (including V/C and delay at the junction) is therefore requested for the purposes of comparison with the junction-specific modelling.

Junction 24 and surrounding network

Route from Tiptree to Rivenhall End (via B1022 Maldon Road, Braxted Park Road and Station Road) – a select link analysis is requested to identify volumes, origin and destination points for traffic using the route between Tiptree and Rivenhall End. There is considerable uncertainty around how traffic flows have adjusted between the initial strategic modelling which informed the statutory consultation and the final strategic models used for the DCO submission; stakeholders have queried with ECC how the distribution of

trips has changed over time so that the very high initial estimates of traffic on the Inworth Road corridor have reduced materially and the conclusions drawn around this route have in turn become very different. The locations of the select links should be:

Braxted Park Road (both directions) - just north of the Braxted Park Road/B1022 Junction

B1023 Kelvedon Road (both directions) - just north of the B1023/Vine Road Junction

We would like the select link analysis to be carried out for the base model, “without A12 scheme” and “with A12 scheme” in 2027 and 2042.

Journey Times from Tiptree to Jn 22 and Jn 24 – Local stakeholders are concerned that the strategic model might be underestimating the delay experienced by traffic heading from Tiptree to the A12 via Braxted Park Road. We would request journey time data from the strategic model for the routes from the Station Road/Church Road junction to Rivenhall End and Station Road/Church Road junction to the location of the proposed new Jn 24 access roundabout on Inworth Road (base model, “without A12 scheme” and “with A12 scheme” in 2027 and 2042 AM and PM peaks). This should help to provide evidence to support the relative usage of each route in the assessed scenarios.

B1023 Double Roundabout – we would additionally request data from the strategic model to show the performance of the junction in the base year (i.e. to be compared to the junction modelling results within the DCO pack). Local stakeholders currently report considerable congestion and delay in the peak periods which is not evident from the 2019 junction base year models, so we wish to interrogate how the 2019 strategic base models perform. Confirmation of any site-specific validation within the strategic model in this area (rather than the overall global validation statistics) would be appreciated.

Crossings Matrix and Modelling

It is noted that a number of specific requests have been identified by ECC with regard to the analysis of the proposed new crossings; these will need to be addressed in parallel to the requests set out above.

From: Billy Parr - Head of Network Development <>
Sent: 22 September 2022 17:04
To: Orr-Ewing, David <>; Plumridge, Lindsay/ESX <>; Carmona, Rui <>
Cc: Sean Perry <>; Mark Stubbs <>; Mark Woodger - Principal Planning Officer National Infrastructure <>; Gary Macdonnell, Network Coordinator <> Alan Lindsay - Transportation Planning and Infrastructure Manager <>; jsoheili <>
Subject: Further information requests

Hi all

At the last SOCG meeting I said we would set out in writing the further information we would like on the A12 project, and to that end please see the list below. The majority of this I think we have discussed before so hopefully there won't be anything too unexpected. We do think sight of this information will help us to reach agreement on some of the outstanding SOCG matters and enable us to respond to questions from members and other stakeholders.

Happy to discuss if anything is unclear.

Best regards

Billy

Information required	Why this is required
Proposed approach to agreeing Departures from Standards on local roads, which we understand was discussed and agreed previously.	We are currently unclear on the approach that will be taken for discussing and agreeing any DFS required and how this relates to the DCO process
Assessment of the impacts of alternative speed limits on the B1137, namely a 30mph speed limit through Boreham and retention of existing speed limit on stretch of B1137 between Boreham and Hatfield Peverel. This should include consideration of the impacts on the Duke of Wellington junction, including both capacity and safety.	ECC consider there is a case for reducing the existing speed limit through Boreham but not between Boreham and Hatfield Peverel, therefore this scenario should be modelled. Data from the strategic models is requested in the first instance; if this indicates any material changes in either traffic flows or routing, a further sensitivity test may be required for the Duke of Wellington junction.
Any evidence of traffic rat-running via Church Road and/or New Road / Remembrance Avenue to avoid the Duke of Wellington junction. Confirmation that this is an issue which would be picked up in the modelling. (We believe a select link analysis for these roads is likely to be the most straightforward way to generate the specific information required).	Concerns have been raised by members and the Parish Council about the potential for increased rat-running on these roads as a result of the scheme.
All work undertaken on Maldon Road bypass. This should include technical drawings (including sketches) for considered options, and any model outputs not included in the appendices of the NH technical note.	This will supplement feasibility work completed by ECC on the bypass and inform any further design development undertaken.
Junction 21 design drawings which show the original junction design, the modifications that are proposed to aid construction of a future bypass which are included in the current National Highways proposals, and the additional works that would be required to connect the junction to the bypass at a later date.	A clear understanding is needed of what modifications are planned and what additional works are required, to inform our case-making for a future bypass.
Details of the optioneering process that has been undertaken for the Inworth Road roundabout, including different roundabout design standards and locations.	Further understanding is required on the optioneering process that has been undertaken to arrive at current design, given concerns raised

<p>Sketches and indicative model outputs which support rejected options are requested so that the decision-making process in arriving at the current proposals can be clearly understood.</p>	<p>about the design of the roundabout and whether this is appropriate given the volume, likely speed and nature of traffic that will be using it. In particular, evidence to support the rejection of options on the basis of factors such as land take and costs is considered to be as important as the evidence supporting selection of the current preferred option for this junction.</p>
<p>Any data on current traffic speeds on the current 50mph stretch of the B1023, north of Inworth village.</p>	<p>Data needed of current vehicle speeds on this stretch of the B1023 to inform extent of any measures that may be required to reduce speeds. The method of data collection (i.e. via Automated Traffic Counter, "Location-based" or satellite GPS data, or on-site in-person survey) should be confirmed for each data source.</p>
<p>Details of measures proposed to ensure vehicles enter the proposed new Inworth roundabout safely at appropriate speed.</p>	<p>The current nature of the B1023 south of the roundabout is such that traffic calming measures may be required to ensure vehicles do not enter the roundabout at excessive speed. This is due to the straightness of several sections of the existing B1023 and the presence of fewer access points or other visual cues to reduce speed in comparison to the section north of the proposed roundabout location.</p>
<p>Latest walking and cycling crossings designs, including the design philosophy that has been adopted.</p>	<p>To understand the optioneering process, modelling outputs, and impacts on local roads.</p>

Appendix G – National Highways Response to “ECC Additional Modelling Requests”

A12 Chelmsford to A120 widening

22 Feb 2023

The information shared in this presentation represents the most up to date proposals. This may evolve for several reasons, and as such, may be subject to change.



Traffic model data requests from ECC

Additional model data requests

Additional Model Data Requests – A12 Widening (National Highways DCO Submission Models) – 18 November 2022

The list below identifies a number of additional data requests and queries which have resulted from ECC and SYSTRA's analysis of the submitted A12 DCO package of technical information. It is recognised that the DCO package contains substantial detail on a wide range of specific locations, as well as explanation of the modelling methodologies (via the ComMA) report. The additional data requests are primarily made in order to enable ECC and SYSTRA to obtain clarity on certain matters focused on particular locations, including how the models route traffic between particular origins and destinations, and the composition of traffic which is using specific links, junctions or routes.

Proposed Detrunked Sections

Traffic flow data (including HGV percentages) for detrunked sections in the "with scheme" models – this is to provide additional clarity as to the expected mix of traffic on these sections once they pass into ECC control. The data should be provided at multiple points to represent the change in expected flows where traffic joins and leaves these sections from the ECC network (the DCO TA limits this data to a single reference point in most cases).

Journey time data – requested as an "end to end" journey time along the detrunked sections within the current "with scheme" models – this is requested to enable better understanding of anticipated driver behaviour on these sections of road and to demonstrate that the traffic within the model is using these roads in a manner appropriate for their new status

Junction 21 and surrounding network

Journey time and traffic flow comparison between the B1019/Church Road Junction and A12 Junction 19 (Boreham) for the route via new Junction 21 vs. two routes via Main Road, Boreham (Maldon Road/The Street/Main Road and Church Road/The Street/Main Road) for future year with / without A12 widening scenarios. This is to provide additional evidence as to how great the model shows the difference between these routes to be in terms of speed and convenience.

Duke of Wellington junction-specific data from the Strategic Model – there is a concern that the performance of the Duke of Wellington junction within the strategic model could under-estimate the expected delays to traffic (especially traffic approaching the junction from Maldon Road) and that therefore the potential for traffic to seek to "rat run" via Church Road and/or Remembrance Avenue / New Road is also being under-recognised. Journey time data from the strategic model for the journey from Utting Road/B1019 Maldon Road to the Duke of Wellington junction (including V/C and delay at the junction) is therefore requested for the purposes of comparison with the junction-specific modelling.

Junction 24 and surrounding network

Route from Tiptree to Rivenhall End (via B1022 Maldon Road, Braxted Park Road and Station Road) – a select link analysis is requested to identify volumes, origin and destination points for traffic using the route between Tiptree and Rivenhall End. There is considerable uncertainty around how traffic flows have adjusted between the initial strategic modelling which informed the statutory consultation and the final strategic models used for the DCO submission; stakeholders have queried with ECC how the

distribution of trips has changed over time so that the very high initial estimates of traffic on the Inworth Road corridor have reduced materially and the conclusions drawn around this route have in turn become very different.

The locations of the select links should be:

- Braxted Park Road (both directions) - just north of the Braxted Park Road/B1022 Junction
- B1023 Kelvedon Road (both directions) - just north of the B1023/Vine Road Junction

We would like the select link analysis to be carried out for the base model, "without A12 scheme" and "with A12 scheme" in 2027 and 2042.

Journey Times from Tiptree to Jn 22 and Jn 24 – Local stakeholders are concerned that the strategic model might be underestimating the delay experienced by traffic heading from Tiptree to the A12 via Braxted Park Road. We would request journey time data from the strategic model for the routes from the Station Road/Church Road junction to Rivenhall End and Station Road/Church Road junction to the location of the proposed new Jn 24 access roundabout on Inworth Road (base model, "without A12 scheme" and "with A12 scheme" in 2027 and 2042 AM and PM peaks). This should help to provide evidence to support the relative usage of each route in the assessed scenarios.

B1023 Double Roundabout – we would additionally request data from the strategic model to show the performance of the junction in the base year (i.e. to be compared to the junction modelling results within the DCO pack). Local stakeholders currently report considerable congestion and delay in the peak periods which is not evident from the 2019 junction base year models, so we wish to interrogate how the 2019 strategic base models perform. Confirmation of any site-specific validation within the strategic model in this area (rather than the overall global validation statistics) would be appreciated.

Crossings Matrix and Modelling

It is noted that a number of specific requests have been identified by ECC with regard to the analysis of the proposed new crossings; these will need to be addressed in parallel to the requests set out above.

These requests are answered individually through the rest of this slide pack

Detrunked Sections



Proposed Detrunked Sections

Proposed Detrunked Sections

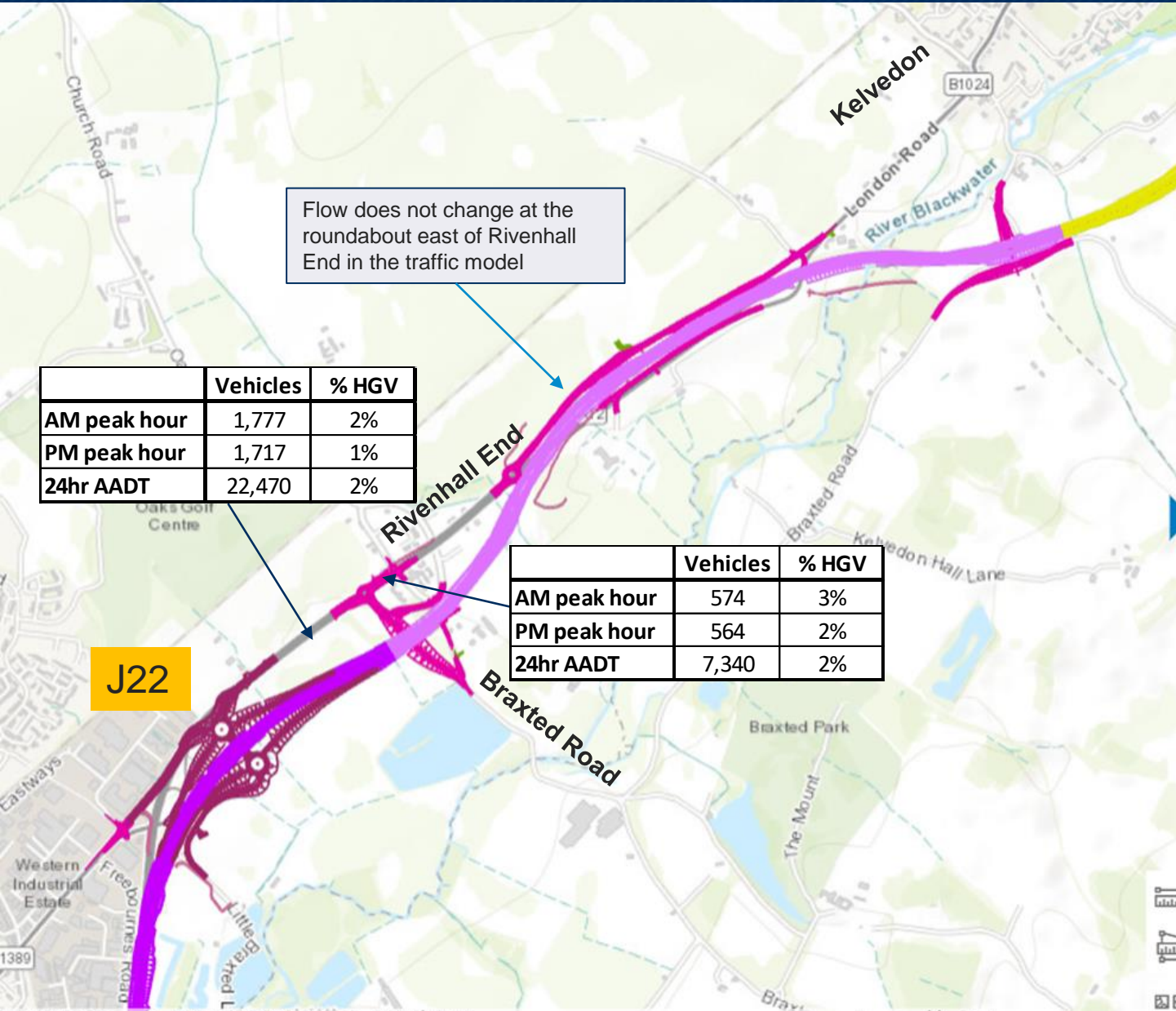
Traffic flow data (including HGV percentages) for detrunked sections in the “with scheme” models – this is to provide additional clarity as to the expected mix of traffic on these sections once they pass into ECC control. The data should be provided at multiple points to represent the change in expected flows where traffic joins and leaves these sections from the ECC network (the DCO TA limits this data to a single reference point in most cases).

Journey time data – requested as an “end to end” journey time along the detrunked sections within the current “with scheme” models – this is requested to enable better understanding of anticipated driver behaviour on these sections of road and to demonstrate that the traffic within the model is using these roads in a manner appropriate for their new status

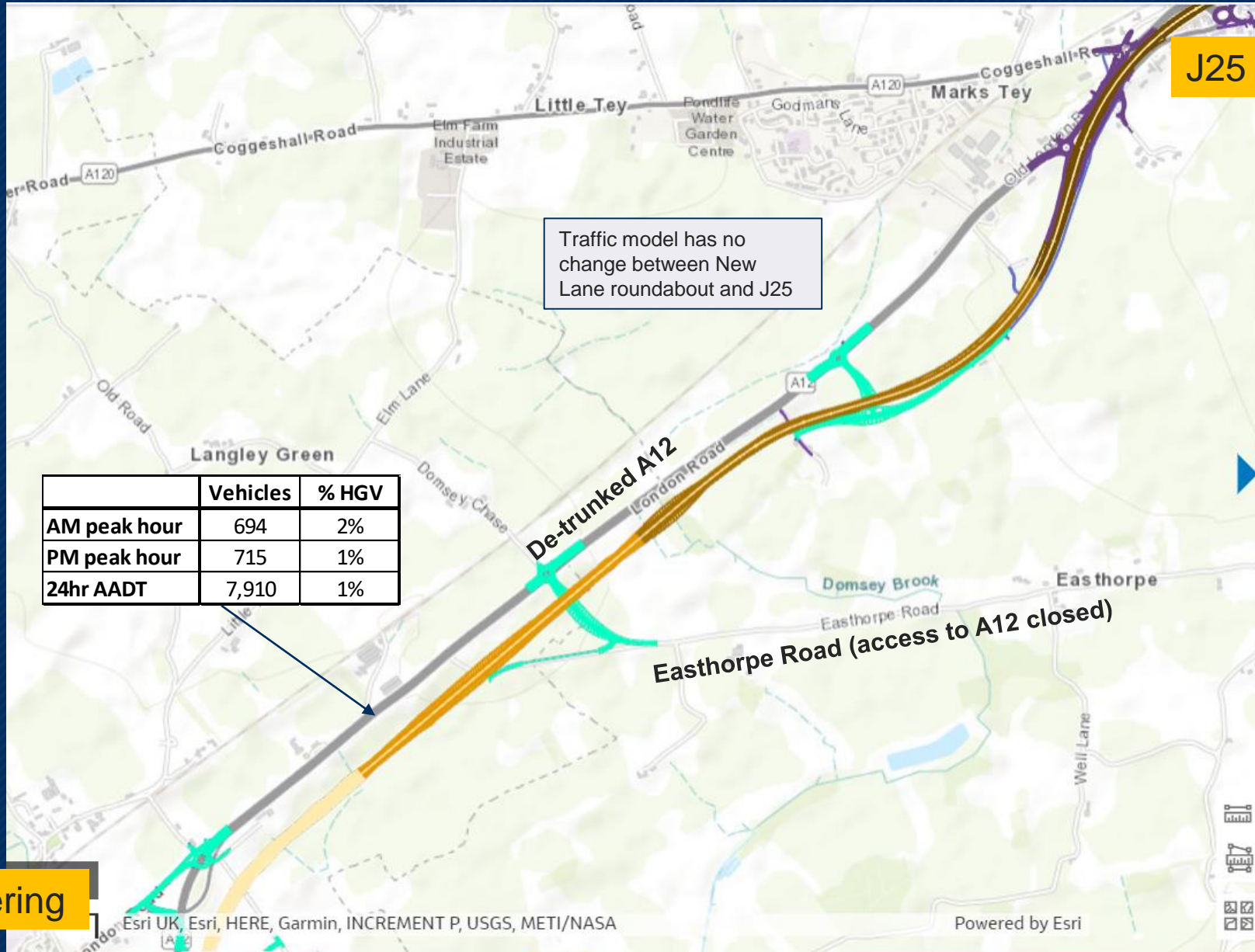
Proposed Detrunked Sections

Traffic flow on proposed Detrunked sections

Junction 22 to 23 (de-trunked A12) – 2042 two-way traffic flows



Junction 24-25 (de-trunked A12) – 2042 traffic flows



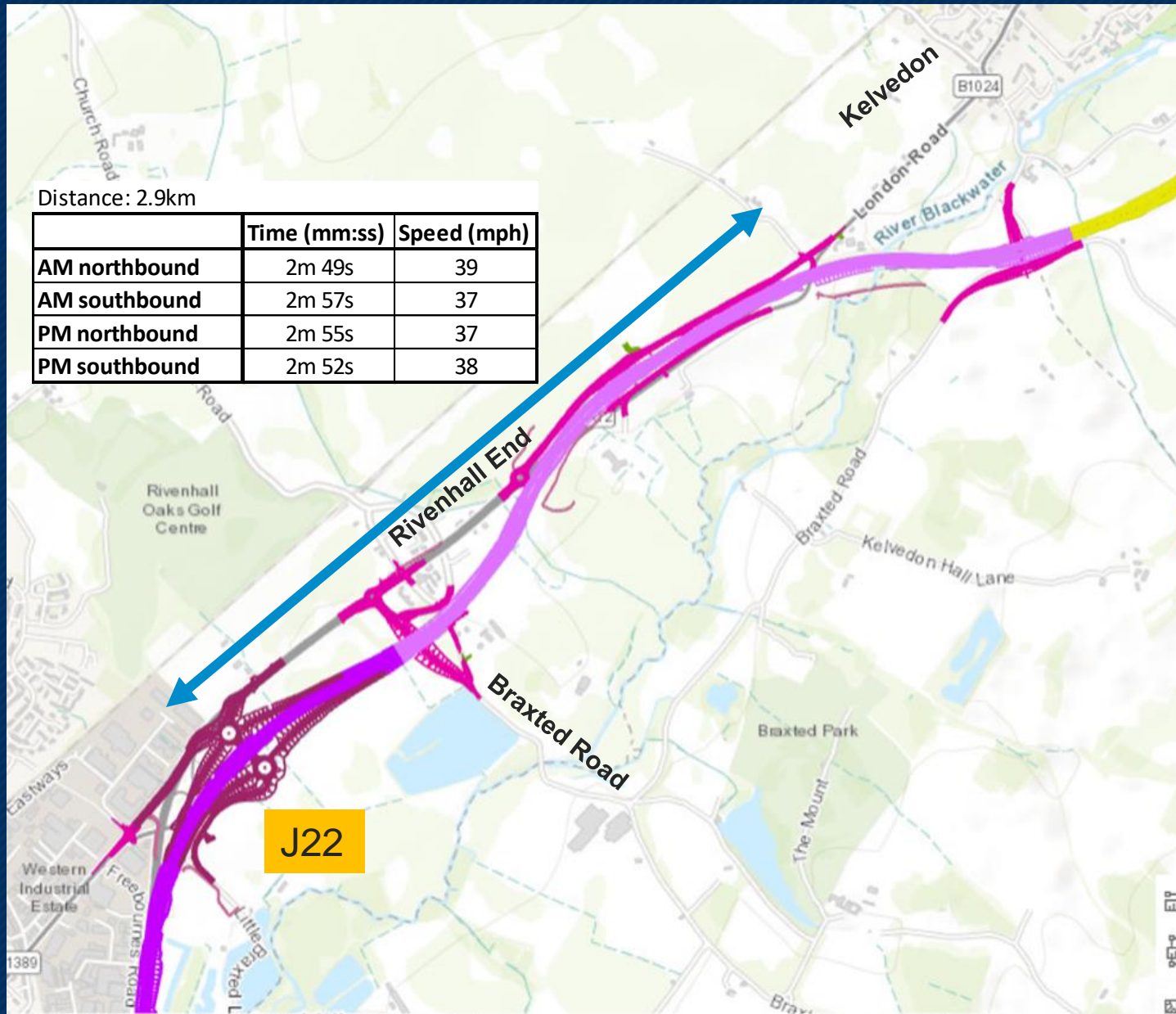
Proposed Detrunked Sections

Journey time data on Detrunked sections

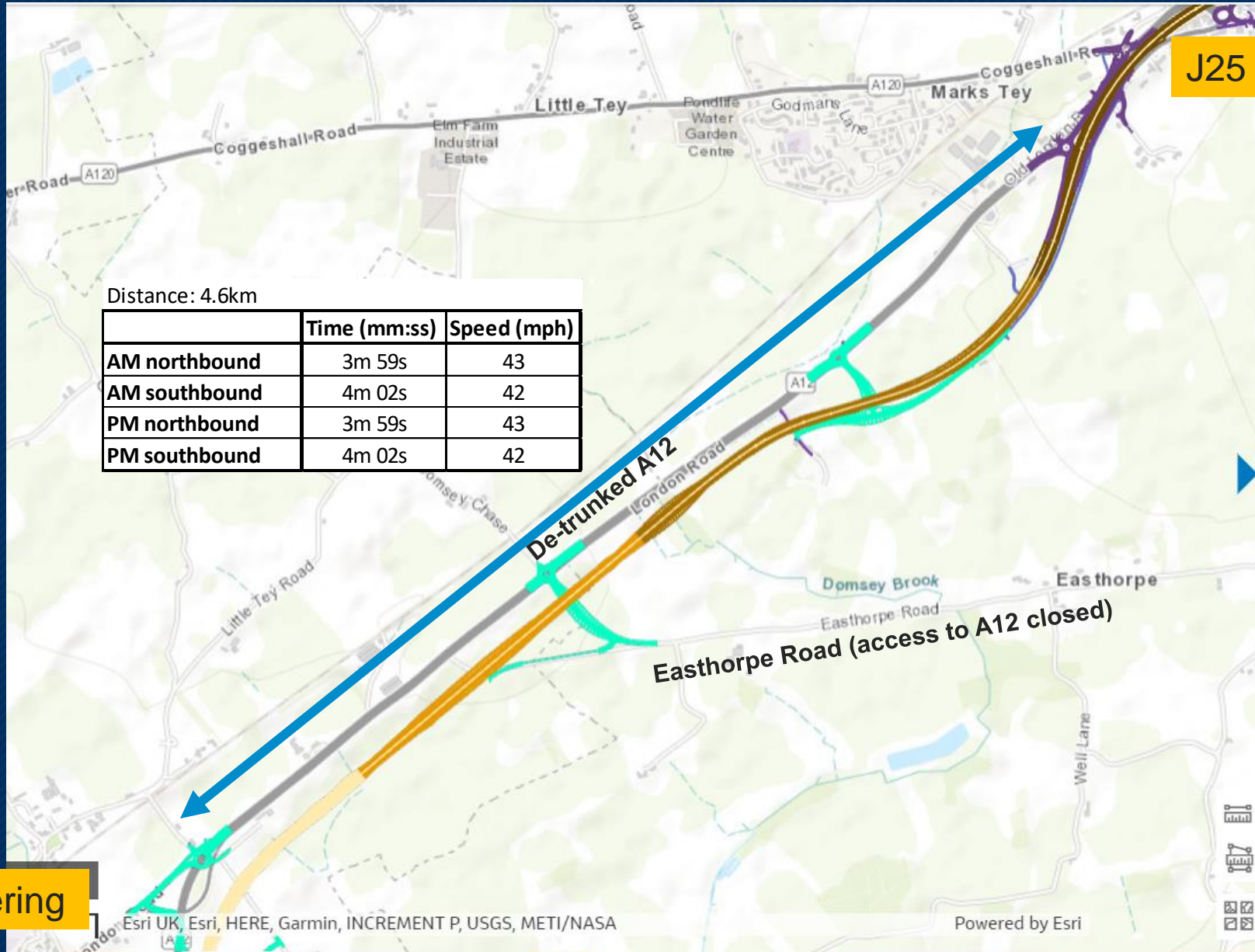
Junction 22 to 23 (de-trunked A12) – 2027 journey times

Distance: 2.9km

	Time (mm:ss)	Speed (mph)
AM northbound	2m 49s	39
AM southbound	2m 57s	37
PM northbound	2m 55s	37
PM southbound	2m 52s	38



Junction 24-25 (de-trunked A12) – 2027 journey times



Junction 21 and surrounding network



Junction 21 and surrounding network

Journey time and traffic flow comparison between the B1019/Church Road Junction and A12 Junction 19 (Boreham) for the route via new Junction 21 vs. two routes via Main Road, Boreham (Maldon Road/The Street/Main Road and Church Road/The Street/Main Road) for future year with / without A12 widening scenarios. This is to provide additional evidence as to how great the model shows the difference between these routes to be in terms of speed and convenience.

Route comparison via Main Road vs J21 / A12

Of traffic approaching the B1019/Church Road junction (i.e. traffic in pink circle below) which is heading towards Chelmsford or the A12 southbound:

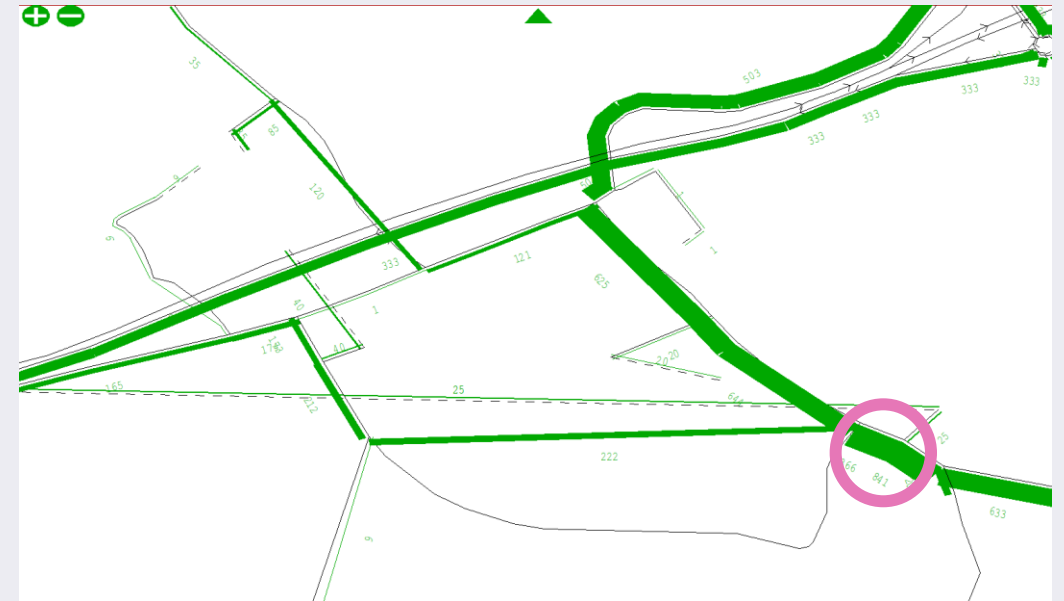
In 2027 AM:

88% (333 pcus) travels via J21, with a journey time of 9m59s.

12% (47 pcus) travels via Church Road / Main Road to J19, with a journey time of 11m14s.

No traffic goes via Duke of Wellington junction / Main Road to J19. This would have a journey time of 11m22s.

Note that although all the Main Road traffic described above goes via Church Road, there is still an overall reduction in Church Road traffic with the scheme. This is because in the 'without scheme' scenario a lot of traffic uses Church Road to travel to J20a SB onslip.



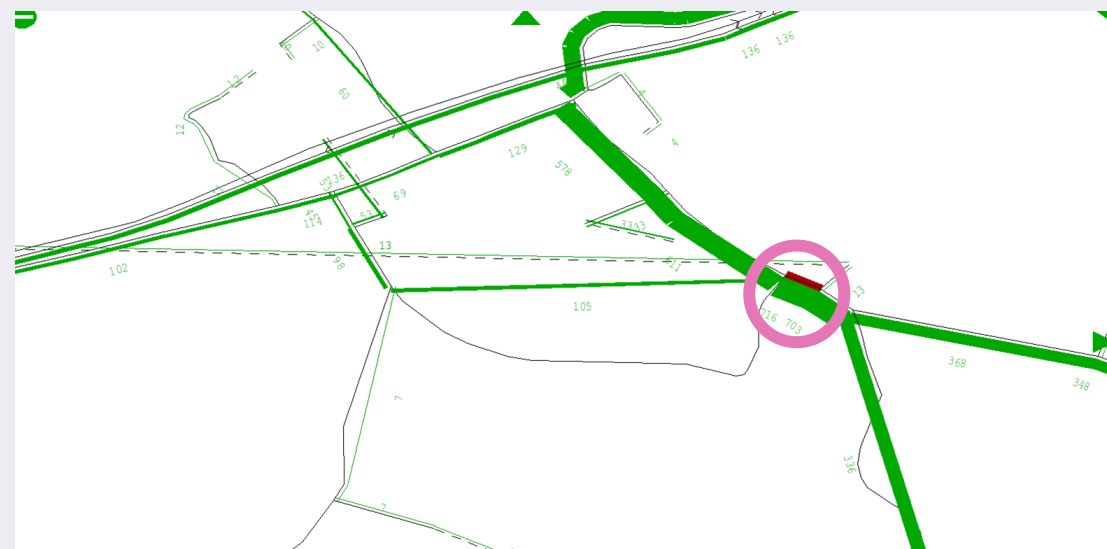
Route comparison via Main Road vs J21 / A12

Of traffic approaching the B1019/Church Road junction (i.e. traffic in pink circle below) which is heading towards Chelmsford or the A12 southbound:

In 2027 PM:

98% (136 pcus) travels via J21, with a journey time of 8m55s.

2% (3 pcus) travels via Main Road to J19, with a journey time of 10m17s.



Route comparison via Main Road vs J21 / A12

In the opposite direction, for traffic just after the B1019/Church Road junction heading towards Maldon (i.e. traffic in pink circle below) which leaves the A12 at either junction 19 and junction 21:

In 2027 AM:

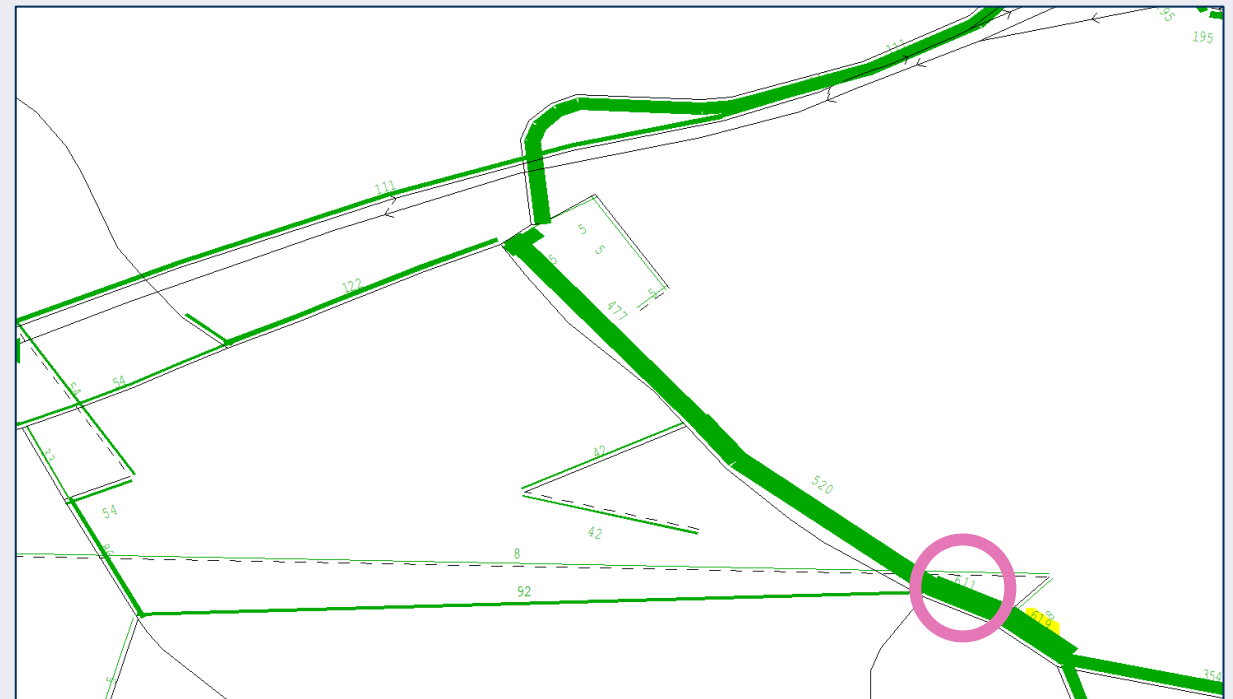
99% comes via junction 21

1% comes via junction 19 and Main Road

In 2027 PM:

98% comes via junction 21

2% comes via junction 21 and Main Road

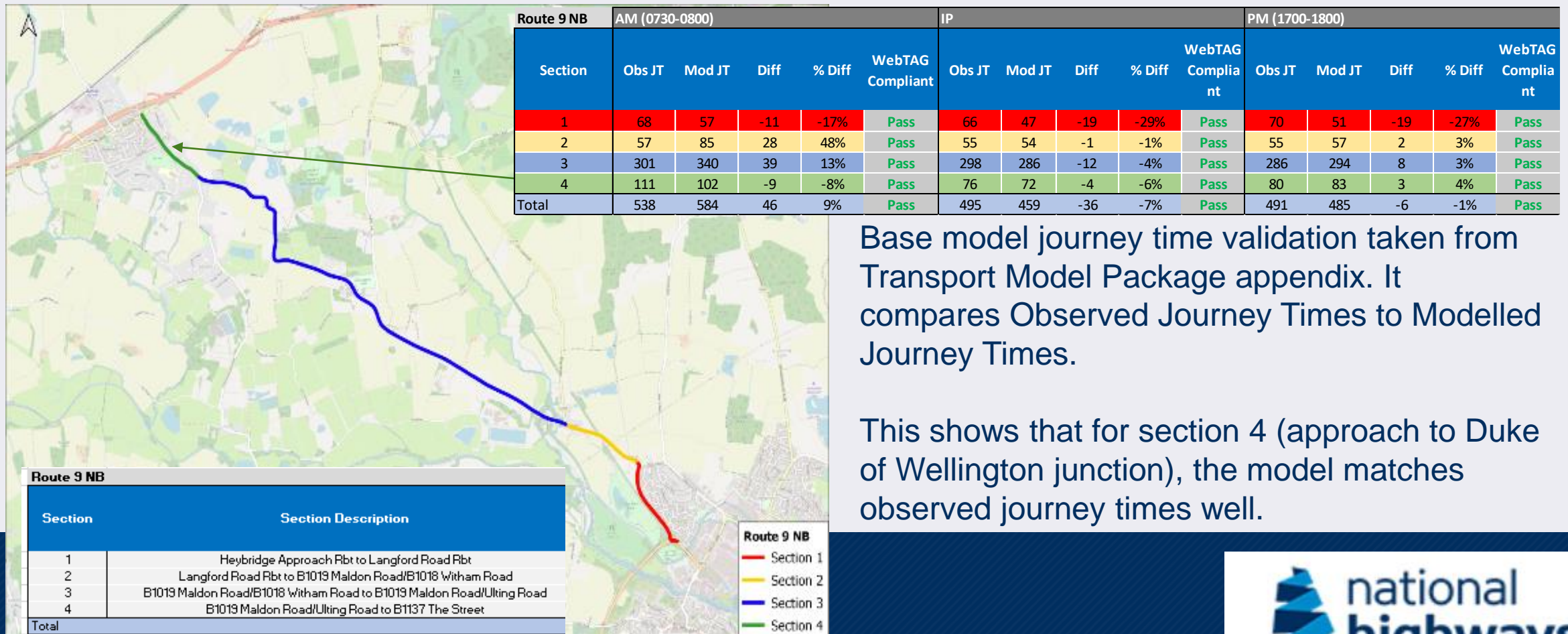


Junction 21 and surrounding network

Duke of Wellington junction-specific data from the Strategic Model – there is a concern that the performance of the Duke of Wellington junction within the strategic model could under-estimate the expected delays to traffic (especially traffic approaching the junction from Maldon Road) and that therefore the potential for traffic to seek to “rat run” via Church Road and/or Remembrance Avenue / New Road is also being under-recognised. Journey time data from the strategic model for the journey from Ulting Road/B1019 Maldon Road to the Duke of Wellington junction (including V/C and delay at the junction) is therefore requested for the purposes of comparison with the junction-specific modelling.

Duke of Wellington junction in strategic model

Comparison of SATURN model vs observed conditions



Base model journey time validation taken from Transport Model Package appendix. It compares Observed Journey Times to Modelled Journey Times.

This shows that for section 4 (approach to Duke of Wellington junction), the model matches observed journey times well.



Duke of Wellington junction in strategic model

- Volume vs Capacity (V/C) and delay on the Maldon Road approach to junction, in 2019 base year SATURN model (taken on single 300m link approaching junction):

	AM	PM
V/C %	82%	63%
Delay	21s	14s

Duke of Wellington junction in strategic model

- Volume vs Capacity (V/C) and delay on the Maldon Road approach to junction, in SATURN model (taken on single 300m link approaching junction), and delay in Vissim:

Do Minimum	2027 AM	2027 PM	2042 AM	2042 PM
V/C % in SATURN	89%	70%	99%	80%
Delay in SATURN	25s	16s	42s	20s
Delay in Vissim	36s	23s	49s	30s
Do Something	2027 AM	2027 PM	2042 AM	2042 PM
V/C % in SATURN	95%	77%	100%	85%
Delay in SATURN	34s	20s	57s	24s
Delay in Vissim	38s	25s	49s	29s

- A slight increase in SATURN delay on Maldon Road due to scheme, as Maldon Road traffic increases.
- Generally a good match between SATURN and Vissim results

Junction 24 and surrounding network



Junction 24 and surrounding network

Trip patterns in junction 24 area

Junction 24 and surrounding network

Junction 24 and surrounding network

Route from Tiptree to Rivenhall End (via B1022 Maldon Road, Braxted Park Road and Station Road) – a select link analysis is requested to identify volumes, origin and destination points for traffic using the route between Tiptree and Rivenhall End.

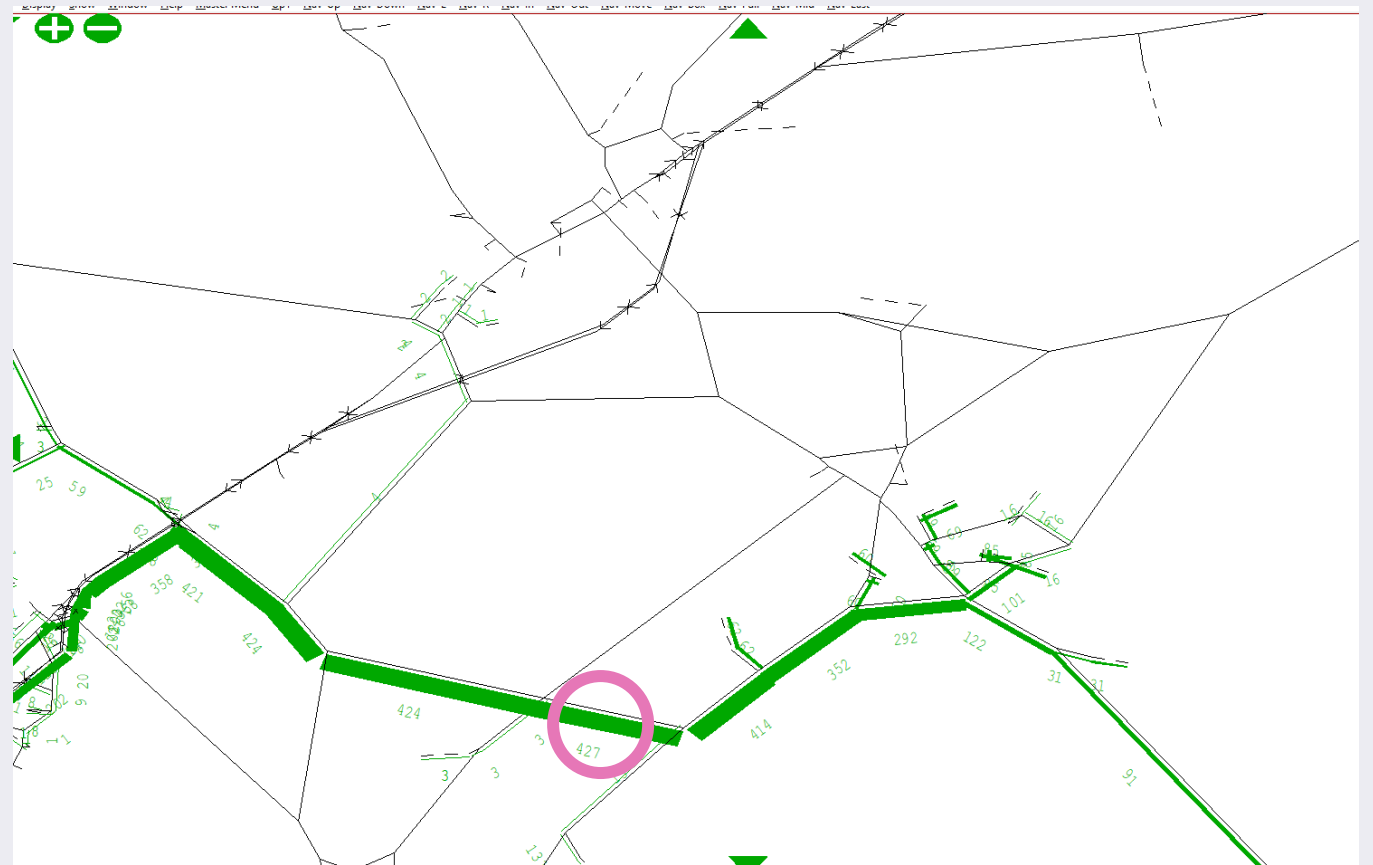
We would like the select link analysis to be carried out for the base model, “without A12 scheme” and “with A12 scheme” in 2027 and 2042.

For ease of display, analysis is only shown for 2027 AM

Junction 24 and surrounding network

Select Link Analysis in 2019 base year model (AM) – on Braxted Park Road northbound

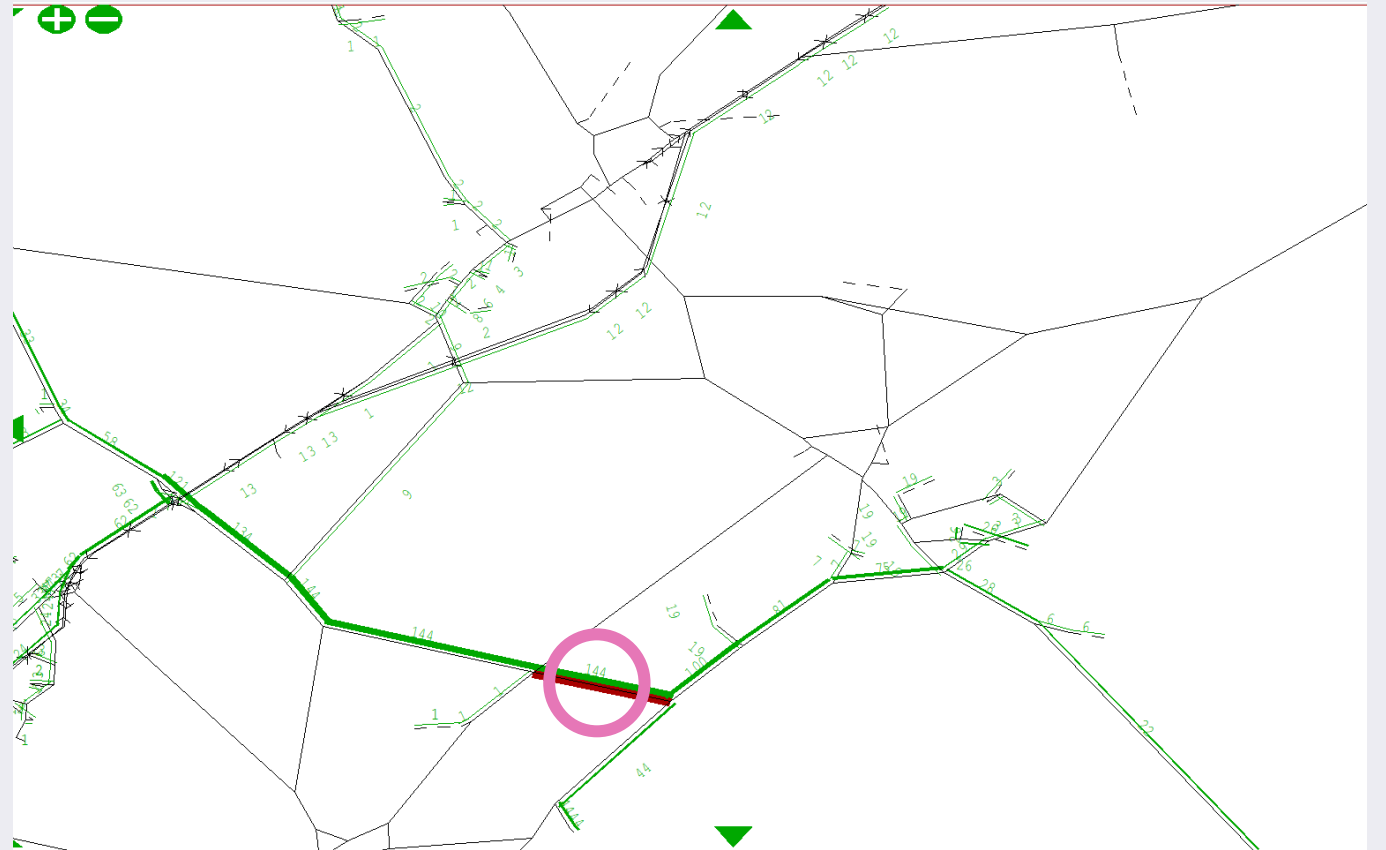
Takes traffic from south side of Tiptree and beyond to join A12 at Rivenhall End. Traffic going to A12 SB or Witham.



Junction 24 and surrounding network

Select Link Analysis in 2019 base year model (AM) – on Braxted Park Road southbound

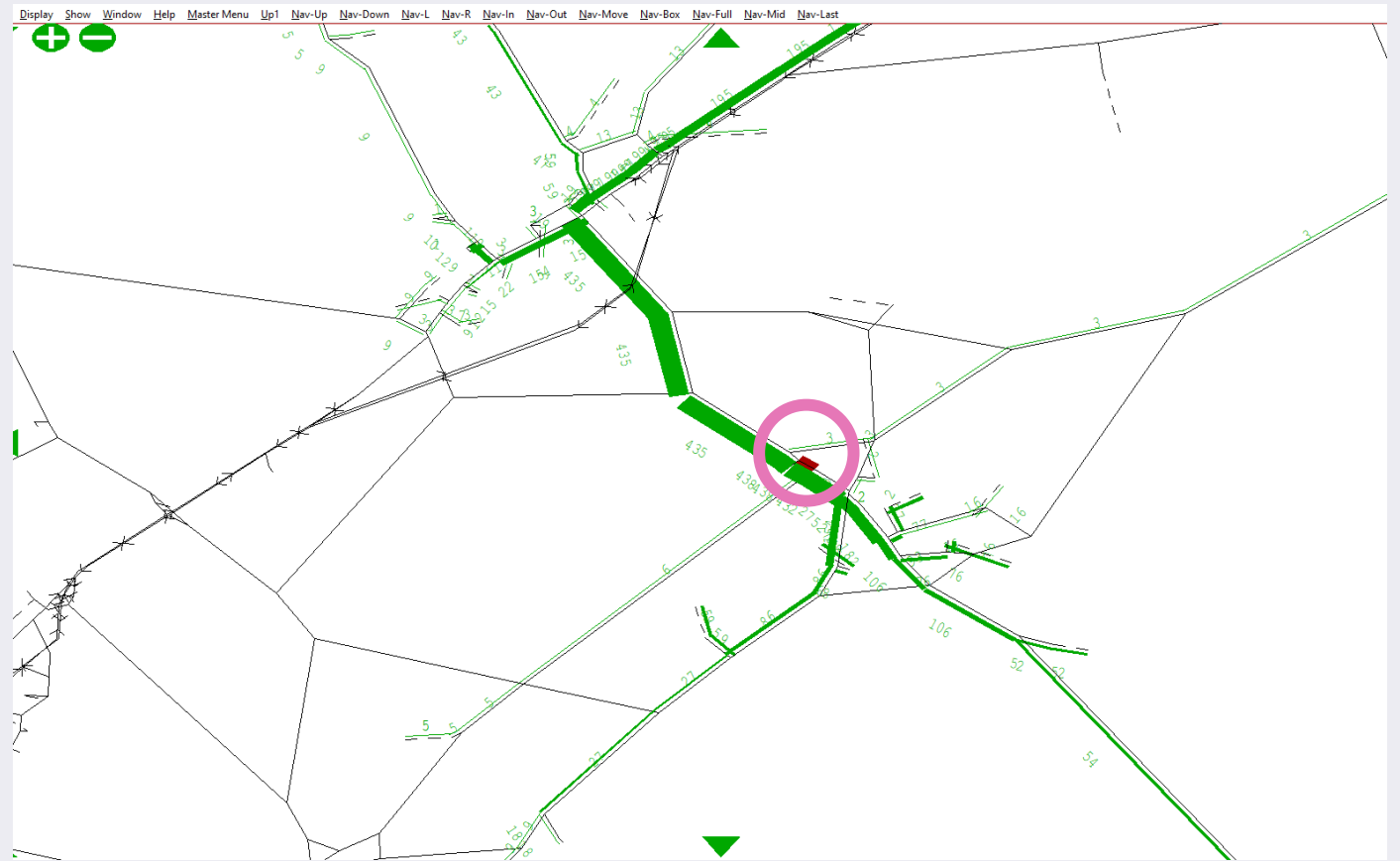
Takes traffic from Rivenhall End to south Tiptree.



Junction 24 and surrounding network

Select Link Analysis in 2019 base year model (AM) – on B1023 Kelvedon Road northbound

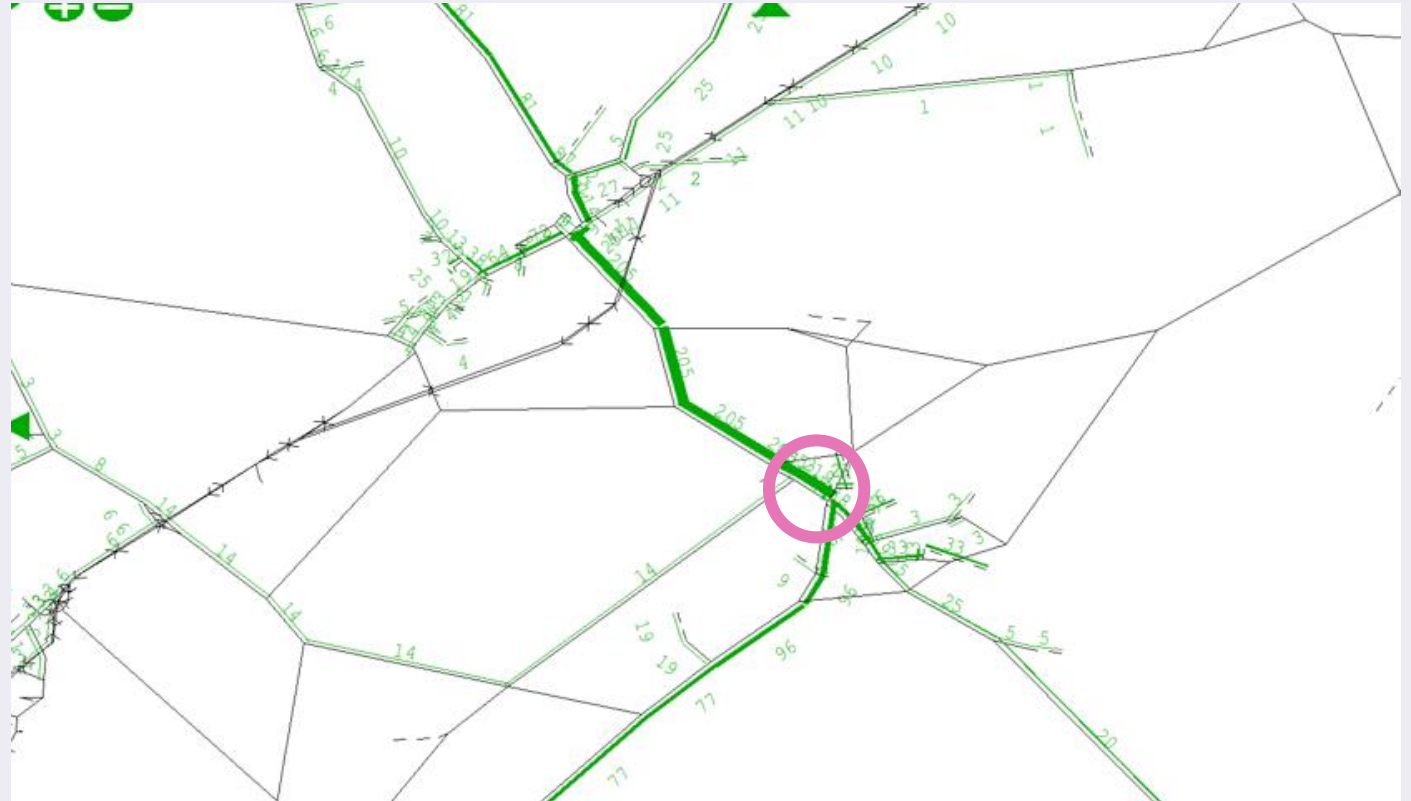
Takes traffic from Tiptree and beyond to join A12 northbound at junction 24 or into Kelvedon / Feering.



Junction 24 and surrounding network

Select Link Analysis in 2019 base year model (AM) – on B1023 Kelvedon Road southbound

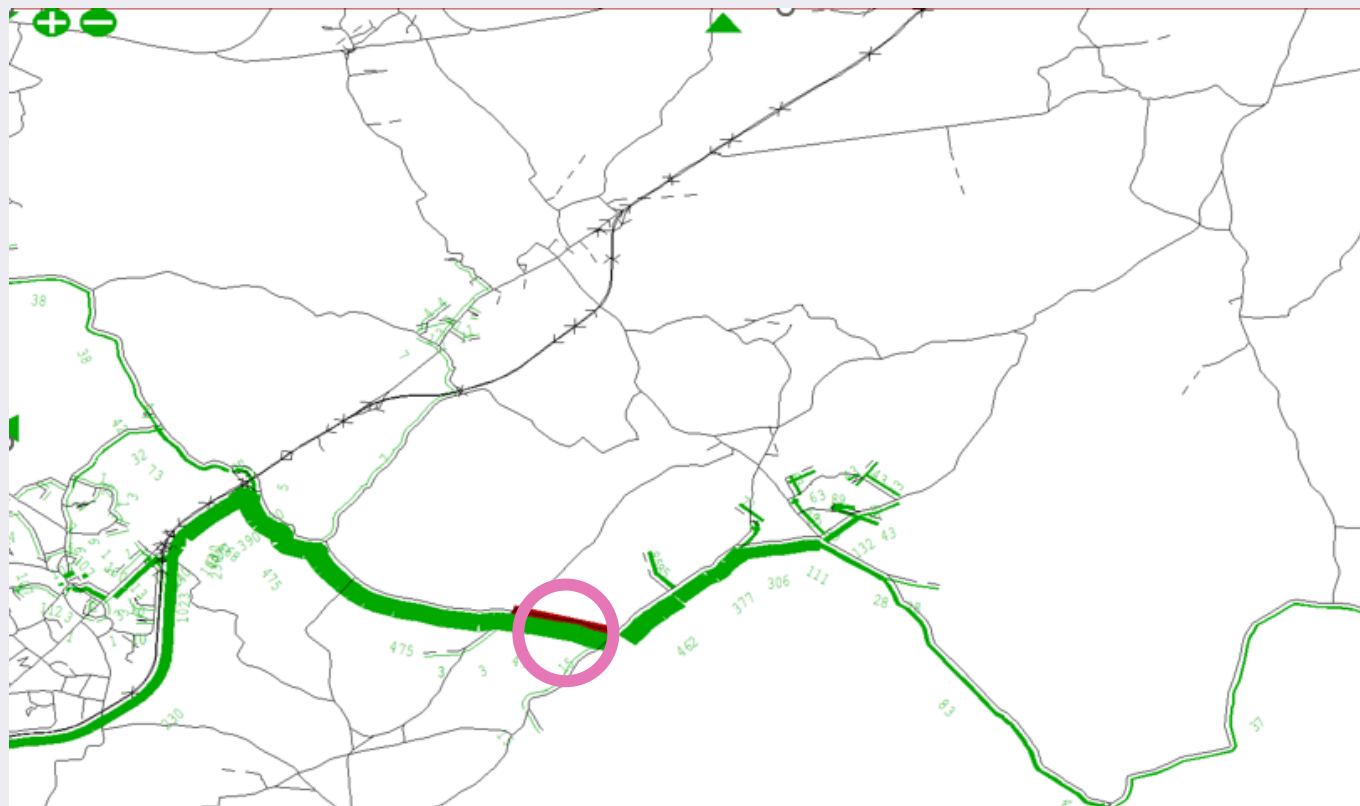
Takes traffic from A12 Southbound at junction 24 or Kelvedon / Feering to Tiptree and beyond.



Junction 24 and surrounding network

Select Link Analysis in 2027 Do Minimum model (AM) – on Braxted Park Road northbound

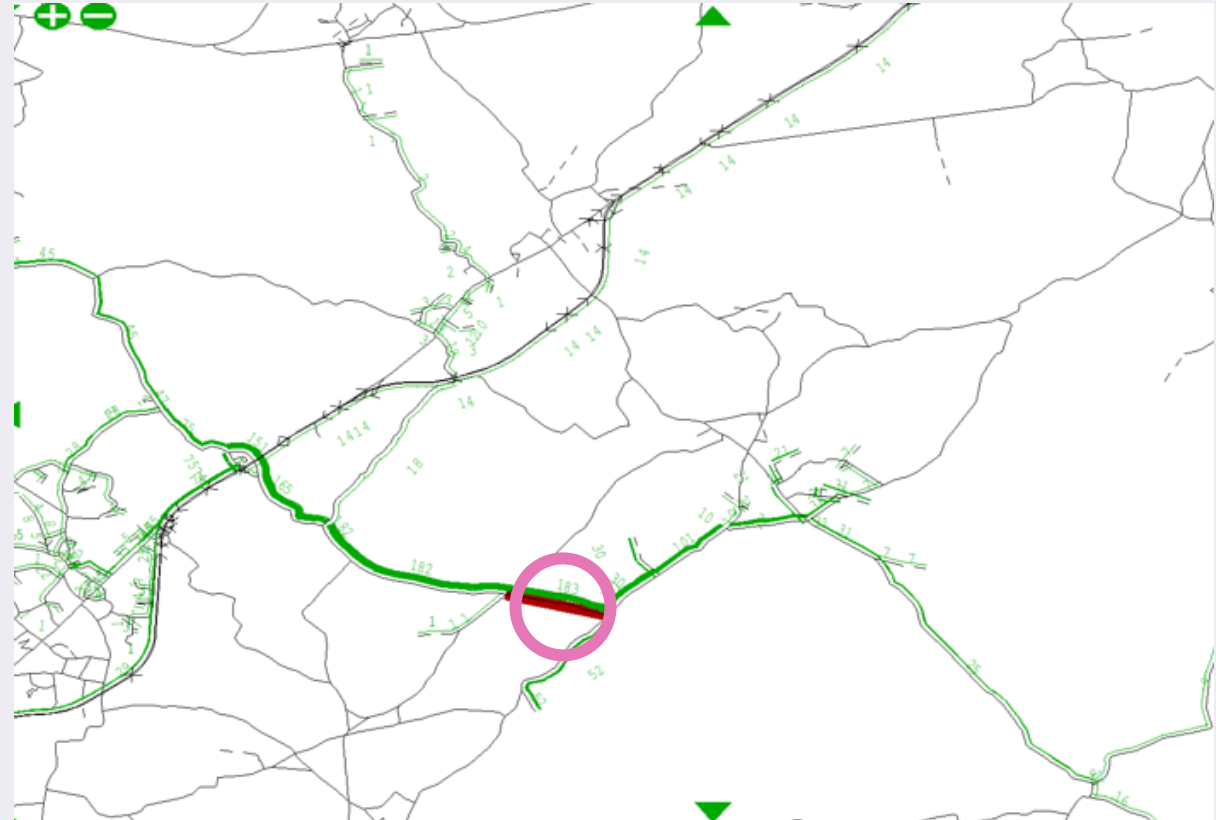
Similar distribution to the base model this link takes traffic from south side of Tiptree and beyond to join A12 at Rivenhall End. Traffic going to A12 SB or Witham.



Junction 24 and surrounding network

Select Link Analysis in 2027 Do Minimum model (AM) – on Braxted Park Road southbound

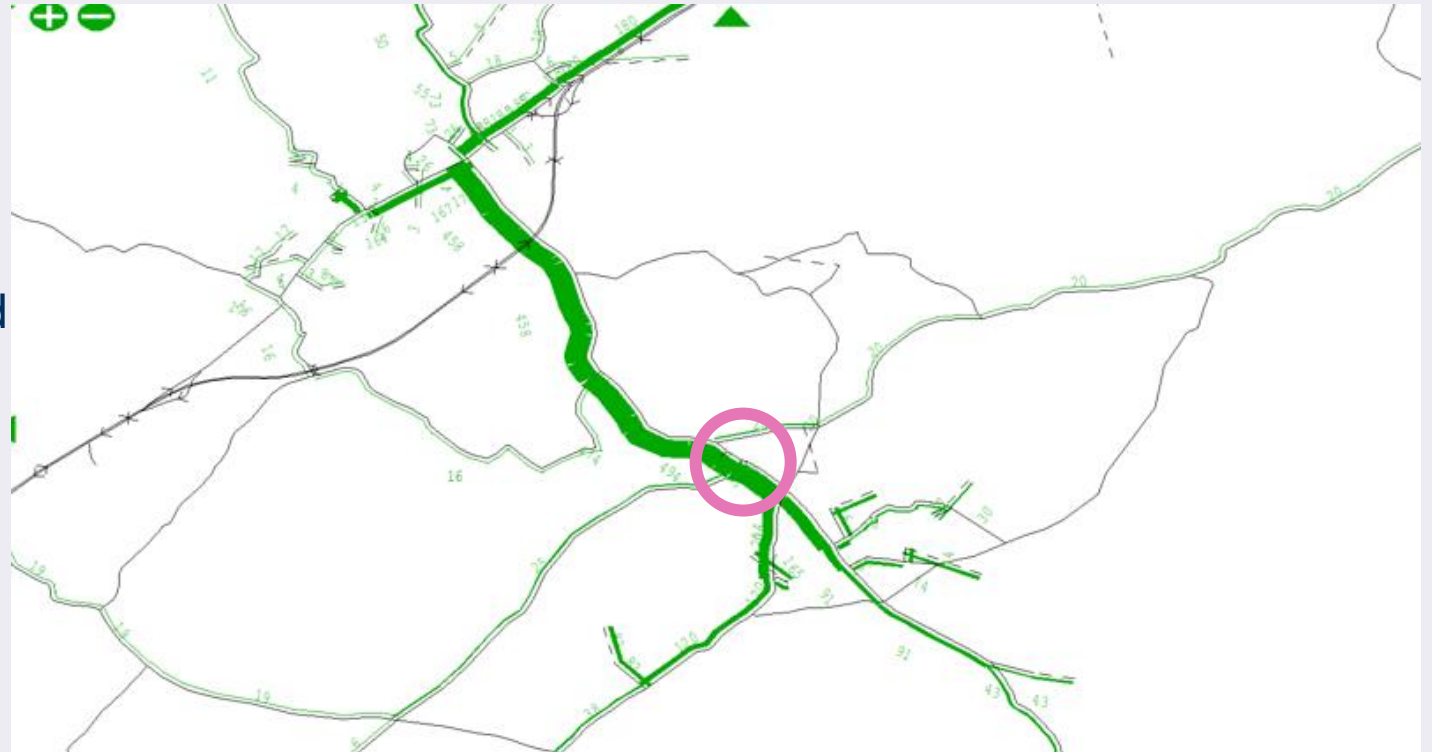
Similar distribution to the base model this link takes traffic from Rivenhall End to south Tiptree.



Junction 24 and surrounding network

Select Link Analysis in 2027 Do Minimum model (AM) – on B1023 Kelvedon Road northbound

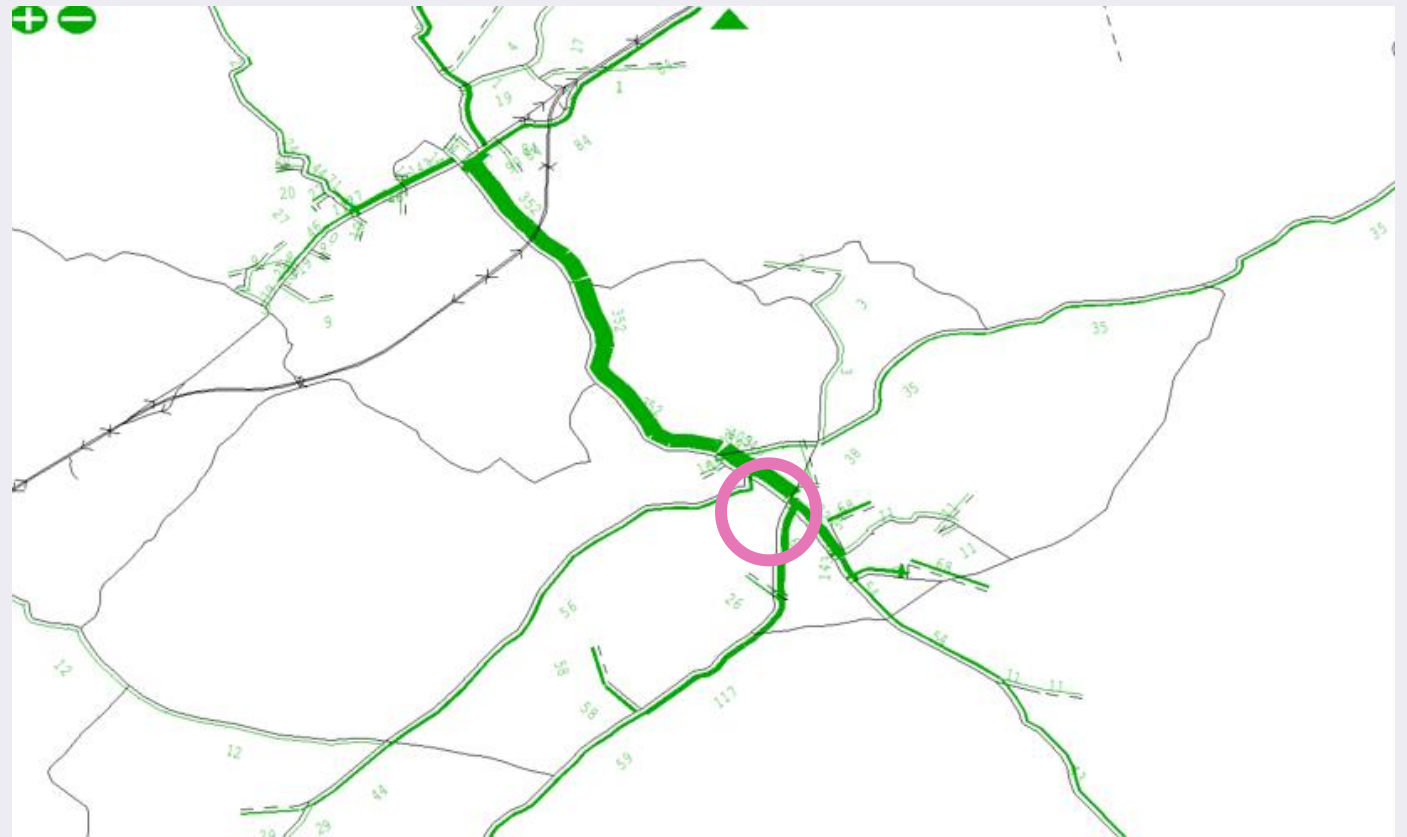
Similar to base model takes traffic from Tiptree and beyond to join A12 northbound at junction 24 or into Kelvedon / Feering.



Junction 24 and surrounding network

Select Link Analysis in 2027 Do Minimum model (AM) – on B1023 Kelvedon Road southbound

Similar to base model takes traffic from A12 Southbound at junction 24 or Kelvedon / Feering to Tiptree and beyond.

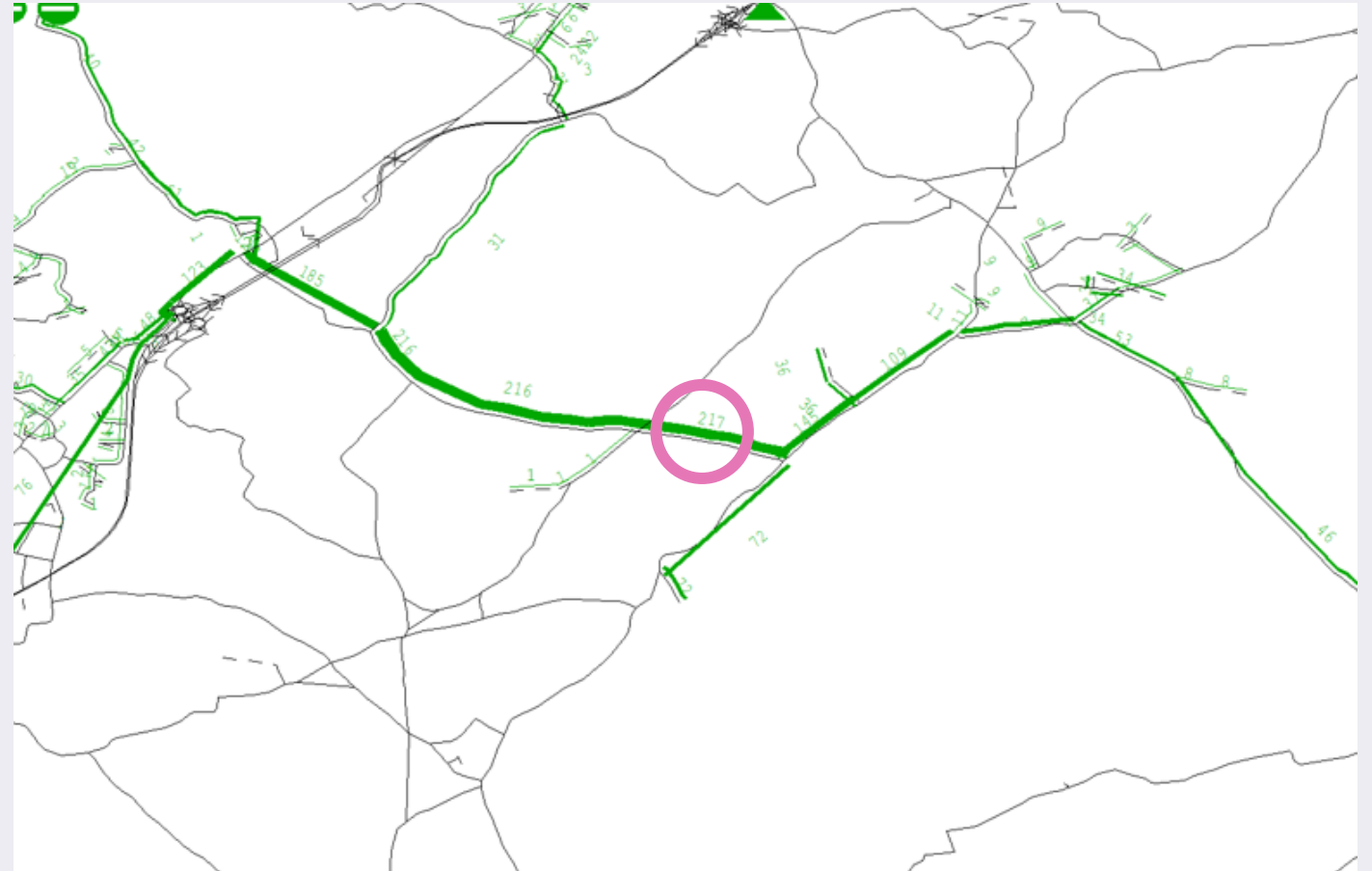


Junction 24 and surrounding network

Select Link Analysis in 2027 Do Something model (AM) – on Braxted Park Road southbound

Takes traffic from Witham, A12 south and Rivenhall End to south Tiptree via Junction 22.

Similar to Do Minimum.



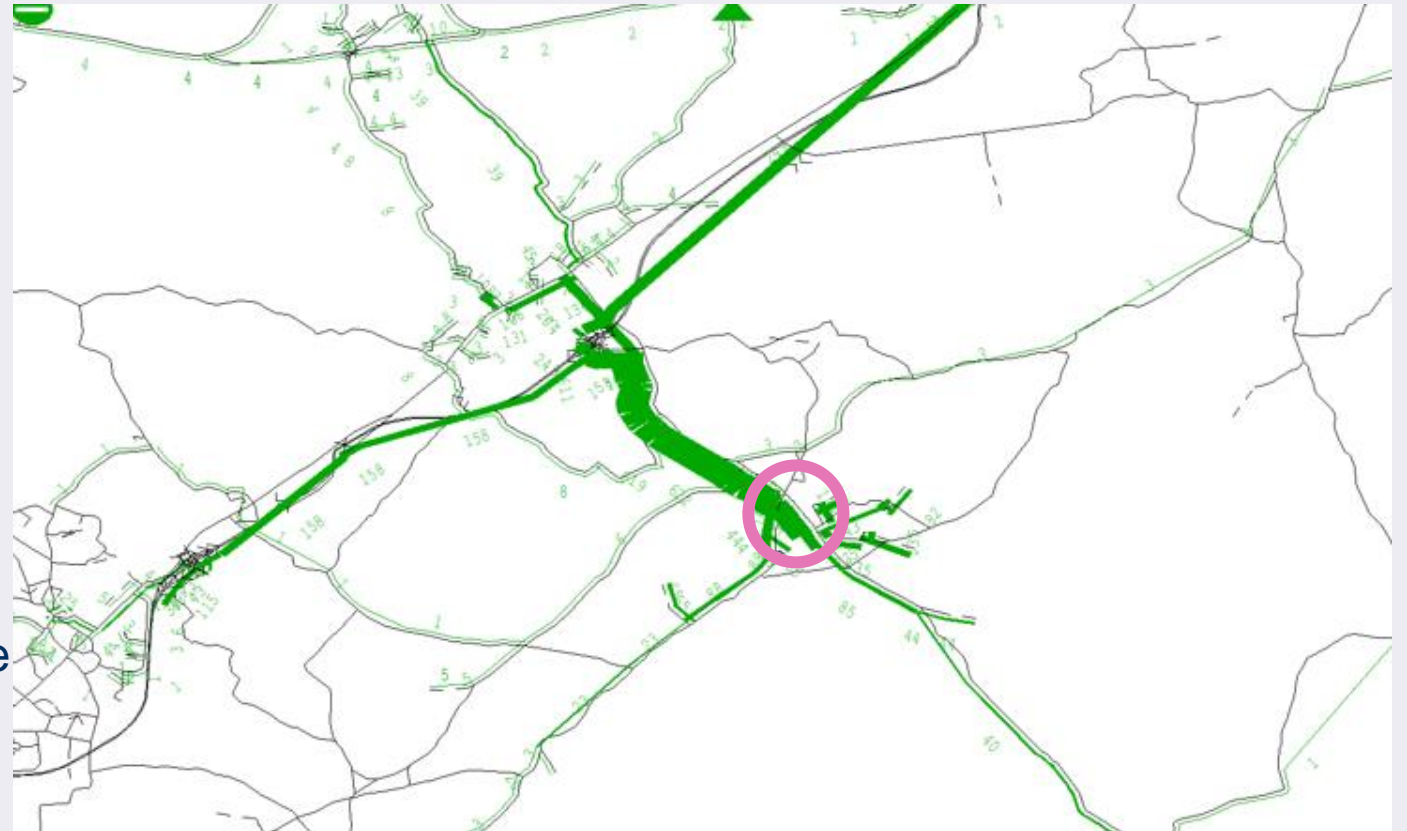
Junction 24 and surrounding network

Select Link Analysis in 2027 Do Something model (AM) – on B1023 Kelvedon Road northbound

Takes traffic from Tiptree and beyond to join A12 northbound **and southbound** at junction 24 or into Kelvedon / Feering.

More traffic making this movement than in Do Minimum, because some Tiptree traffic heading to A12 southbound switches to use J24 instead of via Rivenhall End.

Note no increase in traffic south/east of Tiptree.

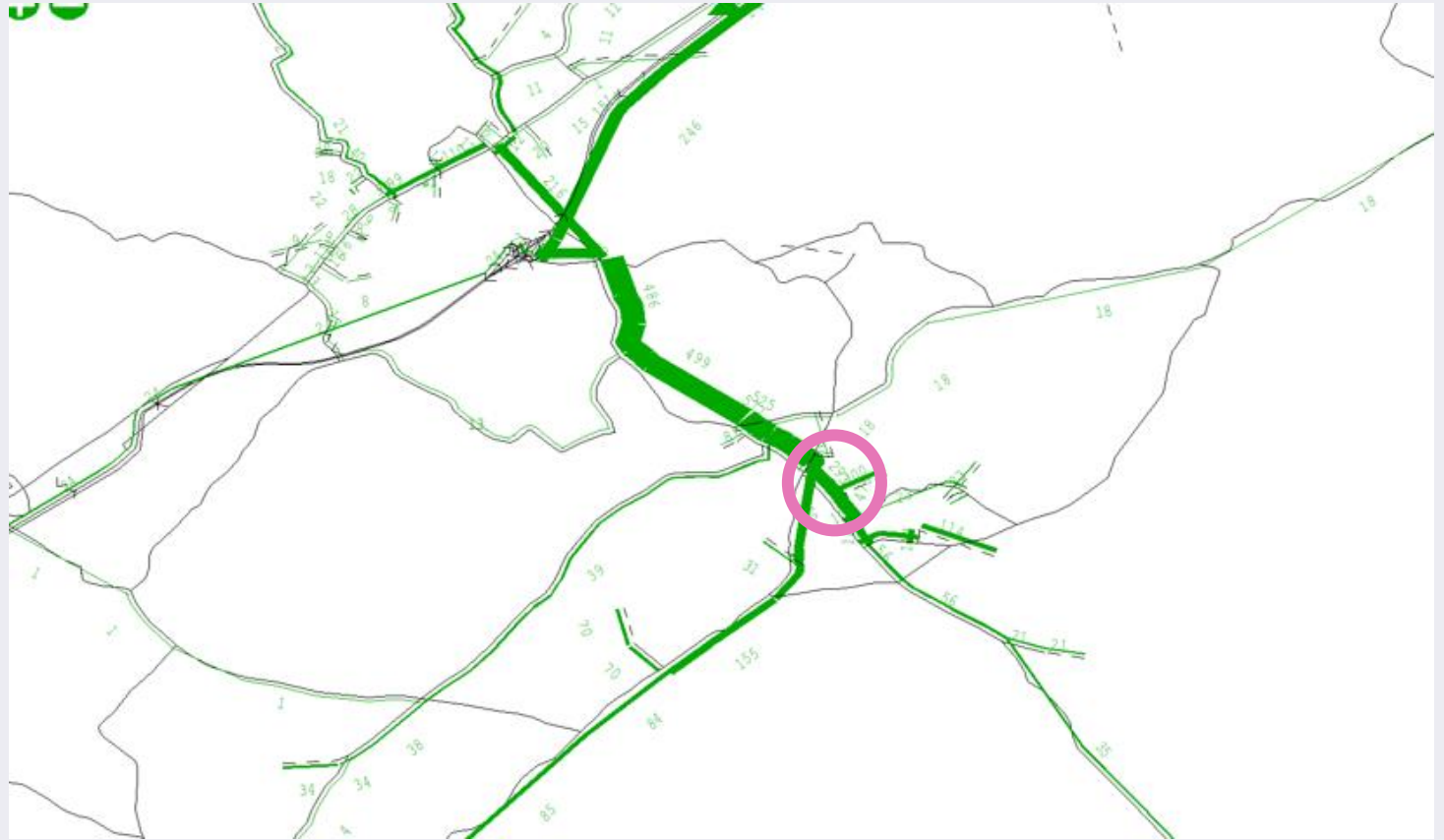


Junction 24 and surrounding network

Select Link Analysis in 2027 Do Something model (AM) – on B1023 Kelvedon Road southbound

Takes Northbound and Southbound A12 traffic at junction 24 or Kelvedon / Feering to Tiptree and beyond.

Similar to Do Minimum, but more traffic which has left the A12 at junction 24 from the north.



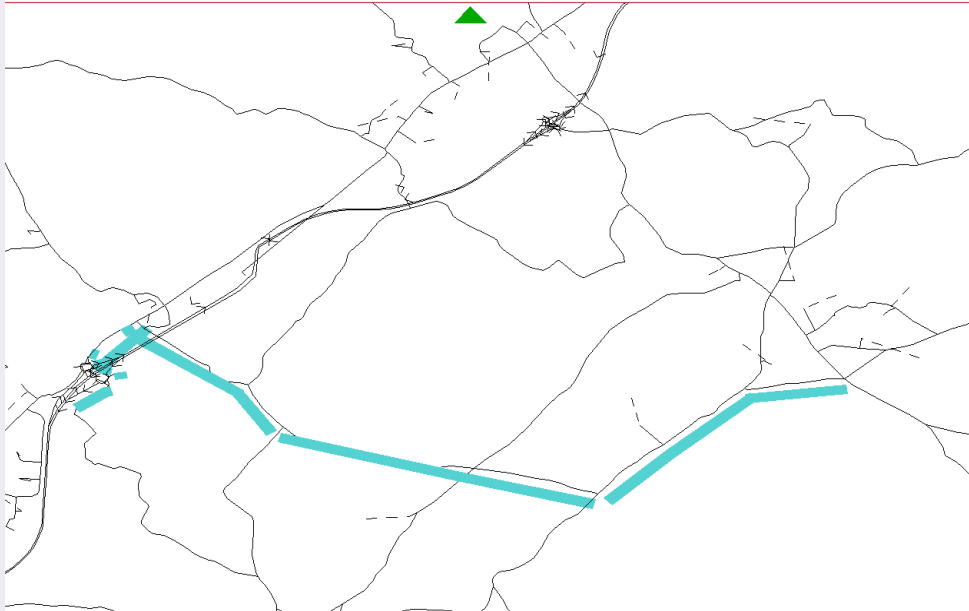
Junction 24 and surrounding network

Journey Times from Tiptree to Jn 22 and Jn 24 – Local stakeholders are concerned that the strategic model might be underestimating the delay experienced by traffic heading from Tiptree to the A12 via Braxted Park Road. We would request journey time data from the strategic model for the routes from the Station Road/Church Road junction to Rivenhall End and Station Road/Church Road junction to the location of the proposed new Jn 24 access roundabout on Inworth Road (base model, “without A12 scheme” and “with A12 scheme” in 2027 and 2042 AM and PM peaks). This should help to provide evidence to support the relative usage of each route in the assessed scenarios.

Junction 24 and surrounding network

Comparison of DS modelled Journey times from Tiptree to A12 SB via Braxted Park Road (J22) and Inworth Road (J24)

Journey Time Route Via Braxted Park Road (J22)



Journey Time Route Via Inworth Road (J24)



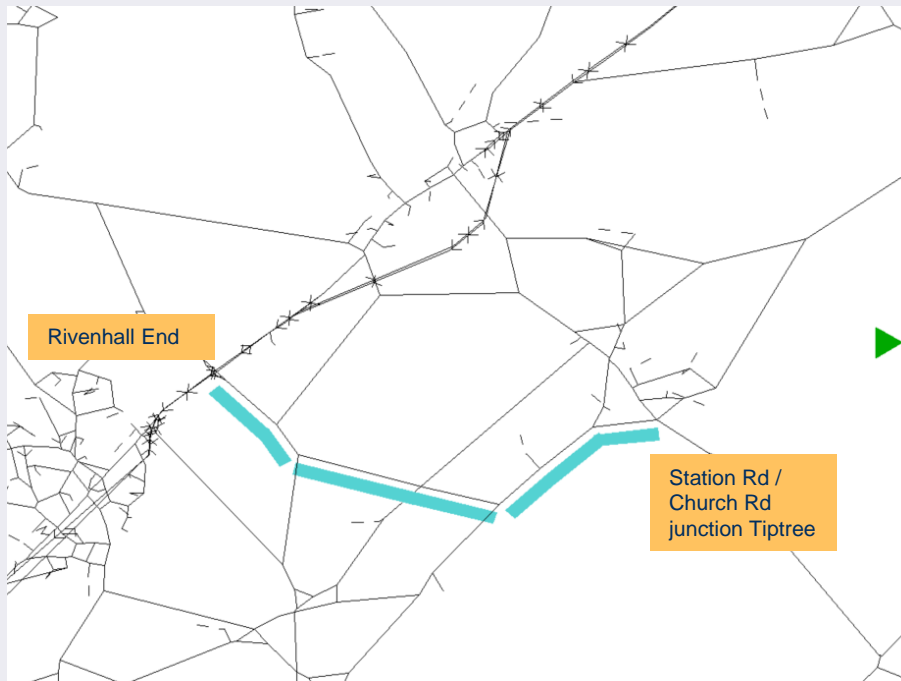
Comparison given for Do Something only because there's no equivalent comparison of alternative movements in the Do Minimum – traffic from Tiptree would only use Braxted Park Road to join A12 SB

Year	Time period	Via Braxted Park Road (J22)	Via Inworth Road (J24)	Difference
2027	AM	10 min 58s	12 min 11s	1 min 13s
	PM	9 min 38s	9 min 57s	19s
2042	AM	11 min 25s	12 min 43s	1 min 18s
	PM	9 min 52s	10 min 18s	26s

Junction 24 and surrounding network

Comparison of observed vs modelled journey times from Tiptree to A12 via Braxted Park Road

This route was not included as a journey time route in the traffic model's calibration / validation, so is not reported in existing documentation. However, journey times from the base model have now been extracted and compared to observed Traffic Master data.



Time period	Observed JT	Modelled JT	Difference (seconds)	Difference (%)
AM	9 min 1s	8 min 23s	-38s	-7%
PM	8 min 48s	7 min 34s	-74s	-14%

This route meets TAG criteria of having modelled journey times within 15% of observed, for both AM and PM.

At Appleford Bridge, the model contains a fixed journey-time penalty to represent the additional delay caused at this narrow bridge. This was based on analysis of observed journey time data.

The junction between B1022 Maldon Road and Braxted Park Road is included in the SATURN model, with right-turning traffic from B1022 having to give way to oncoming traffic but in a single lane. The B1022 approach to this junction has 26s delay in the AM base model.

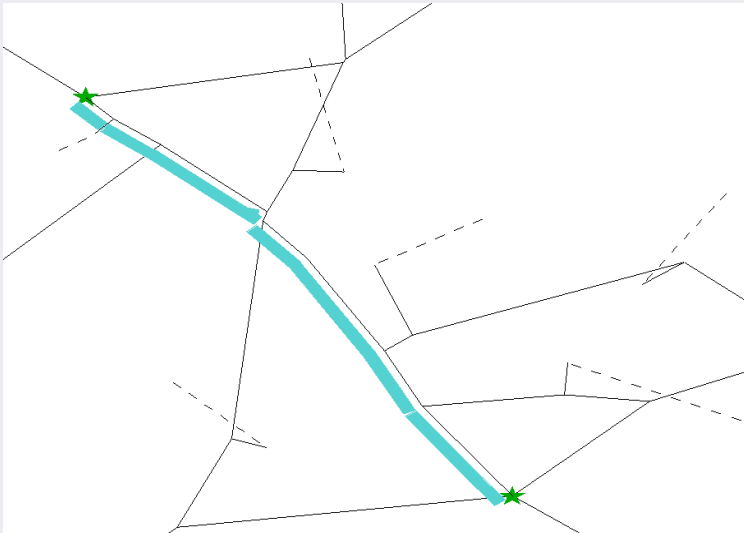
Junction 24 and surrounding network

B1023 Double Roundabout – we would additionally request data from the strategic model to show the performance of the junction in the base year (i.e. to be compared to the junction modelling results within the DCO pack). Local stakeholders currently report considerable congestion and delay in the peak periods which is not evident from the 2019 junction base year models, so we wish to interrogate how the 2019 strategic base models perform. Confirmation of any site-specific validation within the strategic model in this area (rather than the overall global validation statistics) would be appreciated.

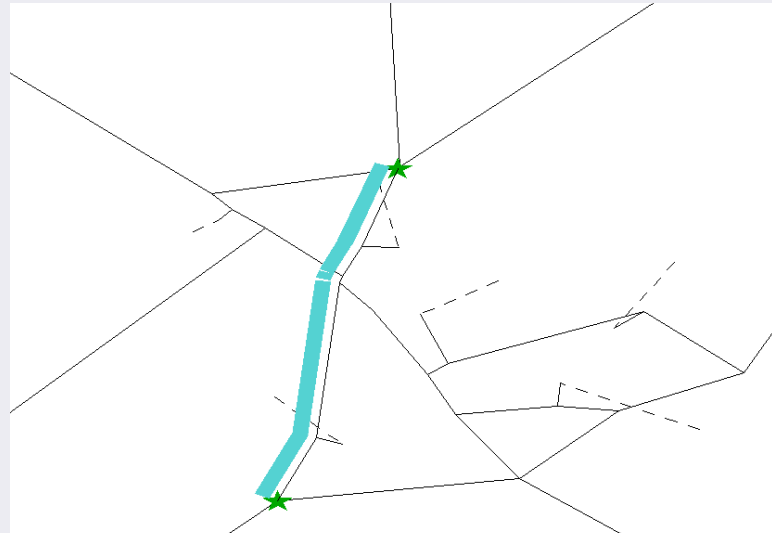
Junction 24 and surrounding network

B1023 Double Roundabout

Section 1 - Station Road/ Church Road to Oak Road/Kelvedon Road



Section 2 - Station Road/Maldon Road to Oak Road/Colchester Road



Journey times from the base model have now been extracted and compared to observed Traffic Master data. This shows a good match.

Section	Direction	AM			PM		
		Obs JT	Mod JT	Diff	Obs JT	Mod JT	Diff
Section 1	NB	192	187	-5	210	175	-35
	SB	173	175	2	169	194	25
Section 2	NB	160	147	-13	156	149	-7
	SB	151	146	-5	162	145	-17