



Infrastructure Planning Act 2008
A12 Chelmsford to A120 Widening Scheme

Colchester City Council
Local Impact Report under s60(3) of the 2008 Act
Details of the likely impact of the proposed
development on the authority's area
February 2023

Contents	Page no.
1.0 Introduction.....	3
2.0 Site Description and Surroundings.....	3
3.0 The Development.....	4
4.0 Construction, Operation & Management.....	7
5.0 Purpose and Structure of Report.....	9
6.0 Relevant National and Development Policies.....	10
7.0 Local area characteristics including landscape qualities and compliance with local landscape policy.....	14
8.0 Local transport patterns and issues.....	16
9.0 Site and Area Constraints.....	19
10.0 Socio-economic and Community Matters.....	20
11.0 Impact on Human well-being: Noise and Vibration, Air Quality.....	26
12.0 Cultural Heritage.....	31
13.0 Biodiversity.....	32
14.0 Conclusions.....	34
Appendix 1: Constraints Plan.....	36

A12 Colchester – A120 Widening Scheme Development Consent Order - Local Impact Report - February 2023 Colchester City Council

1.0 Introduction

1.1 This report comprises Colchester City Council's Local Impact Report (LIR) to the A12 Chelmsford to A120 Widening Scheme Development Consent Order (DCO). The report has been prepared in conformity with the guidance set out in Advice Note One (Local Impact Reports (Version 2) issued by the Infrastructure Planning Commission in April 2012 and the statutory requirements of the Planning Act 2008.

1.2 The IPC Advice note states that the LIR is a report in writing giving details of the likely impact of the proposed development on the authority's area. The LIR should centre around whether the Local Authority considers the development would have a positive, negative or neutral effect on the area.

2.0 Site Description and surroundings

2.1 The site comprises a sinuous corridor leading in a north-easterly direction from the northeast corner of the conurbation of Chelmsford City, heading south of Witham town centre (existing Junction 22) continuing to the south of Kelvedon (where a new junction 24 is moved to the west of Inworth Road) where a new offline bypass is proposed to the south of the existing A12. This offline southern bypass terminates in a redesigned junction 25 at Marks Tey village where the new carriageway would rejoin the current trunk road to the southeast of the city limits of Colchester and the community of Copford parish that forms the edge to the built up area.

2.2 Within the City Council's administrative area, the proposal located between junctions 24 and 25 is essentially located in an area of arable farmland with scattered and sporadic former farmsteads and agricultural workers housing set in a working landscape of generally large fields. The modern field parcels have been formed by the amalgamation of an older pattern of enclosure defined by native hedgerows with occasional deciduous standard trees of ash, field maple and oak. The landscape is open in character and gently rolling with minor watercourses that provide very localised landscape features, leading onward to join the River Colne. The landscape is very gently modelled and lacks any significant topography.

2.3 The settlement pattern between Kelvedon and Marks Tey comprises a small series of mainly modest and medium sized villages set in open countryside. These are characterised by a single dominant village street and are located in a belt running to the south of the existing A12 London Road. These villages generally retain significant historic character and a significant proportion of listed buildings.

2.4 To the southwest of Kelvedon is the village of Messing which retains a strong vernacular character and is designated as a conservation area. Further to the north is the small settlement of Easthorpe clustered around a medieval church, associated priests house with loosely grouped farmsteads and workers cottages. Easthorpe retains a deeply rural character set in unspoilt countryside despite its relatively close proximity to the A12. Again, a high proportion of the built form is listed. To the northeast lies Copford Green which is divorced by intervening countryside from the major settlement of Copford on the outer edge of Colchester's built area. Copford Green is a small grouping of historic buildings set along a village street together with a small number of modern homes. The medieval parish church forms a group with a country house slightly divorced from the village street.

2.5 There are a small number of residential properties, comprising individual houses, located on or close to the boundary of the Order limits.

2.6 The majority of the site is located within Flood Zone 1. With flood risk areas located close to Easthorpe and Marks Tey/Copford.

2.7 Within a 200 m buffer of the proposed route corridor are 27 listed buildings whose setting and significance will be impacted upon to varying degrees. Several listed buildings are located close to the Order edges most notably including Grade I listed All Saints Inworth Church, Easthorpe Green Farmhouse, Doggett's Hammer Farmhouse and the Marks Tey Hall complex (GII*, GII and SM).

2.8 There are three local wildlife sites in the wider area, but these are located wholly outside the order limits. These are Perry's Wood (W of B1023, N of Tiptree), Inworth Wood (to East of B1023 Inworth) and the SSSI Marks Tey Brick Pit (N of Church Lane, Marks Tey). There are no ancient woodlands or trees protected by Tree Preservation Order (TPO's) within the Order limits.

3.0 The Development

3.1 The proposed development is principally located with the administrative areas of Braintree District and Colchester City Council, and to a lesser extent within Chelmsford City and Maldon District Council's administrative areas.

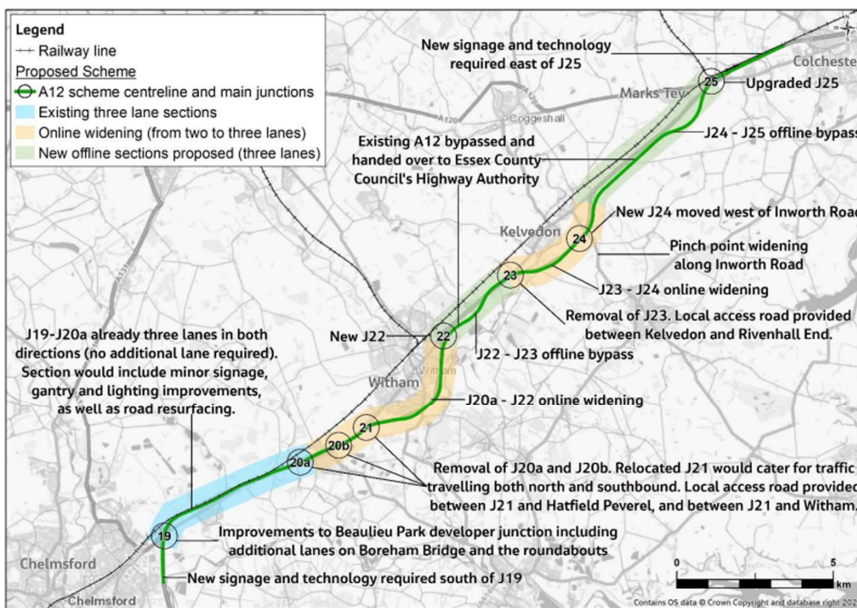
3.2 The proposal seeks to deliver improvements to the A12 between Junction 19 (Boreham Interchange) and Junction 25 (Marks Tey interchange), a total distance of

ca. 24 km or 15 miles. A detailed description of the complete scheme is set out at Chapter 2 of the ES ('The Proposed Scheme')

3.3 The applicant, Highways England on behalf of the Department for Transport, seeks a Development Consent Order (DCO) to carry out the following works:

- Widening the A12 to create three lanes
- Bypass between Junctions 22 and 23 (Colemans to Kelvedon South)
- Bypass between Junctions 24 and 25 (Kelvedon North to Marks Tey Interchange)
- 6 new bridges for walkers, cyclists and horse riders.
- Safety improvements including closing off private and local direct accesses onto the main carriageway and providing alternative provision for walkers, cyclists and horse riders.
- Associated works including side road upgrades to connect to the new A12, drainage improvements, new signage and technology, utility improvements and resurfacing works.

Plate 2.1 Overview of the proposed scheme highway design



3.4 Within and adjacent to Colchester City Council's administrative area, the works would comprise the following:

- The proposed scheme involves widening the existing A12 to three lanes throughout in each direction (ES Chapter 2, Plate 2.1 above), where it is not already three lanes. This would mainly involve an offline bypass created between junctions 24 and 25 between Kelvedon to Marks Tey. This would be accompanied by junction improvements to junction 25 and the construction of

new junction catering for traffic movements both north and southbound at junction 24.

- Junction 24 would be a two-tiered dumbbell layout west of Inworth Road. A single link road would provide access between the proposed scheme and neighbouring towns, such as Kelvedon and Tiptree, via a new roundabout on the locally realigned B1023 Inworth Road. The junction would be in cutting, with the proposed scheme mainline travelling over the dumbbell link road. A new Junction 24 Underbridge would be built where the proposed main alignment crosses the new junction 24.
- From the proposed junction 24, a section of new carriageway is proposed. This would be approximately 6.2km in length, consist of three lanes in each direction and would be a mixture of embankment and cutting. The new carriageway would tie into the upgraded junction 25.
- Four existing structures would be affected in this section, and five new bridges would be provided;
- Domsey Brook Bridge (A12 crossing over Domsey Brook, east of Kelvedon) – existing bridge would be extended
- Threshelfords Bridge (south of the existing junction 24) – existing bridge would be demolished
- Prested Hall Overbridge (south of the existing junction 24) – new overbridge would be constructed to take the new combined Prested Hall and Threshelfords access road over the new A12 alignment
- Nursery Bridge (part of the existing junction 24 arrangement) – existing bridge would be demolished
- Easthorpe Road Overbridge (Easthorpe Road crossing over the A12, between junctions 24 and 25) – new overbridge would be constructed to take Easthorpe Road over the new A12 alignment
- Domsey Brook East Culvert (A12 crossing over the Domsey Brook, between junctions 24 and 25) – new underbridge would be constructed to take the new A12 alignment over the Domsey Brook
- Wishingwell Overbridge (north-east of Easthorpe Green) – new overbridge would be constructed to take a local access road over the new A12 alignment
- Potts Green Bridge (south of Doggetts Lane) – new bridge for walkers
- Roman River Culvert (A12 crossing over the Roman River, north-east of junction 25) – existing culvert would be extended.

3.5 Junction 25 would be a two-tier split dumbbell layout, connecting with surrounding roads in Marks Tey including the A120 and the B1408. The Marks Tey Bridge (which is part of the existing junction 25 arrangement) would be retained to connect the junction roundabouts. The western Marks Tey Roundabout would be converted to a signalised junction. The existing Marks Tey footbridge would be demolished, and a replacement bridge (Marks Tey Replacement Bridge) provided for walkers and cyclists. Junction 25 is raised above the A12 mainline.

3.6 In addition, a series of upgrades are proposed to side roads. These are:
Inworth Road - carriageway widening between the proposed J24 roundabout and the Perrywood Garden Centre seeking to improve the substandard width of the existing

carriageway and also to remove the pinch-points along the curvatures of the road to facilitate the smooth flow of traffic and reduce the risk of collisions between HGVs

Existing A12 junction 24 improvements, Kelvedon - A new J24 would be provided west of the existing J24. The layout of the existing J24 would be converted to a new five-arm roundabout to accommodate local movements in all directions.

Easthorpe Road - To maintain the existing connectivity with the de-trunked A12, Easthorpe Road would be replaced with a new overbridge to cross the proposed A12 mainline. A new four-arm roundabout would be included at the tie-in location with the existing A12 de-trunked section to provide all direction movements. The proposed new Easthorpe Road is a two-way single carriageway with a footway adjacent to the southbound lane. This road is intended for farm and emergency access only and not for public traffic.

Wishingwell Farm access road (providing access to Wishingwell Farm, Easthorpe Green Farm and 1 & 2 The Lodge), Marks Tey - Wishingwell Overbridge would be a new offline road for access to Easthorpe Green Farm and Wishingwell Farm and Numbers 1 & 2 The Lodge, replacing the two private roads which these premises are currently accessed by. The tie-in with the de-trunked A12 would be via a new three-arm roundabout.

Doggetts Lane –To the south of the proposed A12, PRoW 144_19 continues southwestwards and joins PRoW 128_28 (a bridleway). A new bridge for walkers (Potts Green Bridge) is proposed over the new alignment of the A12. This bridge would connect the extended Doggetts Lane (PRoW 144_19) on the north side of the A12 to the proposed footway running on the southern side of the A12 (as described above for the Wishingwell Farm side road). This proposal would ensure the existing PRoW 144_19 maintains existing local connections and serves the community at large on both sides of the proposed A12. A shared use cycle track would be provided to the south of the A12 and would provide connections with the new J25 roundabout at Hall Chase, and the PRoW network north of Easthorpe.

Old London Road, Marks Tey - To facilitate capacity improvements at the A120 approach to J25, the existing junction between the A120 Coggeshall Road and Old London Road is planned to be closed and Old London Road to be realigned to the east to provide a turning head. Access to Old London Road is currently achievable from the northbound carriageway of the existing A12, and to supplement this arrangement a further access is proposed from the roundabout at the northern end of the proposed J25 northbound diverge exit slip road.

Hall Chase, Marks Tey - The current junction between London Road (Marks Tey) and Hall Chase is proposed to be relocated due to the alignment of the offline A12 as it ties-in to the existing alignment near J25. At the junction of London Road (Marks Tey) and the northern end of the J25 southbound entry slip road, a third arm would provide access to the realigned Hall Chase.

4.0 Construction, Operation and Management (ES Chapter 2)

4.1 Construction is scheduled to commence in 2024. The proposed scheme would take approximately four years to construct, with an assumed opening year of 2027-28. The construction of the offline sections of the proposed scheme would be progressed to its permanent condition (i.e. to include barriers, surface course, road

Commented [SS1]: That's not 4 years- are both correct?

markings) before undertaking the tie-ins to the online sections, one carriageway at a time and during overnight and weekend full carriageway closures.

4.2 The new junctions would be constructed in several phases in order to maintain access on and off the A12. The first phase would consist of constructing as much of the junction offline as possible (i.e. slip roads, side access roads and overbridges where applicable). Following this initial phase, traffic would progressively be transferred from the existing carriageway alignment to the new alignment to further advance the construction. Carriageway closures would be required overnight or on weekends to carry out tie-ins. In the final phase, once all traffic is running along the new alignment and slip roads, works to de-trunk the existing A12 would commence. Key milestones are set out in Table 2.7 of the ES.

4.3 Construction compounds

Two main construction compounds are proposed: one at junction 20b and a second at junction 22. In addition, further satellite compounds are proposed to mitigate the need for large numbers of staff to travel along the proposed scheme on a daily basis, and to enable efficient construction logistics and access to site welfare facilities. Within Colchester two satellites are proposed. One at Easthorpe Road between junctions 24 and 25 for the offline works in this area. The area of this compound would be approximately 34,000m² taking access from Easthorpe Road. A second satellite compound is proposed at junction 25 to serve the works around that area. The area of this compound would be approximately 12,000m², and it would be accessed from junction 25.

4.4 Traffic management

The proposed scheme would aim to maintain two running lanes on the A12 for public traffic across the proposed scheme during construction at weekday peak traffic hours. Where construction activities necessitate road closure for safety reasons, advance notice would be given. Where road closures on the A12 are required, the strategic diversion route would be (from west to east) via the A130, A131 and A120. Anticipated traffic management measures (Table 2.9) In Colchester, between Junctions 24-25, where the proposed alignment goes offline and crosses existing local roads, new bypasses would be constructed first and only then would the existing roads be closed to ensure access for local traffic is maintained.

4.5 Construction working hours

Standard working hours are considered to be between 07:30 and 19:00 between Monday and Friday, and between 07:30 and 18:00 on Saturday. During the summer months, the working hours would extend to 07:00 to 21:00 to make use of the longer daylight hours. Specific categories of work may require working outside these periods.

4.6 Operation and maintenance

Operation of the proposed scheme 2.7.1 The proposed scheme's operation for the section between junction 21 and junction 25 is set out in DMRB GD 300

Requirements for New and Upgraded All-Purpose Trunk Roads (Expressways) (Highways England, 2020a). Maintenance activities would be as authorised under the DCO.

4.7 Changes in traffic flows

The impact that the proposed scheme is predicted to have on traffic flows is discussed in detail in the ES supporting Transport Assessment [TR010060/APP/7.2] and the Combined Modelling and Appraisal Report [TR010060/APP/7.3]. In summary: *On the A12 itself*, the following impacts are predicted:

- Traffic would reduce substantially on the two sections of the existing A12 that are bypassed as part of the proposed scheme (Rivenhall End and between junctions 24 and 25).
- Traffic levels would increase on the A12 between junctions 19 and 25, as well as on the sections of the A12 on either side of the proposed scheme. Due to enhanced network efficiency, traffic would re-route onto the A12 increased trips are predicted along the A12 corridor.

B1023 Inworth Road

The proposals would see an increase in traffic on Inworth Road south of the A12 using this route to access junction 24 from the south. There would also be an increase in traffic on the B1023 Church Road through Tiptree, as traffic from Tiptree seeks to use the new junction 24 to join the A12 travelling southbound instead of travelling via Braxted Park Road/Rivenhall End.

Roads through Messing

The proposed new junction 24 would be located close to the western end of Kelvedon Road which links the B1023 Inworth Road with the village of Messing. The traffic model predicts that traffic from the B1022 west of Messing would start to travel through Messing as a short-cut to reach the B1023 Inworth Road and the new junction 24. The model predicts there would be significant increases in flows on Kelvedon Road peak hour it would increase from 45 to 109 vehicles per hour.

5.0 Purpose and Structure of Report

5.1 The Local Impact Report's primary purpose is to identify the policies in the Local Plan in so far as they are relevant to the proposed development and the extent to which the development accords with those policies. The key issues are identified, following by commentary on the extent to which the applicant addresses those issues. Finally, the adequacy of the application/ Development Consent Order is considered.

5.2 The LIR gives a brief overview of the description of the site and surroundings and a general review of the details of the proposal to highlight particular features.

However, the applicants Environmental Statement (ES) provides sufficient description and details of the proposal.

5.3 This LIR covers areas where Colchester City Council has a statutory function or holds particular expertise. Colchester City Council defers to Essex County Council on all other matters, to that set out in this Local Impact Report. In particular, on matters concerning engineering design and network matters.

5.4 A Statement of Common Ground (SoCG) is under preparation with the applicants National Highways and the LIR does not intend to duplicate this.

6.0 Relevant National and Development Plan Policies

An appraisal of their relationship and relevance to the proposals

National Planning Policies

6.1 The National Policy Statements provide the strategic framework for consideration of national significant infrastructure proposals under the 2008 Act. National Planning Policy 5.1, the overarching National Policy Statement (NPS) for Transport titled National Policy Statement for National Networks (2014) sets out national policy for the delivery of nationally significant highways infrastructure. It provides the criteria for the assessment of impacts of proposals concerning the national highway network. It is a material consideration in the determination of proposals seeking a DCO.

Local Planning Policies

6.2 The Adopted Local Plan for Colchester in so far as it is relevant to the A12 DCO comprises;

- *Local Plan 2013-2033: North Essex Authorities' Shared Strategic Section 1 Plan. (Adopted Feb 2021)*
- *Colchester Local Plan Section 2 - 2017-2033 (Adopted July 2022)*
- *Marks Tey Neighbourhood Plan (Made May 2022)*
- *Emerging Tiptree Neighbourhood Plan (Referendum awaited (May 2023) Significant weight to be afforded to the Plan*
- *Emerging Copford with Easthorpe Neighbourhood Plan (Currently undergoing Examination – afforded limited weight)*

Other elements of the Development Plan are not considered relevant. Any impacts relevant in respect of Minerals and Waste have been left to ECC to reference in any LIR provided by them.

6.3 Local Plan 2013-2033: North Essex Authorities' Shared Strategic Section 1 Plan

Relevant Policies-

SP6 – Infrastructure and Connectivity

SP7- Place Shaping principles

The Section One Plan sets the Strategic Vision for North Essex which positively embraces significant growth of homes and jobs as well as develop and improve infrastructure for existing and new communities. The Plans objectives see to improve the transport infrastructure to enable efficient movement of people goods and to ensure new development is accessible including by sustainable modes of transport. Policy SP6- Infrastructure and Connectivity is directly relevant since it provides the strategic context for all development and the provision of adequate infrastructure including strategic network improvements. Amongst the policy provisions / requirements it includes;

- *New and improved rail infrastructure and strategic highway connections to reduce congestion and provide more reliable journey times along the A12, A120 and A133 specifically (through); Improved access to and capacity of the A12*

In addition to this strategic policy context for appropriate strategic infrastructure provision the Section 1 Plan also has high level policy requirements which will be relevant to assessing development of the proposed road improvements / widening specifically Policy SP7 sets out place shaping principles relevant to all development.

6.4 Colchester Local Plan Section 2 - 2017-2033

The Colchester Section 2 Local Plan provides the policy framework to manage development while balancing relevant constraints and opportunities. It sets out the circumstances and requirements for mitigation where appropriate in considering proposals for development throughout the Plan area. Policies SG7 and PP1 cover Infrastructure Delivery and Impact Mitigation both seeking to ensure that adequate infrastructure is provided to support all development and where necessary the appropriate mitigation is agreed and delivered. In addition, the policies which include matters which are relevant considerations for the A12 widening / improvements DCO are listed below;

Policy SG7 Infrastructure Delivery and Impact Mitigation

Policy ENV 1- Environment

Policy ENV3 – Green Infrastructure

Policy PP1 – Generic Infrastructure and Mitigation Requirements

Policy WC5 – Transport in West Colchester

Policy SS14 – Tiptree- reference to NHP and the requirements for Strategic Transport Appraisal (Potential implications of A12 proposals on Tiptree – Refer to the Examined version of the NHP for full policy context.

Policy DM16 – Historic Environment

Policy DM23 – Flood Risk and Management

Policy DM24 – Sustainable Drainage Systems

6.5 Neighbourhood Plans

A number of Neighbourhood Plans also comprise the Development Plan for Colchester. Those which are relevant to the A12 proposals are referenced below, together with the status which applies at this point in time.

6.6 Marks Tey Neighbourhood Plan (Made May 2022- full weight)

It is clear from the Marks Tey NHP that the road and rail infrastructure including the A12 and proposed improvements / widening are critical to the local community and impacts, constraints and opportunities central to local concerns and considerations. A number of policies in the NHP may be relevant to the consideration of the A12 proposals. Policy MT01 is specific to infrastructure in respect of the A12, A120 and the station infrastructure. This policy is clear about the importance of the delivery of improvements to the infrastructure including the A12. Other policies which are relevant to considering the proposals are listed below;

Policy MT02 – Creating Walking and Cycle friendly neighbourhoods

The policy and supporting text in Table 6.1 and 6.2 of the Plan identify specific opportunities to enhance pedestrian and cycle connectivity including enhanced bridge access across the A12, referred to further in the LIR on local transport impacts.

Policy MT05 - Local Character and Design

Policy MT06 – Landscape Character, Views and Setting

Policy MT10 – Protecting and enhancing the quality of our green infrastructure

Policy MT11- Protecting and enhancing our natural environment

Policy MT15 – Anderson Employment Site and former By-Pass Nurseries

Community Action 8 is also specific to the A12 strategic improvements.

6.7 Emerging Tiptree Neighbourhood Plan

(Referendum awaited - May 2023) Significant weight to be afforded to the Plan

Tiptree NHP has been through Examination and a decision has been made to proceed to Referendum which will take place in May 2023. It therefore can be afforded significant weight. As Tiptree is one of the communities identified as experiencing an increase in traffic the NHP is considered relevant. It is also relevant that the Strategy for growth set out in the Plan is also based on local concerns and aspirations regarding traffic movements which is supported by evidence by way of a Transport appraisal work available in the evidence base [here](#). It is relevant to consider the impacts of the A12 improvements / widening proposals on the policy proposals and objectives of the NHP and consider any mitigation requirements as necessary.

Policies which are relevant for consideration include;

Policy TiP01- Tiptree Spatial Strategy

Policy TiP07 Mitigating the Impact of vehicular traffic through Tiptree

TiP15 Highland Nursery and TiP16 Elms Farm- Site Allocation Policies

6.8 [Emerging Copford with Easthorpe Neighbourhood Plan](#) (Currently undergoing Examination – afforded limited weight)

Currently the Copford with Easthorpe NHP can be afforded very little weight as it is undergoing Examination. As its status may increase whilst the DCO is being determined, it is relevant to acknowledge any elements that may be relevant, should the Plan become able to proceed to Referendum or Made during the decision-making timeframe. Whilst there are no specific policies of direct relevance to the A12 proposals in the current draft given the proximity of the community to the A12 proposals it is appropriate to keep abreast of progress and changes should they arise to the emerging NHP. Colchester City Council's website will be kept up to date with any updated information available [here](#) as the plan progresses.

Relevant development proposals under consideration or granted permission but not commenced or completed

6.9 There is no particular planning history of relevance to the consideration of the development. There are no strategic site allocations affected by the proposals. The ES confirms that during the options selection stage of the proposed scheme, the CBBGC was considered as a major future development along the A12 corridor, and options were developed to accommodate this (see Chapter 3: Assessment of alternatives [TR010060/APP/6.1]). As the CBBGC was not taken forward in the North Essex Authorities' Local Plan, it is no longer a committed development and is therefore no longer being considered as a future development for the purposes of cumulative assessment.

7.0 Local area characteristics including landscape qualities and compliance with local landscape policy.

7.1 The A12-A120 DCO National Highways development area within Colchester City would lie outside the settlement boundary and would therefore be subject to Colchester City Council Local Plan Policy ENV1, which states:

'ENV1 aims to control development outside of settlements to protect open stretches of countryside around and between existing settlements, to protect landscape character, to prevent coalescence and retain settlement identity. Any development in the countryside, i.e. land outside of settlement boundaries, must be compatible with local landscape character and setting. Development will be supported provided it does not adversely impact on the intrinsic character and beauty of the countryside, the relationship between and the separate identities of settlements, visual amenity, or the factors that contribute to valued landscapes, whilst also complying with other relevant policies of the Local Plan. Proposals are required to have regard to Colchester's Landscape Character Assessment and the Council's adopted Landscape Guidance for Developers alongside any other relevant or updated evidence, in order to identify and evaluate the effect of a proposed development on the character, value and sensitivity to change of a proposed site and its setting to help conserve the City's landscape character'.

Landscape Character Area:

7.2 The development area is situated almost wholly within Colchester City Landscape Character Assessment Area B2, the Easthorpe Farmland Plateau, this describes the character of the landscape in detail and identifies characteristic(s) of the Area shared by the site as existing as *'Raised farmland plateau, dissected by wooded Roman River valley in the east', 'A mixture of small, medium and large irregular predominantly arable fields', 'small patches of deciduous woodland and several pond/reservoirs', 'Area crossed by a network of narrow, sometimes winding lanes' and 'Settlement pattern consists of small villages and hamlets with scattered farmsteads amongst predominantly an arable agricultural landscape'*. It goes on to identify planning issue(s) relevant to this application as *'potential pressure for further expansion of improvements to the linear communications and settlement corridor (sub character area B2a) into the surrounding farmland plateau landscape'*, sets landscape strategy objective(s) to *'conserve and enhance' the landscape character of the Area*. Finally, it gives landscape planning guideline(s) to *'conserve the mostly rural character of the area'* and *'ensure that any appropriate new development (is) well integrated into the surrounding landscape'* and landscape management guideline(s) to *'consider the introduction of new structure planting to shield/mitigate the visual effects on the A12 corridor (B2a)'*.

7.3 As an exception to the above the north-eastern end of the development would extend into Sub Area B2a which is characterised by the *'linear settlement corridor extending from the western edge of Colchester Urban Area', the 'Northern boundary*

delineated by the main A12 and railway corridor which is a dominant visual feature within the character area, and 'visually dominant major road junctions/roundabouts within the character area'.

Impacted Area Landscape Character:

7.4 The character of the impacted area of the Easthorpe Farmland Plateau within and either side of the development footprint is of a fairly level landscape made up of a patchwork of small, medium and large predominantly arable fields and farmsteads within a historic framework of field hedgerows, most of which are protected under the Hedgerows Regulations 1997 and a proportion of which are elm based and often in poor condition, degraded or missing, this field hedgerow network links in with a few scattered small copses and plantations and is bisected by the Easthorpe Road, a number of farmstead access tracks, Public Rights of Way and the Domsey Brook. The landscape character of the development area is therefore entirely typical of the Easthorpe Farmland Plateau.

Details of likely impact of proposed development on the Easthorpe Farmland Plateau within the Colchester City authority area:

7.5 The A12-A120 DCO National Highways development outside of sub character area B2a would require further expansion of and improvements to the linear communications and settlement corridor (sub character area B2a) into the surrounding farmland plateau landscape of the Easthorpe Farmland Plateau. As part of the Local Impact Report, it is advised the following should be considered:

Positive, Neutral and Negative landscape impacts:

The physical loss of the fields, hedgerows, woodland, lanes, tracks and country roads as well as the more subtle loss of spatial tranquillity, and the surprising sense of relative remoteness away from the A12 that in total constitutes and comprises the existing farmland landscape, in order to enable the required highway infrastructure and associated landscape works, would by its nature constitute a failure to conserve the mostly rural character of the Easthorpe Farmland Plateau. This should be considered as having a major detrimental impact upon the landscape character of the Plateau. Mitigation proposals have been prepared under Environmental Masterplan drawings HH551497-JAC-LDC-SCHW-DR-L-0214.P01, 0215.P01, 0216.P01, 0217.P01, 0218.P01 & 0219.P01, however although having a strong ecological bias the constraining landscape requirements of the development mean they can do little to ensure the features identified above as denoting the underlying landscape character are retained or replaced.

7.6 The development would involve the removal of a number of sections of protected hedgerows identified by the applicant as 'Important' under the Hedgerows Regulations 1997. This should be considered as having a major detrimental impact upon the landscape character of the Easthorpe Farmland Plateau which cannot be mitigated against as such. However, the Environmental Masterplan drawings HH551497-JAC-LDC-SCHW-DR-L-0214.P01, 0215.P01, 0216.P01, 0217.P01,

0218.P01 & 0219.P01 might be augmented to gap-up existing retained hedgerows and reinstate both missing hedgerows to existing field boundaries and to historic field boundaries lost principally to intensive agriculture. The principal of hedgerow renovation mitigation might also be considered for extension as part of any offsetting required, through sponsoring the renovation and reinstatement of existing field hedgerows outside the red line within the visual envelope of the development, this to help enhance the character of the wider landscape setting to the development.

7.7 There would appear to be numerous trees proposed under Retained & Removed Vegetation Plan drawing HE551497-JAC-LDC-SCHW-DR-L-0120.P01 for removal and potentially for removal along the B1023 through Inworth, though it is noted no hedgerows are proposed for removal along this stretch. This tree loss, much of it highly visible, should be considered as having a major detrimental impact upon the landscape character of the Easthorpe Farmland Plateau. Mitigation proposals put forward under Environmental Masterplan drawing HE551497-JAC-LDC-SCHW-DR-L-0220.P01 could be improved by proposing trees removed be replanted where feasible to help ensure the public amenity afforded by the tree cover is maintained in the long-term.

8.0 Local transport patterns and issues

Key local issue: impact on local communities of additional traffic (Tiptree, Messing, Inworth and Copford)

Development proposal (junction 24 - junction 25)

8.1 The development proposes to remove the existing Junction 23 on the A12 with traffic movements associated with this junction being moved to Junction 22 and Junction 24. A new Junction 24 is proposed, moved west of Inworth Road. A section of new carriageway is proposed between Junction 24 and Junction 25, with an upgraded Junction 25 at Marks Tey.

8.2 The Transport Assessment (TA) submitted as part of the application identifies that the following communities are likely to experience an increase in traffic with the proposed scheme in place: Boreham; Copford; Messing; Tiptree; and Inworth (TA para 2.6.4). Four of these communities are in the Colchester City Council area. Although traffic is predicted to increase in these locations, it is considered in the TA that each location can safely accommodate the increase in traffic. The Council has raised concerns in relation to the impact of increased traffic levels on local communities.

Tiptree

8.3 The traffic modelling shows that there are likely to be changes in traffic flows in Tiptree associated with traffic that is to/from Tiptree itself changing route to use junction 24, with the B1023 forecast to get a small increase in traffic in Tiptree, and the B1022 a small decrease. The B1023 and B1022 junction has been assessed as part of the TA (TA para 5.2.7), which states that the operation of this junction (by 2042) remains similar with and without the proposed scheme in place.

8.4 Tiptree Parish Council is currently preparing a Neighbourhood Plan which will allocate sites for growth in the parish. The draft Tiptree Neighbourhood Plan aims to create a long-term strategy to ensure that the growth of Tiptree is genuinely sustainable, particularly with regard to traffic flow. The plan seeks to avoid increasing traffic flow on the B1022 and B1023, especially through Church Road. The draft Plan states (para 12.4) that when considering the location of future development, a recurring theme throughout the responses to the Community Questionnaire is the ability to access major routes, the A12 in particular, without exacerbating the traffic situation in Church Road. As noted in the Policy context section of the LIR the Tiptree NHP has been through Examination and a decision has been made to proceed to Referendum which will take place in May 2023. It therefore can be afforded significant weight.

The City Council have raised concerns about increased traffic flows through Church Road and the centre of Tiptree and the impact on the local community.

Messing and Inworth

8.5 The traffic modelling predicts that there will be increases in flows on Kelvedon Road through Messing as a result of some traffic from the B1022 west of Messing starting to travel through Messing as a short-cut to reach the B1023 Inworth Road. The TA states (TA para 5.2.6) that, while the percentage increases of vehicles per hour are high, the absolute increases in traffic are low and that traffic flows through Messing will therefore remain low even with the proposed scheme in place.

8.6 The proposed Junction 24 connects into the B1023 to the north of Inworth and the traffic modelling predicts that there will be increases in flows through Inworth in the weekday AM and PM peak hours (TA para 5.2.6). The increases in traffic through Inworth are stated as equivalent to approximately an additional five vehicles per minute in peak hours. Localised improvements to this section of Inworth Road are proposed to be provided as part of the proposed scheme. This includes widening at existing pinch-points to ensure two vehicles can safely pass each other.

8.7 The City Council have raised concerns about increased traffic flows and consider measures are required to reduce the potential for rat-running on local roads and that detailed consideration is required to ensure that the B1023 is able to accommodate expected increase in traffic through Inworth.

Copford with Easthorpe

8.9 Although traffic is generally expected to reduce (TA para 9.1.9) on the local road network, the TA identifies there will be some increases in traffic on roads leading to the A12 junctions, such as the B1408 at Copford. The B1408 runs through the village of Copford with housing and community facilities on both sides of the road. Additional traffic could have a adverse impact on local residents.

8.10 The Parish Council broadly supports the road improvements and welcomes closing the Easthorpe junction onto the A12, although they wish to see sufficient and appropriate signage making it clear that Easthorpe Road no longer has access to the A12. The Parish is concerned that the new junction arrangements along from the A12 along the Messing/Inworth Road may cause significant problems as any increase in traffic is of concern and even with some mitigation regarding some extra width may pose a significant hazard to road users and residents of Messing and Inworth in their opinion.

Summary

8.11 Colchester City Council have previously raised concerns regarding the impact of the proposal on traffic levels in local communities.

8.12 Although the Council defers to the opinion of Essex County Council as the Highway Authority with regard to technical design matters, the City Council shared concerns expressed about the proposed Junction 24 and the need for further design development of the proposed new Inworth Road roundabout. The City Council also considers that detailed consideration is required to ensure that the B1023 is able to accommodate the expected increase in traffic. In addition, Colchester City Council have raised concerns about the potential for rat running and increased traffic on local roads and measures are required to reduce this potential.

Key local issue – walking and cycling in the vicinity of, and across, junction 25 at Marks Tey

8.13 The village of Marks Tey is located either side of the A12 and junction 25. The A12 and the junction with the A120 create physical barriers for local residents, particularly those making journeys on foot and by cycle. The issue of physical barriers is also identified in the Marks Tey Neighbourhood Plan. The re-design of junction 25 should take into account all potential movements on foot and cycle to ensure that the A12 does not create a physical barrier to those journeys.

8.14 A replacement bridge across the A12 for walkers and cyclists is proposed. The proximity of Marks Tey Station to communities to the east of Marks Tey, including Copford and along the B1048 London Road in Stanway, where further growth is proposed in the Local Plan, means that journeys to the station can be on foot or by bicycle. Although a replacement bridge is proposed across the A12, consideration should also be given to walking and cycling journeys through the rest of junction 25 as there are other desire lines, in particular those that connect directly to the station.

8.15 The council also wishes to encourage the reuse of de-trunked sections of the former A12 to promote active and sustainable transport to benefit local communities. Marks Tey Parish Council considers that the proposed trunk road environment further dominates the village already fragmented by the A12 and A120 and removes vital established landscaping. They believe consequently that County Council's proposals to reduce this retained section to a single carriageway are essential.

9.4 Inworth Wood is a Lowland Mixed Deciduous Woodland. The majority of the woodland is shown on the Ancient Woodland Inventory, including the northeast block, which map evidence shows was not woodland in the late 19th and early 20th Centuries.

9.5 Marks Tey Brick Pit is a rich mosaic of brownfield wildlife habitats, including wet willow (*Salix* spp.) scrub woodland, marsh, open water habitats and flower-rich, sparsely vegetated ground. The brownfield invertebrate fauna includes the Nationally Rare (RDB3) Small Blue Carpenter-bee (*Ceratina cyanea*), which utilises old Bramble scrub and the flowers of ragwort whilst the numerous other banks of sand and clay across the upper parts of the site provide habitat for many other invertebrate groups.

9.6 Marks Tey Brick Pit is also a SSSI. The reason for notification is as follows: Marks Tey has uniquely important Pleistocene sediments, which have yielded a continuous pollen record through the entire Hoxnian Interglacial. No other site in the British Isles has so far produced a comparable vegetational record for this or any other interglacial. Of considerable interest also are the laminations (seasonal layers) within these lacustrine (lake) sediments which have made it possible to estimate the duration in years of the Hoxnian Interglacial

9.7 There are two areas of flood risk cross the A12, one close to Easthorpe and the other at Marks Tey/ Copford.

10.0 Socio-economic and Community Matters

Introduction

10.1 The decision to deliver this project has been made; the Local Impact Report seeks to highlight positive, negative and neutral, direct and indirect impacts to households, individuals, businesses and communities which might be mitigated, following discussions with developers, during the construction phase and into the operation of the route post completion.

Socio-economic Rationale

10.2 The A12 is an important economic link in Essex and across the east of England. It provides the main south-west/north-east route through Essex and Suffolk, connecting Ipswich to London and to the M25. The section of the A12 between Chelmsford and Colchester (junction 19 Boreham interchange to junction 25 Marks Tey interchange) carries high volumes of traffic, with up to 90,000 vehicles every day. Heavy goods vehicles (HGVs) account for between 9% and 12% of the traffic on this section due to its importance as a freight connection, especially to Felixstowe and Harwich ports. It is therefore a key logistics route for the local, regional and national economy.

10.3 This section of the A12 is also an important commuter route between Chelmsford and Colchester (and other employment hubs beyond including London,

Ipswich and Norwich), and acts as a link, via the A120, to London Stansted Airport. The resulting congestion leads to delays and means that, during the morning commute, a driver's average speed can be particularly slow for an A-road, in either direction impacting their ability to get to/home from work. There is also an economic impact for logistics in serving company supply chains in the East, South East, London and beyond with lost time affecting profitability and absence from the workplace among employees.

10.4 For communities there is an impact on the ability to access key health and education establishments: from nurseries to Universities, care homes and domiciliary care and health and hospital appointments and places to access recreation, sport, leisure and places of worship, all of which impact on quality of life and attractiveness of places to live in, move to and invest family life there.

10.5 Colchester City Council Wards directly affected:

- Marks Tey – 2011 population 2551
- Easthorpe – 2011 population: 185
- Messing cum Inworth – 2011 population: 363

For 2021 Census outputs, statistics will be available for Wards on 5 May 2023. It is also important to note that there have been changes to Ward boundaries since 2011 so direct comparison between the Census data at this level may not be possible.

10.6 Colchester City Council Wards indirectly affected:

All – due to the nature of the A12 being a trunk road, but in particular:

- Tiptree – 2011 population: 9152
- Stanway – 2011 population: 8283

It is important to note that both Tiptree and Stanway have seen significant housing and commercial development since 2011.

The A12 Proposals within Colchester City Council boundary are effectively summarised with the ES and within National Highways' Introduction to Application document.

Assessment Approach

10.7 [Marks Tey](#) and [Copford with Easthorpe Parish Council](#) both have Neighbourhood Plans (emerging in the case of Copford with Easthorpe). There is no Neighbourhood Plan for Messing cum Inworth. These documents have been the source of the socio-economic aspirations for these communities.

Marks Tey has the A12 widening project included in its Neighbourhood Plan; there is no mention of the project in the Copford with Easthorpe report. Given the low population and housing density in Messing cum Inworth it is reasonable to take the relevant key issues from the two Neighbourhood Plans to summarise the socio-economic issues and potential mitigations as follows:

Interventions – direct impacts assessment

Intervention	Reference	Assessment	Rationale	Enhancements	Evidence of need
New J24, just on city boundary at Inworth	2.2.17	neutral	Although this would serve the communities of Kelvedon, Inworth, Tiptree, Easthorpe and Messing there would be a cost in terms of visual impact in the rural landscape, loss of visual amenity and habitat, an increase in noise, light and air pollution.	<ul style="list-style-type: none"> • Ensure Fibre broadband trunking is installed to enable easy future connection. • Ensure Fibre broadband trunking and fibre connectivity is installed where the existing network allows. • Place speed limits on access roads. • Planting to absorb noise, filter light and absorb air pollution 	<p>Copford and Easthorpe Neighbourhood Plan objectives for a:</p> <ul style="list-style-type: none"> • Successful economy to provide local employment • Improved connectivity – footpaths and cycleways, safe roads and rail access • Improved community amenities – broadband improvements for existing and future needs
Prested Hall/Threshelfords access road	2.2.19	+ve	Prested Hall – major Wedding and event venue for Colcestrians, 2 way single carriageway access road with shared use footway and cycle way. Threshelfords - farm track access shared use footway and cycle way	<ul style="list-style-type: none"> • Ensure that footways and cycle ways are extended into other existing / planned networks to enable choice of access to village amenities in Kelvedon, the railway station there, communities 	<p>Copford and Easthorpe Neighbourhood Plan - see above</p>

Intervention	Reference	Assessment	Rationale	Enhancements	Evidence of need
				<p>s of Feering, Inworth and Messing (and Tiptree beyond)</p> <ul style="list-style-type: none"> • Fibre broadband installation – see above 	
Inworth Road B1023 widening	2.2.20	-ve	Though this will smooth traffic flows and improve safety for commercial vehicles there will be an increase in noise, air and light pollution. There will be a loss of habitat and there is no mention of footpath and cycle access.	<ul style="list-style-type: none"> • Fibre broadband installation – see above • New connected footpaths and cycle ways – see above 	Copford and Easthorpe Neighbourhood Plan – see above
De-trunking the existing A12 route between J24 and J25	2.2.22	+ve	Improved access for communities and businesses through offering two routes to the A12	<ul style="list-style-type: none"> • Fibre broadband installation – see above • New connected footpaths and cycle ways – see above 	<ul style="list-style-type: none"> • Copford and Easthorpe Neighbourhood Plan – see above • Marks Tey Neighbourhood Plan
Wishingwell Farm and Easthorpe Green Farm new road and overbridge	2.2.24	+ve	New minor access road off a new 3 arm roundabout	<ul style="list-style-type: none"> • Fibre broadband installation – see above • New connected footpaths and cycle ways – see above 	<ul style="list-style-type: none"> • Copford and Easthorpe Neighbourhood Plan – see above • Marks Tey Neighbourhood Plan

Intervention	Reference	Assessment	Rationale	Enhancements	Evidence of need
J25 modified and improved (at Marks Tey)	2.2.26	+ve	New crossings and replacement bridge provided for walkers and cyclists across A12	<ul style="list-style-type: none"> • Fibre broadband installation – see above • New connected footpaths and cycle ways to improve connectivity within the village. Enabling easy access to/from Marks Tey rail station, easier access to/from the Marks Tey community along the A120 to village amenities and improving access to recreation and green spaces • GP and Dentist Surgery required • Enhancing identified regeneration sites to improve commercial attractiveness 	<ul style="list-style-type: none"> • Marks Tey Neighbourhood Plan broad aims@ • Getting around – improve links between parts of the village, manage traffic volumes and improve walking and cycling opportunities • Creating a stronger community – new health facilities for growing population • Business & employment – regenerating sites (London Road retail sites and Andersons Timber Merchant site)

10.7 The [Tiptree Neighbourhood Plan](#) also has objectives which could be delivered by the intervention enhancements above: namely

3: To improve movement through Tiptree, for vehicular traffic but also for walking and cycling and to improve access to the countryside, main routes and railway stations whilst minimising impact on the village centre.

4: To protect and enable Tiptree's green environment, wildlife and biodiversity to thrive and grow. To protect local, national and international designated sites and habitats, and integrate green corridors into new developments.

5: To enable Tiptree village centre to thrive as a safe location for people to spend leisure time and access community facilities.

6: To ensure that Tiptree is an attractive location for a range of businesses so that its local economy can thrive.

10.8 Ideally, the footpath, cyclepath and broadband installations in the table above should be linked to both Kelvedon (outside the city boundary) and Tiptree to maximise the socio-economic benefits of this project.

Summary

10.9 Improved infrastructure enables economic activity. The A12 widening project is a strategic improvement enabling economic recovery/ sustainability and growth of communities along its route and beyond.

For the communities of Marks Tey, Messing cum Inworth and Easthorpe the plans will improve transport connectivity for:

- commuters, ensuring they can get to / from their places of employment.
- businesses, ensuring that their supply chains can rely on this part of the logistical chain and that their employees can get to work at whatever time of the day/ whatever day of the week is required. This could be enhanced with improved broadband access enabling companies to explore new channels to market and improving profitability.
- households and individuals, ensuring that they can access key health and education establishments, places of recreation, sport, leisure and places of worship. This could be enhanced with improved broadband access enabling people to acquire new skills which will sustain them in employment and also potentially offer new employment opportunities in other sectors.

10.10 The current proposals are broadly positive but there is scope for improvement by connecting transport networks and installing high-capacity fibre broadband which could transform the socio-economic potential of these communities into the future. Strategically it would be highly beneficial for all of these communities to be networked in transport and digital (Broadband) terms to hubs at Kelvedon and/or Tiptree.

11.0 Impact on Human well-being: Noise and Vibration, Air Quality

Noise and vibration (Chapter 12 ES)

Construction phase Mitigation

11.1 The Noise and Vibration Management Plan (NVMP) contained within the Environmental Management Plan (EMP) details mitigation measures to reduce the impacts from noise and vibration as far as practicable. Compliance with the NVMP is included in the REAC.

If the predicted significant adverse impacts cannot be removed, then the Principal Contractor (PC) shall conduct an assessment prior to construction to determine whether any dwellings are eligible for noise insulation or residents eligible for temporary re-housing.

Hours of operation

11.2 The construction hours will be restricted to the hours specified in the NVMP (and 12.9.10, ES). It will be necessary to work outside of the above hours when certain activities require traffic management on the existing A12, and these are listed in the NVMP. The LA and affected residents should be advised in advance of such works.

General controls

11.3 In accordance with the NVMP demolition and construction works shall comply with BS5228-1:2009+A1:2014 and monitoring conducted by the PC to ensure compliance with all controls. The NVMP shall be revised as necessary when specific construction details are known.

Predicted impacts

11.4 The construction period is expected to take four years (2024-27), with activity peaking in 2025. Once the predicted noise from construction activity predicted to exceed the SOAEL (Significant Observed Adverse Effect Level) has been considered against the temporal thresholds specified in DMRB 111 (10 or more days or nights in any 15 consecutive days or nights, or more than 40 days in any six consecutive months) (12.11.2, ES), there are a number of properties within the borough predicted to exceed SOAEL for noise. The SOAEL is the level above which significant effects on health and quality of life occur. These are represented by the following receptors:

- Wishingwell Farm (R36) (71 L_{Aeq,T} dB) &
- Doggetts (76dB) (R38) (noise from earthworks during the day) (12.11.13/14, ES).
- In vicinity of 121 London Road (R42) (61dB) (noise from sheet piling at night) (12.11.15, ES).

11.5 Vibration is not predicted to be undertaken for sufficient duration (approximately one week) at each receptor to exceed the temporal threshold (12.11.20, ES) but is

likely to cause significant disturbance when taking place. A commitment to limit the magnitude of vibration is in the REAC, within the first iteration of the EMP.

11.6 Throughout the construction phase it will be necessary to close the A12 and the diversion route follows the A120 from Braintree to Marks Tey. It is estimated that the route would be used for approximately 500 nights over the four-year construction period. This is above the threshold of 40 nights in any consecutive six months and will cause a significant adverse effect at dwellings within 25m of the route (12.11.23, ES). There is a commitment within the REAC to review opportunities to reduce the number of night-time closures as the construction programme develops. Traffic management phasing will be used to reduce usage of the diversion route.

Operational phase Mitigation

A range of mitigation measures are detailed in Chapter 12 of the ES as follows:-

Embedded (design) mitigation (12.10.6, ES)

11.7 The new alignment between junctions 24 and 25 will reduce noise for a large number of receptors close to the A12 in Marks Tey, some of which currently experience very high noise levels. This is a positive outcome and welcomed. Earth bunding 4m in height will reduce noise on the offline section of the A12 within the borough at dwellings located at Easthorpe Green, Little Domsey Cottages, Doggetts Lane and Hall Chase Farmhouse.

Standard mitigation (12.10.11, ES)

11.8 This would occur owing to legislative requirements and is included in the first iteration of the EMP and mainly concerns the construction phase.

Additional mitigation (12.10.13, ES)

11.9 Noise barriers are proposed at the following locations within the borough:

- A proportion of the 4m high bund at Doggetts Lane to maintain height.
- A 4m high barrier 245m long at Wishingwell Farm.
- A 185m long screen at Easthorpe Green.
- The requirement for noise barriers is secured within the REAC.
- Enhanced low-noise surfacing (12.10.17, ES)
- A conventional low noise surface has a Road Surface Influence (RSI) of -3.5dB. New sections of the A12 between junctions 24 and 25 will have a surface with an RSI of -6.5dB or better.

The City Council recommends that all proposed mitigation is in place prior to operation.

Noise Insulation Regulations

11.10 One dwelling within the borough, Hall Chase Farmhouse, meets the criteria for eligibility. The eligibility of this dwelling and any others will be confirmed during detailed design prior to the start of construction. The REAC contains a commitment to undertake an assessment of eligibility.

Predicted impacts with mitigation

11.11 Increased traffic on roads linked with the new scheme or new sections of road close to receptors will increase noise at some receptors and decrease it where traffic levels are reduced on existing roads. Within the Colchester City the receptors predicted to experience significant adverse or beneficial effects with mitigation in place are:

Junctions 23-24

- 1 and 2 Happy Gardens, Inworth Road. There will be a 1.3dB(A) minor increase but the SOAEL of 68dB(A) would be exceeded and therefore be classified as a significant adverse effect in accordance with DMRB 111 (12.11.44, ES). Mitigation is not possible owing to the average traffic speed being too low for a low noise surface to be effective (requires an average speed of 75km/h) and the inability to construct an unbroken barrier.
- Within Inworth seven dwellings benefit from a significant beneficial effect (12.11.45, ES).
- Kelvedon Road approaching Tiptree. Four dwellings experience an increase of 1.6dB(A) (minor) but exceed the SOAEL thus having a significant adverse effect (12.11.46, ES). Mitigation is not possible for the reasons mentioned above.
- Grange Road, Tiptree. 12 dwellings will experience a significant decrease in noise (12.11.48, ES).

Junctions 24-25

- 242 dwellings and 10 other sensitive receptors will benefit from a significant beneficial effect, with major decreases for some dwellings close to the A12 (12.11.49, ES).
- Easthorpe Green, 1 and 2 The Lodge. Despite mitigation these properties will experience a moderate increase, i.e., a significant adverse effect, but be below the SOAEL with a predicted daytime noise level of 62dB(A) (12.11.50, ES).
- Wishingwell Farm and The Recording Studio. Despite mitigation there is predicted to be a major increase (significant adverse effect), but it will be below the SOAEL with a daytime noise level of 61dB(A) (12.11.51, ES).
- Doggetts. Despite mitigation there is predicted to be a major increase (significant adverse effect), but it will be below the SOAEL with a daytime noise level of 63dB(A) (12.11.52, ES).
- On the northbound approach to Marks Tey there is expected to be a significant beneficial effect at 62 dwellings (12.11.53, ES).
- Chase Hall Farmhouse. Despite mitigation there is expected to be a minor increase in noise at night of 1.5dB(A), increasing the absolute noise level above SOAEL. During the day, the absolute noise level will be 67dB(A), just below SOAEL (12.11.54, ES).

- London Road, Copford. Seven dwellings will experience a minor increase of 1.0dB(A). This places them just above SOAEL, therefore classed as having a significant adverse effect (12.11.55, ES).

Area around Junction 24

11.12 The new junction 24 is predicted to increase the traffic from Inworth Road to the B1022 via Kelvedon Road, Messing and Harborough Road and surrounding roads and cause an increase in traffic noise levels for properties located on these roads.

11.13 71 dwellings are predicted to have a significant adverse effect, caused by a moderate (3-5dB(A)) increase at 16 dwellings and a major (+5dB(A)) increase at 55 dwellings. The daytime absolute noise levels at the most exposed properties within 10m of the roads are predicted to range between 58 and 62dB(A) which is below the SOAEL.

11.14 The Junction 24 Inworth Road and Community Bypass Technical Report (para. 7.3) discusses potential mitigation measures to reduce the overall noise impact including the closure of Kelvedon Road and interventions on Oak Road such as Traffic Regulation orders but this has been discounted.

11.15 In terms of noise impact, this mitigation would remove the 71 predicted significant adverse effects within Messing but result in 10 dwellings experiencing a significant adverse effect along Kelvedon Road in Tiptree, some of which will have an absolute noise level above SOAEL, and two significant adverse impacts in Inworth. This mitigation option delivers a large potential decrease (approximately 60) in the number of predicted significant adverse effects and should be examined further.

Statement of summary of impacts

11.16 The LOAEL (Lowest Observed Adverse Effect Level) is the level above which adverse effects on health and quality of life can be detected. The SOAEL (Significant Observed Adverse Effect Level) is the level above which significant effects on health and quality of life occur.

Construction phase

11.17 Once temporal thresholds in DMRB 111 have been considered there are predicted to be significant adverse effects (above SOAEL) during the day owing to earthworks at two groups of receptors represented by Wishing Well Farm and Doggetts and one group of receptors at night, represented by 121 London Road, caused by sheet piling.

11.18 When the A12 is closed at night properties within 25m of the diversion route (A120 to Marks Tey) will experience a significant adverse effect as the threshold of 40 nights in any six-month period will be exceeded as it is estimated that it will be used for approximately 500 nights over the four-year construction period.

11.19 Impacts will be minimised where practicable through mitigation measures in the NVMP and where significant adverse effects cannot be removed, noise insulation and temporary accommodation will be considered as previously stated. Rooms on non-exposed facades are likely to be screened from the activity and consequently should achieve reasonable conditions. Also, for daytime activity many occupiers will be away from their homes. However, in health terms according to Chapter 13 of the ES, owing to the scale of exposure, there is likely to be temporary sleep disturbance and an impact on wellbeing, resulting in a negative (significant) impact.

Operational phase

11.20 With proposed mitigation in place within CCC approximately 323 dwellings are predicted to benefit from a significant beneficial effect of a noise reduction of more than 3dB(A). A number of these properties close to the existing A12 currently experience very high noise levels. This is welcomed.

11.21 89 dwellings and four other receptors are predicted to experience significant adverse effects. For the vast majority this is because of moderate (+3dB(A)) to major (+5dB(A)) increases in noise level. Out of these 93 receptors, 13 dwellings are predicted to experience an increase above SOAEL during the day and one at night, which is a concern. For these 14 receptors minor increases in noise (<2dB(A)) have caused them to exceed the threshold.

11.22 If traffic mitigation could be introduced to benefit the roads impacted by Junction 24, as outlined in Section 7.3 of the Junction 24 Inworth Road and Community Bypass Technical Report, receptors around Messing experiencing a significant adverse effect (71) would be removed but around 10 added to Tiptree and two in Inworth, resulting in a reduction of approximately 60. This is our preferred option, and we recommend that it is investigated further.

11.23 Chapter 13 of the ES acknowledges that the most likely health effects of significant adverse effects are annoyance and, for the worst affected property, potential sleep disturbance. Regarding annoyance, increases in noise below 3dB, which applies to the 14 receptors above SOAEL, are usually imperceptible.

Air Quality (Chapter 6 ES)

ENV5 – Pollution and Contamination ES 6.1 chapter 6 Table 6.15

11.24 In the DM and DS scenarios, two residential dwellings in Colchester R189 (located within the Lucy Lane North AQMA, Stanway) and R193 (located off Halstead Road and within close proximity to the A12) are predicted to exceed the annual mean NO₂ AQO (40µg/m³), with modelled concentrations of 40.9 and 42.3µg/m³ respectively in the DM scenario and 41.0 and 42.5µg/m³ respectively in the DS scenario.

- R189 (AQMA4 - Lucy Lane North) 2.2% increase which based on IAQM planning guidance is defined as a moderate AQ impact

- R193 (Halstead Road) 2.2% increase which based on IAQM planning guidance is defined as a moderate AQ impact

11.25 From monitoring data, it had been hoped that air quality compliance at R189 (AQMA 4 -Lucy Lane North, would be achieved in the next two years. In addition, the changes could also result in a further AQMA being declared at (R193). Halstead Road. However, the Council is not aware of any proposed Highways mitigation at these sites.

Contamination

11.26 As no data, plans/mapping have been submitted we are unable to comment on any potential contaminative sites that may be on the route. This area requires further investigation.

12.0 Cultural Heritage (ES Vol 6, Chapter 7)

12.1 The proposed development affects a settled landscape of ancient character with a rich potential for heritage assets spanning from the period from prehistory to the present day. Chapter 7 of the ES sets out the baseline assessment and approach to mitigation via embedded design and specific mitigation measures.

Archaeology

12.2 Evaluative works carried out prior to the submission of the DCO have identified a series of archaeological sites in Colchester that will be impacted negatively by the scheme. Colchester City Council (CCC) is satisfied that mitigation measures proposed by the applicant in their DCO documentation and in meetings with our archaeological advisor are broadly appropriate and sufficient, pending agreement on detailed matters. CCC is therefore strongly unlikely to object to the granting of the DCO on archaeological grounds.

Built heritage – Listed Buildings & Non designated Heritage Assets

12.3 Within a 200 m buffer of the proposed route corridor are 27 listed buildings whose setting and significance will be impacted upon to varying degrees. There may also be other non-designated assets that are hitherto unknown and potentially impacted upon by the proposals. Assets from the Colchester Borough Local List have been integrated into the assessment where they are within the 300m study area. The potential for unknown assets of potential interest to be affected needs to be considered and a strategy for recording and mitigation (including preservation by record) devised as part of the DCO.

12.4 Of particular concern are those assets subject to a moderate adverse impact specifically the Grade I listed All Saints Parish church, Inworth (para.7.11.56), Easthorpe Green Farmhouse (GII) and Church View House (GII aka Flispies) at Easthorpe Green (7.11.56-59, Doggetts Hammer Farmhouse (7.11.60-61 GII) ,

Marks Tey and in particular the important listed group at Marks Tey Hall (para.7.11.64-7.11.68 listed at GII* and GII together with the associated Moated Site SM). Colchester City agrees that bespoke mitigation measures are required to reduce the resultant harm to the significance of these assets during the operational phase. The proposed measures set out at 7.11.78-7.11.95 including acoustic barriers, bunds and woodland planting are welcomed but further effort is required to ensure that best endeavours are made to minimise the harm identified.

13.0 Biodiversity (ES Chapter 9)

13.1 The Methodology adopted for assessment is considered generally sound and in accordance with the latest best practice guidance for ecological impact assessment and the ecological assessment of road schemes.

13.2 Colchester CC noted in their response to the PEIR that greater information was required concerning the landscape, green infrastructure or biodiversity features to be lost and how they will be mitigated and compensated for including net gain. Design changes have since been implemented, where practicable, to avoid impacts to ecological receptors. An approach to maximising biodiversity delivery is being applied to the proposed scheme to ensure it is completed with an overall positive impact on the local natural environment. A summary of BNG calculations is provided (Section 9.13) and greater detail is included within Appendix 9.14 of the Environmental Statement [TR010060/APP/6.3]. Sections 9.10 and 9.11 detail the mitigation proposed for, and residual impacts to, biodiversity features CCC welcomes this further information.

13.3 The CCC response to the PEIR identified that it does not acknowledge the existence of, or any proposed removal of, numerous sections of hedgerow protected under the Hedgerows Regulations 1997 along the route of the proposed scheme. Section 9.11 of the ES now details the losses of important hedgerows and these are shown on the Retained and Removed Vegetation Plans [TR010060/APP/2.14]. Proposed mitigation is detailed in Section 9.10 and shown on Figure 2.1 Environmental Masterplan [TR010060/APP/6.2]. The DCO consent would provide the authority to remove important hedgerows.

13.4 CCC noted in their response to the PEIR that Biodiversity Net gain was required in accordance with the Defra 3.0 Metric and this has now been confirmed. The proposed scheme would secure no net loss to biodiversity. Net loss or gain numbers have been calculated using the Defra 3.0 metric and are summarised within Section 9.13. In addition, further detail is provided within Appendix 9.14 of the Environmental Statement. It is noted that the proposed scheme seeks to maximise biodiversity delivery and this is welcomed.

13.5 CCC previously expressed concerns that The Landscape and Environment Management Plan and Environmental Masterplan needed to clearly demonstrate how sites are connected to the road network/corridor and not in fact isolated/fragmented habitat areas. The ES now provides details of how mitigation

areas are connected to the wider landscape are included in the LEMP, within the first iteration of the EMP [TR010060/APP/6.5], and Figure 2.1 Environmental Masterplan.

13.6 There are no confirmed or potential SPAs, SACs, or Ramsar sites (collectively known as the national site network) located within the 2km study area around the Order Limits or within 200m of the ARN, and no SACs designated for bats within the 30km study area (Figure 9.1 [TR010060/APP/6.2]). Marks Tey Brickpit SSSI is located approximately 80m from the Order Limits, north-west of junction 25 (Marks Tey interchange). The Marks Tey Brickpit SSSI is designated for geological reasons and therefore its value does not relate to ecological conservation.

13.7 The offline sections of the proposed scheme would permanently fragment habitats south of the existing A12 between junction 24 and junction 25. Given the predominantly arable landscape, the severance of existing wildlife corridors along the proposed scheme (such as watercourses, field margins, hedgerows and tree lines) could have significant effects on species in the area as the new section of road would act as a barrier across the landscape.

Operational Effects

13.8 Impacts from operational road lighting are most likely to affect bat species along the proposed scheme (although it could also affect birds, invertebrates and certain mammals, such as otter and badger). Habitats where the impact of lighting can be particularly severe include river corridors, woodland edges and hedgerows.

13.9 Air quality changes could occur through changes in NO_x and ammonia emissions caused by traffic, causing changes in N deposition and potential effects on sensitive designated sites and habitats within 200m of the operational ARN. The air quality modelling showed only one ancient woodland in Colchester (Perry's Wood) may potentially be impacted by air quality changes during operation. These sites were scoped into further assessment in Appendix 9.15 of the Environmental Statement

13.10 CCC supports the approach adopted to mitigation whereby the scheme has sought to avoid where possible or mitigate adverse impacts identified through embedded design. Where this has not been possible, mitigation has been developed to reduce these potential impacts. Mitigation measures would seek to avoid habitat loss, habitat fragmentation, disturbance and species mortality. This is welcomed by CCC.

13.11 In conformity with the NPPF and NNNPS, the proposed scheme aspires to maximise biodiversity delivery and this is welcomed. Where habitats are lost as a result of the proposed scheme, new habitats of equal or greater value would be created (Section 9.13). New road verges would support low-nutrient grassland habitats which are of high ecological value. On the linear road verges of the proposed scheme, the creation of low-nutrient grasslands would provide an important wildlife corridor. A maximum of eight ponds are being lost along the complete route and 57 new wildlife ponds would be created, therefore the ratio of

ponds created to lost would be at least seven ponds created for each lost. This is also welcomed by CCC.

13.12 The adverse impact on Perry's Wood in CCC is regretted with a predicted increase in N deposition that cannot be effectively mitigated. However, it is noted that there are no species present that are likely to be very sensitive to an increase in N deposition. The creation of an area of compensatory Offsetting which is proposed to be provided through the creation of an area of broadleaved woodland habitat (7.4ha) is welcomed.

13.13 Landscaping and habitat planting have been designed to increase connectivity across the landscape and avoid fragmentation of foraging and commuting habitats (Figure 2.1 Environmental Masterplan [TR010060/APP/6.2]). This approach is supported to address concerns arising from potential habitat fragmentation.

13.14 CCC is pleased to note that the air quality assessment (Chapter 6: Air quality [TR010060/APP/6.1]) confirms that there would be no impact from changes in air quality at Tiptree Heath SSSI as a result of operation of the proposed scheme. This is welcomed by CCC.

13.15 The potential for harm to protected species (primarily due to collisions) during the operational phase of the scheme (badgers, barn owls, otters etc.) is unavoidable. In particular, of great concern is the potential for adverse impacts on species of principal importance with the direct mortality of brown hares, hedgehogs and polecats as a result of collisions with vehicles, and fragmentation of habitats. Embedded mitigation along the length of the proposed scheme would reduce this impact (Section 9.10). This is welcomed but acknowledged as an environmental cost of the scheme and indeed the existence of the A12.

14.0 Conclusions

14.1 The A12 is a key strategic route currently operating at capacity and there a recognised need for upgrading and improvement works which is supported by Colchester City Council in principle.

14.2 The proposals have localised impacts on the host environment and communities with wider impacts on the local highway network principally to the south of the proposed route in Inworth, Messing, Tiptree, Copford and Marks Tey. The proposals would not impact on allocated development sites in the Adopted Colchester Local Plan and the increased network capacity would help support economic growth and this weighs in favour of the proposal.

14.3 The proposed bypass solution between junctions 24 and 25 would serve to minimise disruption on the network during the construction phase and this is welcomed. The City Council shares the concerns expressed by Messing cum Inworth, Copford with Easthorpe and Tiptree Parish Councils about potential

consequential increases on traffic on the local road network and seeks effective mitigation to minimise and mitigate any adverse effects on the local network. The continued severance of the community of Marks Tey village is also regrettable and the need to reduce the dominance of highway infrastructure at the heart of the village as part of the de-trunking legacy is supported.

7.4 The potential for adverse impacts on biodiversity, landscape, visual amenity, cultural heritage and human populations as identified within the ES requires the delivery of effective embedded and bespoke mitigation measures; extending to include those residents outside the area of the scheme but potentially affected by an increase in consequential traffic with associated noise and air quality issues. Any residual adverse impacts will need to be balanced against the wider public benefits of the proposals. The City Council defers to the County Council on matters relating to highway engineering and wider impacts on the network capacity.

7.5 Colchester City Council confirms that it will continue to engage constructively with the applicant and other stakeholders and further comments may be made throughout the examination of the proposal.

Appendix 1: Constraints Plan of DCO and Surrounding Area

