

DR/16/22

Report to: DEVELOPMENT & REGULATION (25 MARCH 2022)

Proposal: COUNTY COUNCIL DEVELOPMENT - Chelmsford North-East Bypass (CNEB):
 A single carriageway road between Roundabout 4 of the Beaulieu Park Radial Distributor Road (RDR1) and a new roundabout on the A131 at Chatham Green plus dualling of the existing A131 between Chatham Green and Deres Bridge roundabout. With one intermediate roundabout, 3 road overbridges and 1 pedestrian/cycle/horse overbridge. Together with other associated works and landscaping.

Ref: CC/CHL/85/21

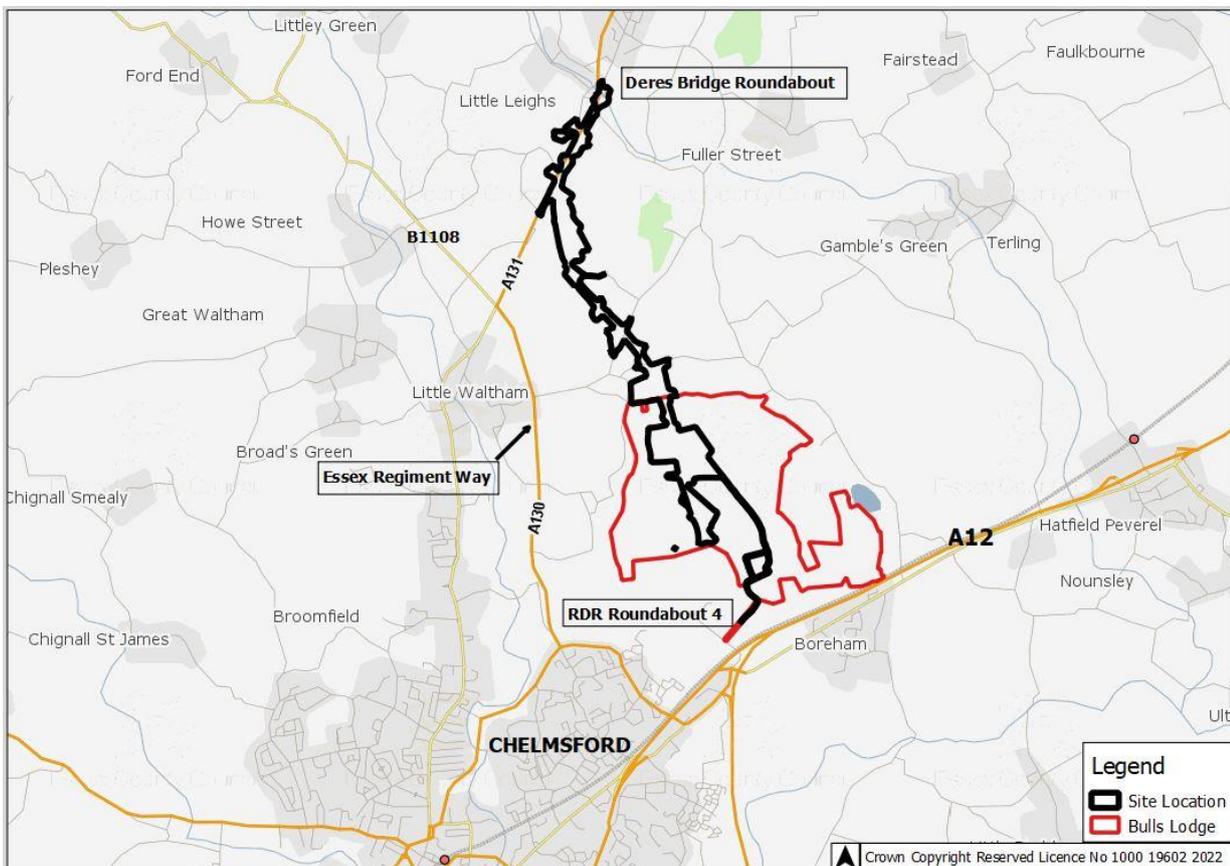
Applicant: Essex County Council

Location: Land between Beaulieu Park (north of Generals Lane), Boreham Parish, and Deres Bridge Roundabout on A131, Great & Little Leighs Parish, to the northeast of Chelmsford.

Report author: Chief Planning Officer (County Planning and Major Development)

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The full application can be viewed at <https://planning.essex.gov.uk>



1. BACKGROUND

In 2019, Essex County Council was successful in being awarded funding from the Housing Infrastructure Fund (HIF) for the Chelmsford Northeast Bypass (CNEB), to unlock the delivery of the future Chelmsford Garden Community (CGC). Funding for the proposed scheme was secured in a joint bid, alongside funding for the new Beaulieu Railway Station through the Government's HIF which is designed to support developments reliant on large scale infrastructure provision. Both infrastructure schemes are now seeking consent through their respective delivery mechanisms. The completion of approximately 10,000 new homes relies on Beaulieu Railway Station and CNEB being operational.

The CNEB was originally put forward in 2005 with public consultation in 2006 to provide a strategic highway link between the A12 and Boreham Interchange in the south and A131 at Deres Bridge to the north. In 2008 four route options were subject of public consultation, with high level environmental appraisal undertaken to review these options. Following public consultation, two options were taken forward for further development and for Option D (amended) a safeguarded corridor allocated as part of Chelmsford Borough City Council's North-East Chelmsford Area Action Plan adopted in 2011. The CNEB was then postponed as a result of funding priorities and was updated in 2015 following consultation with the Beaulieu Park developer and the public, resulting in minor changes to the route.

Since 2016, through liaison with the Beaulieu Park consortium and consultation with the public on the updated safeguarded corridor and through the Local Plan consultation, the design has been refined to avoid a 132kV terminal overhead pylon in Beaulieu Park, and to utilise the existing A131 carriageway between Deres Bridge and Chatham Green.

In 2018, it was identified that a phased solution for the Proposed Scheme (Phase 1 and Phase 2) could be delivered using the Housing Infrastructure Fund (HIF) to fund Phase 1 which would unlock potential funding from the housing developers, for Phase 2.

Phase 1 of the CNEB is the scope of this planning application which could unlock potential funding for Phase 2 in the future. The phases can be described as follows:

Phase 1 (The subject of this planning application) : A single carriageway road between Roundabout 4 of the Beaulieu Park Radial Distributor Road (RDR1) and a new roundabout on the A131 at Chatham Green plus dualling of the existing A131 between Chatham Green and Deres Bridge Roundabout.

Phase 2: Anticipated to be constructed beyond the life of the current Chelmsford Local Plan (2013 to 2036). Works would include adding an additional carriageway to the single carriageway delivered in Phase 1 to form a dual carriageway for the entire length. This would include a new stretch of dual carriageway south of the RDR Roundabout 4 to a new junction at Beaulieu Park. Works to Boreham Interchange would depend upon upgrades delivered through National Highways

Schemes at that point.

Phase 2 would be subject to a further planning application if that scheme were to be taken forward in the future.

The new Chelmsford Local Plan (adopted 2020) includes the safeguarded corridor for the CNEB.

An EIA Scoping Opinion was requested from the County Planning Authority in February 2020 and pre-application advice sought January 2021, which included referral to the Essex Quality Review Panel.

2. SITE

The area to which this application relates is an area of land to the north-east of Chelmsford, between Boreham and Great Leighs, the approximate area of land is 147ha. The total permanent proposed footprint of the CNEB is approximately 74.7ha, with temporary working areas comprising 72.6ha.

The red line area in the south abuts the Radial Distributor Road roundabout 4 and, in the north, includes a section of the A131 from Chatham Green to Deres Bridge Roundabout.

The application site is low lying and forms a relatively flat plateau, with a slight rise from south to north. The low-lying land includes a network of streams, the proposed CNEB crosses the Straw Brook in the northern part of the route which flows north-west to south-east and in the southern part crosses Boreham Brook.

The proposed route crosses 3 minor roads describing from south to north Cranham Road, Drakes Lane and Leighs Road.

The application site is predominantly in intensively farmed arable use, with medium to large scale irregularly shaped fields separated by native hedgerows, timber post and wire fences, ditches and narrow lanes. South of Cranham Road the route passes through worked out areas of Bulls Lodge Quarry.

The main urban centre of Chelmsford lies 4.7km to the south-west of the application site. Radial Distributor Roundabout 4 lies on the north-east corner of the Greater Beaulieu Park mixed use development, which is currently under construction.

Little Waltham lies 2km to the west, Great Waltham 2.8km to the west and Great Leighs 0.7km to the north. Closer to the application site are several smaller clusters of residential properties such as those to the west of the application site adjacent to Drakes Lane and Leighs Road and properties adjacent to the A131 at Chatham Green, Strawbrook Hill and Deres Bridge. Isolated farms are scattered throughout the surrounding rural area. New Hall School lies approximately 0.5km to the south-west.

The closest statutory ecological designations, at international or national level, are the River Ter SSSI (geological) approximately 1km to the east. The nearest locally

designated sites Local Wildlife Sites Straw Brook Plantation, Stonage Wood (also an ancient woodland) and Bulls Lodge Lagoons that are located adjacent to the application site. There is also a Potential Special Road Verge (PSRV) immediately south of Deres Bridge Roundabout. There is one Veteran tree within the application site.

A Grade II Listed Building known as Mount Maskall is sited approximately 100m from the application site and New Hall School which is a Registered Park and Garden is sited 550m from the application site. There are 45 hedges considered of importance within the application site.

The site crosses a number of Public Rights of Way (PRoW)

The application site lies within the Safeguarded Corridor for the CNEB in the adopted Chelmsford Local Plan 2020 as identified on the Policies Map. There are areas of the application site outside the allocation, but do not form part of the footprint of the CNEB itself, some areas fall outside the allocation are permanent works in the form of drainage ponds and others area temporary associated with construction compounds.

This site is also located within a sand and gravel safeguarding area (Mineral Safeguarding Area – MSA) as designated in the Minerals Local Plan. The application site also crosses the minerals planning permission area for Bulls Lodge Quarry and thus lies within a Mineral Consultation Area (MCA).

Parts of the application site are within Flood Zone 2 (Between 1:1000 and 1:100) and Zone 3 (greater than 1:100) and are associated with Straw Brook and River Ter.

3. PROPOSAL

The application proposes the CNEB approximately 4.6km of new road and 1.2km dualling of the existing A131 single carriageway (5.8km in total). The CNEB would connect the new Beaulieu Park development in the south to Deres Bridge Roundabout at Great Leighs in the north.

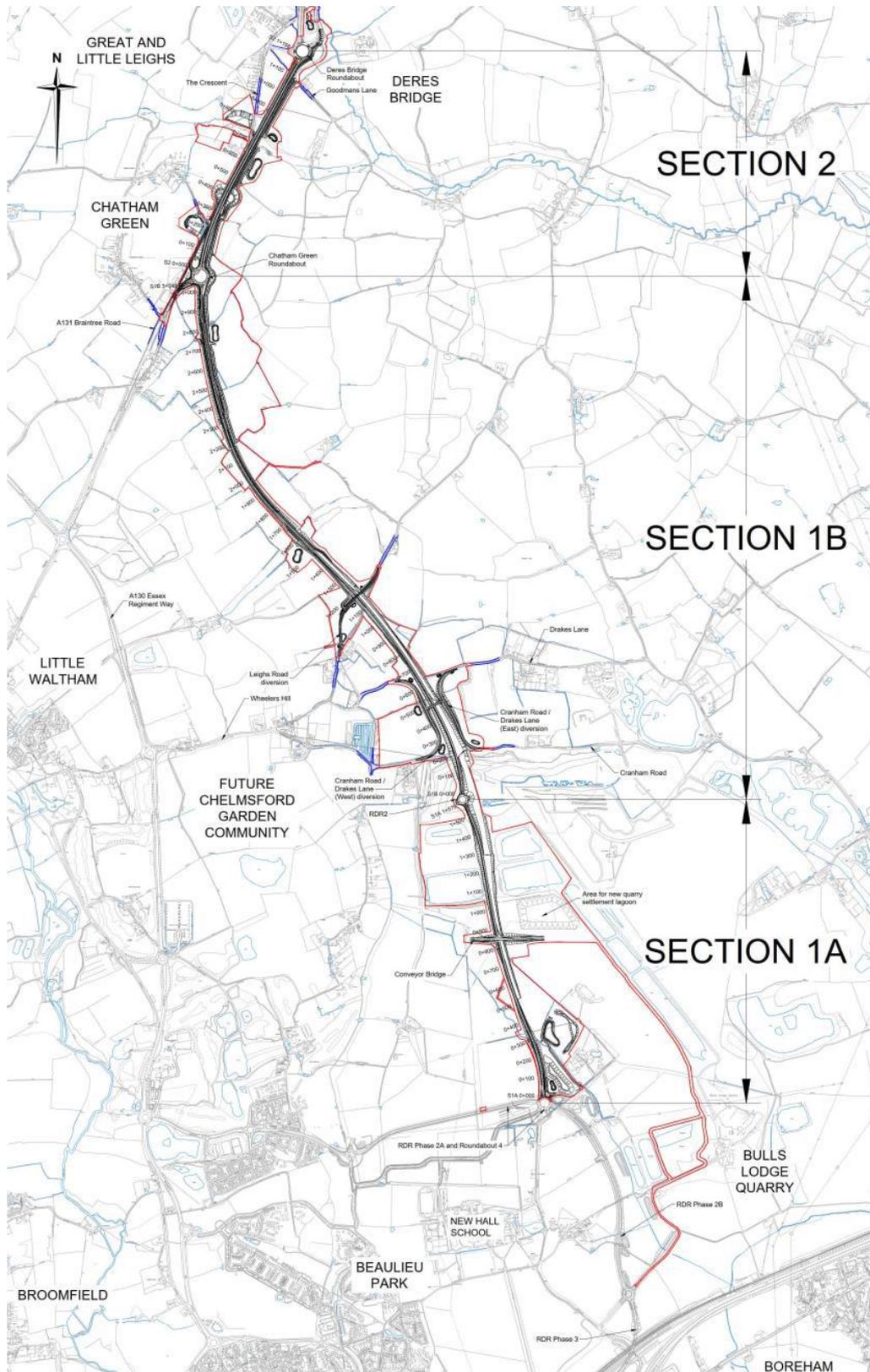
The Proposals consists of the following elements:

- Single carriageway link between the current Beaulieu Park Development and a new roundabout on the existing A131 at Chatham Green. This section will also have an intermediate roundabout allowing for connection to other development roads (Referred to as Section 1A and 1B – see drawing below)
- Asymmetric widening of the existing A131 between Chatham Green and Deres Bridge to dual carriageway using the existing road as the northbound carriageway (referred to as Section 2 see drawing below)
- Segregated left turn lane connecting Main Road, at Deres Bridge, to the proposed southbound carriageway of the A131
- Two side road overbridges: the first would combine the crossing points of Drakes Lane and Cranham Road and the second would connect to Leighs Road
- One walking, cycling and horse-riding bridge over the dualled section of the A131

- Two at-grade crossings: one pedestrian crossing point and one toucan (pedestrian/cyclists) crossing point
- Conveyor bridge to facilitate ongoing quarry works.

The design of the proposals would facilitate ECC's wider vision to deliver a "Phase 2" of the CNEB, resulting in a full dual carriageway bypass from Chatham Green to Boreham Interchange. However, this would be subject to a further planning application and is not part of this planning submission.

Extract from Site Location Plan

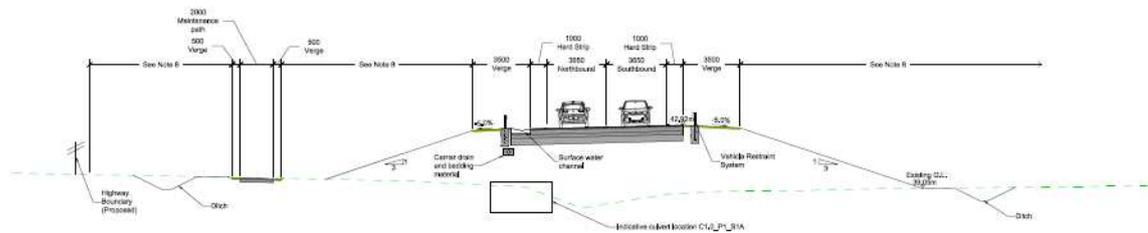


The proposals are described in more detail below, with reference to the drawing

above. The four general arrangement drawings provide greater detail and are attached at Appendix A. Please note the general arrangement drawings are presented with north to the right of the drawings. Extracts from the general arrangement drawings within this report are presented with north to the top of the page.

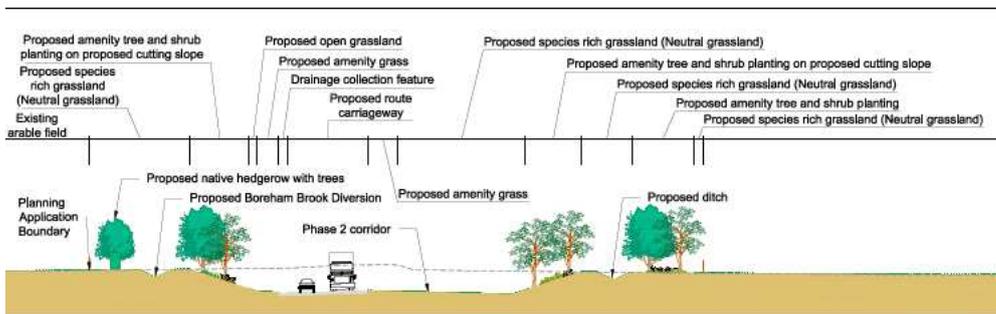
Section 1A (South end)

Starting at the south, the CNEB would connect to the Radial Distributor Road (RDR) Roundabout 4, see extract adjacent. The RDR Roundabout 4 facilitates the road infrastructure associated with the Beaulieu Park Development directly southwest of the application site. Two ponds are proposed to the east to provide capacity for water runoff from the road. In this section the road is slightly above natural ground levels. See cross section A below. There would be planted bunds provided to the east and north-east of RDR Roundabout 4, which would be up to 3.5m above the existing ground level of the carriageway. Adjacent to the carriageway there would be a 1m high bund on the east side and proposed hedge on the west side.



Typical Cross Section A
Scale 1:20 @ A1

Moving north, the CNEB moves into a cutting and would pass through worked out areas of Bulls Lodge Quarry. Example cross-section below, with anticipated growth of planting at 15 years.



The proposals include the construction of a conveyor bridge to allow the quarry to continue to operate and transport materials over the CNEB between the 2 sides of the quarry. The design of this bridge has been future proofed such that following the completion of the quarry operations, the bridge would provide an east to west access for all users once connected to the highway network of the future Chelmsford Garden Community and the existing communities to the west of the CNEB.



In order for the CNEB to be built out, two existing quarry settlement lagoons to the west of the CNEB (area included within the Planning Application boundary) within Bulls Lodge Quarry would be backfilled and a replacement settlement lagoon would be provided east of the CNEB. This would require excavation of an area of the quarry which has been previously worked and restored to agriculture. The construction of the settlement lagoon would be carried out as part of the project and then responsibility would be passed back to the quarry owners (Hanson Aggregates) upon completion.

A construction compound is proposed within Section 1A which would be accessed from the RDR Roundabout 4 and Generals Lane. This compound would be used as a welfare and a delivery centre and would provide space for contractor's private vehicles, changing and messing facilities and deliveries of material and plant storage. Within the application area are possible construction accesses for the advanced construction of the conveyor bridge, access could either be via the alignment of the CNEB from RDR roundabout 4 or from RDR Roundabout 5 through Bulls Lodge Quarry and a temporary storage area would be located next to the site of the conveyor bridge. A drawing of the potential construction compounds and phased programming of the site is within Appendix B.

Section 1B (middle)

The CNEB continues north remaining in cutting. A roundabout is proposed to connect to the future RDR2– see extract adjacent. The RDR2 is yet to be built, but the construction of this roundabout would allow the future Chelmsford Garden Community to connect to the CNEB. The roundabout would also facilitate the potential delivery of the future Phase 2 of



the CNEB, becoming part of a potential grade separated junction on the future dual carriageway.

Two bridges are proposed to maintain connections to the existing roads of Cranham Road, Drakes Lane and Leighs Road to the existing nearby communities to the east and west of the CNEB. One bridge with connecting side roads would maintain east west access for Cranham Road and Drakes Lane (see extract below), while another bridge would maintain connectivity for Leighs Road. The bridges would require the connecting side roads to be elevated above natural ground levels, but the CNEB remains in cutting.

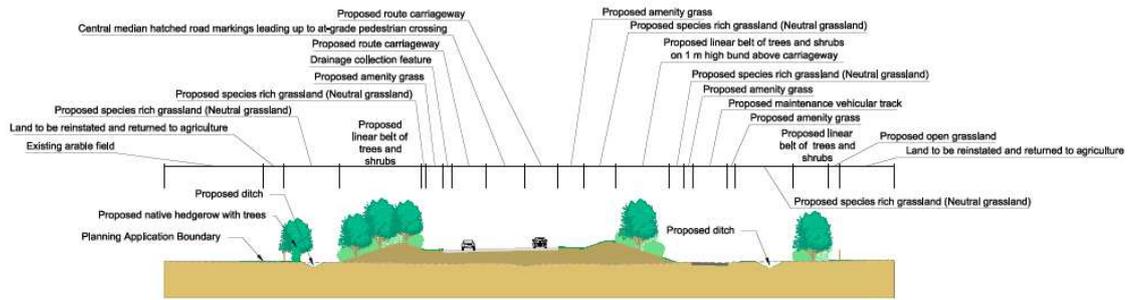
At the Cranham Road/Drakes Lane bridge, six drainage ponds are proposed and at Leighs Road four drainage ponds are proposed.



An additional smaller construction compound is proposed to be located at Cranham Road and a construction working area at the Leighs Road overbridge. These compounds would facilitate the construction of the proposed Cranham Road/Drakes Lane Overbridge works and a further works area would be required to construct the Leighs Road overbridge.

North of Leighs Road the CNEB would come out of cutting onto a low embankment, maximum 3m height, the CNEB would remain on embankment to the A131. Bunds are proposed at a height between 1m and 2.5m from the proposed carriageway level along the edge of the CNEB north of Leighs Road.

Cross-section below is of the carriageway while on embankment with planting after 15 years of growth.



North of Leighs Road, a drainage pond is proposed to the west of the CNEB which would discharge via an outfall into an existing watercourse. In addition, a layby is provided on each side along this section.

An at-grade pedestrian crossing is proposed where a PRow crosses on this section of the route. To the east of the crossing, a further drainage pond is proposed, which would outfall into an existing watercourse.

Where the CNEB joins the A131 at Chatham Green a roundabout is proposed -See adjacent extract.

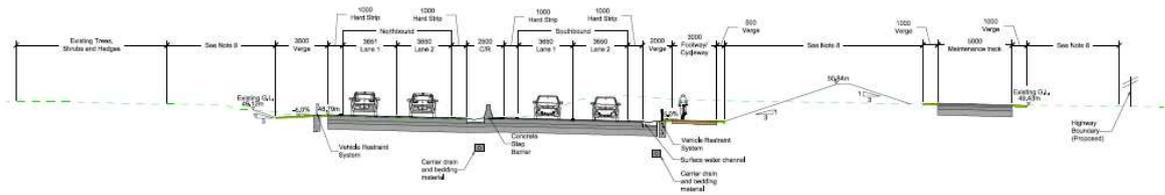


On the A131 south of this roundabout on the existing Braintree Road a signalised 'Toucan' crossing is proposed.

Section 2 (north end)

The proposals include the asymmetric widening of the existing A131 between Chatham Green and Deres Bridge to dual carriageway using the existing road as much as practicable. The new carriageway along the A131 would be at a similar level to the existing carriageway with planted bunding at a height between 1m and 2.5m between the roundabout and Deres Bridge Roundabout for visual screening and noise attenuation. The proposals include a new junction between Chatham Green and Whitbreads Farm Lane. To the north of Whitbreads Farm Lane, a Walking, Cycling and Horse-riding (WCH) bridge would be constructed. This would connect into a new off-road route for pedestrians/cyclists and an existing bridleway, thereby improving access on both sides of the A131.

Cross section below of the dual carriageway south of Deres Bridge Roundabout.



Typical Cross Section F
Scale 1:125 @ A1

Three drainage ponds would be provided along the route alignment with additional underground storage for surface water run-off provided within Chatham Green Roundabout and at Deres Bridge Roundabout. The Planning Application Area extends at two places to the west of the Proposed Scheme near Strawbrook Hill and Chatham Green Roundabout to include two proposed Flood Compensation Areas (FCAs). To the south of the FCA near Strawbrook Hill, a further extension to this boundary is proposed to allow flexibility should further flooding mitigation be required. This includes an access track off Main Road/The Crescent. It is proposed to retain these fields in their current condition.

Lastly, a new segregated left turn lane connecting Main Road at Deres Bridge Roundabout to the proposed southbound carriageway of the A131 is also proposed.

The main construction compound would be located east from the proposed Chatham Green Roundabout and would consist of the main project office, materials handling, welfare, parking and plant areas. See drawing at appendix B. It is also proposed to provide a welfare unit and parking facilities in an area adjacent to both FCAs. There are also some smaller temporary storage areas proposed north-east of the proposed Chatham Green Roundabout, west of Whitbreads Farm Lane, to the west of gardens along The Crescent, and east of the existing A131 near Straw Brook and Goodmans Lane.



No lighting is proposed along the main section of the CNEB, with lighting limited to the roundabouts and their approaches only. The detailed design would be developed later, but lighting columns would be anticipated to be 10 to 12m high with LED lights.

An Indicative Landscape and Environmental Design has been developed in line with the landscape, environmental design and sustainability objectives and underpinning principles, which also will be used by the contractor for the development of the detailed landscape design.

Extensive mitigation planting is proposed which would also double up to help to

achieve biodiversity net gain, integrate the proposed scheme. The landscape design has been developed to reflect the difference in landscape characteristics from the south and north of Cranham Road, informed by both the existing landscape character as well as the likely future changes to the landscape. To the south of Cranham Road, the planting is proposed to reflect the proposed built developments likely to emerge in this area. The proposed planting in the south is therefore generally more open, with hedgerows with trees, scattered trees and swathes of shrubs. However, where appropriate, denser planting is proposed to provide screening for nearby visual receptors and cultural heritage assets.

To the north of Cranham Road, native planting, including hedgerows, trees, shrubs and woodland is proposed to integrate the CNEB into the landscape and to screen traffic and highway infrastructure in views from nearby visual receptors and cultural heritage assets. The proposed species of planting and pattern of planting would reflect the local character of vegetation within the landscape. It is also proposed that the finish of bridge abutments would reflect locally characteristic materials.

It is also proposed to improve poor-quality hedgerows, to create three ecological mitigation areas and eight environmental enhancement areas along the route. The sustainability objectives and underpinning principles are set out in the Outline Environmental Management Plan (OEMP) submitted with the application, which would be developed by the contractor into a full landscape design.

The new habitats that would be created as part of the proposed scheme include:

- 5.94 km hedges
- 0.71 ha grassland
- 34.42 ha grassland – other neutral grassland
- 7.44 ha grassland – modified grassland
- 1.09 ha heathland and shrub – mixed scrub
- 5.6 ha lakes – reservoirs
- 0.18 ha lakes – ponds (priority habitat)
- 0.02 ha lakes – ponds (non-priority habitat)
- 7.62 ha woodland and forest – other woodland; broadleaved

The anticipated start date is early 2023. Construction hours would be 0700 to 1800 Monday to Saturday; it is anticipated there would be no working on Sundays and Bank Holidays. However, it may be necessary on occasions for the construction works to be carried out outside these hours. These would include works such as temporary lane closures or full carriageway closures which are likely only to be permitted overnight to minimise disruption to road users.

Construction traffic flows are generated by cars and Light Goods Vehicles (LGVs) used by the construction workforce, Heavy Goods Vehicles (HGVs) delivering materials and equipment and LGVs deliveries. The main construction traffic flows are expected to be on the A130, A131 and Generals Lane. Other minor roads (Channels Drive and Wheelers Hill, Leighs Road, Drakes Lanes, Cranham Road and The Crescent) would experience some construction traffic during specific periods of the construction programme.

It is anticipated that development on the CNEB would commence in early 2023 with peak construction worker traffic is expected between March 2023 and December

2023, depending on the progress of the construction programme. The peak number of workers on site is anticipated to be 285. During this period, the maximum worker construction traffic flows (Cars/LGVs) in and out of the site would be 140 vehicles/hour before the AM network peak (07:30 – 08:30) and after the PM network peak (17:00-18:00), with a predicted total daily flow of 200 vehicles in and out of the site.

HGV and LGV delivery trip distribution would travel from the A120 to the construction site via the A131 Braintree Road or along the A12 via the Boreham Interchange and Beaulieu Park RDR. The peak construction period is expected to be between April 2023 and January 2024. It is predicted there would be 130 HGVs per day with a peak in May 2023. The peak daily flows are estimated as 309 HGVs and 155 LGVs in and out per day with average hourly flows of 48 HGV and 24 LGV movements during the peak construction month.

Leighs Road, Drakes Lane, and Cranham Road would need to be closed for short periods of time (anticipated not to exceed three weeks) to allow the connection of the existing routes to the new bridges at Cranham Road/Drakes Lane and Leighs Road to take place. Each road closure would be implemented separately in order to maintain access to all residential, agricultural, and commercial premises on the identified routes.

The construction of the site would be phased, with the quarry conveyor bridge and relocation of the quarry silt lagoon being the first works, the road would then be generally constructed in a south to north direction, although this is matter that would be clarified once the contractor has been appointed. Appendix B, shows the indicative construction programme and location and construction compounds.

The application was supported by an Environmental Statement, the details of which are considered in this report. The Outline Environmental Management Plan (OEMP) submitted outlines how the mitigation and management of environmental effects would be delivered and maintained. The OEMP identifies mitigation measures and commitments for pre-construction, during the construction and post construction.

4. POLICIES

The following policies of the [Chelmsford Local Plan \(CLP\) adopted 2020](#) and [Minerals Local Plan, \(MLP\)](#) adopted July 2014 provide the development plan framework for this application. The following policies are of relevance to this application:

CHELMSFORD LOCAL PLAN (CLP)

- S1 Spatial Principles
- S2 Addressing Climate Change and Flood Risk
- S3 Conserving and Enhancing the Historic Environment
- S4 Conserving and Enhancing the Natural Environment
- S5 Protecting and Enhancing Community Assets
- S9 Infrastructure Requirements
- S10 Securing Infrastructure and Impact Mitigation
- S11 The Role of the Countryside

Strategic Growth Site Policy 6 - North East Chelmsford
DM8 New buildings and Structures in the Rural Environment
DM13 Designated Heritage Assets
DM14 Non-Designated Heritage Assets
DM15 Archaeology
DM16 Ecology and Diversity
DM17 Tress, Woodland and Landscape Features
DM24 Design and Place Shaping Principles in Major Developments
DM29 Protecting Living and Working Environments
DM30 Contamination and Pollution

MINERALS LOCAL PLAN (MLP)

S8 - Safeguarding mineral resources and mineral reserves

NEIGHBOURHOOD PLAN

There are no 'made' or adopted Neighbourhood Plans within the area of the application. CCC approved an application from Boreham Parish Council to designate a Neighbourhood Area in January 2017. The Parish Council is preparing its evidence base to inform a 'Draft Plan', but it is at too early a stage to be a material consideration.

NPPF

The Revised National Planning Policy Framework (NPPF) was published on 20 July 2021 and sets out the Government's planning policies for England and how these should be applied. The NPPF highlights that the purpose of the planning system is to contribute to the achievement of sustainable development. It goes on to state that achieving sustainable development means the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways: economic, social and environmental. The NPPF places a presumption in favour of sustainable development. However, paragraph 47 states that planning law requires that applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise.

NPPF, paragraph 11 states that plan making and decision - taking should apply a presumption in favour of sustainable development.

For decision-taking this means:

- c) approving development proposals that accord with an up-to-date development plan without delay; or
- d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
 - i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
 - ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

Paragraphs 218 and 219 of the NPPF, in summary, detail that the policies in the

Framework are material considerations which should be taken into account in dealing with applications from the day of its publication and plans may also need to be revised to reflect policy changes made by the Framework. Policies should not however be considered out-of-date simply because they were adopted or made prior to the publication of the Framework. Due weight should be given to them, according to their degree of consistency with the Framework (the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given).

5. CONSULTATIONS

The application was subject to 2 periods of consultation. The following is a summary of the responses to both periods of consultation:

CHELMSFORD CITY COUNCIL:

First response: No objection. The proposed CNEB has been a safeguarded route in several successive Local Plans, the NE Chelmsford Area Action Plan and most recently the adopted CLP 2020. The Council is supportive of its alignment and principles of the scheme. The adopted Local Plan recognises this within Policy S9 – Infrastructure Requirements, Strategic Growth Site Policy 6 – Northeast Chelmsford and the safeguarded route is shown on the Policies Map.

The main priority of the first phase of the bypass is to unlock the potential for the future CGC and provide the much-needed road infrastructure, in doing so, the bypass needs to compliment and ensure it does not cause severance to the future residential development of the CGC.

Heritage – the CNEB will have considerable impact on the historic environment. The milestone near Whitebreads Farm Lane junction with A131 should be protected.

Officer comment: *A condition could be imposed to address this matter.*

Conditions are required to deliver landscape mitigation measures at an early stage and that their detailed design and future management maximise the mitigation achieved. Further, it is desirable to reconsider how more extensive landscape mitigation can be provided and integrated with the existing landscape character.

During the ongoing workshops for CGC green bridges have been discussed as an important way of providing connections for people, landscape and ecology. It is essential that the emerging masterplan and the bypass proposals implement an integrated approach.

Ecology and landscaping - The proposed infrastructure will result in direct habitat loss and a reduction in habitat extent through severance and isolation. Habitats will also likely be degraded from the effects of the site's operation including noise, pollution, dust and drainage; harm to and mortality of species is also likely to occur especially from road collisions, noise and visual disturbance. Deer, badgers and foxes, who have been involved in road collisions are often present along the A131, south of Great Leighs, greater consideration needs to be given to how these animals might safely move around/under the bypass having regard to their historic

travel patterns with consideration given to animal proof fencing. Adverse impacts have been minimised through design including mitigation measures however a veteran ash tree is proposed to be removed and there will be an impact to great crested newts and commuting bats and severance of their key crossing points.

The City Council seeks a greater number of boxed culverts as part of the mitigation package to reflect the connections identified in the green infrastructure legacy report.

Proposed landscaping should ensure the mitigation measures are delivered at early phases in the development, for example the woodlands belts. The design requires more detail to support the overall existing landscape character and to provide multifunctionality and connections for both species and people; there is a need for stronger ecological east-west connections, required for east-west movement.

Second response: No objection in principle. With respect to Heritage assessment remains of the view that the Barn at Mount Maskall is curtilage listed due to its strong association with New Hall and should be considered that the asset is of medium significance rather than low.

CHELMSFORD CITY COUNCIL (EHO): No comments received.

NATIONAL HIGHWAYS: No objection

ENVIRONMENT AGENCY: No objection, subject to conditions. At this stage the hydrology modelling would appear fit for purpose but there remain a small number of issues outstanding. However, these relate to the sensitivity of the model, as opposed to input and outputs and it is felt these could be resolved. Further information with respect to modelling supporting the Flood Risk Assessment is therefore required by condition.

NATURAL ENGLAND: No objection, based on the submitted plans the proposed development will not have significant adverse impacts on designated sites. With respect to the River Ter SSSI (geological site) it is considered the development would not damage or destroy the geological interest. Impacts on protected species have not been assessed, NE has produced standing advice on these matters and NE would refer you to advice and recommendations of Place Services.

THE GARDENS TRUST: No comments to make.

LEAD LOCAL FLOOD AUTHORITY: No objection, subject to conditions with respect to detailed surface water drainage scheme and scheme to minimise risk of flooding and pollution during construction works.

ESSEX WILDLIFE TRUST: No comments received

ESSEX BADGER PROTECTION GROUP: Objection. Do not consider the methodology and detail of surveys undertaken to date comply with the guidance by Natural England. It is welcomed that no "main" or annexed sets are to be closed as a result of the development. The detail of mitigation is not included in the

Outline Ecology Management Plan and therefore we would request to be consulted if and when the full Ecology Management Plan is submitted.

ESSEX BRIDLEWAY ASSOCIATION: Commented as follows:

All crossings should be suitable for all users walkers, cyclists and horse riders
Concerned to note the crossing south of new Chatham Green roundabout, to be at grade and a toucan crossing, this should be Pegasus crossing

Welcome new WCH bridge at Whitebreads Lane but request the walking/cycling route between the bridge and the Crescent is useable by horses as well.

Officer comment: *The scheme has been amended to include this provision.*

The waling/walking cycling route from the WCH bridge south to Chatham Green Lane should made a bridleway.

Officer comment: *Chatham Green Lane will be accessible on horse from the north via Whitebreads Lane.*

BRITISH HORSE SOCIETY: No comments received

RAMBLERS ASSOCIATION: Comments provided as follows: To be in compliance with NPPF planning decisions should enhance the PRoW and access.

Adequate space for pedestrian and cyclists should be provided on Cranham Road/Drakes Lane bridge

Footway on Leigh bridge to provide PRoW connectivity is welcomed.

The at grade uncontrolled crossing for PRoW 8 is of concern due safety and Ramblers consider this should be a controlled crossing.

Officer comment *usage of this PRoW is shown to be very low, such that controlled crossing was not required.*

Little Waltham PRoW 13 ends in a section of the Old Braintree Road, to allow improved connection to PRoW to the west of Scurvy Hall Lane a refuge should be provided in the A131. In addition, a footway connection be provided from Chatham Green Lane to Whitbread Lane west of the hedge of A131

Officer comment *The proposals do not directly impact upon these PRoW, no changes are proposed, but it is likely the A131 will be less busy upon opening of the CNEB.*

WCH bridge and improved connections northwards on either side of the road welcomed but consider western connection to Goodmans Lane should also be for horses.

Officer Comment *Horses may access Goodman Lane via Great Leighs Bridleway 42*

Existing PRoWs, or acceptable alternatives, should remain open at all times during construction.

CPRE: No comments received

HEALTH & SAFETY EXECUTIVE: No comments received

HIGHWAYS AUTHORITY (incl PROW): No objection subject to conditions with respect to:

- Submission of A Construction Management Plan
- PRoW Orders required for extinguished and diverted public rights of way
- PRoW to be maintained free and unobstructed at all times
- Cycle routes to be LTN 1/20 compliant

- Improvements to the capacity of RDR roundabout 4 to be completed prior to the connection of the RDR to Boreham Interchange and prior to opening of the bypass
- Quarry conveyor bridge to be constructed as proposed to allow future upgrade to permanent bridge for Chelmsford Garden Community

PLACE SERVICES (Ecology): No objection subject to conditions. Sufficient ecological information has been submitted to allow determination of the application.

The site offers opportunities for protected and Priority species with survey work undertaken at the site confirming the presence of priority habitats, including hedgerow and lowland meadow, bats, Otter commuting, Great Crested Newt, breeding birds, reptiles, badger, aquatic species, terrestrial invertebrates, Brown Hares, Hedgehog, Harvest Mouse, invasive species – Giant Hogweed. We recommend that the mitigation measures identified for these habitat and sites should be secured by a condition of any consent and implemented in full. This is necessary to conserve and enhance protected and Priority Species. Furthermore, protection measures will be required during the construction phase of the development for the above habitats and species. This can be provided via a site-specific Construction Environmental Management Plan (CEMP) Biodiversity. This should define protection methods of ecological features, persons responsible, a strict pollution prevention protocol, control of noise and dust, site set up (compounds/storage/ welfare facilities/access). We therefore recommend a CEMP Biodiversity should be secured as a condition of any consent.

Furthermore, we recommend that all habitat management, creation and aftercare should be secured within a Landscape and Ecological Management Plan (LEMP).

Bats (European Protected Species) – Common pipistrelle roosts have been identified within the application such that a European Protected Species Mitigation licence will be required. Adequate number of bat “hop-overs” have been incorporated to encourage bats to fly safely at height to avoid taller vehicles, tree species should consist of fast growing but appropriate for bats and relevant local landscape. As bat activity south of the new Chatham Green Roundabout has been identified the use of LED lights which emit red light may be an appropriate measure to be included.

Great Crested Newt (GCN)(European Protected Species) - Eight water bodies within the study area are confirmed to support GCN. One pond partly within the application site is known to support GCN. Six ponds will be lost which shall be replaced on a ratio of 1:1, except for the confirmed GCN pond which would be replaced by two ponds. To mitigate the impacts of loss of a breeding pond and the severance of movement on the GCN metapopulation near Leighs Road, GCN would be translocated to a receptor site, a newly created ecological habitat creation area north of Drakes Lane. This would be undertaken under an EPSM licence. A copy of the licence should be required by condition. The proposals include a number of culverts. These include several culverts between Leighs Road and the proposed Chatham Green Roundabout that would be placed along existing drainage ditches to allow the movement of GCN from three metapopulations identified west of the Proposed Scheme to reach the wider landscape to the east.

Otter (European Protected Species) – The proposals include culverts at several locations. These include culverting of the unnamed tributary of Boreham Brook and the extension of an existing culvert along Straw Brook. The other culverts are located along existing drainage ditches and would facilitate the safe movement of wildlife from one side of the Proposed Scheme to the other.

The desk study data indicates that otter use the River Ter as a commuting corridor and the existing A131 bridge north of Deres Bridge Roundabout, located 10 m north of the Proposed Scheme, is likely to be a key crossing point for the passage of Otter beneath the A131. Mammal-proof fencing is proposed along the highway boundary in certain key locations, such as along the existing A131, to reduce the incidence of road traffic accidents. Where these are included, the highway boundary fence would be modified to provide an integrated fence to reduce the incidence of vehicle collisions with smaller mammal species such as Otter, Badger, Brown Hare and hedgehog. The proposed culvert to the northwest of Leighs Road will also include a mammal ledge to accommodate movement of mammals at times of highwater levels.

Long-term monitoring and maintenance of mammal fencing should be required to ensure this feature remains functional during the operational stage and included in each Ecological Conservation Management Plan supporting future phases of this development.

Badger (Protected Species) – 23 confirmed and 8 potential setts considered to be active in the study area, 9 within or close the application site. Badger Setts that cannot be avoided would be permanently closed and those in proximity may also need to be permanently or temporarily closed. A European Protected Species Mitigation licence would be required from Natural England and a copy required by condition.

Special Protection Area (SPA) Birds – no species of conservation concern were encountered in surveys and no particular areas were identified as being key over-wintering grounds or were any areas considered functionally connected habitat of the Blackwater Estuary (Mid-Essex Coast Phase 4) SPA & Ramsar site, located 11.5 km east of the scheme.

Priority farmland birds – While fragmentation of arable fields across the application site may temporarily reduce the viability for facilitating skylark territories within the immediate vicinity of the route alignment, the remaining fragmented parcels of arable land is considered to still provide sufficient capacity to support the number of skylark territories that were recorded.

Potential species roadside verge (PSRV) – The northbound road verge on the existing A131 includes 0.2ha of species-rich grassland habitat would be temporarily lost but reinstated once works completed. Turfs will be striped, collected and stored, along with topsoil, to allow the verge to be restored. Temporary moderate impact is therefore predicted on this PSRV. Details of the PSRV protection and reinstatement should be included in the CEMP and LEMP and long-term management and funding for such.

Priority Habitats Woodland (broadleaved plantation woodland and semi-improved

neutral grassland) The proposals will result in the loss of a total approximately 0.5 ha of the broadleaved plantation woodland habitat to the east of the A131 immediately north of Straw Brook, and approximately 0.1 ha of the broadleaved plantation woodland habitat immediately northeast of Straw Brook Plantation LoWS to the west of the A131. The scheme results in the loss in total of approximately 1.2 ha of broadleaved plantation woodland and 3.7 of semi-improved neutral grassland. The loss of these areas would be compensated for through the landscape planting proposed along the length of the proposed scheme as part of the embedded mitigation, including on the embankments themselves, as well as woodland created within the proposed ecological habitat creation areas (7.3 ha) and the woodland regeneration areas and 4.2ha of species-rich grassland.

Veteran Tree - The scheme will result in the loss of T141 a "likely" veteran ash tree located within a boundary hedge. It has been acknowledged that the loss of a veteran tree means the scheme would not be able to deliver net gain. As such, the veteran tree was excluded from the net gain calculations

Hedgerows - the scheme will result in the loss of a total approximately 3 km of native hedgerow habitat and 400 m of line of tree. The loss would be compensated for through the provision of new hedgerows and trees approximately 5.9km which would be planted along the length of the Proposed Scheme.

Biodiversity Net Gain - The Biodiversity Net Gain Report advises results from the Defra Biodiversity Metric 2.0 Calculation Tool demonstrate that the Proposed Scheme could meet the 10% gain target in biodiversity units for terrestrial habitats (no rivers or streams are directly impacted). However, the Proposed Scheme would unavoidably result in the loss of an irreplaceable habitat – one likely veteran tree, which has been purposefully excluded from the metric calculations, as per the methodology. We support the proposed reasonable biodiversity enhancements, which have been recommended to secure measurable net gains for biodiversity, as outlined under Paragraph 174 [d] of the National Planning Policy Framework 2021. The reasonable biodiversity enhancement measures should be outlined within a Biodiversity Enhancement Strategy.

The long-term management of the habitats on site, including a minimum 25-year period of operation of the Proposed Scheme. However, if the Metric calculations indicate a longer timescale for any habitats created, this needs to be contained within a long-term Landscape and Ecological Management Plan.

The recommend conditions will enable LPA to demonstrate its compliance with its statutory duties including its biodiversity duty under s40 NERC Act 2006. Impacts will be minimised such that the proposal is acceptable subject to the conditions suggested based on BS42020:2013 (Biodiversity. Code of practice for planning and development)

PLACE SERVICES (Landscape): No objection, subject to conditions
A detailed review of this assessment and other relevant supporting information has been undertaken to establish whether the methodology, baseline review and assessment findings are deemed appropriate to inform appropriate decision making.

The Landscape and Visual Impact Assessment (LVIA) follows the principles set out in the third edition of "Guidelines for Landscape and Visual Impact Assessment" (GLVIA3) and has taken into consideration comments raised as part of the Environmental Impact Assessment (EIA). It is noted Landscape and Visual Impact Assessment Criteria' includes details and descriptions of the criteria used to make landscape and visual judgements, though we would have been expected this to be accompanied by the criteria used to assess landscape value judgements.

The landscape is relatively open and exposed due to large-scale fields. Blocks of woodland and vegetation along field boundaries do reduce the exposure and visibility, though long-distance open views are still available in some areas. While the proposed bypass has been aligned to follow the grain of the existing landscape and limit the loss of mature trees and intact hedgerows as much as practicable, the linear route would cross Boreham Brook, Straw Brook, seven ditches and the existing pattern of fields. The site falls within the Landscape Character Area B21 Boreham Farmland Plateau and B17 Terling Farmland Plateau. Though by year 15 (summer) the established mitigation planting would generally offset the effects of vegetation removed during construction, some permanent effects would remain, including severance of the landscape pattern by the proposed bypass, changes to the landform and loss of one likely veteran tree (T141). Overall, the assessment has judged that the significance of residual effect (Summer year 15 of operation) on B21 is slight adverse, whilst B17 is assessed as moderate adverse and therefore significant.

In terms of visual impact, the assessment concludes that the established mitigation planting would generally screen traffic and highway infrastructure associated with the Proposed Scheme from visual receptors by summer year 15 of operation. However, the tops of lighting columns associated with the roundabouts, or tops of high-sided vehicles, would remain visible above the planting at some representative viewpoints, as well as light spillage during night-time hours. Overall, there would not be significant adverse effects on most visual receptors, with a moderate adverse significant effect remaining for six representative viewpoints, representing PRow, open space and residential receptors in the area east of Chatham Green. Additional mitigation is required.

Officer comment Following the submission of revised landscaping details, including additional groups of trees and inclusion of heavy standards, this concern has now been addressed.

Concern was also expressed with respect to landscape features particularly the consideration and loss of ancient hedgerows and trees. And it was considered off site mitigation should be considered.

Notwithstanding the above we welcome the inclusion of an indicative Landscape and Environmental Design, which has taken into consideration of landscape character by including blocks of woodland planting and species rich grassland (natural grassland).

If granted conditions would be expected to ensure full planting proposals and specification provided as part of a condition to include details of planting works

such as preparation, implementation, materials (i.e. soils and mulch), any protection measures that will be put in place (i.e. rabbit guards) and any management regimes (including watering schedules) to support establishment.

We also note that the Landscape and Visual chapter makes reference to essential mitigation methods such as “the sensitive design of attenuation ponds to integrate these into the landscape, reduce visual intrusion and enhance visual amenity”. We would support this statement and would emphasise the need to ensure the attenuation areas provide biodiversity benefits and are sympathetic to their landscape surrounds. We stress that the ground contouring, planting and inlet and outlet design should be carefully considered to maximise the amenity value. A standard approach of precast concrete and galvanised handrail for inlets/outlets should be avoided, where possible, or where water velocity and pipes don't allow, vegetation screening would be advised.

PLACE SERVICES (Arboriculture): Comment concerned with respect to impact on ancient hedgerows and trees, and their historic and archaeological importance not being fully considered. Concurs with landscape officer that the proposed planting of new hedgerows and hedgerow trees cannot fully mitigate the ecosystem services provided by existing important hedgerows and would agree that off-site mitigation with additional native planting should be considered.

Also use of *Sorbus aucuparia* (Rowan) is acceptable for amenity areas, but would not recommend its use for using as individual trees when gapping up native hedgerow but would instead increase the number of *Quercus spp* (Oaks) or *Carpinus betulus* (Hornbeam).

PLACE SERVICES (Historic Buildings): Comments as follows:
The 'Cultural Heritage Desk-Based Study'- assessed all designated heritage assets within a 1km buffer zone of the proposed route, while for non-designated heritage assets, the assessment is limited to a 300m buffer zone. Among those identified, the most relevant are Barn About 850 Metres East Northeast of New Hall, Mount Maskall (Generals Lane), Peverel's Farmhouse (Domsey Lane), three buildings in Alstead's Farm (Leighs Road), four buildings in Shuttleworth and Power's Farms (Leighs Road and Drakes Lane). These Grade II listed buildings lie within a 300m buffer zone of the proposed route. There are three non-designated historic buildings lie within a 300m buffer zone - The Barn, Mount Maskall, Chatham Green Post Windmill Roundhouse and Milestone, 78m N of junction of A131 with Whitbreads Farm Lane. The significance of these heritage assets and the potential impact of the scheme have been described sufficiently in the ES.

The findings of the assessment are concurred with indicating the impact on the setting of the relevant historic buildings ranges from 'Slight Adverse' to 'Large Adverse'. In this regard, the most affected would be Mount Maskall, Wilderness, Spartigans Hall and Alstead's Farmhouse with significant adverse impact on their immediate setting.

A visual impact assessment using the listed buildings as receptors was recommended during the pre-application consultation to fully understand the impact upon views from these assets. Notwithstanding the lack of such assessment, the submitted 'Visual Effects Schedule' shows several views from

within the historic farmsteads containing the listed buildings would have a moderate to large adverse impact and that it be particularly significant during the construction period.

Furthermore, the associated noise and vibration assessment shows the operational noise of the proposed route would have a major adverse impact on the inherent tranquil and rural setting of the listed buildings.

Overall, the proposed infrastructure scheme is considered to have an adverse impact upon the setting of several Grade II listed buildings, which would lead to a 'less than substantial harm' to the significance of these assets. As such, under Paragraph 202 of the NPPF, the local planning authority should weigh the harm against any public benefit of the scheme. While the harm may be less than substantial, great weight should be given to the asset's conservation (Paragraph 199) and any harm to, or loss of, the significance of a designated heritage asset should require clear and convincing justification (Paragraph 200).

PLACE SERVICES (Archaeology): No objection subject to conditions.

A programme of archaeological trial-trenching has been completed (with the exception of one land parcel). This has identified a number of areas of archaeological significance, ranging in date from the prehistoric to the medieval period. The following should be required by condition.

- A mitigation strategy detailing the excavation / preservation strategy shall be required by following the completion of the archaeological evaluation.
- No development or preliminary groundworks can commence on those areas containing archaeological deposits until the satisfactory completion of fieldwork, as detailed in the mitigation strategy
- A post excavation assessment will be required. This will result in the completion of post excavation analysis, preparation of a full site archive and report ready for deposition at the local museum, and submission of a publication report.

PLACE SERVICES (Urban Design): No comment

COUNTY'S NOISE CONSULTANT: No objection, subject to conditions to ensure all proposed mitigation measures are secured by specific condition or inclusion in the OEMP and Register of Environmental Actions and Commitments (REAC).

COUNTY'S LIGHTING CONSULTANT: No objection, subject to a condition requiring a detailed lighting design and assessment. While a preliminary lighting design has been submitted, the details are insufficient to determine the impact of the proposed lighting on residential properties, particularly the potential for lighting impact on residential properties near Chatham Green roundabout.

COUNTY'S AIR QUALITY CONSULTANT: No objection subject to a conditions. The applicant's submitted construction dust assessment is appropriate for the proposed scheme and indicates the required level of mitigation to avoid significant effects from dust soiling, increases in particulate concentrations and damage to ecological sites. Mitigation measures are recommended for inclusion within a Dust

Management Plan (DMP). It is recommended that an appropriate planning condition is included requiring the DMP to be developed and approved prior to the commencement of works.

Road traffic movements for the construction phase were identified to be below the criteria requiring further assessment and therefore representing an imperceptible change in pollutant concentrations.

The operational assessment of road transport emissions is appropriate and has provided detailed appendices for specific sections of the air quality assessment allowing sufficient review of the assessment inputs and assumptions. The outcome of the assessment is in line with the relevant guidance and the conclusion of no significant effects is acceptable.

COUNTY'S CLIMATE CHANGE CONSULTANT: No objection. The applicant's submitted climate change assessment follows appropriate guidance for the proposed scheme (i.e. DMRB LA 114). Appropriate mitigation measures are recommended for the construction phase and are discussed in the OEMP. The conclusions in the climate change assessment are in line with the appropriate guidance and considered acceptable. It is recommended that an appropriate planning condition is included requiring the measures set out in the OEMP and other relevant mitigation referred to in the climate change assessment to be submitted as part of an appropriate management plan and approved prior to the commencement of works.

ECC PUBLIC HEALTH: No comments received

ESSEX FIRE & RESCUE: No comments received

ESSEX POLICE: No comments received

LITTLE WALTHAM PARISH COUNCIL: Comment as follows:

- Connection of the CNEB via a roundabout at Chatham Green, will cause disruption to nearby residents connection at Deres Bridge Roundabout would be more appropriate. If a roundabout is constructed at Chatham Green screening and noise reduction measures should be put in place for residents.
- Consider the single carriageway south of the proposed Chatham Green roundabout is adequate to cater for growth of traffic from Chelmsford Garden Community, Development at Great Leighs and within Braintree.
- It is noted that there would be a junction on the road and this could lead to traffic rat running on narrower single track roads such as residential roads within Channels, use of the RDR and Essex Regiment Way, rather than using the CNEB. If a junction is included then measures to prevent rat running should be included.
- Lack of detail of the impact on PRoW that cross the route.

Officer comment Drawings showing PRoW and how they would be diverted and cross the CNEB were included in the application details.

- There is lack of clarity in relation to the bridges as to whether they will be available for pedestrians and bicycles.

Officer comment The two road bridges and WCH bridge would all be available for

use by pedestrians and bicycles. The bridge for quarry conveyor would once mineral extraction is completed be incorporated into the CGC and would include pedestrian and cycle way provision.

- Concerned that the lighting at Chatham Green roundabout will impact the residents of adjacent residents, lighting should be designed to be directional and minimise impact upon surrounding residents.

BOREHAM PARISH COUNCIL: No objection. Disappointed to note that the road will not be a dual carriageway. Pleased to note 3 bridges with no access or egress along the whole route.

Officer comment While initially there would be no egress or access along the route, in the future RDR2 would be able to connect at the new roundabout to be provided as part of the scheme.

GREAT & LITTLE LEIGHS PARISH COUNCIL: Raise concern re HGV use within the parish. Request a permanent weight restriction on Boreham Road. Construction traffic should be prohibited from passing through the village and adjoining country lanes.

Officer comment The imposition of weight restriction is not a matter that could be required through a planning condition. Details of construction traffic routes would be required by condition.

GREAT WALTHAM PARISH COUNCIL: Supports application subject to the following:

1. Reduce traffic on Essex Regiment Way travelling to Chelmsford, which will in turn reduce traffic using Broomfield Road B1008 through Broomfield.
2. Reduce traffic on the B1008 through the Ford End village. Signage should be clear all along the NE Bypass, that the best route from Stansted/M11 to North Chelmsford/A12 is using the A120, then A131, then NE bypass

Furthermore, Great Waltham Parish Council would like to see signage, not only on the NE Bypass but also on the A120/A131 and Essex regiment way, that discourages the use of the B1008 as the most direct route from Stansted/M11 to Chelmsford:

- Remove any signs on the A120 which point to Chelmsford via the B1008 through Ford End
- Retain any signs on the A120 which show the B1008 as not suitable for HGVs or point to the A131 for HGVs
- From the Boreham Interchange – signage to show direct route to Stansted/M11 is via NE bypass/A131/A120
- Reinstate signage at Sheepscote roundabout, heading North along Essex Regiment Way, when approaching Sheepscote roundabout, that shows route to Stansted/M11 as a right turn onto the A131 Braintree Road, then A120.
- Also reinstate signage at Sheepscote roundabout, heading North along Essex Regiment Way, when approaching Sheepscote roundabout, that shows the straight on route to the B1008 as not suitable for HGVs
- During the construction phase – that is between January 2022 when the advance work commences and the predicted completion date of December 2024 active measures are taken to prevent an increase in traffic using the B1008 between Barnston and Sheepcotes roundabout by drivers avoiding the

construction works.

- During the same period measures are taken to prohibit the use of the same route by all vehicles involved in the construction works and services associated with the works.
- Any future traffic calming measures proposed for Essex Regiment Way between Chelmsford and Sheepcotes roundabout should extend along Essex Regiment Way beyond Sheepcotes Roundabout on the B1008.

Officer comment: Signage is not a matter that could be controlled by the planning permission particularly that beyond the boundary of any planning permission, but the comments have been forward to the Highway Authority for their consideration and an informative could be added to any permission, if granted.

BOREHAM PARISH COUNCIL: No objection, but disappointed that the road will not be a dual carriageway, but encouraged to see over bridges and no access along the whole route.

Officer Comment For clarification there is a proposed roundabout to enable future access to RDR2, such that there is an access point along the route.

LOCAL MEMBER- CHELMSFORD – Chelmer: Any comments received will be reported.

LOCAL MEMBER- CHELMSFORD – Springfield: Any comments received will be reported.

LOCAL MEMBER- CHELMSFORD - Chelmsford North (adjacent division): Any comments received will be reported.

LOCAL MEMBER- CHELMSFORD - Broomfield and Writtle (adjacent division): Any comments received will be reported.

6. REPRESENTATIONS

198 properties were directly notified of the application. 32 letters of representation have been received have included letters from Vicky Ford MP highlighting concerns raised by Marriage's Flour, Countryside Properties, Hanson UK, Terling and Fairsted Parish Council and the Local Essex Access Forum and the points raised are summarised in below.

Marriage's Flour: Objection: the proposals do not provide the infrastructure that is required by the community and a badly thought-out scheme is likely to be a costly long-term disaster for local people, resulting in years of chaos, views of local residents and businesses, including those of Barnston, North Springfield, Boreham, Great Leigh etc have not been considered.

The scheme does also not provide a connection to Cranham Road which would serve businesses of Drakes Lane Industrial area despite there being a roundabout 300m away.

Officer comment: There is potential in the future upon development of the CGC and phase 2 of the CNEB for a connection to Cranham Road to the CNEB. Planning permission for the new Marriages Mill on Cranham Road was given planning permission in 2018 on the basis of the existing road infrastructure with no requirement for connection to the CNEB.

Agent on behalf of Countryside Properties and Ptarmigan Land (primary

developers of CGC): Support the CNEB but raised a holding objection on the following matters.

- Safeguarded corridor. The proposals include land outside the safeguarded corridor for the CNEB, the area of land is not quantified and the application does consider alternatives.
- The roundabout which would become the connection to RDR2 makes no provision for pedestrians and cyclists, this connection provides access to areas to the east including residential and commercial development as well and the allocated Country Park and therefore is not LTN1/20 compliant.

Officer comment: While a master plan for the CGC is currently under development at this time it's not clear whether the RDR2 roundabout would be the appropriate location for cycle/pedestrian access and if required at this location the junction could be modified.

- The conveyor bridge width is inadequate to provide for a cycle path on both sides and therefore not LTN1/20.

Officer Comment: The conveyor bridge has been designed such in the future it could accommodate both pedestrian and cycle provision, which would meet LTN1/20 standard.

- Extinguishment of PRoW 213 FP7. This path provides a link between two areas allocated for development in the CGC, is unacceptable and against sustainable planning policies. The connections should not be required as part of the CGC and should include being suitable for Phase 2 of the CNEB development, rather road closures being necessary in the future to provide this connection.
- EIA Baseline Assessments, should include all areas of the Beaulieu Park development including residential zones X, Y & W.

Officer Comment Baseline noise assessment included zone W as representative of residential areas likely to be developed after completion of the CNEB. Such zones would not experience a change in noise as a result of the CNEB, as they are planned to be constructed after the CNEB. However, it recognised that development phasing and programming could change and reassessment would be required as part of the EMP, prior to construction of the CNEB and would be required as part of the CEMP.

Hanson UK: No objection to the scheme, but wish to see the following issues addressed to minimise any impacts on the quarry operations:

- Cutting off the existing direct access to slit lagoons and denying their use
- Crossing the planned route of the Park Farm field conveyor
- Using construction traffic access routes which go through operational areas and our own haul road routes
- Impacting upon established drainage patterns during and after construction.

Terling and Fairstead Parish Council: Objection due to concern that potentially Longfield Solar Farm proposal and the A12 widening from Boreham to Marks Tey junction could all occur at the same time and it doesn't appear the CNEB has addressed this possibility and doesn't provide a comprehensive infrastructure proposal.

Officer comment The EIA is required to consider all permitted development, the Longfield Solar Farm and A12 widening projects have not gained planning permission at this stage. Any highway mitigation would be required to form part those proposals and take account (if approved) of the CNEB development. The

Highway Authority is aware of potential for construction overlap of the CNEB and Longfield Solar Farm and has required co-ordination by the two developing contractors.

Local Essex Access Forum: Welcome WCH bridge at Chatham Green, but raise the following concerns

- Connection to the WCH both sides of road should be for all users including horses.
- The link south to Whitbreads Farm Lane and Chatham Green Lane should be for all users and the Toucan crossing suitable for all users.
- All crossings of the CNEB should be able to be safely used by all users, as a minimum all crossings at grade should be signalised, particularly Little Waltham footpath 8.
- Additional crossing signalised crossing should be provided at Scurvy Hall Lane
- The footway over Leighs Bridge Road welcomed but the footway should extend to Little Waltham FP14 on west side and Little Waltham FP 53 on east side and be wide enough for horses and cyclists.
- The Cranham Road/Drakes Lane bridge should be wide enough for safe use by walkers/cyclists and horses.

Matters raised by other representees, summarised as follows:

Observation

Comment

Comments in support

Bypass needed to remove traffic from north-east of Chelmsford making it a lot easier for local residents to get to amenities.

Support the proposals and the improved road safety that would arise.

The Bypass is desperately needed.

Support CNEB as will reduce HGV traffic on White Hart Lane allowing safer and easier access by school pupils to Beaulieu Park School.

Support proposals would reduce traffic on A131 and support toucan crossings making it safer for Chatham Green residents to access bus stops.

Objections/concerns

Consider the proposed road is inadequate as a single carriageway, dual carriageway is necessary to link A12 to A131

See appraisal

<p>The original plan was a dual carriageway bypass, designed to keep local traffic off of it. Now as it's linking up with access roads to the housing developments, only single carriageway, with parts having a 40mph limit and pedestrian crossings, it's going to be inadequate as a bypass before it's even started/completed.</p>	<p>See appraisal</p>
<p>Welcome the bypass, but no justification for new roundabout at Chatham Green road could have just linked to Deres Bridge Roundabout, saving additional expense.</p>	<p>See appraisal</p>
<p>Consider loss of the countryside and impact on wildlife is not justified to enable further development</p>	<p>See appraisal</p>
<p>Consider as the road would link to dual carriageways it should be dual carriageway as well to relieve minor roads</p>	<p>See appraisal</p>
<p>CNEB would facilitate more housing in Great Leighs, but the village does not have the facilities to support more houses, the facilities would need to be expanded</p>	<p>Chelmsford Local Plan policies seek to ensure that community facilities are provided as part of housing proposals.</p>
<p>Support proposals but what measures will be taken to traffic calm White Hart Lane.</p>	<p>Upon completion of the CNEB, consideration will be given to traffic calming on White Hart Lane, but they do not form part of these proposals.</p>
<p>2m high bunding should be provided along the embankment section of the road to minimise impact from view of moving traffic and headlights at night. Landscaping welcomed but consider increased bunding should be provided in addition.</p>	<p>See appraisal</p>
<p>Consider the bypass would encourage traffic on the M11 to cut across to the A12 via the new road bringing more traffic closer to Chelmsford and particularly Springfield, with associated pollution and not reducing CO2 as identified necessary by COP26.</p>	<p>See appraisal</p>

The proposals should include a weight restriction on Boreham Road to stop HGVs using this country lane and push them onto the Bypass.

This cannot be required as part of the planning process, but the comment has been passed to the Highway Authority.

Proposals not in line with aims of COP26 to reduce CO2. The money should be sent on better cycle, pedestrian and public transport. The proposals will result in loss of trees, flora and fauna, agricultural land and loss of countryside having a negative impact on the mental and physical health and wellbeing of local people. No provision at all has been made for cycling or walking or improved public transport.

The CNEB is not intended as a route for pedestrians and cyclists, these would be encouraged to use the A131 and improvements are proposed for pedestrian and cyclists from Chatham Roundabout to the Deres Bridge roundabout.

The CNEB will result in dissecting of agricultural land to determinant of local farmers.

See appraisal

The CNEB will result in adverse impact to nearby properties, both in term of impact on heritage assets, noise, vibration and visual impact

See appraisal

The cycleway along the west and east side of the CNEB from Chatham Green to Deres Bridge will create greater accessibility for the public into this area of the countryside creating a security risk to adjacent landowners. The costs are not considered justified for the benefits it will deliver.

Planning policy seeks to encourage modal shift towards walking and cycling, it is considered these benefits outweigh potential security issues.

More bunding should be provided from Leighs Road northwards where the road is on an embankment, to screen, noise, and light from nearby properties.

See appraisal

Consider the noise modelling is inadequate as insufficient receptor points were considered particularly for properties on Leighs Road.

The noise assessment chose receptors that represented the worst-case scenario for a number of nearby properties. The receptors were agreed with the County's noise consultant prior to the assessment.

The proposed roundabout at Chatham Green is raised and the lighting of the roundabout will give rise to significant

See appraisal

adverse light impact.

Traffic during the construction phase, will result in construction traffic and traffic avoiding construction using minor roads as was the case when the Sheepscote Roundabout was improved.

Any permission would be subject to the requirement for Construction Management Plan.

The impacts of noise and light pollution should be taken into consideration

See appraisal

That appropriate fencing is provided to screen access tracks to drainage ponds.

Access tracks to drainage ponds are for maintenance only and therefore usage would not be regular.

There would appear to be no assessment of the potential impact of vibration on property's near the construction works and thus not mitigation

Vibration was considered as part of the EIA and the nature of piling etc is to be specified to minimise vibration. Impact from vibration was considered not give rise to structural damage.

It is acknowledged that the construction noise will result in major adverse/significant adverse impact and yet no mitigation is proposed which will result in physical and mental health impacts for residents of nearby properties

See appraisal

North of Leighs Road minimal bunding is provided to screen the road, bund heights should be increased to

See appraisal

Not supportive of the single bridge to provide access to maintain connectivity for Drakes Lane and Cranham Road. It will make access between Boreham Road and Wheelers Hill more circuitous whether using Drakes Lane or Cranham Road, increasing travel times, creating more hazards for road users, introducing unnecessary additional road junctions and, as a direct result, encouraging drivers to use Leighs Road as a more direct route between Boreham Road and Wheelers Hill. Leighs Road is a single track road and is not suitable for additional traffic nor for heavy vehicles, both of which would be an inevitable outcome of the proposed new Drakes Lane/Cranham

A single bridge minimises landscape impact and costs of the scheme. The layout of the junction was revised following comments from landowners to minimise the disruption to agricultural land.

Road bridge design. This plan requires urgent reconsideration and redesign.

7. APPRAISAL

The key issues for consideration are:

- A. Principle of Development
- B. Traffic Assessment
- C. Public Rights of Way
- D. Minerals
- E. Landscape & Visual Impact
- F. Ecology/Biodiversity
- G. Heritage
- H. Amenity,(including noise and vibration, air quality and lighting)
- I. Geology and soils
- J. Population and Human Health
- K. Road Drainage and Water Environment
- L. Climate Change
- M. Cumulative effects

A PRINCIPLE OF DEVELOPMENT

As explained previously, the concept of the CNEB has been in consideration for a number of years. A safeguarded route was first allocated in the Chelmsford North-East Area Action Plan adopted in 2011.

The Chelmsford Local Plan (adopted in 2020) identifies Growth Areas in the Chelmsford administrative area. Specifically related to the Proposed Scheme is Growth Area 2 – North Chelmsford and in particular Strategic Growth Site Policy 6 – Northeast Chelmsford which gives specific reference to the need for the proposed scheme to assist in delivering new strategic neighbourhoods and employment opportunities with the transport infrastructure to support this. The proposed scheme, alongside the future delivery of the Beaulieu Railway Station, unlocks the potential delivery for new homes and connects these new neighbourhoods to Chelmsford City Centre and Braintree.

Other relevant Strategic Growth Sites include 7a – Great Leighs - Land at Moulsham Hall; 7b – Great Leighs - Land East of London Road; 7c – Great Leighs – Land North and South of Banters Lane; 8 – North of Broomfield which are expected to make financial contributions to delivery of the CNEB within their '*Site infrastructure requirements*'. Policy LPP 18 Strategic Growth Location - Land East of Great Notley, south of Braintree in the Braintree 'Section 2' Local Plan is also required to contribute to the strategic road network in the vicinity of the site which could include the A120 and A131 corridor.

In addition, Strategic Policy S9 - Infrastructure Requirements states that '*New development must be supported by the provision of infrastructure...that are identified as necessary to serve its needs*'. Strategic Policy S9 continues and states...'*New highway infrastructure should help reduce congestion, link new development and provide connections to the strategic road network*'...

The route of the CNEB has been secured as a safeguarded route and is identified on Policies Maps 1 and 3 of the Chelmsford Local Plan (May 2020). Strategic Policy S9 (Infrastructure Requirements) identifies the proposed scheme as an important infrastructure requirement to help reduce congestion and provide important links to new developments and the strategic road network.

The North-East Chelmsford area is expected to deliver significant housing and development growth, including the future CGC and residential developments in Broomfield and Great Leighs, as referenced above and in nearby Braintree District. It is expected that the proposed scheme and the future Beaulieu Railway Station will help unlock approximately 9,000 new homes in this area up to 2036 and provide the potential for a further 5,000 new homes in the longer term.

The CNEB will provide a strategic highway link between the A120 (via the A131) and the A12 (via the new Beaulieu Park highway network). The existing road network does not provide an effective link around the north-east edge of Chelmsford, or easy access to the proposed new railway station at Beaulieu. The bypass would also provide an important connection with surrounding existing communities and in turn would unlock the land available for the delivery of the future CGC. It will also help to relieve the high level of traffic congestion in Chelmsford and enabling existing routes into the city centre to become sustainable transport corridors.

The development of the proposed scheme has evolved over a number of years with several alternatives and options considered. The proposals have been subject to several opportunities for public involvement both through the consultation on various iterations of the Chelmsford Local Development Plan and accompanying policy documents, as well as pre-application consultation and statutory consultation as part of this application. Walk-in exhibitions planned for 2020 had to be cancelled, due to the pandemic and moved to an online virtual exhibition which ran for 6 weeks in 2020. The scheme has taken on board comments received where possible and through the Environmental Impact Assessment process to minimise its environmental impact avoiding sensitive environmental receptors where possible.

Concern has been raised by consultees and a representation has been received from Marriages (A local flour producing company) expressing concern that the proposals are not for the full dual carriageway originally envisaged in 2008 and that there has not been clear communication of the changes. As explained above the current proposals have been subject to non-statutory and statutory consultation, giving opportunity for comment. It has also been explained how the scheme has evolved over time and the current proposals represent the best approach to deliver an improved connection between the A131 and the A12, with design able to accommodate the existing and proposed traffic until 2036 - the life of the current Chelmsford Local Plan. The proposals have also specifically been designed to enable the potential for the CNEB to be made into a dual carriageway in the future.

The Department of Levelling-Up, Housing and Communities has notified the County Planning Authority that it wishes to have the opportunity to consider calling in this application for determination by the Secretary of State.

Pre-application consultation highlighted the desire for Green Infrastructure enhancements beyond the planning application area and as a result a Green Infrastructure Legacy Report has been prepared and submitted setting out the opportunities to be delivered through existing initiatives and commitments for green infrastructure improvements within the County, including funding via the Essex Forest Initiative and Essex Climate Action Commission.

The CNEB would largely be within the safeguarded route allocated within the CLP with some departures and extensions to the planning application site for additional structures to allow for the CNEB to be delivered. These changes and departures were unknown during the original consultation to secure the CNEB within Chelmsford Local Plan and have arisen mainly from necessary design changes as the proposals have evolved. These include a conveyor bridge to allow for the continued operation of the Bulls Lodge Quarry, the relocation of settlement lagoons at Bulls Lodge Quarry and slight alterations to the proposed side road bridge configuration. Other departures include areas required for site compounds, which are only temporary and areas to allow necessary flood mitigation.

The agent on behalf of Countryside Properties and Ptarmigan Land have raised concern that these departures impinge on land allocated for mixed use development in the CGC. The flood mitigation proposed is essential to meet the requirements of both the LLFA and the Environment Agency. The additional settlement lagoon is essential to maintain the effective working of Bulls Lodge Quarry and is only a temporary use of the land, but it is acknowledged would delay release of this land for development. The additional land take for the conveyor bridge would have only been a temporary loss of land for development had it just been for the life of the quarry. The larger footprint is to future proof the bridge so that it can provide a bridge for all users, providing a west-east connection within the CGC. It is likely that such a bridge would have been required in any event as part of the CGC to maximise sustainable mode movements consistent with Garden City Principles and resulted in a similar loss of the land for development.

The NPPF contains a range of policies specifically designed to encourage and enable the planning process to assist with economic growth and regeneration. Paragraph 81 emphasises the Government's focus on ensuring economic growth and states that *'Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development'*.

Paragraph 8 part a) places emphasis on *'an economic objective...to help build a strong, responsive and competitive economy'*...with the right types of land available... *'to support growth, innovation and improve productivity'*.

Paragraph 20 of the NPPF encourages focused plan making and the development of strategic policies to address strategic issues in areas. The paragraph states that *'Strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for...infrastructure for transport'*.

Paragraph 20 under part d) also places emphasis on strategic policies promoting *'conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address*

climate change mitigation and adaptation’.

Paragraph 23 states that *‘broad locations for development should be indicated on a key diagram, and land use designations and allocations identified on a policies map. Strategic policies should provide a clear strategy for bringing sufficient land forward, and at a sufficient rate, to address objectively assessed needs over the plan period, in line with the presumption in favour of sustainable development. This should include planning for and allocating sufficient sites to deliver the strategic priorities of the area’.*

Whilst paragraphs 20 and 23 relates to planning policy development, it is considered relevant to highlight the importance of encouraging the necessary infrastructure to come forward through the decision-making process in line with the NPPF. As highlighted above, the proposed scheme is secured as a safeguarded route and the relevant Strategic Policies within the Chelmsford Local Plan addresses the need for the proposed scheme to ensure the economic and housing growth potential of North-East Chelmsford is unlocked and improves connections to the strategic road network for stronger connections to Chelmsford City Centre and wider areas in Essex.

Both the Chelmsford City Council Local Plan and the NPPF encourage housing and economic growth that is supported by essential infrastructure. There is strong support for the proposed scheme in strategic planning policy terms and it is therefore considered that the Proposed Scheme accords with Strategic Policy S9 and Strategic Growth Site Policy 6.

B TRAFFIC ASSESSMENT

Policy S2 (Addressing Climate Change and Flood Risk) of the CLP seeks to reduce the need to travel and provide sustainable transport modes. Policy S9 (Infrastructure Requirements) seeks to encourage sustainable transport by walking, cycling and public transport, but also recognises the new highway infrastructure is required to help reduce congestion, link new development and provide connections to strategic road network and specifically references the need for the CNEB and RDR2 which the CNEB accommodates a connection to in the future. The need for CNEB is reiterated in the Strategic Growth Site 6 (SGS6 - North-East Chelmsford).

A traffic assessment accompanied the planning application.

The proposed scheme provides significant relief to the existing north-south routes between Braintree and Chelmsford. This includes A131 south of the new roundabout at Chatham Green; A130 Essex Regiment Way, White Hart Lane and Colchester Road; B1008 between Sheepcotes Roundabout and A1016 Parkway (this includes Braintree Road, Basford Hill, Main Road, and Broomfield Road); A1016 Chelmer Valley Road, Boreham Road and Waltham Road, and B1018 between Tye Green and Witham. Some of these benefits are due to the beneficial displacement of strategic traffic onto the A12 as traffic that would previously have driven through the town centre diverts around Chelmsford to use the CNEB to and from Braintree.

Furthermore, the CNEB would provide enhanced access to the proposed new Beaulieu Rail Station and the new CGC development with 4,350 homes currently consented in Beaulieu and Channels, and a further 3,000 homes allocated in the Local Plan to be delivered by 2036.

The A131 from the A120 Braintree bypass to the new junction would experience increased traffic that is displaced from other north-south corridors between A120 and A12. The dualling of the carriageway between the new Chatham Green and Deres Bridge roundabouts would increase capacity to accommodate this traffic. There is a significant increase in traffic predicted to use the RDR between roundabout 4 (the proposed connection with the scheme) and the A12 Boreham Junction 19. This section of the RDR is constructed, while works to the new Generals Lane bridge over the railway line and A12 eastbound on-slip are ongoing.

The operation of RDR Roundabout 4 in the opening year 2024 is adversely affected by the traffic from the scheme. This is mainly due to an additional arm on the roundabout and more up to date traffic forecasts since the RDR Phase 2 was approved. It is proposed to improve this junction so that the southern arm (RDR south of this Junction) operates within acceptable capacity in 2024 and within acceptable limits in 2036. The proposed mitigation is described below.

The following mitigation is proposed for RDR roundabout 4:

- Widen northbound approach to Roundabout 4;
- Improve flare to northbound approach;
- Re-instate western path and pedestrian approach to crossing; and
- Diversion of utilities.

This mitigation would be required by condition to be delivered prior to the opening of the CNEB.

Additional microsimulation traffic modelling has been undertaken to provide extra rigour and confidence behind evidence and decision-making relating to predicted junction queueing and traffic impacts as a result of CNEB and Beaulieu Station in future years. This modelling demonstrates that the proposed scheme would operate within capacity in both 2024 and 2036. However, delays are expected at the Beaulieu Rail Station access roundabout on the RDR at the busiest times of day, towards the end of the Chelmsford Local Plan period (2036). The additional incremental 'stress test modelling' indicates that the network operates adequately up until 2033. From 2033 onwards, with reduced levels of local development trip generation or minor mitigations (such as two-lane exits or widened approach widths as examples of the scale of a potential physical solution), it shows that acceptable levels of performance can be obtained. Therefore, no mitigation is proposed for the RDR Roundabout 5.

The proposed scheme, once operational, would result in some permanent footpath and bridleway closures. However, all closure would be mitigated by diversions to new and improved facilities, particularly the new segregated cycleways and footpaths on each side of the new dual carriageway between Chatham Green and the Deres Bridge roundabout, and a new dedicated overpass on the A131 to

provide a safe passage for walkers, cyclists, and horse riders. This is supplemented by improved pedestrian and cycle crossing on the southern arm at the Chatham Green roundabout. In addition, all footpaths bisecting Section 1A and 1B of the Proposed Scheme would be grade-separated crossings except for Little Waltham Footpath 8 which would be at grade.

Though the proposed scheme results in an increase in the number of accidents in 2024, these accidents are associated with the traffic diverted onto the new road and junctions and the increased traffic on the roads connecting the scheme with A120 in the north and A12 in the south. This includes the existing junctions on A131 (such as Deres Bridge, Moulsham Hall, London Road, Cuckoo Way, Queenborough Lane and A120 Junction) and RDR (Junctions 4 and 5 between the scheme and the A12 Boreham Junction).

One of the key objectives of the Scheme is to improve safety on the existing transport network north of Chelmsford. A reduction in accidents is predicted on the existing parallel routes in the vicinity of the scheme. The reduction in accidents is evenly spread across the network while any increases in predicted accidents are focused on the new length of highway developed by the scheme and on its approaches. The proposed scheme also provides the opportunity for Chelmsford to potentially implement road safety improvements and traffic calming on A131 White Hart Lane south of A2016 Chelmer Valley Road when strategic traffic is removed from this section of road. The Safer Essex Roads Partnership will also continue to promote road safety and casualty reduction through a number of activities, interventions, programmes and products which involve a combination of education, engagement, engineering and enforcement. Overall, the disbenefits are considered minor when compared to the significant benefits that the proposed scheme would bring.

Overall, the Transport Assessment concluded that the significant traffic benefits of the scheme far outweigh the disbenefits. It is therefore the CNEB delivers the necessary infrastructure required by S9 and SGS6 with respect Northeast Chelmsford. The improved walking, cycling routes and crossing on the A131 will support modal shift in transport. In addition, the new highway will reduce congestion, particularly on Essex Regiment Way and White Hart Lane and provide connections to strategic road network, namely between the A120 (via the A131) and the A12. It is therefore considered the proposed scheme would be in accordance with S9 and SGS6

C PUBLIC RIGHTS OF WAY

The proposed scheme maintains connection of all public rights of way either through crossing or diversions. The WCH on the A131 and the connecting footpath, cycle and horse routes would improve accessibility in this area. Further improvements have been requested by the Ramblers, Essex Local Action Forum and British Horse Society and the scheme has been revised in response to these comments. However, some improvements relate to PRow unaffected by these proposals.

Chelmsford City Council raised concern that it considered more east/west connections across the CNEB should be provided. Agents for the developers of

the CGC have objected to the lack of crossing point for Boreham Footpath 8, considering a bridge or an underpass should have been provided. Boreham footpath 8 lies between RDR roundabout 4 and the proposed conveyor bridge and currently the PRoW is a dead end and does not currently provide onward connection to the west. The PRoW is to be diverted such that it does not require to cross the CNEB. An additional east west connection to the north of this existing PRoW would be provided by the mineral conveyor bridge which when no longer required for mineral extraction, would provide crossing point for vehicles, cycle and pedestrians. The diverted route of the footpath could at a later be connected to the conveyor bridge as part of the network of connections within the CGC. . It is considered the new bridge would adequately mitigate against the lack of crossing for this dead-end PRoW. Should an additional crossing be required in this location when the Masterplan for CGC is finalised this could be provided as part of the CGC development. The Highway Authority has raised no objection to this approach.

D MINERALS

The entirety of the project area is located within land which is designated as a Mineral Safeguarding Area (MSA) and accordingly policy S8 of the Essex Minerals Local Plan 2014 applies. In addition, the proposals cross the area of Bulls Lodge Quarry a permitted and an active sand and gravel extraction site and thus the application sits crosses a Mineral Consultation Area (MCA), as well as lying within the MCA for Sheepcotes Irrigation reservoir, which includes sand and gravel extraction.

Policy S8 of the Minerals Local Plan with respect to an MCA seeks to protect the effective working of a permitted mineral reserve and oppose any non-mineral development which would unnecessarily sterilise mineral reserve.

Bulls Lodge quarry consists of two main areas and one smaller area. The two main areas, areas are the former Boreham Airfield and the other being an area to west surrounding Park Farm. The proposed CNEB would pass through the Boreham Airfield, however, the alignment of the road is such that the area crossed has already been worked for sand and gravel and in part restored to agriculture. However, the route alignment passes between existing silt and water lagoons connected by pipework which would be severed by the CNEB. In addition, the CNEB would sever access from the Boreham Airfield part of the quarry to the Park Farm area of the quarry.

Crossing the CNEB with the required pipework to maintain the use of the silt and water lagoons was considered but concluded to be impractical. Thus as part of the proposals two lagoon lagoons on the west side of the CNEB would be replaced by one silt lagoon to the east side as part of the advance works for construction of the CNEB. The second main area of extraction is that around Park Farm which lies to the west of the CNEB. Park Farm is to be worked utilising infrastructure located to the south of the Boreham Airfield, therefore it is necessary to maintain an access road and quarry conveyor route between the Park Farm area, west of the CNEB and the existing quarry east of the CNEB. This is proposed to be achieved by a bridge to also be constructed as part of the advanced work. Work in Park Farm is planned to occur earlier than originally envisaged when Bulls Lodge Quarry was

permitted to facilitate the land around Park Farm being released earlier for development as part of CGC. By incorporating these elements into the proposals, the effective working of Bulls Lodge Quarry and the exploitation of the permitted mineral within Park Farm can be secured.

It should be noted that the application site includes 3 potential access routes to allow works in advance to construct the conveyor bridge. Two would require access through Bulls Lodge quarry itself. The mineral operator (Hanson) has indicated that the routes through the quarry are less favoured, for practical reasons as they would impact upon the effective working of the quarry, particularly with regards to health and safety. The final route for the advanced works would be subject to the agreement of the contractor delivering these works in discussion with the adjoining mineral operator.

The conveyor bridge to be constructed would only be required for the period of mineral working and restoration within Park Farm. During pre-application discussions it was agreed that the design of the bridge should be such that when no longer required by the quarry it could be converted to serve as a road, cycle and pedestrian route for the CGC. With financial support from Chelmsford City Council (which will be recuperated later through CIL payments as part of the CGC) the additional cost of future proofing of the bridge has been secured.

The application site also lies in close proximity to Sheepcotes Reservoir, however the proposals do not directly affect the working of the site.

With regards to the need to safeguard existing and allocated mineral extraction operations, it is accepted that the proposed scheme as proposed would not compromise the operation of existing, allocated or permitted mineral and waste development at Bulls Lodge or Sheepcotes Farm

With respect to the MSA policy S8 of the MLP requires that a non-mineral proposal located within an MSA which exceeds defined thresholds must be supported by a minerals resource assessment to establish the existence, or otherwise, of a mineral resource capable of having economic importance. This would ascertain whether there is an opportunity for the prior extraction of that mineral to avoid the sterilisation of the resource. A Mineral Resource Assessment (MRA) has been submitted with this application and considers that prior extraction ahead of the implementation of the CNEB is not practical.

The MRA finds that the mineral present under the site, equating to up to 3.565mt depending on the scenario employed to derive volume, is of sufficient quality to be capable of an economic use and in addition has the potential to be extracted on a commercial basis. As such, it is considered that by not prior extracting the mineral, a significant amount of locally import mineral resource would be sterilised by the proposed development. This places the scheme in conflict with NPPF Paragraph 206 which requires that '*Local Planning Authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working.*'

However, the MPA acknowledges the points raised in the Executive Summary of the MRA that the proposed road scheme is essential infrastructure required to

deliver the proposed CGC, and that the scheme is part funded through a grant from the Housing Infrastructure Fund (HIF). A current condition of that grant being awarded is that the scheme is completed by 2024.

The MRA notes that prior extraction would impact significantly on the construction programme of the CNEB. The construction of the CNEB is anticipated to commence in 2023, which would leave under a year to complete prior extraction and restore the ground such that construction of the bypass could be completed ahead of the 2024 deadline. This would not be feasible.

This would create a significantly detrimental impact on the viability of not just the scheme itself, but any development associated with the future CGC. It is also noted that for mineral extraction to be practical, it would likely require the extraction of land outside of that covered by the planning boundary for the infrastructure scheme.

Taken together, these requirements are not considered to be practical, which is a key test of the appropriateness of the prior extraction of mineral ahead of the implementation of non-mineral development. On that basis, the MPA accepts that the sterilisation of mineral beneath the proposal is acceptable as part of the planning balance and that therefore the requirements of Policy S8 of the Essex Minerals Local Plan have been appropriately addressed.

E LANDSCAPE AND VISUAL IMPACT

Chelmsford Local Plan policies S1 (Spatial Principles), S2 (Addressing Climate Change and Flood Risk), S4 (Conserving and Enhancing the Natural Environment), S9 (Infrastructure Requirements), S11 (The Role of the Countryside), DM8 (New Buildings and Structures in the Rural Area), DM17 (Trees, Woodland and Landscape Features), DM23 (High Quality and Inclusive Design) and DM24 (Design and Place Shaping Principles in Major Developments) seek to encourage good design and seek to protect and enhance green infrastructure, landscape character and the intrinsic character and beauty of the countryside. They also seek to conserve landscape features that contribute to landscape character, such as ancient woodland, hedgerows and veteran trees.

The landscape surrounding the application site is predominantly flat and low-lying, comprising intensively farmed arable land. Fields are medium to large-scale, irregularly shaped and separated by native hedgerows, fences, ditches and narrow lanes. Areas of mineral extraction are present, including Bulls Lodge Quarry, to the south of Cranham Road. There is limited woodland cover in the southern part of the study area, where quarry activities and arable farmland dominate. Further north, there are species-rich hedgerows, trees, small, scattered copses and a number of woodland blocks.

The majority of the study area (application site and within 1km) is within two local landscape character areas: B21 Boreham Farmland Plateau south of Cranham Road and B17 Terling Farmland Plateau north of Cranham Road. Two other landscape character areas fall within the 1 km study area. B16 Felstead Farmland Plateau, extends into a small area to the northwest and a relatively small part of A6 Upper Chelmer River Valley extends into the western part of the study area.

The southern part of the study area is covered by LCA B21 Boreham Farmland Plateau. This area is made up of a mixture of arable and pastoral fields that are predominantly medium scale and irregularly shaped. Woodland blocks and tree copses are frequent, which creates structure in the landscape. Isolated farmsteads are scattered amongst the farmland and are linked by narrow, winding lanes. However, site appraisal has noted that the character of this LCA is changing due to housing development on the north-eastern periphery of Chelmsford, as well as extraction of sand and gravel at Bulls Lodge Quarry which is altering the landform and introducing large lagoons into the otherwise relatively flat landscape. The sense of tranquillity is eroded by the housing developments and quarrying, as well as the presence of traffic on the A12 dual carriageway just south of the study area.

To the north of the Boreham Farmland Plateau, the majority of the study area is covered by LCA B17 Terling Farmland Plateau. The landscape comprises gently rolling arable farmland with irregularly shaped, medium to large-scale fields. There is a scattered settlement pattern of isolated residential properties, farms and small hamlets, linked by a network of narrow, winding lanes. The farmland is tranquil in character away from the A131. However, site appraisal noted that, due to the influence of existing traffic along the A131, the tranquillity of the Terling Farmland Plateau is eroded within the northern extent of the study area. Other notable features identified within LCA B17 Terling Farmland Plateau include large woodland blocks that often are identified as allocated open spaces in the Chelmsford Local Plan and to the north; woodlands and belts of trees along the meandering River Ter, willow plantations along Straw Brook, as well as linear settlement associated with the A131.

The north-western part of the study area is covered by LCA B16 Felsted Farmland Plateau. The landscape consists of predominantly arable fields, which are gently undulating and bounded by fragmented hedgerows. Scattered small woods, copses and hedgerow trees combine in the landscape to create the illusion of a wooded horizon. Villages and clusters of farmsteads are located along the local winding road network. The area is tranquil in character away from the A131. Other notable features identified within the Felsted Farmland Plateau include tree belts and willow plantations associated with Straw Brook.

A relatively small part of LCA A6 Upper Chelmer River Valley extends into the western part of the study area. This is a narrow valley with a small meandering river channel, an enclosed character and restricted views framed by trees and small wet woodlands. Pasture fields are common on the western valley side, with large open arable fields to the east. Scattered settlements are present on the upper valley sides linked by roads running parallel to the valley. Within the river valley there is a sense of tranquillity away from Chelmsford. However, site appraisal has noted that the tranquillity along the eastern fringe of the LCA is reduced due to the influence of existing traffic on the A130 Essex Regiment Way, in particular at the A131/A130 roundabout.

There are also a number of historic landscape types within the study area. Key features within the landscape include: four ancient woodland blocks; a likely ancient woodland, Stonage Wood; six likely veteran trees; a number of Tree Preservation Orders; Listed Buildings and one Registered Park and Garden (New

Hall School). An extensive network of Public Rights of Way crosses the study area with recreational routes including the Centenary Circle Long Distance Path in the south and Essex Way Long Distance Path in the north, although neither of these are directly impact by the proposals. There is also a series of Protected Lanes.

The landscape sensitivity is established by assessing the value attached to a receptor and its susceptibility to the particular form of change likely to result from the development, the sensitivity with respect to each local landscape character area was assessed as medium.

Extensive recent housing construction at the Beaulieu Park and Channels developments lie immediately adjacent to the southern boundary of the application site and approximately 1 km to the west, respectively. Built development throughout the remaining study area largely comprises scattered farms, small clusters of houses, Cranham Hall Gypsy and Travellers Site and small settlements.

The countryside to the northeast of Chelmsford has a moderate level of tranquillity (as described by the Council for the Protection of Rural England) relative to other areas of England. There are small pockets of higher tranquillity within the farmland areas to the north. The area south of Cranham Road and the northernmost extent of the study area is affected by higher levels of night-time light pollution compared to the more rural area north of Cranham Road.

With respect to visual impact the application sites in an area which is generally flat and low lying, with gentle undulations towards watercourses such as Straw Brook and the River Ter. Using a zone of theoretical visibility (ZTV) it was demonstrated there is no theoretical visibility between the application site and parts of the River Ter and River Chelmer valleys due to the low-lying topography. There is higher ground to the south near Little Baddow and to the east near Terling; however, intervening buildings, settlements and vegetation restrict views towards the application site.

There are several large woodland blocks within the study area such as Lyonshall Wood (ancient woodland) and Sheepcotes Wood (ancient woodland), which limit views towards the application site. Similarly, buildings amongst the farmland, and in settlements such as Little Leighs and Great Leighs, limit views. There are also several tree groups and hedgerows throughout the study area, which contain views towards the application site. Due to the flat topography, the tree groups and hedgerows combine together in views to form effective screening. Views towards the application site are most open amongst the arable fields, where hedgerows tend to be clipped and provide lower levels of screening. However, even in these areas, views tend to be close range or middle distance. The existing A131 is lined by tree belts and hedgerows. As a result, the road is well screened in the surrounding landscape in summer apart from high-sided vehicles, which are visible above hedgerows. In winter, there are filtered views of car traffic through gaps in hedgerows and narrower tree belts due to an absence of foliage. Views towards the application site from the north-eastern edge of Chelmsford, Chatham Green, Little Leighs and Great Leighs tend to be screened by intervening vegetation, except for residential properties on the edge of these settlements such as those along the A131. There are several isolated residential properties and PRoW

amongst the arable fields that have open or filtered views towards the application site, with some views from close range.

24 viewpoints representative of views from residential properties and public rights of way were assessed for visual impact.

Concern has been raised by local residents in the area near and north of Leighs Road as to the visual impact of the proposals and the County's Landscape adviser also raised concerns with respect to this area. North of Leighs Road the road would be on an embankment, while a 1m high bund is proposed along this section of both sides, this would not screen the tops of vehicles particularly HGV. Consideration had been given by the applicant to higher bunds, but these in themselves would have given rise to adverse landscape impact. However, as a result of the comments planting along this section has been increased and heavy standards introduced to provide more initial screening.

Adverse short-term (approximately two years) construction effects on landscape and visual receptors are likely to arise as a result of removal of vegetation, changes to landform, and disruption to land use and landscape pattern. The presence of construction compounds, material, equipment and lighting would also affect the landscape character of the area, reducing tranquillity and affecting views.

Operational effects on landscape character result from the absence of vegetation; permanent changes to the landform due to embankments, cuttings, flood compensation areas, attenuation ponds and bunds; and severance of the landscape. In addition, the proposals would introduce new bridges, highway infrastructure, lighting on the roundabouts and the presence of traffic in what is generally a rural landscape. The views of visual receptors would also be impacted by these changes.

Mitigation has been incorporated into the design to minimise these impacts. During construction measures include temporary storage bunds and hoarding and fencing around construction compounds. During operation mitigation would include: extensive native planting, including hedgerows, hedgerows with trees, shrubs and trees, and woodland to soften embankments, cuttings, bunding and ditches; gapping up of poor-quality hedgerows; individual tree planting, hedgerows with trees and parkland style tree and shrub planting to the south of Cranham Road to link in with the urban development at Beaulieu Park and the Beaulieu Park RDR, and reflect the future CGC and country park; a mosaic of woodland planting and species rich grassland glades adjacent to Stonage Wood; climbers on environmental barriers, where there is insufficient space for other planting, to soften their appearance; sensitive design of attenuation ponds and flood compensation areas including slackening slopes where practicable; and creation of species rich grassland with locally appropriate seed mixes, to provide seasonal interest for visual amenity and contribute to the sense of place.

In the short-term, during the construction period and the opening year of operation (2024), the proposals are predicted to have significant adverse effects on local landscape character and on some views from Public Rights of Way and adjacent open spaces, as well as residential properties. However, by the summer of Year

15, established mitigation planting would generally offset the effects of vegetation removed during construction and help integrate the proposals into the surrounding landscape. Some permanent effects would remain, though the long-term significance of effect would have reduced considerably.

Overall, it is likely that there would be a noticeable change in landscape character due to the large-scale construction works, resulting in alteration of the fabric of the landscape and its aesthetic characteristics. The construction works within the B21 Boreham Farmland Plateau would not be wholly uncharacteristic of the area, due to the influence of construction works for adjacent developments and earthwork movements within Bulls Lodge Quarry.

As planting establishes and the proposals becomes more integrated into the landscape, it is predicted that residual effects on the landscape character areas would be reduced. As such, after 15 years of operation, the impacts on B21 Boreham Farmland Plateau, in the southern section of the Proposed Scheme, are predicted to be not significant. However, significant residual effects would remain for the landscape character area in the north of the Proposed Scheme (B17 Terling Farmland Plateau), partially due to the loss of a likely veteran tree. The effect on this landscape character area would be relatively localised within 500 m of the proposals. The overall effect on the wider B17 Terling Farmland Plateau would not be significant. No significant effects are expected on the other two landscape character areas, B16 Felstead Farmland Plateau and A6 Upper Chelmer. The construction works for the Straw Brook Flood Compensation Area would only directly affect a small area on the eastern fringe of the B16 Felstead Farmland Plateau. For A6 Upper Chelmer, there would be limited impact due to the distance and lack of visibility of the construction works.

In terms of visual impact users of Public Rights of Way including adjacent open spaces and residential receptors, with close-range (up to 150 m) or middle-distance (150 m to 1 km) views of the proposals, are predicted to experience significant visual effects during construction and operation of the Proposed Scheme during Year 1. Visual effects would generally be more dominant where receptors have views of the bridges, embankments, flood compensation areas, roundabouts, bunds or where construction works and compounds, or hauls road are in close proximity. For these receptors, the impact on views is considered as significant, even with filtered views from existing vegetation.

During construction, there are likely to be significant visual effects for users of Public Rights of Way, adjacent open spaces and residential dwellings at twenty viewpoints. During Winter Year 1 of operation, all related construction infrastructure would have been removed, and temporary land-take restored to agricultural use. Mitigation planting would generally not yet be effective, though grass seeding would soften earthworks and attenuation ponds in views. Significant visual effects would be experienced at seventeen viewpoints.

Visual receptors with likely significant effects during construction and Winter Year 1 operation include:

- Section 1A: footpaths at the north-eastern edge of Chelmsford and residential dwellings along Generals Lane, including Mount Maskall in the south, and northern edge of Beaulieu Park Development (Zones R, U & W)

- Section 1B: users of footpaths or residential dwellings along or near Leighs Road, Drakes Lane, Cranham Road, Domsey Lane and Longs Lane. Footpaths to the west and east of the Proposed Scheme and residential properties including Long's Barn, and Great Stonage Farm. Residential dwellings on Braintree Road near Chatham Green.
- Section 2: users of the Public Rights of Way and the Essex Way Long Distance Path to the east of the A131, residential dwellings along the A131, The Crescent, Straw Brook Hill, Goodman's Lane and Main Road, Great Leighs.

By the summer of Year 15 of operation, adverse visual effects for most users of Public Rights of Way and adjacent open spaces, and for residents, would have reduced notably due to the establishment of mitigation planting. The number of receptors likely to experience significant visual effects would be reduced. Moderate adverse significance of effect would remain for six representative viewpoints: on footpaths between Leighs Road and the A131; nearby residential properties in the vicinity of Great Stonage; Evergreens and Buck Cottage and Chestnuts, residential properties on A131 south in Chatham Green; and The Chimneys, Daffodil Cottage and Rickstones, residential properties along the A131 in Chatham Green.

Some residual significant adverse impact from operation of the development would remain even after establishment of mitigation planting and these adverse impacts would need to be weighed in the planning balance.

The County's Landscape advisor is satisfied with the methodology and conclusions of the LVIA and has raised no objection to the proposals subject to suitable conditions to ensure the delivery and long-term management of the proposed mitigation.

The CPA requested the applicant took the development proposal, at pre-application stage, to the Essex Quality Review Panel (EQRP). Officers as part of this were keen to ensure that the design and landscape principles being suggested as part of this development were appropriate and sufficiently aspirational. The conclusion summary of the Panel's report is provided below:

Overall, the Panel are fully appreciative of the site constraints and numerous challenges faced and understand that significant work has already been put into developing this scheme to its current state. Despite this, it is considered that this scheme should not be viewed solely as a new road, but as an opportunity of creating a connection of new communities in which this road will become a part of delivering. With the emergence of the garden villages and new country park, this is a rapidly changing landscape where this road will be a key contributor to delivering this continued evolution, and further consideration is required to ensure that it will provide the best opportunities for placemaking and future narrative of movement into and out of Chelmsford.

From the overarching landscape objectives and aspirations that have been put forward for this site, the Panel feel that they are not dynamic or creative enough to achieve the overall ambitions mentioned in the paragraph above. There is a general consensus that much more could be achieved within the objectives and

should not be constrained to the retainment of degraded landscape and ecological elements resulted from intensive agriculture and quarried zones. Subsequently, it is believed that more should be done in terms of improving and enhancing the experience for users and identifying how this road will be able to contribute to society, deriving from the baseline landscape narrative and objectives that need to be set out from the beginning.

In summary, it is considered that changing the design aspirations to consider work outside the red line boundary are possibilities that should be explored, which leads to concerns surrounding the phasing and timing of developments in this area. New residents within the garden communities will quickly establish their life patterns based on the provision of infrastructure that they are afforded to, and therefore considerations towards the modal shift of cycling, walking and healthy aspirations are needed to ensure that they are firmly in place for this new catchment of communities in Chelmsford. It is considered that these are the main challenges faced for this scheme, with the similar notion that this link road will emerge first then so should other important elements such as cycle routes, orchard trails, safe walking and playable landscape pieces that will be vital for the emergence of the Garden Village. Subsequently, it is vitally important that conversations are held with external stakeholders regarding the garden communities to ensure that the development phasing is better aligned and brought forward in the most appropriate way, allowing further aspirational landscape pieces such as the land bridge and dedicated routes to the country park are in place for new residents.

Following these comments, the proposals were amended as follows

- The landscape, environmental design and related sustainability objectives have been developed further to form a more comprehensive set of landscape, environmental design and related sustainability objectives, along with a set of underpinning principles. The objectives and principles have been incorporated into the *Outline Environmental Management Plan* for the Proposed Scheme. Reference to both placemaking and enhancements have been incorporated into the objectives.
- The proposals for planting to the south of Cranham Road have been amended to reflect the likely future urban context of the bypass in this area, due to the future CGC. This is to ensure that the planting would provide a transition between the future urban and rural landscapes, and that the planting to the south would be distinctly different in character to the planting to the north, which largely comprises belts of trees and shrubs, woodland and hedgerows with trees for screening and landscape integration. To the south of the RDR 2 Roundabout, the planting would be more open, with hedgerows with trees, scattered trees and swathes of shrubs selected for their amenity value, as well as species rich grassland for seasonal interest. The amenity tree and shrub species reflect the recent planting at the Beaulieu Park Development in the vicinity of the RDR Roundabout 4, as well as the future urban context of the bypass, in order to contribute to the sense of place in this area, which currently is strongly influenced by the quarry workings.
- Opportunities for landscape enhancement have been reviewed and

additional areas of woodland planting or natural regeneration have been incorporated within the Planning Application Area. Existing hedgerows to be retained that are in poor quality are also proposed to be gapped up. This would enhance the landscape character locally.

- To address the Panel's comments and recommendations for the wider landscape beyond the Planning Application Boundary, the *Green Infrastructure Legacy Report* sets out suggested enhancements to the wider green infrastructure network that Essex County Council will explore in conjunction with the implementation of their commitments for The Essex Forest Initiative and The Essex Climate Action Commission.

Both County's Landscape and ecological advisors have requested that landscape and biodiversity enhancements should be sought in the surrounding area of the application site. However, this requires the corporation of adjacent landowners, who may or may not be willing to allow such improvements and the tight timescales for delivery of the CNEB to meet with the requirements of the HIF bid, and the time required to negotiation such enhancements could result in unacceptable impact upon the delivery of the CNEB. Therefore, the proposal that such off-site enhancement should be achieved through implementation of the Green Infrastructure Legacy through the Essex Forest Initiative and Essex Climate Action Commission, is considered acceptable in these specific circumstances.

It is considered subject to conditions the proposed landscaping would mitigate the impacts of proposals and in the long-term deliver enhancements, therefore the proposals are considered to be in accordance with CLP policies S1, S2, S4, S9, S11, DM8, DM17, DM23 and DM24.

F ECOLOGY/BIODIVERSITY

Chelmsford Local Plan Policies (S1 – Spatial Principles), S4 (Conserving and Enhancing the Natural Environment), S9 (Infrastructure requirements), S11 (Role of the Countryside), Strategic Growth Site 6 (Northeast Chelmsford), DM16 (Ecology and Biodiversity) and DM24 (Design and Place Shaping Principles in Major Developments) seek protect and enhance natural habitats and biodiversity. The policies set out criteria that are to be met for a development to be permitted, establish the need for protection of biodiversity, encourage enhancement of natural resources and contribute to net gains in biodiversity.

The NPPF at paragraph 180 states:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats*

(such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.*

There are no statutory or non-statutory designated nature conservation sites within the application boundary. However, there are 3 cross-designated European sites, Blackwater Estuary (Ramsar Site), Blackwater Estuary (SPA) and Essex Estuaries (SAC), which are hydrologically connected downstream of the proposals. The application site is also within the Impact Risk Zone of the River Ter SSSI, however this for its geological interest rather than biodiversity. As part of the air quality assessment on sensitive ecological receptors, habitats sensitive to changes in air pollution resulting from changes in traffic flows were identified.

The application site is primarily formed of cultivated arable fields interspersed by hedgerows, many of which feature standard trees. The other main habitats present within each section of the proposals are described below (from south to north).

Section 1A of the proposals principally comprises arable fields and quarry land at Bulls Lodge Quarry. Large expanses of open water, settlement lagoons, are present within the quarry land; these are located within the application area but to the east and west of the CNEB route alignment. The arable fields are interspersed with few hedgerows and lines of trees, a small number of scattered broadleaved trees, a minor watercourse, the Boreham Brook Tributary, and ditches.

Section 1B of the proposals predominantly comprises arable fields with semi-improved grassland margins bordered by hedgerows, which are a combination of species-rich and species-poor, with scattered broadleaved trees and scattered scrub. There are a number of small to moderate sized woodland blocks located to the immediate east and west of the CNEB; none of these are located within, but two are located directly adjacent to, the application site including Stonage Wood. A cluster of ponds present to the north of Drakes Lane and to the north and south of Leighs Road include three ponds within, or partly within, the application site, and four ponds that are directly adjacent to the application site. To the north of Stonage Wood, there is another pond located partly within the application site.

Section 2 of the proposals comprises arable fields, areas of broadleaved plantation woodland and scrub, a small area of semi-improved neutral grassland, and the existing A131 between Chatham Green and Deres Bridge Roundabout, which crosses the watercourse of Straw Brook. The arable field margins comprise semi-improved grassland and the fields are interspersed with lines of trees and hedgerows, which are a combination of species-rich and species-poor, and dry ditches.

Habitats and species of particular interest include likely veteran trees, important hedgerows, badgers, breeding and overwintering birds, bats, great crested newts, reptiles and terrestrial invertebrates.

There are a number of non-statutory sites, designated for their nature conservation value, in the vicinity of the Proposed Scheme, including 32 Local Wildlife Sites, of which ten comprise ancient woodland and six Special and Potential Special Roadside Verges. Stonage Wood, which is directly adjacent to the Proposed Scheme, and Grove Wood, are also likely ancient woodland sites.

There are no ancient or veteran trees on the Ancient Tree Inventory, but surveys have identified six trees likely to qualify under veteran status.

The route selection and siting of compounds has been designed to avoid features of biodiversity interest. Best practice ecological protection measures would be employed during construction to reduce any harm to habitats and species. This would include the supervision of a qualified ecologist during vegetation clearance and site establishment, method statements for the safe removal of habitat features with the potential to support wildlife and adherence to best practice concerning the prevention of pollution.

In addition, specific mitigation has been incorporated into the proposals including:

- Creation of three ecological habitat areas with replacement ponds. One habitat area would be located near Drakes Lane (0.6 ha), and the other two habitats, totalling approximately 2.4 ha, would be located either side of the Proposed Scheme east of Stonage Wood (see extract below) . The Drakes Lane habitat (shown on the extract below) would be used for creation of two replacement great crested newt ponds, and great crested newts would be moved to this area under licence from Natural England. Newt fencing would be installed along this section of the Proposed Scheme to prevent access to the road by great crested newts. See extracts below from the General Arrangement drawings showing the location of these new habitats.



Drakes Lane – habitat area



Stonagewood extensions

- Compensatory planting, including woodland habitat, species-rich grassland, species-rich hedgerow and marginal habitat along an unnamed tributary of Boreham Brook in the south of the application site
- Retaining suitable dead wood material from the likely veteran ash tree as habitat for invertebrates, amphibians and reptiles
- Removal of an ash tree with a confirmed bat roost to be carried out under licence from Natural England
- Provision of artificial bat roosts and bird boxes within retained areas of woodland and trees
- Retaining and restoring topsoil and turf within a Potential Special Road Verge near Deres Bridge Roundabout
- Provision of temporary vegetation, such as a line of potted shrubs/trees, or an artificial linear hedgerow replacement to breach the gaps at key bat crossing points during construction
- Badger setts that cannot be avoided would be permanently closed under licence from Natural England. If no suitable naturally occurring alternative sett has been identified, an artificial sett would be constructed in a suitable location.
- Provision of a large box culvert, to the northwest of Leighs Road, to encourage low-flying bats to pass beneath the Proposed Scheme
- A number of bat 'hop-overs' (tall vegetation planted close to the road) would be incorporated into the landscape planting at the key commuting features/crossing point locations.

Following implementation of the mitigation, the adverse impacts on bats and great crested newts, including terrestrial habitat loss, would be reduced resulting in effects which are not significant.

There would be one residual significant effect due to the loss of the likely veteran ash tree which cannot be mitigated. Despite the implementation of measures which would help to partly compensate for this loss, it cannot be fully compensated for as veteran trees are considered irreplaceable.

All other habitats impacted as a result of construction, including broadleaved plantation woodland, neutral grassland, hedgerows, ponds, the unnamed tributary of Boreham Brook, the River Ter, treelines and scattered trees would be fully compensated for through the habitats created within the ecological habitat creation areas and the landscape planting along the length of the Proposed Scheme. Once these habitats have fully established there would be no residual significant adverse effects, with the proposals achieving positive gains in biodiversity. However, the proposals can be considered to deliver net gain due to the loss of the veteran which is considered irreplaceable. Setting aside the veteran tree a calculation using the Defra Metric demonstrates a 31.51% increase in Habitat Units and a 10.02% % increase in Hedgerow Units as part of the development.

Chelmsford City Council has raised the importance of maintaining connectivity for wildlife across the proposed route, it is considered that the proposed culverts and bat hop overs would maintain connectivity for these species and animal fencing has been proposed along the A131, including narrow mesh at a lower level to prevent smaller mammals crossing and mortality. A green bridge has been suggested but financial and time constraints prevented the inclusion of such a bridge within the proposals.

The County's ecological adviser has raised no objection to the proposals subject to conditions to ensure the proposed mitigation measures and features are delivered and that there is long-term management of such.

Overall, it is considered that the proposals deliver net biodiversity gain, however, the loss of veteran tree is an unavoidable consequence of the proposal. That said, it is noted that if there are wholly exceptional reasons for this and give a suitable compensation strategy exists, then the loss of such an irreplaceable habitat - in this case a single veteran tree – is acceptable. Infrastructure projects where the public benefit would clearly outweigh the loss of a habitat is suggested within the NPPF as potentially being representative of wholly exceptional reasons and it is considered that such a case could be made that this proposal represents such a development.

It is considered that adequate mitigation has been provided for protected species and the proposed areas of new habitat and other enhancement measures would conserve and enhance biodiversity in accordance with CLP policies S1, S4, S9, S11, SGS6, DM16 and DM24.

G HERITAGE

Chelmsford Local Plan policies S3 (Conserving and enhancing the historic environment), DM 13 (Designated Heritage Assets) DM14 (Non designated Heritage Assets and DM15 (Archaeology) seek to protect and enhance cultural heritage elements and set out the local planning authority requirements regarding the assessment of impacts, preparation of assessments and undertaking archaeological investigations.

From the outset route option alignment and iterative design development has sought to minimise the impacts upon cultural heritage. A total of 209 cultural heritage elements were identified by the applicant within the Environmental

Statement, comprising 91 within the actual red line boundary, 60 within the 300m study area and 58 additional elements within a 1km study area – albeit archaeological remains and historic hedgerows were not counted in the extended 1km study area.

The footprint of the application also has the potential to contain unknown archaeological remains given that parts of the application site contain known archaeological remains and the A131 Braintree Road follows the alignment of a former Roman Road.

The construction of the proposals is predicted to have significant effects on five known archaeological remains, seven historic buildings and 34 historic landscapes including 32 historic hedgerows. The known archaeological remains located within the application site would be directly impacted through either partial or total removal/damage. In the north, along the A131 and south of Goodman's Lane, two assets would be directly impacted by the widening of the A131. The creation of the Chatham Green Flood Compensation Area, west of the A131, would partially impact one asset. In Section 1B, two assets in the vicinity of Leighs Road and Cranham Road/Drakes Lane would be impacted by the earthworks associated with the carriageway and the new bridges at these two locations.

Significant effects on historic buildings would result predominantly from temporary impacts on their setting from either construction noise and vibration and/or visual intrusion. No physical change to the assets or adverse effect to their integrity as functioning buildings is predicted. There is the potential loss of one historic building, Asset 61 Milestone, an 18th to 19th century sandstone milestone that records the distance between Braintree and Chelmsford. This is located at the junction of the A131 and Whitbreads Farm Lane. Temporary loss of this asset may occur during construction; however, it is expected that this asset can be reinstated following construction works, with no residual impact to its function. A condition has been suggested to secure the safe removal, storage and reinstatement of this asset. The other affected historic buildings are located in the south, Mount Maskell (Listed Building), 100 m east of the proposed CNEB; four assets in the vicinity of Leighs Road Bridge (Listed Buildings Wilderness, Sparigans, Alstead's Farmhouse and archaeological remains); and two assets (Historic buildings Evergreens and Buck Cottage and archaeological remains) along the A131 near the new Chatham Green Roundabout.

Two historic landscape types would be partially impacted during the construction of the proposals, through the loss of historic hedgerows. Permanent loss of part of these features would result in significant effects. The impact to historic hedgerows throughout the application site is considered significant as a result of the partial or complete loss of 17 and 15 historic hedgerows, respectively.

No significant effects on the structural integrity or function of historic buildings are expected during the operation of the proposals. Operational significant effects on historic buildings would predominantly arise due to noise and visual intrusion on their settings. Impacts would result from the loss of vegetation and opening up of views to Long's Farmhouse in Section 1B and Evergreens and Bucks Cottage (south of Chatham Green Roundabout on the A131), creation of bunds (in close proximity to Mount Maskell in the south) and new infrastructure associated with

Leighs Road Bridge (Wilderness, Spartigans and Alstead's Farmhouse).

All other cultural heritage effects associated with the proposals would arise from construction impacts except for the impact on the Protected Lane, Goodmans Lane. A slight adverse effect, as a result of visual intrusion during the opening year of the proposals Goodmans Lane, is predicted. This is not considered significant. The impact would be further reduced upon establishment of landscape planting.

No significant operational or construction effects are predicted on designated assets within the wider 1 km study area.

Conditions have been requested by the County Archaeologist to secure the proposed archaeological investigations to confirm the presence or absence of unknown archaeological remains and the results would inform further site-specific mitigation.

During operation of the CNEB landscape mitigation design (including planting of trees and shrubs, planting of woodland blocks, gapping up of hedgerows) and provision of noise barriers would reduce the significance of effects on the setting of historic buildings and the effect on historic landscapes.

The permanent impact on the settings, in particular visual intrusion, on the six historic buildings (Mount Maskall, Wilderness, Spartigans, Alstead's Farmhouse, Longs Farmhouse, Evergreen and Buck Cottage) would decrease gradually as the landscape planting establishes and matures over time, providing visual screening of the CNEB. The magnitude of impacts would reduce, resulting in slight adverse effects which are not significant. The County's Historic Building advisor considers these impacts to be "of less than substantial harm" but notes that while the harm may be less than substantial, the NPPF requires "*great weight should be given to the asset's conservation* (Paragraph 199) and any harm to, or loss of, the significance of a designated heritage asset should require clear and convincing justification (Paragraph 200). As explained the harm relates to visual impacts arising from the proximity of the Listed Buildings to the proposed CNEB, the proposals would not result in harm through alteration or destruction and in the long-term planting will lessen the impacts upon the setting of these Listed Buildings. The public benefits of the scheme in terms of unlocking growth in north-east Chelmsford and improving strategic highway links are considered to outweigh the impacts upon setting which will reduce in time.

Landscape planting and gapping up of existing hedgerows would help offset some of the visual and historic landscape impacts due to the loss of historic hedgerows. However, the removal of the historic fabric of these hedgerows cannot be fully mitigated and, therefore, significant residual effects remain from the partial or complete loss of 32 historic hedgerows.

The assessment submitted in support of this proposal in terms of heritage, similarly to the position formed with regard to ecology, has identified significant effects. These significant effects are the visual impacts upon the settings of Listed Buildings, which do decrease over time and significant effects predicted to 32 historic hedgerows, through partial or complete loss and as part of the overall consideration of whether this proposal represents sustainable development or not

need therefore to be weighed in the balance in terms of the significance of the asset, the harms identified and public benefits to the scheme as detailed within paragraphs 201, 202 and 203 of the NPPF. This will be considered further.

H AMENITY

CLP policy DM29 (Protecting living and working environments) seeks to ensure development does not give rise to “*unacceptable levels of pollution emission by reason of noise, light, smell, fumes, vibration or other issues, unless appropriate mitigation measures can be put in place and permanently maintained.*”

Noise and vibration

In addition to CLP policies, the Noise Policy Statement for England (2010) seeks 3 main aims to avoid significant adverse impacts on health and quality of life, to - mitigate and minimise other adverse impacts on health and quality of life; and - where possible, contribute to the improvement to health and quality of life.

The proposed scheme has been designed to minimise adverse noise impacts incorporating embedded mitigation measures, such as situating the road alignment in cutting where feasible to provide a natural noise barrier, provision of Low Noise Road Surfacing and planted bunds, with a visual screening and noise attenuation function, at specific sections along the alignment.

The potential impact of construction noise and vibration was assessed for a number of sample receptors (representative of worst-case locations closest to the proposed construction works). A total of eight out of 17 sample receptors are likely to experience significant adverse effects from construction noise during the daytime. No night-time significant effects are anticipated. These affected receptors are located along Generals Lane (4 properties) in the south, Leighs Road (8 properties), and in the north A131 Braintree Road (2 properties), Strawbrook Hill (2 properties), The Crescent (18 properties) and Goodmans Lane (3 properties). Effects are generally due to the proximity and duration of the construction works and the type of construction activities at these locations.

Significant effects from construction vibration were identified for three of the 11 sample receptors, located in the north of the Proposed Scheme along Strawbrook Hill, A131 Braintree Road and Goodmans Lane. Effects are likely due to the proximity to specific construction vibrational activities, such as soil compaction.

Construction mitigation measures have been included in the proposals including the installation of temporary noise barriers around particularly noisy construction activities. These were identified for a number of locations but may be subject to change depending on the final construction programme. Mitigation measures proposed to minimise vibrational effects include specification of low-vibratory plant. The appointed contractor would be required to update the construction noise and vibration assessment once working methods and the construction programme have been finalised.

It should be noted that effects from noise and vibration from the construction phase would be temporary, subject to the duration of the construction works, and transient in nature.

No significant effects are anticipated as a result of construction road traffic noise.

The effects of noise change from the operation of the proposed scheme, were reassessed with the addition of noise barriers. Within the operational study area, 108 noise sensitive receptors are predicted to experience significant adverse effects, of these, 21 are rural receptors in close proximity to the proposed scheme. The other receptors are along existing roads, primarily to the north of Deres Bridge Roundabout, along the A131, and include 13 receptors within two Noise Important Areas. Conversely, as a result of the proposed scheme diverting traffic from the two bypassed routes, 411 sensitive receptors are predicted to experience significant beneficial effects, three of which are in close proximity to the proposed scheme. Beneficial effects would also be experienced by receptors on the bypassed roads (Boreham Road and the A130/A131) and along Main Road, Great Leighs.

The noise increases also occur at receptors near affected routes connecting to the proposed scheme where there is a redistribution of traffic. These are to the south of the Proposed Scheme from Beaulieu Park Radial Distributor Road Roundabout 4 connecting to the A12 Boreham Interchange and, to the north of the Proposed Scheme at the section of A131 between Deres Bridge Roundabout to the London Road/Moulsham Hall Lane Roundabout.

To minimise the operational effects, noise barriers, in addition to the bunds and low noise road surfacing, have been considered where adverse impacts have been identified. A number of factors have influenced the provision of these barriers, including visual and ecological impacts, the benefit of reduced noise impacts, and safety and economic considerations. A total of seven noise barrier sections, 2-3 m high, have been proposed.

In Noise Important Areas, noise decreases were predicted for the majority of the dwellings within these areas in the short-term, with the exception of the Noise Important Areas north of Deres Bridge Roundabout, where minor impacts (noise change of 1.0-2.9 dBA) were predicted.

The Proposed Scheme was also assessed against the Noise Insulation Regulations (1975 as amended), which concluded that no dwellings are likely to be eligible for noise insulation.

In terms of noise effects, overall, the Proposed Scheme is considered to contribute to improvements to health and quality of life with the Proposed Scheme resulting in considerably more beneficial significant effects than those which are adverse, thus complying with the objectives and aims of the Noise Policy Statement for England (2010).

The Proposed Scheme is predicted to result in more operational significant beneficial effects than adverse. However, for receptors located adjacent to the Proposed Scheme within a currently quiet rural environment, significant adverse effects are predicted, and the associated magnitude of change is generally higher and the outstanding adverse impacts resulting from the development need to be weighed in the planning balance in this instance.

The County's Noise Consultant has raised no objection and is satisfied with the methodology and conclusion of the noise assessment and has required a number of conditions and highlighted matters to be addressed in the Construction and Environmental Management Plan.

Air quality

The potential effects of construction and operation of the proposed scheme on air quality at sensitive human health and ecological receptors was assessed. A compliance risk assessment for the Proposed Scheme was also undertaken to determine whether limit values for nitrogen dioxide are likely to be exceeded. Baseline conditions and the assessment were informed by a desk-based study, project-specific air quality monitoring, traffic modelling results and air dispersion modelling software.

The operational study area was defined, in line with relevant guidance and all sensitive receptors within 200 m of roads (known as the Affected Road Network) were assessed. The study area for assessing the impact of construction dust included human receptors and ecological receptors. Emissions from construction plant and traffic were not assessed as part of the air quality assessment due to the relatively low construction traffic flows, in terms of impacts to air quality, anticipated to be generated by the Proposed Scheme.

There are two Air Quality Management Areas, that is areas where UK Air Quality Objectives for specific pollutants are likely to be exceeded, occur within the operational study area for the Proposed Scheme. These are within the Chelmsford City Council administrative boundary and have both been declared as Air Quality Management Areas due to exceedances of the annual mean nitrogen dioxide Air Quality Objective.

There are both human and ecological receptors within 50 m of roads that could be affected by traffic changes associated with operation of the Proposed Scheme. During construction, there are potentially sensitive dust receptors located in close proximity to the Proposed Scheme including residential properties, commercial premises and ecological receptors.

No impacts on the two local Air Quality Management Areas are expected, as changes in traffic due to the Proposed Scheme are not predicted to extend to these areas. A total of 180 human health receptors were assessed in the modelling for operational air quality impacts. The results for the opening year of the Proposed Scheme, 2024, indicate no human health receptors would experience pollutant concentrations above the UK Air Quality Objectives for all assessed pollutants (nitrogen dioxide and particulate matter). Therefore, the effect of the Proposed Scheme on human health was assessed to be not significant.

As part of the air quality assessment on sensitive ecological receptors, habitats sensitive to changes in air pollution resulting from changes in traffic flows were identified. These habitats included three Local Nature Reserves, 16 local wildlife sites (four of which are ancient woodlands), two ancient trees, 11 veteran trees and four likely veteran trees. Further assessment was undertaken as part of the

biodiversity assessment. Potential effects were not considered significant due to the lack of nitrogen sensitive species, the existing integrity and value of each designated site or off-setting of the impacts due to landscape planting adjacent to the designated site.

There is the potential for dust nuisance during the construction phase of the Proposed Scheme at sensitive receptors without location/scheme specific additional (essential) mitigation or enhancements. The construction dust assessment concluded that the construction of the Proposed Scheme would result in a low to high-level risk of dust soiling impacts at sensitive receptors, a negligible to low-level risk of human health impacts, and a negligible to low-level risk of ecological impacts.

It is considered that there are no potential dust generating activities proposed that could not be managed using industry standard good practice, secured through the CEMP, to prevent significant effects at any off-site human or ecological receptors.

The EIA has assessed that there would be no significant environmental effects and the County's Air Quality Consultant considers the ES conclusions with respect to air quality are acceptable. The County's Air Quality Consultant has recommended that a Dust Management Plan should be secured by condition.

It is considered subject to this condition; the proposals are in accordance with CLP policy DM29.

Lighting

Whilst the CNEB in its majority is not proposed to be lit, lighting is proposed at RDR roundabout 4, the roundabout to form the junction with the future Radial Distributor Road 2, the new Chatham roundabout and Deres Bridge roundabout although this is already subject to street lighting.

While a preliminary lighting scheme was submitted, the County's Lighting Consultant has advised that there is insufficient detail to assess whether there would be lighting impact on residential properties particularly near the Chatham Green roundabout. Accordingly, in the event that planning permission is granted, it is considered that a condition requiring a blanket restriction on all external fixed lighting should be imposed. This is not seeking to state that external lighting on the CNEB is unacceptable, just that the package of lighting is not detailed enough to allow consideration. The condition would allow the applicant to submit necessary details and provide assessment of any lighting impact and how this would be mitigated and to comply with policy DM29.

I GEOLOGY AND SOILS

The majority of the application site crosses grade 2 (very good quality), there are also areas to the north and south which are grade 3 (assumed to be 3a as worst case) such that all are considered Best and Most Versatile agricultural land. The development would therefore result in the loss of agricultural production across the land in question, with the agricultural land take approximately 66ha (excluding known temporary land requirements and land already developed). However, it

should be remembered that approximately a quarter of the route lies within the area allocated for CGC strategic allocation. The applicant has sought to suggest that the soils excavated would be treated as a resource and re-used as part of the development landscaping were appropriate. The loss of best and most versatile agricultural land can be partially offset by the reinstatement of temporary land-take with the highest grade of soil. In addition, this soil could enhance landscaping planting, where relevant. However, a significant effect would remain as the loss of soils cannot be fully mitigated and a residual significant effect would remain for soil resources, contrary to Chapter 15 of the NPPF.

The implementation of mitigation measures during construction in relation to land contamination impacts is expected to reduce residual effects to slight adverse which are not considered significant,

J POPULATION AND HUMAN HEALTH

CLP policy DM30 (Contamination and Pollution) seeks “where an air quality assessment has been provided” there will be no unacceptable impact on air quality and health and wellbeing of people. Policies of the CLP seek to encourage healthy living.

For the purpose of assessment, a detailed study area comprising the red line application area plus a 500m buffer was considered. Together with a wider study area used to understand the health profiles of the communities living in proximity to the proposed development. The impact on population primarily looked at elements of land use such as agricultural holdings and accessibility into the area.

There would be some temporary and permanent severance of land holdings, but with proposed mitigation such as alternative access routes, no significant impact on land use is expected. There would be some disruption to public rights of way both temporary and permanent closes and through disturbance such as noise and visual intrusion. However, with the addition of crossings including signalised and the WCH bridge upon operation some slight benefits would be expected.

The Proposed Scheme would have both adverse and beneficial effects on human health. Access to green space and open countryside would be maintained or improved. As part of the Air Quality Assessment, the levels of annual mean nitrogen dioxide and particulate matters (PM2.5 and PM10) for sensitive human health receptors along the affected road network were modelled to assess the impact of the Proposed Scheme. The model identified that though there would be some increase in pollutant levels there would be no exceedance of the Air Quality Objective levels at any of the receptors in the opening year (2024) as a result of the Proposed Scheme. The impact on air quality, as a result of the Proposed Scheme, is therefore assessed to not have a significant effect on the human health of receptors.

Construction noise and construction vibration would have a significant effect on six receptors and one receptor, respectively; however, these would be temporary effects and are not considered significant in terms of a change in health status at a population (ward) level. In terms of operational noise effects, there would be a greater number of receptors experiencing noise benefits compared to disbenefits.

Overall, the Proposed Scheme is considered to contribute to improvements to health and quality of life.

It is acknowledged there would be some impact on agricultural holdings, but not such to make them unviable and overall accessibility was considered to improve, such that impact upon population was slight positive. There would be some increase in pollutants, but these would not give rise to significant health impacts effects. Therefore, the proposals are considered to be in accordance with CLP policy DM29.

K DRAINAGE AND WATER ENVIRONMENT

Chelmsford Local Plan policies S1 (Spatial Principles), S2 (Addressing Climate Change and Flood Risk), S4 (Conserving and Enhancing the Natural Environment), S7 (Protecting and enhancing the Natural and Historic Environment, and the Green Belt), S9 (Infrastructure Requirements), DM18 (Flooding/SuDS), and DM30 (Contamination and pollution) seek to enhance the natural and local water environment by promoting safeguarding and improvement measures as part of new developments and minimising the potential for flooding.

The area to which this application has areas within Flood Zone 1 and 2 (medium and high probably of flooding) according to the Environment Agency's Flood Map. The majority of the study area, with some exceptions, has been designated as an area at very low risk of flooding from surface water and low risk of flooding from rivers. Areas at higher risk of flooding from both surface water and rivers have been identified in the southern section around Boreham Brook Tributary and in the northern section near the River Ter and Straw Brook. There are also several significant overland surface water flow routes which are crossed by the Proposed Scheme. The risk of groundwater flooding is predominantly very low to low across the study area. There are some areas designated as having potential for groundwater flooding of infrastructure or properties below ground level or at the surface, primarily those areas close to Boreham Brook in the south and near Straw Brook in the north.

The existing A131 Braintree Road benefits from an existing drainage system. Although there are no known water quality treatment measures, it is considered that the combined filter drains may provide some water quality treatment.

A number of settlement lagoons within Bulls Lodge Quarry would be bisected by the Proposed Scheme. As part of the advanced works, two settlement lagoons west of the Proposed Scheme would be backfilled and a new settlement lagoon created on the eastern side. The backfilled lagoons would be restored by the quarry operator in accordance with the quarry's restoration plan.

The design of the proposals incorporates embedded mitigation measures to avoid, minimise and manage potential impacts on water resources and the surrounding environment. The drainage system has been designed in compliance with the highway standards and ECC Essex County Council's *guidance on sustainable drainage schemes*. Drainage treatment includes a series of filter drains, swales, vegetated ditches and attenuation ponds. Flood mitigation measures include underground storage at Chatham Green, two proposed flood compensation areas,

one near Chatham Green and one near Straw Brook, and culverts which have been sized to accommodate for a 1 in 100-year flood event with a 40% climate change allowance. Maintenance tracks are designed to be permeable to minimise impact on surface water overland flows.

Good practice construction methods would be implemented to protect surface water and groundwater from pollution and other adverse impacts. Measures include surface water and sediment management plans, pollution incident response plans, and appropriate storage and disposal of non-hazardous and hazardous materials. These would be secured through condition.

The impact assessment identified that there may be minor adverse impacts with slight adverse effects on water resources including, but not limited to, loss of bankside vegetation, changes to flows in Boreham Brook and Boreham Brook Tributary and potential increases in suspended sediments. With the implementation of the design and construction embedded mitigation measures, these potential impacts are not predicted to have a significant effect on water resources.

The Environment Agency have reviewed the hydraulic modelling of flood risk and overall satisfied with the modelling, a number of clarifications are required and therefore a condition has been requested in order that finalise the hydraulic modelling and submission of a final Flood Risk assessment, this could be secured by condition

The LLFA has raised no objection subject to appropriate conditions, to secure appropriate measures in terms of flood risk, water management and a drainage the scheme. It is considered subject to the suggested conditions the proposals would provide the necessary management of the water environment and would not give rise to flooding in accordance with national policy and CLP policies S1, S2, S4, S9, DM18 and DM30 (Contamination and pollution)

L

CLIMATE CHANGE

Chelmsford City Council declared a Climate and Ecological Emergency in July 2019.

The Essex Climate Action Commission has also been set up by Essex County Council, as an independent body to advise the Council on how best to tackle the climate challenge and become a net zero emissions county. And, in this regard published in July 2021 Essex Climate Action Commission – Net Zero: Making Essex Carbon Neutral.

Chelmsford Local Policy S2 (Addressing Climate Change and Flood Risk) seeks that new development should mitigate and be adaptive to climate change, through for example reducing greenhouse gas emissions, efficient use of water and minimise flooding.

The NPPF at paragraph 152 states that the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and

improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.

The Environmental Statement submitted in support of the application includes 'climate' as a chapter of consideration. The EIA has assessed impacts on climate change both firstly with respect greenhouse gas emissions related to construction, land use change, maintenance and operation and secondly with respect to vulnerability of the scheme to the effects of climate change.

The EIA sought to predict the likely impacts or increase greenhouse gas emission against baseline date and do-minimum scenarios. Greenhouse gas emissions were calculated for the construction and operation of the Proposed Scheme using design/construction data and industry standard guidance. The majority of greenhouse gas emissions are associated with the operational phase of the proposed scheme (considered as a 60-year period for estimating greenhouse gas emissions). The greenhouse gas emissions from operational road users, with and without the Proposed Scheme in place, were calculated for the opening year (2024), the design year (2036) and the 60-year operational period. In the opening year, the Proposed Scheme would result in approximately a 2 % increase in the total road user emissions for the study area. For the design year and the 60-year operational period, the greenhouse gas emissions were estimated as an approximate 1 % increase over the study area. The reduction in greenhouse gas emissions from the Proposed Scheme between 2024 and 2036 and over the 60-year operational period is attributed to improvements in vehicle technology with lower emitting vehicles.

Though the Proposed Scheme would result in increased greenhouse gas emissions, the magnitude of impact is considered negligible when compared to the UK carbon budgets (that is <0.003 % change).

The County's Climate Change Consultant was satisfied with the methodology and conclusions of the climate change assessment and recommended that a condition be required with respect to the submission of an EMP in line with OEMP submitted with the application and the climate changes measures proposed in the ES. It is not considered that granting this permission would fundamentally undermine the declared climate emergency and or unduly hinder the meeting of legislated and/or aspirational emission targets set, and is in accordance with CLP policy S2, subject to the mitigation as identified in the OEMP and ES.

M CUMULATIVE EFFECTS

Committed development and major schemes were established. The number of developments/schemes was refined to a short list of six developments for which potential inter-project cumulative effects are considered likely. These include the Beaulieu Park Development, Bulls Lodge Quarry, Sheepcotes Reservoir, the A12 Chelmsford to A120 widening scheme, Longfield Solar Energy Farm and a Strategic Growth Site north of Broomfield. The following inter-project cumulative effects were identified:

- Minor operational cumulative effects on views from Public Rights of Way near the

Beaulieu Park development, which would gradually reduce with the establishment of mitigation planting, and from some of the dwellings within future residential zones X and Y of Beaulieu Park.

- Permanent loss of Grade 3a/b and Grade 2 best and most versatile agricultural land for the Chelmsford North East Bypass, Beaulieu Park and the allocated residential development in North Broomfield. As these are all developments allocated within the Local Plan, effects have already been assessed as part of the planning process and are deemed acceptable (i.e. agricultural land loss is unavoidable).

No permanent impacts were considered to be of more than minor significance.

The conclusions of the EIA with respect to cumulative impacts are accepted and the proposed mitigation could be secured by condition through requirements to submit a CEMP and LEMP.

8. CONCLUSION

It is noted that the principle of this development coming forward is clearly supported in planning policy, the route being safeguarded and allocated in the adopted Chelmsford Local Plan and Policies Map, as being a necessary part of the infrastructure required to deliver the CGC (CLP policy Strategic Growth Site 6 and S9 – Infrastructure requirements). In conjunction with the Beaulieu Railway station the CNEB unlocks the potential delivery for new homes and connects these new neighbourhoods to Chelmsford City Centre and Braintree. The CNEB would provide a strategic link between the A120 (via the A131) and the A12, the existing network does not provide an effective link around north-east Chelmsford, the CNEB would reduce congestion on existing roads and provide important links to new development. It will also help to relieve the high level of traffic congestion in Chelmsford and enabling existing routes into the city centre to become sustainable transport corridors. The recognition of the need for this infrastructure to support growth north-east of Chelmsford is demonstrated by the award of over £218 million pounds from Housing Infrastructure Fund for the CNEB and Beaulieu station.

In respect of the proposed alignment and design of the link road, residual significant adverse effects from ecology, heritage, soils and amenity (noise) perspective have however been predicted.

With regard to this the ecology impact, resulting from the loss of a veteran tree is unfortunate and while it is considered irreplaceable, substantial planting is proposed as part of the proposals.

In terms of identified significant adverse impacts to noise levels, receptors located adjacent to the proposed scheme are predicted to experience significant increases in noise levels which are simply either not possible or feasible to further mitigate. However, this has to be balanced against considerable number of properties which would benefit from reduced traffic on other roads.

The proposed scheme would result in significant visual impact upon the setting of nearby Listed Buildings namely Mount Maskall, Wilderness, Spartigans, Alstead's

Farmhouse, Longs Farmhouse, Evergreen and Buck Cottage, although the visual impact would lessen as screen planting matures. The harm was considered less than substantial harm, in accordance with Para 202 of the NPPF *“this harm should be weighed against the public benefits of the proposal”* Long-term significant heritage impact arises from the loss or partial loss of 32 historic hedges, but the new hedges proposed and gapping of existing hedges would partly offset this loss.

Overall, whilst there is strong policy support for the CNEB, it is considered that the need for the CNEB and the public benefits which would realised need to be weighed in context of the significant impacts which are not able to be mitigated or offset.

On balance, it is considered that the benefits to the scheme do outweigh the harms and accordingly the development does represent sustainable development, subject to the securement of appropriate safeguards, mitigation and enhancements by way of planning conditions.

9. RECOMMENDED

That, subject to there being no intervention by the SoS, pursuant to Regulation 3 of the Town and Country Planning General Regulations 1992, planning permission be granted subject to the condition set out in Appendix C:

BACKGROUND PAPERS

Consultation replies
Representations

THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017 (AS AMENDED)

The proposed development would not be located adjacent to a European site. Therefore, it is considered that an Appropriate Assessment under Regulation 63 of The Conservation of Habitats and Species Regulations 2017 is not required.

EQUALITIES IMPACT ASSESSMENT

This report only concerns the determination of an application for planning permission. It does however take into account any equality implications. The recommendation has been made after consideration of the application and supporting documents, the development plan, government policy and guidance, representations and all other material planning considerations as detailed in the body of the report.

STATEMENT OF HOW THE LOCAL AUTHORITY HAS WORKED WITH THE APPLICANT IN A POSITIVE AND PROACTIVE MANNER

In determining this planning application, the County Planning Authority has worked with the applicant in a positive and proactive manner based on seeking solutions to problems arising in relation to dealing with the planning application by liaising with consultees, respondents and the applicant/agent and discussing changes to

the proposal where considered appropriate or necessary. This approach has been taken positively and proactively in accordance with the requirement in the NPPF, as set out in the Town and Country Planning (Development Management Procedure)(England) Order 2015.

LOCAL MEMBER NOTIFICATION

CHELMSFORD - Broomfield and Writtle
CHELMSFORD - Chelmer